



SANT PAU
Campus Salut
Barcelona



Institut
de Recerca
Sant Pau

Sant Pau Research Institute

ANNUAL REPORT





1.

Foreword

1.1 Director's Letter



2.

Presentation

2.1 About Us
2.2. Who We Are
2.3. Ethics Committees



3.

Highlighted News of 2025



4.

Facts and Figures

4.1 Publications
4.2 Clinical Trials
4.3 Innovation and Technology Transfer
4.4 Education
4.5 Funding
4.6 Competitive Projects
4.7 People
4.8 Science and Society



5.

Our Research

5.1 Strategic Scientific Research Areas

5.1.1 Cardiovascular Diseases Area
5.1.2 Oncohematologic Diseases Area
5.1.3 Neurological Diseases, Neuroscience and Mental Health Area

5.1.4 Epidemiology, Public Health and Primary Care Area
5.1.5 Translational Medicine Area
5.1.6 Associated Groups

5.2 Transversal Programmes

5.2.1 Advanced Therapies
5.2.2 Genomic Medicine and Rare Diseases
5.2.3 Biomarkers, Prognostic and Diagnostic
5.2.4 Better Health Care
5.2.5 Women's Health and Gender



6.

Core Facilities and Scientific Services

6.1 Genomics and Transcriptomics
6.2 Flow Cytometry
6.3 Confocal Microscopy
6.4 Biobank
6.5 Immunohistochemistry
6.6 Proteomics
6.7 Radioactivity Unit
6.8 Cell Culture
6.9 Animal Research Facilities (ARF)
6.10 Advanced Therapies Unit



7.

Research Support and Management

7.1. Clinical Research Unit
7.2 Research and Innovation Management Area
7.3 Administration Management Area

Foreword

01



Jordi Surrallés
Scientific Director IR Sant Pau

Biomedical research is entering a new era. Scientific progress is no longer defined solely by the generation of knowledge, but by the capacity to transform discoveries into solutions that improve people's lives. In this increasingly complex landscape, research institutions must combine **scientific excellence, innovation, clinical integration, and societal engagement**. Success depends not only on advancing science, but also on ensuring that scientific advances reach the people who need them most.

The achievements of **IR Sant Pau** throughout 2025 reflect this vision. Across basic, clinical, and translational research, our teams continued to push the boundaries of knowledge while advancing new diagnostic approaches, therapeutic strategies, and technologies capable of reaching patients and healthcare systems. The year also marked the beginning of the implementation of our **2025–2030 Strategic Plan**, a roadmap designed to strengthen our position as **an international leader in translational biomedical research**. Guided by its mission to **improve health and quality of life** through excellent biomedical research and innovation, the plan sets the course for the institute's future development and reinforces our ambition to generate greater scientific, clinical, and societal impact. It is built upon the values that define our institution—**creativity, passion, commitment, and integrity**—which will guide our decisions and actions as we pursue this shared vision.

2025 was also defined by a series of strategic milestones that reinforce the institute's long-term vision. Among them was the incorporation of **Manel Esteller, the first ICREA researcher to join IR Sant Pau**, strengthening our commitment to scientific excellence and international leadership. The institute also continued to invest in the attraction and development of outstanding scientific talent through the recruitment of **one Ramón y Cajal researcher** and **two Miguel Servet investigators**. Together, these additions reinforce our capacity to attract, develop, and retain researchers at different stages of their careers and support our ambition to grow as a leading biomedical research institution. This commitment to talent was further reflected in the creation of **four new research groups** during 2025, strengthening the institute's scientific capabilities and opening new opportunities for future growth.

The year also saw the launch of **XWHIN, the Catalan Women's Health Innovation Network**, led by IR Sant Pau to promote innovation in women's health through the integration of sex and gender perspectives. This initiative reflects our commitment to addressing emerging societal and healthcare challenges through collaborative research and innovation while further strengthening the institute's leadership role within the biomedical research ecosystem. Together, these achievements demonstrate the growing maturity of a research environment capable of generating outstanding science while delivering tangible impact on health and society.

One of the most significant examples of this approach was the publication of the first clinical results of **HSP-CAR30**, an innovative CAR-T cell therapy developed at Sant Pau for patients with relapsed or refractory CD30-positive lymphoma. The study showed an **overall response rate of 100%** and complete remissions in

50% of treated patients, representing a major milestone in the development of advanced therapies. Beyond its clinical relevance, this achievement illustrates one of the defining strengths of **IR Sant Pau**: the ability to connect laboratory discoveries, technological development, and clinical expertise within a single institution. It is a clear example of how research can generate new opportunities for patients facing diseases with limited therapeutic options.

Excellence with Purpose

This capacity is supported by a strong foundation of scientific excellence. In 2025, IR Sant Pau researchers published **1,239 articles and reviews**, a 17% increase over the previous year. Scientific quality also continued to improve, with **40% of publications appearing in first-decile journals (D1)**, compared with 30% in 2024, while 69% were published in first-quartile journals (Q1). These results confirm that the growth of our scientific activity has been accompanied by a sustained improvement in its quality and impact.

International collaboration continued to expand, rising from 48% to 53% of publications and reflecting the growing global reach of our research. At the same time, **open-access publication increased from 60% to 71%**, reinforcing our commitment to making scientific knowledge broadly accessible. Research leadership also remained a defining feature of our activity: **IR Sant Pau researchers led 37% of all publications**, and 45% of these were led by women. Taken together, these indicators show not only growth in scientific production, but also sustained improvements in visibility, leadership, and international reach.

Enabling Discovery

Excellence in research requires sustained investment, competitiveness, and the ability to attract resources. During 2025, IR Sant Pau managed **379 active competitive projects**—the **highest figure ever recorded** by the institute—and secured funding for **102 new projects**, with a total of €13.82 million awarded through national and international competitive calls. Combined with clinical research activity, innovation initiatives, and institutional support, this contributed to a **total research income of €32.67 million**. These results reflect the confidence that funding bodies, collaborators, and partners continue to place in our researchers and in the relevance of the questions they seek to address.

Delivering Innovation

The translational nature of our research is evident in the scale and diversity of our clinical and innovation activities. During 2025, IR Sant Pau supported **590 active clinical trials** and initiated **201 new studies**, providing patients with access to cutting-edge therapeutic approaches while generating evidence that contributes to the advancement of medical practice. For the first time in the institute's history, clinical trial activity generated **more than €10 million in revenue**, reflecting the growing strength and competitiveness of our clinical research program. Most importantly, **nearly 4,500 patients benefited** from participation in clinical trials during 2025, gaining access to innovative therapies and new opportunities for treatment.

At the same time, our innovation ecosystem continued to grow, with **24 active patent families**, 17 intellectual property registrations, 23 transferred intellectual property assets and products, and four active spin-offs and start-ups.

Innovation and technology transfer activities generated **more than €1.6 million in revenue**, demonstrating the growing capacity of the institute to transform scientific discoveries into real-world applications. Together, these achievements highlight the strength of an innovation ecosystem designed to ensure that research outcomes reach patients, healthcare professionals, and society.

Developing Talent

Behind every publication, project, clinical trial, and innovation initiative are the people who make them possible. Supporting talent remains one of our highest priorities. In 2025, **78 doctoral theses** were successfully defended at IR Sant Pau, while **136 trainee students** participated in research and educational activities throughout the institution. In addition, 92 training courses contributed to a dynamic academic environment that promotes scientific curiosity, professional development, and interdisciplinary collaboration. Ensuring that future generations of researchers have the opportunity to thrive is essential for maintaining scientific excellence over the long term.

Engaging Society

Research institutions have a responsibility to engage with society and contribute to an informed public dialogue around science and health. Throughout 2025, IR Sant Pau organized **95 outreach and public engagement activities** involving schools, senior citizens, families, and community organizations. Among the year's highlights was the **first International Day of Women and Girls in Science celebration organized by IR Sant Pau**, which brought together more than **2,500 participants**. The event featured **The Adventure of La Mariona, the institute's science outreach initiative for children and families**, and reflected our commitment to inspiring future generations and promoting scientific vocations.

This commitment to bringing science closer to society was also reflected in the growing visibility of our research. During 2025, IR Sant Pau generated **133 news stories, 45 press releases** and more than **2,000 media appearances**, reaching an estimated audience of over 4.4 million people. Together, these outreach and communication activities help strengthen public trust in science and ensure that the knowledge generated at IR Sant Pau reaches far beyond the laboratory and the clinic.

Shaping the Future

The results presented in this report are the outcome of a collective effort. They reflect the dedication of our researchers, healthcare professionals, technical and administrative staff, collaborators, donors, and institutional partners. Together, they have contributed to building an institution that combines scientific ambition with a strong commitment to patients, healthcare systems, and society.

As we continue advancing the objectives of our **2025–2030 Strategic Plan**, we do so with confidence in the strength of our people, the quality of our science, and the relevance of our mission. The achievements of 2025 demonstrate that **excellence in research and impact on society are inseparable goals**. By continuing to foster excellence, innovation, international collaboration, and societal impact, IR Sant Pau remains firmly committed to its mission of improving health and quality of life through research and innovation, while advancing towards its vision of becoming an international reference in translational biomedical research.

Presentation





2.1 ABOUT US

The Sant Pau Research Institute (IR Sant Pau), founded in 1992, is a CERCA centre, accredited as a Health Research Institute by the Instituto de Salud Carlos III (ISCIII), and one of the leading biomedical research institutes in Catalonia. Linked to Sant Pau Hospital, it promotes excellence in biomedical research and innovation aimed at advancing the prevention, diagnosis and treatment of diseases, with the mission of improving people's health and quality of life and the vision of becoming an international benchmark in translational biomedical research.

The Institute conducts translational research that connects basic science with clinical practice in order to accelerate the delivery of scientific advances to patients. Its scientific activity is structured around five major research areas: cardiovascular diseases; onco-haematological diseases; neurological diseases, neuroscience and mental health; epidemiology, public health and primary care; and translational medicine.

At the same time, IR Sant Pau promotes cross-cutting programmes in strategic areas such as advanced therapies, genomic medicine and rare diseases, biomarkers, prognosis and diagnosis, healthcare improvements, and women's health and gender. This multidisciplinary approach fosters knowledge transfer, biomedical innovation and the generation of health impact.

One of the Institute's main assets is its ability to bring together talent, knowledge and experience within the same research environment.

IR Sant Pau has its own researchers and professionals and, at the same time, integrates the scientific activity of different entities linked to the Sant Pau Biomedical Campus, such as the Autonomous University of Barcelona, Fundació Puigvert, the Blood and Tissue Bank, the Iberoamerican Cochrane Centre, the Sardenya Primary Care Team, the Dreta de l'Eixample Primary Care Team and the Barcelona Public Health Agency. This collaborative research ecosystem is aimed at addressing the main health challenges facing society.

IR Sant Pau bases its activity on the values of creativity, passion, commitment and integrity, promoting rigorous, responsible research aimed at generating knowledge of high scientific and social value. These values drive scientific activity aimed at generating health impact, promoting innovation and contributing to scientific and social progress to address the major healthcare challenges of the present and the future.

2.2 WHO WE ARE



Institut
de Recerca
Sant Pau



BANC DE SANG
I TEIXITS



Fundació
Privada Hospital
de la Santa Creu i
Sant Pau

eap | **sardenya**
Centre Universitari



Hospital de
la Santa Creu i
Sant Pau



Cochrane
Iberoamérica

UAB
Universitat Autònoma
de Barcelona

C S B Consorci Sanitari
de Barcelona

+B Agència
de Salut Pública

eap
+ dreta
de l'eixample



Fundació Puigvert

BOARD OF TRUSTEES – INSTITUT DE RECERCA SANT PAU

President

Xavier Prats Monné

Appointed by the Fundació de Gestió Sanitària Hospital de la Santa Creu i Sant Pau

Adrià Comella Carnicé

José M^a Gerra Ramos

Appointed by the Fundació Privada Hospital de la Santa Creu i Sant Pau

Jordi Sierra Gil

Josep M^a Forcada i Casanovas

Appointed by the Generalitat de Catalunya

Antoni Plasència Taradach

M^a Teresa Sanchís Estruch

Appointed by the Universitat Autònoma de Barcelona (UAB)

Josep Antoni Montiel Dacosta

Salvador Navarro Soto

Appointed by the Institut de Recerca Sant Pau, upon proposal from the Fundació Privada Hospital de la Santa Creu i Sant Pau

Antoni Esteve i Cruella

Jaume Kulisevsky Bojarski

Secretary (Not trustee)

Joaquim Jornet i Porta

IR Sant Pau (Guests)

Jordi Surrallés Calonge

David González Gil

IR SANT PAU EXTERNAL SCIENTIFIC COMMITTEE

Chair

Ángel Maria Carracedo Álvarez

Instituto de Medicina Legal
Facultade de Medicina e Odontoloxía,
Santiago de Compostela

Secretary

Jordi Surrallés

IR Sant Pau Scientific Director

Members

José Palacios

Jefe de Servicio de Anatomía Patológica
Hospital Ramón y Cajal, Madrid

Mercedes Robledo

Hereditary Endocrine Cancer Group, Group Leader
Human Cancer Genetics Program, CNIO, Madrid

Judith García

Barcelona Institute for Global Health – Campus MAR
ISGlobal, Barcelona

Manuel Arellano

Plataforma de Organizaciones de Pacientes

Gloria Gonzalez

Directora del Programa de Terapia Génica y
Regulación de la Expresión Génica CIMA-Navarra

Ana María Cuervo

Co-director Institute for Ageing Research, Albert
Einstein College of Medicine

Juan Carlos Kaski

Professor of Cardiovascular Science, University
of London, Saint George's, Molecular and Clinical
Sciences Research Institute

IR SANT PAU INTERNAL SCIENTIFIC COMMITTEE

President

Jordi Surrallés (IR Sant Pau Scientific Director)

Vice Presidents

Robert Belvís (CEim President)

Innovation, Quality, and Training

Miriam Ors (Deputy Scientific Director. Innovation, Training, and Quality)

Members by Direct Designation of the IR Sant Pau's Director

Elisa Llorba (Women & Perinatal Health Research)

Noemí Rotllan (Ramon y Cajal Researcher) (until October 2025)

Otavio Ranzani (Ramon y Cajal Researcher) (from November 2025)

Gemma Mas (Nursing Care Research)

Silvia Mateu (Puigvert Foundation)

Members from Each IR Sant Pau's Research Areas

Gemma Vilahur (Cardiovascular Diseases Area)

José M Guerra (Cardiovascular Diseases Area)

José Manuel Soria (Cardiovascular Diseases Area)

Javier Briones (Oncohematological Diseases Area)

Ramón Mangues (Oncohematologic Diseases Area)

Agustí Barnadas (Oncohematological Diseases Area) (until October 2025)

Juan Fortea (Neurological Diseases, Neuroscience & Mental Health Area)

Maria J. Portella (Neurological Diseases, Neuroscience & Mental Health Area)

Israel Fernández (Neurological Diseases, Neuroscience & Mental Health Area)

Pablo Alonso Coello (Epidemiology, Public Health & Primary Care Area)

Maica Rodríguez (Epidemiology, Public Health & Primary Care Area)

Carles Brotons (Epidemiology, Public Health & Primary Care Area) (until October 2025)

Carlen Reyes (Epidemiology, Public Health & Primary Care Area) (from November 2025)

Didac Mauricio (Translational Medicine Area)

Sílvia Vidal (Translational Medicine Area)

Roser Torra (Translational Medicine Area)

Secretary of the Internal Scientific Committee

Miriam Ors Griera

IR SANT PAU RECTOR COUNCIL

President

Adrià Comella

Managing Director of the FGS and Chair of the Governing Board

Vice-Presidency

Jordi Surrallés

Scientific Director, IR Sant Pau

Members

Jordi Bachs

Director, Fundació Privada de l'Hospital de la Santa Creu i Sant Pau

Assumpta Malgosa

Vice-Rector for Research, Autonomous University of Barcelona (UAB)

Lluís Gausa

Medical Director, Fundació Puigvert (FP)

Luis Álvarez-Vallina

Director of the Research and Teaching Area Banc de Sang i Teixits (BST) (from 26/06/2025)

Xavier Bonfill

Director, Ibero-American Cochrane Centre

Jaume Sellarés

Director, Sardenya Primary Care Team (EAP Sardenya)

Joan Ramon Villalbí

Managing Director, Barcelona Public Health Agency (ASPB) (from 1/09/2025)

Sílvia Zamora

Director, EAP Dreta de l'Eixample SLP

Lluís Cuixart

By delegation: Head of Research, EAP Dreta de l'Eixample SLP (CAP Roger de Flor, Barcelona)

Secretary

Ms. Miriam Ors

Assistant to the Scientific Directorate, IR Sant Pau

MANAGEMENT TEAM

Scientific Director

Jordi Surrallés

Managing Director

David González

Jaume Bacardit

(until September 2025)

Deputy Scientific Director

Miriam Ors

Director of Legal Advisory

Sílvia Ribas Martínez

Communications Director

Laura Díaz-Roig

Assistant to the Directors

Eva Sanfeliu

We are



Accredited by



Certified by



We are members of



2.3 ETHICS COMMITTEES

2.3.1 ETHICS COMMITTEE FOR INVESTIGATION WITH MEDICINAL PRODUCTS (CEIm)

President

Robert Belvís Nieto

Physician. Specialist in Medical Neurology

Vice-President

Estela Moreno Martínez

Specialist in Hospital Pharmacy

Secretary

Claudia Erika Delgado Espinoza

Physician. Specialist in Clinical Pharmacology

Members

Núria Alberich Margalef

Lawyer and DPD

Cristina Arqueros Nuñez

Physician. Specialist in Oncology

Maria Rosa Ballester Verneda

Pharmacist

Ana Carolina Caballero González

Physician, Haematology

Beatriz Fernández-Montells Rama

Biomedical Engineer

Cristina Galisteo Sáez

Philosopher

Enric Garré Pizà

Computer engineer

Ignasi Gich Saladich

Physician

Iria González Álvarez

User Support Unit

Marta Lestón Vázquez

Primary care pharmacist

Laura Lozano Polo

Physician, internal medicine

Laia Matas Pericas

Physician. Specialist in Internal Medicine.

Indalecio Morán Chorro

Physician. Specialist in Intensive Care Medicine

Caridad Pontes García

Physician. Clinical Pharmacology

Maria Jesús Portella Moll

Psychologist

Marta Pujol Benaiges

Patient's representative. Non sanitary

Maria Teresa Ricart Basagaña

Nurse

Santiago Sánchez Cabús

Physician. Specialist in Digestive Surgery

Jordi Torralbas Ortega

Nurse

Cristina Trilla Solà

Physician. Gynaecology and Obstetrics

Lucía Vallez Valero

Pharmacist

MISSION, FUNCTIONS, AND AREAS OF ACTION

The Ethics Committee for Research with Medicinal Products (CEIm) is an independent body that, in accordance with the relevant legal provisions, ensures that the rights, safety, and well-being of clinical trial subjects are protected. The CEIm provides public assurance of that protection by reviewing and approving clinical trial protocols and the methods used to collect and document subjects' informed consent, and by ensuring the suitability of investigators, facilities, and materials.

2.3.2 ETHICS COMMITTEE FOR ANIMAL RESEARCH (CEEA)

President

Laura Casaní Arazo - Cap de plataforma

Secretary

Sergi Florit - Personal tècnic

Board Members

Lorena Alba - Personal investigador

Sandra Camino - Cap de plataforma

Jose M. Guerra - Cap de grup de recerca

Esther Peña - Cap de plataforma

Cristina Rodríguez - Personal investigador

Elisabet Sánchez - Personal investigador

The Institutional Animal Care and Use Committee of the Sant Pau Research Institute (CEEA – IR Sant Pau) is an independent entity that, in accordance with current legislation on laboratory animals (European Directive 2010/63/EU, Spanish Royal Decree RD 53/2013, and Decree 214/1997 of the Generalitat of Catalonia), acts as an expert and advisory committee in the area of animal experimentation, with members coming from different fields of knowledge – basic research, veterinary medicine, animal welfare, and human medicine.

The working principles that govern this Committee are good science and proper animal welfare, based on the 3Rs: replacement, reduction, and refinement.

The functions of the Committee on Ethics in Animal Experimentation are:

- Review the experimental projects after verifying the suitability of the procedures in relation to the study objectives, the possibility of obtaining valid results with the minimum number of animals, the consideration of alternative methods to the use of animals, and the suitability of the selected species. Inform with a favourable report, if applicable, to the competent authority.
- Ensure that the animals will not suffer unnecessarily and that they will receive, when necessary, analgesia, anaesthesia, or other methods to eliminate pain, suffering, or distress.
- Supervise the use of humane euthanasia methods.
- Ensure that the personnel involved in the procedure are qualified to carry out the assigned tasks.
- Review already accepted procedures or suspend procedures already started that do not comply with the requirements established by the protocol.

In 2025, the CEEA evaluated and processed 13 new projects and 6 significant modifications to authorised projects.

2.4 OTHER COMMITTEES

2.4.1 IR SANT PAU BIOSAFETY COMMITTEE

President

Inés Pérez Renart,
Coordinator of Occupational Risk Prevention and Biosafety Management

Secretary

Duties assumed by the presidency

Vocals

Laura Casaní Arazo
Coordinator of the Animal Experimental Service

Javier Crespo Asensio
Director of the Infrastructure and Services Coordination Unit at the Research Institute

Elisenda Miró Cardona,
Consultant, Microbiology Service

Rafael Padrós i Selma
Coordinator of the Joint Prevention Service

Eva Pujol Carventus
Technical Coordinator, Joint Prevention Service

Estefania Segalés Aguilar
Coordinator of the Cellular Culture Service

Marta Soler i Castany
Coordinator of the Flow Cytometry Platform and workers representative

Alba Torija Recasens
Coordinator of the Biobank Service

2.4.2 RESEARCH INTEGRITY COMMITTEE

President

Josep Santaló Pedro
Ombudsperson

Secretary

Maria Rosa Ballester Verneda
Ombuds Officer

Members

Àlex Bayés Puig
Sílvia Mateu Escudero
Gerard Urrútia Cuchí
Gemma Vilahur García

Highlights

OSB

3.1. Highlighted News of 2025



IR Sant Pau to Lead Synapsing, an Innovative Horizon-Europe Programme Project to Advance the Diagnosis and Treatment of Psychiatric Disorders and Neurodegenerative Diseases

15/01/2025

[News Article](#)



The Reversal of Lipoprotein Alterations in Patients with Ischaemic Stroke Offers New Perspectives for Cardiovascular Disease Research and Management

21/01/2025

[Scientific Paper](#)

[News Article](#)



More than 2,500 People Celebrate the Women and Girls in Science Festival with Mariona and Sant Pau

11/02/2025

[News Article](#)

3.1. Highlighted News of 2025



IR Sant Pau Study Reveals Immune System's Crucial Role in ALS at Cellular Level

13/02/2025

 Scientific Paper

 News Article



IR Sant Pau Researchers Demonstrate the Effectiveness of Non-Pharmacological Therapies in Huntington's Disease

26/02/2025

 Scientific Paper

 News Article



Pioneering Study on Human Gene Functions Involving IR Sant Pau Published in Nature

13/03/2025

 Scientific Paper

 News Article

3.1. Highlighted News of 2025



MRI Improves Prediction of Cardiovascular Events in Type 2 Diabetes

21/03/2025

 Scientific Paper

 News Article



A New CAR-T Therapy from Sant Pau Achieves Positive Results in a High Proportion of Patients with a Refractory Type of Lymphoma

29/04/2025

 Scientific Paper

 News Article



An Experimental Immunotherapy Reverses Heart Energy Damage Caused by Cholesterol

14/05/2025

 Scientific Paper

 News Article

3.1. Highlighted News of 2025



Women Have Greater Capacity to Compensate for Brain Damage in Genetic Frontotemporal Dementia

28/05/2025

Scientific Paper

News Article



The Sant Pau Research Institute Presents its New Strategic Plan 2025-2030

13/05/2025

News Article



Exposure to Pollution During Pregnancy Linked with Changes in Fetal Brain Structures

12/06/2025

Scientific Paper

News Article

3.1. Highlighted News of 2025



A New Blood Biomarker Predicts the Progression of Alzheimer's Disease Even in Its Earliest Stages

07/07/2025

 Scientific Paper

 News Article



Altered Cholesterol Uptake by Neurons in Alzheimer's Disease Linked to APOE4 Variant

06/08/2025

 Scientific Paper

 News Article



Qdenga Vaccine Shows Effectiveness Against Dengue Under Real-World Conditions During Brazil's 2024 Outbreak

01/10/2025

 Scientific Paper

 News Article

3.1. Highlighted News of 2025



Experts Outline the Healthcare, Policy, and Social Changes Needed to Fully Harness Advances in Alzheimer's Treatment

26/09/2025

 Scientific Paper

 News Article



Early Control of Hemodynamic Parameters Improves Recovery in Patients with Intracerebral Hemorrhage

27/10/2025

 Scientific Paper

 News Article



Sant Pau Research Institute Welcomes Dr. Manel Esteller, ICREA Researcher, in a Strategic Commitment to Scientific Excellence

07/11/2025

 News Article

3.1. Highlighted News of 2025



An Experimental Treatment Restores the Reparative Capacity of Stem Cells in Type 2 Diabetes

12/11/2025

Scientific Paper

News Article



Birth of XWHIN, the Catalan Network for Women's Health Innovation Applying a Sex and Gender Perspective, Led by IR Sant Pau

9/12/2025

News Article

3.2. Top Scientific Articles

- **Zanzalintinib plus atezolizumab versus regorafenib in refractory colorectal cancer (STELLAR-303): a randomised, open-label, phase 3 trial.** Hecht JR, Park YS, Tabernero J, Lee MA, Lee SHY, Virgili AC, van den Eynde M, Fontana E, Fakih M, Asghari G, JE, Stein A, Dubreuil O, Bodnar L, He CS, Wang G, Smith R, Eng C, Saeed A, STELLAR Study Investigators 303. **LANCET.** 2025; 406(10517) DOI:10.1016/S0140-6736(25)02025-2. PMID:41130252. IF:88,500 (Q1/1D).
- **Durvalumab in combination with BCG for BCG-naïve, high-risk, non-muscle-invasive bladder cancer (POTOMAC): final analysis of a randomised, open-label, phase 3 trial.** De Santis M, Redorta JP, Nishiyama H, Krawczynski M, Seyitkuliev A, Novikov A, Guerrero F, Zukov R, Kato M, Kawahara T, Goeman L, Puente J, Hellmis E, Powles T, Radziszewski P, Gust KM, Vasey P, Bigot P, Fradet Y, Hunting J, Armstrong J, Boulos S, Hois S, Shore ND, Potomac I. **LANCET.** 2025; 406(10516) DOI:10.1016/S0140-6736(25)01897-5. PMID:41115436. IF:88,500 (Q1/1D).
- **New landscape of the diagnosis of Alzheimer's disease.** Frisoni GB, Hansson O, Nichols E, Garibotto V, Schindler SE, van der Flier WM, Jessen F, Villain N, Arenaza EM, Crivelli L, Fortea J, Grinberg LT, Ismail Z, Minoshima S, Ossenkoppele R, Zetterberg H, Petersen RC, Dubois B. **LANCET.** 2025; 406(10510) DOI:10.1016/S0140-6736(25)01294-2. PMID:40997838. IF:88,500 (Q1/1D).
- **Efficacy and safety of first-line maintenance therapy with lurbinectedin plus atezolizumab in extensive-stage small-cell lung cancer (IMforte): a randomised, multicentre, open-label, phase 3 trial.** Paz L, Borghaei H, Liu S, Peters S, Herbst RS, Stencel K, Majem M, Sendur M, Czyzewicz G, Caro RB, Lee KH, Johnson ML, Karadurmus N, Grohé C, Baka S, Csoszi T, Ahn JS, Callifano R, Yang TY, Kemal Y, Ballinger M, Cuchelkar V, Graupner V, Lin YC, Chakrabarti D, Bhatt K, Cai G, Iannone R, Reck M, IMforte I. **LANCET.** 2025; 405(10495) DOI:10.1016/S0140-6736(25)01011-6. PMID:40473449. IF:88,500 (Q1/1D).
- **Proportional-Assist Ventilation for Minimizing the Duration of Mechanical Ventilation.** Bosma KJ, Burns K, Martin CM, Skrobik Y, Corts JM, Mulligan S, Lafreniere M, Thorpe KE, Montero JCS, Chorro IM, Rodriguez N, Butler R, Bentall T, Beduneau G, Enguerrand P, Santos M, Piraino T, Spadaro S, Montanaro F, Basmaji J, Campbell E, Mercat A, Beloncle FM, Carreaux G, Maraffi T, Charbonney E, Lecronier M, Dres M, Arabi YM, Amaral A, Marinoff N, Adhikari NKJ, et al. **NEW ENGLAND JOURNAL OF MEDICINE.** 2025; 393(11) DOI:10.1056/NEJMoa2505708. PMID:40513024. IF:78,500 (Q1/1D).
- **Dapagliflozin in Patients Undergoing Transcatheter Aortic-Valve Implantation.** Raposeiras S, Amat IJ, Rossello X, Ferreira RG, Bermúdez IG, Otero DL, Nombela L, Gheorghe L, Díez JL, Zorita CB, Baz JA, García A, Vilalta V, Ojeda S, Hernández JMD, Soriano JGC, Regueiro A, Siscar PB, Fernández JS, del Blanco BG, Martín R, Romaguera R, Moris C, Blas SG, Franco JA, Cruz I, Arzamendi D, Rodríguez NR, Hoyo FDD, Freire SC, Ojeda FB, Burgo J, Navarro EM, Borrego JC, Quevedo VR, Sánchez A, Disdier VP, et al. **NEW ENGLAND JOURNAL OF MEDICINE.** 2025; 392(14) DOI:10.1056/NEJMoa2500366. PMID:40162639. IF:78,500 (Q1/1D).
- **Enzalutamide plus radium-223 in metastatic castration-resistant prostate cancer: results of the EORTC 1333/PEACE-3 trial.** Tombal B, Choudhury A, Saad F, Gallardo E, Soares A, Lloriot Y, McDermott R, Rodriguez A, Velho PI, Nolè F, Cruz F, Roumeguere T, Daugaard G, Yamamura R, Bompas E, Maroto P, Veiga FG, Skoneczna I, Trindade KMD, Carcano FM, Lecouvet F, Coens C, Poncet C, Fournier B, Gillesse S, Crua F. **ANNALS OF ONCOLOGY.** 2025; 36(9) DOI: 10.1016/j.annonc.2025.05.011. PMID:40450503. IF:65,400 (Q1/1D).
- **Prospective randomized phase-II trial of ipilimumab/nivolumab versus standard of care in non-clear cell renal cell cancer - results of the SUNNIFORECAST trial.** Bergmann L, Albiges L, Ahrens M, Gross M, Boleti E, Gravis G, Flechon A, Grimm MO, Bedke J, Barthélémy P, Castellano D, Mellado B, Ivanyi P, Rottey S, Flörcken A, Suarez C, Maroto P, Grünwald V, Oosting SF, Kopecky J, Zschäbitz S, Boegemann M, Buchler T, Niegisch G, Goebell PJ, Waddell T, Joly F, Priou F, Retz M, Siemer S, Zimmermann U, Deckbar D, Burkholder I, Hartmann A, Haanen JB, Interdisciplinary Renal Cell Carcinoma Working Group IAGN DKG. **ANNALS OF ONCOLOGY.** 2025; 36(7) DOI:

3.2. Top Scientific Articles

- 10.1016/j.annonc.2025.03.016. PMID:40180121. IF:65,400 (Q1/1D).
- **The impact of neoadjuvant therapy in patients with left-sided resectable pancreatic cancer: an international multicenter study.** Rangelova E, Stoop TF, van T, Ali M, van EA, Javed AA, Hashimoto D, Steyerberg E, Banerjee A, Jain A, Sauvanet A, Serrablo A, Giani A, Giardino A, Zerbi A, Arshad A, Wijma AG, Coratti A, Zirona A, Socratous A, Rojas A, Halimi A, Ejaz A, Oba A, Patel BY, Björnsson B, Reames BN, Tingstedt B, Goh BKP, Payá C, Del Pozo CD, González C, Medin C, van CHJ, de Ponthaud C, Takishita C, Schwabl C, Månsson C, et al. **ANNALS OF ONCOLOGY.** 2025; 36(5) DOI: 10.1016/j.annonc.2024.12.015. PMID:39814200. IF:65,400 (Q1/1D).
 - **Development and Validation of the Sequential Organ Failure Assessment (SOFA)-2 Score.** Ranzani OT, Singer M, Salluh J, Shankar M, Pilcher D, Berger J, Coopersmith CM, Juffermans NP, Laffey J, Reinikainen M, Neto AS, Tavares M, Timsit JF, Lopez M, Arulkumaran N, Aryal D, Azoulay E, Celi LA, Chaudhuri D, De Lange D, De Waele J, Dos CC, Du B, Einav S, Engelbrecht T, Fazla F, Ferrer R, Finazzi S, et al. **JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.** 2025; 334(23) DOI:10.1001/jama.2025.20516. PMID:41159833. IF:55,000 (Q1/1D).
 - **Frequency and Clinical Outcomes Associated with Tau Positron Emission Tomography Positivity.** Moscoso A, Heeman F, Raghavan S, Costoya A, van M, Mainta I, Camacho V, Rodriguez O, Silva J, Perissinotti A, Gu YN, Yun JH, Perretti D, Ribaldi F, Coomans EM, Brum WS, Grothe MJ, Aguiar P, Bischof GN, Drzezga A, Seo SW, Villeneuve S, Malpetti M, O'Brien JT, Rowe JB, van de Giessen EM, Ossenkoppele R, Jagust WJ, Smith R, Hansson O, Frisoni GB, Garibotto V, Soilemani DN, Carrillo M, Dickerson BC, La Joie R, Rabinovici GD, Apostolova LG, Lamontagne PJ, Pontecorvo MJ, Johnson KA, Sperling RA, Weiner MW, Petersen RC, Jack CR, Vemuri P, Schoell M. **JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.** 2025; 334(3) DOI:10.1001/jama.2025.7817. PMID:40522652. IF:55,000 (Q1/1D).
 - **Simvastatin and Rifaximin in Decompensated**
 - **Cirrhosis: A Randomized Clinical Trial.** Pose E, Jiménez C, Zaccherini G, Campion D, Piano S, Uschner FE, de Wit K, Roux O, Gananandan K, Laleman W, Solé C, Alonso S, Cuyàs B, Ariza X, Juanola A, Ma AT, Napoleone L, Gratacós J, Tonon M, Pompili E, Sánchez J, Allegretti AS, Morales M, Carol M, Pérez M, Fabrellas N, Pich J, Martell C, Joyera M, Domenech G, Ríos J, Torres F, Serra M, Hernáez R, Solà E, Graupera I, Watson H, Soriano G, Bañares R, Mookerjee RP, Francoz C, Beuers U, Trebicka J, Angeli P, Alessandria C, Caraceni P, Vargas VM, Abraldes JG, Kamath PS, Ginès P, LIVERHOPE C. **JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.** 2025; 333(10) DOI:10.1001/jama.2024.27441. PMID:39908052. IF:55,000 (Q1/1D).
 - **Preventing the progression of cirrhosis to decompensation and death.** Villanueva C, Tripathi D, Bosch J. **Nature Reviews Gastroenterology & Hepatology.** 2025; 22(4) DOI:10.1038/s41575-024-01031-x. PMID:39870944. IF:51,000 (Q1/1D).
 - **Polygenic prediction of body mass index and obesity through the life course and across ancestries.** Smit R, Wade KH, Hui Q, Arias JD, Yin XY, Christiansen MR, Yengo L, Preuss MH, Nakabay M, Roet al. G, Graham SE, Buchanan VL, Chittoor G, Graff M, Guindo M, Lu YC, Marouli E, Sakaue S, Spracklen CN, Vedantam S, Wilson EP, Chen SH, Ferreira T, Ji YJ, Karaderi T, Lüll K, Machado M, Malden DE, Medina C, Moore A, Rüeger S, Akiyama M, Allison MA, Alvarez M, Andersen MK, Appadurai V, et al. Understanding Soc Sci GRP, VA Million Vet P. **NATURE MEDICINE.** 2025; 31(9) DOI:10.1038/s41591-025-03827-z. PMID:40691366. IF:50,000 (Q1/1D).
 - **Sasanlimab plus BCG in BCG-naïve, high-risk non-muscle invasive bladder cancer: the randomized phase 3 CREST trial.** Shore ND, Powles TB, Bedke J, Galsky MD, Redorta JP, Ku JH, Kretkowski M, Xylinas E, Alekseev B, Ye DW, Guerrero F, Briganti A, Kulkarni GS, Brinkmann J, Calella AM, Cesari R, Eccleston A, Michelon E, Vermette J, Wei CM, Steinberg GD. **NATURE MEDICINE.** 2025; 31(8) DOI:10.1038/s41591-025-03738-z. PMID:40450141. IF:50,000 (Q1/1D).
 - **Molecular residual disease analysis of adjuvant osimertinib in resected EGFR-mutated stage IB-IIIA non-small-cell lung cancer.** Herbst RS,

3.2. Top Scientific Articles

- John T, Grohé C, Goldman JW, Kato T, Laktionov K, Bonanno L, Tiseo M, Majem M, Dómine M, Ahn MJ, Kowalski DM, Pérol M, Sriuranpong V, Özgüroğlu M, Bhetariya P, Markovets A, Rukazenzov Y, Muldoon C, Robichaux J, Hartmaier R, Tsuboi M, Wu YL. **NATURE MEDICINE**. 2025; 31(6) DOI:10.1038/s41591-025-03577-y. PMID:40097663. IF:50,000 (Q1/1D).
- **Down syndrome and Alzheimer's disease: insights into biomarkers, clinical symptoms, and pathology.** Rafii MS, Schlachetzki Z, Barroeta I, Head E, Fortea J, Ances BM. **LANCET NEUROLOGY**. 2025; 24(9) DOI:10.1016/S1474-4422(25)00237-6. PMID:40818475. IF:45,500 (Q1/1D).
 - **Differential diagnosis and comparison of diagnostic algorithms in children and adolescents with autoimmune encephalitis in Spain: a prospective cohort study and retrospective analysis.** Olivé G, Fonseca E, Chen LW, Fetta A, Martínez E, Guasp M, González V, Delgadillo V, Cantarín V, Jiménez M, Monge L, Felipe A, Beseler B, Turón E, Fernández J, Martínez MJ, Vázquez M, Fernandez LA, Alvarez M, Muñoz B, Camacho A, Nuñez N, Spatola M, Sabater L, Blanco Y, Saiz A, Graus F, Dalmau J, Armanagué T, Spanish Pediatr Autoimmune Encephalitis study GRP. **LANCET NEUROLOGY**. 2025; 24(1) DOI:10.1016/S1474-4422(24)00443-5. PMID:39706634. IF:45,500 (Q1/1D).
 - **Immunometabolism in heart failure.** Andreadou I, Ghigo A, Nikolaou PE, Swirski FK, Thackeray JT, Heusch G, Vilahur G. **Nature Reviews Cardiology**. 2025; 22(10) DOI:10.1038/s41569-025-01165-8. PMID:40544171. IF:44,200 (Q1/1D).
 - **Roadmap for alleviating the manifestations of ageing in the cardiovascular system.** Liberale L, Tual S, Sedej S, Ministrini S, Georgiopoulos G, Grunewald M, Bäck M, Bochaton ML, Boon RA, Ramos GC, de Winther MPJ, Drosatos K, Evans PC, Ferguson JF, Forslund SK, Goettsch C, Giacca M, Haendeler J, Kallikourdis M, Ketelhuth DFJ, Koenen RR, Lacolley P, Lutgens E, Maffia P, Miwa S, Monaco C, Montecucco F, Norata GD, Osto E, Richardson GD, Riksen NP, et al. **Nature Reviews Cardiology**. 2025; 22(8) DOI:10.1038/s41569-025-01130-5. PMID:39972009. IF:44,200 (Q1/1D).
 - **Phase II Dose-Randomized Study of Sunvozertinib in Platinum-Pretreated Non-Small Cell Lung Cancer with Epidermal Growth Factor Receptor Exon 20 Insertion Mutations (WU-KONG1B).** Yang JCH, Wang MZ, Doucet L, Fan Y, Lv DQ, Sun ML, Huang DZ, Greillier L, Planchard D, Hong QY, Mazieres J, Felip E, Li XY, Hu Y, Fang J, Bazhenova L, Ghiringhelli F, Dols M, Rodriguez L, Bearz A, Pellini B, Kim YJ, Bosch J, Shim BY, Luo YH, Tiseo M, Yang TY, Carcereny E, Memmott RM, Zalcman G, Carpeno JD, Di V, Parrar HS, Streich G, Lee DH, Shum E, Han JY, Jaime JC, Brungs D, John T, D'Arcangelo M, Joaquin AB, Liu GF, Antonuzzo L, Hinojal GF, Le XN, Zheng L, Jänne PA. **JOURNAL OF CLINICAL ONCOLOGY**. 2025; 43(29) DOI:10.1200/JCO-25-00788. PMID:40923280. IF:41,900 (Q1/1D).
 - **Is There a Role for Mifamurtide in Nonmetastatic High-Grade Osteosarcoma? Results From the Italian Sarcoma Group (ISG/OS-2) and Spanish Sarcoma Group (GEIS-33) Trials.** Palmerini E, Meazza C, Tamburini A, Márquez C, Bisogno G, Fagioli F, Ferraresi V, Milano GM, Coccoli L, Rubio A, Gallego O, Riestra M, Manzitti C, Mora J, Vaz MA, Luksch R, Mata C, Pierini M, Carretta E, Cesari M, Paioli A, Marrari A, Scotlandi K, Serra M, Asaftei SD, Gambarotti M, Picci P, Ferrari S, Valverde C, Ibrahim T, Broto JM. **JOURNAL OF CLINICAL ONCOLOGY**. 2025; 43(28) DOI:10.1200/JCO-25-00210. PMID:40825172. IF:41,900 (Q1/1D).
 - **Overall Survival Analysis of the Phase III CodeBreak 300 Study of Sotorasib Plus Panitumumab Versus Investigator's Choice in Chemorefractory KRAS G12C Colorectal Cancer.** Pietrantonio F, Salvatore L, Esaki T, Modest DP, Lopez DP, Taieb J, Karamouzis MV, Ruiz E, Kim TW, Kuboki Y, Meriggi F, Cunningham D, Yeh KH, Chan E, Chao JS, Tran Q, Cremolini C, Fakih M. **JOURNAL OF CLINICAL ONCOLOGY**. 2025; 43(19) DOI:10.1200/JCO-24-02026. PMID:40215429. IF:41,900 (Q1/1D).
 - **Phase Ib Study for the Combination of Doxorubicin, Dacarbazine, and Nivolumab as the Upfront Treatment in Patients with Advanced Leiomyosarcoma: A Study by the Spanish Sarcoma Group (GEIS).** Martin J, Diaz R, Moura D, Ramos R, Martinez J, Carrasco I, Sebio A, Gonzalez E, Gutierrez A, Fernandez J, Hernandez L, Cruz J, Valverde C, Hindi N. **JOUR-**

3.2. Top Scientific Articles

- NAL OF CLINICAL ONCOLOGY.** 2025; 43(3) DOI:10.1200/JCO.24.00358. PMID:39356980. IF:41,900 (Q1/1D).
- **Consensus on acromegaly therapeutic outcomes: an update.** Melmed S, di L, Fleseriu M, Mercado M, Karavitaki N, Gurnell M, Salvatore R, Tsagarakis S, Losa M, Maffei P, Pereira AM, Geer EB, Katznelson L, van der Lely AJ, Bollerslev J, Esposito D, Webb SM, Zatelli MC, Vassalli E, Neggers S, Chanson P, Ho KKY, Iachimescu AG, Biller BMK, Samson SL, Kaiser UB, Schilbach K, Luque RM, Casanueva FF, Shimon I, Boguszewski CL, Biermasz N, Colao A, Pirchio R, et al. **Nature Reviews Endocrinology.** 2025; 21(11) DOI:10.1038/s41574-025-01148-2. PMID:40804505. IF:40,000 (Q1/1D).
 - **Anticoagulation Versus Dual Antiplatelet Therapy for Preventing Device Thrombosis Following Left Atrial Appendage Closure: The ANDES Randomized Clinical Trial.** Rodés J, Nombela L, Cruz I, Hibbert B, Freixa X, Masson JB, Ibrahim R, Estevez R, Millan X, Kass M, Paradis JM, Champagne J, Salinas P, Laffond A, Abdel O, Labinaz M, Cepas P, Arzamendi D, Vidal P, Pavesi M, Côté M, O'Hara G, Salaun E. Short-Term **CIRCULATION.** 2025; 152(25) DOI:10.1161/CIRCULATIONAHA.125.077469. PMID:41139402. IF:38,600 (Q1/1D).
 - **Aortic Aneurysm Risk and the Somatic JAK2 V617F Mutation: Insights from a Multicenter, Population-Based Cardiovascular Screening Study.** Obel LM, Skovbo JS, Diederichsen A, Thomassen M, Kjær L, Larsen MK, Knudsen TA, Skov V, Kruse TA, Burton M, Dembic M, Wienecke T, Sabater M, Gerke O, Bruun NE, Ellervik C, Brabrand M, Steffensen FH, Frost L, Lambrechtsen J, Busk M, Urbonaviciene G, Egstrup K, Karon M, Feddersen S, Rasmussen LM, Hasselbalch HC, Lindholt JS. **CIRCULATION.** 2025; 152(5) DOI:10.1161/CIRCULATIONAHA.125.074002. PMID:40464064. IF:38,600 (Q1/1D).
 - **Inositol 1,4,5-Trisphosphate Receptor 1 Gain-of-Function Increases the Risk for Cardiac Arrhythmias in Mice and Humans.** Sun B, Ni MK, Li YH, Song ZP, Wang H, Zhu HL, Wei JH, Belke D, Cai ST, Guo WT, Yao JJ, Tian SS, Estillore JP, Wang RW, Sondergaard MT, Brohus M, Rohde PD, Mu YX, Vallmitjana A, Benitez R, Hove L, Overgaard MT, Fishman GI, Chen J, Sanatani S, Wilde A, Fill M, Ramos J, Nyegaard M, Chen SRW. **CIRCULATION.** 2025; 151(12) DOI:10.1161/CIRCULATIONAHA.124.070563. PMID:39655431. IF:38,600 (Q1/1D).
 - **Lenvatinib plus pembrolizumab in pretreated metastatic B3 thymoma and thymic carcinoma (PECATI): a single-arm, phase 2 trial.** Remon J, Bironzo P, Girard N, Bigay L, Juan O, de Castro J, Reguart N, Greillier L, Cousin S, Dansin E, Majem M, Bernabe R, Martinez JM, Diaz M, Meza A, Alcalá D, Garcia A, Righi L, Novello S, Besse B. **LANCET ONCOLOGY.** 2025; 26(9) DOI:10.1016/S1470-2045(25)00300-6. PMID:40907517. IF:35,900 (Q1/1D).
 - **Health-related quality of life in patients with KRASG12C-mutated chemorefractory metastatic colorectal cancer treated with sotorasib plus panitumumab or standard of care (CodeBreaK 300): results from a phase 3, randomised clinical trial.** Modest DP, Fakih M, Salvatore L, Esaki T, Lopez DP, Taieb J, Karamouzis M, Ruiz E, Kim TW, Kuboki Y, Meriggi F, Cunningham D, Yeh KH, Cremolini C, Tran Q, Chan E, Chao JS, Majer IM, Pietrantonio F. **LANCET ONCOLOGY.** 2025; 26(9) DOI:10.1016/S1470-2045(25)00352-3. PMID:40812325. IF:35,900 (Q1/1D).
 - **Acute heart failure in non-cardiac surgery.** Gualandro DM, Masip J, Halvorsen S, Price S, Rosselló X, Chioncel O, Peacock WF, Miró I, Junior M, Mebazaa A, Platz E, Amir O, Schaubroeck H, Grand J, Sionis A, Tavazzi G, Pöss J, Verbrugge FH, Gambaro A, Tica O, Arrigo M, Mueller C. **EUROPEAN HEART JOURNAL.** 2025; 46(40) DOI:10.1093/eurheartj/ehaf559. PMID:40838822. IF:35,600 (Q1/1D).
 - **Antithrombotic drugs for acute coronary syndromes in women: sex-adjusted treatment and female representation in randomised clinical trials. A clinical consensus statement of the European Association of Percutaneous Cardiovascular Interventions (EAPCI) and the ESC Working Group on Thrombosis.** Paradies V, Masiero G, Rubboli A, Van HMM, Costa F, Capranzano P, Degrauwe S, Gorog DA, Jorge CM, Buchanan GL, Alasnag M, Trabatttoni D, Fraccaro C, Sibbing D, Dudek D, Vilahur G, Chieffo A,

3.2. Top Scientific Articles

- Mehran R, Capodanno D, Barbato E, Siller JM. **EUROPEAN HEART JOURNAL**. 2025; 46(28) DOI:10.1093/eurheartj/ehaf352. PMID:40390370. IF:35,600 (Q1/1D).
- **Interplay between platelets and coagulation: from protective haemostasis to pathological arterial thrombosis.** Vilahur G, Fuster V **EUROPEAN HEART JOURNAL**. 2025; 46(5) DOI:10.1093/eurheartj/ehae776. PMID:39673717. IF:35,600 (Q1/1D).
 - **The changing landscape of primary autoimmune neuropathies.** Caballero M, Pascual E, Lleixà C, Martín L, Collet R, Querol L. **Nature Reviews Neurology**. 2025; 21(10) DOI:10.1038/s41582-025-01133-3. PMID:40913126. IF:33,100 (Q1/1D).
 - **Rivaroxaban to prevent complications of portal hypertension in cirrhosis: The CIRROXABAN study.** Puente A, Turón F, Martínez J, Fortea JI, Guerra MH, Alvarado E, Pons M, Magaz M, Llop E, Alvarez C, Navarrete AA, Berenguer M, Masnou H, Bañares R, Casado M, Ampuero J, Rios J, Saavedra C, Blasi A, Lisman T, Figueró CR, Huelin P, Tellez L, Arráez DM, Rodríguez M, Aguilera V, Loste M, Baiges A, Hernandez V, Perelló C, Calleja JL, Genescà J, Villanueva C, et al. **JOURNAL OF HEPATOLOGY**. 2025; 83(5) DOI: 10.1016/j.jhep.2025.06.035. PMID:40691992. IF:33,000 (Q1/1D).
 - **Carvedilol vs. propranolol for the prevention of decompensation and mortality in patients with compensated and decompensated cirrhosis.** Fortea JI, Alvarado E, Simbrunner B, Ezcurra I, Hernández V, Aracil C, Llop E, Puente A, Roig C, Reiberger T, García JC, Calleja JL, Ferrero A, Mandorfer M, Villanueva C, Crespo J. **JOURNAL OF HEPATOLOGY**. 2025; 83(1) DOI: 10.1016/j.jhep.2024.12.017. PMID:39701300. IF:33,000 (Q1/1D).
 - **Exploring algorithms to select candidates for non-selective beta-blockers in cirrhosis: A post hoc analysis of the PREDESCI trial.** Dajti E, Villanueva C, Berzigotti A, Brujats A, Albillos A, Genescà J, García JC, Colecchia A, Bosch J, PREDESCI I, Baveno EC. **JOURNAL OF HEPATOLOGY**. 2025; 82(3) DOI: 10.1016/j.jhep.2024.09.014. PMID:39303875. IF:33,000 (Q1/1D).
 - **Porto-sinusoidal vascular liver disorder with portal hypertension: Natural history and long-term outcome.** Magaz M, Giudicelli H, Abrales JG, Nicoara O, Turon F, Rajoriya N, Goel A, Raymenants K, Hillaire S, Téllez L, Elkrief L, Procopet B, Orts L, Nery F, Shukla A, Larrue H, Degroote H, Aguilera V, Llop E, Turco L, Indulti F, Gioia S, Tosetti G, Bitto N, Becchetti C, Alvarado E, Roig C, Diaz R, Praktijnjo M, Konicek AL, Olivas P, Fortea JI, Masnou H, Puente A, Ardèvol A, Navascués CA, Romero M, Scheiner B, Semmler G, Mandorfer M, Damiao F, Baiges A, Ojeda A, Simón M, González C, Díaz A, García A, De Gottardi A, Hernández M, Genescà J, Drilhon N, Ferreira CN, Reiberger T, Rodríguez M, Morillas RM, Crespo J, Trebicka J, Bañares R, Villanueva C, et al. **JOURNAL OF HEPATOLOGY**. 2025; 82(1) DOI: 10.1016/j.jhep.2024.07.035. PMID:39181213. IF:33,000 (Q1/1D).
 - **Optimising trial design for cardiogenic shock: insights from the sixth Critical Care Clinical Trialists Workshop.** Kimmoun A, O'Brien C, Blumer V, Wenzl FA, Pöss J, Zeymer U, Moller JE, Aissaoui N, Sinha SS, Combes A, Sato N, Sionis A, Soussi S, Price S, Monroe RE, Mathew R, Mebazaa A. **Lancet Respiratory Medicine**. 2025; 13(9) DOI:10.1016/S2213-2600(25)00084-0. PMID:40339587. IF:32,800 (Q1/1D).
 - **Telomere attrition becomes an instrument for clonal selection in aging hematopoiesis and leukemogenesis.** Mcloughlin MA, Kovilakam SC, Dunn WG, Gu MX, Tobin J, Pershad Y, Williams N, Leongamornlert D, Dawson K, Bond L, Marando L, Wen S, Wilson R, Valenzano G, Symeonidou V, Rak J, Damaskou A, Gozdecka M, Liu XX, Barcena C, Nomdedeu J, Costeas P, Dimitriou ID, Fiorillo E, Orrù V, de Almeida JG, Mckerrell T, Cullen M, Mohorianu I, Foukaneli T, Warren AJ, Wong C, Follows G, Godfrey AL, Gudgin E, Cucca F, McKinney E, Baxter EJ, Gerstung M, Mitchell J, Wiseman D, Bick AG, Fabre M, Quiros PM, Nangalia J, Kar S, Vassiliou GS. **NATURE GENETICS**. 2025; 57(9) DOI:10.1038/s41588-025-02296-x. PMID:40877435. IF:29,000 (Q1/1D).
 - **Transferability of European-derived Alzheimer's disease polygenic risk scores across multiethnic populations.** Nicolas A, Sherva R, Grenier B, Kim Y, Kikuchi M, Timsina J, de Rojas I, Dalmaso MC, Zhou XP, Le Y, Arboleda CE, Bicalho M, Guerchet M, van der Lee S, Goss M, Castillo A, Bellenguez C, Küçükali F, Satizabal CL, Fon-

3.2. Top Scientific Articles

- gang B, Yang Q, Peters O, Schneider A, Dichgans M, Rujescu D, Scherbaum N, Deckert J, Riedel S, Hausner L, Molina L, Duezel E, Grimmer T, Wiltfang J, Heilmann S, Moebus S, Teges T, Scarneas N, Dols O, Moreno F, Pérez J, Bullido MJ, Pastor P, Sánchez R, Alvarez V, et al. **NATURE GENETICS**. 2025; 57(7) DOI:10.1038/s41588-025-02227-w. PMID:40533518. IF:29,000 (Q1/1D).
- **European Association of Urology-European Society of Paediatric Urology Guidelines on Paediatric Urology: Summary of 2024 Updates. Part II.** Skotta M, Kennedy U, Gnech M, van A, Bujons A, Hoenf L', Rawashdeh YF, Silayg MS, O'Kellyh F, Quaedackers J, Pakkasjarvij N, Yuan YH, Burgu B, Castagnetti M, Bogaertp G, Radmayrq C. **EUROPEAN UROLOGY**. 2025; 88(2) DOI: 10.1016/j.eururo.2025.02.022. PMID:40118740. IF:25,200 (Q1/1D).
 - **A Systematic Review of Novel Intravesical Approaches for the Treatment of Patients with Non-muscle-invasive Bladder Cancer.** Ghodoussipour S, Bivalacqua T, Bryan RT, Li RG, Mir MC, Palou J, Psutka SP, Sundi D, Tyson MD, Inman BA. **EUROPEAN UROLOGY**. 2025; 88(1) DOI: 10.1016/j.eururo.2025.02.010. PMID:40253283. IF:25,200 (Q1/1D).
 - **Robot-assisted Kidney Transplantation: The 8-year European Experience.** Territo A, Afferi L, Musquera M, Sopena JMG, Pecoraro A, Campi R, Gallioli A, Etcheverry B, Prudhomme T, Vangeneugden J, Ortved M, Roder A, Zeuschner P, Volpe A, Garcia R, Kocak B, Mirza I, Stockle M, Canda E, Fornara P, Rohrsted M, Doumerc N, Deaestecker K, Serni S, Vigues F, Alcaraz A, Breda A. **EUROPEAN UROLOGY**. 2025; 87(4) DOI: 10.1016/j.eururo.2024.12.005. PMID:39794184. IF:25,200 (Q1/1D).
 - **Decrease in Fracture Rate with Mandatory Bone-protecting Agents in the EORTC 1333/PEACE-3 Trial Comparing Radium-223 Combined with Enzalutamide Versus Enzalutamide Alone: A Safety Analysis.** Gillessen S, Tombal B, Turco F, Choudhury A, Rodriguez A, Gallardo E, Velho PI, Nolè F, Cruz F, Lorient Y, McDermott R, Roumequere T, Daugaard G, Yamamura R, Bompas E, Maroto P, Polo MH, da KM, Preto DD, Skoneczna I, Lecouvet F, Coens C, Fournier B, Saad F. **EUROPEAN UROLOGY**. 2025; 87(3) DOI: 10.1016/j.eururo.2024.11.027. PMID:39827019. IF:25,200 (Q1/1D).
 - **Evaluation of mobile health technology combining telemonitoring and teleintervention versus usual care in vulnerable-phase heart failure management (HERMeS): a multicentre, randomised controlled trial.** Yun S, Comín J, Calero E, Hidalgo E, José N, Marcos MC, Soria T, Llàcer P, Fernández C, Garcia JM, Cruzado C, González A, García EM, Morales JL, Solé C, García E, Núñez J, Civera J, Fernández C, Faraudo M, Moliner P, Formiga F, Bagudá JD, Zegri I, Verdú JM, Vela E, Monterde D, Piera J, Carot G, Enjuanes C, HERMeS trial investigators GRP. **Lancet Digital Health**. 2025; 7(5):100866. DOI: 10.1016/j.landig.2025.02.006. PMID:40374486. IF:24,100 (Q1/1D).
 - **A multiomics approach reveals novel regulators of plasma factor V levels, highlighting CLEC4M as a clearance receptor.** Mohapatra AK, Vlieg AV, Kleber ME, Martinez A, Le NQ, Hindberg KD, Dursart P, Germain M, Thibord F, Deleuze JF, Delgado GE, Goumide L, Suchon P, Saut N, Souto JC, Butler LM, Soria JM, Hansen JB, März W, Rosendaal FR, Castoldi E, Peiretti F, Sabater M, Trégouët DA, Morange PE. **BLOOD**. 2025; 146(5) DOI: 10.1182/blood.2024027006. PMID:40359434. IF:23,100 (Q1/1D).
 - **HSP-CAR30 with a high proportion of less-differentiated T cells promotes durable responses in refractory CD30+lymphoma.** Caballero AC, Ujaldón C, Pujol P, Montserrat R, Guardiola M, Escudero E, Garcia I, Esquirol A, Martino R, Jara P, Ezquerro P, Soria JM, Iranzo E, Moreno ME, Riba M, Sierra J, Alvarez C, Escibà L, Briones J. **BLOOD**. 2025; 145(16) DOI:10.1182/blood.2024026758. PMID:39841453. IF:23,100 (Q1/1D).
 - **Effect of Dapagliflozin on Quality of Life of Patients with Aortic Stenosis Undergoing Transcatheter Aortic Valve Implantation.** Bonanad C, Blas SG, Amat I, Gonzalez R, Sanchis J, Otero DL, Franco LN, Gheorge L, Sanz J, Zorita CB, Romo AI, Garcia A, Vilalta V, Ojeda S, Fernandez GV, Soriano JGC, Cepas P, Rollán MS, Rios XF, Palma R, Reyes RM, Romaguera R, Avanzas P, Franco JA, Moreiras JM, Juanatey JRG, Tirado G, Calle G, Diez JL, Santos S, Erquicia PD, Garcia EM,

3.2. Top Scientific Articles

- Fernandez E, Pais JL, Gonzalo N, Barri AG, Asmarats L, Perez ML, Rodriguez LMD, Cobo M, Bermudez IG, Alvarez AG, Pavia PG, Fuster V, Ibanez B, Raposeiras S. **JACC-JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY**. 2025; 86(15) DOI: 10.1016/j.jacc.2025.07.051. PMID:41062227. IF:22,300 (Q1/1D).
- **Can ICD Electrograms Help Ventricular Tachycardia Ablation? Results From the Multicenter Randomized AIDEG-VTA Trial.** Criado J, Ortiz M, García J, Martínez JD, Font ER, Moreno J, López MA, Almor JM, Gil ML, Medina DG, Granell RR, Peinado RP, Gelizo VB, Muñoz JJS, Medina O, Díaz SA, Criado AI, Gonzalez JM, Merodio J, Almendral J. **JACC-JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY**. 2025; 85(11) DOI: 10.1016/j.jacc.2024.10.104. PMID:39772368. IF:22,300 (Q1/1D).
 - **The Oxytocin System and Implications for Oxytocin Deficiency in Hypothalamic-Pituitary Disease.** Aulinas A, Lawson EA. **ENDOCRINE REVIEWS**. 2025; 46(4) DOI:10.1210/endrev/bnaf008. PMID:39985439. IF:22,000 (Q1/1D).
 - **Prenatal phenol exposure and child behaviour: insights into the hypothalamic-pituitary-adrenal axis from two prospective mother-child cohorts.** Rolland M, Bustamante M, Jedy-nak P, Thomsen C, Sakhi AK, Foraster M, Gascon M, Gómez MD, Llorba E, Rivas I, Ouellet I, Ferrer M, Morillas A, Carras S, Bayat S, Lyon S, Pozo OJ, Vrijheid M, Sunyer J, Slama R, Dadvand P, Philippat C. **Lancet Planetary Health**. 2025; 9(12):101330. DOI: 10.1016/j.lanplh.2025.101330. PMID:41386271. IF:21,600 (Q1/1D).
 - **Air pollution and fetal brain morphological development: a prospective cohort study.** Gómez L, Zhao Y, Rivas L, Eixarch E, Domínguez C, Galmes T, Muniesa M, Zanini MJ, Domínguez A, Cirach M, Nieuwenhuijsen M, Basagaña X, Querol X, Foraster M, Bustamante M, Pujol J, Gascon M, Llorba E, Gómez MD, Dadvand P, Sunyer J. **Lancet Planetary Health**. 2025; 9(6) DOI:10.1016/S2542-5196(25)00093-2. PMID:40516539. IF:21,600 (Q1/1D).
 - **Plasma Phosphorylated Tau 217 to Identify Preclinical Alzheimer Disease.** Salvadó G, Janelidze S, Bali D, Dolado AO, Theriault J, Brum WS, Binette AP, Stomrud E, Mattsson N, Palmqvist S, Coomans EM, Teunissen CE, van der Flier WM, Rahmouni N, Benzinger TLS, Gispert JD, Blennow K, Dore V, Feizpour A, Rowe CC, Alcolea D, Fortea J, Villeneuve S, Johnson SC, Rosa P, Petersen RC, Jack CR, Schindler SE, Suárez M, Ossenkoppele R, Hansson O, ADNI ALFA PREVENT AD Study GRP. **JAMA Neurology**. 2025; 82(11) DOI:10.1001/ja-maneurol.2025.3217. PMID:40952756. IF:21,300 (Q1/1D).
 - **Residual Risk of Recurrent Stroke Despite Anticoagulation in Patients with Atrial Fibrillation: A Systematic Review and Meta-Analysis.** McCabe JJ, Cheung Y, Foley M, Brennan SO, Buckley J, Renom PC, Cassidy T, Collins R, Dolan E, Grosse GM, Harbison J, James K, Khadjooi K, Induruwa I, Katan M, Maher S, O'Connor M, O'Donnell M, Purroy F, Synott P, Kelly PJ. **JAMA Neurology**. 2025; 82(7) DOI:10.1001/ja-maneurol.2025.1337. PMID:40394992. IF:21,300 (Q1/1D).
 - **Disease Severity Staging System for NOTCH3-Associated Small Vessel Disease, Including CADASIL.** Gravesteijn G, Rutten JW, Cerfontaine MN, Hack RJ, Liao YC, Jolly AA, Guey S, Hsu SL, Park JY, Yuan Y, Kopczak A, Rifino N, Neilson SJ, Poggesi A, Shourav M, Saito S, Ishiyama H, Mayoral AD, Nogueira R, Muino E, Andersen P, De Stefano N, G, Sukhonpanich N, Mele F, Park A, Lee JS, Rodriguez M, Vonk SJJ, Brodtmann A, Boerjesson A, Pantoni L, Fernandez I, Silva AR, Montanaro V, Kalaria RN, Lopercolo D, et al. Oberstein S. **JAMA Neurology**. 2025; 82(1) DOI:10.1001/ja-maneurol.2024.4487. PMID:39610302. IF:21,300 (Q1/1D).
 - **European Society of Intensive Care Medicine Clinical Practice Guideline on fluid therapy in adult critically ill patients: Part 3-fluid removal at de-escalation phase.** Ostermann M, Alsham-si F, Raventos AA, Cecconi M, Ichai C, Jones C, Malbrain MLNG, Monnet X, Nalos M, Peng ZY, Pfortmueller CA, Prowle J, Ranzani O, Shankar M, Wong A, Moller MH, De Backer D, European Soc Intensive Care M. **INTENSIVE CARE MEDICINE**. 2025; 51(10) DOI:10.1007/s00134-025-08058-x. PMID:40828463. IF:21,200 (Q1/1D).
 - **Identification and validation of robust hospital-acquired pneumonia subphenotypes associated with all-cause mortality: a multi-cohort**

3.2. Top Scientific Articles

- derivation and validation.** Martin FP, Poulain C, Mulier JH, Motos A, Gourain V, Ogan I, Montassier E, Launey Y, Lasocki S, Cinotti R, Fizelier CD, Ranzani O, Reyes LF, Martin I, Derde L, Torres A, Cremer O, Roquilly A. **INTENSIVE CARE MEDICINE.** 2025; 51(4) DOI:10.1007/s00134-025-07884-3. PMID:40261385. IF:21,200 (Q1/1D).
- **Pirfenidone in post-COVID-19 pulmonary fibrosis (FIBRO-COVID): a phase 2 randomised clinical trial.** Bermudo G, Del Rio B, Vicens V, Bordas J, Hernández M, Valenzuela C, Laporta R, Bobillo JR, Portillo K, Millán P, Balcells E, Badenes D, Bolivar S, Rodríguez JA, Ramirez CL, Tomás L, Roitegi KFD, Sellarés J, Castillo D, González J, Barril S, Gutiérrez Y, Caballero P, Alarcon J, Peñafiel J, Sanz J, Blavia R, Caupena C, Segovia P, Santos S, Ferrer A, Badia MB, Hereu P, Fuentes M, Montes A, Franquet T, Luburich P, Molina M. **EUROPEAN RESPIRATORY JOURNAL.** 2025; 65(4):2402249. DOI:10.1183/13993003.02249-2024. PMID:40154560. IF:21,000 (Q1/1D).
 - **EULAR recommendations for the treatment of systemic sclerosis: 2023 update.** Del Galdo F, Lescoat A, Conaghan PG, Bertoldo E, Colic J, Santiago T, Suliman YA, Matucci M, Gabrielli A, Distler O, Hoffmann AM, Castellví I, Balbir A, Vonk M, Ananyeva L, Rednic S, Tarasova A, Ostojic P, Boyadzhieva V, El Aoufy K, Farrington S, Galetti I, Denton CP, Kowal O, Mueller U, Allanore Y. **ANNALS OF THE RHEUMATIC DISEASES.** 2025; 84(1) DOI:10.1136/ard-2024-226430. PMID:39874231. IF:20,600 (Q1/1D).
 - **Total Neoadjuvant Therapy for Locally Advanced Rectal Cancer.** Audisio A, Gallio C, Velenik V, Meillat H, Ruiz E, Riesco MC, Alecha JS, Rasschaert G, Carvalho C, Randrian V, Kirac I, Hernando J, Artac M, O'Connor JM, Waldhorn I, Braam PM, Shamseddine A, Moretto R, de la Pinta C, De Felice F, Dulskas A, Lopez DP, Vanden A, Bock F, Deleporte A, van den Eynde M, Geboes KP, Loi M, Messina M, Houlze C, Puccini A, Pastorino A, Papamichael D, Fiore M, Sur D, Eid M, Antoun C, et al. **JAMA Oncology.** 2025; 11(9) DOI:10.1001/jamaoncol.2025.2026. PMID:40638097. IF:20,100 (Q1/1D).
 - **Domain mapping of disease mutations reveals pathogenic SORL1 variants in Alzheimer's disease.** Andersen OM, de Waal MWJ, Monti G, Tesi N, Jensen A, De Geus C, van R, Vogel M, Ahmad S, Amin N, Amouyel P, Beecham GW, Bellenguez C, Berr C, Bis JC, Boland A, Bossù P, Bouwman F, Bras J, Charbonnier C, Clarimon J, Cruchaga C, Daniele A, Dartigues JF, Debette S, Deleuze JF, Denning N, Destefano AL, Dols O, van CM, Farrer LA, Fernández MV, van der Flier WM, Fox NC, Galimberti D, Genin E, Gille JJP, Grenier B, et al. **Molecular Neurodegeneration.** 2025; 20(1):122. DOI:10.1186/s13024-025-00907-z. PMID:41327266. IF:17,500 (Q1/1D).
 - **Large-scale CSF proteome profiling identifies biomarkers for accurate diagnosis of frontotemporal dementia.** Hok YS, Vermunt L, Peeters CFW, van der Ende EL, de Boer SCM, Meeter LH, de Houwer J, Seelaar H, van JC, Hu WT, Lleó A, Alcolea D, Engelborghs S, Sieben A, Chen A, Irwin DJ, van der Flier WM, Pijnenburg Y, Teunissen CE, del Campo M. **Molecular Neurodegeneration.** 2025; 20(1):93. DOI:10.1186/s13024-025-00882-5. PMID:40866991. IF:17,500 (Q1/1D).
 - **Depressive Symptoms and Amyloid Pathology.** Wiels WA, Oomens JE, Engelborghs S, Baeken C, von C, Boada M, Didic M, Dubois B, Fladby T, van der Flier WM, Frisoni GB, Froehlich L, Gill KD, Grimmer T, Hildebrandt H, Hort J, Itoh Y, Iwatsubo T, Klimkowicz A, Lee DY, Lleo A, Martinez P, de Mendonca A, Meyer PT, Kapaki EN, Parchi P, Pardini M, Parnetti L, Popp J, Rami L, Reiman EM, Rinne JO, Rodrigue KM, Sanchez P, Santana I, Sarazin M, Scarmeas N, Skoog I, Snyder PJ, Sperling RA, Villeneuve S, Wallin A, Wiltfang J, Zetterberg H, Ossenkoppele R, Verhey FRJ, Vos SJB, Visser PJ, Jansen WJ. **JAMA Psychiatry.** 2025; 82(3) DOI:10.1001/jamapsychiatry.2024.4305. PMID:39841452. IF:17,100 (Q1/1D).
 - **Alcohol-associated liver disease: Natural history, management, and novel targeted therapies.** Alvarado E, Pose E, Gratacós J, Clemente A, López H, Bataller R. **Clinical and Molecular Hepatology.** 2025; 31 DOI:10.3350/cmh.2024.0709. PMID:39481875. IF:16,900 (Q1/1D).
 - **Management Indicator in Type 1 Diabetes in Pregnancy.** Meek CL, Feig DS, Scott EM, Corcoy R, Murphy HR, CONCEPTT GRP. Lack of Validity of the Glucose **DIABETES CARE.** 2025; 48(8) DOI:10.2337/dc24-2494. PMID:40173096. IF:16,600 (Q1/1D).

3.2. Top Scientific Articles

- **Hemodynamic effects of carvedilol plus simvastatin in cirrhosis with severe portal hypertension and suboptimal response to β -blockers: A double-blind, placebo-controlled, randomized trial.** Alvarado E, Brujats A, Puente A, Ardevol A, Rodríguez A, Fajardo J, Pavel O, García M, Aracil C, Poca M, Cuyàs B, Cantó E, Montañés R, García A, Escorsell A, Torras X, Villanueva C. **HEPATOLOGY**. 2025; 82(1) DOI:10.1097/HEP.0000000000001148. PMID:39509369. IF:15,800 (Q1/1D).
- **Sources of essential lipids for *Mycoplasma pneumoniae* via P116 to target liver and atherosclerotic lesions.** Vizarraga D, Marcos M, Rotllan N, Martín J, Santos D, Camacho M, Soto B, Velasco L, Guerra P, Pareja F, Collantes M, Wu WL, Rodríguez I, Serrano L, Piñol J, Fita I, Escolà JC. **Nature Communications**. 2025; 16(1):11159. DOI:10.1038/s41467-025-66129-5. PMID:41402265. IF:15,700 (Q1/1D).
- **Deciphering the role of complement system genes in pancreatic cancer susceptibility and prognosis.** Langtry A, Rabadan R, Alonso L, Filip I, Sabroso S, Moreno A, Lawlor R, Carrato A, Alvarez R, Iglesias M, Molero X, Löhr MJ, Michalski CW, Perea J, O'Rorke M, Barberà VM, Tardon A, Farré A, Muñoz L, Crnogorac T, Domínguez E, Gress TM, Greenhalf W, Sharp L, Balsells J, Costello E, Kleeff J, Kong B, Mora J, O'Driscoll D, Scarpa A, Ye WM, Real FX, de Maturana EL, Malats N, Gomez P, Molina E, Márquez M, Milne R, Alfaro A, et al. **Nature Communications**. 2025; 16(1):10769. DOI:10.1038/s41467-025-65811-y. PMID:41315260. IF:15,700 (Q1/1D).
- **Synaptic proteome diversity is shaped by the levels of glutamate receptors and their regulatory proteins** Reig R, del Castillo D, Burgas A, Arco D, Zerpa O, Ramos D, Picañol J, Castellanos A, Soto D, Roher N, Sindreu C, Bayés A. **Nature Communications**. 2025; 16(1):10487. DOI:10.1038/s41467-025-65490-9. PMID:41290593. IF:15,700 (Q1/1D).
- **Plasma p-tau217 as a biomarker of Alzheimer's disease pathology in individuals with Down syndrome.** Huber H, Arranz J, Arslan B, Leuzy A, Kittel O, Di G, Benejam B, Videla L, Barroeta I, Soriano LD, Maure L, Rodríguez I, Infante J, Illán I, Bejanin A, Montoliu L, Lleo A, Carmona M, Alcolea D, Blennow K, Zetterberg H, Fortea J, Ashton NJ. **Nature Communications**. 2025; 16(1):9900. DOI:10.1038/s41467-025-65882-x. PMID:41213934. IF:15,700 (Q1/1D).
- **Impaired cholesterol and LDL uptake pathways in the development of oncological and cardiovascular diseases.** Curco AS, García E, Polishchuk A, La chica MT, Llorente V. **SEMINARS IN CANCER BIOLOGY**. 2025; 116 DOI: 10.1016/j.semancer.2025.09.004. PMID:40998097. IF:15,700 (Q1/1D).
- **Lipids and lipoproteins in the interstitial tissue fluid regulate the formation of dysfunctional tissue-resident macrophages: Implications for atherogenic, tumorigenic, and obesogenic processes.** Lee M, Jauhiainen M, Kovanen PT, Escolà JC. **SEMINARS IN CANCER BIOLOGY**. 2025; 114 DOI: 10.1016/j.semancer.2025.06.008. PMID:40545184. IF:15,700 (Q1/1D).
- **Neural correlates of human fear conditioning and sources of variability in 2199 individuals.** Radua J, Savage HS, Vilajosana E, Jamieson A, Abler B, Åhs F, Beckers T, Cardoner N, Cisler JM, Diniz JB, Bach DR, Elsenbruch S, Greening SG, Holt DJ, Kaczkurkin AN, Keil A, Kindt M, Koch K, LaBar KS, Lam CL, Larson CL, Lonsdorf TB, Merz CJ, McLaughlin KA, Neria Y, Pine DS, van CM, Shackman AJ, Soriano C, Spoormaker VI, Stout DM, Straube B, Straube T, Tuominen L, Visser RM, Ahumada L, Arolt V, Batistuzzo MC, et al. **Nature Communications**. 2025; 16(1):7869. DOI:10.1038/s41467-025-63078-x. PMID:40849409. IF:15,700 (Q1/1D).
- **Machine learning in Alzheimer's disease genetics.** Bracher M, Melograna F, Ulm B, Belenguez C, Grenier B, Duroux D, Nevado AJ, Holmans P, Tijms BM, Hulsman M, de Rojas I, Campos R, van der Lee S, Castillo A, Küçükali F, Peters O, Schneider A, Dichgans M, Rujescu D, Scherbaum N, Deckert J, Riedel S, Hausner L, Molina L, Düzel E, Grimmer T, Wiltfang J, Heilmann S, Moebus S, Teges T, Scarmeas N, Dols O, Moreno F, Pérez J, Bullido MJ, Pastor P, Sánchez R, Alvarez V, Boada M, García P, Puerta R, Mir P, Real LM, et al. **Nature Communications**. 2025; 16(1):6726. DOI:10.1038/s41467-025-61650-z. PMID:40691194. IF:15,700 (Q1/1D).

3.2. Top Scientific Articles

- **Proteomic analysis of Down syndrome cerebrospinal fluid compared to late-onset and autosomal dominant Alzheimer's disease.** Montoliu L, Bian SJ, Dammer EB, Alcolea D, Sauer M, Martá M, Ashton NJ, Belbin O, Fuchs J, Watson CM, Ping LY, Duong DM, Nilsson J, Barroeta I, Lantero J, Videla L, Benejam B, Roberts BR, Blennow K, Seyfried NT, Levey AI, Carmona M, Gobom J, Lleó A, Wisniewski T, Zetterberg H, Fortea J, Johnson E. **Nature Communications.** 2025; 16(1):6003. DOI:10.1038/s41467-025-61054-z. PMID:40595720. IF:15,700 (Q1/1D).
- **Safety, immunogenicity, and effect on viral rebound of HTI vaccines combined with a TLR7 agonist in early-treated HIV-1 infection: a randomized, placebo-controlled phase 2a trial.** Bailón L, Moltó J, Curran A, Cadiñanos J, de Quirós JCLB, de los Santos I, Ambrosioni J, Imaz A, Benet S, Suanzes P, Navarro J, González J, Busca C, Pérez L, Berenguer J, García LJ, Mejía G, Miró JM, Scévola S, Moreno S, Domingo P, Tian Y, Frankot M, Lim D, Cai YH, Vendrame E, Guo S, Wallin JJ, Geleziunas R, Sengupta D, Alarcón Y, Leal I, Aranguen A, Garcia M, McGowan I, Brander C, Arribas JR, Mothe B, AELIX GRP. **Nature Communications.** 2025; 16(1):2146. DOI: 10.1038/s41467-025-57284-w. PMID:40038256. IF:15,700 (Q1/1D).
- **Increased plasma DOPA decarboxylase levels in Lewy body disorders are driven by dopaminergic treatment.** Bolsewig K, Willemse E, Sánchez P, Rábano A, Martínez M, Doecke JD, Bellomo G, Vermunt L, Alcolea D, Halbgebauer S, 't SI, Mattsson N, Veverova K, Fowler CJ, Boonkamp L, Koel M, Hussainali Z, Ruiters DN, Gaetani L, Toja A, Fortea J, Pijnenburg Y, Lemsstra AW, van der Flier WM, Hort J, Otto M, Hansson O, Parnetti L, Masters CL, Lleó A, Teunissen CE, Milán MD. **Nature Communications.** 2025; 16(1):1139. DOI:10.1038/s41467-025-56293-z. PMID:39881147. IF:15,700 (Q1/1D).
- **Restoration of CB1 receptor function in hippocampal GABAergic neurons rescues memory deficits in Huntington's disease models.** Di N, de Tena IB, Sanchez A, Pereda A, Enfedaque F, González C, Rio LMM, Bortolozzi A, Rodriguez R, Costas C, Molina L, Vazquez A, Ozaita A, Guzmán M, Perea G, Ginés S. **Translational Neurodegeneration.** 2025; 14(1):44. DOI:10.1186/s40035-025-00500-w. PMID:40855505. IF:15,200 (Q1/1D).
- **Effects of a Hypotension-Avoidance Versus a Hypertension-Avoidance Strategy on Neurocognitive Outcomes After Noncardiac Surgery.** Marcucci M, Chan MTV, Painter TW, Efremov S, Aguado HJ, Astrakov SV, Kleinlugtenbelt YV, Patel A, Cata JP, Amir M, Kirov M, Leslie K, Ducepe E, Borges FK, de Nadal M, Tandon V, Landoni G, Likhvantsev VV, Lomivorotov V, Sessler DI, Martínez MJ, Xavier D, Fleischmann E, Wang CY, Meyhoff CS, Wittmann M, Torres D, Highton D, et al. **ANNALS OF INTERNAL MEDICINE.** 2025; 178(7) DOI:10.7326/ANNALS-24-02841. PMID:40456161. IF:15,200 (Q1/1D).
- **Guidelines International Network: Principles for Use of Artificial Intelligence in the Health Guideline Enterprise.** Sousa B, Marques M, Neumann I, Chi Y, Nowak AJ, Reinap M, Awad M, Nothacker M, Trucl M, Brozek J, Alonso P, Wiercioch W, Qaseem A, Akl EA, Schünemann HJ, Board Trustees Guidelines Int Network 2024. **ANNALS OF INTERNAL MEDICINE.** 2025; 178(3) DOI:10.7326/ANNALS-24-02338. PMID:39869912. IF:15,200 (Q1/1D).

1. Agache I, Balbin GJ, **Saenz FKF, Sola I, Alonso P**, Haahtela T, Traidl C, O'Mahony L, Damialis A, Lauerma A, Nadeau KC, Pali I, Palomares O, Renz H, Schwarze J, Vercelli D, Canelo C, Jutel M, Akdis CA. Impact of Residential Greenness Exposure on the Development of Allergic Diseases and Asthma and on Asthma Control-A Systematic Review for the EAACI Guidelines of Environmental Science for Allergic Diseases and Asthma. *ALLERGY*. 2025; 80(11). DOI:10.1111/all. 16653. PMID:40632014. IF:12,000 (Q1/1D)
2. Agache I, Salazar J, Rodriguez Y, **Saenz FKF**, Haahtela T, Traidl C, Damialis A, Vecillas L, Giovannini M, Nadeau KC, Pali I, Palomares O, Renz H, Schwarze J, Pinto BS, Urrutia M, Venter C, Vercelli D, Winders T, **Sola I, Alonso P, Canelo C**, Jutel M, Akdis CA. The Impact of Rhinovirus, Syncytial Respiratory Virus and Helminth Infection on the Risk of New-Onset Asthma and Other Allergic Conditions-A Systematic Review for the EAACI Guidelines on Environmental Science for Allergic Diseases and Asthma. *ALLERGY*. 2025; 80(7). DOI:10.1111/all. 16611. PMID:40495394. IF:12,000 (Q1/1D).
3. Albisinni S, Orecchia L, Mjaess G, Aoun F, Del Giudice F, Antonelli L, Moschini M, Soria F, Mertens LS, **Gallioli A**, Marcq G, Pradere B, Bochner B, Breda A, Briganti A, Catto J, Decaestecker K, Gontero P, Kamat A, Lambert E, Minervini A, Motttrie A, Roupret M, Shariat S, Wijburg C, Rieken M, Wiklund P, Mari A; EAU-YAU Urothelial Carcinoma working group and ERUS society. Enhanced Recovery After Surgery for patients undergoing radical cystectomy: Surgeons' perspectives and recommendations ten years after its implementation. *Eur J Surg Oncol*. 2025 Mar;51(3):109543. doi: 10.1016/j.ejso.2024.109543. Epub 2024 Dec 19. PMID: 39799856.
4. Borger MA, de Waha S, Marsan NA, Zühlke L, Mestres CA, Fosbol E, Bonaros N, Pizzi MN, Brida M, **Sionis A**, Delgado V, Task Force ESC Guidelines Management E. Key priorities for the implementation of the 2023 ESC Guidelines for the management of endocarditis in low-resource settings. *European Heart Journal- Quality of Care and Clinical Outcomes*. 2025; 11(5). DOI:10.1093/ehjqcco/qcae106. PMID:40152919. IF:4,600 (Q1/2D).
5. **Canelo C, Alonso P**, Muratov S, Tarride JE, Dimitrova N, Giusti F, Borisch B, Castells X, Duffy SW, Fitzpatrick P, Follmann M, Giordano L, Hofvind S, Lebeau A, Quinn C, Torresin A, Rossi PG, Schünemann H, Nyström L, Broeders M, ECIBC G. Evaluation of breast cancer screening programmes: Candidate performance indicators and their association with breast cancer mortality. *BREAST*. 2025; 84:104621. DOI:10.1016/j.breast.2025.104621. PMID:41202390. IF:7,900 (Q1/1D).
6. **Chico A**, Pazos M, Nattero L, Simó O, Durán M, Ugarte E, Aguilera E, Andía V, Moreno J, Granados M, Rebollo A, Fernández E, Quirós C, Alpañés M, Márquez R, Beato P, Lado O, Picón M, Spanish S, Diabet Technology Working GRP. Beyond glycemic metrics: Real-world benefits of connected insulin pens in type 1 diabetes. *DIABETES RESEARCH AND CLINICAL PRACTICE*. 2025;226:112377. DOI:10.1016/j.diabres.2025.112377. PMID:40695413. IF:7,400 (Q1/1D).
7. Cimerman J, Fernandez C, Forero D, Garrillo J, Rodriguez A, Torremorell MD, **Martínez Peralta S**, Ribot T, Bavestrello P, Cano C, Nitola-Mendoza L, Bleda M, Rojas YL, Salvado N, Teran CM, Antonio M, Duran A, Sendros MJ. ICO-ICS Praxi per a l'atenció al final de la vida, Institut Català d'Oncologia (ICO) Institut Català de la Salut (ICS), 2025, ISBN: 978-84-128170-7-2. <http://hdl.handle.net/11351/14111>
8. de Miguel-Díez J, Torres-Castro R, Sanz Herrero F, Menéndez Villanueva R, Solís Gómez B, Quirós Fernández S, Pérez Rojo R, Mora Cuesta VM, Entrenas Castillo M, Serrano Fernández L, Cabrera Martínez MM, Mediano O, García-Ortega A, García Rivero JL, de la **Rosa-Carrillo D**. SEPAR Recommendations on Vaccination for Chronic Respiratory Patients. *Arch Bronconeumol*. 2025 Jun 17:S0300-2896(25)00218-2. English, Spanish. doi: 10.1016/j.arbres.2025.06.005. Epub ahead of print. PMID: 40592680.
9. Del Galdo F, Lescoat A, Conaghan PG, Bertoldo E, Čolić J, Santiago T, Suliman YA, Matucci-Cerinic M, Gabrielli A, Distler O, Hoffmann-Vold AM, **Castellví I**, Balbir-Gurman A, Vonk M, Ananyeva L,

- Rednic S, Tarasova A, Ostojic P, Boyadzhieva V, El Aoufy K, Farrington S, Galetti I, Denton CP, Kowal-Bielecka O, Mueller-Ladner U, Allanore Y. EULAR recommendations for the treatment of systemic sclerosis: 2023 update. *Ann Rheum Dis*. 2025 Jan;84(1):29-40. doi: 10.1136/ard-2024-226430. Epub 2025 Jan 2. PMID: 39874231.
10. Domínguez-González C, Barba Romero MÁ, Caballero Eraso C, de Las Heras J, Farrero Muñoz E, García-Campos Ó, González M, Grau JM, Hernández-Voth A, Juntas Morales R, León Hernández JC, Ley Martos M, López-Padilla D, Muelas N, Nascimento A, **Olivé M**, Paradas C, Pardo Fernández J, Pascual SI, Pitarch I, Sancho J, **Díaz-Manera J**. Recommendations for the diagnosis, treatment, and follow-up of late-onset Pompe disease. *Neurologia (Engl Ed)*. 2025 Dec 24:501933. doi: 10.1016/j.nrleng.2025.501933. Epub ahead of print. PMID: 41453611.
 11. Escalada San Martín FJ, Bretón Lesmes I, Gómez Peralta F, Merino Torres JF, Pomares Gómez F, **Chico Ballesteros A**, González-Clemente JM, González Pérez de Villar N, Morales Portillo C, Pinés Corrales PJ, Ricart Engel W, Benedito Pérez de Inestrosa MT, Miranda Fernández-Santos C, Arranz E, Fontán Vinagre G, Perán JF, Sedisa, Martínez Brocca MA. Executive summary of the document 'Diabetes Day Hospital. Value proposition. *Endocrinol Diabetes Nutr (Engl Ed)*. 2025 Oct;72(8):501601. doi: 10.1016/j.endien.2025.501601. Epub 2025 Sep 12. PMID: 40946027.
 12. **Faba OR**, Boissier R, Budde K, Figueiredo A, Hevia V, García EL, Regele H, Zakri RH, Olsburgh J, Bezuidenhout C, **Breda A**. European Association of Urology Guidelines on Renal Transplantation: Update 2024. *Eur Urol Focus*. 2025 Mar;11(2):365-373. doi: 10.1016/j.euf.2024.10.010. Epub 2024 Nov 2. PMID: 39489684.
 13. Fernández C, **Puig M**, Aguiló S, Rodríguez B, López MP, Capilla R, Ferré C, Mir M, Arnau I, Ruíz M, Martín E, Álvarez E, Sousa Y, Piñera P, Liñán M, Martín FJ, Castejón S, González JJ, Del Arco C. Recomendaciones del Grupo de Trabajo sobre Medicina Geriátrica de Urgencias de la Sociedad Española de Medicina de Urgencias y Emergencias sobre el cribado de fragilidad, valoración geriátrica e intervención en el Servicio de Urgencias (Recomendaciones GEM-SEMES). *Revista Española de Urgencias y Emergencias*. 2025; 4(3). DOI:10.55633/s3me/REUE021.2025.
 14. García MD, Cruzado JM, Farrero M, Peiró MTB, Crespo M, Jiménez JFD, Molina BD, Rivera CF, Bravo I, Jiménez VL, Melilli E, **Pérez SM**, Tamajón MLP, Sousa DR, Calabia ER, Marrero DH. Management of heart disease in renal transplant recipients: a national Delphi survey-based SET/SEC/SEN consensus document. *REVISTA ESPAÑOLA DE CARDIOLOGÍA*. 2025; 78(3). DOI:10.1016/j.rec.2024.09.008. PMID:39442797. IF:4,900 (Q1/2D).
 15. García MD, Farrero M, Blasco MT, Crespo M, Delgado J, Díaz B, Fernández C, Garrido IP, López V, Melilli E, **Mirabet S**, Pérez ML, Rangel D, Rodrigo E, Cruzado JM, Hernández D, Spanish T, Spanish N, Spanish Soc Cardiology SET SEC S. Management of Kidney Disease in Heart Transplant Patients: A National Delphi Survey-based Consensus Expert Paper. *TRANSPLANTATION*. 2025; 109(9). DOI:10.1097/TP.0000000000005302. PMID:39928546. IF:5,000 (Q1/1D).
 16. Gnech M, 't Hoen L, Radmayr C, Burgu B, Bogaert G, O'Kelly F, Castagnetti M, Quaedackers J, Silay MS, Kennedy U, van Uiter A, Skott M, Pakkasjärvi N, **Bujons A**, Yuan Y, Rawashdeh YF. Congenital Lower Urinary Tract Obstruction: Update and Summary of the European Association of Urology and European Society for Paediatric Urology Guidelines. *Eur Urol Focus*. 2025 May;11(3):519-527. doi: 10.1016/j.euf.2025.01.012. Epub 2025 Feb 4. PMID: 39909817.
 17. Gnech M, 't Hoen L, Skott M, Bogaert G, Castagnetti M, O'Kelly F, Quaedackers J, Rawashdeh YF, Kennedy U, van Uiter A, Yuan Y, Capecci M, Artoni A, Karaöz-Bulut G, Pakkasjärvi N, Burgu B, **Bujons A**, Silay MS, Radmayr C. Managing Preoperative Anxiety and Thromboprophylaxis in Children Undergoing Urological Procedures: An Update of the European Association of Urology/ European Society for Paediatric Urology Guidelines on Paediatric Urology. *Eur Urol Open Sci*. 2025 Apr 15;75:133-140. doi: 10.1016/j.euros.2025.02.006. PMID: 40291787; PMCID: PMC12032177.

18. Karagiannis T, Advani A, Davies MJ, Del Prato S, Dinneen SF, Kuss O, Lorenzoni V, Mathieu C, **Mauricio D**, Tankova T, Zaccardi F, Holt RIG, Tsapas A; EASD Guidelines Oversight Committee. European Association for the Study of Diabetes (EASD) Standard Operating Procedure for the development of guidelines. *Diabetologia*. 2025 Aug;68(8):1600-1615. doi: 10.1007/s00125-025-06370-1. Epub 2025 May 26. PMID: 40447848; PMCID: PMC12245959.
19. Lecube A, Lecube A, Azriel S, Barreiro E, Blay G, Carretero-Gómez J, Ciudin A, Fernández JM, Flores L, de Hollanda A, Martínez E, **Miñambres I**, Moizé V, Morales C, Ramírez V, Salvador J, Soler MJ, Supervía M, Valentí V, Vicente-Rodríguez G, Vilarrasa N, Malagón MM. The Spanish GIRO Guideline: A Paradigm Shift in the Management of Obesity in Adults. *Obes Facts*. 2025;18(4):375-387. doi: 10.1159/000544880. Epub 2025 Mar 29. PMID: 40159422; PMCID: PMC12055014.
20. Lei S, Zhang XY, Song LG, Wen JH, Zhang Z, Tian JQ, Yang R, Xu SH, Qiu SH, Macisaac RJ, Aleksova J, Mac F, Dupuis ME, Benaiges D, **Mauricio D**, Sommer AP, Barzilay JI, Gallagher JC, PanLL, Ji LL, Fang P, Li Y, Liu Q, Zhao JS, Xue Y, Shen YQ, Wang LM, Han JF, Liu GH. Expert consensus on vitamin D in osteoporosis. *Annals Of Joint*. 2025; 10:1. DOI:10.21037/aoj-24-48. PMID: 39981430.
21. Li R, Hensley PJ, Babjuk M, Bukavina L, Psutka SP, Lerner SP, O'Donnell MA, Lotan Y, Bree KK, **Redorta JP**, McConkey DJ, Lee BH, Mariappan P, Mertens LS, Soloway MS, Svatek RS, Tan WS, Williams SB, Gupta S, Buckley R, Kamat AM. Intermediate-risk Non-muscle-invasive Bladder Cancer: Recommendations for Definitions, Risk Stratification, Management Strategies, and Clinical Trial Design from the International Bladder Cancer Group. *Eur Urol Oncol*. 2025 Dec;8(6):1685-1695. doi: 10.1016/j.euo.2025.08.003. Epub 2025 Oct 10. PMID: 41076366.
22. Martin F, Lesmes IB, Peralta FG, Torres JFM, Gómez FP, **Ballesteros AC**, González JM, de VillarNGP, Portillo CM, Corrales PJP, Engel WR, de Inestrosa MTBP, Fernández CM, Arranz E, VinagreGF, Perán JF, S, Brocca M. Executive summary of the document 'Diabetes Day Hospital. Value proposition. *Endocrinología, Diabetes y Nutrición*. 2025; 72(8):501601. DOI:10.1016/j.endien.2025.501601. PMID: 40946027. IF:1,800 (Q3/8D).
23. Martínez-Brocca MA, Bellido V, Cardona-Hernández R, Castaño L, Conget I, Fernández A, Gómez Gila AL, Leiva-Gea I, **Mauricio D**. Executive summary. Screening, staging and follow-up of type 1 diabetes in preclinical stages: consensus of the scientific societies SED, SEEN and SEEP. *An Pediatr (Engl Ed)*. 2025 Nov;103(5):503944. doi: 10.1016/j.anpede.2025.503944. PMID: 41266045.
24. Mata Fernández C, **Sebio A**, Orcajo Rincón J, Martín Broto J, Martín Benlloch A, Marcilla Plaza D, López Pousa A, **Gracia Alegría I**, Giuppi M, Collado Ballesteros E, Bernabeu D, de Alava E, Valverde Morales C. Clinical practice guidelines for the treatment of Ewing sarcoma (Spanish Sarcoma Research Group-GEIS). *Clin Transl Oncol*. 2025 Mar;27(3):824-836. doi: 10.1007/s12094-024-03602-5. Epub 2024 Aug 19. PMID: 39158802; PMCID: PMC11914306.
25. Medina Á, **Muntañola A**, Crespo M, Ramírez Á, Hernández-Rivas JÁ, Abrisqueta P, Alcoceba M, Delgado J, de la Serna J, Espinet B, González M, Loscertales J, Serrano A, Terol MJ, Yáñez L, Bosch F; en nombre del Grupo Español de Leucemia Linfocítica Crónica (GELLC). Guidelines for the diagnosis and treatment of chronic lymphocytic leukaemia and small lymphocytic lymphoma from Chronic Lymphocytic Leukaemia Spanish Group (GELLC). *Med Clin (Barc)*. 2025 Mar 28;164(6):305-305.e17. English, Spanish. doi: 10.1016/j.medcli.2024.10.018. Epub 2025 Jan 10. PMID: 39799061.
26. Melmed S, di L, Fleseriu M, Mercado M, Karavitaki N, Gurnell M, Salvatori R, Tsagarakis S, Losa M, Maffei P, Pereira AM, Geer EB, Katznelson L, van der Lely AJ, Bollerslev J, Esposito D, **Webb SM**, Zatelli MC, Valassi E, Neggers S, Chanson P, Ho KKY, Ioachimescu AG, Biller BMK, Samson SL, Kaiser UB, Schilbach K, Luque RM, Casanueva FF, Shimon I, Boguszewski CL, Biermasz N, Colao A, Pirchio R, Lamberts SWJ, Kadioglu P, Buchfelder M, Frara S, Chiloiro S, Petersenn S, Gadelha MR, Puig M, Luger A, Brue T, Beckers A, Ferone D, Clemmons DR,

- Greenman Y, Marazuela M, Mortini P, Strasburger CJ, Giustina A. Consensus on acromegaly therapeutic outcomes: an update. *Nature Reviews Endocrinology*. 2025; 21(11). DOI:10.1038/s41574-025-01148-2. PMID:40804505. IF:40,000 (Q1/1D).
27. Miravittles M, Calle M, Molina J, Almagro P, Gómez JT, Trigueros JA, Sánchez-Angarita E, Cosío BG, Casanova C, López-Campos JL, Riesco JA, Simonet P, **Rigau D**, Iskakova A, Pastor Sanz M, Sobradillo P, Alcázar-Navarrete B, Garin N, Soler-Cataluña JJ. Update 2025 of the Spanish COPD Guidelines (GesEPOC): Pharmacological Treatment of Stable COPD. *Arch Bronconeumol*. 2025 Dec;61(12):766-782. English, Spanish. doi: 10.1016/j.arbres.2025.10.008. Epub 2025 Oct 14. PMID: 41198528.
 28. **Morales-Múnera CE**, Montoya F, de Loredó N, Sendagorta E. [Translated article] AEDV Expert Document on the Management of Ulcerative Venereal Infections. *Actas Dermosifiliogr*. 2025 Feb;116(2):T159-T168. English, Spanish. doi: 10.1016/j.ad.2024.11.012. Epub 2024 Nov 19. PMID: 39566736.
 29. Ochoa S, **Pousa E**, Barajas A, Grasa E, Peñades R, Crespo-Facorro B. Guía de manejo psicoterapéutico de personas con psicosis. UAB, Sant Pau, SJD, HVR, CIBERSAM. ES-NPR-2500050 v1.0. ES-NPSCZ-0102. 2025. https://peplau.es/wp-content/uploads/2025/04/guia_manejo_psicoterapeutico_3-final_vf.pdf
 30. Ostermann M, Alshamsi F, Artigas Raventos A, Cecconi M, Ichai C, Jones C, Malbrain MLNG, Monnet X, Nalos M, Peng Z, Pfortmueller CA, Prowle J, **Ranzani O**, Shankar-Hari M, Wong A, Møller MH, De Backer D; European Society of Intensive Care Medicine. European Society of Intensive Care Medicine Clinical Practice Guideline on fluid therapy in adult critically ill patients: Part 3-fluid removal at de-escalation phase. *Intensive Care Med*. 2025 Oct;51(10):1749-1763. doi: 10.1007/s00134-025-08058-x. Epub 2025 Aug 19. PMID: 40828463. IF:21,200 (Q1/1D).
 31. **Park HS**, Díaz Del Campo P, Plana MN, Polo y La Borda J, Guerra-Rodríguez M, Moreno M, Cañete JD. Efficacy of withdrawal or tapering of bDMARDs vs standard regimen in axial spondyloarthritis patients: systematic review and meta-analysis informing the update of the Spanish Society of Rheumatology Guideline. *Front Med (Lausanne)*. 2025 Sep 10;12:1621313. doi: 10.3389/fmed. 2025.1621313. PMID: 41001393; PMCID: PMC12457669. IF:3,000 (Q1/2D).
 32. Pedro J, Arrieta F, Botana M, Gimeno JA, Martínez JI, de Victoria E, Ribalta J, Sánchez V, **Pérez A**, Trabajo Enfermedad Cardiovasc Soc Española Diabet GRP. Lipid-lowering drug therapy for reducing cardiovascular risk in diabetes. A clinical view of the Cardiovascular Disease Working Group of the Spanish Diabetes Society. *Endocrinología, Diabetes y Nutrición*. 2025; 72(2):101523. DOI:10.1016/j.endien.2025.101523. PMID:39924389. IF:1,800 (Q3/8D).
 33. **Pilco-Terán M**, Shabaka A, Furlano M, Tato Ribera A, Galán Carrillo I, Gutiérrez E, Torra R, Fernández-Juárez G; en representación del Grupo de Trabajo de Enfermedades Renales Hereditarias (GTERH) y del Grupo de Trabajo de Enfermedades Glomerulares de la Sociedad Española de Nefrología (GLOSEN). Indications for genetic testing in adults with focal segmental glomerulosclerosis. *Nefrología (Engl Ed)*. 2025 Feb;45(2):135-149. doi: 10.1016/j.nefro.2025.02.001. Epub 2025 Feb 13. PMID: 39952830. IF:2,600 (Q2/4D).
 34. **Portella MJ**, Ribas M, Lombardia C, Álvarez A, Verges A, Hervas A, Bové A, et al. Pla d'atenció a les persones en l'espectre autista. Barcelona: Direcció General de Planificació en Salut; 2025; doi: 10.62727//DSalut//13391; <http://hdl.handle.net/11351/13391>
 35. Povedano Pandés M, **Rojas García R**, Querol **Gutiérrez L**, Rodríguez de Rivera FJ, Colomer Font C, Noé Sebastián E, Navarro Pérez MD, Juárez Belaunde A, Ferri Campos J, Guijarro Castro TC. Guía de recomendaciones para el diagnóstico y el tratamiento neurorrehabilitador de los estados secuelas pospoliomielíticos [Guide of recommendations for the diagnosis and neurorrehabilitative treatment of post-polio myelitic sequelae]. *Rev Esp Salud Pública*. 2025 Jun 18;99:e202506006. Spanish. PMID: 40530649; PMCID: PMC12175752.

36. **Puig L**, Carrascosa JM, Rivera R, **Vilarrasa E**, de la Cueva P, López-Ferrer A. Generalised Pustular Psoriasis: Review and Consensus of the Psoriasis Group of the Spanish Academy of Dermatology and Venereology. *Actas Dermosifiliogr.* 2025 Dec 8;117(3):104544. English, Spanish. doi: 10.1016/j.ad.2025.104544. Epub ahead of print. PMID: 41371399.
37. Ramos JA, Mora F, Arostegui S, **Cardoner N**, Etxeandia JI, Gómez R, Gómez M, Montes JM, Vieta E. Treatment-resistant depression and intranasal esketamine: Spanish clinical consensus on practical aspects. *EUROPEAN JOURNAL OF PSYCHIATRY.* 2025; 39(3):100313. DOI:10.1016/j.ejpsy.2025.100313. IF:1,500 (Q3/7D).
38. Rodríguez I, Ruiz E, Herrera S, Sabé N, Los I, Silva JT, Perez E, Machuca I, Alvarez R, Valerio M, Castón JJ, Aguilera V, Bodro M, Cano A, Cantón R, Carmona P, Carratalà J, Cordero E, Cruzado JM, Fariñas MC, Fernández M, Fondevila C, Fortún J, García MD, Gutiérrez A, Iturbe D, Justo I, Len O, López F, Oliva M, Martín P, Martínez L, Mazuecos A, **Mirabet S**, Muñoz P, Oliver A, Pérez MJ, Rodríguez J, San R, Sánchez J, Solé A, Verdú EV, Villa J, Torre J, Aguado JM. Management of multidrug-resistant gram-negative bacilli infections in adult solid organ transplant recipients: GESITRA-IC/SEIMC, CIBERINFEC, and SET recommendations update. *Transplantation Reviews.* 2025; 39(3):100937. DOI:10.1016/j.trre.2025.100937. PMID:40414085. IF:2,500 (Q1/1D).
39. Romero M, Escalada J, Noguerol M, **Pérez A**, Carretero J, Crespo J, Mascort JJ, Aguilar I, Tinahones F, Canones P, Gómez R, de Luis D, **Trullós IG**, Aller R, Rubio MA. Multidisciplinary clinical practice guideline for the management of hepatic metabolic steatosis. *Gastroenterología y Hepatología.* 2025; 48(8):502442. DOI:10.1016/j.gastrohep.2025.502442. PMID:40221023. IF:1,900 (Q3/7D).
40. **Serra-López J**, Miranda A, Soria A, López N, Castañón E, **Majem M**. Clinical practice guide for nurses to optimise comprehensive care of patients undergoing immunotherapy. *Enferm Clin (Engl Ed).* 2025 Nov-Dec;35(6):502193. doi: 10.1016/j.enfcle.2025.502193. Epub 2025 Apr 7. PMID: 40204238.
41. Sivera Mascaró R, García Sobrino T, Horga Hernández A, Pelayo Negro AL, Alonso Jiménez A, Antelo Pose A, Calabria Gallego MD, Casasnovas C, Cemillán Fernández CA, Esteban Pérez J, Fenollar Cortés M, Frassetto Carrera M, **Gallano Petit MP**, Giménez Muñoz A, Gutiérrez Gutiérrez G, Gutiérrez Martínez A, Juntas Morales R, Ciano-Petersen NL, Martínez Ulloa PL, Mederer Hengstl S, Millet Sancho E, Navacerrada Barrero FJ, Navarrete Faubel FE, Pardo Fernández J, Pascual Pascual SI, Pérez Lucas J, Pino Mínguez J, Rabasa Pérez M, Sánchez González M, Sotoca J, Rodríguez Santiago B, **Rojas García R**, **Turon-Sans J**, Vicent Carsí V, Sevilla Mantecón T. Clinical practice guidelines for the diagnosis and management of Charcot-Marie-Tooth disease. *Neurologia (Engl Ed).* 2025 Apr;40(3):290-305. doi: 10.1016/j.nrleng.2024.02.008. Epub 2024 Mar 1. PMID: 38431252.
42. Skott M, Kennedy U, Gnech M, van Uiter A, **Bujons A**, Hoen L, Rawashdeh YF, Silay MS, O'Kelly F, Quaedackers J, Pakkasjärvi N, Yuan Y, Burgu B, Castagnetti M, Bogaert G, Radmayr C. European Association of Urology-European Society of Paediatric Urology Guidelines on Paediatric Urology: Summary of 2024 Updates. Part II. *Eur Urol.* 2025 Aug;88(2):190-203. doi: 10.1016/j.eururo.2025.02.022. Epub 2025 Mar 20. PMID: 40118740.
43. Somani BK, Rassweiler J, Liatsikos E, Motttrie A, Knoll T, Bedke J, Bianchi G, Sarica K, Briganti A, Brouwers T, Breda A. European Association of Urology Policy on Telesurgery. *Eur Urol.* 2025 Oct;88(4):318-324. doi: 10.1016/j.eururo.2025.06.018. Epub 2025 Jul 19. PMID: 40685283.
44. Suárez-Calvet M, Abdelnour C, **Alcolea D**, Mendióroz-Iriarte M, Balasa M, Morenas-Rodríguez E, Puig-Pijoan A, Sánchez-Juan P, Villarejo A, Sánchez-Valle R; por el Grupo de trabajo en biomarcadores en sangre del Grupo de Estudio de Conducta y Demencias de la Sociedad Española de Neurología. Blood-based biomarkers for Alzheimer's disease: positioning document and usage recommendations from the Behavioural

- Neurology and Dementia Study Group of the Spanish Society of Neurology. *Neurologia* (Engl Ed). 2025 Sep;40(7):700-712. doi: 10.1016/j.nrleng.2025.07.004. Epub 2025 Jul 18. PMID: 40685136.
45. t Hoen LA, van Uitert A, Bussmann M, Bezuidenhout C, Ribal M, Canfield S, Yuan Y, Omar MI, Castagnetti M, Burgu B, O'Kelly F, Quaedackers J, Rawashdeh Y, Silay S, **Bujons A**, Bogaert G, Pakkasjarvi N, Skott M, Kennedy U, Gnech M, Radmayr C. Annual updates of the European Association of Urology - European Society for Pediatric Urology (EAU-ESPU) paediatric urology guidelines: Are large-language models (LLM) better than the usual structured methodology? *J Pediatr Urol*. 2025 Dec;21(6):1643-1649. doi: 10.1016/j.jpuirol.2025.05.030. Epub 2025 Jun 2. PMID: 40514273.
 46. **Torra R**, Lipska-Zietkiewicz B, Acke F, Antignac C, Becker JU, Cornec-Le Gall E, van Eerde AM, Feltgen N, Ferrari R, Gale DP, Gear S, Gross O, Haeberle S, Heidet L, Lennon R, Massella L, Pfau K, Pizarro MDPV, Topaloglu R, Wlodkowski T, Zealey H; ERKNet, ERA Genes&Kidney and ESPN Inherited renal disorders working group. Diagnosis, management and treatment of the Alport syndrome - 2024 guideline on behalf of ERKNet, ERA and ESPN. *Nephrol Dial Transplant*. 2025 May 30;40(6):1091-1106. doi: 10.1093/ndt/gfae265. PMID: 39673454; PMCID: PMC12209846. IF:5,600 (Q1/1D).
 47. Torres T, Brembilla NC, Langley RG, Warren RB, Thaçi D, Kolios AGA, Prinz JC, Londono-Garcia A, Nast A, Santin M, Goletti D, Abreu M, Spuls P, Boehncke WH, **Puig L**. Treatment of psoriasis with biologic and non-biologic targeted therapies in patients with latent tuberculosis infection or at risk for tuberculosis disease progression: Recommendations from a SPIN-FRT expert consensus. *J Eur Acad Dermatol Venereol*. 2025 Jan;39(1):52-69. doi: 10.1111/jdv.20287. Epub 2024 Aug 16. PMID: 39149807.
 48. Torres VE, Ahn C, Barten TRM, Brosnahan G, Cadnapaphornchai MA, Chapman AB, Cornec-Le Gall E, Drenth JPH, Gansevoort RT, Harris PC, Harris T, Horie S, Liebau MC, Liew M, Mallett AJ, Mei C, Mekahli D, Odland D, Ong ACM, Onuchic LF, Pei YP, Perrone RD, Rangan GK, Rayner B, **Torra R**, Balk EM, Gordon CE, Earley A, Mustafa RA, Devuyst O. KDIGO 2025 clinical practice guideline for the evaluation, management, and treatment of autosomal dominant polycystic kidney disease (ADPKD): executive summary. *Kidney Int*. 2025 Feb;107(2):234-254. doi: 10.1016/j.kint.2024.07.010. PMID: 39848746.
 49. Vaz-Salgado MA, Valverde-Morales C, Álvarez R, Asencio JM, Collado E, de Alava E, Díaz Beveridge R, Gómez-Mateo MC, Gracia Alegria I, Marquina G, Martín Broto J, Martínez-Trufero J, Narváez JA, Redondo A, **Sebio A**, Verges R, Viñals JM, García Del Muro X. Diagnosis and Therapy of Soft Tissue Sarcomas: Spanish Group for Research in Sarcomas (GEIS) Guidelines. *Cancers* (Basel). 2025 Sep 29;17(19):3158. doi: 10.3390/cancers17193158. PMID: 41097686; PMCID: PMC12523295.
 50. Wollenberg A, Kinberger M, Arents B, Aszodi N, Barbarot S, Bieber T, Brough HA, Calzavara-Pinton P, Christen-Zaech S, Deleuran M, Dittmann M, Fosse N, Gáspár K, Gerbens LAA, Gieler U, Girolomoni G, Gregoriou S, Holland S, Mortz CG, Nast A, Nygaard U, Reh binder EM, Ring J, Rossi M, **Serra-Baldrich E**, Simon D, Szalai ZZ, Sze pietowski JC, Torre lo A, Werfel T, Werner RN, Flohr C. European Guideline (EuroGuiDerm) on atopic eczema: Living update. *J Eur Acad Dermatol Venereol*. 2025 Sep;39(9):1537-1566. doi: 10.1111/jdv.20639. Epub 2025 May 2. PMID: 40317496; PMCID: PMC12376260.
 51. Wyckoff JA, Lapolla A, Asias-Dinh BD, Barbour LA, Brown FM, Catalano PM, **Corcoy R**, Di Renzo GC, Drobycki N, Kautzky-Willer A, Murad MH, Stephenson-Grey M, Tabák AG, Weatherup E, Zera C, Singh-Ospina N. Preexisting Diabetes and Pregnancy: An Endocrine Society and European Society of Endocrinology Joint Clinical Practice Guideline. *J Clin Endocrinol Metab*. 2025 Aug 7;110(9):2405-2452. doi: 10.1210/clinem/dgaf288. Erratum in: *J Clin Endocrinol Metab*. 2025 Oct 16;110(11):e3932. doi: 10.1210/clinem/dgaf494. PMID: 40652453; PMCID: PMC12342393.
 52. Wyckoff JA, Lapolla A, Asias-Dinh BD, Barbour LA, Brown FM, Catalano PM, **Corcoy R**, Di Renzo GC, Drobycki N, Kautzky-Willer A, Murad MH, Stephenson-Grey M, Tabák AG, Weatherup E,

3.3. Clinical Practice Guidelines 2025

Zera C, Singh-Ospina N. Preexisting Diabetes and Pregnancy: An Endocrine Society and European Society of Endocrinology Joint Clinical Practice Guideline. Eur J Endocrinol. 2025 Jun 30;193(1):G1-G48. doi: 10.1093/ejendo/lvaf116. PMID: 40652450.

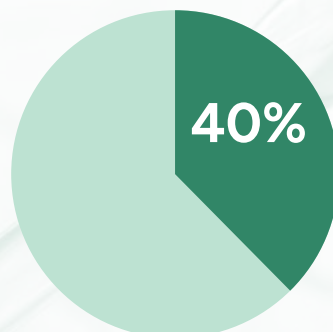
Facts and Figures

04

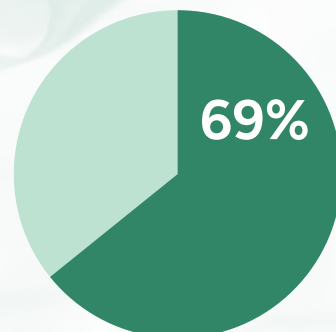
4.1 Publications

Articles & Reviews with JCR

1,107



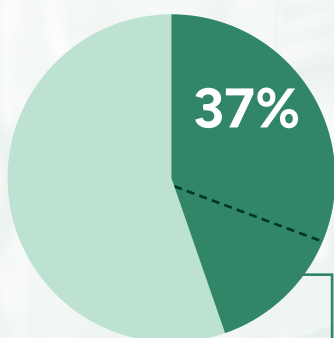
D1



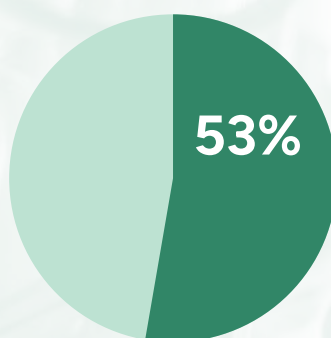
Q1

Articles & Reviews

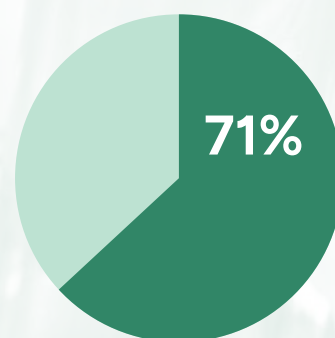
1,239



Led by IR Sant Pau



International
Collaboration



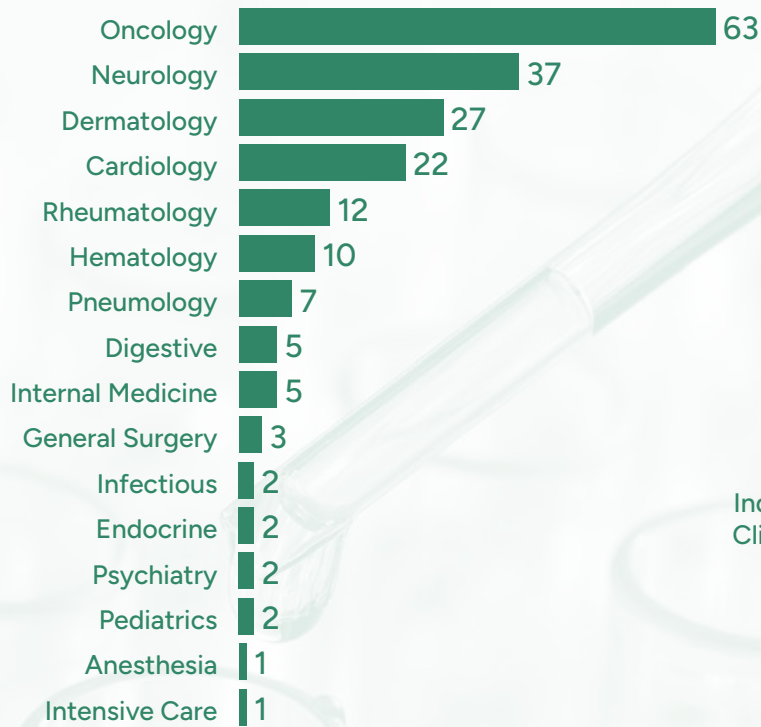
Open Access

45%

Led by Women

4.2 Clinical trials

BY FIELD



Clinical Trials Initiated in 2025

201

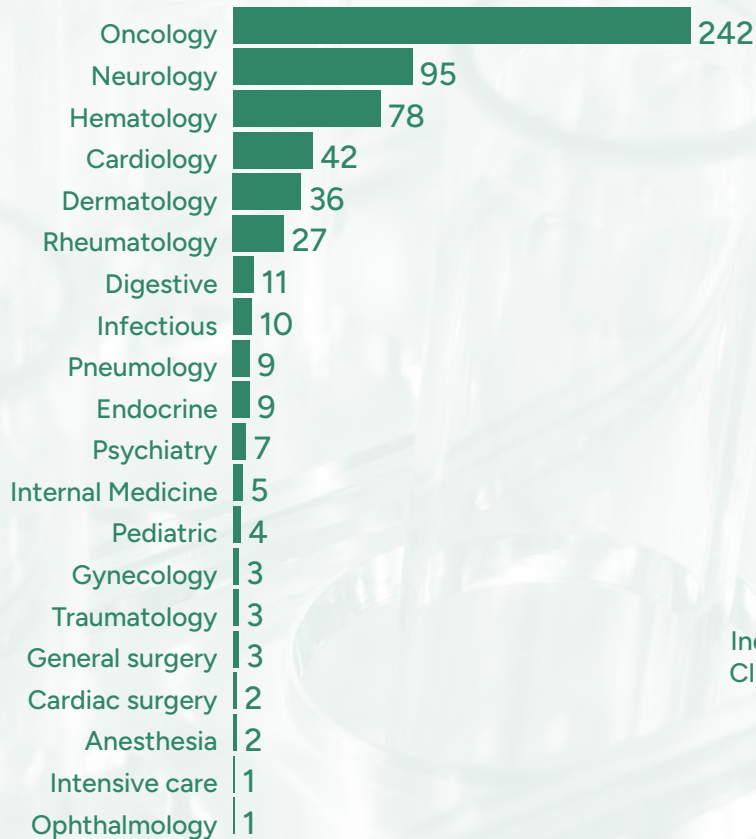
10

Independent
Clinical Trials

191

Industry led
Clinical Trials

BY FIELD



Active Clinical Trials in 2025

590

35

Independent
Clinical Trials

555

Industry Led
Clinical Trials

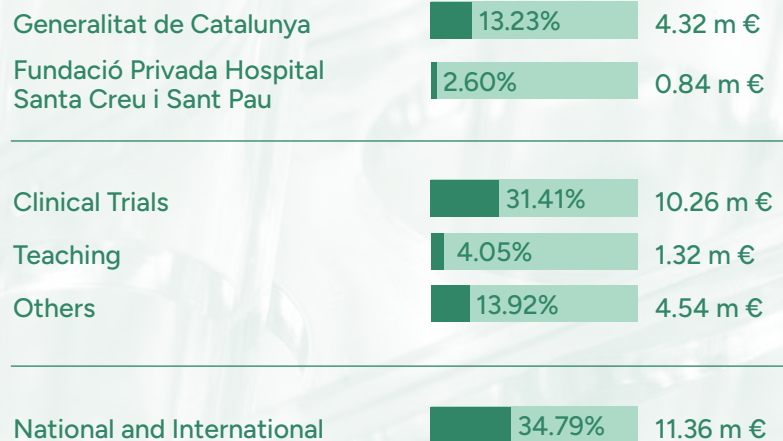
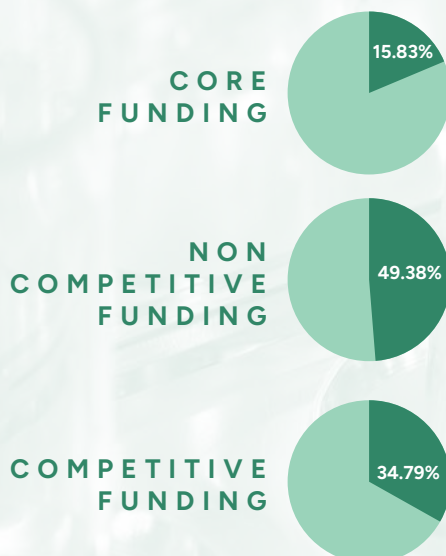
4.3 Innovation and Technology Transfer



4.4 Education



4.5 Funding

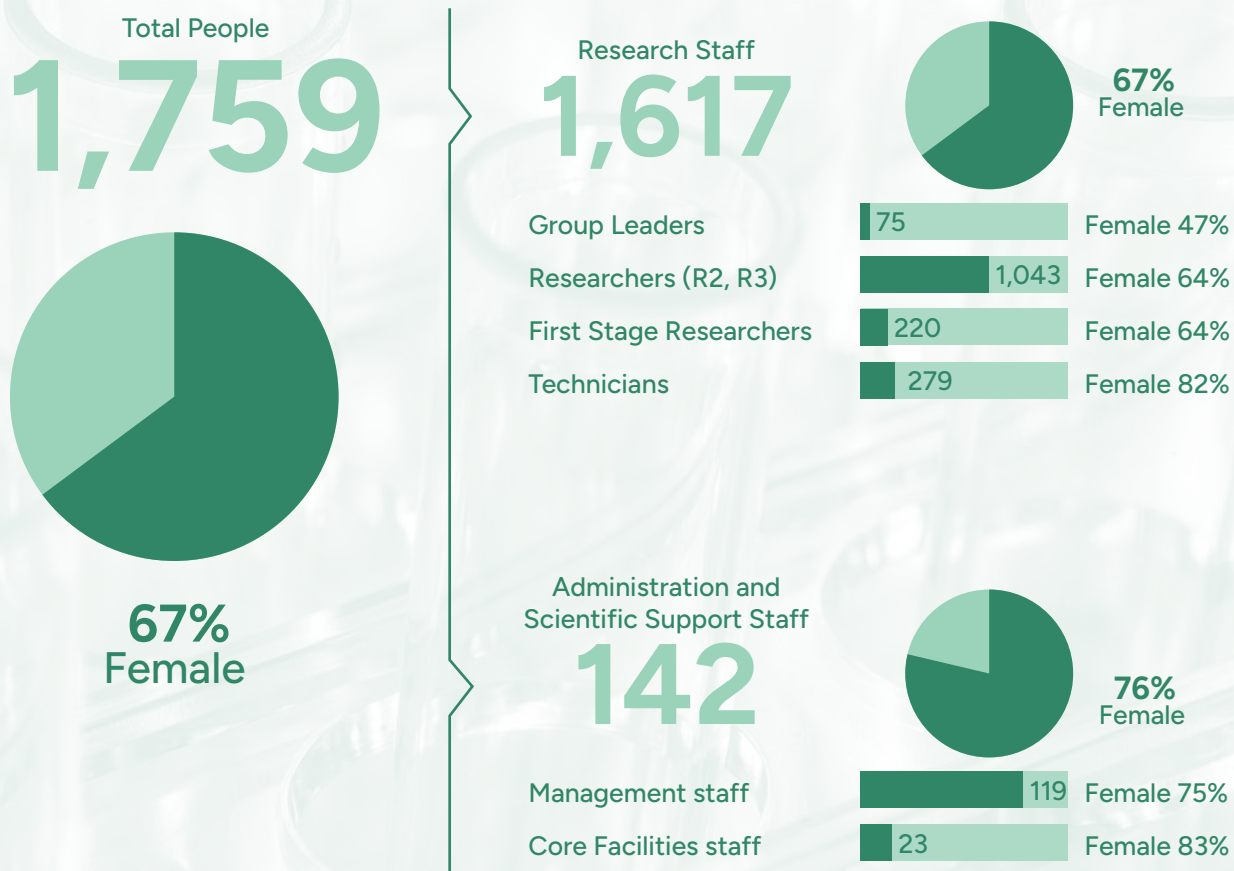


TOTAL **32.67 m €**

4.6 Competitive Projects



4.7 People



4.8 Science and Society

133

News

45

Press Release

2,080

Print and Online Media Appearances

4,421 m

Impacted Audience

Public Engagement and Outreach Activities Daily Activity

96

Activities

21

Schools

30

Seniors

45

Women & Families

4,756

Participants

546

School Audience

862

Senior Audience

3,348

Women & Families Audience

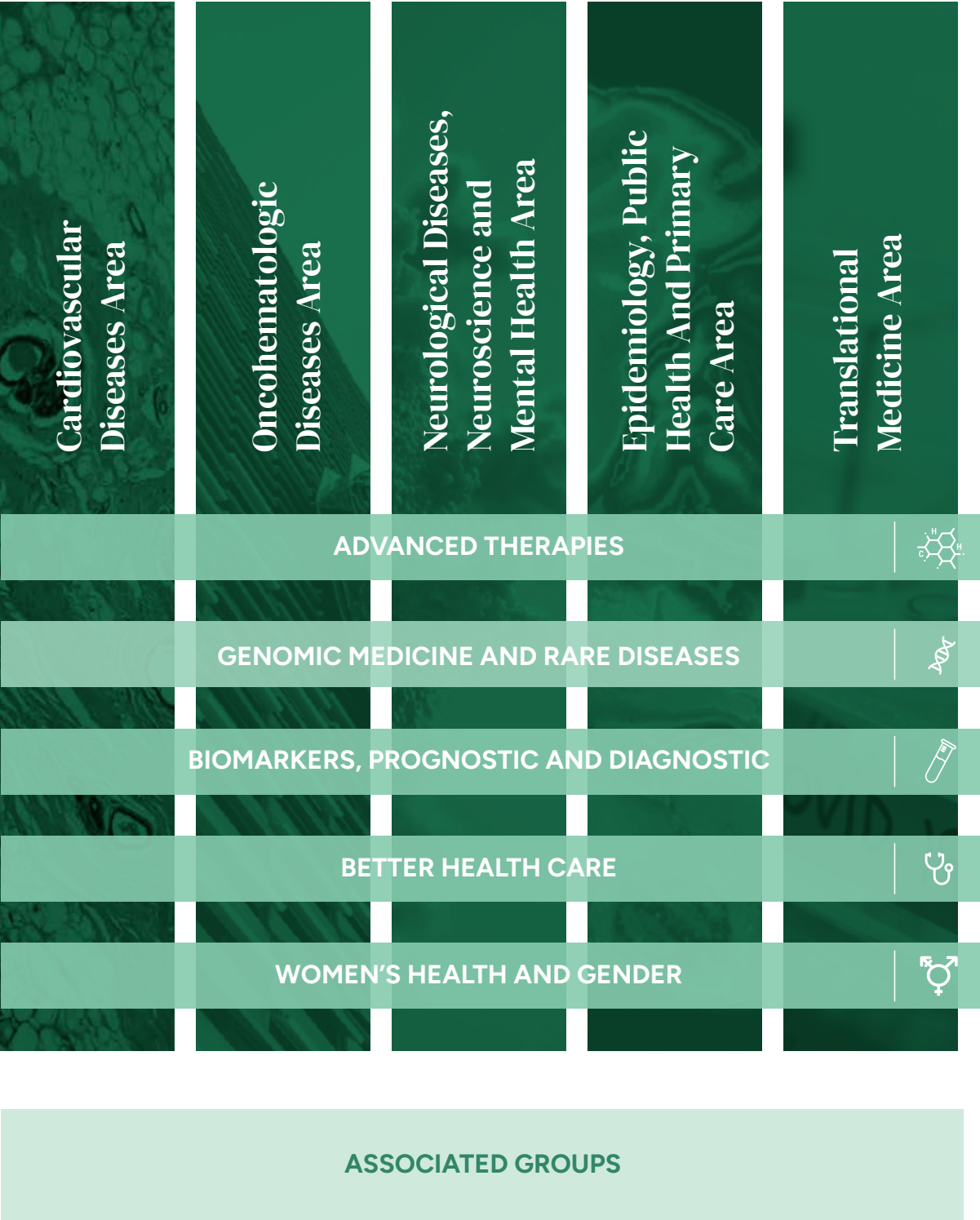
Events and Collaborations

- L'Aventura de la Mariona
- La Marató Visits
- Dia de la dona i la nena a la ciència
- 48 hores Open House
- Festival Cruïlla
- Entre Dones
- Festa de la ciència

Our Research

05

5.1 Strategic Scientific Research Areas



TRANSVERSAL PROGRAMMES

5.1.1 Cardiovascular Diseases Area



5.1.1 Cardiovascular Diseases Area

Gemma Vilahur

Area Director

The incorporation of new technologies that facilitate molecular profiling and gene regulation has led to innovative research into heart and other cardiovascular diseases, including arrhythmias, aortic aneurysms, vascular diseases, and thrombosis. The great diversity of groups in this area provides varied perspectives for ongoing research, whether in developing or testing the effectiveness of new biomarkers (as in the investigation of the metabolic and genetic bases of cardiovascular diseases) or therapeutic applications in the short term. Before being translated to humans, many advances in this area can be validated in animal models, including small and large mammals, such as pigs.

RESEARCH GROUPS

Clinical and Translational Cardiology

Guerra Ramos, José María

Thrombosis and Haemostasis

Souto Andrés, Joan Carles

Cardiovascular Biochemistry

Sánchez Quesada, José Luis

Molecular Pathology and Therapeutic of Ischaemic and Atherothrombotic Diseases

Vilahur Garcia, Gemma

Biomarkers for Cardiovascular Disease

Padró Capmany, Teresa

Regulation of Cardiac Rhythm and Contraction

Hove-Madsen, Leif

Lipids and Cardiovascular Pathology

Llorente Cortés, Concepción Vicenta

Genomics of Complex Diseases

Soria Fernández, José Manuel

Regulatory Mechanisms of Cardiovascular Remodelling

Rodríguez Sinovas, Cristina

Pathophysiology of Lipid-related Diseases

Escola Gil, Juan Carlos

Cell Therapy and Angiogenesis in Ischemic Diseases

Arderiu Marques, Gemma



Clinical and Translational Cardiology

Group leader

Guerra Ramos, José María (FGS)

Researchers

Acebes Pinilla, César (FGS)	Jiménez Kockar, Marcelo Fabian (FGS)
Alonso Martín, Concepción (FGS)	Jiménez Sabado, Verónica (CIBER)
Altadill Balsells, Francesc (FGS)	Leta Petracca, Ruben (FGS)
Amoros Figueras, Gerard (CIBER)	Li Li, Chi Hion (FGS)
Aran Aran, Josefina (FGS)	López López, Laura (FGS)
Arzamendi Aizpurua, Dabit (FGS)	Lorente Fernández, Ascensión (FGS)
Asmarats Serra, Lluís (FGS)	Maestro Benedicto, Alba (FGS)
Barros Membrilla, Antonio José (FGS)	Méndez Zurita, F. Javier (FGS)
Bertoli Ingles, Ester (FGS)	Menduiña Gallego, Irene (FGS)
Bonet Basiero, Ana (FGS)	Millan Álvarez, Xavier (FGS)
Bos Real, Lidia (FGS)	Mirabet Pérez, Sonia (FGS)
Bragagnini, Walter (FGS)	Montero Aradas, Santiago Ramón (FGS)
Calandrelli, Matias Enrique (FGS)	Moreno Weidmann, Zoraida (FGS)
Calvera Martínez, Enric (FGS)	Moustafa, Abdel Hakim (FGS)
Campos García, Bieito (FGS)	Padilla López, Mireia (FGS)
Camprecios Crespo, Marta (FGS)	Peña Ortega, Pedro (FGS)
Casabella Ramon, Sergi (UAB)	Pujadas Olano, Sandra (FGS)
Crehuet Llonch, Andrea (FGS)	Rodríguez Font, Enrique (FGS)
De Antonio Ferrer, Marta (FGS)	Rodríguez Pérez, Álvaro (IR)
Descalzo Buey, Martín Luis (FGS)	Rodríguez Queralto, Oriol (FGS)
Doñate Rodríguez, M. Teresa (FGS)	Rodríguez Sotelo, Laura (FGS)
Duran Cambra, Alberto (FGS)	Ruiz López, Adrian (FGS)
Fernández Martínez, Juan (FGS)	Salido Iniesta, Mario (FGS)
Fernández Peregrina, Estefanía (FGS)	Santalo Corcoy, Marcel (FGS)
Galvez Martín, Manuel (FGS)	Sionis, Alessandro (FGS)
Galvez Tugas, Elisabeth (FGS)	Soriano Amores, Marc (FGS)
García-Moll Marimon, Francesc Xavier (FGS)	Torres Ruiz, Gabriel (FGS)
Gual Santandreu, Miquel (FGS)	Triguero Llonch, Laura (FGS)
Gutierrez Alonso, Lola (FGS)	Vila Perales, Montserrat (FGS)
Guzmán Bofarull, Joan (FGS)	Vilades Medel, David (FGS)
	Viñolas Prat, Xavier (FGS)
	Zegri Reiriz, Isabel (FGS)

Research technicians

Angli Ferrandiz, Laia (IR)
 Borachok Fernández, Álvaro (IR)
 Cabanillas Rubio, Ana Belén (FGS)
 Herraiz Nieto, Sílvia (IR)
 Jiménez Xarrie, Elena (IR)
 Peña Del Río, Mari Cruz (FGS)

DESCRIPTION

The Clinical and Translational Cardiology research group is a multidisciplinary research group focused on cardiovascular research. Our lines of work include basic and clinical electrophysiology, heart failure and heart transplantation, ischemic heart disease, valvular heart disease, diseases of the aorta, cardiac imaging, cardiac modelling, 3D printing, bioengineering and innovation in health care management. The research group has access to all patient and clinical facilities of Hospital de la Santa Creu i Sant Pau and the research facilities of the research institute. The group keeps multiple research collaborations at the national and international levels.

MAIN LINES OF RESEARCH

- Basic and clinical electrophysiology. (Guerra Ramos, José María).
- Biomarkers of cardiovascular disease. (Mirabet Pérez, Sonia; Sionis, Alessandro).
- Heart failure and heart transplantation. (Mirabet Pérez, Sonia).
- Ischemic heart disease. (Arzamendi Aizpurua, Dabit; Sionis, Alessandro).
- Valvular heart disease. (Li Li, Chi Hion).
- Diseases of the Aorta. (Barros Membrilla, Antonio José).
- Cardiac Imaging. (Vilades Medel, David).
- Cardiovascular genetics. (Guerra Ramos, José María; de Antonio Ferrer, Marta).
- Cardiac modelling and 3D Printing. (Moustafa, Abdel Hakim).
- Bioengineering applied to cardiovascular disease. (Amoros Figueras, Gerard).
- Innovation in health care management. (Viñolas Prat, Xavier).

5.1.1 Cardiovascular Diseases Area

SCIENTIFIC CHALLENGES

Electrophysiology:

- Mechanisms of tachycardia-induced cardiomyopathy.
- Mechanisms of lesion formation in Pulsed Field Ablation. New applications.
- Use of bioimpedance for tissue characterisation in arrhythmia procedures.

Heart failure:

- Mechanisms of vascular disease in heart transplant patients
- New treatments for the management of heart failure patients.
- Biomarkers of disease prognosis in heart failure patients.
- Markers for early detection of cardiac graft rejection in transplanted patients.
- Palliative care programs for patients with advanced heart failure.

Ischemic heart disease:

- Multidisciplinary treatment of cardiac sudden death.
- Tako-Tsubo syndrome.
- Cardiogenic shock.

Valvular heart disease:

- Implement new percutaneous techniques for the treatment of mitral and tricuspid valve regurgitation and degenerative aortic stenosis.
- Implement novel devices for the treatment of prosthetic valve leak.

Cardiac imaging:

- Implement new imaging software analysis to detect structural abnormalities of the myocardium (fibrosis, necrosis).

ACTIVE & AWARDED GRANTS

- Arzamendi Aizpurua, Dabit. CUstom-MAde DEvice design for Complex Structural Heart Diseases. 2025 LLAV 00102. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). 2025-2026. 20.000,00 €
- Calandrelli, Matias Enrique. Detecció de disfunció ventricular esquerra mitjançant anàlisi amb Intel·ligència Artificial de senyals de so i elèctrics obtinguts amb estetoscopi digital. CSC IMPULSA 2024. Consorci de Salut i d'atenció Social de Catalunya (CSC). 2025-2026. 20.000,00 €
- Calandrelli, Matías Enrique. RAPID-AIM: Agente basado en IA para el diagnóstico y la gestión precoz del infarto agudo de miocardio a partir del ECG inicial. SLT041/25/000047. Departament de Salut. 2025-2026. 65.000,00 €
- Calandrelli, Matias Enrique. AI for Rapid Detection of Acute Myocardial Infarction Using ECG Images in Emergency Settings. 2025 PROD 00068. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). 2025-2027. 53.000,00 €
- Diaz Gutierrez, Jesús. Contratos Río Hortega 2025. CM25/00037. Instituto de Salud Carlos III (ISCIII). 2026-2027. 65.000,00 €
- Guerra Ramos, José María. Estudio traslacional para caracterizar las alteraciones estructurales y moleculares subyacentes a la reversibilidad de la miocardiopatía inducida por taquicardia. PI20/01702. Instituto de Salud Carlos III (ISCIII). Duration: 2021-2025. 187.550,00 €
- Guerra Ramos, José Maria. Optimización del tratamiento con amiodarona de la fibrilación auricular persistente mediante una estrategia terapéutica personalizada. Ensayo clínico aleatorizado. PI23/ 01768. Instituto de Salud Carlos III. Duration: 2024-2026. 152.500,00 €
- Guerra Ramos, José Maria. Electroporation in cardiac tissue: from safe and efficient cardiac arrhythmia ablation to new therapeutic indications. MARATO 202320-30 Fundació La Marató de TV3. Duration: 2024-2027. 199.995,00 €
- Guerra Ramos, José María. Centro de Investigación Biomédica en Red de Enfermedades Cardiovasculares (CIBERCV). CB16/11/00276. Ministerio de Ciencia e Innovación. ISCIII.
- Guerra Ramos, José Maria. Cardiología Sant Pau. Grup de Recerca Reconegut 2021 SGR 00834. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). 2022-2025.
- Mirabet Pérez, Sonia. Genómica de la insuficiencia cardíaca de diferente etiología en 3600 casos y 36.000 controles. Proyecto REDAMCOR. PI24/01108. Instituto de Salud Carlos III. Duration: 2025-2027. 27.500,00 €

5.1.1 Cardiovascular Diseases Area

DOCTORAL THESES DEFENDED

- González Matos, Carlos Eduardo. New indications for conduction system pacing: The need for a simplified technique. 14/11/2025. Universitat Autònoma de Barcelona. Supervisors: Arzamendi Aizpurua, Dabit; Valles Gras, Ermengol. <https://hdl.handle.net/10803/695944>

SCIENTIFIC PRODUCTION ARTICLES & REVIEWS

- Almendra R, Barros AJ, Pérez E, Julve J, Martínez J, Rodríguez C, Galán M. Identification of new therapeutic targets related to endoplasmic reticulum stress and mitochondrial dysfunction to reduce the risk of rupture in degenerative ascending aortic aneurysm. *Clínica E Investigación En Arteriosclerosis*. 2025; 37(4):100740. DOI:10.1016/j.arteri.2024.09.002. PMID:39424523.
- Amaro S, Cruz I, Estévez R, Millan X, Nombela L, Gómez J, Flores E, López L, Maciñeira J, Prats L, Simal P, Cardona P, Teruel L, Cepas P, Arzamendi D, Freixa X. Left atrial appendage occlusion plus oral anticoagulation in stroke patients despite ongoing anticoagulation: rationale and design of the ADD-LAAO clinical trial. *Rec-Interventional Cardiology*. 2025; 7(3). DOI:10.24875/RECIC. M25000530. PMID:40933018.
- Amorós G, Moreno Z, Méndez F, Soriano M, Bragós R, Rosell J, Guerra JM. Local multifrequency impedance changes after radiofrequency ablation in human atria: potential use for tissue characterisation. *Frontiers in Cardiovascular Medicine*. 2025; 12:1668533. DOI:10.3389/fcvm. 2025.1668533. PMID:41126919. IF:2,900 (Q2/4D).
- Anees M, Weidmann ZM, Medel DV, Guerra JM, Gerardo L, Petras A. Impact of the dispersive patch placement on dissipated power in radiofrequency ablation for pulmonary vein isolation via a virtual patient study. *Scientific Reports*. 2025; 15(1):6986. DOI:10.1038/s41598-025-90158-1. PMID:40011542. IF:3,900 (Q1/2D).
- Anguera I, Faga V, Jiménez J, Moreno Z, Santos A, Jiménez J, Rodríguez J, Claver E, Meré J, Jovells S, Díez C, Hernández J, Rivas N, Macías R, García D, Comin J, Di A. Late gadolinium enhancement and outcome of cardiac resynchronisation therapy in non-ischemic cardiomyopathy. *INTERNATIONAL JOURNAL OF CARDIOLOGY*. 2025; 418:132618. DOI:10.1016/j.ijcard.2024.132618. PMID:39384095. IF:3,200 (Q2/3D).
- Anido L, Aragón A, González A, Bellas CT, Tarazón E, Solé E, Martínez M, Guerra JM, Carrasquer A, Morán L, García D, Seoane A, Moure M, Seijas J, Rodríguez D, García J, Moraña S, Vázquez X, Roselló E, Portolés M, Eiras S, Agra RM, Álvarez E, González JR, Feijóo S, Lago F, REDINSCOR R. Meteorin-like protein plasma levels are associated with worse outcomes in de novo heart failure. *EUROPEAN JOURNAL OF CLINICAL INVESTIGATION*. 2025; 55(4). DOI:10.1111/eci. 14380. PMID:39834188. IF:3,600 (Q1/2D).
- Arana E, Rubio JM, Campos B, Rodríguez F, Calvo D, Spanish Catheter Ablation R. Spanish catheter ablation registry. 24th official report of the Heart Rhythm Association of the Spanish Society of Cardiology (2024). *REVISTA ESPAÑOLA DE CARDIOLOGÍA*. 2025; 78(12). DOI:10.1016/j.rec.2025.08.009. PMID:41076237. IF:4,900 (Q1/2D).
- Asmarats L, Jiménez P, Amat IJ, Ferrer MC, Sarnago F, Alonso JH, Oteo JF, Serra V, Muntané G, Vilalta V, del Val D, Pan MN, Hernández JMD, García S, Díez JL, Berenguer A, Del Valle R, del Amo FN, Artaiz M, Regueiro A, López M, van AM, Paredes JG, Fernández C, de Miguel J, Maneiro N, Piserra A, De La Fuente J, Muñoz J, Romaguera R, Carrillo X, Alfonso F, Alvarado M, Veiga G, Millán X, Nombela L, Arzamendi D. Balloon-expandable Versus Self-expanding Valves in Patients With Prior Surgical Mitral Valve Replacement Undergoing Transcatheter Aortic

5.1.1 Cardiovascular Diseases Area

- Valve Replacement. CANADIAN JOURNAL OF CARDIOLOGY. 2025; 41(8). DOI:10.1016/j.cjca.2025.04.026. PMID:40345648. IF:5,300 (Q1/2D).
- Avvedimento M, Campelo F, Nombela L, Fischer Q, Donaint P, Serra V, Veiga G, Gutierrez E, Franzone A, Vilalta V, Alperi A, Regueiro A, Asmarats L, Ribeiro HB, Matta A, Muñoz A, Tirado G, Urena M, Metz D, Rodenas E, Hernández JMD, Angellotti D, Fernández E, Pascual I, Vidal P, Arzamendi D, Campanha DC, Trinh KH, Nuche J, Côté M, Faroux L, Rodés J. Clinical impact of complex percutaneous coronary intervention in the pre-TAVR workup. REVISTA ESPAÑOLA DE CARDIOLOGÍA. 2025; 78(2). DOI:10.1016/j.rec.2024.05.002. PMID:38763211. IF:4,900 (Q1/2D).
 - Avvedimento M, Cepas P, Nuche J, Ternacle J, Urena M, Alperi A, Cheema A, Veiga G, Nombela L, Vilalta V, Esposito G, Campelo F, Idolfi C, del Trigo M, Munoz A, Asmarats L, Regueiro A, del Val D, Auffret V, Melon NM, Bonnet G, Jonveaux M, Mesnier J, Avanzas P, Rezaei E, Fradejas V, Tirado G, Fernández E, Franzone A, Guitteny T, Sorrentino S, Oteo JF, Gutiérrez L, Flores E, Alfonso F, Nolf M, Côté M, Pelletier E, Rodés J. Clinical Impact of In-Hospital Hemoglobin Decline Without Overt Bleeding After Transcatheter Aortic Valve Replacement. JACC-Cardiovascular Interventions. 2025; 18(22). DOI:10.1016/j.jcin.2025.10.004. PMID:41297987. IF:11,400 (Q1/1D).
 - Avvedimento M, Cepas P, Ternacle J, Urena M, Alperi A, Cheema A, Veiga G, Nombela L, Vilalta V, Esposito G, Campelo F, Indolfi C, del Trigo M, Muñoz A, Maneiro N, Asmarats L, Regueiro A, del Val D, Serra V, Auffret V, Modine T, Bonnet G, Mesnier J, Suc G, Avanzas P, Rezaei E, Fradejas V, Tirado G, Fernández E, Franzone A, Guitteny T, Sorrentino S, Oteo JF, Nuche J, Gutiérrez L, Flores E, Alfonso F, Monastyrski A, Nolf M, Côté M, Mehran R, Morice MC, Capodanno D, Garot P, Rodés J. Validation of the Valve Academic Research Consortium High Bleeding Risk Definition in Patients Undergoing TAVR. Circulation-Cardiovascular Interventions. 2025; 18(1):e014800. DOI:10.1161/CIRCINTERVENTIONS.124.014800. PMID:39475194. IF:7,400 (Q1/2D).
 - Ayoub M, Mozid A, Philip L, Millan X, Khatri J, Ungureanu C, Bennett J, Ghafari C, Avran A. Use of ReCross to Increase Success Rate With Antegrade CTO PCI-A Multicenter Observational Study. CATHETERIZATION AND CARDIOVASCULAR INTERVENTIONS. 2025; 106(1). DOI:10.1002/ccd. 31585. PMID:40384369. IF:2,100 (Q3/6D).
 - Benítez A, Garcia E, Lhoëst MTL, Polishchuk A, Zegri I, Vilades D, Guerra JM, Fernández L, Mirabet S, Samouillan V, Shirihaï O, Liesa M, Enrich C, Llorente V. LRP1 immunotherapy enhances cardiomyocyte respiration by restricting cholesteryl ester accumulation in mitochondria. JOURNAL OF LIPID RESEARCH. 2025; 66(5):100783. DOI:10.1016/j.jlr.2025.100783. PMID:40122209. IF:4,100 (Q2/4D).
 - Bernal E, Romaguera R, Garcia S, Regueiro A, Serra V, Asmarats L, Tizon H, Agudelo V, Scardino C, Casanova JM, Rodríguez T, Jiménez C, Pérez A, Robles C, Ayesta A, Díez P, Raposeiras S, Amat IJ, Esteve A, Veiga G, Anguita M, Martí D, Martínez N, Cortés L, Calvo E, Asimbaya S, Formiga F, Ariza A. Telematic intervention on frailty in patients undergoing TAVI. Design of the TELE-FRAIL TAVI clinical trial. Rec-Interventional Cardiology. 2025; 7(4). DOI:10.24875/RECIC.M25000522. PMID:41333125.
 - Bernardo A, Mato G, Calandrelli M, Medus J, Curiale A. A novel deep learning-based method for myocardial strain quantification. Biomedical Physics & Engineering Express. 2025; 11(1):015023. DOI:10.1088/2057-1976/ad947b. PMID:39569845.
 - Bonanad C, Blas SG, Amat I, González R, Sanchis J, Otero DL, Franco LN, Gheorge L, Sanz J, Zorita CB, Romo AI, Garcia A, Vilalta V, Ojeda S, Fernández GV, Soriano JGC, Cepas P, Rollán MS, Rios XF, Palma R, Reyes RM, Romaguera R, Avanzas P, Franco JA, Moreiras JM, Juanatey JRG, Tirado G, Calle G, Díez JL, Santos S, Erquicia PD, Garcia EM, Fernández E, Pais JL, Gonzalo N, Barri AG, Asmarats L, Pérez ML, Rodríguez LMD, Cobo M, Bermudez IG, Álvarez AG, Pavia PG, Fuster V, Ibanez B, Raposeiras S. Effect of Dapagliflozin on Quality of Life of Patients With Aortic Stenosis Undergoing Transcatheter Aortic Valve Implantation. JACC-JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY.

5.1.1 Cardiovascular Diseases Area

- 2025; 86(15). DOI:10.1016/j.jacc.2025.07.051. PMID:41062227. IF:22,300 (Q1/1D).
- Borger MA, de Waha S, Marsan NA, Zühlke L, Mestres CA, Fosbol E, Bonaros N, Pizzi MN, Brida M, Sionis A, Delgado V, Task Force ESC Guidelines Management E. Key priorities for the implementation of the 2023 ESC Guidelines for the management of endocarditis in low-resource settings. *European Heart Journal-Quality of Care and Clinical Outcomes*. 2025; 11(5). DOI:10.1093/ehjqcco/qcae106. PMID:40152919. IF:4,600 (Q1/2D).
 - Cepas P, Avvedimento M, Ternacle J, Urena M, Alperi A, Cheema AN, Veiga G, Nombela L, Vilalta V, Esposito G, Indolfi C, del Trigo M, Muñoz A, Maneiro N, Asmarats L, Regueiro A, del Val D, Serra V, González A, Bonnet G, Di A, Mesnier J, Suc G, Avanzas P, Rezaei E, Fradejas V, Solsol JFC, Fernández E, Angellotti D, Sorrentino S, Oteo JF, Díez F, Gutiérrez L, Ruberti A, Alfonso F, Monastyrski A, Pelletier E, Rodés J. Clinical Research Vascular Complications in Patients Undergoing Transcatheter Aortic Valve Replacement With Contemporary Devices. *CANADIAN JOURNAL OF CARDIOLOGY*. 2025; 41(8). DOI:10.1016/j.cjca.2025.03.034. PMID:40204013. IF:5,300 (Q1/2D).
 - Congost GB, Brugaletta S, Cerezo PG, Bernal JV, Comalat MB, Mejías SM, Millán LM, Evangelista SR, Gabalda JR, Ortega JT, Garcia J, Jiménez M, Aizpurua DA, Campmany MP, Momblan M. Effectiveness of a nurse training intervention in the emergency department to improve the diagnosis and treatment of stemi patients: EDUCAMI study. *HEART & LUNG*. 2025; 70. DOI:10.1016/j.hrtlng.2025.01.006. PMID:39813828. IF:2,600 (Q1/2D).
 - Criado J, Ortiz M, García J, Martínez JD, Font ER, Moreno J, López MA, Almor JM, Gil ML, Medina DG, Granell RR, Peinado RP, Gelizo VB, Muñoz JJS, Medina O, Díaz SA, Criado AI, González JM, Merodio J, Almendral J. Can ICD Electrograms Help Ventricular Tachycardia Ablation? Results From the Multicenter Randomised AIDEG-VTA Trial. *JACC-JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*. 2025; 85(11). DOI:10.1016/j.jacc.2024.10.104. PMID:39772368. IF:22,300 (Q1/1D).
 - Cuervo G, Hernández M, de Alarcón A, Luque R, Alonso MM, López A, González V, Goikoetxea AJ, Nicolás D, Goenaga MA, Merino E, Escrihuela F, Martín P, Loeches B, Boix L, Gasch O, Camprecios M, Hernández A, García L, Pajarón M, Ribas MA, Blanes R, López I, López LE, Vidal B, Fernández M, Navarro D, Moreno A, Sala C, Ambrosioni J, Miró JM, OraPAT I. Oral vs. Outpatient Parenteral Antimicrobial Treatment for Infective Endocarditis: Study Protocol for the Spanish OraPAT-IE GAMES Trial. *Infectious Diseases and Therapy*. 2025; 14(3). DOI:10.1007/s40121-025-01110-9. PMID:40024946. IF:5,300 (Q1/2D).
 - Davison BA, Abbate A, Cotter G, Pascual D, Van B, Villota JN, Atabaeva L, Freund Y, Aimo A, Biegus J, Golino M, Del Buono MG, Chioncel O, Cohen A, Edwards C, Fernández N, Filippatos G, González JR, Hayrapetyan H, Ibáñez B, Iborra PL, Moroni F, ter JM, Markley R, González J, Martínez M, Drambyan M, Metra M, Mirabet S, Mshetsyan A, Novosadova M, Pagnesi M, Ponikowski P, Riquelme A, Sadoune M, Sánchez MA, Simon T, Taibo M, Takagi K, Villar S, Liu C, Voors AA, Mebazaa A, Mann DL, Bayés A. Effects of anti-inflammatory therapy in acute heart failure: a systematic review and meta-analysis. *HEART FAILURE REVIEWS*. 2025; 30(3). DOI:10.1007/s10741-025-10491-5. PMID:39939545. IF:4,200 (Q1/3D).
 - Echarte J, Barreiro M, Nombela L, Freixa X, Cruz I, Sánchez A, Arzamendi D, Baz JA, Mon M, Sanchis L, Laffond AE, Rodríguez LMD, Li CH, Jiménez P, Altisent O, Blanco F, Fernández C, Menduina I, Estévez R. Initial Experience of Orthotopic Tricuspid Valve Replacement in Spain: TRI-SPA Replace Registry. *CATHETERIZATION AND CARDIOVASCULAR INTERVENTIONS*. 2025; 106(2). DOI:10.1002/ccd.31662. PMID:40464478. IF:2,100 (Q3/6D).
 - Echarte J, Cepas P, Arzamendi D, Moñivas V, Carrasco F, Pan M, Nombela L, Pascual I, Benito T, Pérez R, Gómez I, Amat IJ, Cruz I, Sánchez A, Caneiro B, Álvarez A, Barreiro M, Sanchis L, Li CH, del Trigo M, Martínez JD, Mesa D, Jiménez P, Avanzas P, Freixa X, Estévez R. One-Year Recurrent Tricuspid Regurgitation After Successful Transcatheter Edge to Edge Repair: The TRI-SPA Registry. *AMERICAN JOURNAL OF CARDIOLOGY*. 2025; 243. DOI:10.1016/j.amjcard.2025.02.010. PMID:39984153. IF:2,100 (Q3/6D).

5.1.1 Cardiovascular Diseases Area

- Echarte J, Sanchis L, Arzamendi D, Moñivas V, Carrasco F, Pan MN, Nombela L, Pascual I, Benito T, Pérez R, Gómez I, Amat IJ, Cruz I, Sánchez A, Álvarez A, Barreiro M, Cepas P, Li CH, del Trigo M, Martínez JD, Mesa D, Mahia P, Avanzas P, González A, Freixa X, Estévez R. Edge-to-edge tricuspid valve repair and heart failure hospitalisations: the TRI-SPA registry. *REVISTA ESPAÑOLA DE CARDIOLOGÍA*. 2025; 78(9). DOI:10.1016/j.rec.2025.02.015. PMID:40154922. IF:4,900 (Q1/2D).
- Enríquez D, Barge E, González F, Almenar L, Carmena MDGC, González J, Gómez M, Castel MA, Díaz B, Martínez M, Mirabet S, de la Fuente L, Hervás D, Rangel D, Garrido IP, Blasco T, Juan GR, Muñiz J, Crespo MG. Impact of left ventricular unloading on post-heart transplantation outcomes in patients bridged with VA-ECMO. *REVISTA ESPAÑOLA DE CARDIOLOGÍA*. 2025; 78(6). DOI:10.1016/j.rec.2024.09.005. PMID:39393768. IF:4,900 (Q1/2D).
- Ferrera C, Vilacosta I, Palomares JFR, Iglesias FC, Barros AJ, Molluna MA, Mosquera V, Tarrío R, Orodea AR, Sepúlveda DT, González IR, Castellanos LM, Sao A, Evangelista A. Prognostic impact of shock in patients with type A acute aortic syndrome. Results of a nationwide multicenter study. *Hellenic Journal of Cardiology*. 2025; 86. DOI:10.1016/j.hjc.2024.05.005. PMID:38729346. IF:3,000 (Q2/4D).
- Fischer Q, Nombela L, Muntané G, Veiga G, Regueiro A, Nazif T, Serra V, Asmarats L, Ribeiro HB, Latib A, Poulin A, Cheema AN, Tirado G, Gómez JA, Ongay AG, Gabani R, Arzamendi D, Brener M, Calabuig A, Scotti A, Gelain M, Labinaz M, Cepas P, Côté M, del Portillo JH, Philippon F, Rodés J. Prophylactic Permanent Pacemaker Implantation After Transcatheter Aortic Valve Replacement. *JACC-Clinical Electrophysiology*. 2025; 11(11). DOI:10.1016/j.jacep.2025.07.028. PMID:40965381. IF:7,700 (Q1/1D).
- Freire SJC, Garcia M, Sanz R, Tenas MS, Macaya F, Roura G, Jiménez M, del Val D, Bastante T, Velázquez M, Valero SJ, Gómez AE, Alfonso F. Hypothyroidism in spontaneous coronary artery dissection: presentation, clinical and angiographic findings, management and outcomes. *Open Heart*. 2025; 12(2):e003562. DOI:10.1136/openhrt-2025-003562. PMID:41238349.
- Gallone G, Baldetti L, Konicoff M, Ibero J, Maestro A, Morley A, Vela MM, Fiorelli F, Peterzan M, Edwards G, Raj B, Baston V, Pidello S, Frea S, Vandenbriele C, Panoulas V, Loforte A, De Ferrari GM, Bowles C, Saez DG, Grinstein J, Tedford RJ, Gil FR. Validation of the Hemodynamic Classification System for Hemodynamic-Related Events in Patients With Durable Left Ventricular Assist Devices. *Journal of the American Heart Association*. 2025; 14(20):e041475. DOI:10.1161/JAHA.125.041475. PMID:41120820. IF:5,300 (Q1/2D).
- García C, López T, Sanz E, Cueto MR, Aboal J, Pastor P, Buera I, Sionis A, Andrea R, Rodríguez J, Sánchez JC, Tomas C, Bañeras J, Ariza A, Lupón J, Bayés A, Rueda F, Grup Treball Cures Agudes Soc Catalana C. Cardiogenic shock mortality according to Aetiology in a Mediterranean cohort: Results from the Shock-CAT study. *ESC Heart Failure*. 2025; 12(2). DOI:10.1002/ehf2.15148. PMID:39587711. IF:3,700 (Q1/3D).
- Garcia E, Claudi L, Lhoëst MTL, Polishchuk A, Samouillan V, Amaro AB, Pinero J, Escolà JC, Sabidó E, Leta R, Vilades D, Cortes VL. Reduced blood EPAC1 protein levels as a marker of severe coronary artery disease: the role of hypoxic foam cell-transformed smooth muscle cells. *Journal of Translational Medicine*. 2025; 23(1):523. DOI:10.1186/s12967-025-06513-3. PMID:40346550. IF:7,500 (Q1/2D).
- García MD, Cruzado JM, Farrero M, Peiró MTB, Crespo M, Jiménez JFD, Molina BD, Rivera CF, Bravo I, Jiménez VL, Melilli E, Pérez SM, Tamajón MLP, Sousa DR, Calabria ER, Marrero DH. Management of heart disease in renal transplant recipients: a national Delphi survey-based SET/SEC/SEN consensus document. *REVISTA ESPAÑOLA DE CARDIOLOGÍA*. 2025; 78(3). DOI:10.1016/j.rec.2024.09.008. PMID:39442797. IF:4,900 (Q1/2D).
- García MD, Farrero M, Blasco MT, Crespo M, Delgado J, Díaz B, Fernández C, Garrido IP, López V, Melilli E, Mirabet S, Pérez ML, Rangel D, Rodrigo E, Cruzado JM, Hernández D, Spanish T, Spanish N, Spanish Soc Cardiology SET SEC S. Management of Kidney Disease in Heart Transplant Patients: A National Delphi Survey-based Consensus Expert Paper. *TRANSPLANTATION*. 2025; 109(9). DOI:10.1097/TP.0000000000005302. PMID:39928546. IF:5,000 (Q1/1D).

5.1.1 Cardiovascular Diseases Area

- Garot P, Cepas P, Flores E, Leduc N, Bajoras V, Perrin N, McInerney A, Lafond A, Farjat J, Millan X, Zendjebil S, Ibrahim R, Salinas P, de Backer O, Cruz I, Arzamendi D, Sanchis L, Nombela L, OHara G, Aminian A, Nielsen JE, Rodés J, Freixa X. Impact of intensive versus nonintensive antithrombotic treatment on device-related thrombus after left atrial appendage closure. *REVISTA ESPAÑOLA DE CARDIOLOGÍA*. 2025; 78(8). DOI:10.1016/j.rec.2024.11.006. PMID:39645198. IF:4,900 (Q1/2D).
- Gil P, Rives J, Viladés D, García A, Genua I, Miñambres I, Grau M, Gich I, Camacho M, Benítez S, Julve J, Sánchez JL, Pérez A. Association of Epicardial Adipose Tissue with Novel Inflammation and Heart Failure Biomarkers in Type 2 Diabetes Patients: Effect of Metabolic Control. *Journal of Clinical Medicine*. 2025; 14(13):4687. DOI:10.3390/jcm14134687. PMID:40649060. IF:2,900 (Q1/2D).
- González F, Almenar L, Gómez M, Crespo MG, Cobo M, Crespin M, Ortiz C, Delgado JF, de Antonio M, Sobrino JM, Spanish Heart Transplant T. Spanish Heart Transplant Registry. 36th official report of the Heart Failure Association of the Spanish Society of Cardiology. *REVISTA ESPAÑOLA DE CARDIOLOGÍA*. 2025; 78(10). DOI:10.1016/j.rec.2025.04.011. PMID:40562161. IF:4,900 (Q1/2D).
- González A, Cepas P, Ternacle J, Urena M, Alperi A, Cheema AN, Veiga G, Nombela L, Vilalta V, Esposito G, Campelo F, Idolfi C, del Trigo M, Muñoz A, Maneiro N, Asmarats L, Regueiro A, del Val D, Serra V, Auffret V, Jonveaux M, Bonnet G, Mesnier J, Gaspard S, Avanzas P, Rezaei E, Fradejas V, Tirado G, Fernández E, Franzone A, Guitteny T, Sorrentino S, Oteo JF, Díez F, Gutiérrez L, Vidal P, Alfonso F, Monastyrski A, Nolf M, Pelletier E, Avvedimento M, Rodés J. Early safety after TAVR according to VARC-3 criteria: incidence, predictors, and clinical impact. *REVISTA ESPAÑOLA DE CARDIOLOGÍA*. 2025; 78(7). DOI:10.1016/j.rec.2024.12.005. PMID:39722415. IF:4,900 (Q1/2D).
- Gualandro DM, Masip J, Halvorsen S, Price S, Rosselló X, Chioncel O, Peacock WF, Miró I, Junior M, Mebazaa A, Platz E, Amir O, Schaubroeck H, Grand J, Sionis A, Tavazzi G, Pöss J, Verbrugge FH, Gambaro A, Tica O, Arrigo M, Mueller C. Acute heart failure in non-cardiac surgery. *EUROPEAN HEART JOURNAL*. 2025; 46(40). DOI:10.1093/eurheartj/ehaf559. PMID:40838822. IF:35,600 (Q1/1D).
- Haberman D, Estévez R, Czarnecki A, Melillo F, Adamo M, Villablanca P, Sudarsky D, Praz F, Perl L, Freixa X, Scotti A, Fefer P, Spargias K, Fam N, Manevich L, Masiero G, Nombela L, Pascual I, Crimi G, Ninios V, Beeri R, Benito T, Arzamendi D, Fernández E, Giannini F, Mangieri A, Poles L, George J, Morales J, Caneiro B, Denti P, Schiavi D, Latib A, Chrissoheris M, Danenberg H, Tarantini G, Dvir D, Maisano F, Taramasso M, Shuvy M. Transcatheter edge-to-edge repair in severe mitral regurgitation following acute myocardial infarction - aetiology-based analysis. *EUROPEAN JOURNAL OF HEART FAILURE*. 2025; 27(5). DOI:10.1002/ehfj.3582. PMID:39809715. IF:10,800 (Q1/1D).
- Herrador L, González J, Niubo J, Calatayud L, Maestro A, Farrero M, Blasco T, Almenar L, Blázquez Z, Garrido I, Gran F, Grande A, Manito N, Moreno G. Caspase-3 in Brain Death Donors Is Associated with Reduced Primary Graft Dysfunction After Heart Transplantation. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(19):9434. DOI:10.3390/ijms26199434. PMID:41096699. IF:4,900 (Q1/3D).
- Hynninen E, Tolppanen H, Rivas M, Tarvasmaeki T, Harjola VP, Deniau B, Hongisto M, Jankowska EA, Jurkko R, Jaentti T, Kataja A, Mebazaa A, Sabell T, Sionis A, Lassus J. Validation of a biomarker-based mortality score for cardiogenic shock patients: Comparison with a clinical risk score. *ESC Heart Failure*. 2025; 12(3). DOI:10.1002/ehf2.15234. PMID:39895206. IF:3,700 (Q1/3D).
- Jiménez M, Crespo MG, Carmena MDGC, Bueno MG, López R, Ortiz C, Farrero M, Zegrí I, Díaz B, García E, Rangel D, Salterain N, Bravo IG, Segovia J. Donor-derived cell-free DNA as a new biomarker for cardiac allograft rejection: A prospective study (FreeDNA-CAR). *JOURNAL OF HEART AND LUNG TRANSPLANTATION*. 2025; 44(4). DOI:10.1016/j.healun.2024.11.009. PMID:39577511. IF:6,000 (Q1/1D).
- Jiménez V, Babini H, Ruben PC, Accili EA, Claydon TW, Hove L, Tibbits GF. Electrophysiological Phenotyping of hiPSC-Derived Atrial Cardiomyocytes Using Automated Patch-Clamp: A Platform for Studying Atrial Inherited Arrhythmias. *Cells*. 2025; 14(24):1941. DOI:10.3390/cells14241941. PMID:41439960. IF:5,200 (Q2/3D).

5.1.1 Cardiovascular Diseases Area

- Jiménez V, Hove L. Single-Nucleotide Polymorphisms, PITX2 and Abnormal Electrical Activity in Atrial Fibrillation. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(19):9780. DOI:10.3390/ijms26199780. PMID:41097045. IF:4,900 (Q1/3D).
- Kerneis M, Ammirati E, Delmas C, Heggermont W, Heymans S, Lenz M, Madonna R, Morosin M, Schaubroeck H, Sionis A, Tsaban G, Uzokov J, Vardanyan K, Vandenbriele C, Roubille F. Clinical management of acute myocarditis in daily practice: an expert practical view. *European Heart Journal-Acute Cardiovascular Care*. 2025; 14(7). DOI:10.1093/ehjacc/zuaf057. PMID:40198815. IF:4,600 (Q1/2D).
- Kimmoun A, O'Brien C, Blumer V, Wenzl FA, Pöss J, Zeymer U, Moller JE, Aissaoui N, Sinha SS, Combes A, Sato N, Sionis A, Soussi S, Price S, Monroe RE, Mathew R, Mebazaa A. Optimising trial design for cardiogenic shock: insights from the sixth Critical Care Clinical Trialists Workshop. *Lancet Respiratory Medicine*. 2025; 13(9). DOI:10.1016/S2213-2600(25)00084-0. PMID:40339587. IF:32,800 (Q1/1D).
- Lhoëst MTL, Martínez A, Garcia E, Dandurand J, Polishchuk A, Benítez A, Cenarro A, Civeira F, Bernabé A, Vilades D, Escolà JC, Samouillan V, Llorente V. ApoB100 remodelling and stiffened cholesteryl ester core raise LDL aggregation in familial hypercholesterolemia patients. *JOURNAL OF LIPID RESEARCH*. 2025; 66(1):100703. DOI:10.1016/j.jlr.2024.100703. PMID:39557294. IF:4,100 (Q2/4D).
- Llàcer P, Marcos MC, Croset F, Zegri I, de la Espriella R, Ordás JG, Forti A, Rubio J, Blazquez Z, Mendez A, Rodríguez A, Caravaca P, Comin J, Morales JL, Manzano L, Núñez J. Hypochloremia in chronic and acute heart failure scenarios: Prevalence and risk factors. *European Journal of Internal Medicine*. 2025; 139:106357. DOI:10.1016/j.ejim.2025.05.022. PMID:40500604. IF:6,100 (Q1/1D).
- Marcos M, López T, Ariza A, Rueda F, Sanz E, Aboal J, Pastor P, Buera I, Sionis A, Andrea R, Rodríguez J, Tomas C, Bañeras J, Llaó I, Sánchez JC, Garcia C. Socioeconomic status and equity among patients with cardiogenic shock. *Frontiers in Cardiovascular Medicine*. 2025; 12:1597225. DOI:10.3389/fcvm.2025.1597225. PMID:40994919. IF:2,900 (Q2/4D).
- Marcos MC, de la Espriella R, Zegri I, Llacer P, Gracia JR, Comín J, Morales JL, Díez P, Baguda JD, Jiménez S, Cortés CO, Restrepo MA, García JM, Barrios E, Díaz SD, Núñez J. Early diuretic response and outcome prediction in ambulatory worsening heart failure: Natriuresis versus diuresis. *ESC Heart Failure*. 2025; 12(4). DOI:10.1002/ehf2.15275. PMID:40152188. IF:3,700 (Q1/3D).
- Marschall A, García M, Sanz R, Sabaté M, Velazquez M, Veiga G, Pérez A, Avanzas P, Cortés C, Macaya F, Ojeda S, Jiménez M, Roura G, Cid B, Bastante T, del Val D, Alfonso F. Clinical and Prognostic Implications of Precipitating Factors in Patients With Spontaneous Coronary Artery Dissection. *AMERICAN JOURNAL OF CARDIOLOGY*. 2025; 256. DOI:10.1016/j.amjcard.2025.10.012. PMID:41110817. IF:2,100 (Q3/6D).
- Martín MV, Lendoiro SL, Flores NS, Gómez EJ, Villayandre J, Datino T, Álvarez PN, Díaz E, Alabart NB, Valiente TB, Aizpurua DA, Moreiras JM, Álvarez BC. Occupational exposure to ionising radiation in pregnant staff. Consensus document of ACI-SEC/ARC-SEC/SERVEI/SENRI/SERAM/GeNI. *Rec-Interventional Cardiology*. 2025; 7(4). DOI:10.24875/RECIC.M25000526. PMID:41333118.
- Mengi S, Cepas P, Ternacle J, Urena M, Alperi A, Cheema AN, Veiga G, Nombela L, Vilalta V, Esposito G, Campelo F, Indolfi C, del Trigo M, Muñoz A, Maneiro N, Asmarats L, Regueiro A, Del Val D, Serra V, Auffret V, Leroux L, Modine T, Mesnier J, Suc G, Avanzas P, Rezaei E, Fradejas V, Tirado G, Fernández E, Angellotti D, Guitteny T, Sorrentino S, Oteo JF, Díez F, Gutiérrez L, Vidal P, Alfonso F, Monastyrski A, Nolf M, Avvedimento M, Rodés J. Clinical Outcomes in Atrial Fibrillation Patients Undergoing Transcatheter Aortic Valve Replacement With Contemporary Devices. *CANADIAN JOURNAL OF CARDIOLOGY*. 2025; 41(5). DOI:10.1016/j.cjca.2024.12.007. PMID:39667494. IF:5,300 (Q1/2D).
- Molina M, Roselló E, Tauron M, Tabilo JF, Fernández C, Gotsens C, Pueblas E, Montiel J, Casellas S, Irabien A, Corominas L, López L, Mirabet S, Ginel A. Short and long-term results after heart transplant in patients with congenital heart disease. *Cirugía Cardiovascular*. 2025; 32(1). DOI:10.1016/j.circv.2024.08.001.

5.1.1 Cardiovascular Diseases Area

- Moliner C, Calvo M, Solé E, Martín AB, Brugués PF, Vega JS, Jubany JV, Vallverdú MF, Ferrer MT, Castillo P, Mancera JCD, Rigau PV, Olives RV, López CD, Bayés A, Aizpurua DA, González IF, Pérez SM. Guideline-directed medical therapy after revascularisation and outcomes in ischaemic cardiomyopathy. *ESC Heart Failure*. 2025; 12(6). DOI:10.1002/ehf2.70014. PMID:41243815. IF:3,700 (Q1/3D).
- Moliner C, Calvo M, Solé E, Martín AB, Fluvà P, Sánchez J, Vime J, Vallverdú MF, Ferrer MT, Tobias PE, Mancera JCD, Vilardell P, Vila R, Díez C, Bayés A, Aizpurua DA, Ferreira I, Pérez SM. Revascularisation and outcomes in ischaemic left ventricular dysfunction after heart failure admission: The RevascHeart study. *EUROPEAN JOURNAL OF HEART FAILURE*. 2025; 27(3). DOI:10.1002/ehf.3463. PMID:39359034. IF:10,800 (Q1/1D).
- Novembre ML, Asmarats L, Li CHP, Santalo M, Millán X, Arzamendi D. Transcatheter Tricuspid Valve Annuloplasty with the Cardioband System: A Step-by-Step Guide. *Journal of Clinical Medicine*. 2025; 14(21):7772. DOI:10.3390/jcm14217772. PMID:41227168. IF:2,900 (Q1/2D).
- Nuche J, Mesnier J, Ternacle J, Rezaei E, Campelo F, Urena M, Veiga G, Nombela L, Franzone A, Munoz AJ, Vilalta V, Regueiro A, del Val D, Asmarats L, del Trigo M, Serra V, Bonnet G, Jonveaux M, Canitrot R, Himbert D, Hernández JMD, Tirado G, Fernández E, Cepas P, Alfonso F, Gutierrez L, Oteo JF, Belahnech Y, Mohammadi S, Modine T, Avvedimento M, Rodés J, Cheema AN. Transcatheter Aortic Valve Replacement in Aortic Stenosis Patients With New York Heart Association Functional Class III or IV. *CANADIAN JOURNAL OF CARDIOLOGY*. 2025; 41(5). DOI:10.1016/j.cjca.2024.12.025. PMID:39710301. IF:5,300 (Q1/2D).
- Núñez J, Miñana G, de la Espriella R, Zegrí I, Comín J, Gracia JR, Morales JL, Llàcer P, Díez P, Bagudá JD, Cortés CÉ, Goirigolzarri J, García JM, Barrios E, Díaz SD, Jiménez S, Restrepo MA, Testani J, Marcos MC. Salt repletion and diuretic response: The role of serum chloride. A post-hoc analysis of the SALT-HF trial on furosemide and hypertonic saline solution administration in ambulatory patients with worsening heart failure. *EUROPEAN JOURNAL OF HEART FAILURE*. 2025; 27(6). DOI:10.1002/ehf.3597. PMID:39933832. IF:10,800 (Q1/1D).
- Ortega L, Laudani C, Sionis A, Vidal P, Arevalos V, Andrea R, Morr CI, De Diego O, Ortega E, Jiménez FR, Dantas AP, Angiolillo DJ, Sabaté M, Ortiz JT, Brugaletta S. Effect of DAPAgliflozin on Myocardial Fibrosis and Ventricular Function in Patients with ST-Segment Elevation Myocardial Infarction-DAPA-STEMI Trial. *Journal of Cardiovascular Development and Disease*. 2025; 12(6):220. DOI:10.3390/jcdd12060220. PMID:40558655. IF:2,300 (Q2/5D).
- Peñaranda AS, Peregrina EF, Kockar MJ, del Blanco BG, Romani S, Moreiras JM, Bermúdez EP, Rodrigues A, Ojeda S, López NG, Regueiro A, Frutos AS. New scoring balloon to treat moderate-to-severe calcified coronary lesions. The first-in-man Naviscore study. *Rec-Interventional Cardiology*. 2025; 7(2). DOI:10.24875/RECICE.M24000484.
- Petras A, Figueras GA, Weidmann ZM, García T, Medel DV, Ivorra A, Guerra JM, Gerardo L. Is a single lethal electric field threshold sufficient to characterise the lesion size in computational modelling of cardiac pulsed-field ablation?. *Heart Rhythm O2*. 2025; 6(5). DOI:10.1016/j.hroo.2025.02.014. PMID:40496584.
- Pieszko K, González CR, Petracca RL, Medel DV. Lipomatous metaplasia in cardiac CT: when 'normal' extracellular volume does not indicate myocardial viability - a case report. *European Heart Journal-Case Reports*. 2025; 9(12):yaf612. DOI:10.1093/ehjcr/yaf612. PMID:41384087.
- Raposeiras S, Amat IJ, Rosselló X, Ferreira RG, Bermúdez IG, Otero DL, Nombela L, Gheorghe L, Díez JL, Zorita CB, Baz JA, García A, Vilalta V, Ojeda S, Hernández JMD, Soriano JGC, Regueiro A, Siscar PB, Fernández JS, del Blanco BG, Martín R, Romaguera R, Moris C, Blas SG, Franco JA, Cruz I, Arzamendi D, Rodríguez NR, Hoyo FDD, Freire SC, Ojeda FB, Burgo J, Navarro EM, Borrego JC, Quevedo VR, Sánchez A, Disdier VP, Alegría E, Torres J, Feltes G, Díaz J, Cuellas C, Britez GJ, Lezcano JSR, Barreiro C, Núñez I, Abu E, Iñiguez A, Fuster V, Ibáñez B, Dapa I. Dapagliflozin in Patients Undergoing Transcatheter Aortic-Valve Implantation. *NEW ENGLAND JOURNAL OF MEDICINE*. 2025; 392(14). DOI:10.1056/NEJMoa2500366. PMID:40162639. IF:78,500 (Q1/1D).
- Rives J, Gil P, Viladés D, García A, Genua I, Miñambres I, Grau M, Gich I, Puig N, Benítez

5.1.1 Cardiovascular Diseases Area

- S, Julve J, Pérez A, Sánchez JL. Low-Density Lipoprotein Subfraction Phenotype Is Associated with Epicardial Adipose Tissue Volume in Type 2 Diabetes. *Journal of Clinical Medicine*. 2025; 14(3):862. DOI:10.3390/jcm14030862. PMID:39941533. IF:2,900 (Q1/2D).
- Rodés J, Nombela L, Cruz I, Hibbert B, Freixa X, Masson JB, Ibrahim R, Estevez R, Millan X, Kass M, Paradis JM, Champagne J, Salinas P, Laffond A, Abdel O, Labinaz M, Cepas P, Arzamendi D, Vidal P, Pavesi M, Côté M, O'Hara G, Salaun E. Short-Term Anticoagulation Versus Dual Antiplatelet Therapy for Preventing Device Thrombosis Following Left Atrial Appendage Closure: The ANDES Randomised Clinical Trial. *CIRCULATION*. 2025; 152(25). DOI:10.1161/CIRCULATIONAHA.125.077469. PMID:41139402. IF:38,600 (Q1/1D).
 - Rodés J, Nombela L, Muntané G, Veiga G, Regueiro A, Nazif T, Serra V, Asmarats L, Ribeiro HB, Latib A, Poulin A, Cheema AN, Jiménez P, Gómez JA, Ongay AG, Gabani R, Arzamendi D, Brener M, Calabuig A, Scotti A, Gelain M, Labinaz M, Cepas P, Nuche J, Cote M, Del Portillo JH, Philippon F. Prospective validation of a prespecified algorithm for the management of conduction disturbances after transcatheter aortic valve replacement: The PROMOTE study. *HEART RHYTHM*. 2025; 22(10). DOI:10.1016/j.hrthm.2024.12.019. PMID:39694306. IF:5,700 (Q1/2D).
 - Rodríguez I, Ruiz E, Herrera S, Sabé N, Los I, Silva JT, Pérez E, Machuca I, Álvarez R, Valerio M, Castón JJ, Aguilera V, Bodro M, Cano A, Cantón R, Carmona P, Carratalà J, Cordero E, Cruzado JM, Fariñas MC, Fernández M, Fondevila C, Fortún J, García MD, Gutiérrez A, Iturbe D, Justo I, Len O, López F, Oliva M, Martín P, Martínez L, Mazuecos A, Mirabet S, Muñoz P, Oliver A, Pérez MJ, Rodríguez J, San R, Sánchez J, Solé A, Verdú EV, Villa J, Torre J, Aguado JM. Management of multidrug-resistant gram-negative bacilli infections in adult solid organ transplant recipients: GESITRA-IC/SEIMC, CIBERINFEC, and SET recommendations update. *Transplantation Reviews*. 2025; 39(3):100937. DOI:10.1016/j.trre.2025.100937. PMID:40414085. IF:2,500 (Q1/1D).
 - Ruberti A, Cepas P, Echarte J, Arzamendi D, Moñivas V, Carrasco F, Pan MN, Nombela L, Pascual I, Guerreiro CE, Benito T, Pérez R, Gómez I, Amat IJ, Flores E, Cruz I, Sánchez A, Álvarez A, Barreiro M, Sanchis L, Li CH, Caneiro B, del Trigo M, Martínez JD, Mesa D, Quevedo PJ, Avanzas P, Estévez R, Freixaa X. Efficacy of transcatheter edge-to-edge repair for cardiac implantable electronic device-associated tricuspid regurgitation: insights from the TRI-SPA registry. *REVISTA ESPAÑOLA DE CARDIOLOGÍA*. 2025; 78(10). DOI:10.1016/j.rec.2025.01.010. PMID:39894161. IF:4,900 (Q1/2D).
 - Salido M, Moliner C, Zoratti L, Puig T, Carreras F, Serra R. 25-year follow-up on marked ventricular repolarisation abnormalities in athletes: Long-term outcomes and cardiovascular prognosis. *INTERNATIONAL JOURNAL OF CARDIOLOGY*. 2025; 427:133060. DOI:10.1016/j.ijcard.2025.133060. PMID:40010514. IF:3,200 (Q2/3D).
 - Salinas P, Romaguera R, Gómez J, Brugaletta S, Gómez A, Martín P, Romero M, García S, Jiménez M, Jiménez VA, Bordes P, Bayón J, Salvatella N, Alameda M, Hyun D, Trillo R, López M, Frutos A, Moreu J, del Blanco BG, Mohandes M, Ojeda FB, Hernández FH, Pinar E, Jiménez P, Rosselló X, Pocock S, Sabaté M, Gómez JA, Comin J, Gonzalo N, Ortiz AF, SUGAR I. Amphilimus-eluting versus zotarolimus-eluting stents in patients with diabetes mellitus and coronary artery disease: extended follow-up of the SUGAR randomised controlled trial. *HEART*. 2025; 111(24). DOI:10.1136/heartjnl-2025-325773. PMID:40562528. IF:4,400 (Q1/3D).
 - Sanchis J, Bueno H, Garcia S, Gómez JA, Martí D, Martínez M, Dominguez L, Díez P, Barrabes JA, Marin F, Villa A, SanMartín M, Llibre C, Sionis A, Carol A, Valero E, Calvo E, Morales MJ, Elizaga J, Gómez I, Alfonso F, del Blanco BG, Formiga F, Nunez E, Nunez J, Ariza A. Geriatric conditions and invasive management in frail patients with NSTEMI. A subgroup analysis of a randomised clinical trial. *REVISTA ESPAÑOLA DE CARDIOLOGÍA*. 2025; 78(4). DOI:10.1016/j.rec.2024.08.006. PMID:39270775. IF:4,900 (Q1/2D).
 - Sanchis J, Bueno H, Sánchez DM, Martínez M, Villanueva PD, Barrabes JA, Marin F, Villa A, Fernández MS, Llibre C, Sionis A, Elizaga J, Alfonso F, Nuñez E, Núñez J, Kunadian V, Ariza A. Effects of routine invasive management on

5.1.1 Cardiovascular Diseases Area

- reinfarction risk in older adults with frailty and non-ST-segment elevation myocardial infarction: a subanalysis of a randomised clinical trial. *HEART*. 2025; 111(16). DOI:10.1136/heartjnl-2024-325254. PMID:39922692. IF:4,400 (Q1/3D).
- Sans J, Fernández E, Montaner PC, Sutil M, Viladés D, Rubio PM, Kardenass AE, García V, Belmar D, Torres G, Martínez A, García HM. Characterisation and Prognostic Value of Longitudinal Strain in the Different Patterns of Takotsubo Syndrome. *ECHOCARDIOGRAPHY-A JOURNAL OF CARDIOVASCULAR ULTRASOUND AND ALLIED TECHNIQUES*. 2025; 42(8):e70256. DOI:10.1111/echo. 70256. PMID:40758261. IF:1,400 (Q3/7D).
 - Silva I, Alperi A, Muñoz A, Cheema A, Nombela L, Veiga G, Tay E, Urena M, Asmarats L, del Trigo M, Lim Y, Alonso LG, Regueiro A, Campelo F, Serra V, del Val D, Ribeiro HB, Ternacle J, Vilalta V, Vidal P, Belahnech Y, Alfonso F, Nuche J, Rodes J, Pibarot P. 'Incidence and impact of structural valve deterioration following TAVI: a multicenter real-world study'. *European Heart Journal-Cardiovascular Imaging*. 2025; 26(6). DOI:10.1093/ehjci/jeaf083. PMID:40059432. IF:6,600 (Q1/1D).
 - Sisinni A, Barreiro M, Freixa X, Arzamendi D, Moñivas V, Carrasco F, Pan M, Nombela L, Pascual I, Benito T, Pérez R, Gómez I, Amat IJ, Cruz I, Sánchez A, Álvarez A, Sanchis L, Caneiro B, Li CH, del Trigo M, Martínez JD, Mesa D, Pozo E, Avanzas P, Cepas P, Estévez R. Real-World Experience in Tricuspid Transcatheter Edge-to-Edge Repair: Transcatheter Tricuspid Valve Repair in Spain Registry. *Journal of the American Heart Association*. 2025; 14(2):e037070. DOI:10.1161/JAHA.124.037070. PMID:39818971. IF:5,300 (Q1/2D).
 - Sisinni A, Freixa X, Arzamendi D, Palomero VM, Carrasco F, Pan M, Nombela L, Pascual I, Benito T, Estevez R. Impact of Precapillary Component of Pulmonary Pressure in Tricuspid Transcatheter Edge-to-Edge Repair Results From TRI-SPA. *JACC-ADVANCES*. 2025; 4(10):102153. DOI:10.1016/j.jacadv.2025.102153. PMID:40945427.
 - Somani R, Daniels J, Mechulan A, Paul V, Sharman D, Sze S, Prat XV. Expert opinion on a safe same-day discharge strategy as standard of care after leadless pacemaker implantation. *Ijc Heart & Vasculature*. 2025; 58:101649. DOI:10.1016/j.ijcha.2025.101649. PMID:40170952.
 - Tarantini G, Fovino LN, Belloni F, Barbierato M, Gallo F, Vercellino M, Trani C, Burzotta F, Serra LA, Petronio AS, Bedogni F, Berti S, Bertolini A, Fabris T, Tito A, Musto C, Giordano A, Corcione N, Maisano F, Medda M, Loi B, Cernetti C, Favero L, Di E, Gregori D, Lorenzoni G, Orzalkiewicz M, Esposito G, Saia F, Cardaioli F, Marchese A, CAVeAT I, Italian Soc Intervent C. The Coronary Access After TAVI (CAVeAT) Study A Prospective Registry of CA After TAVR. *JACC-Cardiovascular Interventions*. 2025; 18(12). DOI:10.1016/j.jcin.2025.05.002. PMID:40562472. IF:11,400 (Q1/1D).
 - Travieso A, Nuche J, Tirado G, Cheema AN, Tamargo M, Muntané G, Asmarats L, Becerra VM, Del Valle R, Rivero F, Pena JCS, Cordon CF, Martínez M, Muñoz AJ, López D, Alonso JH, Gonzalo N, Alfonso F, Arzamendi D, Gómez JA, Rodés J, Nombela L. Pacemaker Risk Stratification in Patients With Pre-existing Right Bundle Branch Block Undergoing Transcatheter Aortic Valve Replacement. *CANADIAN JOURNAL OF CARDIOLOGY*. 2025; 41(11). DOI:10.1016/j.cjca.2025.06.076. PMID:40623499. IF:5,300 (Q1/2D).
 - Trinh KH, Nuche J, Cruz I, Guedeney P, Arzamendi D, Freixa X, Nombela L, Peral V, Caneiro B, Mangieri A, Trejo B, Asmarats L, Cepas P, Salinas P, Siquier J, Estevez R, Laricchia A, O'Hara G, Montalescot G, Côté M, Mesnier J, Rodés J. Early and late hospital readmissions after percutaneous left atrial appendage closure. *REVISTA ESPAÑOLA DE CARDIOLOGÍA*. 2025; 78(4). DOI:10.1016/j.rec.2024.07.009. PMID:39128822. IF:4,900 (Q1/2D).
 - Tsaban G, Pérez RV, Krychtiuk KA, Ahrens I, Halvorsen S, Hassager C, Huber K, Schiele F, Sionis A, Claeys MJ. Lipid-lowering therapy after acute coronary syndromes: a multinational European survey. *CORONARY ARTERY DISEASE*. 2025; 36(1). DOI:10.1097/MCA.0000000000001420. PMID:39263716. IF:2,000 (Q3/6D).
 - Ullmo J, Cruz M, Bos L, Padilla M, Coma M, Martorell S, Mora J, Ordóñez J, Llorba E, AngioCor G. Cardiovascular risk assessment in women at high risk for pre-eclampsia in the first half

5.1.1 Cardiovascular Diseases Area

- of pregnancy. *ULTRASOUND IN OBSTETRICS & GYNECOLOGY*. 2025; 66(1). DOI:10.1002/uog.29247. PMID:40471220. IF:6,300 (Q1/1D).
- Uribarri A, Vazirani R, Delia MA, Tomasino M, Fernández C, Martín A, Blanco E, Salamanca J, Corbí M, Vedia O, Duran A, Becerra VM, Lluch C, Raposeiras S, Guillén M, López J, Pérez A, Mayordomo PS, Martínez M, Vila S, Ródenas E, Núñez IJ, RETAKO I. Impact of mechanical circulatory support on outcomes in Takotsubo syndrome complicated by cardiogenic shock: Insights from the RETAKO registry. *INTERNATIONAL JOURNAL OF CARDIOLOGY*. 2025; 419:132681. DOI:10.1016/j.ijcard.2024.132681. PMID:39454688. IF:3,200 (Q2/3D).
 - Vicent L, García MD, Amigo JS, Guerra JM, Dolz LM, Farré N, Segovia J, Crespo MG, Carrasquer A, Trillo AG, Villacastin JP, Matute L, Martínez M. Sex and clinical outcomes in new-onset heart failure. *INTERNATIONAL JOURNAL OF CARDIOLOGY*. 2025; 428:133092. DOI:10.1016/j.ijcard.2025.133092. PMID:40037478. IF:3,200 (Q2/3D).
 - Vidal P, Bujak K, Rinaldi R, Salazar A, Ortega L, Gómez J, Jiménez V, Jiménez M, Jiménez P, Diletti R, Bordes P, Campo G, Silvestro A, Maristany J, Flores X, De Miguel A, Iñiguez A, Ielasi A, Tespili M, Lenzen M, Gonzalo N, Tebaldi M, Biscaglia S, Romaguera R, Gómez JA, Serruys PW, Sabaté M, Brugaletta S. Long-term prognostic impact of the left anterior descending coronary artery as the STEMI-related culprit vessel: subanalysis of the EXAMINATION-EXTEND trial. *Rec-Interventional Cardiology*. 2025; 7(2). DOI:10.24875/RECICE.M24000488.
 - Yun S, Comín J, Calero E, Hidalgo E, José N, Marcos MC, Soria T, Llàcer P, Fernández C, García JM, Cruzado C, González A, García EM, Morales JL, Solé C, García E, Núñez J, Civera J, Fernández C, Faraudo M, Moliner P, Formiga F, Bagudá JD, Zegri I, Verdú JM, Vela E, Monterde D, Piera J, Carot G, Enjuanes C, HERMeS trial investigators GRP. Evaluation of mobile health technology combining telemonitoring and teleintervention versus usual care in vulnerable-phase heart failure management (HERMeS): a multicentre, randomised controlled trial. *Lancet Digital Health*. 2025; 7(5):100866. DOI:10.1016/j.landig.2025.02.006. PMID:40374486. IF:24,100 (Q1/1D).
 - left ventricular dysfunction undergoing transcatheter aortic valve implantation. *EuroIntervention*. 2024; 20(8). DOI:10.4244/EIJ-D-23-00948. PMID:38629416. IF:7,600 (Q1/1D). Document type: Article.
 - Zamorano JL, Álvarez M, Arzamendi D, Carnero M, Cruz I, Li CHP, Pardo A, Martínez O, Cerezales M, Cuervo J, Vernia M, González P, Martí B. Burden of Mitral Regurgitation in Spain from 2016-2021: An Analysis by Aetiology and Sex. *Journal of Clinical Medicine*. 2024; 13(21):6372. DOI:10.3390/jcm13216372. PMID:39518512. IF:3,000 (Q1/2D). Document type: Article.

SCIENTIFIC PRODUCTION - Clinical Practice Guidelines

- Borger MA, de Waha S, Marsan NA, Zühlke L, Mestres CA, Fosbol E, Bonaros N, Pizzi MN, Brida M, Sionis A, Delgado V, Task Force ESC Guidelines Management E. Key priorities for the implementation of the 2023 ESC Guidelines for the management of endocarditis in low-resource settings. *European Heart Journal-Quality of Care and Clinical Outcomes*. 2025; 11(5). DOI:10.1093/ehjqcco/qcae106. PMID:40152919. IF:4,600 (Q1/2D).
- García MD, Cruzado JM, Farrero M, Peiró MTB, Crespo M, Jiménez JFD, Molina BD, Rivera CF, Bravo I, Jiménez VL, Melilli E, Pérez SM, Tamajón MLP, Sousa DR, Calabia ER, Marrero DH. Management of heart disease in renal transplant recipients: a national Delphi survey-based SET/SEC/SEN consensus document. *REVISTA ESPAÑOLA DE CARDIOLOGÍA*. 2025; 78(3). DOI:10.1016/j.rec.2024.09.008. PMID:39442797. IF:4,900 (Q1/2D).
- García MD, Farrero M, Blasco MT, Crespo M, Delgado J, Díaz B, Fernández C, Garrido IP, López V, Melilli E, Mirabet S, Pérez ML, Rangel D, Rodrigo E, Cruzado JM, Hernández D, Spanish T, Spanish N, Spanish Soc Cardiology SET SEC S. Management of Kidney Disease in Heart Transplant Patients: A National Delphi Survey-based Consensus Expert Paper. *TRANSPLANTATION*. 2025; 109(9). DOI:10.1097/TP.0000000000005302. PMID:39928546. IF:5,000 (Q1/1D).

5.1.1 Cardiovascular Diseases Area

- Rodríguez I, Ruiz E, Herrera S, Sabé N, Los I, Silva JT, Pérez E, Machuca I, Álvarez R, Valerio M, Castón JJ, Aguilera V, Bodro M, Cano A, Cantón R, Carmona P, Carratalà J, Cordero E, Cruzado JM, Fariñas MC, Fernández M, Fondevila C, Fortún J, García MD, Gutiérrez A, Iturbe D, Justo I, Len O, López F, Oliva M, Martín P, Martínez L, Mazuecos A, Mirabet S, Muñoz P, Oliver A, Pérez MJ, Rodríguez J, San R, Sánchez J, Solé A, Verdú EV, Villa J, Torre J, Aguado JM. Management of multidrug-resistant gram-negative bacilli infections in adult solid organ transplant recipients: GESITRA-IC/SEIMC, CIBERINFEC, and SET recommendations update. *Transplantation Reviews*. 2025; 39(3):100937. DOI:10.1016/j.trre.2025.100937. PMID:40414085. IF:2,500 (Q1/1D).

5.1.1 Cardiovascular Diseases Area

Thrombosis and Haemostasis

Group leader

Souto Andrés, Joan Carles (FGS)

Researchers

Carrasco Exposito, Marina (FGS)

Mateo Arranz, José (FGS)

Millon Caño, Juan Antonio (FGS)

Moret Puig, Carla (FGS)

Vilalta Seto, Noelia (FGS)

Research technicians

Acosta Isaac, Francisco Rene (FGS)

Bercianos Repes, Elaia (IR)

Llobet Lorente, Maria Dolors (FGS)

Mojal Garcia, Sergio (IR)

Romero Roman, Lidia (FGS)

Tirado García, Isabel (FGS)



DESCRIPTION

Our group is dedicated to clinical and basic research of haemostasis diseases, both thromboembolic and hemorrhagic and to the clinical development of antithrombotic and antihemorrhagic therapies. We apply modern epidemiological AI methods to study complex diseases, such as venous thrombosis. The research group team is composed of 6 physicians, 4 technicians and one statistician. Five of them have a doctorate in medicine (3), biology (1) and pharmacy (1). As a clinical team, our primary focus, both in the clinic and the laboratory, is the diagnosis and treatment of patients.

MAIN LINES OF RESEARCH

- Development of predictive mathematical models of the individual thrombosis risk, by means of IA. (Souto Andres, J. Carles).
- Translational research on new anticoagulants, anti-IIa, Xa and XI, and a self-management model of VKA drugs. (Souto Andres, J. Carles).
- Translational research on new anti-hemophilic drugs. (Mateo Arranz, José).

SCIENTIFIC CHALLENGES

- Use of Machine Learning models (Artificial Intelligence techniques) applied in the study of the venous thrombosis risk, at the individual level, by the combined analysis of plasma, cellular, genomic and epigenomic biomarkers.
- Improvement of clinical outcomes in anticoagulated patients with different anticoagulants (VKA or DOACs) by minimising in real life the incidence of severe complications.
- Use of high-throughput genomic techniques in the diagnosis of hemostasis diseases (NGS, exome sequencing, genome sequencing).

5.1.1 Cardiovascular Diseases Area

SCIENTIFIC PRODUCTION - Articles & Reviews

- Berrueco R, Soto I, Bastida JM, Villas JMC, de Cos C, Haya S, García FS, Arranz JM. Patient-Centred Management of Well-Controlled Haemophilia: Obtaining Opinions and Definitions Through a Delphi Consensus. *Journal of Clinical Medicine*. 2025; 14(10):3300. DOI:10.3390/jcm14103300. PMID:40429300. IF:2,900 (Q1/2D).
- Hernández J, Martínez F, Acebes X, Alerany C, Antón J, Calvo G, Corral M, Cruz J, Manges MA, Mateo J, Rivera J, Salazar A, Francisco R, Mallol C, Reig R, Tigri A, Ricart A, Palau F. Identification of strengths and weaknesses of the healthcare system for persons living with rare diseases in Catalonia (Spain), and recommendations to improve its comprehensive attention: the "acERcalas enfermedades raras" project. *Orphanet Journal of Rare Diseases*. 2025; 20(1):42. DOI:10.1186/s13023-024-03518-x. PMID:39875900. IF:3,500 (Q2/4D).
- Hidalgo OB, Alonso CM, Jaime FJL, Carrasco M, Hernández MDN, Afonso N, Lei A, Whymys D, Hanna K, Aragonés ME, Torres M, Oliveras J. Safety and Effectiveness of the Use of pdVWF/ FVIII-C in Patients with von Willebrand Disease: A Prospective, Observational, Post-Authorisation Study. *CLINICAL AND APPLIED THROMBOSIS-HEMOSTASIS*. 2025; 31:10760296251327593. DOI:10.1177/10760296251327593. PMID:40079811. IF:2,000 (Q3/6D).
- Marzo C, Solanich T, Tassies D, Pina E, Rebollo MA, Gallardo E, Serradell S, Merino M, Carrasco M, Tugues A. Consensus on the Management of the Clinical Challenges of Venous Thromboembolism in Special Situations. *THROMBOSIS AND HAEMOSTASIS*. 2025;125(10). DOI:10.1055/a-2595-1811. PMID:40359988. IF:4,300 (Q1/2D).
- Mohapatra AK, Vlieg AV, Kleber ME, Martínez A, Le NQ, Hindberg KD, Dusart P, Germain M, Thibord F, Deleuze JF, Delgado GE, Goumide L, Suchon P, Saut N, Souto JC, Butler LM, Soria JM, Hansen JB, März W, Rosendaal FR, Castoldi E, Peiretti F, Sabater M, Trégouët DA, Morange PE. A multiomics approach reveals novel regulators of plasma factor V levels, highlighting CLEC4M as a clearance receptor. *BLOOD*. 2025; 146(5). DOI:10.1182/blood. 2024027006. PMID:40359434. IF:23,100 (Q1/1D).

5.1.1 Cardiovascular Diseases Area

Cardiovascular Biochemistry

Group leader

Sánchez Quesada, José Luis (IR)

Researchers

Benítez González, Sonia (IR)

Freixa Martín, Julia (FGS)

Fu, Kemin (UAB)

García Osuna, Álvaro (FGS)

Grau Agramunt, Margarita (FGS)

Rives Jiménez, José (IR)

Research technicians

Farré Riera, Javier (IR)

Porcel Jabalera, Inmaculada (FGS)



DESCRIPTION

The group comprises personnel from the Research Institute of the Hospital de Sant Pau (IR-HSP) and the Biochemistry Department of the Hospital de la Santa Creu i Sant Pau (HSCSP). The group's main lines of research focus on the molecular mechanisms underlying the development of cardiovascular diseases, specifically those driven by alterations in lipoprotein metabolism or inflammatory processes. Our objective is to transfer the knowledge gained from translational research to clinical application in a Clinical Biochemistry Laboratory at a University Hospital.

MAIN LINES OF RESEARCH

MECHANISMS OF DISEASE

- Mechanisms leading to lipoprotein aggregation, cholesterol accumulation, inflammation and apoptosis in the arterial wall induced by modified LDL. (Benítez González, Sonia; Sánchez Quesada, José Luis).
- Apolipoprotein J and derived-mimetic peptides as therapeutic tools. (Sánchez Quesada, José Luis).
- Analysis of the secretome of epicardial adipose tissue from cardiac surgery patients with diabetes or obesity. (Benítez González, Sonia; Sánchez Quesada, José Luis).

BIOMARKERS

- Biomarkers of epicardial fat accumulation. (Benítez González, Sonia; Sánchez Quesada, José Luis).
- Assessment of new biomarkers of acute and chronic cardiovascular disease and algorithms for ruling out acute coronary disease. (García Osuna, Álvaro).
- Development of methods for point-of-care biomarker measurement. (García Osuna, Álvaro).
- -Biomarkers to assess carotid plaque vulnerability and inflammation and major adverse cardiovascular events in ischemic stroke (Benítez González, Sonia; García Osuna, Álvaro).

5.1.1 Cardiovascular Diseases Area

SCIENTIFIC CHALLENGES

- Determine the intracellular mechanisms involved in the inflammatory response induced by LDL(-) and the components of the particle that entail atherogenicity.
- Analyse the therapeutic potential of mimetic peptides derived from apoJ to delay the development of atherosclerosis in animal models.
- Find new markers of cardiovascular risk in diseases such as diabetes, obesity, HIV or cardiac failure.
- Strengthen international collaborations to set up future applications for International funding and participation in multidisciplinary international research projects.

ACTIVE & AWARDED GRANTS

- Almendra Pegueros, Rafael Antonio. Contractes predoctorals PFIS 2021. FI21/00125. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026.
- Sánchez Quesada, José Luis. Tejido adiposo epicárdico en la obesidad y la diabetes. Mecanismos moleculares de riesgo cardiovascular y búsqueda de nuevos biomarcadores. PI20/00334. Instituto de Salud Carlos III (ISCIII). Duration: 2021-2025. 147.620,00 €
- Sánchez Quesada, José Luis. Papel de las glicoformas de clusterina/apolipoproteína J en la dislipemia diabética. PI23/00888. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 127.500,00€
- Rives Jiménez, José. Contractes Rio Hortega 2024. CM24/00077. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 65.000,00 €

DOCTORAL THESES DEFENDED

- Nan, Madalina Nicoleta. Utilidad de los biomarcadores de disfunción cardíaca en enfermedades de origen placentario, como la preeclampsia, durante el embarazo. 11/11/2025. Universitat Autònoma de Barcelona. Supervisors: García Osuna, Álvaro; Llorba Olivé, Elisa; Mora Brugués, Josefina; Blanco Vaca, Francisco. <https://hdl.handle.net/10803/695950>
- Rives Jiménez, José. Tejido adiposo epicárdico y alteraciones del metabolismo lipídico en la diabetes mellitus tipo 2. 10/10/2025. Universitat Autònoma de Barcelona. Supervisors: Sánchez Quesada, José Luis; Benítez González, Sònia; Blanco Vaca, Francisco. <https://hdl.handle.net/10803/695552>

SCIENTIFIC PRODUCTION - Articles & Reviews

- Aguilera A, Guasch M, Moniche F, Puig N, Pardo B, Benítez S, Freijo MD, Marín R, Luna A, Gallego C, Fernández I, Ezcurra G, Jiménez J, Lambea A, Gómez B, Martínez A, Arenillas JF, Prats L, Rodríguez J, Ramos A, de Celis E, Martínez JP, Trillo S, Ortega J, Martí J, Camps P. Vascular Endothelial Growth Factor-A and Collateral Circulation in Patients with Acute Ischemic Stroke due to Intracranial Large Vessel Occlusion. Translational Stroke Research. 2025; 17(1):3. DOI:10.1007/s12975-025-01399-1. PMID:41326757. IF:4,300 (Q1/2D).
- Akyol O, Chiang HH, Burns AR, Yang CY, Woodside DG, Sawamura T, Sánchez JL, Gotto AM, Chen CH. LDL atherogenicity determined by size, density, oxidation, apolipoprotein(a), and electronegativity: an updated review. Frontiers in Cardiovascular Medicine. 2025; 12:1649759. DOI:10.3389/fcvm. 2025.1649759. PMID:41210345. IF:2,900 (Q2/4D).
- Almendra R, Rodríguez C, Camacho M, Sánchez D, Sánchez JL, Cáncer S, Pérez E, Medina G, Martínez J, García AB, Galán M. Identification of endoplasmic reticulum stress- associated lncRNAs influencing inflammation and VSMC

5.1.1 Cardiovascular Diseases Area

- function in abdominal aortic aneurysm. CLINICAL SCIENCE. 2025; 139(6). DOI:10.1042/CS20242476. PMID:40072504. IF:7,700 (Q1/2D).
- Alvarado E, Brujats A, Puente A, Ardevol A, Rodríguez A, Fajardo J, Pavel O, Garcia M, Aracil C, Poca M, Cuyàs B, Cantó E, Montañés R, Garcia A, Escorsell A, Torras X, Villanueva C. Hemodynamic effects of carvedilol plus simvastatin in cirrhosis with severe portal hypertension and suboptimal response to β -blockers: A double-blind, placebo-controlled, randomised trial. HEPATOLOGY. 2025; 82(1). DOI:10.1097/HEP.0000000000001148. PMID:39509369. IF:15,800 (Q1/1D).
 - Carreras G, Mendoza LC, Colom C, Tirado M, Sardà H, Sánchez JL, Pérez A. Thyroid autoimmunity at onset of type 1 diabetes as a predictor of thyroid dysfunction: a thirty-year retrospective longitudinal study. Frontiers in Endocrinology. 2025; 16:1699111. DOI:10.3389/fendo.2025.1699111. PMID:41255538. IF:4,600 (Q1/3D).
 - Costa M, García A, Canyelles M, Martínez C, Nan N, Ferrer R, Blanco F, Guiñón L. Refining quality control strategies in highly automated laboratories: experience in the integration of multistage statistical designs and risk management. Biochimica Medica. 2025; 35(3):030704. DOI:10.11613/BM.2025.030704. PMID:41103687. IF:1,800 (Q3/6D).
 - Costa N, Platero J, Garcia P, Sánchez O, Pellicer C, Jordi M, Garcia Z, Garrido C, Ullmo J, Nan M, Mora J, Garcia A, Cholí M, Cruz M, Medina MD, Llurba E. Long-Term Biochemical and Cardiovascular Profiles 3-6 Years After Preeclampsia: Impact of Angiogenic Imbalance During Pregnancy. Journal of Clinical Medicine. 2025; 14(23):8389. DOI:10.3390/jcm14238389. PMID:41375695. IF:2,900 (Q1/2D).
 - Gil P, Rives J, Sánchez JL, Pérez A. Epicardial Fat and Heart Failure in Type 2 Diabetes: Metabolism, Imaging and Novel Biomarkers-A Translational Perspective. Journal of Clinical Medicine. 2025; 14(23):8413. DOI:10.3390/jcm14238413. PMID:41375727. IF:2,900 (Q1/2D).
 - Gil P, Rives J, Viladés D, García A, Genua I, Miñambres I, Grau M, Gich I, Camacho M, Benítez S, Julve J, Sánchez JL, Pérez A. Association of Epicardial Adipose Tissue with Novel Inflammation and Heart Failure Biomarkers in Type 2 Diabetes Patients: Effect of Metabolic Control. Journal of Clinical Medicine. 2025; 14(13):4687. DOI:10.3390/jcm14134687. PMID:40649060. IF:2,900 (Q1/2D).
 - Nan MN, Garrido C, Garcia A, Manau PG, Ullmo J, Mora J, Sánchez O, Platero J, Cruz M, Llurba E, EuroPE G. N-terminal pro B-type natriuretic peptide as biomarker to predict pre-eclampsia and maternal-fetal complications. ULTRASOUND IN OBSTETRICS & GYNECOLOGY. 2025; 65(4). DOI:10.1002/uog.29202. PMID:40088200. IF:6,300 (Q1/1D).
 - Puig N, Camps P, Garcia E, Benítez A, Aguilera A, Fernández A, Quesada JLS, Llorente V, Benítez S. sICAM-1 concentrations are associated with inflammation in contralateral carotid plaque in patients with ischemic stroke. Clínica E Investigación En Arteriosclerosis. 2025; 37(2):100729. DOI:10.1016/j.arteri.2024.07.002. PMID:39095307.
 - Puig N, Camps P, Hermansson M, Aguilera A, Marín R, Bautista O, Rotllan N, Blanco N, Domíne MC, Öörni K, Sánchez JL, Benítez S. Alterations in LDL and HDL after an ischemic stroke associated with carotid atherosclerosis are reversed after 1 year. JOURNAL OF LIPID RESEARCH. 2025; 66(2):100739. DOI:10.1016/j.jlr.2024.100739. PMID:39746448. IF:4,100 (Q2/4D).
 - Rives J, Gil P, Viladés D, García A, Genua I, Miñambres I, Grau M, Gich I, Puig N, Benítez S, Julve J, Pérez A, Sánchez JL. Low-Density Lipoprotein Subfraction Phenotype Is Associated with Epicardial Adipose Tissue Volume in Type 2 Diabetes. Journal of Clinical Medicine. 2025; 14(3):862. DOI:10.3390/jcm14030862. PMID:39941533. IF:2,900 (Q1/2D).
 - Saumoy M, Fernández A, Tiraboschi J, Peñafiel J, Sánchez JL, Vega J, García B, Soriano I, Podzamczar D, Imaz A. Biomarkers of inflammation and coagulation predict non-AIDS-defining events in a prospective cohort of virologically suppressed people living with HIV. HIV MEDICINE. 2025; 26(6). DOI:10.1111/hiv.70017. PMID:40130659. IF:3,200 (Q2/4D).

5.1.1 Cardiovascular Diseases Area

Molecular Pathology and Therapeutic of Ischaemic and Atherothrombotic Diseases

Group leader

Vilahur Garcia, Gemma (IR)

Researchers

Alcover Rullan, Sebastián (IR)
 Borrell Pages, Maria Montserrat (IR)
 Giron Martínez, Gabriela Obdulia (IR)
 Li, Xiangjun (UAB)
 Luquero I Gómez, Aureli (IR)
 Martín Chaves, Laura (FIMABIS)
 Nikolau, Paagiota (University of Athens-NKUA)
 Otero Rodríguez, Sergi (IR)
 Ramos Regalado, Lisaidy (IR)
 Simon Ramon, Clara (FGS)
 Suades Soler, Rosa (CIBER)

Research technicians

Canovas Noe, Maria Angeles (IR)
 Catalina García, Pablo (IR)
 Huertas Segarra, Sonia (IR)
 López Bernal, Sergio (IR)
 Pimentel Mayordomo, Noelia (IR)



DESCRIPTION

Our research group is dedicated to investigating the mechanisms underlying myocardial damage in the setting of infarction. We aim to identify novel targets and develop innovative cardioprotective strategies to prevent adverse cardiac remodelling and heart failure. Additionally, we explore the regulation of angiogenesis, the role of lipid metabolism and inflammation in ischemic artery disease, and the pathophysiological functions of LRP family proteins within the heart-brain axis. Ultimately, we identify biomarkers with diagnostic and prognostic value for use in personalised medicine.

MAIN LINES OF RESEARCH

- Detection of new targets and study of novel therapeutic approaches to prevent ischemic damage and lessen post-infarction left ventricular remodelling and heart failure. (Vilahur Garcia, Gemma).
- The role of lipid metabolism and inflammation in atherosclerotic coronary artery disease. (Vilahur Garcia, Gemma).
- Identification of biomarkers with diagnostic and prognostic potential for personalised medicine. (Vilahur Garcia, Gemma; Suades Soler, Rosa).
- Pathophysiological role of LRP family proteins in the heart-brain axis. (Borrell Pages, Maria).
-

5.1.1 Cardiovascular Diseases Area

ACTIVE & AWARDED GRANTS

- Borrell Pages, Maria. Cerebral lipid homeostasis in ischemic stroke: role of lipoprotein receptors and pharmacological interventions. MARATO 202304-10. Fundació La Marató de TV3. Duration: 2024-2027. 197.937,50 €
- Borrell Pages, Maria. LDLR family and PCSK9's role in cerebral lipid homeostasis in ischemic stroke. PI23/00589. Instituto de Salud Carlos III. Duration: 2024-2026. 140.000,00 €
- Borrell Pages, Maria. Rol del PCSK9 en la enfermedad vascular: impacto del PCSK9 en la pared vascular. SEC 2022. Sociedad Española de Cardiología. Duration: 2022-2026. 15.000,00 €
- Borrell Pages, Maria. Prevención del deterioro cognitivo de origen vascular (VCI) mediante la activación del tráfico de colesterol y la reducción de la oxidación celular. AC20/00054. Instituto de Salud Carlos III. Duration: 2022-2025. 174.978,10 €
- Ramos Regalado, Lisaidy. Mejora de la función cardíaca mediante el conocimiento del eje metabólico triglicéridos/HDL: impacto en las células de la médula ósea y en el corazón. 2024 FI-1 00172. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2024-2027. 72.552,41 €
- Vilahur Garcia, Gemma. CARDIATEAM: Cardiomyopathy in type 2 diabetes mellitus.
- CARDIATEAM AMD-821508-11. H2020-JTI-IMI2-2017-13-two-stage. Unión Europea. Duration: 2019-2026. 50.000,00 €
- Vilahur Garcia, Gemma. Centro de Investigación Biomédica en Red de Enfermedades Cardiovasculares (CIBERCV). CB16/11/00411. Ministerio de Ciencia e Innovación. ISCIII.
- Vilahur García, Gemma. Reconstitución de las HDL: bioingeniería para restaurar la función perdida por la hipercolesterolemia. Fundación Española de Arteriosclerosis. FEA 2019. 2020-2026. 12.000,00 €
- Vilahur Garcia, Gemma. Avances en el diagnóstico y el pronóstico de la aterosclerosis en pacientes diabéticos. PLEC2021-007664. Ministerio de Ciencia e Innovación (MICINN). Duration: 2021-2025. 271.697,00 €
- Vilahur Garcia, Gemma. Mejora de la función cardíaca mediante el conocimiento del eje metabólico triglicéridos/HDL: impacto en las células de la médula ósea y del corazón. PID2021-128891OB-I00. Ministerio de Ciencia e Innovación (MICINN). Duration: 2022-2026. 302.500,00 €
- Vilahur Garcia, Gemma. Nueva aproximación terapéutica para prevenir el desarrollo de la cardiomiopatía diabética mediante la inhibición funcional de la HMG-CoA reductasa y la activación de la vía de señalización de la AMPK. SEC 2020. SEC/FEC-INV-TRL 20/01. Sociedad Española de Cardiología (SEC). Duration: 2020-2026. 15.000,00 €
- Vilahur Garcia, Gemma. Impacto de la obesidad en el desarrollo de la insuficiencia cardíaca con fracción de eyección preservada: descifrando los mecanismos patofisiológicos y el papel de los inhibidores del SGLT2. SEC/FEC-INV-BAS 25/27. Sociedad Española de Cardiología (SEC). Duration: 2025-2027. 15.000,00 €
- Vilahur García, Gemma. Targeted nanomedicine to reverse fibrosis in ischemic cardiomyopathies. PCI2023-143431. Ministerio de Ciencia e Innovación (MICINN). Duration: 2023-2026. 157.300,00 €
- Vilahur García, Gemma. Nanotechnology-based therapeutics to protect the infarcted heart: deciphering the role of innovative HDL bioengineered nanoconstructs. MARATO 202337-30. Fundació La Marató de TV3. Duration: 2024-2027. 187.248,75 €

5.1.1 Cardiovascular Diseases Area

DOCTORAL THESES DEFENDED

- Luquero Gómez, Aureli. WNT pathway regulation of lipid handling and inflammation in organ function: the role of LRP5. 09/10/2024. Universitat de Barcelona. Supervisors: Borrell Pagès, Maria; Badimón Maestro, Lina; Corominas Guiu, Montserrat. <http://hdl.handle.net/10803/693605>
- Muñoz García, Natalia. Lipoproteínas, inflamación y antioxidantes dietéticos en la enfermedad cardiovascular. 02/12/2024. Universitat de Barcelona. Supervisors: Badimon Maestro, Lina; Padró Capmany, M.Teresa; Sabaté Tenas, Manuel. <http://hdl.handle.net/10803/693876>

SCIENTIFIC PRODUCTION - Articles & Reviews

- Alcover S, López S, Ramos L, Muñoz N, Gallinat A, Suades R, Badimon L, Vilahur G. Cardioprotection During Myocardial Infarction in Diabetic Cardiomyopathy. DIABETES. 2025; 74(6). DOI:10.2337/db24-0510. PMID:40080393. IF:7,500 (Q1/1D).
- Alcover S, Ramos L, Girón G, Muñoz N, Vilahur G. HDL-Cholesterol and Triglycerides Dynamics: Essential Players in Metabolic Syndrome. Antioxidants. 2025; 14(4):434. DOI:10.3390/antiox14040434. PMID:40298782. IF:6,600 (Q1/1D).
- Andreadou I, Ghigo A, Nikolaou PE, Swirski FK, Thackeray JT, Heusch G, Vilahur G. Immunometabolism in heart failure. Nature Reviews Cardiology. 2025; 22(10). DOI:10.1038/s41569-025-01165-8. PMID:40544171. IF:44,200 (Q1/1D).
- Carbone F, Després JP, Ioannidis J, Neeland IJ, Garruti G, Busetto L, Liberale L, Ministrini S, Vilahur G, Schindler TH, Macedo MP, Di A, Krawczyk M, Geier A, Baffy G, Faienza MF, Farella I, Santoro N, Frühbeck G, Yáñez P, Gómez J, Chávez E, Vázquez V, Oppert JM, Kiortsis DN, Sbraccia P, Zoccali C, Portincasa P, Montecucco F. Bridging the gap in obesity research: A consensus statement from the European Society for Clinical Investigation. EUROPEAN JOURNAL OF CLINICAL INVESTIGATION. 2025; 55(8). DOI:10.1111/eci. 70059. PMID:40371883. IF:3,600 (Q1/2D).
- Civit A, Peña E, Bejar MT, Moscatiello F, Vilahur G, Badimon L, Arderiu G. bFGF rescues dysfunctional properties of adipose-derived stem cells from individuals with type 2 diabetes by modulating their miRNA profile. DIABETOLOGIA. 2025; 68(12). DOI:10.1007/s00125-025-06533-0. PMID:40905998. IF:10,200 (Q1/1D).
- Garcia M, Escate R, Lugano R, Peña E, Borrell M, Badimon L, Padro T. Gene Expression Pattern Associated with Cytoskeletal Remodelling in Lipid-Loaded Human Vascular Smooth Muscle Cells: Crosstalk Between C3 Complement and the Focal Adhesion Protein Paxillin. Cells. 2025; 14(16):1245. DOI:10.3390/cells14161245. PMID:40862724. IF:5,200 (Q2/3D).
- Jiménez FR, Solanes N, Arrieta M, Llonch B, Roque M, Freixa X, Brugaletta S, Ortega L, Rodríguez JJ, Cepas P, Vilhaur G, Sabate M, Dantas AP, Tura O, Rigol M. Myocardial infarction induces endothelial dysfunction with independence of cardiovascular risk factors. ANGIOGENESIS. 2025; 28(4):52. DOI:10.1007/s10456-025-10006-8. PMID:41028611. IF:9,200 (Q1/1D).
- Liberale L, Tual S, Sedej S, Ministrini S, Georgiopoulos G, Grunewald M, Bäck M, Bochaton ML, Boon RA, Ramos GC, de Winther MPJ, Drosatos K, Evans PC, Ferguson JF, Forslund SK, Goettsch C, Giacca M, Haendeler J, Kallikourdis M, Ketelhuth DFJ, Koenen RR, Lacolley P, Lutgens E, Maffia P, Miwa S, Monaco C, Montecucco F, Norata GD, Osto E, Richardson GD, Riksen NP, Soehnlein O, Spyridopoulos I, Van S, Vilahur G, Wentzel JJ, Andrés V, Badimon L, Benetos A, Binder CJ, Brandes RP, Crea F, Furman D, Gorbunova V, Guzik TJ, Hill JA, Luescher TF, Mittelbrunn M, Nencioni A, Netea MG, Passos JF, Stamatelopoulou KS, Tavernarakis N, Ungvari Z, Wu JC, Kirkland JL, Camici GG, Dimmeler S, Kroemer G, Abdellatif M, Stellos K. Roadmap for alleviating the manifestations of ageing in the cardiovascular system. Nature Reviews Cardiology. 2025; 22(8). DOI:10.1038/s41569-025-01130-5. PMID:39972009. IF:44,200 (Q1/1D).
- López A, Villaplana VD, Badimon L, Vilahur G, Padro T. Probiotics: A Potential Strategy

5.1.1 Cardiovascular Diseases Area

- for Preventing and Managing Cardiovascular Disease. *Nutrients*. 2025; 17(1):52. DOI:10.3390/nu17010052. PMID:39796486. IF:5,000 (Q1/2D).
- Luquero A, Pimentel N, Vilahur G, Badimon L, Borrell M. Reduced Growth and Inflammation in Lrp5-/- Mice Adipose Tissue. *JOURNAL OF CELLULAR AND MOLECULAR MEDICINE*. 2025; 29(19):e70670. DOI:10.1111/jcmm.70670. PMID:41078090. IF:4,200 (Q2/3D).
 - Paradies V, Masiero G, Rubboli A, Van HMM, Costa F, Capranzano P, Degrauwe S, Gorog DA, Jorge CM, Buchanan GL, Alasnag M, Trabattini D, Fraccaro C, Sibbing D, Dudek D, Vilahur G, Chieffo A, Mehran R, Capodanno D, Barbato E, Siller JM. Antithrombotic drugs for acute coronary syndromes in women: sex-adjusted treatment and female representation in randomised clinical trials. A clinical consensus statement of the European Association of Percutaneous Cardiovascular Interventions (EAPCI) and the ESC Working Group on Thrombosis. *EuroIntervention*. 2025; 21(12). DOI:10.4244/EIJ-D-24-00876. PMID:40388110. IF:9,500 (Q1/1D).
 - Paradies V, Masiero G, Rubboli A, Van HMM, Costa F, Capranzano P, Degrauwe S, Gorog DA, Jorge CM, Buchanan GL, Alasnag M, Trabattini D, Fraccaro C, Sibbing D, Dudek D, Vilahur G, Chieffo A, Mehran R, Capodanno D, Barbato E, Siller JM. Antithrombotic drugs for acute coronary syndromes in women: sex-adjusted treatment and female representation in randomised clinical trials. A clinical consensus statement of the European Association of Percutaneous Cardiovascular Interventions (EAPCI) and the ESC Working Group on Thrombosis. *EUROPEAN HEART JOURNAL*. 2025; 46(28). DOI:10.1093/eurheartj/ehaf352. PMID:40390370. IF:35,600 (Q1/1D).
 - Pearce L, Galán C, Bell RM, Carr RD, Cunningham J, Davidson SM, Ghosh AK, Giesz S, Golphoroush P, Gourine AV, Hermann DM, Heusch G, Ibanez B, Kalkhoran SB, Lecour S, Lukhna K, Ntsekhe M, Sack MN, Unwin RJ, Vilahur G, Walker JM, Yellon DM. Inter-organ communication: pathways and targets to cardioprotection and neuro-protection. A report from the 12th Hatter Cardiovascular Institute workshop. *BASIC RESEARCH IN CARDIOLOGY*. 2025; 120(2). DOI:10.1007/s00395-024-01094-6. PMID:39681732. IF:8,000 (Q1/1D).
 - Riera A, Arafa MM, Farnetani G, Xavier MJ, Oud MS, Majzoub AA, Ramos L, Abrardo C, Spinelli M, Moreno D, Defazio G, Ars E, Pybus M, Curbelo JRS, Elbardisi HT, Nawaz S, Syed N, Ruiz E, van der Heijden GW, Fakhro KA, Veltman JA, Krausz C. Genetic determinants of testicular sperm extraction outcomes: insights from a large multicentre study of men with non-obstructive azoospermia. *Human Reproduction Open*. 2025; 2025(3):hoaf049. DOI:10.1093/hropen/hoaf049. PMID:40896145. IF:11,100 (Q1/1D).
 - Russell A, Karuna N, Lezoualc'h F, Matullo G, Baker H, Bernard M, Devaux Y, Badimon L, Vilahur G, Rieusset J, Derumeaux GA, Watson CJ. Established and Emerging Roles of Epigenetic Regulation in Diabetic Cardiomyopathy. *DIABETES-METABOLISM RESEARCH AND REVIEWS*. 2025; 41(6):e70081. DOI:10.1002/dmrr.70081. PMID:40831067. IF:6,000 (Q1/2D).
 - Santisteban V, López A, Muñoz N, Vilahur G, Badimon L, Padro T. Obesity alters VLDL profile and remnant cholesterol differently in metabolically healthy men and women: a 1H-NMR study. *Lipids in Health and Disease*. 2025; 24(1):301. DOI:10.1186/s12944-025-02723-2. PMID:41024030. IF:4,200 (Q1/3D).
 - Suades R, Greco MF, Padró T, de Santisteban V, Domingo P, Benincasa G, Napoli C, Greco S, Madè A, Ranucci M, Devaux Y, Martelli F, Badimon L. Blood CD45+/CD3+ lymphocyte-released extracellular vesicles and mortality in hospitalised patients with coronavirus disease 2019. *EUROPEAN JOURNAL OF CLINICAL INVESTIGATION*. 2025; 55(2). DOI:10.1111/eci.14354. PMID:39548690. IF:3,600 (Q1/2D).
 - Summer S, Borrell M, Bruno RM, Climie RE, Dipla K, Dogan A, Eruslanova K, Fraenkel E, Mattace F, Pugh C, Rochfort KD, Ross M, Roth L, Schmidt A, Schwarz D, Shadiow J, Sohrabi Y, Sonnenberg J, Tura O, Tuna BG, Julve J, Dogan S. Centenarians-the way to healthy vascular ageing and longevity: a review from VascAgeNet. *GeroScience*. 2025; 47(1). DOI:10.1007/s11357-024-01467-8. PMID:39725804. IF:5,400 (Q1/1D).
 - Vilahur G, Ben S, Gutiérrez M, Radike M, Mendieta G, Ramos L, Alcover S, Casani L, Arderiu G, Padró T, Borrell M, Badimon L. Cardioprotection exerted by intravenous statin at index myocardial infarction event attenuates cardiac damage upon recurrent infarction. *CARDIOVASCULAR*

5.1.1 Cardiovascular Diseases Area

- RESEARCH. 2025; 121(2). DOI:10.1093/cvr/cvae264. PMID:39757982. IF:13,300 (Q1/1D).
- Vilahur G, Fuster V. Interplay between platelets and coagulation: from protective haemostasis to pathological arterial thrombosis. EUROPEAN HEART JOURNAL. 2025; 46(5). DOI:10.1093/eurheartj/ehae776. PMID:39673717. IF:35,600 (Q1/1D). Suades R, Greco MF, Prieto P, Padró T, Devaux Y, Domingo P, Badimon L. CD66b⁺/CD68⁺ circulating extracellular vesicles, lactate dehydrogenase and neutrophil-to-lymphocyte ratio can differentiate coronavirus disease 2019 severity during and after infection. Journal of Extracellular Vesicles. 2024; 13(7):e12456. DOI:10.1002/jev2.12456. PMID:39007437. IF:15,500 (Q1/1D). Document type: Article.
 - Sutelman P, Radike M, Vilahur G. Seeing is believing: pathway strategies for a personalised non-invasive diagnosis of coronary artery disease. Internal and Emergency Medicine. 2024; 19(2). DOI:10.1007/s11739-023-03526-y. PMID:38315383. IF:3,200 (Q1/2D). Document type: Article.
 - Tesoro L, Hernández I, Saura M, Badimón L, Zaragoza C. Novel cutting edge nano-strategies to address old long-standing complications in cardiovascular diseases. A comprehensive review. EUROPEAN JOURNAL OF CLINICAL INVESTIGATION. 2024; 54(7). DOI:10.1111/eci.14208. PMID:38622800. IF:4,400 (Q1/2D). Document type: Review.
 - Triska J, Maitra N, Deshotels MR, Haddadin F, Angiolillo DJ, Vilahur G, Jneid H, Atar D, Birnbaum Y. A Comprehensive Review of the Pleiotropic Effects of Ticagrelor. Cardiovasc Drugs Ther. 2024; 38(4):775-797. DOI:10.1007/s10557-022-07373-5. PMID:36001200. IF:3,100 (Q2/4D). Document type: Review.
 - Vilahur G, Radike M, Sutelman P, Ben S, Gutiérrez M, Casaní L, Hovdal D, Ongstad EL, Gabrielsen A, Hidalgo A, Fjellström O, Carlsson L, Badimon L. Recombinant human soluble domain of CD39L3 and ticagrelor: cardioprotective effects in experimental myocardial infarction. EUROPEAN HEART JOURNAL. 2024; 45(17). DOI:10.1093/eurheartj/ehae107. PMID:38486376. IF:37,600 (Q1/1D).

5.1.1 Cardiovascular Diseases Area

Biomarkers for Cardiovascular Disease

Group leader

Padró Capmany, Teresa (IR)

Researchers

Cabre Fernández, Paula (IR)

Rizzuto, Alessandra Stefania (UniMi)

Research technicians

Casanova Gomez, Aitana (IR)

De Santisteban Villaplana, Victoria M. (IR)

Escate Chavez, Oscar Rafael (IR)

Garcia Arguinzonis, Maisa Ines (IR)

Gómez-Pardo Arellano, Montserrat (IR)

Luquero I Gómez, Aureli (IR)

Muriel Moreno, Beatriz (IR)

Noya Mosquera, Tamara (IR)

Pimentel Mayordomo, Noelia (IR)



DESCRIPTION

The group's research focuses on identifying and characterising molecular and cellular biomarkers of atherosclerosis and ischaemic heart disease to improve prevention, diagnosis, risk stratification, and treatment of cardiovascular diseases. Activities address cardiovascular diseases across both subclinical and clinical stages and include studies on vascular and myocardial remodelling, inflammation, lipoproteins, cardiovascular risk factors, and disease prevention. Biomarkers and potential therapeutic targets are investigated using complementary approaches that integrate clinical samples from patients and healthy subjects, experimental animal models, and mechanistic studies in cell culture systems.

MAIN LINES OF RESEARCH

- Circulating and tissue proteomics (plasma, lipoproteins, vascular and myocardial tissues) for the identification of biomarkers and molecular targets in atherosclerosis progression, thrombosis, myocardial infarction, and vascular and cardiac remodelling. (Padro Capmany, Teresa; Garcia Arguinzonis, Maisa Inés).
- Functional epigenomics (plasma and whole-blood non-coding RNAs) for biomarker discovery in populations at high cardiovascular risk (familial hypercholesterolemia, morbid obesity) and in cardiovascular diseases, including myocardial infarction and heart failure. (Padro Capmany, Teresa; Escate Chávez, Oscar Rafael).
- Lipidomics and metabolomics in cardiovascular disease prevention. (Padro Capmany, Teresa).
- Functional epigenomics of myocardial infarction and post-infarction outcomes (heart failure, cardiogenic shock). (Padro Capmany, Teresa; Escate Chávez, Oscar Rafael).
- Extracellular matrix biology and cardiac remodelling after myocardial infarction. (Padro Capmany, Teresa).
- Circulating extracellular vesicles (microvesicles/exosomes) in subclinical and clinical cardiovascular diseases. (Padro Capmany, Teresa).

5.1.1 Cardiovascular Diseases Area

SCIENTIFIC CHALLENGES

- Apply omics, multi-omics integration, and in silico approaches to identify and characterise circulating biomarkers of cardiovascular disease in biological fluids (serum, plasma, urine) and those carried by lipoproteins or extracellular vesicles. This includes proteomics using liquid chromatography, 2D electrophoresis, and mass spectrometry; lipidomics via UPLC–mass spectrometry and NMR; and transcriptomics (mRNA, non-coding RNAs) through arrays, next-generation sequencing, and real-time PCR.
- Generate new knowledge on circulating non-coding RNAs and extracellular vesicles (microvesicles/exosomes), which transport non-coding RNAs (e.g., miRNAs, lncRNAs) and proteins derived from parental cells. Their capacity to reflect defined pathophysiological states makes them promising biomarker candidates for disease monitoring and progression.
- Use of omic and integrated multi-omic data for more accurate stratification of patients according to disease progression and clinical outcome.
- Identify and characterise novel extracellular matrix components involved in tissue remodelling of atherosclerotic vessels and cardiac tissue following myocardial infarction, in order to advance pathophysiological understanding of the disease and uncover biomarkers predictive of disease progression.
- Characterise at the cellular level the molecular and functional mechanisms (gene and protein expression regulation, epigenetic regulation, subcellular protein distribution, paracrine effects, and cellular functions) associated with selected biomarkers and molecular targets in cardiovascular pathology and myocardial remodelling.

ACTIVE & AWARDED GRANTS

- Padro Capmany, Teresa. Identificación en la matriz extracelular postinfarto de moléculas estimulantes de regeneración cardíaca (MATRI-REG). PI22/01930. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2027. 171.820,00 €
- Padro Capmany, Teresa. TRANSBIOLINE: Translational Safety Biomarker Pipeline (TransBioLine): Enabling development and implementation of novel safety biomarkers in clinical trials and diagnosis of disease. TRANSBIOLINE 821283. Unión Europea. Duration: 2019-2025. 182.600,00 €
- Padro Capmany, Teresa. Impact of lipoprotein molecular and functional composition and inflammation on ACVD clinical event presentation in familial hypercholesterolemia (LipoComp). 202329-10. Fundació La Marató de TV3. Duration: 2024-2027. 199.997,50 €
- Padro Capmany, Teresa. Insuficiencia cardíaca con función de eyección preservada en la obesidad: Estudio transcripcional y epigenético para determinar biomarcadores no invasivos de disfunción ventricular en la obesidad” (Estudio TRANSEPIGEN). SEC 2024-3. Sociedad Española de Cardiología (SEC). Duration: 2024-2028. 15.000,00 €
- Padro Capmany, Teresa. Medicina de Precisión en Hipercolesterolemia Familiar y enfermedad cardiovascular prematura mediante la integración de tecnologías ómicas y de imagen (MedPreHF). PMP22/00108. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2026. 1.469.930,00 €
- Padro Capmany, Teresa. Composición Molecular de la Lipoproteína(a) en Hipercolesterolemia Familiar: Biología de sistemas en el estudio de la progresión de arteriosclerosis y riesgo cardiovascular asociado al sexo. PI25/01959. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 198.437,50 €

5.1.1 Cardiovascular Diseases Area

DOCTORAL THESES DEFENDED

- De Santisteban Villaplana, Victoria Marta. Nutraceutical Interventions and Lipoprotein Characterisation: Strategies for Cardiovascular Risk Management. Data de defensa: 15/05/2025. Universitat de Barcelona. Supervisors: Badimon, Lina; Padro, Teresa; Laguna, Juan Carlos.

SCIENTIFIC PRODUCTION - Articles & Reviews

- Escate R, Muñoz JS, Mauri M, Mata P, Badimon L, Padro T. A miRNA signature linked to high lipoprotein (a) and coronary calcification in familial hypercholesterolaemia. Computational and Structural Biotechnology Journal. 2025; 27. DOI:10.1016/j.csbj.2025.09.026. PMID:41035502. IF:4,100 (Q2/4D).
- Garcia M, Escate R, Lugano R, Peña E, Borrell M, Badimon L, Padro T. Gene Expression Pattern Associated with Cytoskeletal Remodelling in Lipid-Loaded Human Vascular Smooth Muscle Cells: Crosstalk Between C3 Complement and the Focal Adhesion Protein Paxillin. Cells. 2025; 14(16):1245. DOI:10.3390/cells14161245. PMID:40862724. IF:5,200 (Q2/3D).
- López A, Arroyo R, Santisteban V, Muñoz N, Estruch R, Mata P, Badimon L, Padro T. Lipoprotein-Specific Fatty Acid Profiles in Familial Hypercholesterolemia: Associations with Cardiovascular History and Dietary Patterns. Nutrients. 2025; 18(1):92. DOI:10.3390/nu18010092. PMID:41515209. IF:5,000 (Q1/2D).
- López A, Villaplana VD, Badimon L, Vilahur G, Padro T. Probiotics: A Potential Strategy for Preventing and Managing Cardiovascular Disease. Nutrients. 2025; 17(1):52. DOI:10.3390/nu17010052. PMID:39796486. IF:5,000 (Q1/2D).
- Luquero A, Pimentel N, Vilahur G, Badimon L, Borrell M. Reduced Growth and Inflammation in Lrp5-/- Mice Adipose Tissue. JOURNAL OF CELLULAR AND MOLECULAR MEDICINE. 2025; 29(19):e70670. DOI:10.1111/jcmm.70670. PMID:41078090. IF:4,200 (Q2/3D).
- Santisteban V, López A, Muñoz N, Vilahur G, Badimon L, Padro T. Obesity alters VLDL profile and remnant cholesterol differently in metabolically healthy men and women: a 1H-NMR study. Lipids in Health and Disease. 2025; 24(1):301. DOI:10.1186/s12944-025-02723-2. PMID:41024030. IF:4,200 (Q1/3D).
- Suades R, Greco MF, Padró T, de Santisteban V, Domingo P, Benincasa G, Napoli C, Greco S, Madè A, Ranucci M, Devaux Y, Martelli F, Badimon L. Blood CD45+/CD3+ lymphocyte-released extracellular vesicles and mortality in hospitalised patients with coronavirus disease 2019. EUROPEAN JOURNAL OF CLINICAL INVESTIGATION. 2025; 55(2). DOI:10.1111/eci.14354. PMID:39548690. IF:3,600 (Q1/2D).
- Vilahur G, Ben S, Gutiérrez M, Radike M, Mendieta G, Ramos L, Alcover S, Casani L, Arderiu G, Padró T, Borrell M, Badimon L. Cardioprotection exerted by intravenous statin at index myocardial infarction event attenuates cardiac damage upon recurrent infarction. CARDIOVASCULAR RESEARCH. 2025; 121(2). DOI:10.1093/cvr/cvae264. PMID:39757982. IF:13,300 (Q1/1D).
- Zamora C, Diaz C, Ortiz MA, Moya P, Park HS, Pitarch C, Cantó E, Osuna R, Mulet M, Garcia M, Collado D, Corominas H, Vidal S. Platelet-Derived Soluble CD40L and Its Impact on Immune Modulation and Anti-IL6R Antibody Treatment Outcome in Rheumatoid Arthritis. Cells. 2025; 14(9):625. DOI:10.3390/cells14090625. PMID:40358149. IF:5,200 (Q2/3D).

5.1.1 Cardiovascular Diseases Area

Regulation of Cardiac Rhythm and Contraction

Group leader

Hove-Madsen, Leif (CSIC)

Researchers

Manzano Reche, Gabriel (CSIC)

Pardo Velasco, Rafael Jesús (CSIC)

Research technicians

Aceituno Fernández, Cristina (CSIC)



DESCRIPTION

The Cardiac Rhythm and Contraction Group has, since its creation, focused on identifying molecular and cellular electrophysiological mechanisms underlying the development of cardiac arrhythmias, to improve risk prediction and identify novel disease-specific therapeutic targets. We are one of the few groups that use human atrial myocytes to study pathological alterations in cardiomyocyte function. Our primary goal is to identify key mechanisms underlying alterations in calcium homeostasis and abnormal electrical activity in atrial myocytes from patients with atrial fibrillation.

MAIN LINES OF RESEARCH

- Neuro-hormonal regulation of intracellular calcium homeostasis in cardiac myocytes. (Hove-Madsen, Leif).
- Impact of genetic variants on electrophysiological and contractile function in cardiac myocytes. (Hove-Madsen, Leif).
- Impact of clinical factors and circulating biomarkers on human atrial myocyte function. (Hove-Madsen, Leif).
- Development of computational tools for automated analysis of live-cell imaging experiments or protein distribution in large confocal image stacks. (Hove-Madsen, Leif).
- Development of detailed high-resolution mathematical myocyte models. (Hove-Madsen, Leif).

SCIENTIFIC CHALLENGES

The association of more than 140 single-nucleotide polymorphisms (SNPs) with increased risk of atrial fibrillation over the past decade affords one of the biggest recent opportunities to make a substantial advance in risk stratification and personalised treatment of atrial fibrillation. The challenge is the vast number of SNPs, each associated with a modest increase in risk and unknown impact on function. Our opportunity is to identify SNP combinations that cause synergistic derangements in human atrial myocyte function and a corresponding increase in the risk of atrial fibrillation.

5.1.1 Cardiovascular Diseases Area

SCIENTIFIC PRODUCTION - Articles & Reviews

- Jiménez V, Babini H, Ruben PC, Accili EA, Claydon TW, Hove L, Tibbits GF. Electrophysiological Phenotyping of hiPSC-Derived Atrial Cardiomyocytes Using Automated Patch-Clamp: A Platform for Studying Atrial Inherited Arrhythmias. *Cells*. 2025; 14(24):1941. DOI:10.3390/cells14241941. PMID:41439960. IF:5,200 (Q2/3D).
- Jiménez V, Hove L. Single-Nucleotide Polymorphisms, PITX2 and Abnormal Electrical Activity in Atrial Fibrillation. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(19):9780. DOI:10.3390/ijms26199780. PMID:41097045. IF:4,900 (Q1/3D).
- Llansó L, Ravenscroft G, Aceituno C, Gutiérrez A, Parmar J, Gallano P, Caballero M, Carbayo A, Vesperinas A, Collet R, Blanco R, Laing N, Hove L, Gallardo E, Olivé M. A Homozygous ATP2A2 Variant Alters Sarcoendoplasmic Reticulum Ca²⁺-ATPase 2 Function in Skeletal Muscle and Causes a Novel Vacuolar Myopathy. *NEUROPATHOLOGY AND APPLIED NEUROBIOLOGY*. 2025; 51(1):e70000. DOI:10.1111/nan.70000. PMID:39817497. IF:3,400 (Q1/3D).
- Sun B, Ni MK, Li YH, Song ZP, Wang H, Zhu HL, Wei JH, Belke D, Cai ST, Guo WT, Yao JJ, Tian SS, Estillore JP, Wang RW, Sondergaard MT, Brohus M, Rohde PD, Mu YX, Vallmitjana A, Benítez R, Hove L, Overgaard MT, Fishman GI, Chen J, Sanatani S, Wilde A, Fill M, Ramos J, Nyegaard M, Chen SRW. Inositol 1,4,5-Trisphosphate Receptor 1 Gain-of-Function Increases the Risk for Cardiac Arrhythmias in Mice and Humans. *CIRCULATION*. 2025; 151(12). DOI:10.1161/CIRCULATIONAHA.124.070563. PMID:39655431. IF:38,600 (Q1/1D).
- Svennberg E, Merino JL, Andrade J, Anselmino M, Arbelo E, Boersma E, Boriani G, Breithardt G, Chung MN, Chyou J, Cohen A, Nielsen JC, Dichtl W, Diederichsen SZ, Dobrev D, Doehner W, Dworatzek E, Fabritz L, Filgueiras D, Gimpelewicz C, Hack G, Hatem S, Healey J, Heidbuchel H, Hijazi Z, Holst AG, Hove L, Jalife J, van R, Linz D, Lip GYH, Lubitz S, de Melis M, Meyer R, Orczykowski M, Parwani AS, Porta A, de Potter T, Ravens U, Rienstra M, Rillig A, Rivard L, Scherr D, Schnabel RB, Schotten U, Simovic S, Sinner M, Sohns C, Sommer P, Steinbeck G, Steven D, Sultan A, Thomalla G, Toennis T, Tzeis S, Voigt N, Wadhwa M, Wakili R, Witt H, Goette A, Kirchhof P. Transforming atrial fibrillation management by targeting comorbidities and reducing atrial fibrillation burden: the 10th AFNET/EHRA consensus conference. *EUROPACE*. 2025; 27(12):euaf318. DOI:10.1093/europace/euaf318. PMID:41392710. IF:7,400 (Q1/2D).

5.1.1 Cardiovascular Diseases Area

Lipids and Cardiovascular Pathology

Group leader

Llorente Cortés, Concepción Vicenta (CSIC)

Researchers

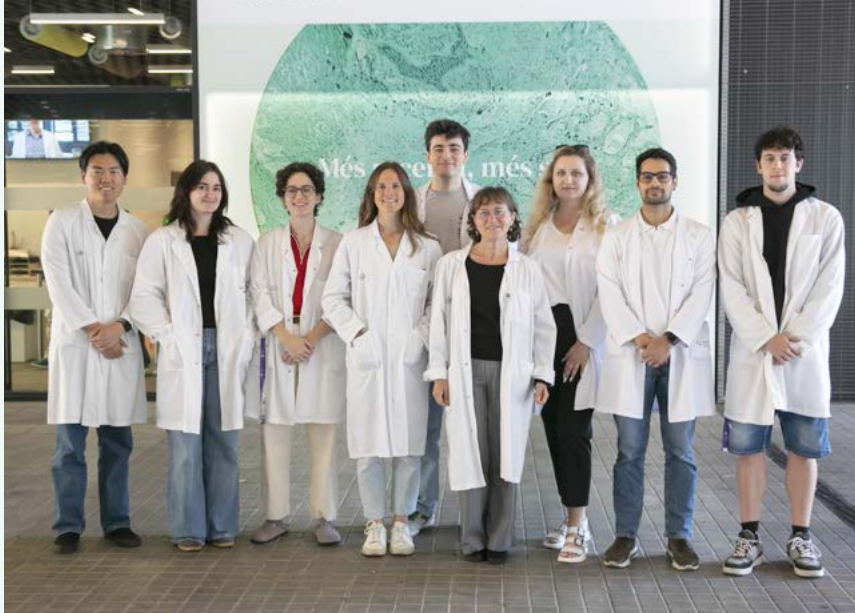
Bai, Tianyu (UAB)

Garcia Rodríguez, Jesús Eduardo (IR)

La Chica Lhoest, María Teresa (CSIC)

Polischuk, Anna (CSIC)

Sargsyan, Mane (UPF)



DESCRIPTION

Our group focuses on cardiovascular research, including novel molecular mechanisms underlying vascular and myocardial cholesterol accumulation and new circulating biomarkers of cardiovascular risk. We have designed new compounds that inhibit deregulated cholesterol uptake by vascular cells and cardiomyocytes. We have available humanised models of atherosclerosis and heart failure, useful for conducting proof-of-concept studies on the efficacy of new monoclonal antibodies and peptides, as well as an innovative artificial vessel system, which will enable the assessment of the pro-atherogenic potential of sera and LDLs from patients.

MAIN LINES OF RESEARCH

- Identification of new connecting axes of cardiac and hepatic functionality and their consequences in the regulation of metabolism and body weight. (Llorente Cortés, Concepción Vicenta).
- Applicability of LRP1-based assets for the treatment of pancreatic càncer. (Llorente Cortés, Concepción Vicenta).
- Development of innovative LRP1-based peptides against Tau fibrillation. (Llorente Cortés, Concepción Vicenta).
- Development of humanised anti-LRP1 monoclonal antibodies to comprehensively block atherosclerosis and heart failure. (Llorente Cortés, Concepción Vicenta).
- Integration of clinical, experimental data (in vitro and in vivo models) and modelling to improve the prediction of atherosclerotic plaque progression towards clinical events. (Llorente Cortés, Concepción Vicenta).

SCIENTIFIC CHALLENGES

- To develop new therapeutic tools targeting intracellular cholesteryl ester accumulation in vascular, cardiac, and tumour cells to improve the treatment of patients with cardiovascular and metabolic alterations.
- To identify new circulating biomarkers of cardiovascular and metabolic risk to improve the diagnosis and prognosis of cardiovascular and metabolic diseases.

5.1.1 Cardiovascular Diseases Area

ACTIVE & AWARDED GRANTS

- Llorente Cortés, Concepción Vicenta i Belbin, Olivia. LRP1-based peptides as an anti-Tau therapeutic strategy for neurodegenerative diseases (PepTau). INN00061. Fundació Privada HSCP (INNOPAU). Duration: 2024-2026. 50.000,00 €

DOCTORAL THESES DEFENDED

- García Rodríguez, Jesús Eduardo. Identificación de nuevos biomarcadores con potencial pronóstico y diagnóstico en enfermedades cardiovasculares y metabólicas. 10/10/2025. Universitat Autònoma de Barcelona. Supervisors: Llorente Cortés, Concepción Vicenta; Escolà Gil, Joan Carles; Pérez Pérez, Antonio. <https://hdl.handle.net/10803/695551>

SCIENTIFIC PRODUCTION – Articles & Reviews

- Benítez A, Garcia E, Lhoëst MTL, Martínez A, Borrás C, Tondo M, Céspedes MV, Caruana P, Pepe A, Bochicchio B, Cenarro A, Civeira F, Prades R, Escola JC, Llorente V. Targeting LDL aggregation decreases atherosclerotic lipid burden in a humanised mouse model of familial hypercholesterolemia: Crucial role of ApoB100 conformational stabilisation. *ATHEROSCLEROSIS*. 2025; 410:118630. DOI:10.1016/j.atherosclerosis.2024.118630. PMID:39547850. IF:5,700 (Q1/1D).
- Benítez A, Garcia E, Lhoëst MTL, Polishchuk A, Zegri I, Vilades D, Guerra JM, Fernández L, Mirabet S, Samouillan V, Shirihaï O, Liesa M, Enrich C, Llorente V. LRP1 immunotherapy enhances cardiomyocyte respiration by restricting cholesteryl ester accumulation in mitochondria. *JOURNAL OF LIPID RESEARCH*. 2025; 66(5):100783. DOI:10.1016/j.jlr.2025.100783. PMID:40122209. IF:4,100 (Q2/4D).
- Borràs C, Rotllan N, Griñán R, Santos D, Solé A, Dong C, Zhao Q, Llorente V, Mourín M, Soto B, Camacho M, Tondo M, Canyelles M, Blanco F, Escola JC. Restoring cholesterol efflux in vascular smooth muscle cells transitioning into foam cells through Liver X receptor activation. *Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie*. 2025; 188:118178. DOI:10.1016/j.biopha.2025.118178. PMID:40403381. IF:7,500 (Q1/1D).
- Curco AS, Garcia E, Polishchuk A, La chica MT, Llorente V. Impaired cholesterol and LDL uptake pathways in the development of oncological and cardiovascular diseases. *SEMINARS IN CANCER BIOLOGY*. 2025; 116. DOI:10.1016/j.semcancer.2025.09.004. PMID:40998097. IF:15,700 (Q1/1D).
- Garcia E, Claudi L, Lhoëst MTL, Polishchuk A, Samouillan V, Amaro AB, Pinero J, Escolà JC, Sabidó E, Leta R, Vilades D, Cortes VL. Reduced blood EPAC1 protein levels as a marker of severe coronary artery disease: the role of hypoxic foam cell-transformed smooth muscle cells. *Journal of Translational Medicine*. 2025; 23(1):523. DOI:10.1186/s12967-025-06513-3. PMID:40346550. IF:7,500 (Q1/2D).
- Lhoëst MTL, Martínez A, Garcia E, Dandurand J, Polishchuk A, Benítez A, Cenarro A, Civeira F, Bernabé A, Vilades D, Escolà JC, Samouillan V, Llorente V. ApoB100 remodelling and stiffened cholesteryl ester core raise LDL aggregation in familial hypercholesterolemia patients. *JOURNAL OF LIPID RESEARCH*. 2025; 66(1):100703. DOI:10.1016/j.jlr.2024.100703. PMID:39557294. IF:4,100 (Q2/4D).
- Puig N, Camps P, Garcia E, Benítez A, Aguilera A, Fernández A, Quesada JLS, Llorente V, Benítez S. sICAM-1 concentrations are associated with inflammation in contralateral carotid plaque in patients with ischemic stroke. *Clínica e Investigación En Arteriosclerosis*. 2025; 37(2):100729. DOI:10.1016/j.arteri.2024.07.002. PMID:39095307.

5.1.1 Cardiovascular Diseases Area

Genomics of Complex Diseases

Group leader

Soria Fernández, José Manuel (IR)

Researchers

Aloy Ortiz, Carme (Hospital Dos de Maig)
Camacho Pérez de Madrid, María Mercedes (IR)

Dilme Muñoz, Jaume Felix (FGS)
Escudero Rodríguez, José Román (FGS)
Ezquerro Condeminas, Pol (CIBER)
Fite Matamoros, Joan (FGS)
Lloret Cano, Maria Dolores (Hospital Dos de Maig)
Lobato Delgado, Barbara (IR)
Romero Carro, Josep Maria (FGS)
Sabater Lleal, Maria (IR)
Sánchez García, Laia (FGS)
Soto Carricas, Begoña Dolores (FGS)
Tejedor Millos, Robert (FGS)

Research technicians

De La Rosa Estadella, Mireia (IR)
Garcia Garcia, Irina (IR)
Martínez Pérez, Angel (IR)
Uribe Zubia Azpitarte, Ager (IR)



DESCRIPTION

Our group is focused on the acquisition, management, and analysis of multi-omics data, and on its integration with clinical and biological data to identify new biomarkers and generate risk prediction models to facilitate clinical decision-making in patients with vascular diseases (venous and arterial thrombosis and aneurysms). Also, to the study of biological processes in healthy people exposed to physiological stress (such as in extreme sports). Our multidisciplinary team (Basic/Clinic) has a molecular biology laboratory, including functional analysis and cell cultures, that enables control of the entire workflow: from sample generation and data collection to analysis and interpretation of results.

MAIN LINES OF RESEARCH

- Venous Thrombosis. (Soria Fernández, José Manuel).
- Angiology and Vascular Biology. (Camacho Pérez De Madrid, María Mercedes).
- Genomics of Arterial Vascular Disease. (Sabater Lleal, Maria).
- Genomics in Sport Medicine. (Soria Fernández, José Manuel).
- Interdisciplinary Areas of Bioinformatics and multi-omics Data. (Soria Fernández, José Manuel).

SCIENTIFIC CHALLENGES

- Analysis of Omics data (Genomics, transcriptomics, epigenomics) in the field of complex diseases with a translational approach in cooperation with a clinical group.
- Identify new biomarkers (genetic, epigenetic and/or plasmatic) that determine susceptibility to complex diseases with a sex-specific component.
- Identify new mechanisms involved in the development and progression of complex traits (susceptibility to complex diseases and to healthy status).
- Development of predictive algorithms that integrate the genetic, biological, and clinical information of the patients (Personalised Medicine).
- Development of computational tools based on mathematical models of artificial intelligence for modelling of diseases and physiological processes, and patient virtualisation from real data.

5.1.1 Cardiovascular Diseases Area

ACTIVE & AWARDED GRANTS

- Camacho Pérez, Maria Mercedes. Genómica de las Enfermedades Complejas. Línea Cardiovascular. 2021 SGR 00839. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). 2022-2025.
- Lobato Delgado, Barbara. Contratos predoctorals PFIS 2021. FI21/00197. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 89.900,00 €
- Sabater Lleal, Maria. Contratos Miguel Servet II 2022. CPII22/00007. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2026. 101.250,00 €
- Sabater Lleal, Maria. Investigación de nuevos biomarcadores para predecir el crecimiento del aneurisma de la aorta abdominal. PID2023-149864OB-I00. Ministerio de Ciencia e Innovación (MICINN). Duration: 2024-2028. 218.750,00 €
- Sabater Lleal, Maria. IDEA: Improving Diagnostic Efficiency in AAA Patients. MARATO 202334-30. Fundació La Marató de TV3. Duration: 2024-2027. 198.237,50 €
- Soria Fernández, José Manuel. Genomics of Complex Diseases. 2021 SGR 00830. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2022-2025. 60.000 €.
- Soria Fernández, José Manuel. Incorporación de nuevos grupos a CIBER 2023. CB23/07/00042. Instituto de Salud Carlos III (ISCIII).
- Soria Fernández, José Manuel. Identificación de biomarcadores epigenómicos y generación de modelos predictivos asociados al riesgo de trombosis. PI24/00682. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 202.500,00 €

DOCTORAL THESES DEFENDED

- PeyPOCH Pérez, Olga. Estudi dels factors de risc de l'aneurisma de l'aorta abdominal i la seva progressió. 17/10/2025. Universitat Autònoma de Barcelona. Supervisors: Sabater Lleal, Maria; Camacho Pérez de Madrid, Mercedes; Dilmé Muñoz, Jaime Félix; Leon Vintro, Xavier. <https://hdl.handle.net/10803/695659>
- Temprano Sagrera, Gerard. Unravelling genetic and molecular mechanisms of cardiovascular diseases: insights from genomic and transcriptomic approaches. 20/03/2025. Universitat Autònoma de Barcelona. Supervisors: Sabater Lleal, Maria; Barbadilla Prados, Antoni. <https://hdl.handle.net/10803/694131>

SCIENTIFIC PRODUCTION – Articles & Reviews

- Almendra R, Rodríguez C, Camacho M, Sánchez D, Sánchez JL, Cáncer S, Pérez E, Medina G, Martínez J, García AB, Galán M. Identification of endoplasmic reticulum stress- associated lncRNAs influencing inflammation and VSMC function in abdominal aortic aneurysm. CLINICAL SCIENCE. 2025; 139(6). DOI:10.1042/CS20242476. PMID:40072504. IF:7,700 (Q1/2D).
- Borràs C, Rotllan N, Griñán R, Santos D, Solé A, Dong C, Zhao Q, Llorente V, Mourín M, Soto B, Camacho M, Tondo M, Canyelles M, Blanco F, Escolà JC. Restoring cholesterol efflux in vascular smooth muscle cells transitioning into foam cells through Liver X receptor activation. Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie. 2025; 188:118178. DOI:10.1016/j.biopha.2025.118178. PMID:40403381. IF:7,500 (Q1/1D).
- Caballero AC, Ujaldón C, Pujol P, Montserrat R, Guardiola M, Escudero E, Garcia I, Esquirol A, Martino R, Jara P, Ezquerra P, Soria JM, Iranzo E, Moreno ME, Riba M, Sierra J, Álvarez C, Escribà L, Briones J. HSP-CAR30 with a high proportion of less-differentiated T cells promotes durable responses in refractory CD30+lymphoma. BLOOD. 2025; 145(16). DOI:10.1182/blood.2024026758. PMID:39841453. IF:23,100 (Q1/1D).
- Camacho M, Bagué S, Valero C, Holgado A, López L, Terra X, Avilés FX, León X. Transcriptional Expression of SLC2A3 and SDHA Predicts the

5.1.1 Cardiovascular Diseases Area

- Risk of Local Tumour Recurrence in Patients with Head and Neck Squamous Cell Carcinomas Treated Primarily with Radiotherapy or Chemoradiotherapy. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(6):2451. DOI:10.3390/ijms26062451. PMID:40141095. IF:4,900 (Q1/3D).
- Gil P, Rives J, Viladés D, García A, Genua I, Miñambres I, Grau M, Gich I, Camacho M, Benítez S, Julve J, Sánchez JL, Pérez A. Association of Epicardial Adipose Tissue with Novel Inflammation and Heart Failure Biomarkers in Type 2 Diabetes Patients: Effect of Metabolic Control. *Journal of Clinical Medicine*. 2025; 14(13):4687. DOI:10.3390/jcm14134687. PMID:40649060. IF:2,900 (Q1/2D).
 - Griepke S, Grentzmann A, Tripodi GL, Hansen J, da MP, Nilsson MD, Tallouzi Y, Grupe E, Jensen PS, Beck HC, Temprano G, Sabater M, Burton M, Dembic M, Thomassen M, Forteza MJ, Terp MG, Lindholt JS, Rasmussen LM, Steffensen LB, Stubbe J, Ketelhuth DFJ. Targeting the pyruvate dehydrogenase kinase/pyruvate dehydrogenase axis modulates pathological responses in neutrophils and smooth muscle cells and prevents abdominal aortic aneurysm formation. *CARDIOVASCULAR RESEARCH*. 2025; 121(8). DOI:10.1093/cvr/cvaf032. PMID:40037693. IF:13,300 (Q1/1D).
 - León X, Valero C, Fuster G, Bragado P, Camacho M, Avilés FX. Predictive capacity for local disease control of neogenin-1 (NEO1) transcriptional expression in patients with head and neck squamous cell carcinoma. *Clinical & Translational Oncology*. 2025; 27(1). DOI:10.1007/s12094-024-03535-z. PMID:38898351. IF:2,500 (Q3/6D).
 - Lobato B, Ruiz M, Font C, Pachón V, Castellón V, Martínez V, Salgado M, Martínez E, Calzas J, Ortega L, RuPérez A, Pujol O, Soria JM, Muñoz A. Cancer-associated venous thromboembolism and its impact on survival in the ONCOTHROMB12-01 cohort study. *IJC Heart & Vasculature*. 2025; 60:101754. DOI:10.1016/j.ijcha.2025.101754. PMID:41050873.
 - Mohapatra AK, Vlieg AV, Kleber ME, Martínez A, Le NQ, Hindberg KD, Dusart P, Germain M, Thibord F, Deleuze JF, Delgado GE, Goumidi L, Suchon P, Saut N, Souto JC, Butler LM, Soria JM, Hansen JB, März W, Rosendaal FR, Castoldi E, Peiretti F, Sabater M, Trégouët DA, Morange PE. A multiomics approach reveals novel regulators of plasma factor V levels, highlighting CLEC4M as a clearance receptor. *BLOOD*. 2025; 146(5). DOI:10.1182/blood.2024027006. PMID:40359434. IF:23,100 (Q1/1D).
 - Obel LM, Skovbo JS, Diederichsen A, Thomassen M, Kjær L, Larsen MK, Knudsen TA, Skov V, Kruse TA, Burton M, Dembic M, Wienecke T, Sabater M, Gerke O, Bruun NE, Ellervik C, Brabrand M, Steffensen FH, Frost L, Lambrechtsen J, Busk M, Urbonaviciene G, Egstrup K, Karon M, Feddersen S, Rasmussen LM, Hasselbalch HC, Lindholt JS. Aortic Aneurysm Risk and the Somatic JAK2 V617F Mutation: Insights From a Multicenter, Population-Based Cardiovascular Screening Study. *CIRCULATION*. 2025; 152(5). DOI:10.1161/CIRCULATIONAHA.125.074002. PMID:40464064. IF:38,600 (Q1/1D).
 - PeyPOCH O, Juscafresa LC, Vega A, Lobato B, Fité J, Soto B, Nieto L, Estadella MD, Uribe Zubia A, Romero JM, Plana E, Miralles M, Clarà A, Dilmé J, Soria JM, Camacho M, Martínez A, Sabater M. A Comprehensive Analysis of the Abdominal Aortic Aneurysm Growth Rate in the Spanish Population. *Journal of Clinical Medicine*. 2025; 14(13):4720. DOI:10.3390/jcm14134720. PMID:40649094. IF:2,900 (Q1/2D).
 - Puertas L, Alonso J, Blanco L, Almendra R, Camacho M, Rodríguez A, Galán M, Roglans N, Laguna JC, Martínez J, Rodríguez C. Inhibition of ATP-citrate lyase by bempedoic acid protects against abdominal aortic aneurysm formation in mice. *Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie*. 2025; 184. DOI:10.1016/j.biopha.2025.117876. IF:7,500 (Q1/1D).
 - Recalde L, de la Guía, Linzoain P, Noguera A, Rodrigo M, Jauregui P, López A, Fernández P, Iniesta M, Cueto M, Manzano S, Alonso R, Moragas N, Baquero C, Palao N, Dalla F, Avilés FX, Vilaseca, León X, Camacho M, Fuster G, Alcaraz J, Aguirre J, Gascón P, Porras A, Gutiérrez A, Carbó N, Bragado P. Neuropilin-2 upregulation by stromal TGFβ1 induces lung disseminated tumor cells dormancy escape and promotes metastasis outgrowth. *NEOPLASIA*. 2025; 68:101220. DOI:10.1016/j.neo.2025.101220. PMID:40848614. IF:7,700 (Q1/2D).
 - Salgado M, de la Cámara J, García I, Álvarez RC, González P, Garay DF, Pàmols M, Guillot

5.1.1 Cardiovascular Diseases Area

M, Pelegrín FJ, Jiménez E, Sastre J, De Castro EM, Coma E, Bouzas LP, Ferrer AI, Mompradé E, Cousillas A, Covela M, Rojas M, Querol R, Díaz LR, Merino M, Gil M, Sánchez M, Elías T, Marrupe D, Sánchez B, Carmona M, García M, Soria JM, Muñoz A. Tinzaparin for the prevention of thromboembolic events in ambulatory patients with metastatic colorectal cancer receiving first line treatment: a randomised, clinical trial design. BMC CANCER. 2025; 25(1):1773. DOI:10.1186/s12885-025-14620-z. PMID:41249955. IF:3,400 (Q2/4D).

- Smit R, Wade KH, Hui Q, Arias JD, Yin XY, Christiansen MR, Yengo L, Preuss MH, Nakabuye M, Rocheleau G, Graham SE, Buchanan VL, Chittoor G, Graff M, Guindo M, Lu YC, Marouli E, Sakaue S, Spracklen CN, Vedantam S, Wilson EP, Chen SH, Ferreira T, Ji YJ, Karaderi T, Lüll K, Machado M, Malden DE, Medina C, Moore A, Rüeger S, Akiyama M, Allison MA, Álvarez M, Andersen MK, Appadurai V, Arbeeve L, Bartell E, Bhaskar S, Bielak LF, Bis JC, Bollepalli S, Bork J, Bradfield JP, Bradford Y, Brandl C, Braund PS, Brody JA, Broeckel U, Burgdorf KS, Cade BE, Cai QY, Camarda S, Campbell A, Cañadas M, Chai JF, Chesi A, Choi SH, Christofidou P, Couture C, Cuellar G, Danning R, Degenhardt F, Delgado GE, Delitala A, Demirkan A, Deng X, Dietl A, Dimitriou M, Dimitrov L, Dorajoo R, Eichelmann F, Eliassen AU, Engmann JE, Erdos MR, Fairhurst Z, Farmaki AE, Faul JD, Fernández JC, Forer L, Frank M, Freitag S, Fritsche LG, Fuchsberger C, Galesloot TE, Gao Y, Geller F, Giannakopoulou O, Giulianini F, Gjessing AP, Goel A, Gordon SD, Gorski M, Grove J, Guo XQ, Gustafsson S, Haessler J, Hansen TF, Havulinna AS, Haworth SJ, Heard N, Hemerich D, Highland HM, Hindy G, Ho YL, Hofer E, Holliday E, Horn K, Hornsby WE, Hottenga JJ, Huang HY, Huang J, Huerta A, Huo SF, Hwang MY, Hwu CM, Iha H, Ikeda DD, Isono M, Jackson AU, Jansen IE, Jiang YX, Johansson I, Jonsson A, Jorgensen T, Kalafati IP, Kanai M, Kanoni S, Kårhús LL, Kasturiratne A, Katsuya T, Kawaguchi T, Kember RL, Kentistou KA, Kim D, Kim HN, Kim YJ, Kleber ME, Knol MJ, Kurbasic A, Lauzon M, Le P, Lea R, Lee JY, Lee WJ, Leonard HL, Li HT, Li S, Li XH, Li XY, Liang JJ, Lin HH, Lin K, Liu J, Liu XP, KS, Long JR, Lores L, Luan JA, Lyssenko V, Lyytikäinen LP, Mahajan A, Malik MZ, Mamakou V, Mangino M, Manichaikul A, Marten J, Mattheisen M, McDaid AF, Mei QS, Meiselbach H, Melendez

TL, Milaneschi Y, Miller JE, Millwood IY, Mishra PP, Mitchell RE, Mollehave LT, Mononen N, Mucha S, Munz M, Mykkaenen J, Nakatochi M, Nardone GG, Nelson CP, Nethander M, Nho CW, Nielsen AA, Nolte IM, Nongmaithem SS, Noordam R, Ntalla I, Nutile T, Pandit A, Pauper M, Petersen E, Petersen LV, Piluso F, Polasek O, Poveda A, Pyarajan S, Raffield LM, Rakugi H, Ramirez J, Rasheed A, Raven D, Rayner NW, Riveros C, Rohde R, Ruggiero D, Ruotsalainen SE, Ryan KA, Sabater M, Santin A, Saxena R, Scholz M, Shen BT, Shi JCZ, Shin JH, Sidore C, Sidorenko J, Sim X, Sliker RC, Smith AV, Smith JA, Smyth LJ, Southam L, Steinthorsdottir V, Sun L, Takeuchi F, Taylor KD, Tayo BO, Tcheandjieu C, Terzikhan N, Tesolin P, Teumer A, Theusch E, Thompson DJ, Thorleifsson G, Timmers PRHJ, Trompet S, Turman C, Vaccargiu S, van der Laan SW, van der Most PJ, van JB, van J, Verma SS, Verweij N, Vaturi Y, Wang CA, Wang CL, Wang JS, Wang LH, Wang YX, Wang Z, Warren HR, Wei WB, Wen WQ, Wheeler WA, Wickremasinghe AR, Wielscher M, Winsvold BS, Wong A, Wuttke M, Xia R, Yamamoto K, Yang JY, Yao J, Young H, Yousri NA, Yu L, Zeng LY, Zhang WH, Zhang XY, Zhao JH, Zhao W, Zhou W, Zimmermann ME, Zoledziewska M, 't LM, Adair LS, Adams HHH, Aguilar CA, Al F, Arnett DK, Asselbergs FW, Asvold BO, Attia J, Banas B, Bandinelli S, Beilin LJ, Bennett DA, Bergler T, Bharadwaj D, Biino G, Boerwinkle E, Boeger CA, Borja JB, Bouchard C, Bowden DW, Brandslund I, Ben , Buring JE, Caulfield MJ, Chambers JC, Chandak GR, Chanock SJ, Chaturvedi N, Chen Y, Chen ZM, Cheng CY, Cho YS, Christensen K, Christophersen IE, Ciullo M, Cole JW, Collins FS, Concas MP, Cooper RS, Cruz M, Cucca F, Cutler MJ, Damrauer SM, Dantoft TM, de Borst GJ, de Geus E, de Groot LCPGM, De Jager PL, de Kleijn DPV, de Silva HJ, Dedoussis GV, den AI, Du SF, Easton DF, Eckardt KU, Elders PJM, Eliassen AH, Ellinor PT, Elmståhl S, Erdmann J, Evans MK, Fatkin D, Feenstra B, Feitosa MF, Ferrucci L, Florez JC, Ford I, Fornage M, Franke A, Franks PW, Freedman BI, Gieger C, Girotto G, Golightly YM, González C, Gordon P, Grallert H, Grant S, Grarup N, Griffiths L, Gudnason V, Haiman C, Hakonarson H, Hansen T, Hartman CA, Hattersley AT, Hayward C, Heid IM, Heng CK, Hengstenberg C, Herzig KH, Hewitt AW, Hishigaki H, Hougaard DM, Hoyng CB, Huang PL, Huang W, Huang WY, Huffman JE, Hunt SC, Hutri N, Hveem

5.1.1 Cardiovascular Diseases Area

K, Hyppönen E, Iacono WG, Ichihara S, Ikram MA, Isasi CR, Jarvelin MR, Jin ZB, Joeckel KH, Jonas JB, Joshi PK, Jousilahti P, Jukema JW, Kaehönen M, Kamatani Y, Kang KD, Kaprio J, Kardia SLR, Karpe F, Kato N, Kavousi M, Kee F, Kessler T, Khera AV, Khor CC, Kiemeny L, Kim BJ, Kim EK, Kim HL, Kirchhof P, Kivimäki M, Koh WP, Koistinen HA, Kokkinos A, Kooner JS, Kooperberg C, Kovacs P, Kraaijeveld A, Kraft P, Krauss RM, Kumari M, Kutalik Z, Laakso M, Lange LA, Langenberg C, Launer LJ, Lee H, Lee NR, Lehtimäki T, Lemaitre RN, Li HX, Li LM, Lieb W, Lin X, Lind L, Linneberg A, Liu CT, Liu JJ, Loeffler M, London B, Lu F, Lubitz SA, Mackey DA, Magnusson P, Manson JE, Marcus GM, Vidal PM, Martín NG, März W, Matsuda F, McCarthy MI, McGarrah RW, McGue M, McKnight AJ, Medland SE, Mellström D, Metspalu A, Mitchell BD, Mitchell P, Mook DO, Mori TA, Morris AD, Mucci LA, Munroe PB, Nalls MA, Nazarian S, Nelson AE, Neville MJ, Newton C, Nielsen CS, Niinikoski H, Nikus K, Nothen MM, Ogunniyi A, Ohlsson C, Oldehinkel AJ, Orozco L, Pahlka K, Pajukanta P, Palmer C, Parra EJ, Pattaro C, Pedersen O, Pennell CE, Penninx BWJH, Perusse L, Peters A, Peyser PA, Porteous DJ, Posthuma D, Power C, Pramstaller PP, Province MA, Psaty BM, Qi QB, Qu J, Rader DJ, Raitakari OT, Rallidis LS, Rao DC, Redline S, Reilly DF, Reiner AP, Rhee SY, Ridker PM, Rienstra M, Ripatti S, Ritchie MD, Rivadeneira F, Roden DM, Rosendaal FR, Rotter JI, Rudan I, Rutter F, Ryu S, Sabanayagam C, Salako B, Saleheen D, Salomaa V, Samani NJ, Sanghera DK, Sattar N, Schmidt B, Schmidt H, Schmidt R, Schulze MB, Schunkert H, Scott LJ, Scott RJ, Sever P, Sheu WHH, Shoemaker MB, Shu XO, Simonsick EM, Sims M, Singleton AB, Sinner MF, Smith JG, Snieder H, Spector TD, Spedicati B, Stampfer MJ, Stark KJ, Strachan DP, Tabara Y, Tai ES, Tang H, Tardif JC, Thanaraj TA, Toenjes A, Tuomi T, Tuomilehto J, Tusie

MT, van RM, van der Harst P, van der Velde N, van CM, van NM, Vitart V, Vohl MC, Völker U, Vollenweider P, Völzke H, Vrieze S, Wachter NH, Walker M, Wander GS, Wareham NJ, Watanabe RM, Watkins H, Weir DR, Werge TM, Widen E, Willemssen G, Willett WC, Wilson JF, Wilson PWF, Wong TY, Woo JT, Wright AF, Xu HC, Yajnik CS, Yang J, Yokota M, Yuan JM, Zeggini E, Zemel BS, Zheng W, Zhu XF, Zillikens MC, Zonderman AB, Zwart JA, Abecasis GR, Assimes TL, Auton A, Boehnke M, Chasman DI, Esko T, Stefansson K, Lettre G, Lindgren CM, Ng MCY, O'Donnell CJ, Thorsteinsdóttir U, Visscher PM, Walters RG, Winkler TW, Wood AR, Deloukas P, Frayling TM, Justice AE, Kilpeläinen TO, Locke AE, Mohlke KL, North KE, Okada Y, Willer CJ, Young KL, Fatumo S, McCaffery JM, Timpson NJ, Hirschhorn JN, Sun YV, Berndt SI, Loos RJF, 23andMe T, DiscovEHR DiscovEHR MyCode Community Initiative HLTH, eMERGE Elect Med Records Genomics N, G, PRACTICAL C, Understanding Soc Sci GRP, VA Million Vet P. Polygenic prediction of body mass index and obesity through the life course and across ancestries. *NATURE MEDICINE*. 2025; 31(9). DOI:10.1038/s41591-025-03827-z. PMID:40691366. IF:50,000 (Q1/1D).

- Vizarraga D, Marcos M, Rotllan N, Martín J, Santos D, Camacho M, Soto B, Velasco L, Guerra P, Pareja F, Collantes M, Wu WL, Rodríguez I, Serrano L, Piñol J, Fita I, Escolà JC. Sources of essential lipids for *Mycoplasma pneumoniae* via P116 to target liver and atherosclerotic lesions. *Nature Communications*. 2025; 16(1):11159. DOI:10.1038/s41467-025-66129-5. PMID:41402265. IF:15,700 (Q1/1D). Sortiran per defecte les publicacions que ja tenim recollides a Fundanet, es demanarà la validació de la informació i es donarà la possibilitat d'afegir publicacions que faltin sempre que compleixin els criteris de selecció.

5.1.1 Cardiovascular Diseases Area

Regulatory Mechanisms of Cardiovascular Remodelling

Group leader

Rodríguez Sinovas, Cristina (IR)

Researchers

Alonso Nieto, Judith (CIBER)

Martínez González, José (CSIC)

Vázquez Sufuentes, Paula (CSIC)

Almendra Pegueros, Rafael Antonio (IR)

Research technicians

Aguilo Núñez, Sílvia (IR)

Blanco Casoliva, Laia (CSIC)

Carmona Murillo, Margarita (CIBER-CSIC)



DESCRIPTION

Our group addresses different aspects of vascular biology, thrombosis and myocardial pathophysiology aimed at studying the mechanisms underlying the onset, progression and complications of cardiovascular diseases (CVDs) with high morbidity and mortality, such as atherosclerosis, aortic aneurysms, cardiac hypertrophy and myocardial infarction. Our ultimate goal is to develop tools for early diagnosis and new therapeutic strategies for these diseases.

MAIN LINES OF RESEARCH

- L1. Pathophysiology of abdominal aortic aneurysm (AAA) and cardiac hypertrophy: new therapeutic opportunities (Rodríguez Sinovas, Cristina).
- L2. The nuclear receptor NOR-1 in coronary artery disease, AAA and cardiac dysfunction, remodelling, and arrhythmogenesis after myocardial infarction (Martínez González, Jose).

SCIENTIFIC CHALLENGES

- Analysis of the molecular basis of abdominal aortic aneurysm: Identification of new therapeutic targets.
- Physiopathological mechanisms underlying the development of thoracic aortic aneurysm in syndromic patients.
- Identification of new biomarkers and therapeutic targets in hypertensive cardiac hypertrophy and myocardial infarction.
- Analysis of the molecular mechanisms underlying cardiovascular calcification.
- Identification and validation of novel pharmacological tools in cardiovascular diseases.
- Development and characterisation of new animal models in cardiovascular diseases.

5.1.1 Cardiovascular Diseases Area

ACTIVE & AWARDED GRANTS

- Almendra Pegueros, Rafael Antonio. Movilidad M-AES 2025. MV25/00100. Instituto de Salud Carlos III (ISCIII). 2026. 10.465,00 €
- Martínez González, Jose. CIBER de Enfermedades Cardiovasculares (CIBERCV). CB16/11/00257.
- Rodríguez Sinovas, Cristina. Descifrando el potencial de LOX y de la proteína matricial TSP4 como nuevas dianas terapéuticas en la aterosclerosis y el aneurisma de aorta abdominal. PI21/01048. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2025. 226.270,00 €
- Rodríguez Sinovas, Cristina. Impacto de la inhibición de la ATP citrato liasa (ACLY) sobre la respuesta inflamatoria y la huella epigenética en la hipercolesterolemia y el aneurisma de aorta abdominal. Fundación Española de Arterioesclerosis. FEA 2024. Duration: 2024-2026. 15.000,00 €
- Rodríguez Sinovas, Cristina. La ATP citrato liasa como diana farmacológica en enfermedades cardiovasculares: aproximaciones preclínicas, clínicas y ómicas. PI24/00613. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 227.500,00 €
- Rodríguez Sinovas, Cristina. La ATP citrato liasa (ACLY) como nueva diana terapéutica en la hipertrofia cardíaca y el aneurisma de aorta abdominal. Sociedad Española de Cardiología (SEC). SEC 2024-1. Duration: 2024-2028. 15.000,00 €
- Rodríguez Sinovas, Cristina. Grup d'Investigació en Biologia Vascular i Coagulopaties. 2021 SGR 00826. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). 2022-2025.

SCIENTIFIC PRODUCTION – Articles & Reviews

- Almendra R, Barros AJ, Pérez E, Julve J, Martínez J, Rodríguez C, Galán M. Identification of new therapeutic targets related to endoplasmic reticulum stress and mitochondrial dysfunction to reduce the risk of rupture in degenerative ascending aortic aneurysm. *Clínica E Investigación En Arteriosclerosis*. 2025; 37(4):100740. DOI:10.1016/j.arteri.2024.09.002. PMID:39424523.
- Almendra R, Rodríguez C, Camacho M, Sánchez D, Sánchez JL, Cáncer S, Pérez E, Medina G, Martínez J, García AB, Galán M. Identification of endoplasmic reticulum stress- associated lncRNAs influencing inflammation and VSMC function in abdominal aortic aneurysm. *CLINICAL SCIENCE*. 2025; 139(6). DOI:10.1042/CS20242476. PMID:40072504. IF:7,700 (Q1/2D).
- Bentanachs R, Ramirez P, Braster B, Emmanouilidou A, Mujica E, Rodrigo M, Rodríguez C, Roglans N, Den M, Laguna JC, Alegret M. Telmisartan reverses hepatic steatosis via PCK1 upregulation: A novel PPAR-independent mechanism in experimental models of MASLD. *PHARMACOLOGICAL RESEARCH*. 2025; 218:107860. DOI:10.1016/j.phrs.2025.107860. PMID:40675520. IF:10,500 (Q1/1D).
- Briones AM, Hernanz R, García AB, Rodríguez C, Blanco LM, Val A, Alonso MJ, Salas M. Role of Inflammatory and Proresolving Mediators in Endothelial Dysfunction. *BASIC & CLINICAL PHARMACOLOGY & TOXICOLOGY*. 2025; 136(5):e70026. DOI:10.1111/bcpt.70026. PMID:40159875. IF:3,300 (Q2/4D).
- Ganse FG, Ernst LM, Rodríguez C, Ruiz M, Inserte J, Martínez J, Briones AM, García AB, Consegal M, Miro E, Yáñez L, Pomposo A, Prades M, Ferreira I, Puentes V, Benito B, Rodríguez A. Insights into the causal role of diesel exhaust particles in ventricular arrhythmogenesis: protective effects of antioxidant cerium oxide nanoparticles. *Particle and Fibre Toxicology*. 2025; 22(1):36. DOI:10.1186/s12989-025-00649-2. PMID:41444986. IF:8,200 (Q1/1D).
- Puertas L, Alonso J, Blanco L, Almendra R, Camacho M, Rodríguez A, Galán M, Roglans N, Laguna JC, Martínez J, Rodríguez C. Inhibition of ATP-citrate lyase by bempedoic acid protects against abdominal aortic aneurysm formation in mice. *Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie*. 2025; 184. DOI:10.1016/j.biopha.2025.117876. IF:7,500 (Q1/1D).

5.1.1 Cardiovascular Diseases Area

Pathophysiology of Lipid-related Diseases

Group leader

Escola Gil, Juan Carlos (IR)

Researchers

Antoni Joan Pares, Assumpta (FGS)
 Blanco Vaca, Francisco (FGS)
 Borràs Querol, Carla (IR)
 Cabello Femenias, Isaac (FGS)
 Canyelles Vich, Marina (FGS)
 Costa Pallaruelo, Maria (FGS)
 Dong, Chen (UAB)
 Erazo Paredes, Katherine Mishel (UAB)
 Ferrer Pérez, Rosa Maria (IR)
 Grao Cruces, Elena María (Universidad de Sevilla)
 Guiñon Muñoz, Leonor (FGS)
 Illana Cámara, Francisco José (FGS)
 Lázaro Peña, Laura (FGS)
 Li, Changda (UAB)
 Mansilla Usero, Andrea (FGS)
 Martín Plagaro, Cesar Augusto (Euskal Herriko Unibertsitatea)
 Martínez Figueroa, Susana (FGS)
 Rotllan Vila, Noemi (IR)
 Sole Galvez, Arnau (CIBER)
 Sospedra Arnau, Maria (FGS)
 Tondo Colomer, Mireia (FGS)
 Urgell Rull, Eulalia (FGS)
 Velasco Reniu, Lorena del Carmen (IR)
 Zapico Muñoz, Edgar (FGS)
 Zhao, Qi (UAB)

Research technicians

Anguera Tejedor, Mateu (IR)
 Companys Armengol, Eva Maria (FGS)
 Cubero Hernández, Esther (FGS)
 Font Firvida, Montserrat (FGS)
 Griñán González, Raquel (IR)
 Liras Garcia, Esther (FGS)
 Orantes Gallego, Vanesa (FGS)
 Pérez Bolancel, Cristina (FGS)
 Roig Martínez, Rosa (FGS)
 Santos Palacios, David (CIBER)
 Terzan Molina, Sílvia (FGS)



DESCRIPTION

Alterations in lipids and lipoproteins are not only key causal factors in atherosclerotic cardiovascular disease and overall cardiovascular risk, but are also closely associated with the development of other major health conditions, such as type 2 diabetes, metabolic syndrome, obesity, Alzheimer's disease, and certain types of cancer.

In this context, the research lines of our group focus on deepening understanding of the role of lipid alterations in these diseases, with the aim of identifying and developing novel biomarkers and targeted therapies to improve diagnosis, risk stratification, and clinical management of patients.

MAIN LINES OF RESEARCH

The group's activity focuses on two main research lines and one emerging line, which are closely interconnected.

Lipoprotein Metabolism and Cardiovascular Risk

- We focus on the study of lipoproteins, particularly remnant lipoproteins, low-density and high-density lipoproteins (LDL and HDL), and their role as potential prognostic biomarkers. We investigate their utility in supporting pharmacological and nutritional interventions aimed at correcting lipoprotein dysfunctions in patients at high cardiovascular risk, as well as in patients with endocrine cancers and Alzheimer's disease. (Drs. Joan Carles Escolà-Gil, Marina Canyelles, Mireia Tondo and Noemi Rotllan)

In addition, we study the role of novel microRNAs as regulators of lipoprotein metabolism and atherosclerosis, and evaluate their therapeutic potential in vivo using recombinant HDL. (Dr Noemi Rotllan)

5.1.1 Cardiovascular Diseases Area

Molecular Diagnosis and Characterization of Metabolic Disorders

- We develop and validate innovative analytical methods for the study of metabolic and endocrine disorders. Thanks to the high volume of samples processed and our scientific output, our laboratory has become a national reference centre for the diagnosis of inherited dyslipidemias. (Drs. Joan Carles Escolà-Gil, Marina Canyelles)

Biomarkers in Neurodegenerative Diseases (Emerging Line)

- In collaboration with the Memory Unit of the Neurology Department at Hospital de Sant Pau, we work on the development and implementation of blood-based biomarkers for the diagnosis of neurodegenerative diseases, including Alzheimer's disease, Parkinson's disease, and other dementias. These biomarkers enable the detection of key pathophysiological processes, support diagnosis, monitor disease progression, and evaluate treatment response (Dr Mireia Tondo)

SCIENTIFIC CHALLENGES

- To develop and validate lipoprotein-related predictive biomarkers for diabetes and cardiovascular disease in populations at high metabolic risk, in order to improve risk stratification and personalised prevention.
- To deepen the understanding of the molecular mechanisms regulating alterations in lipoprotein metabolism in type 1 and type 2 diabetes, with particular focus on key proteins such as ANGPTL3 and APOC3.
- To evaluate the therapeutic potential of synthetic HDL and targeted rHDL-miRNA-based therapies in atherosclerosis regression.
- To unravel the complex interaction between lipid metabolism and Alzheimer's disease progression in Down syndrome, with the aim of identifying novel pathogenic mechanisms and potential therapeutic targets.

ACTIVE & AWARDED GRANTS

- Blanco Vaca, Francisco; Tondo Colomer, Mireia. Tráfico de colesterol celular y tecnologías ómicas dirigidas a HDL: mecanismos fisiopatológicos y evaluación de biomarcadores en pacientes con enfermedad cardiovascular y enfermedad de Alzheimer. PI21/00140. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2024. 159.720,00 €
- Blanco Vaca, Francisco & Escola Gil, Juan Carlos. Centro de Investigación Biomédica en Red de Diabetes y Enfermedades Metabólicas Asociadas (CIBERDEM). CB07/08/0016. Instituto de Salud Carlos III (ISCIII).
- Blanco Vaca, Francisco. Grup de Recerca d'Estructura de Lipoproteïnes, Dislipèmies i altres factors de risc de l'Arteriosclerosi. 2021 SGR 00988. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). 2022-2025
- Borràs Querol, Carla. Formación de Personal Universitario. FPU21/01173. Ministerio de Universidades. Duration: 2021-2025. 74.156,00 €
- Canyelles Vich, Marina. Juan Rodés. JR22/00003. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2027. 180.000,00 €
- Canyelles Vich, Marina; Escolà Gil, Joan Carles. Impacto de las lipoproteínas remanentes y HDL en el riesgo cardiovascular: evaluación de biomarcadores predictivos en el estudio prospectivo Di@bet.es y un estudio longitudinal en sujetos con diabetes tipo 2. Competitiu. Expedient: PI23/00232. Instituto de Salud Carlos III. Duration: 2024-2026. 165.000,00 €
- El Allam Kanice, Aya. Contratos PFIS 2025. FI25/00113. Instituto de Salud Carlos III (ISCIII). 2026-2030. 119.567,00 €
- Escuela Gil, Juan Carlos. Centro de Investigación Biomédica en Red de Diabetes Mellitu. CB07/08/0016. Instituto de Salud Carlos III (ISCIII).

5.1.1 Cardiovascular Diseases Area

- Ferrer Pérez, Rosa. Contratos Rio Hortega 2024. CM24/00089. Instituto de Salud Carlos III (ISCIII). Duración: 2025-2027. 65.000,00 €
- Garcia Rodríguez, Jesús Eduardo. Formación de Personal Universitario. FPU21/01173. Ministerio de Universidades. Duration: 2022-2026. 74.857,00 €
- Rotllan Vila, Noemi. Subprograma Contratos Ramón y Cajal 2017. RYC-2017-22879. Ministerio de Ciencia, Innovación y Universidades (MICIU). Duration: 2019-2026. 168.600,00 €
- Rotllan Vila, Noemí. Role of HDL miRNA in coronary heart disease incidence; Customised miR-sHDL as a strategy for atherosclerosis treatment. MARATO 202312-31 Expedient: 82/225. Fundació La Marató de TV3. Duration: 2024-2027. 75.375,00 €
- Rotllan Vila, Noemi. Células vasculares lisas, transporte reverso de colesterol y miRNAs: Mecanismos patofisiológicos y nuevas dianas terapéuticas para prevenir la enfermedad cardiovascular. PID2022-137186OB-I00. Ministerio de Ciencia, Innovación y Universidades. Duration: 2024-2026. 187.500,00 €
- Rotllan Vila, Noemi. HDL recombinante: un nuevo enfoque terapéutico para el tratamiento con LNA-antimiRs en aterogénesis. CNS2023-144119. Ministerio de Ciencia, Innovación y Universidades. Duration: 2024-2026. 199.771,00 €
- Tondo Colomer, Mireia. Implicaciones del transporte de colesterol mediado por lipoproteínas de alta densidad en la demencia por enfermedad de Alzheimer en adultos con síndrome de Down (cohorte DABNI). Proyecto DOWNLIP. PI24/00513. Instituto de Salud Carlos III (ISCIII). 2025-2027. 158.750,00 €
- Velasco Reniu, Lorena. Contratos PFIS 2024. FI24/00013. Instituto de Salud Carlos III (ISCIII). 2025-2029. 119.567,00 €

DOCTORAL THESES DEFENDED

- Borràs Querol, Carla. Cellular high-density lipoprotein-mediated cholesterol trafficking: pathophysiological mechanisms and therapeutic strategies in cardiovascular and Alzheimer's disease. 21/11/2025. Universitat Autònoma de Barcelona. Supervisors: Blanco Vaca, Francisco; Escolà Gil, Joan Carles; Tondo Colomer, Mireia. <https://hdl.handle.net/10803/695997>
- García Rodríguez, Jesús Eduardo. Identificación de nuevos biomarcadores con potencial pronóstico y diagnóstico en enfermedades cardiovasculares y metabólicas. 10/10/2025. Universitat Autònoma de Barcelona. Supervisors: Llorente Cortés, Concepción Vicenta; Escolà Gil, Joan Carles; Pérez Pérez, Antonio. <https://hdl.handle.net/10803/695551>
- Griñán González, Raquel. Identification of microRNAs as key regulators of lipid metabolism and potential therapeutic targets in cardiometabolic disease. 05/12/2025. Universitat Autònoma de Barcelona. Supervisors: Rotllan Vila, Noemi; Blanco Vaca, Francisco. <https://hdl.handle.net/10803/696147>
- Li, Changda. Adiponectin Receptors and LDLR Axis in PTC: Therapeutic Implications of AdipoRon. 07/10/2025. Universitat Autònoma de Barcelona. Supervisors: Escolà Gil, Joan Carles; Mato Matute, Eugènia; Blanco Vaca, Francisco. <https://hdl.handle.net/10803/695550>
- Nan, Madalina Nicoleta. Utilidad de los biomarcadores de disfunción cardíaca en enfermedades de origen placentario, como la preeclampsia, durante el embarazo. 11/11/2025. Universitat Autònoma de Barcelona. Supervisors: García Osuna, Álvaro; Llurba Olivé, Elisa; Mora Brugués, Josefina; Blanco Vaca, Francisco. <https://hdl.handle.net/10803/695950>
- Rives Jiménez, José. Tejido adiposo epicárdico y alteraciones del metabolismo lipídico en la diabetes mellitus tipo 2. 10/10/2025. Universitat Autònoma de Barcelona. Supervisors: Sánchez Quesada, José Luis; Benítez González, Sònia; Blanco Vaca, Francisco. <https://hdl.handle.net/10803/695552>

5.1.1 Cardiovascular Diseases Area

SCIENTIFIC PRODUCTION – Articles & Reviews

- Arranz J, Ferrer R, Zhu NL, Rubio S, Rodríguez I, Arriola JE, Maure L, Garcia J, Selma J, Carmona M, Barroeta I, Illán I, Santos M, Fortea J, Lleó A, Tondo M, Alcolea D. Prospective evaluation of plasma pTau217 stability for the detection of Alzheimer's disease in a tertiary memory clinic. *Alzheimer's Research & Therapy*. 2025; 17(1):150. DOI:10.1186/s13195-025-01779-7. PMID:40618130. IF:7,600 (Q1/1D).
- Asla Q, Garrido M, Urgell E, Terzan S, Santos A, Fernández M, Varghese N, Atila C, Calabrese A, Biagetti B, Plessow F, Gich I, Christ M, Eckert A, Webb SM, Lawson EA, Aulinas A. Oxytocin levels in response to CRH administration in hypopituitarism and hypothalamic damage: a randomised, crossover, placebo-controlled trial. *Scientific Reports*. 2025; 15(1):2360. DOI:10.1038/s41598-025-86566-y. PMID:39824923. IF:3,900 (Q1/2D).
- Asla Q, Garrido M, Urgell E, Terzan S, Santos A, Varghese N, Atila C, Biagetti B, Plessow F, Christ M, Eckert A, Webb SM, Lawson EA, Aulinas A. Melatonin as a Possible Stimulus to Unmask an Oxytocin-Deficient State in Hypopituitarism and Hypothalamic Damage. *JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM*. 2025; 110(12). DOI:10.1210/clinem/dgaf201. PMID:40166823. IF:5,100 (Q1/2D).
- Benítez A, Garcia E, Lhoëst MTL, Martínez A, Borrás C, Tondo M, Céspedes MV, Caruana P, Pepe A, Bochicchio B, Cenarro A, Civeira F, Prades R, Escola JC, Llorente V. Targeting LDL aggregation decreases atherosclerotic lipid burden in a humanised mouse model of familial hypercholesterolemia: Crucial role of ApoB100 conformational stabilisation. *ATHEROSCLEROSIS*. 2025; 410:118630. DOI:10.1016/j.atherosclerosis.2024.118630. PMID:39547850. IF:5,700 (Q1/1D).
- Bernhardt AM, Rodríguez I, Aldecoa I, Arranz J, Arriola JE, Maure L, Carmona M, Longen S, Trossbach SV, Giese A, Matthias T, Benejam B, Videla L, Soriano LD, Barroeta I, Sanjuan A, Fernández S, Vaqué L, Aranha MR, Morcillo AO, Nübling G, Wagemann O, Stockbauer A, Tondo M, Bejanin A, Lleó A, Alcolea D, Molina L, Fortea J, Levin J. Alpha-synuclein co-pathology in Down syndrome-associated Alzheimer's disease. *Alzheimers & Dementia*. 2025; 21(6):e70342. DOI:10.1002/alz. 70342. PMID:40528443. IF:11,100 (Q1/1D).
- Borràs C, Canyelles M, Santos D, Rotllan N, Núñez E, Vázquez J, MasPOCH D, Cano M, Zhao Q, Carmona M, Sirisi S, Lleó A, Fortea J, Alcolea D, Blanco F, Escolà JC, Tondo M. Cerebrospinal fluid lipoprotein-mediated cholesterol delivery to neurons is impaired in Alzheimer's disease and involves APOE4. *JOURNAL OF LIPID RESEARCH*. 2025; 66(8):100865. DOI:10.1016/j.jlr.2025.100865. PMID:40701521. IF:4,100 (Q2/4D).
- Borràs C, Rotllan N, Griñán R, Santos D, Solé A, Dong C, Zhao Q, Llorente V, Mourín M, Soto B, Camacho M, Tondo M, Canyelles M, Blanco F, Escolà JC. Restoring cholesterol efflux in vascular smooth muscle cells transitioning into foam cells through Liver X receptor activation. *BIOMEDICINE & PHARMACOTHERAPY*. 2025; 188:118178. DOI:10.1016/j.biopha.2025.118178. PMID:40403381. IF:7,500 (Q1/1D).
- Costa M, García A, Canyelles M, Martínez C, Nan N, Ferrer R, Blanco F, Guiñón L. Refining quality control strategies in highly automated laboratories: experience in the integration of multistage statistical designs and risk management. *Biochemia Medica*. 2025; 35(3):030704. DOI:10.11613/BM.2025.030704. PMID:41103687. IF:1,800 (Q3/6D).
- Garcia E, Claudi L, Lhoëst MTL, Polishchuk A, Samouillan V, Amaro AB, Pinero J, Escolà JC, Sabidó E, Leta R, Vilades D, Cortes VL. Reduced blood EPAC1 protein levels as a marker of severe coronary artery disease: the role of hypoxic foam cell-transformed smooth muscle cells. *Journal of Translational Medicine*. 2025; 23(1):523. DOI:10.1186/s12967-025-06513-3. PMID:40346550. IF:7,500 (Q1/2D).
- Giralto M, Ferrer R, Díaz N, Vega B, Luque M, Martínez S, Fernández B, Martínez I, Fabregat A, Urgell E, Cardona I, Casals G, Escobar HF. Analytical Interference of Exemestane with Androstenedione Immunoassays. *Annals of Laboratory Medicine*. 2025; 45(4). DOI:10.3343/alm.2024.0362. PMID:40114653. IF:3,900 (Q1/1D).
- Gutiérrez C, Blázquez R, San Sebastián I, Sanz S, Fernández MJ, Núñez G, Mínguez P, Escolà JC,

5.1.1 Cardiovascular Diseases Area

- Nogales P, Ollivier V, Martín JL, Noe BHT, Rescher U, Méndez N, Blanco LM. Annexin A8 deficiency delays atherosclerosis progression. *Clinical and Translational Medicine*. 2025; 15(1):e70176. DOI:10.1002/ctm2.70176. PMID:39835780. IF:6,800 (Q1/2D).
- Illana FJ, Fernández E, Muñoz JL, Amado LV, Martín CG, González C, Miró S, Trapé J, Martínez A, Filella X, González A, Sánchez AB, Díaz A, Spanish Soc Lab M. Circulating tumour DNA in patients with cancer: insights from clinical laboratory. *ADVANCES IN LABORATORY MEDICINE-AVANCES EN MEDICINA DE LABORATORIO*. 2025; 6(3). DOI:10.1515/almed-2025-0010. PMID:40977813.
 - Lee M, Jauhainen M, Kovanen PT, Escolà JC. Lipids and lipoproteins in the interstitial tissue fluid regulate the formation of dysfunctional tissue-resident macrophages: Implications for atherogenic, tumorigenic, and obesogenic processes. *SEMINARS IN CANCER BIOLOGY*. 2025; 114. DOI:10.1016/j.semcancer.2025.06.008. PMID:40545184. IF:15,700 (Q1/1D).
 - Lhoëst MTL, Martínez A, Garcia E, Dandurand J, Polishchuk A, Benítez A, Cenarro A, Civeira F, Bernabé A, Vilades D, Escolà JC, Samouillan V, Llorente V. ApoB100 remodelling and stiffened cholesteryl ester core raise LDL aggregation in familial hypercholesterolemia patients. *JOURNAL OF LIPID RESEARCH*. 2025; 66(1):100703. DOI:10.1016/j.jlr.2024.100703. PMID:39557294. IF:4,100 (Q2/4D).
 - Mercè F, Asla Q, Illana FJ, Victòria F, Javier HL, Marta S, Iglesias C, Webb SM, Aulinas A. A novel likely pathogenic germline variant in CDKN1B in a patient with MEN4 and medullary thyroid cancer. *Familial Cancer*. 2025; 24(1):24. DOI:10.1007/s10689-025-00449-9. PMID:40009226. IF:2,000 (Q3/7D).
 - Ortiz MA, Anguera G, Cantó E, Alejandro J, Mora J, Osuna R, Mulet M, Mora P, Antonijuan A, Sánchez S, Ramírez O, Orantes V, Maroto P, Vidal S. Pilot Investigation on Markers of Bone Metabolism, Angiogenesis, and Neuroendocrine Activity as Potential Predictors of Survival of Metastatic Prostate Cancer Patients with Bone Metastases. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(10):4669. DOI:10.3390/ijms26104669. PMID:40429810. IF:4,900 (Q1/3D).
 - Puig N, Camps P, Hermansson M, Aguilera A, Marín R, Bautista O, Rotllan N, Blanco N, Domine MC, Öörni K, Sánchez JL, Benítez S. Alterations in LDL and HDL after an ischemic stroke associated with carotid atherosclerosis are reversed after 1 year. *JOURNAL OF LIPID RESEARCH*. 2025; 66(2):100739. DOI:10.1016/j.jlr.2024.100739. PMID:39746448. IF:4,100 (Q2/4D).
 - Redondo S, Costa M, Moreno ME, Arguello M, Riba M, Aso O, Iranzo E, Esquirol A, Sierra J, Briones J, Martino R, Zapico E, Garcia I. Development and Clinical Validation of Liquid Chromatography-Tandem Mass Spectrometry for Measuring Ruxolitinib in Steroid-Refractory Graft-Versus-Host Disease: A First Step Towards Optimised Treatment. *EUROPEAN JOURNAL OF HAEMATOLOGY*. 2025; 114(3). DOI:10.1111/ejh.14349. PMID:39545520. IF:2,300 (Q2/5D).
 - Videla L, Benejam B, Barroeta I, Fernández S, Altuna M, Arranz J, Rodríguez I, Arriola JE, Maure L, Soriano LD, Illán I, Estellés T, Sanjuan A, Vaqué L, Aranha MR, Morcillo AO, Zsadyi SE, Franquesa M, Valldeneu S, Sánchez MB, Padilla C, Carreras M, Lorente O, Valle N, Sánchez E, Dols O, Sirisi S, Muñoz L, Torres S, El Bennadi SE, Sánchez O, Garzón D, Ribas L, Elbachiri S, Mota C, Tondo M, Camacho V, Giménez S, Delaby C, Belbin O, Iulita MF, Montal V, Pegueroles J, Vilaplana E, Clarimon J, González S, Molina L, Aldecoa I, Alcolea D, Bejanin A, Videla S, Blesa R, Lleo A, Carmona M, Fortea J. The Down Alzheimer Barcelona Neuroimaging Initiative (DABNI) and its contributions to understanding Alzheimer's disease in Down syndrome: A decade of discovery. *Alzheimers & Dementia*. 2025; 21(6):e70259. DOI:10.1002/alz.70259. PMID:40528282. IF:11,100 (Q1/1D).
 - Vizarraga D, Marcos M, Rotllan N, Martín J, Santos D, Camacho M, Soto B, Velasco L, Guerra P, Pareja F, Collantes M, Wu WL, Rodríguez I, Serrano L, Piñol J, Fita I, Escolà JC. Sources of essential lipids for *Mycoplasma pneumoniae* via P116 to target the liver and atherosclerotic lesions. *Nature Communications*. 2025; 16(1):11159. DOI:10.1038/s41467-025-66129-5. PMID:41402265. IF:15,700 (Q1/1D).

5.1.1 Cardiovascular Diseases Area

Cell Therapy and Angiogenesis in Ischemic Diseases

Group leader

Arderiu Marques, Gemma (IR)

Researchers

Civit Urgell, Anna (IR)

Serrano López, Alejandro (IR)

Research technicians

Beteta Jiménez, Marina (IR)

García García, Olaya (IR)

Nadal Romeo, Monica (IR)

Rosselló Rullan, Laura (IR)

Solanelles Curco, Angels (IR)



DESCRIPTION

The research group “Cell Therapy and Angiogenesis in Ischemic Diseases”, an emerging team within Area: Cardiovascular Diseases, is dedicated to investigating the vascular effects of ischemia and angiogenesis. Their work focuses on exploring the therapeutic potential of adipose-derived stem cells (ASCs) to promote blood vessel formation and repair damaged tissues in ischemic conditions. By combining cutting-edge techniques in cell therapy and molecular biology, the group aims to develop novel treatments that improve patient outcomes in cardiovascular diseases. Their research not only seeks to understand the underlying mechanisms of angiogenesis but also to translate these findings into clinical applications, offering hope for more effective and personalised therapies. Ultimately, their goal is to advance the diagnosis, treatment, and prevention of ischemic diseases through innovative approaches.

MAIN LINES OF RESEARCH

- Cell therapy and angiogenesis: Application of adipose-derived stem cells (ASCs) to promote blood vessel formation (angiogenesis) in ischemic conditions. (Arderiu Marques, Gemma).
- Endothelial dysfunction and cardiovascular disease: Impaired blood vessel function as a key factor in the development of atherosclerosis, hypertension, and other cardiovascular disorders. (Arderiu Marques, Gemma).
- Tissue factor and angiogenesis: The role of thrombogenic tissue factor (TF) in vascular remodelling and pathological angiogenesis. (Arderiu Marques, Gemma).

SCIENTIFIC CHALLENGES

- Characterise ASCs (adipose stem cells) obtained from different tissues of individuals with various pathologies and determine their angiogenic capacity for use in cell therapy.
- Enhance the angiogenic capacity of ASCs through differentiation, genetic manipulation, and/or the use of their derivatives, such as microvesicles.

5.1.1 Cardiovascular Diseases Area

ACTIVE & AWARDED GRANTS

- Arderiu Marques, Gemma. RICORS TERAV. RD21/0017/0013. Instituto de Salud Carlos III. 2022-2025. 90.000,90 €
- Arderiu Marques, Gemma. Nueva estrategia terapéutica mediante vesículas extracelulares derivadas de células madre de tejido adiposo como medicina regenerativa para enfermedades vasculares periféricas. PI23/01136. Instituto de Salud Carlos III. Duration: 2024-2026. 152.500,00 €
- Arderiu Marques, Gemma. Repairing early endothelial cell damage to promote cardiovascular health: interplay between endothelial cells and monocytes as a primary strategy in ischemic diseases. MARATO 202303-30. Fundació La Marató de TV3. Duration: 2024-2027. 149.785,00 €
- Arderiu Marques, Gemma. Obesidad e insuficiencia cardíaca con fracción de eyección preservada: papel de las ASCs derivadas del tejido adiposo. SEC 2024-2. Sociedad Española de Cardiología (SEC) Duration: 2024-2028. 15.000,00 €

DOCTORAL THESES DEFENDED

- Civit Urgell, Anna. Caracterització de la capacitat proangiogènica de les cèl·lules mare derivades del teixit adipós: influència del microambient i dels factors reguladors. 26/09/2025. Universitat de Barcelona. Supervisors: Arderiu Marques, Gemma; Badimon Maestro, Lina; Laguna Egea, Juan Carlos. <https://hdl.handle.net/10803/697227>

SCIENTIFIC PRODUCTION – Articles & Reviews

- Civit A, Peña E, Bejar MT, Moscatiello F, Vilahur G, Badimon L, Arderiu G. bFGF rescues dysfunctional properties of adipose-derived stem cells from individuals with type 2 diabetes by modulating their miRNA profile. DIABETOLOGIA. 2025; 68(12). DOI:10.1007/s00125-025-06533-0. PMID:40905998. IF:10,200 (Q1/1D).
- Curco AS, Garcia E, Polishchuk A, La chica MT, Llorente V. Impaired cholesterol and LDL uptake pathways in the development of oncological and cardiovascular diseases. SEMINARS IN CANCER BIOLOGY. 2025; 116. DOI:10.1016/j.semcancer.2025.09.004. PMID:40998097. IF:15,700 (Q1/1D).
- Vilahur G, Ben S, Gutiérrez M, Radike M, Mendieta G, Ramos L, Alcover S, Casani L, Arderiu G, Padró T, Borrell M, Badimon L. Cardioprotection exerted by intravenous statin at index myocardial infarction event attenuates cardiac damage upon recurrent infarction. CARDIOVASCULAR RESEARCH. 2025; 121(2). DOI:10.1093/cvr/cvae264. PMID:39757982. IF:13,300 (Q1/1D).

5.1.2 Oncohematologic Diseases Area



5.1.2 Oncohematologic Diseases Area

Javier Briones

Area Director

A broad range of translational cancer research is conducted in this area, particularly in sarcomas, head-and-neck, breast, ovarian, endometrial, colorectal, and hematological cancers, among others. Research covers a wide range of fields, with disciplines that include from genetic research on cancer susceptibility syndromes to advanced therapies such as those based on targeted drug delivery with nanoparticles, preclinical development of new anticancer agents with disease-specific mouse models, immunotherapy with CAR-T cells, gene therapy, drug repurposing, and predictive molecular markers. Next-generation sequencing approaches are developed and applied to identify novel prognostic or response factors. A large number of clinical trials are conducted within this area by our clinical researchers, including Phase I, II, and III trials with new anticancer drugs

RESEARCH GROUPS

Clinical Oncology

Maroto Rey, Jose Pablo

Oncogenesis and Antitumour Drugs

Mangues Bafalluy, Ramon

Haematological Diagnosis

Nomdedeu Guinot, Josep Francesc

Molecular Pathology of Gynaecologic Cancer

Pijuan Andújar, Lara

Otorhinolaryngology and Head and Neck Cancer

Quer Agustí, Miquel

Oncology, Haematology, and Transplantation

Briones Meijide, Javier

Cancer Predisposition and DNA Repair Syndromes

Surrallés Calonge, Jordi

Gynecologic and Peritoneal Oncology

Céspedes Navarro, María Virtudes

Clinical Research in Transfusion Medicine

Medina Marrero, Laura

Thoracic Surgery Research and Innovation in Lung Cancer

Trujillo Reyes, Juan Carlos

Cancer Epigenetics

Esteller Badosa, Manel



Clinical Oncology

Group leader

Barnadas Molins, Agusti (FGS) (until November 2025)
Maroto Rey, Jose Pablo (FGS) (from November 2025)

Researchers

Aguado Sorolla, María (FGS)	Mora Bragues, Josefina (FGS)
Andres Granyo, Marta (FGS)	Nieva Muñoz, María (FGS)
Anguera Palacios, Georgia (FGS)	Paez López-Bravo, David (FGS)
Arqueros Núñez, Cristina (FGS)	Portu Grive, Mikel (FGS)
Barba Joaquin, Andres (FGS)	Ramírez de Olano, Amaia (FGS)
Barnadas Molins, Agustí (FGS)	Rivera Vargas, Pablo Rene (FGS)
Bosma Ainaud, Freya (FGS)	RomanoCardozo, Alejandra (FGS)
Calvo Verges, Nuria (FGS)	Romero Montenegro, Daniel (FGS)
Cerda Serda, Paula (FGS)	Salazar Blanco, Juliana (IR)
Cotaina Recio, Maria (FGS)	Sánchez del Río, Sofía (FGS)
Escuin Borràs, Daniel (IR)	Sánchez Villanueva, Kenia (IR)
Flores Pino, Juan Francisco (FGS)	Sanz Beltrán, Judit (FGS)
Gallego Rubio, Óscar Salvador (FGS)	Sebio García, Ana (FGS)
Juan Linares, Eva (FGS)	Serra López, Jorgina (FGS)
López Sanmartín, Consuelo (FGS)	Teres Lleida, Raul (FGS)
Majem Tarruella, Margarita (FGS)	Tibau Martorell, Ariadna (FGS)
Martín Cullell, Berta (FGS)	Virgili Manrique, Anna Cristina (FGS)
Martínez Recio, Sergio (FGS)	
Molina Pérez, María Alejandra (FGS)	

Research technicians

Alfonso Ruiz, Rosa (IR)	Martínez Aranda, Rodrigo Antonio (IR)
Andres Nieto, Marta (IR)	Menendez Cuervo, Dulce Maria (IR)
Bell Ramirez, Olga Lidia (IR)	Molina Bayona, Sílvia (IR)
Bustamante Pardo, Diego Alejandro (IR)	Moreno Gomez, Laura (IR)
Carmona Alonso, Ana (IR)	Ortiz López, Raquel (IR)
Castells Tello, Diana (IR)	Pérez Gorrini, Tiziana Giselle (IR)
Clua Serra, Marina (IR)	Ramírez García, Ona (IR)
Colomer Merino, Lucia (IR)	Reyes Vilasalo, Judith (IR)
García Belinchon, Maria De La Merce (IR)	Ribas Bellavista, Laia (IR)
Gisbert Beamud, Alexandra (IR)	Ribas Carbonell, Romina (IR)
González Guerrero, Laura (IR)	Roca Sola, Marc (IR)
Hernández García, Ricardo (IR)	Salomo Cos, Elisenda (IR)
Lavernia Rosell, Laia (IR)	Suris Cumicheo, Paola Maria (IR)
Layana Antepara, Michelle Elizabeth (IR)	Vall Montero, Gaudi (IR)
Llobet Busquets, Mireia (IR)	Valle Noguera, Marta (IR)
	Van Veen Romero, Erika (IR)

DESCRIPTION

Our research group conducts clinical trials to assess new therapeutic strategies, the effectiveness of targeted treatments, and the detection of residual disease, and research studies to evaluate prognostic and predictive molecular biomarkers, the molecular mechanisms of action and drug resistance, and the pharmacogenetics of cancer. Our research group has expanded to include radiopharmaceutical and theranostic trials, establishing nuclear medicine as a key strategic collaborator in these efforts. Our goal is to identify minimal residual disease, improve therapy individualization, conduct translational research, and collaborate to expand the arsenal against cancer.

MAIN LINES OF RESEARCH

- Breast cancer. (Tibau Martorell, Ariadna; Arqueros Núñez, Cristina; Andrés Granyo, Marta; Escuin Borràs, Daniel; Rivera, Pablo).
- Lung cancer and melanoma. (Majem Tarruella, Margarita; Barba, Joaquín Andrés; Martínez Recio, Sergio).
- Neuroendocrine tumours. (Paez López-Bravo, David).
- Head and neck and Central neural tumours. (Gallego Rubio, Óscar Salvador, Aguado Sorolla, Nuria).
- Hereditary cancer and genetic counselling. (Ramírez de Olano Galdona, Amaya; López Sanmartín, Consuelo).
- Digestive tumours. (Paez López-Bravo, David; Virgili Manrique, Anna Cristina; Cerda Serda, Paula; Nieva Muñoz, María).
- Urological tumours. (Maroto Rey, José Pablo; Anguera Palacios, Georgia; Portu Grive, Mikel).
- Sarcoma unit. (Sebio García, Ana; Teres Lleida, Raúl; Sebio García, Ana; Aguado Sorolla, María).
- Laboratory of translational research. (Escuin Borràs, Daniel; Salazar Blanco, Juliana).

5.1.2 Oncohematologic Diseases Area

SCIENTIFIC CHALLENGES

- To increase our budget dedicated to translational research by increasing the number of projects
- To increase our cooperation with other research groups in the IR and with the University
- To increase our participation in stable cooperative research groups in cancer (CIBER, RETICS, etc).
- To improve our success rate in national and international competitive grant calls and postdoctoral and clinical research fellowships.
- To promote translational research in cancer in cooperation with other internal and external research groups.
- To develop new drugs in phase 0/1 studies.

ACTIVE & AWARDED GRANTS

- Barnadas Molins, Agustí. Recerca Clínica en Oncologia. 2021 SGR 00827. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2022-2025. 40.000 €.
- Majem Tarruella, Margarita. Small cell lung cancer: from biology networks to tailored therapy. SOSCLC-AECC 2024. Fundación Científica de la Asociación Española Contra el Cáncer. 2024-2029. 20.500,00 €
- Paez López-Bravo, David. Integración de la farmacogenética y la telemedicina mediante salud móvil para el manejo de los efectos adversos en pacientes con cáncer colorrectal (ePGx study). PI21/01913. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 63.525,00 €
- Paez López-Bravo, David. Caracterización molecular, fenotipo inmune y patrón histológico de las metástasis de cáncer colorrectal (CCR) y aplicabilidad de la biopsia líquida en la perioperatoria del CCR oligometastático. TTD 2023. Grupo de Tratamiento de los Tumores Digestivos. Duration: 2032-2025. 40.000,00 €
- Sebio García, Ana. Adjuvant chemotherapy in patients with CINSARC high-risk localised Uterine Leiomyosarcoma. BECA TRIENAL FMPJC 2025. Fundación Mari Paz Jiménez Casado. 2025-2028. 75.000,00 €
- Sebio García, Ana. Adjuvant chemotherapy in patients with CINSARC high-risk localised Uterine Leiomyosarcoma. BECA BUESA 2025-1. Grupo Español de Investigación en Sarcomas (GEIS). 2025-2027. 21.000,00 €
- Tibau Martorell, Ariadna. Beneficio clínico, precio y acceso de los nuevos medicamentos contra el cáncer en España y en el resto de Europa: un análisis internacional. PI23/00742. Instituto de Salud Carlos III. Duration: 2024-2026. 37.500 €.

DOCTORAL THESES DEFENDED

- Anguera Palacios, Geòrgia. Búsqueda de factores predictivos de la respuesta a la inmunoterapia. 16/06/2025. Universitat Autònoma de Barcelona. Supervisors: Majem Tarruella, Margarita; Vidal Alcorisa, Sílvia; Tibau Martorell, Ariadna. <https://hdl.handle.net/10803/694756>
- Nan, Madalina Nicoleta. Utilidad de los biomarcadores de disfunción cardíaca en enfermedades de origen placentario, como la preeclampsia, durante el embarazo. 11/11/2025. Universitat Autònoma de Barcelona. Supervisors: García Osuna, Álvaro; Llorba Olivé, Elisa; Mora Brugués, Josefina; Blanco Vaca, Francisco. <https://hdl.handle.net/10803/695950>
- Virgili Manrique, Anna Cristina. Factors pronòstics i predictius en sarcomes de parts toves. 21/02/2025. Universitat Autònoma de Barcelona. Supervisors: García, Ana; Martorell, Ariadna. <https://hdl.handle.net/10803/694124>

SCIENTIFIC PRODUCTION – Articles & Reviews

- Aggarwal C, Martínez A, Majem M, Barlesi F, Carcereny E, Chu Q, Monnet I, Sánchez A, Dakhil S, Camidge DR, Pillet M, Brown M, Paliompeis C, Dowson A, Cooper ZA, Kumar R, Herbst RS. Durvalumab Alone or Combined With Novel Agents for Unresectable Stage III Non-Small Cell Lung Cancer Update From the COAST Randomised Clinical Trial. JAMA Network

5.1.2 Oncohematologic Diseases Area

- Open. 2025; 8(7):e2518440. DOI:10.1001/jamanetworkopen.2025.18440. PMID:40663352. IF:9,700 (Q1/1D).
- Alonso T, Anguera G, Domínguez M, Reig O, Martínez H, Molina J, Cruz P, Maroto P. Expert consensus on patterns of progression in kidney cancer after adjuvant immunotherapy and subsequent treatment strategies. *CANCER TREATMENT REVIEWS*. 2025; 136:102925. DOI:10.1016/j.ctrv.2025.102925. PMID:40186886. IF:10,500 (Q1/1D).
 - Anguera G, Gallego O, Llobet M, Berga N, Moreno ME, Leon X, Kratz C, Garcia R, Minguillón J, Surrallés J. Opening of a phase Ib/II study to investigate the safety and efficacy of Afatinib in patients with Fanconi anaemia and unresectable locally advanced or metastatic head and neck squamous cell carcinoma. *BMC CANCER*. 2025; 25(1):1374. DOI:10.1186/s12885-025-14619-6. PMID:40859225. IF:3,400 (Q2/4D).
 - Audisio A, Gallio C, Velenik V, Meillat H, Ruiz E, Riesco MC, Alecha JS, Rasschaert G, Carvalho C, Randrian V, Kirac I, Hernando J, Artac M, O'Connor JM, Waldhorn I, Braam PM, Shamseddine A, Moretto R, de la Pinta C, De Felice F, Dulskas A, López DP, Vanden A, Bock F, Deleporte A, van den Eynde M, Geboes KP, Loi M, Messina M, Houlze C, Puccini A, Pastorino A, Papamichael D, Fiore M, Sur D, Eid M, Antoun C, Salati M, Garajova I, Jakubauskas M, Tomasek J, Pinto CMS, Schwingel J, Morano F, Adams RA, Dermine A, Chau A, Javed MA, Ghidini M, Fiorica F, Montenegro P, Petrillo A, Spolverato G, Margalef NM, Diaz M, Baratelli C, Puleo F, Karampeazis A, Sert F, Gilliaux Q, De Stefano A, Liberale G, Moretti L, Martínive P, Thomas VD, Staggs V, Saad ED, Van JL, Sclafani F, Int Real World Study Consortium TNT. Total Neoadjuvant Therapy for Locally Advanced Rectal Cancer. *JAMA Oncology*. 2025; 11(9). DOI:10.1001/jamaoncol.2025.2026. PMID:40638097. IF:20,100 (Q1/1D).
 - Barba A, López L, Ferre M, Martínez S, Majem M, Sullivan I, Salazar J. CD274 (PD-L1) Polymorphisms as Predictors of Efficacy in First-Line Platinum-Based Chemotherapy for Extensive-Stage Small Cell Lung Cancer. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(9):4245. DOI:10.3390/ijms26094245. PMID:40362483. IF:4,900 (Q1/3D).
 - Bergmann L, Albiges L, Ahrens M, Gross M, Boleti E, Gravis G, Flechon A, Grimm MO, Bedke J, Barthélémy P, Castellano D, Mellado B, Ivanyi P, Rottey S, Flörcken A, Suarez C, Maroto P, Grünwald V, Oosting SF, Kopecky J, Zschäbitz S, Boegemann M, Buchler T, Niegisch G, Goebell PJ, Waddell T, Joly F, Priou F, Retz M, Siemer S, Zimmermann U, Deckbar D, Burkholder I, Hartmann A, Haanen JB, Interdisciplinary Renal Cell Carcinoma Working Group IAGN DKG. Prospective randomised phase-II trial of ipilimumab/nivolumab versus standard of care in non-clear cell renal cell cancer - results of the SUNNIFORECAST trial. *ANNALS OF ONCOLOGY*. 2025; 36(7). DOI:10.1016/j.annonc.2025.03.016. PMID:40180121. IF:65,400 (Q1/1D).
 - Bernardez B, Higuera O, Martínez V, Cardeña A, Rodríguez J, Bertrán AS, Majem M, Moreno ME. Sex and gender differences in cancer pathogenesis and pharmacology. *Clinical & Translational Oncology*. 2025; 27(10). DOI:10.1007/s12094-025-03894-1. PMID:40164824. IF:2,500 (Q3/6D).
 - Bertrán AS, Rodríguez J, Cardeña A, Martínez V, Higuera O, Bernardez B, Moreno ME, Majem M. Sex-related differences in the efficacy and toxicity of cancer treatments. *Clinical & Translational Oncology*. 2025; 27(9). DOI:10.1007/s12094-025-03893-2. PMID:40153220. IF:2,500 (Q3/6D).
 - Borque A, Alonso T, Juan MJ, Campos FL, Pérez DA, Vilaseca A, Agut CM, Usán P, Rey PM. Beyond the status quo: when disease volume and metastatic timing are not enough to personalise treatment in mHSPC. *Future Oncology*. 2025; 21(8). DOI:10.1080/14796694.2025.2468569. PMID:40029138. IF:2,600 (Q3/6D).
 - Cappuzzo F, Zvirbule Z, Korbenfeld E, Kolb J, Isla D, Szczesna A, Sánchez A, Bustillos A, Liu XY, Young F, Tosti N, Monteiro MF, Majem M. Primary Results from IMscin002: A Study to Evaluate Patient Preferences and Perceptions of Health Care Professionals for Atezolizumab Subcutaneous Versus Intravenous for the Treatment of NSCLC. *Jto Clinical And Research Reports*. 2025; 6(5):100815. DOI:10.1016/j.jtocrr.2025.100815. PMID:40248457.
 - Carrasco LM, Gallardo A, Voltà E, Virgili AC, Páez D, Villaverde A, Vázquez E, Álamos P, Unzueta U, Casanova I, Manges R, Alba L. A Targeted

5.1.2 Oncohematologic Diseases Area

- Nanotoxin Inhibits Colorectal Cancer Growth Through Local Tumour Pyroptosis and Eosinophil Infiltration and Degranulation. *International Journal of Nanomedicine*. 2025; 20. DOI:10.2147/IJN.S499192. PMID:40034221. IF:6,500 (Q1/1D).
- Carrasco LM, Otero M, Alamo P, Gallardo A, Virgili AC, Páez D, Voltà E, Villaverde A, Vázquez E, Unzueta U, Casanova I, Alba L, Manges R. Nanotoxin induces in situ pyroptosis to sensitise aPD1 to ablate metastases in microsatellite stable colorectal cancer. *PHARMACOLOGICAL RESEARCH*. 2025; 221:107982. DOI:10.1016/j.phrs.2025.107982. PMID:41083088. IF:10,500 (Q1/1D).
 - Cerezuela P, de la Rosa CA, Crespo G, Berciano MA, Soria A, Muñoz E, Castro RL, Majem M, de Miguel PA, Manzano JL, Bellido L, Lecumberri MJ, Subias MC, Guzmán JCV, Hernández B, Espinosa E, Puértolas T, Sanz LG, Martínez JM, Abril VP, Algarra SM, Márquez I. Treatment outcomes in patients with advanced mucosal melanoma in Spain: results from the real-world GEM1801 study. *MELANOMA RESEARCH*. 2025; 35(6). DOI:10.1097/CMR.0000000000001062. PMID:40901826. IF:1,900 (Q3/6D).
 - Cortellini A, Brunetti L, Di GR, Garbo E, Pinato DJ, Naidoo J, Katz A, Loza M, Neal JW, Genova C, Gettinger S, Kim SY, Jayakrishnan R, El Zarif T, Russano M, Pecci F, Di A, Awad M, Alessi J, Montrone M, Owen DH, Signorelli D, Fidler MJ, Li MJ, Camerini A, De Giglio A, Young L, Vincenzi B, Metro G, Passiglia F, Yendamuri S, Guida A, Ghidini M, Awosika NO, Napolitano A, Fulgenzi C, Grisanti S, Grossi F, D'Incecco A, Josephides E, Van M, Russo A, Gelibter A, Spinelli G, Verrico M, Tomasik B, Giusti R, Newsom T, Bria E, Sebastian M, Rost M, Forster M, Mukherjee U, Landi L, Mazzoni F, Aujayeb A, Dupont M, Curioni A, Chiari R, Pantano F, Morabito A, Leonetti A, Friedlaender A, Addeo A, Zoratto F, De Tursi M, Cantini L, Roca E, Mountzios G, Della L, Kalvapudi S, Inno A, Bironzo P, Barros RD, O'Reilly D, Bell J, Karapanagiotou E, Monnet I, Baena J, Macerelli M, Majem M, Agustoni F, Cortinovis DL, Tonini G, Minuti G, Bennati C, Mezquita L, Gorria T, Servetto A, Beninato T, Lo Russo G, Rogado J, Moliner L, Biello F, Nana FA, Dingemans AM, Aerts JGJ, Ferrara R, Torri V, Abu T, Takada K, Naqash AR, Garassino M, Peters S, Wakelee H, Nassar AH, Ricciuti B. Determinants of 5-year survival in patients with advanced NSCLC with PD-L1=50% treated with first-line pembrolizumab outside of clinical trials: results from the Pembro-real 5Y global registry. *Journal for ImmunoTherapy of Cancer*. 2025; 13(2):e010674. DOI:10.1136/jitc-2024-010674. PMID:39904562. IF:10,600 (Q1/1D).
 - Cortellini A, Garbo E, La Cava G, Citarella F, V, Brunetti L, Pinato DJ, Naidoo J, Loza M, Genova C, Gettinger S, Kim SY, Jayakrishnan R, El Zarif T, Russano M, Pecci F, Di A, Montrone M, Owen DH, Signorelli D, Li MJ, Camerini A, Halmos B, Vincenzi B, Metro G, Yendamuri S, Grossi F, Josephides E, Tomasik B, Giusti R, Bria E, Sebastian M, Rost M, Acker F, Landi L, Mazzoni F, Morabito A, Leonetti A, Cantini L, Mountzios G, Kalvapudi S, O'Reilly D, Karapanagiotou E, Monnet I, Baena J, Macerelli M, Majem M, Piedra A, Cortinovis DL, Tonini G, Minuti G, Mezquita L, Gorria T, Beninato T, Lo Russo G, Prelaj A, De Giglio A, Biello F, Nana FA, Dingemans A, Aerts JG, Ferrara R, Abu T, Takada K, Naqash AR, Garassino MC, Wakelee HA, Nassar A, Ricciuti B, Soda P, Caruso CM, Guarrasi V. Long-term outcomes from pembrolizumab monotherapy in patients with advanced NSCLC, PD-L1 expression = 50 %, and poor performance status: Transformer-based AI to characterize prognostic complexity. *LUNG CANCER*. 2025; 209:108799. DOI:10.1016/j.lungcan.2025.108799. PMID:41108882. IF:4,400 (Q1/2D).
 - Costa N, Platero J, Garcia P, Sánchez O, Pellicer C, Jordi M, Garcia Z, Garrido C, Ullmo J, Nan M, Mora J, Garcia A, Cholz M, Cruz M, Medina MD, Llorba E. Long-Term Biochemical and Cardiovascular Profiles 3-6 Years After Preeclampsia: Impact of Angiogenic Imbalance During Pregnancy. *Journal of Clinical Medicine*. 2025; 14(23):8389. DOI:10.3390/jcm14238389. PMID:41375695. IF:2,900 (Q1/2D).
 - De Bono JS, Williams A, Melero I, Jayaram A, Hawley JE, de Speville BD, Moreno I, Castellano D, Reig O, Knapen DG, Anguera G, Martínez J, Gort E, de Jonge M, Alonso JL, Boni V, Pérez JL, Falcon A, de Groot DJ, Pierce AJ, Leishman AJ, Lloyd P, Bartlett PD, Bland P, Chau A, Song MJ, Duffy K, Hashimoto K, de Vries E. A Phase I Dose Escalation and Cohort Expansion Study of CB307, a Trispecific Humabody against PSMA, CD137, and Albumin in Patients with PSMA-Positive Solid Tumours. *CLINICAL CANCER RESEARCH*. 2025;

5.1.2 Oncohematologic Diseases Area

- 31(16). DOI:10.1158/1078-0432.CCR-24-3581. PMID:40094417. IF:10,200 (Q1/1D).
- De la Peña FA, Martínez D, Juan O, Gómez M, Miguélez M, Páez D, Arrazubi V, González CH. Oncological needs in transgender patients. *Clinical & Translational Oncology*. 2025; 27(10). DOI:10.1007/s12094-025-03917-x. PMID:40251439. IF:2,500 (Q3/6D).
 - Del Muro XG, López DP, Cuéllar MA, Maroto P, Giannatempo P, Castellano D, Climent MA, Valderrama BP, de Liaño AG, López L, Mina L, Alcalá D, Sampayo M, Necchi A. Retifanlimab in Advanced Penile Squamous Cell Carcinoma: The Phase 2 ORPHEUS Study. *European Urology Oncology*. 2025; 8(2). DOI:10.1016/j.euo.2024.04.021. PMID:38749903. IF:9,300 (Q1/1D).
 - Di M, González E, Marandino L, Maroto P, Timsit MO, Luccarini I, Robinson P, Van S, Hadaschik BA. A network meta-analysis of the safety of systemic treatments in patients with metastatic hormone-sensitive prostate cancer. *Frontiers in Oncology*. 2025; 15:1468928. DOI:10.3389/fonc.2025.1468928. PMID:41059299. IF:3,300 (Q2/4D).
 - Fa M, Serra J, Moya E, Crusi X, Gich I, Valera M. Hydroxyapatite-coated total primary hip replacement: 28-year follow-up survivorship. *Hip International*. 2025; 35(2). DOI:10.1177/11207000241306004. PMID:39757970. IF:1,100 (Q3/7D).
 - Fernández CM, Sebío A, Rincón JO, Broto JM, Benlloch AM, Plaza DM, Pousa AL, Alegría IG, Giuppi M, Ballesteros EC, Bernabéu D, de Alava E, Morales CV. Clinical practice guidelines for the treatment of Ewing sarcoma (Spanish Sarcoma Research Group-GEIS). *Clinical & Translational Oncology*. 2025; 27(3). DOI:10.1007/s12094-024-03602-5. PMID:39158802. IF:2,500 (Q3/6D).
 - Flix A, Medina JC, Souto A, Arizu A, Juan E, Serra M, Ciria L, Feixas G, Ochoa C. Therapeutic alliance in a stepped digital psychosocial intervention for breast cancer patients: findings from a multicentre randomised controlled trial. *BJPsych Open*. 2025; 11(1):e23. DOI:10.1192/bjo. 2024.844. PMID:39865983. IF:3,500 (Q1/3D).
 - Fumagalli C, Orellana R, Bagué S, Ferré M, González A, Catasus L, Llauger J, Peiró A, Alarcón PZ, Majercakova K, Terés R, Karanian M, Tirode F, Antonescu CR. YAP1::KMT2A-Rearranged Sarcoma: Report of a New Case With Unusual Morphology and Immunohistochemical Features. *GENES CHROMOSOMES & CANCER*. 2025; 64(7):e70059. DOI:10.1002/gcc. 70059. PMID:40879254. IF:2,800 (Q2/5D).
 - García P, Jiménez P, Soto J, Baraibar I, Santos C, La Casta A, Ghanem I, Cortijo G, Méndez A, Pazo R, Vera R, Melián M, Alcaide J, Graña B, Páez D, Gallego I, Lobo M, Borregón M, Montes A, de Castro E, Carmona A, Aranda E, Spanish Cooperative Treatment of Digestive Tumors GRPTTD. Three-year survival follow-up of patients with gastrointestinal cancer treated during the COVID-19 pandemic in Spain: data from the PANDORA-TTD20 study. *ONCOLOGIST*. 2025; 30(8). DOI:10.1093/oncolo/oyae300. PMID:39550209. IF:4,200 (Q2/3D).
 - Gillesen S, Tombal B, Turco F, Choudhury A, Rodríguez A, Gallardo E, Velho PI, Nolè F, Cruz F, Lorient Y, McDermott R, Roumeguere T, Daugaard G, Yamamura R, Bompas E, Maroto P, Polo MH, da KM, Preto DD, Skoneczna I, Lecouvet F, Coens C, Fournier B, Saad F. Decrease in Fracture Rate with Mandatory Bone-protecting Agents in the EORTC 1333/PEACE-3 Trial Comparing Radium-223 Combined with Enzalutamide Versus Enzalutamide Alone: A Safety Analysis. *EUROPEAN UROLOGY*. 2025; 87(3). DOI:10.1016/j.eururo.2024.11.027. PMID:39827019. IF:25,200 (Q1/1D).
 - Giménez S, Vaqué L, Zhu NL, Benejam B, Arranz J, Maure L, Videla L, Carmona M, Barroeta I, Rebillat AS, Rodríguez I, Bejanin A, Arriola JE, Bueno A, Fernández S, Ribas L, Zsadyi SE, Morcillo AO, Alcolea D, Lisgaras CP, Blessing E, Osorio RS, Lleo A, Fortea J. Impact of Alzheimer's disease on sleep in adults with Down syndrome. *Alzheimers & Dementia*. 2025; 21(7):e70400. DOI:10.1002/alz. 70400. PMID:40604343. IF:11,100 (Q1/1D).
 - González L, Castellet H, Martínez C, González N, Guijarro F, Lloveras N, Pratcorona M, Gich I, Berenguer P, Perera J, Zamora L, Mascaró M, Sampol A, García A, Vives S, Tormo M, Arnan M, Villamor N, Nomdedéu JF. CD200 in acute myeloid leukaemia: marked upregulation in CEBPA biallelic mutated cases. *Diagnostic Pathology*. 2025; 20(1):56. DOI:10.1186/s13000-025-01655-w. PMID:40307896. IF:2,300 (Q2/5D).

5.1.2 Oncohematologic Diseases Area

- Hecht JR, Park YS, Tabernero J, Lee MA, Lee SHY, Virgili AC, van den Eynde M, Fontana E, Fakih M, Asghari G, JE, Stein A, Dubreuil O, Bodnar L, He CS, Wang G, Smith R, Eng C, Saeed A, STELLAR Study Investigators 303. Zanzalintinib plus atezolizumab versus regorafenib in refractory colorectal cancer (STELLAR-303): a randomised, open-label, phase 3 trial. *LANCET*. 2025; 406(10517). DOI:10.1016/S0140-6736(25)02025-2. PMID:41130252. IF:88,500 (Q1/1D).
- Herbst RS, John T, Grohé C, Goldman JW, Kato T, Laktionov K, Bonanno L, Tiseo M, Majem M, Dómine M, Ahn MJ, Kowalski DM, Pérol M, Sriuranpong V, Özgüroglu M, Bhetariya P, Markovets A, Rukazenzov Y, Muldoon C, Robichaux J, Hartmaier R, Tsuboi M, Wu YL. Molecular residual disease analysis of adjuvant osimertinib in resected EGFR-mutated stage IB-IIIa non-small-cell lung cancer. *NATURE MEDICINE*. 2025; 31(6). DOI:10.1038/s41591-025-03577-y. PMID:40097663. IF:50,000 (Q1/1D).
- Isla D, Zugazagoitia J, Arriola E, García R, Blanco CM, Diz MP, López M, Moreno AL, León L, Oramás J, Gutiérrez V, Majem M, Sánchez A, Aguado C, Alvarez R, Massutí B, Moreno A, Fírvila JL, Valdivia J, González M, Zafra M, Dómine M, García FJ, Villanueva N, Provencio M, Juan O, Rivas C, García M, Palmero R, López R, Carcereny E, Lechuga JL, Domínguez M, Callejo A, Paz L. Durvalumab plus platinum-etoposide in the first-line treatment of extensive-stage small cell lung cancer (CANTABRICO): A single-arm clinical trial. *LUNG CANCER*. 2025; 209:108763. DOI:10.1016/j.lungcan.2025.108763. PMID:41033130. IF:4,400 (Q1/2D).
- Jenei K, Hahn G, Kesselheim AS, Tibau A. Trends in time to withdrawal and full approval of accelerated approval cancer drug indications (1992-2024). *Journal Of Cancer Policy*. 2025; 45:100597. DOI:10.1016/j.jcpo.2025.100597. PMID:40472969.
- Langtry A, Rabadan R, Alonso L, Filip I, Sabroso S, Moreno A, Lawlor R, Carrato A, Alvarez R, Iglesias M, Molero X, Löhr MJ, Michalski CW, Perea J, O'Rourke M, Barberà VM, Tardon A, Farré A, Muñoz L, Crnogorac T, Domínguez E, Gress TM, Greenhalf W, Sharp L, Balsells J, Costello E, Kleeff J, Kong B, Mora J, O'Driscoll D, Scarpa A, Ye WM, Real FX, de Maturana EL, Malats N, Gómez P, Molina E, Márquez M, Milne R, Alfaro A, Lobato T, Estudillo L, Beghelli S, Cubillo A, Hidalgo M, Peinado P, Salas I, Pascual JR, Earl J, Caminoa A, Guillén C, Rodríguez M, Longo F, Ferreiro R, Pachon V, Vaz MA, Muñoz M, Ilzarbe L, Alvarez C, Bessa X, Bory F, Márquez L, Poves I, Burdío F, Grande L, Gimeno J, Guarner L, Balcells J, Salcedo M, Merino X, Esposito I, Mota C, Huang JQ, Verbeke C, Yu JR, Loinaz C, Rodríguez JL, Teijo A, Peláez P, Martín M, Artigas V, Guarner C, Sancho FJ, Concepcion M, Cajal TRY, Szafranska J, Murray L, Cantwell M, Gallego J, Barneo L, Rodríguez M, Pazos Y, Lozano A, Luaces M, Blanco F, Manzano JMS, Troncoso MLG, de Matos AO, Buchholz M, Neesse A, Kocher HM, Bhattacharya S, Abraham AT, Ennis D, Dowe T, Radon T, PanGenEU Consortium Investigators Alberto L. Deciphering the role of complement system genes in pancreatic cancer susceptibility and prognosis. *Nature Communications*. 2025; 16(1):10769. DOI:10.1038/s41467-025-65811-y. PMID:41315260. IF:15,700 (Q1/1D).
- López A, Duran L, Villacampa G, Pardo M, Pérez E, Darder E, Vallmajó A, Alfonso R, Cruellas M, Roqué A, Cartró M, Bareas A, Carrasco E, Rezaallah A, Jimenez AR, Torres S, Torres M, López C, Espinosa M, Teulé A, Munté E, Tuset N, Díez O, Feliubadaló L, Lázaro C, Lloret G, Carver T, Ficorella L, Mavaddat N, Mercadé A, Antoniou AC, Brunet J, Cajal TRY, Balmaña J. A randomised study of 2 risk assessment models for individualised breast cancer risk estimation. *JNCI-JOURNAL OF THE NATIONAL CANCER INSTITUTE*. 2025; 117(8). DOI:10.1093/jnci/djaf067. PMID:40170233. IF:7,200 (Q1/2D).
- López A, Pardo M, Pérez E, Darder E, Alfonso R, Torres S, Garcés VN, Cajal TRY, Brunet J, Balmaña J. Exploring communication preferences for disclosing breast cancer risk in women with a family history. *Journal of Genetic Counselling*. 2025; 34(5):e70114. DOI:10.1002/jgc4.70114. PMID:40965181. IF:1,900 (Q2/5D).
- Majercakova K, Aguilar NT, Verdúm JI, Bargallo HV, Capel AV, Soto MM, Melcon GGD, Cordero JVR, González JA, Rosell SB, Jover DH, Mitre SR, Ibanez AP, Sebío A, Sancho G. Role of Spatially Fractionated Radiotherapy (LATTICE) Treatment in Inoperable Bulky Soft-Tissue Sarcomas. *Cancers*. 2025; 17(4):624. DOI:10.3390/cancers17040624. PMID:40002219. IF:4,400 (Q2/3D).

5.1.2 Oncohematologic Diseases Area

- Martín J, Diaz R, Moura D, Ramos R, Martínez J, Carrasco I, Sebio A, González E, Gutierrez A, Fernández J, Hernández L, Cruz J, Valverde C, Hindi N. Phase Ib Study for the Combination of Doxorubicin, Dacarbazine, and Nivolumab as the Upfront Treatment in Patients With Advanced Leiomyosarcoma: A Study by the Spanish Sarcoma Group (GEIS). *JOURNAL OF CLINICAL ONCOLOGY*. 2025; 43(3). DOI:10.1200/JCO.24.00358. PMID:39356980. IF:41,900 (Q1/1D).
- Martínez S, Molina MA, Muñoz E, Sevillano AR, Aya F, Arance A, Orrillo M, Martín J, Fernández L, Lesta R, Quindós M, Nieva M, Vidal J, Martínez D, Barba A, Majem M. Adjuvant Immunotherapy After Resected Melanoma: Survival Outcomes, Prognostic Factors and Patterns of Relapse. *Cancers*. 2025; 17(1):143. DOI:10.3390/cancers17010143. PMID:39796770. IF:4,400 (Q2/3D).
- Meade A, Santero M, Savall O, Bracchiglione J, Leache L, Selva A, Macias I, Cerdà P, Cosp XB. Immunotherapy or Targeted Therapy Versus Best Supportive Care for Advanced Gastric Cancer: A Systematic Review and Meta-analysis of Randomised Trials. *Journal Of Gastrointestinal Cancer*. 2025; 56(1):75. DOI:10.1007/s12029-024-01155-y. PMID:40032744.
- Modest DP, Fakih M, Salvatore L, Esaki T, López DP, Taieb J, Karamouzis M, Ruiz E, Kim TW, Kuboki Y, Meriggi F, Cunningham D, Yeh KH, Cremolini C, Tran Q, Chan E, Chao JS, Majer IM, Pietrantonio F. Health-related quality of life in patients with KRASG12C-mutated chemorefractory metastatic colorectal cancer treated with sotorasib plus panitumumab or standard of care (CodeBreak 300): results from a phase 3, randomised clinical trial. *LANCET ONCOLOGY*. 2025; 26(9). DOI:10.1016/S1470-2045(25)00352-3. PMID:40812325. IF:35,900 (Q1/1D).
- Nan MN, Garrido C, Garcia A, Manau PG, Ullmo J, Mora J, Sánchez O, Platero J, Cruz M, Llurba E, EuroPE G. N-terminal pro B-type natriuretic peptide as biomarker to predict pre-eclampsia and maternal-fetal complications. *ULTRASOUND IN OBSTETRICS & GYNECOLOGY*. 2025; 65(4). DOI:10.1002/uog.29202. PMID:40088200. IF:6,300 (Q1/1D).
- O'Byrne K, Esteban E, Lee CL, Hegmane A, Volovat C, Lo Russo G, Ziogas D, Atmaca A, Sebastian M, Majem M. A phase III placebo-controlled study of eftilagimod alfa plus pembrolizumab and chemotherapy in metastatic non-small cell lung cancer. *Future Oncology*. 2025; 21(30). DOI:10.1080/14796694.2025.2597404. PMID:41383151. IF:2,600 (Q3/6D).
- Olmos VP, Pollán M, de Larrea NF, Fernández J, Ruiz E, García J, Castelló A, Sierra MA, Lucas P, Alonso I, Stradella A, Cantos B, Cajal TRY, Santisteban M, Seguí MA, Bertrán AS, Granja M, Camps J, Recalde S, Mendez M, Verges NC, Pérez B, Pastor R, Lope V. Determinants of Adherence to World Cancer Research Fund/American Institute for Cancer Research Recommendations in Women with Breast Cancer. *Cancers*. 2025; 17(4):708. DOI:10.3390/cancers17040708. PMID:40002301. IF:4,400 (Q2/3D).
- Ortiz MA, Anguera G, Cantó E, Alejandro J, Mora J, Osuna R, Mulet M, Mora P, Antonijuan A, Sánchez S, Ramírez O, Orantes V, Maroto P, Vidal S. Pilot Investigation on Markers of Bone Metabolism, Angiogenesis, and Neuroendocrine Activity as Potential Predictors of Survival of Metastatic Prostate Cancer Patients with Bone Metastases. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(10):4669. DOI:10.3390/ijms26104669. PMID:40429810. IF:4,900 (Q1/3D).
- Ospina AV, González JL, Nadal E, Trancho FH, Bosch J, Calvo V, Bolufer S, de la Cruz JLCC, Macía I, Alvarez A, Del Barco E, Bernabé R, Casal J, Cilleruelo A, Cobo M, Dómine M, Figueroa S, Insa A, Jarabo JR, Jiménez U, López R, Majem M, Martínez A, Téllez EM, Sánchez D, López M, Couñago F, Garcia R, de Castro J, Massuti B, Provencio M. Multidisciplinary approach for patients with early and locally advanced non-small cell lung cancer (NSCLC): 2nd Spanish Lung Cancer Group (GECP) expert consensus statement. *Translational Lung Cancer Research*. 2025; 14(9). DOI:10.21037/tlcr-2025-619. PMID:41132973. IF:3,500 (Q1/3D).
- Palmerini E, Meazza C, Tamburini A, Márquez C, Bisogno G, Fagioli F, Ferraresi V, Milano GM, Coccoli L, Rubio A, Gallego O, Riestra M, Manzitti C, Mora J, Vaz MA, Luksch R, Mata C, Pierini M, Carretta E, Cesari M, Paioli A, Marrari A, Scotlandi K, Serra M, Asaftei SD, Gambarotti M, Picci P, Ferrari S, Valverde C, Ibrahim T, Broto JM. Is There a Role for Mifamurtide in Nonmetastatic High-

5.1.2 Oncohematologic Diseases Area

- Grade Osteosarcoma? Results From the Italian Sarcoma Group (ISG/OS-2) and Spanish Sarcoma Group (GEIS-33) Trials. *JOURNAL OF CLINICAL ONCOLOGY*. 2025; 43(28). DOI:10.1200/JCO-25-00210. PMID:40825172. IF:41,900 (Q1/1D).
- Palmerini E, Pousa AL, Grignani G, Redondo A, Hindi N, Provenzano S, Sebio A, Martín J, Valverde C, Trufero JM, Gutiérrez A, de Alava E, Gómez M, D'Ambrosio L, Collini P, Bazzocchi A, Moura DS, Ibrahim T, Stacchiotti S, Broto JM. Nivolumab and sunitinib in patients with advanced bone sarcomas: A multicenter, single-arm, phase 2 trial. *CANCER*. 2025; 131(1):e35628. DOI:10.1002/cncr.35628. PMID:39540661. IF:5,100 (Q1/3D).
 - Paz L, Borghaei H, Liu S, Peters S, Herbst RS, Stencel K, Majem M, Sendur M, Czyzewicz G, Caro RB, Lee KH, Johnson ML, Karadurmus N, Grohé C, Baka S, Csoszi T, Ahn JS, Califano R, Yang TY, Kemal Y, Ballinger M, Cuchelkar V, Graupner V, Lin YC, Chakrabarti D, Bhatt K, Cai G, Iannone R, Reck M, IMforte I. Efficacy and safety of first-line maintenance therapy with lurbinectedin plus atezolizumab in extensive-stage small-cell lung cancer (IMforte): a randomised, multicentre, open-label, phase 3 trial. *LANCET*. 2025; 405(10495). DOI:10.1016/S0140-6736(25)01011-6. PMID:40473449. IF:88,500 (Q1/1D).
 - Pietrantonio F, Salvatore L, Esaki T, Modest DP, López DP, Taieb J, Karamouzis MV, Ruiz E, Kim TW, Kuboki Y, Meriggi F, Cunningham D, Yeh KH, Chan E, Chao JS, Tran Q, Cremolini C, Fakih M. Overall Survival Analysis of the Phase III CodeBreak 300 Study of Sotorasib Plus Panitumumab Versus Investigator's Choice in Chemorefractory KRAS G12C Colorectal Cancer. *JOURNAL OF CLINICAL ONCOLOGY*. 2025; 43(19). DOI:10.1200/JCO-24-02026. PMID:40215429. IF:41,900 (Q1/1D).
 - Puente J, Pinto A, Mendez MJ, del Muro XG, Maroto P, Vazquez S, Luque R, Anido U, Strunz T, Upadhyay A, Montes J, Nuñez AO, Portela JG, Castellano D. Real-world treatment patterns, survival outcomes, and health care resource utilisation for locally advanced or metastatic urothelial carcinoma in Spain. *Clinical & Translational Oncology*. 2025; 27(5). DOI:10.1007/s12094-024-03734-8. PMID:39365365. IF:2,500 (Q3/6D).
 - Remon J, Bironzo P, Girard N, Bigay L, Juan O, de Castro J, Reguart N, Greillier L, Cousin S, Dansin E, Majem M, Bernabe R, Martínez JM, Diaz M, Meza A, Alcalá D, García A, Righi L, Novello S, Besse B. Lenvatinib plus pembrolizumab in pretreated metastatic B3 thymoma and thymic carcinoma (PECATI): a single-arm, phase 2 trial. *LANCET ONCOLOGY*. 2025; 26(9). DOI:10.1016/S1470-2045(25)00300-6. PMID:40907517. IF:35,900 (Q1/1D).
 - Rodero BS, Martínez C, Nadal E, Molina M, Campelo RG, Gil A, Massuti B, García A, Dómine M, Insa A, Carpeño JD, Vence GH, Majem M, Martínez A, Megias D, Lobato D, Collazo A, Calvo V, Provencio M, Cruz A. Peripheral memory B cell population maintenance and long-term survival after perioperative chemoimmunotherapy in NSCLC (NADIM trial). *Oncot Immunology*. 2025; 14(1):2513109. DOI:10.1080/2162402X.2025.2513109. PMID:40468805. IF:6,300 (Q1/2D).
 - Rueda A, Viñal D, Martínez D, Alameda M, Martín G, Martínez S, Peña J, Jiménez D, Ruiz I, García A, Zwisler P, Ghanem I, Custodio AB, Pérez P, Gutiérrez L, Palacios ME, Feliu J, Rodríguez N. Analysis of tumour budding as a prognostic factor for recurrence in patients with stage II and III colon cancer. Experience in a tertiary hospital. *ONCOLOGIST*. 2025; 30(3):oyaf027. DOI:10.1093/oncolo/oyaf027. PMID:40152315. IF:4,200 (Q2/3D).
 - Salazar J, Arranz MJ, Martín J, Serra M, Palmerini E, Martínez J, Juan A, Andion M, Martínez J, Gutiérrez G, Echebarria A, Vaz MA, Regueiro A, Alvarez R, Valverde C, Luna P, Blay P, Sebio A. VEGF Signalling Pathway Germline Polymorphisms as Prognostic Pharmacogenetic Biomarkers in Localised High-Grade Osteosarcoma Patients from the GEIS-33 Protocol. *Pharmaceuticals*. 2025; 18(12):1855. DOI:10.3390/ph18121855. PMID:41471344. IF:4,800 (Q1/2D).
 - Sanborn RE, Zhou CC, Tang KJ, Cho BC, Cheng S, Popat S, Ono A, Lu S, Majem M, Aguilar A, Campelo MDG, Hayashi H, Lee KY, Lee SH, Delmonte A, Alatorre J, Richardson G, Santos V, Doms C, Sabari JK, Shu CA, Girard N, Mansfield AS, Park K, Xia YC, Bhattacharya A, Buyukkaramikli N, Perualila N, Diels J, Acharya S, Chandler C, Proskorovsky I, Dearden L, Wortman H, Mahadevia PJ, Knoblauch RE, Agrawal T, Baig M, Felipe E.

5.1.2 Oncohematologic Diseases Area

- Amivantamab-Chemotherapy in Non-Small Cell Lung Cancer with EGFR Exon 20 Insertions: Impact of Treatment Crossover and Other Endpoints from the Phase III PAPILLON Study. Targeted Oncology. 2025; 20(6). DOI:10.1007/s11523-025-01182-0. PMID:41184595. IF:4,000 (Q2/3D).
- Sebio A, Berger C, Tabone MD, Fernández N, Tardy F, Grootenhuis M, Palmerini E, Gaspar N, van de Sande M, Haveman LM, FOSTER C. Quality of Life and Patient-Reported Outcomes in Patients With Osteosarcoma: A Systematic Review. EUROPEAN JOURNAL OF CANCER CARE. 2025; 2025(1):5802523. DOI:10.1155/ecc/5802523. IF:1,900 (Q2/4D).
 - Serra J, Miranda A, Soria A, López N, Castañón E, Majem M. Clinical practice guide for nurses that optimises nurses' comprehensive care of patients undergoing immunotherapy. Enfermería Clínica. 2025; 35(6):502193. DOI:10.1016/j.enfcli.2025.502193. PMID:40204238.
 - Serra J, Pujol C, Martínez S, Joaquín AB, Melià MR, Sullivan I, Torralbas J, Lladó G, Majem M, Martínez MA. Clinical and economic impact of the advanced practice nurse in lung cancer patients receiving immunotherapy-based treatments: A quantitative study. European Journal of Oncology Nursing. 2025; 74:102809. DOI:10.1016/j.ejon.2025.102809. PMID:39892201. IF:2,700 (Q1/2D).
 - Simoes AR, González SC, López MD, Duran G, Fernández A, Fernández MP, Fernández MS, Mata JG, Paez D, Riera P, Guino E, López L, de Santiago BG, Aspiroz EL, Rojas A, Castells A, Castellvi S, Ponte CR, Vymetalkova V, Carracedo A, Fernández C. Novel approaches for the discovery of pharmacogenetic biomarkers of chemotoxicity in patients with colorectal cancer. BRITISH JOURNAL OF PHARMACOLOGY. 2025; 182(21). DOI:10.1111/bph.70051. PMID:40624839. IF:7,700 (Q1/1D).
 - Soler G, Grávalos C, Rivera F, Safont MJ, Virgili AC, Valladares M, Ferreiro R, Ortiz MJ, Polo E, Kornusova I, Soustre E, Yao WY, Élez E. Predictive factors of efficacy for FTD/TPI plus bevacizumab in refractory metastatic colorectal cancer patients: a subanalysis of the Spanish cohort from the SUNLIGHT phase III trial. Clinical & Translational Oncology. 2025; 27(11). DOI:10.1007/s12094-025-03907-z. PMID:40338282. IF:2,500 (Q3/6D).
 - Soo RA, Vervita K, Früh M, Cho B, Majem M, Abreu DR, Ribi K, Callejo A, Moran T, Gómez MD, Provencio M, Addeo A, Han JY, Granados A, Reck M, Blasco A, Campelo RG, González M, Britschgi C, Roschitzki H, Ruepp B, Gasca A, Haberecker M, Dafni U, Peters S, Stahel RA, ETOP ABC Lung Collaborators 1519. A randomised non-comparative phase II study of atezolizumab, bevacizumab and chemotherapy in EGFR-mutant NSCLC with acquired resistance - The ETOP 15-19 ABC-lung trial. LUNG CANCER. 2025; 202:108454. DOI:10.1016/j.lungcan.2025.108454. PMID:40023017. IF:4,400 (Q1/2D).
 - Suárez C, Torras OR, Barrera RM, Sánchez AR, Palacios GA, Manshino A, Núñez NF, Vidal MJM, Carbonero IG, Calvo OF, Sarrió RG, Herrero GC, Afonso JA, Fita MJJ, Padró JG, Quintela ML, Rodríguez A, Pérez CH, Colmenero AM, Martín RC, de España CG, Palau CM, Ortega EM, Gallardo E, SPRWEC I. Effectiveness and Safety of Cabozantinib Treatment in Patients with Advanced Renal Cell Carcinoma in Spanish and Portuguese Real-world Practice: The SOGUG-SPRWEC Study. Clinical Genitourinary Cancer. 2025; 23(5):102402. DOI:10.1016/j.clgc.2025.102402. PMID:40830022. IF:2,700 (Q2/3D).
 - Tibau A, Cliff E, Romano A, Borrell M, Molto C, Kesselheim AS. Predictors of withdrawal of anticancer drug indications granted accelerated approval: a retrospective cohort study. Eclinicalmedicine. 2025; 84:103088. DOI:10.1016/j.eclinm.2025.103088. PMID:40687736. IF:10,000 (Q1/1D).
 - Tibau A, Hwang TJ, Romano A, Borrell M, Gich I, Molto C, Kesselheim AS. Factors in Time to Full Approval or Withdrawal for Anticancer Medicines Granted Accelerated Approval by the FDA. JAMA Network Open. 2025; 8(3):e252026. DOI:10.1001/jamanetworkopen. 2025.2026. PMID:40136298. IF:9,700 (Q1/1D).
 - Tibau A, Romano A, Liu I, Han J, Cliff E, Kesselheim AS. Assessing outcomes emerging after conversion to regular approval for cancer drug indications granted accelerated approval, 1992-2021. JNCI-JOURNAL OF THE NATIONAL CANCER INSTITUTE. 2025; 117(10). DOI:10.1093/jnci/djaf195. PMID:40690366. IF:7,200 (Q1/2D).
 - Tombal B, Choudhury A, Saad F, Gallardo E, Soares A, Lorient Y, McDermott R, Rodríguez

5.1.2 Oncohematologic Diseases Area

- A, Velho PI, Nolè F, Cruz F, Roumeguere T, Daugaard G, Yamamura R, Bompas E, Maroto P, Veiga FG, Skoneczna I, Trindade KMD, Carcano FM, Lecouvet F, Coens C, Poncet C, Fournier B, Gillissen S, Crua F. Enzalutamide plus radium-223 in metastatic castration-resistant prostate cancer: results of the EORTC 1333/PEACE-3 trial. *ANNALS OF ONCOLOGY*. 2025; 36(9). DOI:10.1016/j.annonc.2025.05.011. PMID:40450503. IF:65,400 (Q1/1D).
- Trilla C, Platero J, Camprubí N, Mora J, Luna C, Oros D, Llurba E. First-Trimester Clinical Characteristics and Pregnancy Outcomes in Women with Recurrent Pregnancy Loss. *Journal of Clinical Medicine*. 2025; 14(16):5797. DOI:10.3390/jcm14165797. PMID:40869625. IF:2,900 (Q1/2D).
 - Trilla C, Platero J, Mora J, Nan MN, Medina C, Alejos O, Parra J, Llurba E. Role of aspirin therapy in modulating uterine artery resistance and placental growth between first and second trimesters of pregnancy. *ULTRASOUND IN OBSTETRICS & GYNECOLOGY*. 2025; 66(5). DOI:10.1002/uog.70095. PMID:40974599. IF:6,300 (Q1/1D).
 - Ullmo J, Cruz M, Bos L, Padilla M, Coma M, Martorell S, Mora J, Ordonez J, Llurba E, AngioCor G. Cardiovascular risk assessment in women at high risk for pre-eclampsia in the first half of pregnancy. *ULTRASOUND IN OBSTETRICS & GYNECOLOGY*. 2025; 66(1). DOI:10.1002/uog.29247. PMID:40471220. IF:6,300 (Q1/1D).
 - Uyar GC, Mirallas O, Baskurt K, Martín B, Yesilbas E, Recuero J, Kaya S, Garcés VN, Yücel SE, Cano KSV, Gómez D, Gómez AP, de Torres CS, Öksüzoglu Ö, Serradell S, Dienstmann R, Sutcuoglu O. Prediction of 90-day mortality among cancer patients with unplanned hospitalisation: a retrospective validation study of three prognostic scores. *Lancet Regional Health-Europe*. 2025; 54:101317. DOI:10.1016/j.lanepe.2025.101317. PMID:40672056. IF:13,000 (Q1/1D).
 - van der Heijden MS, Powles T, Gupta S, Lorient Y, Galsky MD, Valderrama BP, Sridhar SS, Yu EY, Iyer G, Kikuchi E, Castellano D, Hoffman J, Drakaki A, Mar N, Rey JPM, Vulsteke C, Arafat W, Duran I, Dawson NA, Swami U, Gorla S, Moreno BH, Yu X, Lu YT, Bedke J. Exploratory subgroup analyses of EV-302: a phase III global study to evaluate enfortumab vedotin in combination with pembrolizumab versus chemotherapy in previously untreated locally advanced or metastatic urothelial carcinoma. *ESMO Open*. 2025; 10(8):105544. DOI:10.1016/j.esmoop.2025.105544. PMID:40795788. IF:8,300 (Q1/2D).
 - Vaz MA, Valverde C, Álvarez R, Asencio JM, Collado E, de Alava E, Beveridge RD, Gómez MC, Alegria IG, Marquina G, Broto JM, Martínez J, Narváez JA, Redondo A, Sebío A, Verges R, Viñals JM, del Muro XG. Diagnosis and Therapy of Soft Tissue Sarcomas: Spanish Group for Research in Sarcomas (GEIS) Guidelines. *Cancers*. 2025; 17(19):3158. DOI:10.3390/cancers17193158. PMID:41097686. IF:4,400 (Q2/3D).
 - Videla L, Benejam B, Barroeta I, Fernández S, Altuna M, Arranz J, Rodríguez I, Arriola JE, Maure L, Soriano LD, Illán I, Estellés T, Sanjuan A, Vaqué L, Aranha MR, Morcillo AO, Zsadanyi SE, Franquesa M, Valldeneu S, Sánchez MB, Padilla C, Carreras M, Lorente O, Valle N, Sánchez E, Dols O, Sirisi S, Muñoz L, Torres S, El Bennadi SE, Sánchez O, Garzón D, Ribas L, Elbachiri S, Mota C, Tondo M, Camacho V, Giménez S, Delaby C, Belbin O, Iulita MF, Montal V, Pegueroles J, Vilaplana E, Clarimon J, González S, Molina L, Aldecoa I, Alcolea D, Bejanin A, Videla S, Blesa R, Lleo A, Carmona M, Fortea J. The Down Alzheimer Barcelona Neuroimaging Initiative (DABNI) and its contributions to understanding Alzheimer's disease in Down syndrome: A decade of discovery. *Alzheimers & Dementia*. 2025; 21(6):e70259. DOI:10.1002/alz.70259. PMID:40528282. IF:11,100 (Q1/1D).
 - Yang JCH, Wang MZ, Doucet L, Fan Y, Lv DQ, Sun ML, Huang DZ, Greillier L, Planchard D, Hong QY, Mazieres J, Filip E, Li XY, Hu Y, Fang J, Bazhenova L, Ghiringhelli F, Dols M, Rodríguez L, Bearz A, Pellini B, Kim YJ, Bosch J, Shim BY, Luo YH, Tiseo M, Yang TY, Carcereny E, Memmott RM, Zalcman G, Carpeno JD, Di V, Parra HS, Streich G, Lee DH, Shum E, Han JY, Jaime JC, Brungs D, John T, D'Arcangelo M, Joaquin AB, Liu GF, Antonuzzo L, Hinojal GF, Le XN, Zheng L, Jänne PA. Phase II Dose-Randomised Study of Sunvozertinib in Platinum-Pretreated Non-Small Cell Lung Cancer With Epidermal Growth Factor Receptor Exon 20 Insertion Mutations (WU-KONG1B). *JOURNAL OF CLINICAL ONCOLOGY*. 2025; 43(29). DOI:10.1200/JCO-25-00788. PMID:40923280. IF:41,900 (Q1/1D).

5.1.2 Oncohematologic Diseases Area

- Zapatero A, Alonso T, Antolín AR, Couñago F, Sanmamed N, Esteban MD, Valcárcel ML, Manneh R, Borque A, González NS, Maroto P. Triplet systemic therapy for hormone-sensitive prostate cancer: a critical review with a multidisciplinary approach. *Oncology Reviews*. 2025; 19:1599292. DOI:10.3389/or. 2025.1599292. PMID:40787089.
- Zuellig JA, Adam R, Udry F, Tibau A, Seruga B, Ocana A, Amir E, Templeton AJ. The Effect of Staging Intervals on Progression-Free Survival in Registration Studies of Oncologic Drugs: A Meta-Analysis. *Cancers*. 2025; 17(8):1359. DOI:10.3390/cancers17081359. PMID:40282533. IF:4,400 (Q2/3D).

SCIENTIFIC PRODUCTION – Clinical Practice Guidelines

- Mata Fernández C, Sebio A, Orcajo Rincón J, Martín Broto J, Martín Benlloch A, Marcilla Plaza D, López Pousa A, Gracia Alegría I, Giuppi M, Collado Ballesteros E, Bernabeu D, de Alava E, Valverde Morales C. Clinical practice guidelines for the treatment of Ewing sarcoma (Spanish Sarcoma Research Group-GEIS). *Clin Transl Oncol*. 2025 Mar;27(3):824-836. doi: 10.1007/s12094-024-03602-5. Epub 2024 Aug 19. PMID: 39158802; PMCID: PMC11914306.
- Serra-López J, Miranda A, Soria A, López N, Castañón E, Majem M. Clinical practice guide for nurses that optimises nurses' comprehensive care of patients undergoing immunotherapy. *Enferm Clin (Engl Ed)*. 2025 Nov-Dec;35(6):502193. doi: 10.1016/j.enfcle.2025.502193. Epub 2025 Apr 7. PMID: 40204238.

5.1.2 Oncohematologic Diseases Area

Oncogenesis and Antitumour Drugs

Group leader

Mangues Bafalluy, Ramon (IR)

Researchers

Alamo Vargas, Patricia Virginia (Nanoligent)

Alba Castellon, Lorena (IR)

Arena, Lourdes Ailen (IR)

Casanova Rigat, Isolda (IJC)

Díez Serrano, Álvaro (CIBER)

Garcia Leon, Annabel (CIBER)

Mendoza Fernández, Julián Ignacio (CIBER)

Otero Mateo, Marc (IR)

Romero Pérez, Inés (CIBER)

Rueda Matas, Ariana (IR)

Sierra Cruz, Marta (IR)

Unzueta Elorza, Ugutz (IR)

Ursino, Gloria Maria Angela (IR)

Varona Alvarez, Saray (IR)

Research technicians

Miranda Tovar, Eva (IR)

Navas Jimenez, Luis Carlos (IR)



DESCRIPTION

We are developing protein-based targeted nanoparticles that inhibit translation, nanoconjugates to selectively ablate cancer stem cells or cancer-associated fibroblasts, and combinations with immune checkpoint inhibitors to improve the current treatment of solid tumours and haematological neoplasms. We also generate immunosuppressed and immunocompetent cancer mouse models, either subcutaneous or orthotopic, to preclinically evaluate the anticancer effects of these nanomedicines and their associated toxicities, with the goal of advancing clinical translation and industrial transfer.

MAIN LINES OF RESEARCH

- Development of targeted nanoparticles that incorporate bacterial toxins to generate local tumour pyroptosis and noncanonical transcripts and translons to recruit and activate T cells in tumour and metastatic tissues. Moreover, the combination of nanoparticles with immune checkpoint inhibitors and T cell receptor agonists that reverse immune exhaustion, with the goal of inducing a response in microsatellite-stable solid cancers (Mangues Bafalluy, Ramon).
- To develop a humanised auristatin-based nanoconjugate targeting leukemic stem cells for the treatment of Acute Myeloid Leukaemia. Within this line of research, the activity of this nanoconjugate is being evaluated in cell-derived xenograft (CDX), patient-derived xenograft (PDX), and humanised murine models. We are also investigating its ability to activate the immune system and its potential synergy with other precision therapies. (Casanova Rigat, Isolda).
- Rational engineering of multivalent, receptor-targeted protein nanoparticles as precision nanodrugs for cancer therapy. This line seeks to offer innovative therapeutic solutions based on the rational design, production, and validation of self-assembling protein nanocarriers that allow the selective delivery of therapeutic protein domains and/or conjugated payloads to tumour cells, with the goal of maximising on-target efficacy while minimising systemic toxicity. (Unzueta Elorza, Ugutz).

5.1.2 Oncohematologic Diseases Area

- Development and preclinical validation of tumour-microenvironment targeted nanoparticles. This research line focuses on targeting cancer-associated fibroblasts within solid tumours to reprogram the tumour microenvironment, reduce cancer cell aggressiveness, prevent metastatic dissemination, and sensitise tumours to standard-of-care therapies. (Alba-Castellon, Lorena).

SCIENTIFIC CHALLENGES

- To develop nanomedicines based on preclinical protocols able to induce unannotated transcripts to achieve effective immunogenic cell death in solid tumours, which are currently resistant to immunotherapy.
- To develop new protein nanoconjugates for targeted delivery of antitumor drugs with innovative mechanisms of action for the treatment of tumours resistant to common drugs.
- To develop efficient protein nanovehicles for the targeted delivery of therapeutic nucleic acids to tumour cells in vivo as an alternative to viral vectors.
- To develop protein nanopharmaceuticals for the activation of the immune system against cancer as a more effective nano-immuno-oncology approach than current treatments.
- To develop targeted nanotherapy to reprogram the tumour microenvironment to enhance its antitumor role.

ACTIVE & AWARDED GRANTS

- Alba Castellon, Lorena. Cancer-Associated Fibroblast-Targeted Nanoparticles to Improve Antimetastatic Therapy in Colorectal Cancer. POSTDOC AECC 2020. Asociación Española Contra el Cáncer (AECC). Duration: 2020-2025. 170.000,00 €
- Alba Castellon, Lorena. Contratos Miguel Servet 2024. CP24/00111. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2029. 268.600,00 €
- Alba Castellon, Lorena. Safety and Efficacy Study of PDGFD-NT-H6, a Tumour Microenvironment-targeted Nanoparticle to treat Colorectal Cancer. INNOV247584ALBA. Fundación Científica de la Asociación Española Contra el Cáncer. Duration: 2024-2026. 172.000,00 €
- Alba Castellón, Lorena. Análisis de las interacciones celulares de los fibroblastos tumorales PDGFRbeta+ para su uso como herramienta moduladora de la respuesta a fármacos en tumores colorrectales MSS. PI25/00785. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 255.000,00 €
- Arena, Lourdes Ailen. Targeted Nano-immunotherapy Against CXCR+ Cancer Stem Cells. Fundació La Caixa. INPhINIT 2024. Duration: 2024-2028. 160.272,00 €
- Mangues Bafalluy, Ramon. Eliminación selectiva de células madre de cáncer de colon mediante nanopartículas inductoras de poro, inflamación crónica e inmunidad antineoplásica (IMMUNO-FIRING). PI21/00150. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 244.420,00 €
- Mangues Bafalluy, Ramon. New protein-based nanodrugs for the development of targeted tumour-agnostic therapy. CPP2021-008946. Ministerio de Ciencia e Innovación (MICINN). Duration: 2022-2025. 439.367,01 €
- Mangues Bafalluy, Ramon. Nanofármaco innovador dirigido a células tumorales CXCR4+: hacia el primer ensayo clínico en humanos de una terapia revolucionaria para los tipos de cáncer. CPP2024-011459. Ministerio de Ciencia e Innovación (MICINN). Duration: 2025-2028. 360.720,89 €
- Mangues Bafalluy, Ramon. Oncogenesis and Antitumour Drugs. 2021 SGR 01140. Agència de

5.1.2 Oncohematologic Diseases Area

- Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2022-2024. 60.000,00 €.
- Mangues Bafalluy, Ramon. Piroptosis e infiltración de células T en el tumor local mediante nanotoxinas dirigidas, y su combinación con inhibidores del control inmune y agonistas de revigorización (EfectPiroTIL). PI24/01476. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 265.000,00 €
 - Mangues Bafalluy, Ramon. Centro de Investigación Biomédica en Red en Bioingeniería. CB06/01/1031. Instituto de Salud Carlos III (ISCIII).
 - Sierra Cruz, Marta. Contratos Sara Borrell 2024. CD24/00149. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 95.000,00 €
 - Unzueta Elorza, Ugutz. Conjugación dirigida de nanomedicinas proteicas inteligentes para mejorar la terapia selectiva del cáncer metastásico de colon. PI20/00400. Instituto de Salud Carlos III (ISCIII). Duration: 2021-2025. 171.820,00 €
 - Unzueta Elorza, Ugutz. Eliminación selectiva de células madre metastásicas del cáncer colorrectal mediante el bloqueo de la polimerasa de RNA II. PI23/00318. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2026. 230.000,00 €
 - Unzueta Elorza, Ugutz. Nanoinmunoterapia de precisión contra células madre leucémicas CXCR4+ en leucemia mieloide aguda. Fundació Investigació per a la Salut i el Progrés (FISP). FISP 2024. Duration: 2025-2026. 100.000,00 €
 - Unzueta Elorza, Ugutz. Terapia con siRNA dirigida a CXCR4 contra el cáncer colorrectal inducido por KRAS: Nanomedicina de precisión para el silenciamiento génico in vivo. CNS2024-154280. Ministerio de Ciencia, Innovación y Universidades. 2025-2027. 197.916,00 €

DOCTORAL THESES DEFENDED

- Carrasco Díaz, Luis Miguel. Nanotoxina dirigida a CXCR4, T22-DITOX-H6, que induce un efecto antineoplásico y activa el sistema inmune en el cáncer colorrectal metastásico, con estabilidad de microsatélites. 16/05/2025. Universitat Autònoma de Barcelona. Supervisors: Mangues Bafalluy, Ramon; Alba Castellón, Lorena; Alamo Vargas, Patricia Virginia; Daura Ribera, Xavier. <https://hdl.handle.net/10803/694523>

SCIENTIFIC PRODUCTION – Articles & Reviews

- Carrasco LM, Gallardo A, Voltà E, Virgili AC, Páez D, Villaverde A, Vázquez E, Alamo P, Unzueta U, Casanova I, Mangues R, Alba L. A Targeted Nanotoxin Inhibits Colorectal Cancer Growth Through Local Tumour Pyroptosis and Eosinophil Infiltration and Degranulation. International Journal of Nanomedicine. 2025; 20. DOI:10.2147/IJN.S499192. PMID:40034221. IF:6,500 (Q1/1D).
- Carrasco LM, Otero M, Alamo P, Gallardo A, Virgili AC, Páez D, Voltà E, Villaverde A, Vázquez E, Unzueta U, Casanova I, Alba L, Mangues R. Nanotoxin induces in situ pyroptosis to sensitise aPD1 to ablate metastases in microsatellite stable colorectal cancer. PHARMACOLOGICAL RESEARCH. 2025; 221:107982. DOI:10.1016/j.phrs.2025.107982. PMID:41083088. IF:10,500 (Q1/1D).
- Garcia A, Mendoza JI, Rueda A, Alba L, Nomdedeu JF, Gallardo A, Sierra J, Garrido A, Vazquez E, Villaverde A, Mangues R, Unzueta U, Casanova I. Precision targeting of CXCR4+leukemia cells by a humanised MMAE-nanoconjugate in an AML mouse model. Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie. 2025; 192. DOI:10.1016/j.biopha.2025.118573. IF:7,500 (Q1/1D).
- López H, Favaro MTP, Chellou S, Voltà E, Parladé E, Sánchez J, Corchero JL, Unzueta U, Villaverde A, Vázquez E. Citrate-Assisted Regulation of

5.1.2 Oncohematologic Diseases Area

- Protein Stability and Secretability from Synthetic Amyloids. *ACS Applied Materials & Interfaces*. 2025; 17(10). DOI:10.1021/acsami.4c20784. PMID:40009529. IF:8,200 (Q1/2D).
- Rueda A, Serna N, Mangues R, Villaverde A, Unzueta U. Targeting the chemokine receptor CXCR4 for cancer therapies. *Biomarker Research*. 2025; 13(1):68. DOI:10.1186/s40364-025-00778-y. PMID:40307933. IF:11,500 (Q1/1D).
 - Sánchez JM, Favaro MTP, López H, Parladé E, Di A, Casanova I, Unzueta U, Mangues R, Vazquez E, Voltà E, Villaverde A. Trans-Mediated, Cis-Inhibited Paradoxal Activity of *Clostridium perfringens* Enterotoxin (c-CPE) in Modulating Epithelial Permeability. *MOLECULAR PHARMACEUTICS*. 2025; 22(4). DOI:10.1021/acs.molpharmaceut.4c01205. PMID:40067325. IF:4,500 (Q1/2D).
 - Sánchez JM, Voltà E, Parladé E, Mangues R, Villaverde A, Vázquez E, Unzueta U. Surpassing protein specificity in biomimetics of bacterial amyloids. *INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES*. 2025; 296:139635. DOI:10.1016/j.ijbiomac.2025.139635. PMID:39788253. IF:8,500 (Q1/1D).
 - Volta E, Sánchez JM, Favaro MTP, Martínez G, Contreras E, di A, López H, Unzueta U, Casanova I, Mangues R, Villaverde A, Vázquez E. Self-disintegrating protein-leaking microparticles for topical protein delivery. *INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES*. 2025; 329:147730. DOI:10.1016/j.ijbiomac.2025.147730. PMID:40967544. IF:8,500 (Q1/1D).

5.1.2 Oncohematologic Diseases Area

Haematological Diagnosis

Group leader

Nomdedeu Guinot, Josep Francesc (FGS)

Researchers

Blanco, María Laura (FGS)
 Fuentes Hernández, Francisca (FGS)
 Gomes Barbosa, Cynara (UFBA)
 Leoz Allegretti, Maria Del Pilar (FGS)
 Martínez Valverde, Clara Maria (FGS)
 Pratcorona Canela, Marta (FGS)
 Ramil López, Guillermo (IR)
 Ramirez Moran, Dubraska Shalom (FGS)
 Remacha Sevilla, Angel Francisco (FGS)
 San Jose Alonso, Paula (FGS)
 Sánchez García, Jana (FGS)

Research technicians

Brell Martínez, Albert (FGS)
 Bussaglia Petrillo, Elena Mart (FGS)
 Carricondo Morcillo, Maite (FGS)
 Espadaler Pare, Montserrat (FGS)
 Fernández Rosales, María Nieves (FGS)
 Gine Vilalta, Anna (IR)
 Martínez Sánchez, Elisabeth (FGS)
 Ortin Quilez, Rosa (FGS)
 Serra Ferrer, Marta (FGS)
 Ubeda Rodenas, José (FGS)



DESCRIPTION

The general objective of our line is to introduce improvements in the diagnosis and monitoring of haematological neoplasms using immunophenotypic and molecular biology techniques.

For more than 20 years (first project 1994), we have received funding for our proposals from the ISCIII on the following topics:

1. Molecular mechanisms of leukemogenesis: Identification of the molecular mechanisms associated with chromosomal translocations, in which we ruled out the presence of point mutations of RAG1 and RAG2, (Leukemia 1995;9:229-30; Hum Mutat 1996;8:191-2; Leukemia 1996;10:1715-8; Leukemia 2002;16:1571); the implication of repetitive Alu sequences at the origin of some chromosomal translocations (IgH-ID4)(cloned for the first time in our laboratory) (Haematologica 2003; 88:994-1001) and the role of microsatellite instability in acute myeloid leukemias (limitations of BAT26, interference of LOH lesions and characteristics of some areas promoters of p53 response genes (Leuk Lymphoma 2008;49:1178-83; Leukemia 2004;18:1148-9; Ann Hematol 2005;84:368-75; Leuk Res 2008;32:186-8).
2. Importance of p53 lesions in hematological malignancies: B and T line acute lymphoblastic leukemias, chronic lymphoproliferative syndromes, acute myeloid leukemias with complex karyotype and 17p lesions, transformations of bcr-abl negative chronic myeloproliferative syndromes (Genes Chrom Cancer 1995;14:106-11; Genes Chrom Cancer 1996;15:48-53, Leuk Lymphoma 1998;29:595-605; Haematologica 1999;84:757-8; Med Clin (Barc)2000;115:573-5; Haematologica 2002;87:908-17; Med Clin (Barc)2002;119:497-9).

5.1.2 Oncohematologic Diseases Area

3. Application of flow cytometry techniques in the haematology laboratory: population enumeration of lymphoid, identification of lymphoproliferative syndromes with peripheral blood, nodal expression, and marrow involvement. Description of the first broad distribution of CD123 in haematological malignancies, including first cases in hairy cell leukaemia (Haematologica 2001;86:1261-9).
4. Study of acute leukemias with KMT2a lesions: description of the differential morphology compared to other cases with myelomonocytic differentiation, presence of p53 mutations, description of nodal forms of KMT2a neoplasms, identification of the characteristic phenotype (monocytic markers + immaturity), participation in international study in which the associated mutations were exhaustively described (Leukemia 1995;9:955-9; Leuk Res 1999;23:585-8; Haematologica 2001;86:218-9, Leukemia 2003;17:76-82; Cancer Genet Cytogenet 2003;142:8-12; Blood 2016;128:e1-9; Hematol Oncol 2017;35:778-88; Hemasphere 2019;3:e181).
5. Residual disease studies in acute leukaemias with tandem approach (cytometry and molecular biology): application to LAL Ph+, AML with CBFb-MYH11 and RUNX1-RUNX1T1 rearrangements. Participation in the development of the standardized test for the quantification of WT1 and application to the monitoring of myeloid neoplasms using conventional chemotherapy, stem cell transplant, demethylating agents, and the development of a PCR-specific digitalis (Leukemia 2000;14:339-40; Haematologica 2003;88:637-45; Leuk Res 2005;29:1109-16; Leukemia 2006;20:87-94; Leuk Res 2009;33:1643-9; J Clin Oncol 2009;27:5195-201; Leukemia 2013;27:2157-64; Biol Blood Marrow Transplant 2018;24:55-63; Eur J Haematol 2019;103:208-14; Ann Hematol 2020;99:765-72).
6. Application of genotypic techniques and new molecular platforms in haematological diagnosis focused on acute myeloid leukaemias, multiple myeloma, lymphomas, and chronic lymphoproliferative syndromes (Haematologica 2002;87:828-35; Expert Rev Mol Diagn 2019;19:571-8; Blood 2013;121:1403-12; Blood 2013;121:4902-5; Leukaemia 2016;30:929-36; Cytometry B Clin Cytom 2018;94:121-8; Cytometry B Clin Cytom 2019;96:143-8)
7. Reference laboratory in the protocols of the CETLAM cooperative group: clinical and genotypic correlation work. Reference laboratory for the Novartis Ratify trial, which allowed the approval of midostaurin as first-line treatment in AML with FLT3 mutations. Work on allelic ratios: the importance of the load in the forecast. Design of protocols based on post-consolidation treatments according to molecular findings and MRD.

We are currently dealing with the rapid molecular diagnosis of recently diagnosed AML (Helena Castellet, team member). We analyse mutations of NPM1, FLT3, CEBPA, IDH1, IDH2, KMT2a, and chromosomal translocations included in the AML-plex kit. We have incorporated the UBTF tandem analysis and metabolism studies in leukaemia (published in 2025).

MAIN LINES OF RESEARCH

- Germ cell neoplasms. (Pratcorona Canela, Marta).
- Erythropathology. (González Álvarez, Nuria).
- Flow cytometry. (Leoz, Pilar).

SCIENTIFIC CHALLENGES

- Long-read sequencing and optical genome mapping applied to complex molecular abnormalities.
- Clonal evolution assessed by ddPCR and NGS.
- Metabolism parameters incorporation into hematologic neoplasms diagnostics and therapeutics.
- Structural studies to assess the pathogenic potential of mutants.
- Rare red cell disorders diagnosis.

5.1.2 Oncohematologic Diseases Area

ACTIVE & AWARDED GRANTS

- San Jose Alonso, Paula. Estados ferrodeficitarios enmascarados: valores de ferritina, hepcidina y del receptor soluble de transferrina. FUND. JL CASTAÑO 2024. Fundación José Luis Castaño. Duration: 2024-2026. 12.000,00 €
- Sierra Gil, Jordi & Pratcorona Canela, Marta.

Poblaciones subclonales de LMA y células madre leucémicas identificadas mediante secuenciación de ARN de una sola célula y citometría de flujo multiparamétrica: impacto en la respuesta al tratamiento. PI20/01621. Instituto de Salud Carlos III (ISCIII). Duration: 2021-2025. 304.920,00 €

SCIENTIFIC PRODUCTION – Articles & Reviews

- Arguello M, Mozas P, Albiol N, López M, Sierra J, Nomdedéu J, Martínez C, Moga E, Piñeyroa JA, Delgado J, Osorio S, Moreno C. Risk scores predicting disease progression in early-stage CLL: Comparative analysis and usefulness of IGHV subset #2 to improve their accuracy. CANCER. 2025; 131(1):e35552. DOI:10.1002/cncr.35552. PMID:39264834. IF:5,100 (Q1/3D).
- Fasanella MG, Mozos A, Briones J, Nomdedeu JF, Novelli S. Evaluation of Clinical Outcomes and Treatment Complications in Hairy Cell Leukaemia: A Single-Centre Retrospective Analysis. Cancer Reports. 2025; 8(10):e70356. DOI:10.1002/cnr.2.70356. PMID:41031578.
- González L, Castellet H, Martínez C, González N, Guijarro F, Lloveras N, Pratcorona M, Gich I, Berenguer P, Perera J, Zamora L, Mascaró M, Sampol A, García A, Vives S, Tormo M, Arnan M, Villamor N, Nomdedéu JF. CD200 in acute myeloid leukaemia: marked upregulation in CEBPA biallelic mutated cases. Diagnostic Pathology. 2025; 20(1):56. DOI:10.1186/s13000-025-01655-w. PMID:40307896. IF:2,300 (Q2/5D).
- Mccloughlin MA, Kovilakam SC, Dunn WG, Gu MX, Tobin J, Pershad Y, Williams N, Leongamornlert D, Dawson K, Bond L, Marando L, Wen S, Wilson R, Valenzano G, Symeonidou V, Rak J, Damaskou A, Gozdecka M, Liu XX, Barcena C, Nomdedeu J, Costeas P, Dimitriou ID, Fiorillo E, Orrù V, de Almeida JG, Mckerrell T, Cullen M, Mohorianu I, Foukaneli T, Warren AJ, Wong C, Follows G, Godfrey AL, Gudgin E, Cucca F, Mckinney E, Baxter EJ, Gerstung M, Mitchell J, Wiseman D, Bick AG, Fabre M, Quiros PM, Nangalia J, Kar S, Vassiliou GS. Telomere attrition becomes an instrument for clonal selection in ageing hematopoiesis and leukemogenesis. NATURE GENETICS. 2025; 57(9). DOI:10.1038/s41588-025-02296-x. PMID:40877435. IF:29,000 (Q1/1D).
- Oñate G, Garrido A, Arnan M, Pomares H, Alonso E, Tormo M, Diaz M, Vives S, Zamora L, Sampol A, Coll R, Salamero O, Cervera M, Garcia A, Vall F, Garcia S, Bargay J, Ortin X, Iranzo E, Guijarro F, Pratcorona M, Nomdedeu JF, Esteve J, Sierra J. Diverse real-life outcomes after intensive risk-adapted therapy for 1034 AML patients from the CETLAM Group. Blood Cancer Journal. 2025; 15(1):4. DOI:10.1038/s41408-024-01205-5. PMID:39799145. IF:11,600 (Q1/1D).
- Osuna R, López J, Mulet M, Nomdedéu J, Cantó E, Ortin R, Cayuela AS, Ortiz MA, Guinart A, Vidal S. Non-Competitive Binding of Isatuximab and Daratumumab to CD38: Implications for Targeted Therapy in Multiple Myeloma. Pharmaceutics. 2025; 17(10):1278. DOI:10.3390/pharmaceutics17101278. PMID:41155915. IF:5,500 (Q1/1D).
- Rubio MA, Cisa S, Mozos A, Castellet H, Bussaglia E, Carricondo M, Hernández MI, Sierra J, Nomdedéu JF. SGK1 repression by WT1 may confer a survival advantage to leukemic cells under stress conditions. ANNALS OF HEMATOLOGY. 2025; 104(7). DOI:10.1007/s00277-025-06458-z. PMID:40613901. IF:2,400 (Q2/5D).
- Verdú G, Vallvé M, San P, Molina A, Merino A. Diagnostic Value of Botryoid Nuclei as a Biomarker of Severe Hyperthermia and Systemic Inflammation in Heatstroke and Neuroleptic Malignant Syndrome: A Challenge of Climate Change. International Journal of Laboratory Haematology. 2025; 47(5). DOI:10.1111/ijlh.14500. PMID:40391693. IF:2,300 (Q2/5D).
- Wieczorek SC, Hernández MI, Parreño M, Muñoz JP, Bussaglia E, Carricondo M, Ubeda J, Dubreuil P, Zorzano A, Brenet F, Nomdedeu JF. D816V KIT mutation induces mitochondrial morphological and functional changes through BNIP3 downregulation in human myeloid cell lines ROSA and TF-1. EXPERIMENTAL HEMATOLOGY. 2025; 145:104748. DOI:10.1016/j.exphem.2025.104748. PMID:39986568. IF:2,100 (Q3/6D).

5.1.2 Oncohematologic Diseases Area

Molecular Pathology of Gynaecologic Cancer

Group leader

Lerma Puertas, Enrique (FGS)
(until November 2025)
Pijuan Andújar, Lara (FGS)
(from November 2025)

Researchers

Acosta Cajo, Sarah Fiorella (FGS)
Bague Rosell, Sílvia (FGS)
Campazas Herrera, Irma (FGS)
Catusas Cols, Lluís (FGS)
Di Muro, Maria Antonietta (FGS)
Espadaler Fabrego, Ignasi (FGS)
Espinosa Mariscal, Iñigo (FGS)
Ferre Figa, Malena (FGS)
Fumagalli, Caterina (FGS)
Fuste Chimisana, Victoria (FGS)
Gallardo Alcañiz, Alberto (FGS)
Lerma Puertas, Enrique (FGS)
López Vilaro, Laura (FGS)
Manzotti, Carolina (FGS)
Mozos Rocafort, Ana (FGS)
Orellana Fernández, Ruth (FGS)
Restrepo Arango, Sara Maria (FGS)
Scevola Metralle, Sofia Catalina (FGS)
Szafranska, Justyna (FGS)

Research technicians

Anglas Garcia, Anna (FGS)
Cabanas Llado, Mariona (FGS)
Clua González, Agustin (FGS)
González Vidal, Alan (FGS)
Gutiérrez Montalbán, Raquel (FGS)
Martínez Montoya, Daniel (FGS)
Noguero Domínguez, Blanca (FGS)
Serrat Clavijos, Meritxell (FGS)
Vázquez del Olmo, Tania (FGS)



DESCRIPTION

The group focuses on molecular and translational research into breast and gynaecological tumours. Our research seeks to assess the applicability of the results in the field of biomedicine, in particular in the development of methods that facilitate the diagnosis, prognosis and treatment of breast and gynaecological tumours.

MAIN LINES OF RESEARCH

- Pathogenic mechanisms of gynaecological cancer (breast/endometrial/ovarian cancer). (Lerma Puertas, Enrique).
- Molecular mechanisms of stromal response and immunosuppression in breast and endometrial cancer. (Lerma Puertas, Enrique).
- Clinical application of prognostic factors in common cancers (breast, endometrial, ovarian, etc). (Lerma Puertas, Enrique).
- Clinical application of tumour markers. (Lerma Puertas, Enrique).
- Molecular biology of uterine and extra- uterine sarcomas. (Lerma Puertas, Enrique).

SCIENTIFIC CHALLENGES

- Progress as a productive translational gynaecological cancer research group, capable of competing with other highly visible groups in Barcelona that publish regular articles in reputable journals.
- Cooperate with other groups at the national and international levels.

DOCTORAL THESES DEFENDED

- Aibar Durán, Juan Ángel. Correlación entre el uso intraoperatorio de la ecografía cerebral neuronavegada y el ácido 5-aminolevulínico en la cirugía de gliomas de alto grado e histología de los márgenes de resección. Validez y fiabilidad de ambas técnicas. 17/01/2025. Universitat Autònoma de Barcelona. Supervisors: De Quintana Schmidt, Cristian José; Gallardo Alcañiz, Alberto; Mirapeix Lucas, Rosa María. <https://hdl.handle.net/10803/693535>

5.1.2 Oncohematologic Diseases Area

SCIENTIFIC PRODUCTION – Articles & Reviews

- Aibar JA, Mirapeix RM, Alcañiz AG, Salgado L, Freixer B, Hernando VC, Hernández FM, de Quintana C. High-grade glioma: combined use of 5-aminolevulinic acid and intraoperative ultrasound for resection and a predictor algorithm for detection. *JOURNAL OF NEUROSURGERY*. 2025; 143(2). DOI:10.3171/2024.12.JNS242496. PMID:40250048. IF:3,600 (Q1/2D).
- Barba A, López L, Ferre M, Martínez S, Majem M, Sullivan I, Salazar J. CD274 (PD-L1) Polymorphisms as Predictors of Efficacy in First-Line Platinum-Based Chemotherapy for Extensive-Stage Small Cell Lung Cancer. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(9):4245. DOI:10.3390/ijms26094245. PMID:40362483. IF:4,900 (Q1/3D).
- Camacho M, Bagué S, Valero C, Holgado A, López L, Terra X, Avilés FX, León X. Transcriptional Expression of SLC2A3 and SDHA Predicts the Risk of Local Tumour Recurrence in Patients with Head and Neck Squamous Cell Carcinomas Treated Primarily with Radiotherapy or Chemoradiotherapy. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(6):2451. DOI:10.3390/ijms26062451. PMID:40141095. IF:4,900 (Q1/3D).
- Carrasco LM, Gallardo A, Voltà E, Virgili AC, Páez D, Villaverde A, Vázquez E, Alamo P, Unzueta U, Casanova I, Mangues R, Alba L. A Targeted Nanotoxin Inhibits Colorectal Cancer Growth Through Local Tumour Pyroptosis and Eosinophil Infiltration and Degranulation. *International Journal of Nanomedicine*. 2025; 20. DOI:10.2147/IJN.S499192. PMID:40034221. IF:6,500 (Q1/1D).
- Carrasco LM, Otero M, Alamo P, Gallardo A, Virgili AC, Páez D, Voltà E, Villaverde A, Vázquez E, Unzueta U, Casanova I, Alba L, Mangues R. Nanotoxin induces in situ pyroptosis to sensitise aPD1 to ablate metastases in microsatellite stable colorectal cancer. *PHARMACOLOGICAL RESEARCH*. 2025; 221:107982. DOI:10.1016/j.phrs.2025.107982. PMID:41083088. IF:10,500 (Q1/1D).
- Chaachou A, Bagué S, Medina CM, Lavernia J, Claramunt R, Guerrero J, Navarro S, Llombart A, Williamson SR, Machado I. Primary Visceral Ewing Sarcoma (Gastric and Bladder) with KIT Expression: A Report of Two Patients and a Differential Diagnostic Approach. *INTERNATIONAL JOURNAL OF SURGICAL PATHOLOGY*. 2025; 33(5). DOI:10.1177/10668969241308205. PMID:39865727. IF:1,000 (Q3/8D).
- Fasanella MG, Mozos A, Briones J, Nomdedeu JF, Novelli S. Evaluation of Clinical Outcomes and Treatment Complications in Hairy Cell Leukaemia: A Single-Centre Retrospective Analysis. *Cancer Reports*. 2025; 8(10):e70356. DOI:10.1002/cnr.2.70356. PMID:41031578.
- Fumagalli C, Mozos A, Szafranska J, Orellana R. Metastatic melanoma mimicking an angiomatoid fibrous histiocytoma. *Revista Española De Patología*. 2025; 58(4):100841. DOI:10.1016/j.patol.2025.100841. PMID:40902304.
- Fumagalli C, Orellana R, Bagué S, Ferré M, González A, Catusus L, Llauger J, Peiró A, Alarcón PZ, Majercakova K, Terés R, Karanian M, Tirode F, Antonescu CR. YAP1::KMT2A-Rearranged Sarcoma: Report of a New Case With Unusual Morphology and Immunohistochemical Features. *GENES CHROMOSOMES & CANCER*. 2025; 64(7):e70059. DOI:10.1002/gcc.70059. PMID:40879254. IF:2,800 (Q2/5D).
- Langtry A, Rabadan R, Alonso L, Filip I, Sabroso S, Moreno A, Lawlor R, Carrato A, Alvarez R, Iglesias M, Molero X, Löhr MJ, Michalski CW, Perea J, O'Rourke M, Barberà VM, Tardon A, Farré A, Muñoz L, Crnogorac T, Domínguez E, Gress TM, Greenhalf W, Sharp L, Balsells J, Costello E, Kleeff J, Kong B, Mora J, O'Driscoll D, Scarpa A, Ye WM, Real FX, de Maturana EL, Malats N, Gómez P, Molina E, Márquez M, Milne R, Alfaro A, Lobato T, Estudillo L, Beghelli S, Cubillo A, Hidalgo M, Peinado P, Salas I, Pascual JR, Earl J, Caminoa A, Guillén C, Rodríguez M, Longo F, Ferreira R, Pachon V, Vaz MA, Muñoz M, Ilzarbe L, Alvarez C, Bessa X, Bory F, Márquez L, Poves I, Burdío F, Grande L, Gimeno J, Guarner L, Balcells J, Salcedo M, Merino X, Esposito I, Mota C, Huang JQ, Verbeke C, Yu JR, Loinaz C, Rodríguez JL, Teijo A, Peláez P, Martín M, Artigas V, Guarner C, Sancho FJ, Concepcion M, Cajal TRY, Szafranska J, Murray L, Cantwell M, Gallego J, Barneo L, Rodríguez M, Pazos Y, Lozano A, Luaces M, Blanco F, Manzano JMS, Troncoso MLG, de Matos AO, Buchholz M, Neesse A, Kocher HM,

5.1.2 Oncohematologic Diseases Area

- Bhattacharya S, Abraham AT, Ennis D, Dowe T, Radon T, PanGenEU Consortium Investigators Alberto L. Deciphering the role of complement system genes in pancreatic cancer susceptibility and prognosis. *Nature Communications*. 2025; 16(1):10769. DOI:10.1038/s41467-025-65811-y. PMID:41315260. IF:15,700 (Q1/1D).
- Machado I, Wardelmann E, Zhao M, Song J, Wang YL, Braun SA, Catasús L, Ferré M, Leoveanu I, Westhoff J, Rüdiger T, Bagué S. Primary cutaneous rhabdomyosarcoma with EWSR1/FUS::TFCP2 fusion: four new cases with distinctive morphology, immunophenotypic, and genetic profile. *VIRCHOWS ARCHIV*. 2025; 486(6). DOI:10.1007/s00428-024-04007-z. PMID:39692858. IF:3,100 (Q2/3D).
 - Majercakova K, Aguilar NT, Verdúm JI, Bargallo HV, Capel AV, Soto MM, Melcon GGD, Cordero JVR, González JA, Rosell SB, Jover DH, Mitre SR, Ibanez AP, Sebío A, Sancho G. Role of Spatially Fractionated Radiotherapy (LATTICE) Treatment in Inoperable Bulky Soft-Tissue Sarcomas. *Cancers*. 2025; 17(4):624. DOI:10.3390/cancers17040624. PMID:40002219. IF:4,400 (Q2/3D).
 - Molina M, Roselló E, Tauron M, Tabilo JF, Fernández C, Gotsens C, Pueblas E, Montiel J, Casellas S, Irabien A, Corominas L, López L, Mirabet S, Ginel A. Short and long-term results after heart transplant in patients with congenital heart disease. *Cirugía Cardiovascular*. 2025; 32(1). DOI:10.1016/j.circv.2024.08.001.
 - Pasquali S, Collini P, Romagosa C, Coindre JM, Pizzamiglio S, Verderio P, Duroni V, Barisella M, Palmerini E, Quagliuolo V, Broto JM, Pousa AL, Grignani G, Brunello A, Blay JY, Lugowska I, Fontana V, Bianchi G, Palassini E, Renne SL, Casali PG, Miceli R, Sbaraglia M, Gambarotti M, Bagué S, Dei AP, Stacchiotti S, Gronchi A. Histopathological Response After Neoadjuvant Chemotherapy for High-Risk Soft-Tissue Sarcomas A Secondary Analysis of a Randomized Clinical Trial. *JAMA Network Open*. 2025; 8(11):e2540177. DOI:10.1001/jamanetworkopen.2025.40177. PMID:41196599. IF:9,700 (Q1/1D).
 - Rubio MA, Cisa S, Mozos A, Castellet H, Bussaglia E, Carricondo M, Hernández MI, Sierra J, Nomdedéu JF. SGK1 repression by WT1 may confer a survival advantage to leukemic cells under stress conditions. *ANNALS OF HEMATOLOGY*. 2025; 104(7). DOI:10.1007/s00277-025-06458-z. PMID:40613901. IF:2,400 (Q2/5D).

5.1.2 Oncohematologic Diseases Area

Otorhinolaryngology and Head and Neck Cancer

Group leader

Quer Agusti, Miquel (FGS)

Researchers

Casasayas Plass, Maria (FGS)

De Juan Beltrán, Julia (FGS)

Gras Cabrerizo, Juan Ramón (FGS)

Holgado Clua, Anna (FGS)

Kolanczak, Katarzyna Alicja (FGS)

Leon Vintro, Xavier (FGS)

López Vilas, Montserrat (FGS)

Orus Dotu, Cesar (FGS)

Pujol Olmo, Albert (FGS)

Valero Mayor, Cristina (FGS)

Vázquez López, Cristina (FGS)

Venegas Pizarro, María del Prado (FGS)



DESCRIPTION

Our group is dedicated to research on Otolaryngology and Head and Neck tumours, both at the clinical and translational levels.

The main area of research of our group is Head and Neck Cancer. In this field, we have a large database of all Head and Neck Cancers treated in our Hospital since 1985. We research clinical aspects, as well as genetic, molecular, and inflammatory factors relevant to prognosis and/or response to different treatments. In recent years, we have also focused on the use of nanoparticles in the treatment of head and neck cancer. In this field, we have strong, long-standing collaborations. Inside the IR, we mainly collaborate with two groups: Oncogenesis and antitumour drugs (Dr Ramon Mangues) and Genomics of Complex Diseases (Dr Mercedes Camacho). Outside our institution, we also have permanent collaborations with national and international groups.

We are also dedicated to clinical studies in endoscopic nasal and skull-base surgery. Finally, we also work on different otological problems, mainly genetic deafness, with strong collaboration with the Genetic Department.

MAIN LINES OF RESEARCH

- Head and Neck Cancer. (Leon Vintro, Xavier).
- Endoscopic nasal and skull base surgery. (Gras Cabrerizo, Juan Ramon).
- Otologic genetic disorders. (Venegas Pizarro, María Del Prado).

SCIENTIFIC CHALLENGES

- Heterogeneity of Head and Neck Cancers. Head and Neck Cancers encompass a diverse group of tumours with varying anatomical sites, histological subtypes, and biological behaviour, complicating efforts to standardise prognostic models and treatment strategies.
- Integration and Analysis of Longitudinal Clinical Data. Managing and extracting meaningful insights from a large, longitudinal clinical database (spanning since 1985) requires advanced bioinformatics tools and robust data integration strategies.

5.1.2 Oncohematologic Diseases Area

- Identification of Reliable Biomarkers. Discovering genetic, molecular, and inflammatory biomarkers that can predict prognosis or treatment response remains challenging due to tumour heterogeneity and the complexity of molecular interactions.
- Translating Nanoparticle Research into Clinical Practice. While nanoparticles hold great promise, challenges remain in optimising their delivery, reducing toxicity, ensuring reproducibility, and conducting robust clinical trials in head and neck oncology.
- Interdisciplinary and Multicenter Coordination. Maintaining and expanding effective collaborations across multiple groups—both internal and external—requires continuous alignment of scientific goals, data-sharing protocols, and administrative support.
- Precision Medicine in Genetic Deafness. Developing targeted interventions for genetic forms of hearing loss is hindered by the genetic diversity of deafness-related mutations and limited therapeutic options for most identified genes.
- Advancement of Endoscopic Skull Base Surgery Techniques. Improving surgical outcomes while minimising complications in endoscopic nasal and skull base surgery demands ongoing innovation in instrumentation, imaging, and anatomical navigation.
- Bridging Translational Gaps. Ensuring that findings from molecular and preclinical studies effectively inform and transform clinical practice remains a core challenge, especially in complex diseases such as Head and Neck Cancer.

ACTIVE & AWARDED GRANTS

- Leon Vintro, Xavier & Quer Agustí, Miquel. Búsqueda de marcadores celulares y moleculares que predigan la respuesta a los inhibidores de puntos de control inmunitario en pacientes con cáncer escamoso de cabeza y cuello de mal pronóstico. PI24/01605. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 121.250,00 €
- Quer Agustí, Miquel. Nanopartículas dirigidas al estroma tumoral como nuevo tratamiento para el cáncer escamoso de cabeza y cuello. PI21/00232. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 159.720,00 €.

DOCTORAL THESES DEFENDED

- Holgado Clua, Anna. Asociación entre parámetros metabólicos del 18FDG-PET-TC y el control local, regional y a distancia, y la supervivencia en pacientes con carcinoma de orofaringe tratados con radioterapia. 11/07/2025. Universitat Autònoma de Barcelona. Supervisors: Fernández León, Alejandro; León Vintro, Xavier; Pujol Olmo, Albert. <https://hdl.handle.net/10803/695011>
- Ibarra Estupiñán, Erick Andreé. Evaluación intraoperatoria de la perfusión de colgajos libres de perforantes en la reconstrucción mamaria mediante termografía infrarroja dinámica, angiografía con verde de indocianina y espectroscopía infrarroja. 05/12/2025. Universitat Autònoma de Barcelona. Supervisors: Fernández Garrido, Manuel; León Vintro, Xavier; Masià Ayala, Jaume. <https://hdl.handle.net/10803/696201>
- Peypoch Pérez, Olga. Estudi dels factors de risc de l'aneurisma de l'aorta abdominal i la seva progressió. 17/10/2025. Universitat Autònoma de Barcelona. Supervisors: Sabater Lleal, María; Camacho Pérez de Madrid, Mercedes; Dilmé Muñoz, Jaime Félix; León Vintro, Xavier. <https://hdl.handle.net/10803/695659>

SCIENTIFIC PRODUCTION – Articles & Reviews

- Anguera G, Gallego O, Llobet M, Berga N, Moreno ME, Leon X, Kratz C, Garcia R, Minguillón J, Surrallés J. Opening of a phase Ib/II study to investigate the safety and efficacy of Afatinib in patients with Fanconi anaemia and unresectable locally advanced or metastatic head and neck squamous cell carcinoma. BMC CANCER. 2025; 25(1):1374. DOI:10.1186/s12885-025-14619-6. PMID:40859225. IF:3,400 (Q2/4D).
- Camacho M, Bagué S, Valero C, Holgado A, López L, Terra X, Avilés FX, León X. Transcriptional Expression of SLC2A3 and SDHA Predicts the

5.1.2 Oncohematologic Diseases Area

- Risk of Local Tumour Recurrence in Patients with Head and Neck Squamous Cell Carcinomas Treated Primarily with Radiotherapy or Chemoradiotherapy. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(6):2451. DOI:10.3390/ijms26062451. PMID:40141095. IF:4,900 (Q1/3D).
- Casasayas M, Holgado A, León X, Kolanczak K, Pérez M, Quer M, Gras JR. Endoscopic-assisted maxillectomy: our experience in tumours affecting the posterior wall of the maxillary sinus. *JOURNAL OF LARYNGOLOGY AND OTOTOLOGY*. 2025; 139(11). DOI:10.1017/S0022215125102958. PMID:40734309. IF:0,800 (Q3/8D).
 - Gayà J, Rubio D, Valero C, Vázquez C, Holgado A, Quer M, León X. Association of human papillomavirus infection with the occurrence of second neoplasms and their prognostic impact in patients with oropharyngeal carcinoma. *Acta Otorrinolaringologica Espanola*. 2025; 76(3):512237. DOI:10.1016/j.otorri.2025.512237. PMID:40127862.
 - Gras JR, Casasayas M, Kolanczak K, Hernández FM, Martín MM, Moreno EG. Our experience in petroclival lesions using a contralateral transmaxillary approach. *NEUROCIRUGIA*. 2025; 36(1). DOI:10.1016/j.neucir.2024.10.009. PMID:39672470. IF:0,800 (Q3/8D).
 - Gras JR, Casasayas M, Martel M, Kolanczak K, Massegur H, Hernández FM. Section and repositioning of the inferior turbinate in the design of extended septal flaps. *Acta Otorrinolaringologica Espanola*. 2025; 76(1). DOI:10.1016/j.otorri.2024.07.004.
 - Holgado A, Casasayas M, Llansana A, Gras JR. Woake's Syndrome Abscessed in Adults: Case Report. *Indian Journal of Otolaryngology and Head & Neck Surgery*. 2025; 77(4). DOI:10.1007/s12070-024-05285-4. PMID:40226287. IF:0,054 (Q4/10D).
 - León X, Valero C, Fuster G, Bragado P, Camacho M, Avilés FX. Predictive capacity for local disease control of neogenin-1 (NEO1) transcriptional expression in patients with head and neck squamous cell carcinoma. *Clinical & Translational Oncology*. 2025; 27(1). DOI:10.1007/s12094-024-03535-z. PMID:38898351. IF:2,500 (Q3/6D).
 - Llansana A, Porcuna DV, Vasquez R, Parellada A, Valero C, Holgado A, León X. PATH classification: a proposal for patients with HNSCC treated with salvage surgery. *EUROPEAN ARCHIVES OF OTO-RHINO-LARYNGOLOGY*. 2025; 282(2). DOI:10.1007/s00405-024-08961-x. PMID:39312000. IF:2,200 (Q1/3D).
 - Massegur H, Carrera A, Gras JR, Tubbs RS, Reina F. Endoscopic Vidian neurectomy for treating postcoital unilateral hydrorhinorrhea: A case report and literature review. *International Journal Of Surgery Case Reports*. 2025; 126:110749. DOI:10.1016/j.ijscr.2024.110749. PMID:39708722.
 - Recalde L, de la Guia, Linzoain P, Noguera A, Rodrigo M, Jauregui P, López A, Fernández P, Iniesta M, Cueto M, Manzano S, Alonso R, Moragas N, Baquero C, Palao N, Dalla F, Avilés FX, Vilaseca, León X, Camacho M, Fuster G, Alcaraz J, Aguirre J, Gascón P, Porras A, Gutiérrez A, Carbó N, Bragado P. Neuropilin-2 upregulation by stromal TGFβ1 induces lung disseminated tumor cells dormancy escape and promotes metastasis outgrowth. *NEOPLASIA*. 2025; 68:101220. DOI:10.1016/j.neo.2025.101220. PMID:40848614. IF:7,700 (Q1/2D).
 - Sansa A, Vázquez R, Valero C, Vázquez C, Holgado A, Gayà J, Rubio D, León X. Prognostic value of pretreatment peripheral blood biomarkers in patients with head and neck squamous cell carcinoma treated with chemo/bioradiotherapy. *Clinical & Translational Oncology*. 2025; 27(11). DOI:10.1007/s12094-025-03897-y. PMID:40323571. IF:2,500 (Q3/6D).
 - Torra R, Lipska B, Acke F, Antignac C, Becker JU, Gall E, van AM, Feltgen N, Ferrari R, Gale DP, Gear S, Gross O, Hebaerle S, Heidet L, Lennon R, Massella L, Pfau K, Pizarro MDV, Topaloglu R, Wlodkowski T, Zealey H, ERKNet E, ESPN Inherited renal disorders working GRP. Diagnosis, management and treatment of the Alport syndrome-2024 guideline on behalf of ERKNet, ERA and ESPN. *NEPHROLOGY DIALYSIS TRANSPLANTATION*. 2025; 40(6). DOI:10.1093/ndt/gfae265. PMID:39673454. IF:5,600 (Q1/1D).



Oncology, Haematology, and Transplantation

Group leader

Briones Meijide, Javier (FGS)

Researchers

Aladro Segarra, Cristina (FGS)
 Amat Fernández, Alba (FGS)
 Arguello De Tomas, Miquel (FGS)
 Aso Ferreras, Olga (FGS)
 Caballero González, Ana Carolina (FGS)
 Canaletta Ros, Cristina (FGS)
 Cortes Barba, Susana (FGS)
 Escriba García, Laura (IR)
 Espallargas Ariño, Maria Isabel (FGS)
 Esquirol Sanfeliu, Albert (FGS)
 Font Diaz, Nuria (FGS)
 García Cadenas, Irene (FGS)
 Garrido Diaz, Ana (FGS)
 González Álvarez, Iria (FGS)
 González Álvarez, Nuria (FGS)
 Jara Bustamante, Paola (INST. JOSEP CARRERAS)
 Lahuerta Berzal, Esther (FGS)

López Burgués, Miriam (FGS)
 López Pardo, Jordi (FGS)
 Martino Bofarull, Rodrigo (FGS)
 Muntanola Prat, Ana (FGS)
 OñateHospital, Guadalupe (FGS)
 Papell Penetro, Aina (FGS)
 Paviglianiti, Annalisa (FGS)
 Pérez Toral, Elisabet (FGS)
 Petit Gascon, Patricia (FGS)
 Poyatos Dorado, Paula (IR)
 Quinto Llega, Kimberly (FGS)
 Redondo Velao, Sara (FGS)
 Rojas Baena, Francisca (FGS)
 Saavedra Gerosa, Silvana Daniela (FGS)
 Sierra Gil, Jordi (FGS)
 Sorribes Portella, Marina (FGS)
 Verge Balaguer, Raimon (FGS)
 Yusta Arnal, Marta (FGS)

Research technicians

Adelantado Bayarri, Isabel Pilar (IR)
 Alcina Mila, Angels (IR)
 Amat Cintas, Miriam (IR)
 Bober, Anna (IR)
 Castellet Farrus, Helena (IR)
 De La Riva Buissen, Antonio (IR)
 De Rosa Torres, María (IR)
 De Rueda Gamboa, María Jessica (IR)
 Escribano Esturgo, Nuria (IR)
 Guardiola Perello, Maria (IR)
 Iranzo Ribera, Eva (IR)
 Lin Yao, Shengjie (IR)
 López Moreno, Sonia (IR)
 Lucio Diaz, Beatriz (IR)
 Miqueleiz Alamos, Sara (IR)
 Morcillo Sánchez, Melisa (IR)
 Moreira Ramos, Alejandra Estefanía (IR)
 Pascual Latorre, Irene (IR)
 Pérez García, Nuria (IR)
 Pujol Fernández, Paula (IR)
 Ramil López, Guillermo (IR)
 Rodríguez Fernández, Diana (IR)
 Rosal Muntadas-Prim, Maria Josefa (IR)
 Samso Zamora, Claudia (IR)
 Sánchez Mata, Alicia (IR)
 Vazquez Portero, Mario (IR)
 Victoria Fraj, Sara (IR)

DESCRIPTION

The group conducts translational and clinical research in the field of blood cancers and haematopoietic transplants, focusing on the prognostic impact of molecular markers in acute myeloid leukaemia and lymphoma. The group is intensively focused on the study of innovative genetically modified T cells with antigen-specific chimeric antigen receptor (CAR) receptors and their clinical application in patients with haematological cancer.

The group also develops innovative strategies for allogeneic hematopoietic transplantation, including novel approaches to reduce graft-versus-host disease complications.

MAIN LINES OF RESEARCH

- Clinical trials with academic-developed CART cells for Hodgkin and B cell non-Hodgkin Lymphoma (Briones Meijide, Javier; Caballero González, Ana Carolina).
- Development of memory-enriched CART cells under GMP conditions for clinical application (Escriba García, Laura; Briones Meijide, Javier; Caballero González, Ana Carolina).
- Preclinical development of fourth-generation CART cells for haematological malignancies. (Poyatos Dorado, Paula; Escriba García, Laura; Caballero González, Ana Carolina; Briones Meijide, Javier).
- Study of the prognostic value of clinical and biological parameters in acute myeloid leukaemia. (Garrido Díaz, Ana; Sierra Gil, Jordi).
- Study of the molecular prognostic factors in lymphoma and chronic lymphocytic leukaemia. (Caballero González, Ana Carolina; Argüello De Tomás, Miquel; Briones Meijide, Javier).

5.1.2 Oncohematologic Diseases Area

- Molecular studies on minimal residual disease (liquid biopsy) in lymphoid malignancies and myeloma. (Caballero González, Ana Carolina; Argüello De Tomás, Miquel; López Pardo, Jordi; Briones Meijide, Javier).
- Design of new modalities of allogeneic stem-cell transplantation. (Esquirol Sanfeliu, Albert; García Cadenas, Irene; Martino Bofarull, Rodrigo).
- Innovative pharmacokinetic strategies for reducing hematopoietic transplantation complications. (García Cadenas, Irene; Esquirol Sanfeliu, Albert; Martino Bofarull, Rodrigo).

SCIENTIFIC CHALLENGES

- Development of academic CAR-T cell therapies for Phase I/ II clinical trials for haematological malignancies.
- Development of novel CART cells (4th and 5th generation) with enhanced antitumor efficacy.
- Identify new prognostic parameters for risk and therapeutic stratifications in leukaemia and lymphoma.
- Molecular characterisation of acute myeloid leukaemia and lymphoma for designing molecular-targeted precision therapies
- Establish Liquid biopsy for monitoring residual disease in acute leukaemia, lymphoma and myeloma.
- Reduce toxicity and complications of allogeneic transplants. New conditioning treatments and strategies for monitoring targeted therapies for graft versus host disease.

ACTIVE & AWARDED GRANTS

- Briones Meijide, Javier. TERA+.
RD24/0014/0036. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 224.001,25 €
- Briones Meijide, Javier. CAR T cells with costimulatory chimeric receptors for improving antitumor efficacy against Hodgkin lymphoma. GINJOL 2024-13-010. Fundació Institució dels Centres de Recerca de Catalunya (iCERCA). Duration: 2024-2025. 10.000,00 €
- Briones Meijide, Javier. Terapia con CART de cuarta generación, con secreción de citoquinas y efecto dual. PI24/01917. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2027. 121.250,00 €
- Briones Meijide, Javier. Accelerating Development and Improving Access to CAR and TCR-engineered T cell therapy. T2EVOLVE IMI2-RIA 945393-1. European Commission. Duration: 2021-2025. 271.370,00 €
- Briones Meijide, Javier. Ensayo fase I/II con células T de memoria CAR30 con expresión de receptores dirigidos a CD200 (HSP-CAR30-CCR200) para pacientes con linfoma de Hodgkin refractario. ICI25/00065. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2029. 1.805.657 €
- Pratcorona Canela, Marta; Sierra Gil, Jordi. Poblaciones subclonales de LMA y células madre leucémicas identificadas mediante secuenciación de ARN de una sola célula y citometría de flujo multiparamétrica: impacto en la respuesta al tratamiento. PI20/01621. Instituto de Salud Carlos III (ISCIII). Duration: 2021-2025. 304.920,00 €
- Sierra Gil, Jordi. Grup de Diagnòstic i Tractament de les Noeplàsies Hematològiques. 2021 SGR 01139. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). 2022-2025. 40.000,00 €
- Sierra Gil, Jordi. Medicina Personalizada para mejorar el tratamiento de la Leucemia Mieloide Aguda: combinación de terapias de precisión con un nanoconjugado de auristatina dirigido a las células madre leucémicas. PI24/00013. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2027. 252.500,00 €

5.1.2 Oncohematologic Diseases Area

SCIENTIFIC PRODUCTION – Articles & Reviews

- Arguello M, Lynton E, Albiol N, López A, Sierra J, Moga E, Moreno C. Clinical and immunologic characteristics of nonhematologic autoimmune disorders in chronic lymphocytic leukaemia. *CANCER*. 2025; 131(24):e70216. DOI:10.1002/cncr.70216. PMID:41378669. IF:5,100 (Q1/3D).
- Arguello M, Mozas P, Albiol N, López M, Sierra J, Nomdedéu J, Martínez C, Moga E, Piñeyroa JA, Delgado J, Osorio S, Moreno C. Risk scores predicting disease progression in early-stage CLL: Comparative analysis and usefulness of IGHV subset #2 to improve their accuracy. *CANCER*. 2025; 131(1):e35552. DOI:10.1002/cncr.35552. PMID:39264834. IF:5,100 (Q1/3D).
- Batlle L, Pulido JP, Esteve A, Perurena J, Franco C, Aguilo A, Martínez M, Cea C, Rodríguez M, Soler P, Casals F, Velao SR, Torrent M, Alsina L, Colobran R. Somatic reversion in CD137 deficiency correlating with Epstein-Barr virus control and clinical improvement. *npj Genomic Medicine*. 2025; 10(1):78. DOI:10.1038/s41525-025-00535-y. PMID:41315311. IF:4,800 (Q1/2D).
- Bento L, Gutiérrez A, Martínez C, Verdet M, Sorribes M, Caballero AC, Peña M, Pérez A, Jiménez A, Medina L, Bastos M, Caldas PF, Navarro B, Salcedo I, Abrisqueta P, Español I, Cornago J, Martín F, García L, Gómez P, Varela MR, Puente M, Zanabili J, Zudaire T, Zeberio I, del Campo R, González L, González P, Blázquez C, Rovira J, Sitges M, Franch M, Cabero A, Mussetti A, Montoro J, Sampol A, Sureda A, Caballero D, García AM, Espanol Trasplante Terapia Celular GETH GRP&, GELTAMO Espanol Linfoma Trasplante Autol GRP&. Autologous stem cell transplantation for relapsed/refractory large B-cell lymphoma: a multicenter GETH-TC/GELTAMO study. *Blood Advances*. 2025; 9(13). DOI:10.1182/bloodadvances.2024015415. PMID:40163764. IF:7,100 (Q1/2D).
- Caballero AC, Ujaldón C, Pujol P, Montserrat R, Guardiola M, Escudero E, Garcia I, Esquirol A, Martíno R, Jara P, Ezquerro P, Soria JM, Iranzo E, Moreno ME, Riba M, Sierra J, Alvarez C, Escribà L, Briones J. HSP-CAR30 with a high proportion of less-differentiated T cells promotes durable responses in refractory CD30+lymphoma. *BLOOD*. 2025; 145(16). DOI:10.1182/blood.2024026758. PMID:39841453. IF:23,100 (Q1/1D).
- Chorao P, Avendano A, Heras I, Aiello F, Micó M, Bel AA, Garcia V, Olave MT, Gómez MA, Espigado I, Cuesta MA, González C, Hernández JA, Roldán A, Labrador J, Villalba M, Vázquez L, Vidal CG, Martíno R, López J, Cedillo A, Solano C, García I, Piñana JL, Spanish Hematopoietic Stem Cell Transplantation Cell Therapy GETH GRPTC, Infect S. Co-infections during SARS-CoV-2 infection in hematologic patients and cell therapy recipients in the omicron era: a Spanish hematopoietic stem cell transplantation and cell therapy group study. *BMC INFECTIOUS DISEASES*. 2025; 25(1):944. DOI:10.1186/s12879-025-11302-w. PMID:40713537. IF:3,000 (Q2/4D).
- de Larrea CF, Loscertales J, Cabañas V, Freiria C, Blanchard MJ, Askari E, Pérez ML, Abril L, Pardo JL, Pinzón S, Gálvez JD, Amer N, Páyer AR, Sánchez RG, Alcalá MM, Capote FJ, Moreno D, Bolumburu C, Rubio E, Sanz RG. Observational retrospective study of the treatment of Waldenström's macroglobulinemia with ibrutinib in routine clinical practice in Spain. *Therapeutic Advances in Haematology*. 2025; 16:20406207251379670. DOI:10.1177/20406207251379670. IF:3,100 (Q2/4D).
- Escamilla V, Gutiérrez VG, Alcalde P, Astibia B, Chinea A, López L, Acera M, Ochando MKT, Borrego AB, Pinedo LG, Ripa TZ, Vicent MG, Benzaquén A, García II, Cantó PA, Montoro J, Martín FM, Orti G, Valcárcel D, Benítez MI, Diaz C, Cañamero E, Ferrá C, García I, Redondo S, Sisinni L, Pérez A, Mussetti A, Garcia L, Palomo MD, González PA, Jurado M, Pérez JA, G. Ruxolitinib in acute and chronic graft-versus-host disease: real life long-term experience in a multi-center study for adult and pediatric patients, on behalf of the GETH-TC. *BONE MARROW TRANSPLANTATION*. 2025; 60(3). DOI:10.1038/s41409-024-02483-0. PMID:39663471. IF:5,200 (Q1/1D).
- Fasanella MG, Mozos A, Briones J, Nomdedeu JF, Novelli S. Evaluation of Clinical Outcomes and Treatment Complications in Hairy Cell Leukemia: A Single-Centre Retrospective Analysis. *Cancer Reports*. 2025; 8(10):e70356. DOI:10.1002/cnr2.70356. PMID:41031578.
- Gagelmann N, de Witte M, Peczynski C, Boreland W, Broers A, Jost E, Kulagin A, Esquirol A, Sica S, Kuball J, Errico G, Bethge W, Maertens J, Stölzel F, Forcade E, Collin M, Parma M, Choi G, Kröger

5.1.2 Oncohematologic Diseases Area

- N, Di MC, Finazzi MC, Corral LL, Rifón J, Mussetti A, Bloor A, Ladetto M, Schoemans H, Penack O, Moiseev I, Peric Z. Daratumumab for PRCA after HCT: study and practical considerations from the EBMT Transplant Complications Working Party. *Blood Cancer Journal*. 2025; 15(1):106. DOI:10.1038/s41408-025-01315-8. PMID:40467580. IF:11,600 (Q1/1D).
- Giménez E, Cadenas IG, Piñana JL, Albert E, Vázquez L, Avendaño A, Cabrero M, Esquirol A, Martino R, López J, Cuesta MA, Humala K, Villar S, Rovira M, Heras I, Zudaire T, Arroyo I, Zabalza A, Aguado B, Solano C, Navarro D, Spanish Hematopoietic Transplantation GETH GRP. Cytomegalovirus DNA Doubling Time for Early Identification of Clinically Significant Infection Episodes in Allogeneic Hematopoietic Stem Cell Transplant Recipients Undergoing Primary Letemovir Prophylaxis: A Multicenter Study. *Transplant Infectious Disease*. 2025; 27(5). DOI:10.1111/tid. 70080. PMID:40674366. IF:2,600 (Q1/1D).
 - González L, Castellet H, Martínez C, González N, Guijarro F, Lloveras N, Pratcorona M, Gich I, Berenguer P, Perera J, Zamora L, Mascaró M, Sampol A, García A, Vives S, Tormo M, Arnan M, Villamor N, Nomdedéu JF. CD200 in acute myeloid leukaemia: marked upregulation in CEBPA biallelic mutated cases. *Diagnostic Pathology*. 2025; 20(1):56. DOI:10.1186/s13000-025-01655-w. PMID:40307896. IF:2,300 (Q2/5D).
 - Jiménez C, Esteve J, Baile M, Pérez E, Calvo CM, Aparicio C, Ormategi IO, Esquirol A, Peña F, Fernández S, Fernando IH, González AP, López A, López JL, Torrado T, Marín A, Fleitas CA, García L, Villar S, Filaferro S, Balsalobre P, Cascón MJP, Salas MQ. Allo-HCT refined ELN 2022 risk classification: validation of the Adverse-Plus risk group in AML patients undergoing allogeneic hematopoietic cell transplantation within the Spanish Group for Hematopoietic Cell Transplantation (GETH-TC). *Blood Cancer Journal*. 2025; 15(1):42. DOI:10.1038/s41408-025-01223-x. PMID:40118819. IF:11,600 (Q1/1D).
 - Lambert N, Forte F, El Moussaoui M, Monseur J, Raus N, Polushin A, Michonneau D, Shultz C, Hogan WJ, Balaguer A, Gil S, Brijs J, Chauvet P, Gavriilaki M, Carre M, Dulamea AO, Chalandon Y, Salmenniemi U, Duminuco A, Ram R, García I, Porto G, Nguyen S, Smallbone P, González M, Santoro JD, Willems E, Baron F, Servais S, Beguin Y, Maquet P, Study CNSGVHDGRP. CNS manifestations in acute and chronic graft-versus-host disease. *BRAIN*. 2025; 148(4). DOI:10.1093/brain/awae340. PMID:39442000. IF:11,700 (Q1/1D).
 - Lewis JFM, Daver NG, Robinson NJ, Pandya BJ, Pierre B, Monir S, Sierra J. Prevalence of Fms-Like Tyrosine Kinase 3 (FLT3) Mutations in Patients With Acute Myeloid Leukaemia: A Systematic Literature Review and Meta-Analysis. *Cancer Medicine*. 2025; 14(18):e71205. DOI:10.1002/cam4.71205. PMID:40981231. IF:3,100 (Q2/5D).
 - Moreno DF, Oriol A, de la Rubia J, Hernández MT, Iñigo MB, Palomera L, de Arriba F, González Y, Teruel AI, Pardo JL, de la Guía AL, Sampol A, Ríos R, Sureda A, Gutiérrez NC, Calasanz MJ, Ramos MLM, Mateos MV, San Miguel J, Lahuerta JJ, Bladé J, Rosiñol L, PETHEMA GRP. Is t(11;14) Always a Standard-Risk Cytogenetic Abnormality? Results From GEM05MENOS65 and GEM2012 PETHEMA/GEM Trials. *Clinical Lymphoma Myeloma & Leukaemia*. 2025; 25(7). DOI:10.1016/j.clml.2025.01.014. PMID:39955256. IF:2,700 (Q2/4D).
 - Munárriz D, Pérez E, Rodríguez CM, Luque M, Esquirol A, Calvo CM, Aparicio C, Peña F, Fernando IH, Ormategi IO, Marín A, Fernández S, Domínguez JJ, Fernández SV, López JL, Fleitas CA, González AP, García L, Torrado T, Filaferro S, Balsalobre P, Cascon MJP, Rovira M, Salas MQ. Donor age as an independent predictor of inferior outcomes after haploidentical hematopoietic cell transplantation in acute myeloid leukaemia. Study conducted on behalf of GETH-TC. *Frontiers in Immunology*. 2025; 16:1700463. DOI:10.3389/fimmu. 2025.1700463. PMID:41394844. IF:5,900 (Q1/2D).
 - Nath K, Zhang MJ, Bye M, Abid MB, Benjamin C, Betts B, Bhatt NS, Bolanos EA, Bolon YT, Gadalla SM, Grunwald MR, Krem MM, Lee SJ, Marsh S, Martino R, Mehta PA, Milano F, Prestidge T, Saultz JN, Shaw BE, Spellman SR, Choe H, Shaffer BC. Transplant outcomes using older matched sibling donors compared with young alternative donors: a CIBMTR analysis. *Blood Advances*. 2025; 9(14). DOI:10.1182/bloodadvances. 2024014858. PMID:40048743. IF:7,100 (Q1/2D).
 - Navarro S, Moukheiber C, Sancho SI, Guillén MR, de Cerio A, Sanges C, Tanaka T, Arnould S, Briones

5.1.2 Oncohematologic Diseases Area

- J, Dolstra H, Hudecek M, Choudhary R, Schapitz I, Juan ME, Worel N, Ammar D, Luu M, Mueller M, Schroeder B, Negre H, Franz P. Optimising CAR-T treatment: A T2EVOLVE guide to raw and starting material selection. *MOLECULAR THERAPY*. 2025; 33(3). DOI:10.1016/j.yymthe.2024.11.017. PMID:39533710. IF:12,000 (Q1/1D).
- Niño J, Rossell J, Rojo MI, Moreira E, Mateus E, Ruiz AJ, Ramos B, Martínez E, Martínez LO, Galán M, Julve J. Mitochondrial dysfunction in PBMC: a potential sensor for metabolic dysfunction-associated steatotic liver disease and therapeutic insight for NAD⁺-increasing strategies. *Exploration of Digestive Diseases*. 2025; 4. DOI:10.37349/edd.2025.100566.
 - Oñate G, Garrido A, Arnan M, Pomares H, Alonso E, Tormo M, Diaz M, Vives S, Zamora L, Sampol A, Coll R, Salamero O, Cervera M, Garcia A, Vall F, Garcia S, Bargay J, Ortin X, Iranzo E, Guijarro F, Pratorcorona M, Nomdedeu JF, Esteve J, Sierra J. Diverse real-life outcomes after intensive risk-adapted therapy for 1034 AML patients from the CETLAM Group. *Blood Cancer Journal*. 2025; 15(1):4. DOI:10.1038/s41408-024-01205-5. PMID:39799145. IF:11,600 (Q1/1D).
 - Osuna R, López J, Mulet M, Nomdedéu J, Cantó E, Ortin R, Cayuela AS, Ortiz MA, Guinart A, Vidal S. Non-Competitive Binding of Isatuximab and Daratumumab to CD38: Implications for Targeted Therapy in Multiple Myeloma. *Pharmaceutics*. 2025; 17(10):1278. DOI:10.3390/pharmaceutics17101278. PMID:41155915. IF:5,500 (Q1/1D).
 - Perruccio K, Ward KN, Tridello G, Knelange N, Zeiser R, Franke GN, Sirvent A, Einsele H, Vicent MG, Navarro JMF, Contentin N, Collin M, Martino R, Gambella M, Sengeloev H, Passweg J, Snowden J, Nagler A, Kulagin A, Gabriel M, Kröger N, Cascon MJP, Yeshurun M, Güngör T, Robin C, Clark A, Duarte ML, Amor AA, Itala M, Mikulska M, Styczynski J, de la Camara R, Ljungman P, Averbuch D, Cesaro S. Clinical characteristic and outcome of HHV-6 encephalitis after allogeneic hematopoietic cell transplantation: A study of Infectious Disease Working Party of EBMT. *BONE MARROW TRANSPLANTATION*. 2025; 60(9). DOI:10.1038/s41409-025-02638-7. PMID:40461849. IF:5,200 (Q1/1D).
 - Pinana JL, Martino R, Cesaro S, Averbuch D, Lujgman P. To proceed or delay? The dilemma of community-acquired respiratory viruses in adults and paediatric patients before allogeneic stem cell transplantation and chimeric antigen receptor T-cell therapy. *CURRENT OPINION IN INFECTIOUS DISEASES*. 2025; 38(4). DOI:10.1097/QCO.0000000000001120. PMID:40471062. IF:4,000 (Q1/2D).
 - Redondo S, Costa M, Moreno ME, Arguello M, Riba M, Aso O, Iranzo E, Esquirol A, Sierra J, Briones J, Martino R, Zapico E, Garcia I. Development and Clinical Validation of Liquid Chromatography-Tandem Mass Spectrometry for Measuring Ruxolitinib in Steroid-Refractory Graft-Versus-Host Disease: A First Step Towards Optimised Treatment. *EUROPEAN JOURNAL OF HAEMATOLOGY*. 2025; 114(3). DOI:10.1111/ejh.14349. PMID:39545520. IF:2,300 (Q2/5D).
 - Redondo S, García I, Esquirol A, Iranzo E, Arguello M, Saavedra S, Oñate G, Caballero AC, Garrido A, López J, Muntañola A, Paviglianiti A, Portos JM, Moreno ME, Riba M, Sierra J, Briones J, Martino R. Standard Versus Reduced-Doses of Post-Transplant Cyclophosphamide in HLA Matched (10/10) Peripheral Blood Stem Cell Transplantation. *EUROPEAN JOURNAL OF HAEMATOLOGY*. 2025; 115(4). DOI:10.1111/ejh.70010. PMID:40697075. IF:2,300 (Q2/5D).
 - Rubio MA, Cisa S, Mozos A, Castellet H, Bussaglia E, Carricondo M, Hernández MI, Sierra J, Nomdedéu JF. SGK1 repression by WT1 may confer a survival advantage to leukemic cells under stress conditions. *ANNALS OF HEMATOLOGY*. 2025; 104(7). DOI:10.1007/s00277-025-06458-z. PMID:40613901. IF:2,400 (Q2/5D).
 - Salas MQ, Solano MT, González MB, Gómez MA, Fox L, Artigas MDP, Santamaría A, González MDQ, Salinas AS, Camacho JMS, Alvaro VI, Abdallahi Z, Navascues JC, Pardo L, Fernández S, Suárez LPV, Villar S, Beorlegui P, Esquirol A, García II, González SR, Mussetti A, Lavilla E, López J, Filaferro S, Cedillo A, Bento L, Sureda A. Frailty assessment in adults undergoing allogeneic hematopoietic cell transplantation: insights from a multicenter GETH-TC study to optimize outcomes and care. *Frontiers in Immunology*. 2025; 15:1512154. DOI:10.3389/fimmu.2024.1512154. PMID:39840039. IF:5,900 (Q1/2D).
 - Sierro B, Escamilla V, Pérez L, Guijarro B, Hernández P, de la Rosa M, Lara M, Rodríguez

5.1.2 Oncohematologic Diseases Area

- A, Reguera JL, Sanoja L, Arribas B, Montiel MA, Carmona G, Robles MJ, Caballero T, Briones J, Einsele H, Hudecek M, Pérez JA, García E. Next-generation BCMA-targeted chimeric antigen receptor CARTemis-1: the impact of manufacturing procedure on CAR T-cell features. *CELLULAR ONCOLOGY*. 2025; 48(1). DOI:10.1007/s13402-024-00984-0. PMID:39192092. IF:4,800 (Q1/1D).
- Sobas MA, Turki AT, Ramiro AV, Hernández A, Elicegui JM, González T, Melchor RA, Abáigar M, Tur L, Dall'Olio D, Sträng E, Tettero JM, Castellani G, Benner A, Doehner K, Thiede C, Metzeler KH, Haferlach T, Damm F, Ayala R, Martínez J, Mills KI, Sierra J, Lehmann S, Della MG, Mayer J, Reinhardt D, Medina RV, Schulze R, Barbus M, Hernández JM, Huntly BJP, Ossenkoppele G, Döhner H, Bullinger L. Outcomes with intensive treatment for acute myeloid leukemia: an analysis of two decades of data from the HARMONY Alliance. *HAEMATOLOGICA*. 2025; 110(5). DOI:10.3324/haematol.2024.285805. PMID:39506894. IF:10,100 (Q1/2D).
 - Spyridonidis A, Labopin M, Savani BP, Kulagin A, Blaise D, Broers A, Sica S, Raiola AM, Vydra J, Choi G, Rovira M, Kwon M, Sanz J, Itälä M, von dem Borne P, Esquirol A, Koc Y, Brissot E, Nagler A, Mohty M, Ciceri F. The impact of individual comorbidities in transplant recipients receiving post-transplant cyclophosphamide. *BONE MARROW TRANSPLANTATION*. 2025; 60(4). DOI:10.1038/s41409-025-02514-4. PMID:39910175. IF:5,200 (Q1/1D).
 - Tolosa C, González MB, Gómez MA, Fox L, Artigas MDP, Santamaria A, González MDQ, Salinas AS, Camacho JMS, Alvaro VI, Abdallahi Z, Navascues JC, Pardo L, Fernández S, Suárez LPV, Villar S, Beorlegui P, Esquirol A, García II, Ribes J, Lavilla E, López J, Basalobre P, Filaferro S, Cedillo A, Bento L, Sureda A, Salas MQ. Frailty dynamics and their impact on QoL in patients undergoing autologous HCT for multiple myeloma: Results from a multicentre GETH-TC study. *BRITISH JOURNAL OF HAEMATOLOGY*. 2025; 207(4). DOI:10.1111/bjh. 70068. PMID:40796522. IF:3,800 (Q1/3D).
 - Tomaszewska A, Basak GW, Peczynski C, Polge E, Ambron P, Boreland W, Sica S, Arat M, Passweg J, Lorenzo JLL, Salmenniemi U, Jindra P, Kulagin A, Bufarull RM, Eder M, Bekadja MA, Mussetti A, Graham CE, Schoemans H, Penack O, Moiseev I, Peric Z. Complications of Haploidentical Hematopoietic Cell Transplantation with Post-Transplant Cyclophosphamide: A Prospective Study on Behalf of the EBMT Transplant Complications Working Party. *Cancers*. 2025; 17(24):4029. DOI:10.3390/cancers17244029. PMID:41463278. IF:4,400 (Q2/3D).
 - Torrent A, Cascos E, Garcés VN, Pérez E, Baile M, Rodríguez CM, Cascón MJP, Luque M, Esquirol A, Calvo CM, Peña F, Fernando IH, Ormtegi IO, Marín A, Fernández S, Domínguez JJ, Fernández SV, Lorenzo JLL, Girón MFD, Pinedo LG, García L, González AP, Torrado T, Filaferro S, Basalobre P, Ortí G, Rovira M, Chacón MJ, Salas MQ, GETH TC. Safety of Post-Transplant Cyclophosphamide-Based Prophylaxis in AML Patients with Pre-Existing Cardiac Morbidity Undergoing Allogeneic Hematopoietic Cell Transplantation. *Cancers*. 2025; 17(19):3128. DOI:10.3390/cancers17193128. PMID:41097656. IF:4,400 (Q2/3D).

SCIENTIFIC PRODUCTION – Clinical Practice Guidelines

- Medina Á, Muntañola A, Crespo M, Ramírez Á, Hernández-Rivas JÁ, Abrisqueta P, Alcoceba M, Delgado J, de la Serna J, Espinet B, González M, Loscertales J, Serrano A, Terol MJ, Yáñez L, Bosch F; en nombre del Grupo Español de Leucemia Linfocítica Crónica (GELLC). Guidelines for the diagnosis and treatment of chronic lymphocytic leukaemia and small lymphocytic lymphoma from Chronic Lymphocytic Leukaemia Spanish Group (GELLC). *Med Clin (Barc)*. 2025 Mar 28;164(6):305-305.e17. English, Spanish. doi: 10.1016/j.medcli.2024.10.018. Epub 2025 Jan 10. PMID: 39799061.

5.1.2 Oncohematologic Diseases Area

Cancer Predisposition and DNA Repair Syndromes

Group leader

Surrallés Calonge, Jordi (IR)

Researchers

Agbo , Lynda Marie Clemence (IR)
 Bogliolo , Massimo (UAB)
 Camps Fajol, Cristina (IR)
 López de Heredia, Miguel (CIBER)
 Marsal Olivan, Aina (IR)
 Martín Rodríguez, Carla (UAB)
 Mora Rodríguez, Angel (IR)
 Muñoz Pujol, Gerard (IR)
 Pujol Calvet, Roser (CIBER)
 Ramírez de Haro, María José (CIBER)
 Rodríguez Santiago, Benjamin (FGS)
 Tejero Laguna, Eudald (IR)

Research technicians

Molina Romero, Ana (UAB)
 Ortega Aceituno, Jennifer Paola (IR)
 Peiro Navarro, Montserrat (UAB)



DESCRIPTION

This research group works in the field of genetic diseases characterised by a high predisposition to cancer. Many of these syndromes are caused by mutations in DNA repair genes. These genes are therefore important to prevent cancer transformation. Research on these syndromes is crucial not only to improve their diagnosis and treatment but also to unravel the mechanisms that protect us from cancer.

In the past few years, the team has identified and studied a number of novel genes involved in such syndromes and has conducted therapeutic research, leading to two orphan drug designations by the European Medicines Agency and several academic clinical trials, including gene therapy and drug repurposing. They also investigate DNA repair genes involved in these syndromes as therapeutic targets to induce cancer-specific lethality by synthetic lethality.

There is an increasing number of novel therapeutic strategies based on the deep knowledge of the genetic causes of the disease. Therefore, a proper genetic diagnosis is important not only to provide adequate genetic counselling and clinical management to patients and their families, but also to enable personalised medicine based on genomic information.

MAIN LINES OF RESEARCH

- Genetics and molecular biology of cancer-prone genetic syndromes with a focus on familial breast cancer and Fanconi Anaemia and related chromosome fragility syndromes such as ataxia telangiectasia. (Bogliolo, Massimo).
- Development of new diagnostic and therapeutic tools in Fanconi anaemia, including gene therapy, regenerative medicine and drug repurposing. (Surrallés Calonge, Jordi).
- Mechanism of genomic instability and predisposition to cancer. Study of DNA repair mechanism and biological and clinical consequences of DNA repair failure. (Bogliolo, Massimo).

5.1.2 Oncohematologic Diseases Area

- Fanconi/BRCA pathway in cancer. Implications of Fanconi genes in cancer and their use as therapeutic targets against cancer. Development of DNA repair inhibitor against cancer by synthetic lethality. (Surralles Calonge, Jordi).
- Application of next-generation sequencing,

genome medicine and genome editing to better identify pathogenic mutations and perform functional studies of variants of known significance in rare diseases. (Muñoz Pujol, Gerard).

SCIENTIFIC CHALLENGES

- Optimisation of our drug candidate to inhibit the FA pathway as a novel anticancer therapy based on cancer-specific synthetic lethality.
- Follow-up of functional assay to classify variants of unknown significance in cancer predisposing genes.
- As we signed a collaboration agreement with US-based Rocket Pharma Ltd for a 10-year follow-up of FA patients undergoing gene therapy, we will continue to do so.
- Running of the AFAN clinical trial for the repurposing of afatinib to treat Fanconi anaemia patients with advanced head-and-neck cancer.
- Performing a drug screening to find drugs reactivating the Fanconi pathway in cells expressing a FANCA mutant protein.
- Develop and apply advanced genomic medicine tools and pipelines for the detection of pathogenic mutations in genes involved in rare diseases.
- Validation of gene candidates identified in a genome-wide CRISPR-Cas screen to identify synthetic lethal and viable interactions with the Fanconi/BRCA pathway.

ACTIVE & AWARDED GRANTS

- Mora Rodríguez, Angel. Ayudas para contratos predoctorales de formación de doctores 2022. PRE2022-104819. Ministerio de Ciencia, Innovación y Universidades. Duration: 2024-2025. 111.758,00 €
- Surralles Calonge, Jordi. The Fanconi anaemia/BRCA pathway: Genomic medicine and advanced therapies. (FABRAT). PID2021-122411OB-I00. Ministerio de Ciencia e Innovación. Duration: 2022-2025. 417.000,00 €
- Surralles Calonge, Jordi. Anemia de Fanconi: Avances en Genómica y Terapia. PID2024-155624OB-I00. Ministerio de Ciencia e Innovación. Duration: 2025-2028. 425.375,00 €
- Surralles Calonge, Jordi. Personal Investigador Predoctoral asociado a Proyectos de Generación de Conocimiento 2024. PREP2024-002715. Ministerio de Ciencia, Innovación y Universidades (MICIU). 2026-2029. 134.200,00 €
- Surralles Calonge, Jordi. Reposicionamiento de afatinib en HNSCC en pacientes con anemia de Fanconi. ICI22/00076. Instituto de Investigación Carlos III (ISCI). Duration: 2023-2026. 396.101,20 €
- Surralles Calonge, Jordi. Valorización y prueba de concepto de un inhibidor de la reparación del DNA por la vía Fanconi/BRCA para el tratamiento del cáncer mediante letalidad sintética. PDC2022-133233-I00. Ministerio de Ciencia, Innovación y Universidades (MICIU). Duration: 2022-2025. 149.500,00 €
- Surralles Calonge, Jordi. Genomic medicine and rare diseases group. 2021 SGR 00835. Duration: 2022-2025. 40.000,00 €
- Surralles Calonge, Jordi. AFAN trial. Phase Ib/II study to investigate the safety and efficacy of Afatinib when administered as therapy in Fanconi anaemia patients with unresectable and / or metastatic locoregionally advanced squamous cell carcinoma of the oral cavity, oropharynx, hypopharynx or larynx. (FARF) Fanconi Anaemia Research Fund. Conv. FARF Research Grant Award (RGA) Program. Duration: 2023-2027. 296.303 €
- Surralles Calonge, Jordi. Genómica funcional: desarrollo e implementación de una plataforma para el estudio de casos de cáncer hereditario sin resolver (IMPACT_VUSCan). PMP22/00064. Duration: 2023-2025. 352.479,05 €
- Surralles Calonge, Jordi. Centro de Investigación Biomédica en Red de Enfermedades Raras. CIBERER. CB06/07/0023. Instituto de Investigación Carlos III (ISCI).

5.1.2 Oncohematologic Diseases Area

DOCTORAL THESES DEFENDED

- Gómez Peregrina, David. The genomic landscape of gastrointestinal stromal tumour progression uncovers the role of chromosomal instability in the cytogenetic and clinical evolution of the disease. 15/12/2025. Universitat Autònoma de Barcelona. Supervisors: Serrano García, César; Surrallés Calonge, Jordi. <https://hdl.handle.net/10803/696405>
- Idrizovic, Amira. Integrative diagnosis of patients with sickle cell disease for personalised medicine. 04/12/2025. Universitat Autònoma de Barcelona. Supervisors: Mañú Pereira, María del Mar; Surrallés Calonge, Jordi. <https://hdl.handle.net/10803/696119>
- Lindner, Georg. Peripheral SMA pathology during human development. 11/11/2025. Universitat Autònoma de Barcelona. Supervisors: Tizzano, Fidel Eduardo; Martínez Sáez, Elena Antima; Surrallés Calonge, Jordi. <https://hdl.handle.net/10803/695942>
- Segarra Casas, Alba. Improving genetic diagnosis of hereditary myopathies by integrating transcriptome, genome sequencing and reanalysis. 23/10/2025. Universitat Autònoma de Barcelona. Supervisors: Surrallés Calonge, Jordi; González Quereda, Lidia. <https://hdl.handle.net/10803/695670>
- Tejero Laguna, Eudald. Genomic data reanalysis and variant reinterpretation in genetic diseases: A bioinformatic and clinical reevaluation in inherited cardiac conditions and suspected Fanconi anaemia patient cohorts. 31/10/2025. Universitat Autònoma de Barcelona. Supervisors: Surrallés Calonge, Jordi; Rodríguez Santiago, Benjamín. <https://hdl.handle.net/10803/695929>

SCIENTIFIC PRODUCTION – articles & reviews

- Anguera G, Gallego O, Llobet M, Berga N, Moreno ME, Leon X, Kratz C, Garcia R, Minguillón J, Surrallés J. Opening of a phase Ib/II study to investigate the safety and efficacy of Afatinib in patients with Fanconi anaemia and unresectable locally advanced or metastatic head and neck squamous cell carcinoma. BMC CANCER. 2025; 25(1):1374. DOI:10.1186/s12885-025-14619-6. PMID:40859225. IF:3,400 (Q2/4D).
- Beddok A, Velleuer E, Fontbrune FSD, Brakenhoff RH, Dalle JH, Dufour C, Faivre S, Genet C, Klijanienko J, Krieg C, Leblanc T, Martínez P, Latour RP, Rigolet A, Saintigny P, Lyonnet DS, Soulier J, Surrallés J, Schramm M, Thariat J. Strategies for early detection and detailed characterisation of oral lesions and head and neck squamous cell carcinoma in Fanconi anaemia patients. CANCER LETTERS. 2025; 617:217529. DOI:10.1016/j.canlet.2025.217529. PMID:40054658. IF:10,100 (Q1/1D).
- Camps C, Cavero D, Minguillon J, Surrallés J. Targeting protein-protein interactions in drug discovery: Modulators approved or in clinical trials for cancer treatment. PHARMACOLOGICAL RESEARCH. 2025; 211:107544. DOI:10.1016/j.phrs.2024.107544. PMID:39667542. IF:10,500 (Q1/1D).
- Dols O, Carbayo A, Jericó I, Blasco O, Alvarez E, Pérez M, Bernal S, Rodríguez B, Cusco I, Turon J, Cabezas M, Caballero M, Vesperinas A, Llansó L, Pagola I, Torné L, Valle N, Muñoz L, Rubio S, Illán I, Cortés E, Gelpi E, Rojas R. Identification of a pathogenic mutation in ARPP21 in patients with amyotrophic lateral sclerosis. JOURNAL OF NEUROLOGY NEUROSURGERY AND PSYCHIATRY. 2025; 96(2). DOI:10.1136/jnnp-2024-333834. PMID:38960585. IF:7,500 (Q1/1D).
- Esmel R, Rianza L, Dolader P, Rodríguez B, Lasa A, Muñoz P, Fernández P, Figueras M, Bianco L, Bueno A, Vargas L, Camprubí E, Marimon C, Sabaté A, Rosés F, Gran F. Infarct-like myocarditis in adolescents: Exploring genetic insights from diagnosis through follow-up. INTERNATIONAL JOURNAL OF CARDIOLOGY. 2025; 432:133255. DOI:10.1016/j.ijcard.2025.133255. PMID:40246029. IF:3,200 (Q2/3D).
- Iriondo J, Zubicaray J, Rio P, Catala A, Solsona M, Sanz A, Gómez A, Sebastian E, de la Cruz A, Galan A, Navarro S, Larcher L, de Andoin NG, Uriz JJ, Vagace JM, de Pablo JG, Pujol MR, Nicoletti E, Surrallés J, Martín S, Schwartz JD, Soulier J, Bueren JA, Sevilla J. Eltrombopag for Bone Marrow Failure in Fanconi Anemia: Results From the Phase II Clinical Trial FANCREV. EUROPEAN JOURNAL OF HAEMATOLOGY. 2025; 115(4). DOI:10.1111/ejh.70007. PMID:40665878. IF:2,300 (Q2/5D).

5.1.2 Oncohematologic Diseases Area

- Johnatty SE, Tudini E, Parsons MT, Michailidou K, Zanti M, Canson DM, Davidson AL, Berger T, Rosti RO, Kratz CP, Kalb R, McReynolds LJ, Giri N, Richardson ME, Pesaran T, Surrallés J, Pujol R, Vundinti BR, George M, Maxwell KN, Nathanson K, Domchek S, Fiesco MO, Frias S, Garcia B, Jongmans M, Lalani S, Maiburg M, Prescott K, Robinson R, Rajagopalan S, Blok LS, Temple S, Tucker K, Auerbach AD, Cancio MI, Kennedy JA, MacMillan ML, Tryon R, Wagner JE, Walsh M, Boddicker NJ, Hu CL, Weitzel JN, Dingemans A, Hadler J, Rotenberg N, Ramadane L, de la Hoya M, James P, Hansen TV, Vreeswijk MPG, Walker LC, Sharan SK, Easton DF, Couch F, Smogorzewska A, Nelson A, Ngeow J, Tischkowitz M, Gómez E, Spurdle AB, CARRIERS C, Breast Canc Assoc C, ENIGMA C. BRCA1-, BRCA2-, and PALB2-related Fanconi anemia: Scope to expand disease phenotypic features and predict breast cancer risk in heterozygotes. AMERICAN JOURNAL OF HUMAN GENETICS. 2025; 112(12)DOI:10.1016/j.ajhg.2025.10.007. PMID:41172994. IF:8,100 (Q1/1D).
- Llansó L, Stevanovski I, Morís G, Collet R, Segarra A, González L, Rodríguez B, Gallano P, Álvarez R, Vesperinas A, Blanco R, San B, Navarro C, Illa I, Ravenscroft G, Deveson IW, Gallardo E, Olivé M. Repeat Expansions in PLIN4 Cause Autosomal Dominant Vacuolar Myopathy With Sarcolemmal Features. Annals of Clinical and Translational Neurology. 2025; 12(10). DOI:10.1002/acn3.70146. PMID:40693562. IF:3,900 (Q1/3D).
- Ramírez MJ, Pujol R, Minguillón J, Bogliolo M, Persico I, Cavero D, de la Cal A, Río P, Navarro S, Casado JA, Bailador A, de la Fuente AS, de Heredia ML, Almazán F, Antelo ML, Argilés B, Badell I, Baragaño M, Beléndez C, Bermúdez M, Bernués M, Buedo MI, Carrasco E, Català A, Costa D, Cuesta I, Fernández R, Fernández A, Figuera A, García M, Gondra A, González M, Muñoz SG, Hernández I, Ibañez F, Kelleher NJ, Lendínez F, López M, López R, Marchante I, Mendoza C, Nieto J, Ojeda E, Payán S, Peláez I, de Soto IP, Portugal R, Ramos MA, Regueiro A, Rodríguez A, Rosell J, Saez R, Sánchez J, Sánchez M, Senent ML, Tapia M, Trujillo JP, Vagace JM, Verdú J, Verdúgo V, Vidales I, Villarreal J, Díaz C, Sevilla J, Bueren J, Surrallés J. Prognostic significance of mutation type and chromosome fragility in Fanconi anemia. AMERICAN JOURNAL OF HEMATOLOGY. 2025; 100(2). DOI:10.1002/ajh.27520. PMID:39562502. IF:9,900 (Q1/1D).
- Segarra A, Domínguez C, Natera D, Kapetanovic S, Hernández A, Estévez B, Llansó L, Ortez C, Jou C, Martí I, López A, Rodríguez MJ, González L, Nedkova V, Fernández R, Rodríguez B, Jimenez C, Juntas R, López A, Surrallés J, Nascimento A, Gallardo E, Olivé M, Gallano P, González L. Translating Muscle RNAseq Into the Clinic for the Diagnosis of Muscle Diseases. Annals of Clinical and Translational Neurology. 2025; 12(7). DOI:10.1002/acn3.70078. PMID:40413734. IF:3,900 (Q1/3D).
- Segarra A, Iruzubieta P, Kapetanovic S, Hernández A, Jericó I, Fernández R, Maneiro M, Marco P, Zelaya MV, Rodríguez B, Calafell F, Töpf A, Straub V, Vallejo A, de Munain AL, Gallano P, González L. A founder variant in the RYR1 gene is associated with hyperCKemia, myalgia and muscle cramps. EUROPEAN JOURNAL OF NEUROLOGY. 2025; 32(1):e16471. DOI:10.1111/ene.16471. PMID:39742415. IF:3,900 (Q1/3D).
- Tejero E, de Haro MJR, Pujol R, Bogliolo M, Rodríguez B, Surrallés J. Ending diagnostic odyssey by reanalysis of whole exome sequencing data: reclassification of suspected Fanconi anaemia cases to dyskeratosis congenita and Diamond-Blackfan anaemia. Orphanet Journal of Rare Diseases. 2025; 20(1):511. DOI:10.1186/s13023-025-03928-5. PMID:41088272. IF:3,500 (Q2/4D).

5.1.2 Oncohematologic Diseases Area

Clinical Research in Transfusion Medicine

Group leader

Medina Marrero, Laura (BST)

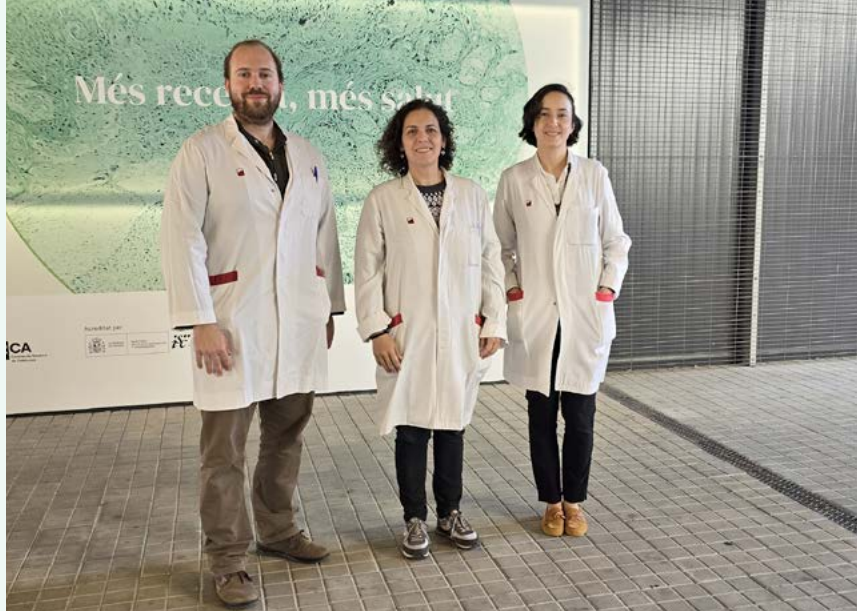
Researchers

Bosch Llobet, Maria Alba (BST)

Ene, Gabriela Simona (BST)

Ferrer Garrido, Gonzalo José (BST)

Sanz Linares, Gabriela (BST)



DESCRIPTION

Throughout 2025, we added to our scientific record the participation in five CAR T-cell clinical trials. Three of them are still in the start-up phase, and in two of them, the initial visit took place in 2025.

In the transfusion field, we have enrolled on the Essential Project, promoted by the Aquas quality group of the Department of Health. We also contributed to the first edition of the Sickle Cell Disease Guide from Sant Pau Hospital.

Regarding participation at conferences, our activity was also noteworthy in terms of abstracts, with presentations on apheresis cell mobilisation and on therapeutic plasma and red blood cell exchanges.

Finally, one of our group members presented his final Master's work.

MAIN LINES OF RESEARCH

- CART: novel clinical trials upcoming in the field of neurology and rheumatology. (Sanz Linares, Gabriela; Medina Marrero, Laura).
- Transfusion: Essential Project regarding transfusion yield and patient blood management program. (Ferrer Garrido, Gonzalo José; Bosch Llobet, María Alba; Medina Marrero, Laura).
- Ferritin follow-up in regular donors. (Sanz Linares, Gabriela; Medina Marrero, Laura).
- Therapeutic erythrocyte exchange with red blood cells reduction programme. (Ferrer Garrido, Gonzalo José; Sanz Linares, Gabriela).

SCIENTIFIC CHALLENGES

- Novel CART clinical trials upcoming: IM060-0001, CARTEMIS-01, CALIPSO-1 CAR iNK Autoimmune Disease, RNAC-MG-002 (AURORA) and IOV-LUN-202 (Oncology).
- Comparative study between therapeutic erythrocyte exchanges with red blood cell reduction versus only exchange. Interhospital study in collaboration with the haematology service.
- Essential Project regarding transfusion yield and patient blood management program.

5.1.2 Oncohematologic Diseases Area

SCIENTIFIC PRODUCTION – Articles & Reviews

- Paniagua P, Rincón MD, Candela A, Marcos M, Barquero M, Gich I, Medina L, Bosch A, Garrido D, Ordoñez J, Urrutia G. Improving the Compliance of Massive Haemorrhage Protocols Through Education Is Associated with Patient Survival. Journal of Clinical Medicine. 2025; 14(13):4632. DOI:10.3390/jcm14134632. PMID:40649007. IF:2,900 (Q1/2D).

5.1.2 Oncohematologic Diseases Area

Gynecologic and Peritoneal Oncology

Group leader

Cespedes Navarro, Maria Virtudes (IR)

Researchers

Caruana Santiago, Pablo (IR)

Edwards, Maria Charlotte (IR)

Espadaler Fabrego, Ignasi (FGS)

Farres Rubi, Alba (FGS)

Luna Guibourg, Rocio (FGS)

Magret Descamps, Eva (FGS)

Martín Lorente, Cristina (FGS)

Muñoz Sánchez, Raquel (FGS)

Rovira Negre, Ramon (FGS)

Soler Moreno, Cristina (FGS)

Teixera, Natalia (FGS)

Vicente Tomas, Carolina (VHIR)

Research technicians

Escar Visus, Mireia (IR)

Zapater Enrique, Oscar (FGS)



DESCRIPTION

The Gynecologic and Peritoneal Oncology research group (GO-GYP), coordinated by Dr Maria Virtudes Céspedes, is an emerging group led by an established scientist from the Miguel Servet Programme. GOGYP is a clinic-translational research team within the onco-haematological diseases research area at the Institut de Recerca Sant Pau (IR-HSCSP). They are actively advancing surgical techniques, developing diagnostic tools, and creating innovative nanotechnology-based therapies. Their research encompasses patient and sample screening, as well as in vitro and in vivo modelling and experimentation. The team also has strong expertise in preclinical drug development and clinical assays. The results of their multidisciplinary efforts contribute to three transversal research programs in IR-HSCSP: Advanced Therapies, Prognostic and Diagnostic Biomarkers, and Women's Health and Care.

MAIN LINES OF RESEARCH

- Identify new prognostic biomarkers and new therapeutic targets for risk and therapeutic stratification in endometrial cancer patients. (Cespedes Navarro, Maria Virtudes).
- Study the effect of the Nervous system in tumour progression and metastasis in gynaecological and peritoneal cancers. (Cespedes Navarro, Maria Virtudes).
- Efecto de los Estrógenos y la Progesterona sobre la Inervación Autónoma y su relevancia clínica en el Cáncer de endometrio (Muñoz Sánchez, Raquel).
- Evaluation and preclinical development of new antitumor compounds, using nanotechnology, aimed at the treatment of metastases in high-grade gynaecological cancers. (Cespedes Navarro, Maria Virtudes).
- Clinical trials exploring new therapeutic strategies and drug combinations for gynaecological cancers, particularly ovarian cancer (Martín Lorente, Cristina).

5.1.2 Oncohematologic Diseases Area

SCIENTIFIC CHALLENGES

- Promote clinical and translational research into gynaecological cancers with a very large database and study relevant clinical issues.
- Develop molecular markers for therapeutic decision-making in endometrial cancer patients.
- Identification and validation of novel therapeutic targets related to neuromodulation in tumour progression of gynaecological cancers.
- Achieve antitumor and antimetastatic therapies targeting tumour microenvironment vulnerabilities in gynaecological and peritoneal cancers.
- Obtain funding from FIS, regional authorities and private companies.
- Enhance cooperation with other clinical and research groups both in Sant Pau and extra-hospital, and attract predoctoral and postdoctoral fellows.

ACTIVE & AWARDED GRANTS

- Caruana Santiago, Pablo. Contractes predoctorals PFIS 2021. FI21/00146. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 119.567,00 €
- Cespedes Navarro, Maria Virtudes. Grup d'Oncologia Ginecologica i peritoneal (GOGYP). 2021 SGR 00976. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2022-2025. 36.000 €.
- Cespedes Navarro, María Virtudes. Validación de herramientas diagnósticas OMICS para la identificación de dianas terapéuticas y el monitoreo de la recurrencia en glioblastoma. AC24/00157. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 199.467,00 €
- Edwards, Maria. Doctoral INPHINIT fellowships 2022. InPHINIT 22. Fundació La Caixa. Duration: 2022-2026. 115.092,00 €

SCIENTIFIC PRODUCTION – Articles & Reviews

- Argay I, Schettini G, Giorgi M, Habib N, Rovira R, Wattiez A, Amro B, Varbiro S, Centini G. Proficiency in Laparoscopic Training: online versus Onsite Suturing Courses. JSLS–Journal of the Society of Laparoendoscopic Surgeons. 2025; 29(4):e202500084. DOI:10.4293/JSLS.2025.00084. PMID:41438213. IF:1,800 (Q2/5D).
- Benítez A, Garcia E, Lhoëst MTL, Martínez A, Borrás C, Tondo M, Céspedes MV, Caruana P, Pepe A, Bochicchio B, Cenarro A, Civeira F, Prades R, Escola JC, Llorente V. Targeting LDL aggregation decreases atherosclerotic lipid burden in a humanised mouse model of familial hypercholesterolemia: Crucial role of ApoB100 conformational stabilisation. ATHEROSCLEROSIS. 2025; 410:118630. DOI:10.1016/j.atherosclerosis.2024.118630. PMID:39547850. IF:5,700 (Q1/1D).
- Centini G, Colombi I, Ianes I, Perelli F, Ginetti A, Cannoni A, Habib N, Negre RR, Martire FG, Raimondo D, Lazzeri L, Zupi E. Fertility Sparing in Endometrial Cancer: Where Are We Now?. Cancers. 2025; 17(1):112. DOI:10.3390/cancers17010112. PMID:39796739. IF:4,400 (Q2/3D).
- Gallego A, Madariaga A, Estévez P, Alberti F, Carbó A, Palacio I, Churrua C, Gálvez F, Ortega ME, Murata P, Manzano A, Masvidal M, Martín C, Hernando B, Lozano I, Cueva JF, García D, Gost E, Mendiola M, Redondo A. An ambispective, real-world multi-centre study of DOstarlimab in patients with Recurrent or Advanced DNA mismatch repair-deficient/microsatellite instability-high endometrial cancer (GEICO 120-R/DORA study). INTERNATIONAL JOURNAL OF GYNECOLOGICAL CANCER. 2025; 35(7):101903. DOI:10.1016/j.ijgc.2025.101903. PMID:40382973. IF:4,700 (Q1/1D).
- Giorgi M, Schettini G, La Banca L, Cannoni A, Ginetti A, Colombi I, Habib N, Rovira R, Martire F, Lazzeri L, Zupi E, Centini G. Prevention and Treatment of Intraoperative Complications During Gynaecological Laparoscopic Surgery: Practical Tips and Tricks-A Narrative Review. ADVANCES IN THERAPY. 2025; 42(5). DOI:10.1007/s12325-025-03165-z. PMID:40106176. IF:4,000 (Q1/3D).

5.1.2 Oncohematologic Diseases Area

Thoracic Surgery Research and Innovation in Lung Cancer

Group leader

Trujillo Reyes, Juan Carlos (FGS)

Researchers

Belda Sanchis, Jose (FGS)

Hernández Ferrandez, Jorge (FGS)

Martínez Tellez, Elisabet (FGS)

Planas Canovas, Georgina (FGS)



DESCRIPTION

The TRAIL research group (Thoracic Surgery Research and Innovation in Lung Cancer) aims to advance research and innovation in thoracic surgery and lung cancer. Integrated within the Sant Pau Biomedical Research Institute, TRAIL was created with a commitment to generating high-quality knowledge and effectively transferring it into clinical practice, with a direct impact on improving patient outcomes and quality of life.

The group is composed of professionals with extensive clinical and research experience in minimally invasive surgery, robotic surgery, and pioneering early diagnosis programs, who join forces to develop multidisciplinary, translational, and innovative research. TRAIL's mission is to establish itself as a reference in thoracic oncology, contributing to scientific progress, the training of new professionals, and the establishment of national and international collaborations.

MAIN LINES OF RESEARCH

- Early diagnosis of lung cancer through screening programs and advanced imaging techniques. In this line, our team leads the CASSANDRA project, the first national-level pilot screening study, coordinated by Dr Juan Carlos Trujillo.
- Optimal surgical selection after induction treatments, to identify patients eligible for curative surgery.
- Improvement of surgical techniques and outcomes:
 - Implementation of robotic surgery and uniportal robotic surgery.
 - Development of prehabilitation programs.
 - New strategies for the identification and localisation of pulmonary nodules (intraoperative endobronchial navigation and 3D simulation).
- Translational research and biomarkers, to integrate molecular and clinical data and advance toward more personalised medicine.

5.1.2 Oncohematologic Diseases Area

SCIENTIFIC CHALLENGES

- Consolidating screening programs at the national level, ensuring their viability and integration within the healthcare system.
- Transferring surgical innovation into clinical practice in a safe and equitable way, overcoming technological, training, and resource barriers.
- Improving risk stratification in lung cancer patients by combining biomarkers, advanced imaging, and clinical criteria.
- Reducing variability in surgical and perioperative outcomes by establishing standardised protocols and continuous improvement models.
- Strengthening multidisciplinary and inter-institutional collaboration to promote more robust research with greater social impact.
- Training new generations of professionals in biomedical research and thoracic surgery, ensuring the continuity of scientific and clinical progress.

SCIENTIFIC PRODUCTION – Articles & Reviews

1. Brandao M, Prisciandaro E, Xenophontos E, Mariolo A, Sadeghi AH, Filippi AR, Levy A, Bandura A, Caramella C, Dickhoff C, de Margerie C, Faivre C, Portik D, Sánchez D, De Ruyscher D, Smit E, Gobbini E, Fadel E, Ruffini E, Olmetto E, Cortiula F, Bahce I, Houda I, Opitz I, Naidoo J, Edwards J, Remon J, Benítez JC, Trujillo JC, Derks J, Amrane K, Hartemink KJ, Stathopoulos K, Hendriks L, Iglesias M, Occhipinti M, Guckenberger M, Levra NG, Girard N, Reguart N, Mercier O, Bironzo P, Hofman P, Petersen RH, De Angelis R, Abgral R, Terrisse S, Popat S, Pierret T, Blum TG, Ricardi U, Dionisi V, Berghmans T, Dingemans A, European R, Treatnebt Canc EORTC Lung Canc GRP. Definition of resectable stage III non-small cell lung cancer (NSCLC) for inclusion in clinical trials: A clinical case review by a pan-European multidisciplinary expert panel led by the EORTC Lung Cancer Group. LUNG CANCER. 2025; 209:108798. DOI:10.1016/j.lungcan.2025.108798. PMID:41108881. IF:4,400 (Q1/2D).
2. Cano JR, Jiménez U, Trujillo JC, Galbis JM, Monopoli D, Pérez D, Fra S, Uribe N, Martínez E, Estors M, Mentado B, Muñoz GM, Medina R, Lorenzo M, Hernández J, Tavárez W, Leung M, Moreno N. Custom-made dynamic 3-dimensional-printed prostheses for chest wall reconstruction: A multicenter study. Jtcvs Techniques. 2025; 34. DOI:10.1016/j.xjtc.2025.09.010. PMID:41368406. IF: 1,900 (Q2/4D).

5.1.2 Oncohematologic Diseases Area

Cancer Epigenetics

Group leader

Esteller Badosa, Manel (ICREA)



DESCRIPTION

The group focuses its research on establishing epigenomic and epitranscriptomic maps for normal and transformed cells, studying interactions between epigenetic modifications and non-coding RNAs, and developing new epigenetic drugs for cancer treatment.

The research plan for the coming years will expand and build upon the group's previous key contributions in Epigenetics and Epitranscriptomics, at both the basic and translational levels. It will address the identity of organs, tissues, and cells, and how these characteristics become deregulated in disease, with a primary focus on cancer.

MAIN LINES OF RESEARCH

- Study the "language" of chemical modifications in DNA and histones (Epigenetics) and in RNA (Epitranscriptomics).
- Resolve multi-omic heterogeneity through a single-cell epigenetic approach.
- Elucidate the interaction between RNA modifications and carcinogenesis.
- Identify therapeutic vulnerabilities in cancer for epigenetic and epitranscriptomic drugs.

ACTIVE & AWARDED GRANTS

- Esteller Badosa, Manel. Medicina de precisión para las neoplasias mieloides relacionadas con la terapia (PRECISION-tMN). AC25/00110. EPPermed JTC 2025. Instituto de Salud Carlos III (ISCIII) European Joint Programme. Duration: 2026-2028. 300.000,00 €
- Esteller Badosa, Manel. Impacte del vapeig (cigarrets electrònics) en l'(epi)genoma. Fundació la Marató de TV3. Duration: 2026-2028. 200.000 €

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area



5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

Juan Fortea

Area Director

This area covers research in neurological, neurodevelopmental and mental disorders. Among these are diseases such as stroke, neuromuscular conditions, neurodegenerative diseases, schizophrenia, depression, and chronic pain. A wide range of neuroscience techniques is employed in this area. Some groups focus on the genetic basis of neurological diseases, the identification of biomarkers, brain imaging, neurosurgical methods, deep-brain stimulation, or omics sciences, while other groups work with models of pain, in the biology of synapses, or neuropharmacology. Large population cohorts of patients with clinical follow-ups are analysed in this area.

RESEARCH GROUPS

Cerebrovascular Diseases

Camps Renóm, Pol

Neuromuscular Diseases

Olivé Plana, Montserrat

Parkinson Disease and Movement Disorders

Kulisevsky Bojarski, Jaime

Molecular Neuropharmacology

Pol Rigau, Olga

Pharmacological Research in Humans

Antonijoan Arbós, Rosa María

Mental Health

Portella Moll, María Jesús

Neurobiology of Dementias

Fortea Ormaechea, Juan

Molecular Physiology of the Synapse

Bayés Puig, Àlex

Stroke Pharmacogenomics and Genetics

Fernández Cadenas, Israel

Genetic Diseases

Gallano Petit, María Pia

Neurosurgery

Muñoz Hernández, Fernando

Molecular Neurodegeneration

Belbin, Olivia Elizabeth

Epilepsy

Sierra Marcos, Alba

Multiple Sclerosis and Central Nervous System Autoimmune Diseases Research

Vidal Jordana, Angela

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

Cerebrovascular Diseases

Group leader

Camps Renóm, Pol (FGS)

Researchers

Buckley, Jane Catherine (University College Dublin)

Ezcurra Díaz, Garbiñe (IR)

Fernández Vidal, Joan Miquel (IR)

Guasch Jiménez, Marina (FGS)

Martí Fabregas, Joan (FGS)

Martínez Domeño, Alejandro (FGS)

Martínez García, Jacqueline (ICFO)

Martínez González, José Pablo (FGS)

Pérez de la Ossa Herrero, Natalia (FGS)

Prats Sánchez, Luis Antonio (FGS)

Ramos Pachón, Anna (FGS)

Research technicians

Aguilera Simón, Ana (IR)

Lambea Gil, Álvaro (IR)

Puig Grifol, Nuria (IR)

Yelamos Morales, África (IR)



DESCRIPTION

The Cerebrovascular Diseases Group focuses on both ischemic and hemorrhagic stroke, with research activities spanning clinical and translational studies.

The team is primarily composed of clinical neurologists specialised in stroke, including investigators with predoctoral and post-doctoral training, and is complemented by laboratory researchers with expertise in biotechnology, as well as personnel dedicated to clinical trial coordination and support. The group is actively involved in the design and conduct of clinical trials in stroke.

The group develops both intramural and extramural research projects, working independently and in collaboration with other groups within the institution and with national and international partners.

MAIN LINES OF RESEARCH

- L1. Atherosclerosis and Plaque Vulnerability. This line focuses on the cerebrovascular complications of carotid atherosclerosis, with special emphasis on the study of plaque vulnerability and its role in stroke risk and prevention. (Camps Renom, Pol)
- L2. Intracerebral Haemorrhage. Research in this area addresses different aspects of intracerebral haemorrhage, including haemorrhage associated with anticoagulant therapy, strategies to prevent hematoma expansion, the development of perihematomal oedema, and the management and prevention of complications, such as those related to atrial fibrillation or lipid-lowering therapy. (Prats Sánchez, Luis Antonio; Ramos Pachón, Anna).
- L3. Reperfusion Therapies in Acute Ischaemic Stroke. This line focuses on the benefits, risks, and optimisation of reperfusion therapies, including intravenous thrombolysis and endovascular treatment. Specific areas of interest include post-procedural management, such as blood pressure control, and factors influencing treatment outcomes. (Pérez De La Ossa Herrero, Natalia; Camps Renom, Pol).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- L4. Prehospital Care in Acute Stroke Patients. This line explores strategies to improve the early identification and management of acute stroke patients in the prehospital setting, aiming to optimise triage, reduce treatment delays, and improve access to reperfusion therapies. (Pérez De La Ossa Herrero, Natalia).

SCIENTIFIC CHALLENGES

L1. Atherosclerosis and Plaque Vulnerability. Future challenges within this line include:

- The identification of novel plasma and imaging biomarkers associated with carotid atherosclerotic plaque vulnerability and the risk of future stroke, with the aim of improving risk stratification and guiding carotid revascularisation strategies.
- The establishment of national and international collaborative networks to accelerate biomarker research in this field.

L2. Intracerebral Haemorrhage. Key goals include:

- The identification of novel plasma and imaging biomarkers that predict hematoma expansion and improve the understanding of secondary injury mechanisms following intracerebral haemorrhage.
- To lead and conduct clinical trials aimed at

preventing hematoma growth and mitigating secondary brain injury.

L3. Reperfusion Therapies in Acute Ischaemic Stroke. Future research will focus on:

- Identifying prognostic markers of response to reperfusion therapies in the acute phase of ischemic stroke.
- To lead and conduct clinical trials testing adjunctive therapies designed to maximise the benefits of mechanical thrombectomy.
- L4. Prehospital Care in Acute Stroke Patients. Development of digital tools to facilitate the prehospital diagnosis of stroke, with the goal of improving patient triage pathways and enabling the early delivery of targeted therapies in the prehospital setting.

ACTIVE & AWARDED GRANTS

- Camps Renom, Pol. Impacto de la Inflamación en la Progresión de la Aterosclerosis Carotídea y el Riesgo de Ictus (estudio INCREASE). PI22/01659. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2025. 141.570,00 €
- Camps Renom, Pol. RICORS-ICTUS. RD21/0006/0006. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2025. 249.005,90 €
- Camps Renom, Pol. RICORS-ICTUS. RD24/0009/0010. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 193.600,00 €
- Camps Renom, Pol. Ensayo clínico sobre la optimización hemodinámica de la perfusión cerebral tras el tratamiento endovascular en pacientes con ictus isquémico (Estudio HOPE). ICI20/00137. Instituto de Salud Carlos III (ISCIII). Duration: 2021-2026. 362.939,50 €
- Camps Renom, Pol. Sevoflurano vs. propofol para la anestesia general en pacientes con ictus isquémico agudo tratados con terapias endovasculares (Ensayo SAVE). ICI25/00082. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2029. 765.704,94 €
- Camps Renom, Pol. PREVICTUS: Farmacogenética para prevenir los efectos adversos del tratamiento del ictus. pmp21/00165. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2025. 1.067.000,00 €
- Camps Renom, Pol. StATins Use in Intracerebral Haemorrhage Patients (SATURN). NIH SATURN 5U01NS102289-03. National Institute of Neurological Disorders and Stroke (NIH). 2022-2026. 1.009.540,00 €

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Fernández Vidal, Joan Miquel. Contratos Río Hortega. CM25/00239. Instituto de Salud Carlos III (ISCIII). 2026-2027. 65.000,00 €
- Lambea Gil, Álvaro. Contratos Río Hortega 2022. CM22/00265. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2025. 65.000,00 €
- Moncunill Copovi, Montserrat. Contratos PFIS 2025. FI25/00126. Instituto de Salud Carlos III (ISCIII). 2026-2029. 119.567,00 €
- Pérez de la Ossa Herrero, Natalia. RACE+ BIO: una eina basada en IA i biomarcadors per al triatge ràpid i precís de pacients amb ictus en l'àmbit prehospitalari. SLT041/25/000046. Departament de Salut. 64.735,00 €
- Prats Sánchez, Luis Antonio. Mejor terapia médica comparada a la mejor terapia médica, junto con tratamiento endovascular, para prevenir el crecimiento del hematoma en pacientes con hemorragia intracerebral espontánea: Estudio END-GROWTH. PI24/01009. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 240.000,00 €
- Prats Sánchez, Luis Antonio. Contratos para la intensificación de la actividad investigadora en el Sistema Nacional de Salud 2025. INT25/00097. Instituto de Salud Carlos III (ISCIII). 2026-2027. 60.000,00 €
- Ramos Pachon, Anna. Edema cerebral en la hemorragia intracerebral: variables asociadas y estudio evolutivo de su implicación clínica y pronóstica. PI22/01156. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2027. 196.020,00 €
- Ramos Pachon, Anna. FVIIa for Acute Hemorrhagic Stroke Administered at Earliest Time (FASTEST) Trial. NIH FASTEST 1U01NS110772-01. National Institute of Neurological Disorders and Stroke (NIH). 2022-2026. 126.576,65 €

DOCTORAL THESES DEFENDED

- Fernández Pérez, Isabel. Papel de la epigenética en las complicaciones vasculares de la hemorragia subaracnoidea. 03/11/2025. Universitat Autònoma de Barcelona. Supervisors: Cuadrado Godia, Elisa; Jiménez Conde, Jordi; Martí Fabregas, Joan. <https://hdl.handle.net/10803/695785>
- SCIENTIFIC PRODUCTION – Articles & Reviews
- Aguilera A, Guasch M, Moniche F, Puig N, Pardo B, Benítez S, Freijo MD, Marín R, Luna A, Gallego C, Fernández I, Ezcurra G, Jiménez J, Lambea A, Gómez B, Martínez A, Arenillas JF, Prats L, Rodríguez J, Ramos A, de Celis E, Martínez JP, Trillo S, Ortega J, Martí J, Camps P. Vascular Endothelial Growth Factor-A and Collateral Circulation in Patients with Acute Ischemic Stroke due to Intracranial Large Vessel Occlusion. *Translational Stroke Research*. 2025; 17(1):3. DOI:10.1007/s12975-025-01399-1. PMID:41326757. IF:4,300 (Q1/2D).
- Amaro S, Cruz I, Estévez R, Millan X, Nombela L, Gómez J, Flores E, López L, Maciñeira J, Prats L, Simal P, Cardona P, Teruel L, Cepas P, Arzamendi D, Freixa X. Left atrial appendage occlusion plus oral anticoagulation in stroke patients despite ongoing anticoagulation: rationale and design of the ADD-LAAO clinical trial. *Rec-Interventional Cardiology*. 2025; 7(3). DOI:10.24875/RECIC. M25000530. PMID:40933018.
- Camps P, Guasch M, Martínez A, Prats L, Ramos A, Alvarez J, Silva Y, Fortea G, Morales L, Rodríguez A, Giralte E, Flores A, Ustrell X, López N, Corona DJ, Freijo MM, Luna A, Tejada H, Marta J, Moniche F, Pardo B, Castellanos M, Albert L, Sanz A, Aguilera A, Marín R, Ezcurra G, Lambea A, Martí J. A Randomised Trial on Hemodynamic Optimisation of Cerebral Perfusion after Successful Endovascular Therapy in Patients with Acute Ischemic Stroke (HOPE). *CEREBROVASCULAR DISEASES*. 2025; 54(4). DOI:10.1159/000540606. PMID:39208776. IF:1,500 (Q3/8D).
- Collet R, Camps P, Núñez A, Quesada H, Rizzo F, Rodríguez N, Amaro S, Llull L, Santana D, Estrada E, Flores A, Terceño M, Bashir S, Hernández M, Remollo S, Barrachina O, Cánovas D, Vivas E, Rodríguez A, Mauri G, Purroy F, Ramos A, Guasch M, Guisado D, Prats L, Martínez A, Lambea A, Ezcurra G, Branera J, Martínez JP, Dinia L, Salvat M, de la Ossa NP, Molina CA, Cardona P, Martí J, Catalan Stroke Code Reperfusion Consortium C. Rescue stenting after failed mechanical thrombectomy: The RES-CAT study. *European Stroke Journal*. 2025; 10(3). DOI:10.1177/23969873241308680. PMID:39745051. IF:4,500 (Q1/2D).
- Cubero A, Rodríguez A, Rosa I, Rudilosso S, Serrano M, Renú A, Cabero A, Blasco J, Amaro S,

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Llull L, Molina CA, Portela PC, Camps P, Millan M, Figueras G, Rodríguez A, Silva Y, Purroy F, Salvat M, Vargas M, Urrea X, Chamorro A, Catalan Stroke Code Registry Cat Consortium SCR. Trends in revascularisation therapies for patients with acute stroke with large infarcts: a population-based study. *Journal of NeuroInterventional Surgery*. 2025; 17(10). DOI:10.1136/jnis-2025-023252. PMID:40316318. IF:4,300 (Q1/1D).
- de Sousa DA, Zietz A, Zedde M, Katsanos AH, Li LX, Marti J, Nolte CH, Podlasek A, Poli S, Purruicker J, Roaldsen MB, Schellinger PD, Strbian D, Tsvigoulis G, Tsokani S, Veroniki AA, Quinn TJ, European Stroke Org Guideline Board Methodology T. European Stroke Organisation (ESO) standard operating procedure for white papers (expert consensus-based clinical guidance). *European Stroke Journal*. 2025; 10(3). DOI:10.1177/23969873251316430. PMID:39904756. IF:4,500 (Q1/2D).
 - Ezcurra G, Cardona P, Rodríguez N, Cubero A, Flores B, Figueras GL, Fernández I, Xuclà T, Purroy F, Flores A, Guasch M, Lambea A, Prats L, Ramos A, Martínez A, Marti J, Fernández JM, Abilleira S, Salvat M, Núñez A, Lara B, Rodríguez D, Hernández D, Vázquez AR, Cabero A, Albarracín AM, Cánovas D, Camps P. Emergent Carotid Artery Stenting in Patients With Acute Ischemic Stroke With Tandem Lesions: One-Year Follow-Up Results From the SECURIS Study. *NEUROLOGY*. 2025; 105(7):e214067. DOI:10.1212/WNL.00000000000214067. PMID:40939130. IF:8,500 (Q1/1D).
 - Font MA, García SM, Mengual JJ, Avellaneda C, Boned S, Aragonès JM, Silva Y, Martínez M, Doncel A, Ustrell X, Camps P, Mauri G, Purroy F, Rodríguez A, Palomeras E, Krupinski J, Figueras G, Catena E, García J, Esteve P, Matos N, Colom C, Aguilo O, Coll A, Díaz G, Tio E, Ortega O, Alfonso S, Jiménez X, Salvat M, Elosua R, de la Ossa NP, Abilleira S, Gómez M, Catalan Stroke Code Reperfusion Consortium Cat Consortium SCR. Impact of arterial occlusion location on early neurological deterioration in patients with minor stroke treated with intravenous thrombolysis. The MINORCAT-END study. *NEUROLOGICAL SCIENCES*. 2025; 47(1):12. DOI:10.1007/s10072-025-08721-7. PMID:41405770. IF:2,400 (Q3/6D).
 - Guasch M, Camps P, Toscano C, Guisado D, Martínez A, Prats L, Ramos A, Fernández I, Martínez JP, Fernández I, Avellaneda C, de Celis E, Rodríguez J, Freijo MD, Luna A, Moniche F, Pardo B, Ortega J, Arenillas JF, Cortijo E, Martí J. Influence of dehydration on collateral circulation and clinical outcome after endovascular therapy in patients with acute ischemic stroke. *NEUROLOGIA*. 2025; 40(9). DOI:10.1016/j.nrl.2023.04.007. PMID:41077187. IF:3,100 (Q2/4D).
 - Guasch M, Dhar R, Kumar A, Cifarelli J, Ezcurra G, Lambea A, Ramos A, Martínez A, Prats L, Guisado D, Fernández I, Aguilera A, Marín R, Martínez J, Ortega J, Fernández I, Avellaneda C, Rodríguez J, de Celis E, Moniche F, Freijo M, Cortijo E, Trillo S, Camps P, Martí J. Early automated cerebral edema assessment following endovascular therapy: impact on stroke outcome. *Journal of NeuroInterventional Surgery*. 2025; 17(4). DOI:10.1136/jnis-2024-021641. PMID:38637151. IF:4,300 (Q1/1D).
 - Guasch M, Díaz GE, Lambea A, Ramos A, Martínez A, Prats L, Fernández JM, Toscano C, Martí J, Martínez JP, Fernández I, Cardona P, Rodríguez N, Vázquez AR, Gomis M, Xuclà T, Rodríguez A, Cánovas D, Seró L, Purroy F, Salvat M, Abilleira S, Camps P, Catalan Stroke Code Reperfusion Consortium CICAT &. Influence of Asymptomatic Hemorrhagic Transformation After Endovascular Treatment on Stroke Outcome. *NEUROLOGY*. 2025; 104(9):e213509. DOI:10.1212/WNL.00000000000213509. PMID:40228188. IF:8,500 (Q1/1D).
 - Lapeña P, Urrea X, Llopis J, Hernández M, Cuervo G, Maisterra O, Escrhuella F, Prats L, Sáez C, Olmos C, Hernández F, Werner M, de la Ossa NP, Quintana E, Moreno A, Chamorro A, Miró JM, Mech Thrombectomy IE I, Cat SCR. Efficacy and safety of mechanical thrombectomy in acute ischaemic stroke secondary to infective endocarditis. *CLINICAL MICROBIOLOGY AND INFECTION*. 2025; 31(8). DOI:10.1016/j.cmi.2025.02.008. PMID:39924109. IF:8,500 (Q1/1D).
 - Lledós M, Prats L, Muiño E, Cullell N, Lluçà L, Cárcel J, Gallego C, Martín JM, Marín R, Aguilera A, Guasch M, Ezcurra G, Camps P, Freijo MD, Martí J, Fernández I. Influence of the Gut Microbiota on Acute Ischemic Stroke Functional Outcomes at Three Months. *EUROPEAN JOURNAL OF NEUROLOGY*. 2025; 32(7):e70265.

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- DOI:10.1111/ene.70265. PMID:40686474. IF:3,900 (Q1/3D).
- Marchina S, Yeatts SD, Foster LD, Janis S, Shoamanesh A, Khatri P, Bernstein K, Perlmutter A, Stever C, Heistand EC, Broderick JP, Greenberg SM, Leira EC, Rosand J, Lioutas VA, Salman RA, Tirschwell D, Marti J, Selim M. Rationale and Design of the Statin Use in Intracerebral Haemorrhage Patients (SATURN) Trial. Cerebrovascular Diseases. 2025; 54(2). DOI:10.1159/000538195. PMID:38493765. IF:1,500 (Q3/8D).
 - McCabe JJ, Cheung Y, Foley M, Brennan SO, Buckley J, Renom PC, Cassidy T, Collins R, Dolan E, Grosse GM, Harbison J, James K, Khadjooi K, Induruwa I, Katan M, Maher S, O'Connor M, O'Donnell M, Purroy F, Synott P, Kelly PJ. Residual Risk of Recurrent Stroke Despite Anticoagulation in Patients With Atrial Fibrillation: A Systematic Review and Meta-Analysis. JAMA Neurology. 2025; 82(7). DOI:10.1001/jamaneurol.2025.1337. PMID:40394992. IF:21,300 (Q1/1D).
 - Mosteiro A, Coronel M, Pedrosa L, Lambea A, Torne R, Camps P, Prats L, Marti J, Amaro S, Ramos A. Minimally invasive evacuation for spontaneous supratentorial haemorrhage: scoping for candidates and hypothetical logistic burdens in a pragmatic scenario. Neurosurgical Review. 2025; 48(1):669. DOI:10.1007/s10143-025-03823-4. PMID:41014383. IF:2,500 (Q1/3D).
 - Núñez D, Fernández A, del Río C, Penalba A, Lluçà L, Muiño E, Ezcurra G, Guasch M, Cullèll N, Serrano G, Arias L, Vives C, Tur S, Urrea X, Castellanos M, Krupinski J, Freijo M, Jiménez J, Fernández I, Segura T, Marti J, Fernández I, Montaner J. Plasma proteomics uncovers divergent molecular signatures in ischemic stroke and intracerebral haemorrhage. Biomarker Research. 2025; 13(1):136. DOI:10.1186/s40364-025-00848-1. PMID:41152969. IF:11,500 (Q1/1D).
 - Puig N, Camps P, García E, Benítez A, Aguilera A, Fernández A, Quesada JLS, Llorente V, Benítez S. sICAM-1 concentrations are associated with inflammation in contralateral carotid plaque in patients with ischemic stroke. Clínica E Investigación En Arteriosclerosis. 2025; 37(2):100729. DOI:10.1016/j.arteri.2024.07.002. PMID:39095307.
 - Puig N, Camps P, Hermansson M, Aguilera A, Marín R, Bautista O, Rotllan N, Blanco N, Domínguez MC, Öörni K, Sánchez JL, Benítez S. Alterations in LDL and HDL after an ischemic stroke associated with carotid atherosclerosis are reversed after 1 year. Journal of Lipid Research. 2025; 66(2):100739. DOI:10.1016/j.jlr.2024.100739. PMID:39746448. IF:4,100 (Q2/4D).
 - Rives J, Gil P, Viladés D, García A, Genua I, Miñambres I, Grau M, Gich I, Puig N, Benítez S, Julve J, Pérez A, Sánchez JL. Low-Density Lipoprotein Subfraction Phenotype Is Associated with Epicardial Adipose Tissue Volume in Type 2 Diabetes. Journal of Clinical Medicine. 2025; 14(3):862. DOI:10.3390/jcm14030862. PMID:39941533. IF:2,900 (Q1/2D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

Neuromuscular Diseases

Group leader

Olive Plana, Montserrat (FGS)

Researchers

Carbayo Viejo, Álvaro (CIBER)
 Castilla Silgado, Juan (CIBER)
 Collet Vidiella, Roger (IR)
 Cortes Vicente, Elena (FGS)
 Díaz Manera, Jorge Alberto (IR)
 Gallardo Vigo, Eduard (IR)
 Guardiola Ripoll, María (CIBER)
 Llanso Caldentey, Laura (FGS)
 Lleixa Rodríguez, María Cinta (IR)
 Mederer Fernández, Tania Isabel (IR)
 Moya Llamas, Borja (IR)
 Pascual Goñi, Elba (FGS)
 Querol Gutiérrez, Luis Antonio (FGS)
 Rojas García, Ricardo (FGS)
 Sabater Arcis, María (IR)
 Tejada Illa, Clara (IR)
 Turon Sans, Joana (FGS)

Research technicians

Blanco Soto, Rosa María (IR)
 Domenech García, Roger (IR)
 Llarch Cegarra, Paula (IR)
 Martínez Bernal, Carmen
 (Ahead Therapeutics)
 Panicot Buj, Lara (IR)
 Pelaez Bonilla, Saudy Patricia (IR)
 Puig Ram, Cristina (IR)
 Riesco Navarro, Gemma (IR)
 Rocaspana Codana, Josép (IR)
 Segovia Simon, Sonia (IR)
 Vesperinas Castro, Ana (IR)
 Vidal Fernández, María Nuria (IR)



DESCRIPTION

The Neuromuscular Diseases Unit is a multidisciplinary unit with extensive experience in the diagnosis, treatment and research of neuromuscular diseases. It is a team in which clinical and research activities are perfectly overlapped, and in which clinical problems are addressed in the laboratory to identify new biomarkers and diagnostic tools, new pathological mechanisms of disease, and new therapeutic targets. The Unit is composed of neurologists, biologists and laboratory technicians who are all experts in basic and translational research and in the organisation and management of sample collections.

.

MAIN LINES OF RESEARCH

- Autoimmune neuromuscular diseases (myasthenia, neuropathies, and myopathies). (Querol Gutiérrez, Luis Antonio; Cortés Vicente, Elena; Gallardo Vigo, Eduard).
- Characterisation of new target antigens in Myasthenia Gravis (MG), and immune neuropathies (CIDP, GBS, MMN). Their use as diagnostic and therapeutic biomarkers
- Nerve damage biomarkers
- Pathogenesis of newly recognised antigens both in MG and in CIDP
- Collaborators of the IGOS database for Guillain-Barré syndrome
- Coordinators of the INCBASE (international database for CIDP)
- GENRARE Spanish registry for neuromuscular diseases
- Muscular dystrophies. (Olive Plana, Montserrat).
- Muscle MRI analysis as a biomarker of different muscular dystrophies
- Natural history of Dysferlinopathies. The international COS-study Jain Foundation
- Development of cell models of NMD diseases to study pathogenic mutations
- Clinical, pathological and molecular characterisation of rare myopathies
- Amyotrophic lateral sclerosis. (Rojas García, Ricardo).
- Gene profile of ALS patients in Spain
- Biomarker profiles in different phenotypes of ALS.

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

SCIENTIFIC CHALLENGES

- Advance in the knowledge of the immunological mechanisms involved in the pathogenesis of autoimmune neuromuscular diseases (MG, CIDP, MMN).
- Evaluate the use of NFL and myelin proteins as biomarkers of nerve damage in inflammatory neuropathies.
- To develop mouse models to demonstrate the pathogenic effect of antibodies to new antigens in MG.
- Advance in the knowledge of the pathogenetic mechanisms of inflammatory myopathies (DM, necrotising myopathies).
- Search for new antigens and develop diagnostic tests with known and new biomarkers in immune-mediated neuropathies, myasthenia gravis and inflammatory myopathies.
- Advance in the knowledge of the pathogenetic mechanisms involved in muscular dystrophies.
- Search for new genes and biomarkers in the different phenotypes of ALS.
- Advance in the knowledge of the pathogenetic mechanisms involved in ALS.
- Use of the GENRARE registry to perform research on different NMD.
- Search for new myopathy causative genes.
- Characterisation of new muscle disorders.

ACTIVE & AWARDED GRANTS

- Cortes Vicente, Elena. Validación de una plataforma tecnológica basada en la reprogramación del sistema inmunológico en humanos; leading asset en miastenia gravis. CPP2023-010523. Ministerio de Ciencia, Innovación y Universidades. Duration: 2024-2027. 906.021,71 €
- Gallardo Vigo, Eduard & Cortés Vicente, Elena. Estudio exhaustivo de la miastenia "seronegativa": de la clínica al descubrimiento de nuevos autoantígenos y su validación in vitro e in vivo. PI22/01786. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2025. 135.520,00€
- Gallardo Vigo, Eduard & Cortés Vicente, Elena. Estudio integral de la miastenia gravis sin anticuerpos contra el receptor de acetilcolina: búsqueda de nuevas dianas inmunológicas, desarrollo de modelos animales y correlaciones clínico-inmunológicas. PI25/01542. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 181.250,00 €
- Gallardo Vigo, Eduard. Valorización de una terapia antígeno-específica para el tratamiento disruptivo de la diabetes tipo 1; esclerosis múltiple, miastenia gravis, enfermedad celíaca y artritis reumatoide. CPP2021-008475. Ministerio de Ciencia e Innovación (MICINN). Duration: 2023-2025. 138.873,88 €
- Gallardo Vigo, Eduard. Characterisation and optimisation of myasthenia gravis care. OptiMyG. Competitiu. EJPR23-104 European Joint Programme of Rare Diseases. AC23_2/00030 EJP-RD ISCIII. 2024-2026. 174.918,00 €
- Gallardo Vigo, Eduard. Malalties Neuromusculars. 2021 SGR 00823. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). 2022-2025.
- Gallardo Vigo, Eduard. Centro de Investigación Biomédica en Red de Enfermedades Neurodegenerativas. CIBERER. CB06/05/0030. Instituto de Salud Carlos III (ISCIII).
- Olive Plana, Montserrat. Abordaje multidisciplinar para el diagnóstico y la caracterización de enfermedades musculares raras. PI21/01621. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2025. 123.420,00 €
- Pascual Goñi, Elba. Biomarkers in the diagnosis and follow-up of CIDP. GBS-CDIP-ELBA. GBS CDIP Foundation International. Duration: 2022-2025. 337.563,00 €
- Pascual Goñi, Elba. IMAGiNe Study. Foundation for Peripheral Neuropathy. 2022-2026. 19.040,91 €
- Pascual Goñi, Elba. Caracterización inmunológica de las neuropatías de fibra fina idiopáticas. PI24/00336. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 77.500,00€

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Querol Gutiérrez, Luis Antonio. Medicina de precisión en neuropatías autoinmunes. PI22/00387. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2025. 135.520,00 €
- Querol Gutiérrez, Luis Antonio. Identificación de autoanticuerpos clínicamente relevantes y estudio del nodo de Ranvier como estructura inmunológicamente activa en las neuropatías autoinmunes. PI25/00536. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 234.375,00 €
- Querol Gutiérrez, Luis Antonio. Red Española de Neuropatías Autoinmunes. PMPER24/00018. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2026. 1.634.710,00 €
- Querol Gutiérrez, Luis Antonio. Contratos para la intensificación de la actividad investigadora en el Sistema Nacional de Salud 2023. INT23/00066. Instituto de Salud Carlos III (ISCIII). 2024-2025. 60.000,00 €
- Querol Gutiérrez, Luis Antonio. Patient Lifestyle and Disease Data Interactium. PaLaDIn 101132943. European Commission. 2025-2027. 287.050,00 €
- Querol Gutiérrez, Luis Antonio. Anti-CASPR1 antibody pathogenicity and immune functions of the node of Ranvier. GBS/CDIP 2025. 2025-2027. 169.260,00 €
- Rojas García, Ricardo. Caracterización del perfil transcriptómico en el espectro completo de esclerosis lateral Amiotrófica-Demencia frontotemporal (ELADFT) para la investigación y validación de biomarcadores en biofluidos. PI23/00845. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 127.500,00 €
- Rojas García, Ricardo. Contratos para la intensificación de la actividad investigadora en el Sistema Nacional de Salud 2025. INT25/00069. Instituto de Salud Carlos III (ISCIII). 2026. 30.000,00 €
- Rojas García, Ricardo. Caracterización del perfil transcriptómico en el espectro completo de la esclerosis lateral Amiotrófica-Demencia frontotemporal (ELA-DFT) para la investigación y validación de biomarcadores en biofluidos. ELA UNZUÉ-LUZÓN 2025. Fundación Luzon. 2026-2028. 158.700,00 €

DOCTORAL THESES DEFENDED

- Caballero Ávila, Marta. Detección de nuevos autoanticuerpos en neuropatías inflamatorias. 10/12/2025. Universitat Autònoma de Barcelona. Supervisors: Querol Gutiérrez, Luis Antonio; Lleixà Rodríguez, María de la Cinta; Alcolea Rodríguez, Daniel Andrés. <https://hdl.handle.net/10803/696414>
- Carbayo Viejo, Álvaro. Estudio del sustrato neuropatológico y de las bases moleculares en el espectro de la esclerosis lateral amiotrófica-demencia frontotemporal. 14/02/2025. Universitat Autònoma de Barcelona. Supervisors: Rojas García, Ricardo; Lleo Bisa, Alberto. <https://hdl.handle.net/10803/693748>
- Tandaipan Jaime, José Luis. Características de la afección muscular inflamatoria asociada a la esclerosis sistémica. 04/03/2025. Universitat Autònoma de Barcelona. Supervisors: Castellvi Barranco, Iván; Gallardo Vigo, Eduardo; Casademont Pou, Jordi. <https://hdl.handle.net/10803/693975>

SCIENTIFIC PRODUCTION – Articles & Reviews

- Allen JA, Lehmann HC, Nobile E, Querol L, Rajabally YA. Insight in the Unmet Needs Encountered During the Management of Chronic Inflammatory Demyelinating Polyradiculoneuropathy. JOURNAL OF THE PERIPHERAL NERVOUS SYSTEM. 2025; 30(4):e70067. DOI:10.1111/jns.70067. PMID:41054275. IF:3,200 (Q2/4D).
- Alonso J, Barrachina O, Gonzaález L, Viguera ML, Lujaán M, Guitart M, Martínez JM, Carbayo A, Gallano P, Díaz J, Olivé M, Rojas R. Novel DES mutation presenting with isolated restrictive respiratory failure. Expanding the clinical spectrum. NEUROLOGIA. 2025; 40(5). DOI:10.1016/j.nrl.2023.03.002. PMID:40523712. IF:3,100 (Q2/4D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Alvarez E, Carbayo A, Valle N, Muñoz L, Aumatell J, Torres S, Rubio S, García J, Selma J, Alcolea D, Turon J, Lleo A, Illán I, Fortea J, Rojas R, Dols O. Single-cell RNA sequencing highlights the role of distinct natural killer subsets in sporadic amyotrophic lateral sclerosis. *Journal of Neuroinflammation*. 2025; 22(1):15. DOI:10.1186/s12974-025-03347-0. PMID:39849490. IF:10,100 (Q1/1D).
- Barnett C, Vicente EC, Pascuzzi RM, Utsugisawa K, Bloemers J, Grimson F, Tarancon T, Brill V, MycarinG I. Measuring the effect of rozanolixizumab using the Myasthenia Gravis Impairment Index: analyses from the randomised phase 3 MycarinG study. *JOURNAL OF NEUROLOGY*. 2025; 272(12):752. DOI:10.1007/s00415-025-13480-8. PMID:41205003. IF:4,600 (Q1/2D).
- Caballero M, Martín L, Collet R, Querol L, Pascual E. A pathophysiological and mechanistic review of chronic inflammatory demyelinating polyradiculoneuropathy therapy. *Frontiers in Immunology*. 2025; 16:1575464. DOI:10.3389/fimmu.2025.1575464. PMID:40297573. IF:5,900 (Q1/2D).
- Caballero M, Martín L, Pascual E, Michael MR, Koel M, Hoeftberger R, Wanschitz J, Alonso A, Armangue T, Baars AE, Carbayo A, Cstek B, Collet R, De Winter J, del Real MA, Delmont E, Diamanti L, Doneddu PE, Hiew FL, Gallardo E, González A, Grininger S, Horga A, Iglseder S, Jacobs BC, Jauregui A, Killestein J, Pozza EL, Martínez L, Nobile E, Ortiz N, Pérez H, Poppert KN, Ripellino P, Roche JC, de Rivera FJR, Rostasy K, Sparasci D, Tejada C, Teunissen C, Vegezzi E, Xucla T, Zach F, Wieske L, Eftimov F, Lleixa C, Querol L. Long-Term Follow Up in Anti-Contactin-1 Autoimmune Nodopathy. *ANNALS OF NEUROLOGY*. 2025; 97(3). DOI:10.1002/ana.27142. PMID:39601182. IF:7,700 (Q1/1D).
- Caballero M, Pascual E, Lleixà C, Martín L, Collet R, Querol L. The changing landscape of primary autoimmune neuropathies. *Nature Reviews Neurology*. 2025; 21(10). DOI:10.1038/s41582-025-01133-3. PMID:40913126. IF:33,100 (Q1/1D).
- Collet R, Camps P, Núñez A, Quesada H, Rizzo F, Rodríguez N, Amaro S, Llull L, Santana D, Estrada E, Flores A, Terceño M, Bashir S, Hernández M, Remollo S, Barrachina O, Cánovas D, Vivas E, Rodríguez A, Mauri G, Purroy F, Ramos A, Guasch M, Guisado D, Prats L, Martínez A, Lambea A, Ezcurra G, Branera J, Martínez JP, Dinia L, Salvat M, de la Ossa NP, Molina CA, Cardona P, Martí J, Catalan Stroke Code Reperfusion Consortium C. Rescue stenting after failed mechanical thrombectomy: The RES-CAT study. *European Stroke Journal*. 2025; 10(3). DOI:10.1177/23969873241308680. PMID:39745051. IF:4,500 (Q1/2D).
- Collet R, De Lorenzo A, Querol L. Autoimmune nodopathies: emerging insights and clinical implications. *CURRENT OPINION IN NEUROLOGY*. 2025; 38(5). DOI:10.1097/WCO.0000000000001399. PMID:40916889. IF:4,400 (Q1/2D).
- Cortes E, Guerrero A, Caballero F, Campos FJ, Gómez J, Monge D, Alvarez R. Practitioner's perception of myasthenia gravis management recommendations in clinical practice: a cross-sectional survey study. *Therapeutic Advances in Chronic Disease*. 2025; 16:20406223251368063. DOI:10.1177/20406223251368063. PMID:40949050. IF:2,800 (Q2/5D).
- Cortese A, Dohrn MF, Curro R, Negri S, Lassuthova P, Pisciotta C, Tozza S, Al A, Feng CY, Tomaselli PJ, Fernández G, Haddad S, Laurà M, Rossor AM, Vegezzi E, Facchini S, Sleigh JN, Rebelo A, Beijer D, Raposo J, Saporta M, Lauerova B, Pernice HF, Achenbach P, Schöne U, Alon T, Deschauer M, Cordts I, Obermaier CD, Winter N, Creigh PD, Sowden JE, Rehbein T, Magri S, Bertini A, Saveri P, Ripellino P, Huang JY, Nadaj A, Ross A, Holt JKL, Brennan KM, Sukenik R, Bizaoui V, Parman Y, Battaloglu E, Cakar A, Alrohaif H, Hammans S, Kumar KR, Kennerson ML, Kayserili H, Amado DA, Hahn K, Valentino P, Cavalcanti F, Gaetano C, Taroni F, Braathen GJ, Houlden H, Stojkovic T, Peric S, Bolino A, Previtali SC, Lee YC, Basak AN, Hamed SA, Rojas R, Claeys KG, Marques W, Sevilla T, Schlotter B, Manganelli F, Zhang RX, Herrmann DN, Scherer SS, Seeman P, Pareyson D, Reilly MM, Shy ME, Züchner S, Inherited C. Genotype and phenotype spectrum of Charcot-Marie-Tooth disease due to mutations in SORD. *BRAIN*. 2025; 148(10). DOI:10.1093/brain/awaf021. PMID:39938083. IF:11,700 (Q1/1D).
- de Frutos F, Herrador L, Peiró B, Eiros R, Freire JL, Zorio E, Carbayo A, Llongueras P, García A, Ripoll T, Macias R, Vilches S, Ruiz S, Arana X, Ordás JG, Piqueras J, Ruiz M, Casasnovas C, Tirón C, Rojas

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- R, Sevilla T, Rodríguez JF, González E, Villacorta E, García P, González J. Hereditary transthyretin amyloidosis caused by the Val142Ile variant in Spain. *REVISTA ESPAÑOLA DE CARDIOLOGÍA*. 2025; 78(9). DOI:10.1016/j.rec.2024.12.012. PMID:39827963. IF:4,900 (Q1/2D).
- Dewilde S, Tollenaar NH, Boulanger P, Archer A, Pardo R, Cortés E, Mantegazza R, Vanoli F, Lehnerer S, Pawlitzki M, Heinrich M, De Ruyck F, Phillips G, Paci S. Caregiving burden among caregivers of people with myasthenia gravis. *Orphanet Journal of Rare Diseases*. 2025; 20(1):311. DOI:10.1186/s13023-025-03842-w. PMID:40537818. IF:3,500 (Q2/4D).
 - Dols O, Carbayo A, Jericó I, Blasco O, Alvarez E, Pérez M, Bernal S, Rodríguez B, Cusco I, Turon J, Cabezas M, Caballero M, Vesperinas A, Llansó L, Pagola I, Torné L, Valle N, Muñoz L, Rubio S, Illán I, Cortés E, Gelpi E, Rojas R. Identification of a pathogenic mutation in ARPP21 in patients with amyotrophic lateral sclerosis. *JOURNAL OF NEUROLOGY NEUROSURGERY AND PSYCHIATRY*. 2025; 96(2). DOI:10.1136/jnnp-2024-333834. PMID:38960585. IF:7,500 (Q1/1D).
 - Espino M, Huang SSY, Vilches C, Prat E, El Nahas R, Missous G, Bodoy S, Sathappan A, Al MA, Mayayo C, Olivé M, Busquets S, Sebastián D, Zorzano A, Palacin M, van N, Nunes V. Ablation of LAT2 Transporter Causes Intramuscular Glutamine Accumulation and Inhibition of Fasting-Induced Proteolysis. *Journal of Cachexia Sarcopenia and Muscle*. 2025; 16(3):e13847. DOI:10.1002/jcsm.13847. PMID:40546137. IF:9,100 (Q1/1D).
 - Fernández G, Gitiaux C, Thiele S, Jungbluth H, Potulska A, Marini C, Davion JB, Morís G, Gallardo E, Olivé M, de la Hoz CPD, Audic F, Isapof A, Walter MC, Angelini C, Bertini E, Schara U, Claey s KG, Dohrn MF, Dembele M, Fer F, Brochier G, Evangelista T, Kostera A, Attarian S, Straub V, Domínguez C, Vissing J, Richard P, Metay C, Khraiche D, Wahbi K, Stojkovic T. Disease spectrum and long-term prognosis of patients with BAG3-associated neuromuscular diseases in Europe. *BRAIN*. 2025; DOI:10.1093/brain/awaf223. PMID:40493734. IF:11,700 (Q1/1D).
 - Gómez D, Costa L, Díaz J, Ounap K, Alvarez M, Urcuyo G, Savarese M, Munell F, Udd B. Different Lower Limb Muscle MRI Patterns in Autosomal Dominant Titinopathies. *EUROPEAN JOURNAL OF NEUROLOGY*. 2025; 32(10):e70348. DOI:10.1111/ene.70348. PMID:41025552. IF:3,900 (Q1/3D).
 - Gutierrez G, Gómez R, Sotoca J, Ares A, Villaverde R, Reyes V, Armangue T, Salas E, Diaz P, Rebollo P, Sarmiento M, Escobar I, Maurino J, Querol L. Assessing therapeutic decisions in generalised myasthenia gravis: Study protocol. *PLoS One*. 2025; 20(4):e0322168. DOI:10.1371/journal.pone.0322168. PMID:40261907. IF:2,600 (Q2/4D).
 - Habib AA, Claey s KG, Bril V, Hussain Y, Gwathmey K, Sahagian G, Cortés E, Brauer E, Gelinas D, Sumbul A, Jimenez RH, Hristova D, Masschaele D, Mantegazza R, Meisel A, Attarian S, ADAPT Study Group NXT. ADAPT NXT: Fixed Cycles or Every-Other-Week IV Efgartigimod in Generalised Myasthenia Gravis. *Annals of Clinical and Translational Neurology*. 2025; 12(6). DOI:10.1002/acn3.70051. PMID:40223516. IF:3,900 (Q1/3D).
 - Hinson SR, Gupta P, Paramasivan NK, Dyck PJB, Lennon VA, Lachance DH, Knight AM, Rezk M, Karsten C, LaFrance RG, Staff NP, Hrstka SC, Wu JC, Klein CJ, Zekeridou A, McKeon A, Pittock SJ, Lleixà C, Querol L, Dasari S, Mills JR, Dubey D. Neural synaptic vesicle autoimmunity following aerosolized porcine neural tissue exposure: insights into autoimmune inflammatory polyradiculoneuropathy. *EBioMedicine*. 2025; 122:106053. DOI:10.1016/j.ebiom.2025.106053. PMID:41337934. IF:10,800 (Q1/1D).
 - Iammarino MA, Alonso J, Stojkovic T, Pegoraro E, Lowes L, Diaz J, Workshop 282NDGRP. 282nd ENMC international workshop-standards of diagnosis and care for the sarcoglycanopathies. 8-10 November 2024, Amsterdam, Netherlands. *NEUROMUSCULAR DISORDERS*. 2025; 54:106212. DOI:10.1016/j.nmd.2025.106212. PMID:40997622. IF:2,800 (Q2/5D).
 - Iruzubieta P, Verdú J, Töpf A, Luce L, Claey s KG, De Ridder W, González L, de la Hoz CPD, Poza JJ, Zulaica M, de Jonghe P, Duff J, Mroczek M, Martín P, Hernández A, Domínguez C, Baets J, Gallano P, Díaz J, Straub V, de Munain AL, Fernández R. Clinical and imaging spectrum of non-congenital dominant ACTN2 myopathy. *JOURNAL OF NEUROLOGY*. 2025; 272(2):150. DOI:10.1007/s00415-025-12893-9. PMID:39812845. IF:4,600 (Q1/2D).
 - Kishnani PS, Boentert M, Wenninger S, Berger KI, Msihid J, O'Callaghan L, Essadi R, Gallego V, Rawat NS, Huynh O, Diaz J. Efficacy of Switching Therapy From Alglucosidase Alfa to Avalglucosidase Alfa on Respiratory Function in

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Participants With Late-Onset Pompe Disease: A Post Hoc Analysis From the COMET Trial. *Jimd Reports*. 2025; 66(5):e70033. DOI:10.1002/jimd2.70033. PMID:40799512.
- Kushlaf H, Díaz J, Bratkovic D, Byrne BJ, Claeys KG, Clemens PR, Dimachkie MM, Kishnani PS, Laforêt P, Roberts M, Schoser B, Toscano A, Castelli J, Holdbrook F, Das SS, Goldman M, Mozaffar T, PROPEL GRP. Switching Enzyme Replacement Therapy for Late-Onset Pompe Disease From Alglucosidase Alfa to Cipaglucosidase Alfa Plus Miglustat: Post Hoc Effect Size Analysis of PROPEL. *MUSCLE & NERVE*. 2025; 72(2). DOI:10.1002/mus.28420. PMID:40342075. IF:3,100 (Q2/4D).
 - Llansó L, Ravenscroft G, Aceituno C, Gutiérrez A, Parmar J, Gallano P, Caballero M, Carbayo A, Vesperinas A, Collet R, Blanco R, Laing N, Hove L, Gallardo E, Olivé M. A Homozygous ATP2A2 Variant Alters Sarcoendoplasmic Reticulum Ca²⁺-ATPase 2 Function in Skeletal Muscle and Causes a Novel Vacuolar Myopathy. *NEUROPATHOLOGY AND APPLIED NEUROBIOLOGY*. 2025; 51(1):e70000. DOI:10.1111/nan.70000. PMID:39817497. IF:3,400 (Q1/3D).
 - Llansó L, Stevanovski I, Morís G, Collet R, Segarra A, González L, Rodríguez B, Gallano P, Álvarez R, Vesperinas A, Blanco R, San B, Navarro C, Illa I, Ravenscroft G, Deveson IW, Gallardo E, Olivé M. Repeat Expansions in PLIN4 Cause Autosomal Dominant Vacuolar Myopathy With Sarcolemmal Features. *Annals of Clinical and Translational Neurology*. 2025; 12(10). DOI:10.1002/acn3.70146. PMID:40693562. IF:3,900 (Q1/3D).
 - Lleixà C, Titulaer M, Rohrbacher S, Mgbachi V, Halstead S, Fehmi J, Pascual E, Zhu L, Appeltshauser L, Franken S, Paunovic M, Waters P, Willison H, Sommer C, Querol L, Huizinga R, Doppler K, Rinaldi S. Inter-Laboratory Validation of Nodal/Paranodal Antibody Testing. *JOURNAL OF THE PERIPHERAL NERVOUS SYSTEM*. 2025; 30(1):e70000. DOI:10.1111/jns.70000. PMID:39887819. IF:3,200 (Q2/4D).
 - Matthews I, Mehra P, Suárez X, Piñol P, Cox D, Justian V, Carrasco A, Laidler Z, Bowey A, Rushton P, López S, Díaz J, Fernández E. Strategy for drug repurposing in fibroadipogenic replacement during muscle wasting: application to Duchenne muscular dystrophy. *Frontiers in Cell and Developmental Biology*. 2025; 13:1505697. DOI:10.3389/fcell.2025.1505697. PMID:40206397. IF:4,300 (Q1/1D).
 - Neal MA, Bolano CF, Richardson M, Michell J, Muni R, James MK, Hollingsworth KG, Hilsden H, Wilson I, Blamire AM, Straub V, Thelwall PE, Diaz J. Rapid Quantitative Assessment of Muscle Sodium Dynamics After Exercise Using ²³Na-MRI in Dysferlinopathy and Healthy Controls. *Journal of Cachexia Sarcopenia and Muscle*. 2025; 16(1):e13709. DOI:10.1002/jcsm.13709. PMID:39900102. IF:9,100 (Q1/1D).
 - Povedano M, Rojas R, Querol L, Rodríguez de Rivera FJ, Colomer C, Noé E, Navarro MD, Juárez A, Ferri J, Guijarro TC. Guía de recomendaciones para el diagnóstico y el tratamiento neurorrehabilitador de los estados secuelas pospoliomielíticos. *Revista Española de Salud Pública*. 2025; 99PMID:40530649. IF:0,800 (Q4/9D).
 - Puig C, Segovia S, García R, Garzón NCÑ, Aragon K, Romero MG, Expósito JM, Carrera L, López M, Paradas C, Mera LG, Molinero MA, Andrés DG, Toro E, Ramos J, Grimalt MA, de Laguna LTB, Barrios DG, Tizzano EF, Cattinari MG, Medina J, Medina RC, Munell F, Sotoca J, Martínez E, Escribano AM, Panadés MP, Fernández MA, Pitarch I, Vázquez JF, Benito DND, Nascimento A. Real-world data on spinal muscular atrophy in Spain: Insights from over 500 individuals in the CuidAME project. *Journal Of Neuromuscular Diseases*. 2025; 12(6). DOI:10.1177/22143602251361190. PMID:40726133. IF:3,400 (Q2/3D).
 - Querol L, Dalakas MC. The Discovery of Autoimmune Nodopathies and the Impact of IgG4 Antibodies in Autoimmune Neurology. *Neurology-Neuroimmunology & Neuroinflammation*. 2025; 12(1):e200365. DOI:10.1212/NXI.0000000000200365. PMID:39671536. IF:7,500 (Q1/1D).
 - Querol L, Gómez R, Gutierrez G, Ares A, Villaverde R, Reyes V, Armangue T, Salas E, Diaz P, Rebollo P, Sarmiento M, Canal N, Maurino J, Cortes E. Treatment Preferences of Neurologists in Generalised Myasthenia Gravis: A Conjoint Analysis Study. *Neurology and Therapy*. 2025; 14(6). DOI:10.1007/s40120-025-00821-y. PMID:40971137. IF:4,800 (Q1/2D).
 - Querol L, Rinaldi S, Borsi A, Boggia GM, de Courcy J, Taylor Y, Wright J, Karmous W, Noel W, Gary C, zu GM. Real-World Multinational Survey of Chronic Inflammatory Demyelinating Polyneuropathy: Disease Characteristics

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- and Therapeutic Landscape. JOURNAL OF THE PERIPHERAL NERVOUS SYSTEM. 2025; 30(3):e70047. DOI:10.1111/jns.70047. PMID:40826893. IF:3,200 (Q2/4D).
- Reyes D, Carbayo A, Vesperinas A, Rojas R, Querol L, Turon J, Pla F, Olivé M, Gallardo E, Pujades M, Cortés E. Persistent symptoms, exacerbations and drug side effects despite treatment in myasthenia gravis. EUROPEAN JOURNAL OF NEUROLOGY. 2025; 32(1). DOI:10.1111/ene.16463. PMID:39624955. IF:3,900 (Q1/3D).
 - Rubio S, Bernal S, Almenta D, Pérez J, Camacho V, Sala I, Sánchez MB, Castro JG, Selma J, Santos MA, Carbayo A, Turon J, Rojas R, Alcolea D, Fortea J, Lleó A, Dols O, Illán I. A Novel CHMP2B Splicing Variant in Atypical Presentation of Familial Frontotemporal Lobar Degeneration. Annals of Clinical and Translational Neurology. 2025; 12(9). DOI:10.1002/acn3.70023. PMID:40244880. IF:3,900 (Q1/3D).
 - Sacconi S, Vanoli F, Stascheit F, Cortés E, Mantegazza R, Meisel A, ENMC Workshop Participants 278TH. 278th ENMC International Workshop: European standards for harmonisation of myasthenia gravis registries and emerging digital solutions. 20th-21st September 2024, Hoofddorp, The Netherlands. NEUROMUSCULAR DISORDERS. 2025; 51:105368. DOI:10.1016/j.nmd.2025.105368. PMID:40388880. IF:2,800 (Q2/5D).
 - Sánchez E, Moya B, Escabias JA, Torres S, Colom M, Pegueroles J, de Quintana C, Bayes A, Molina L, Aldecoa I, Belbin O, Fortea J, Spires T, Pujals S, Sirisi S, Lleó A. Enhancing Lateral Resolution Using Two-Colour Direct Stochastic Optical Reconstruction Microscopy to Unravel Synaptic Tau Pathology in Alzheimer's Disease. NEUROPATHOLOGY AND APPLIED NEUROBIOLOGY. 2025; 51(2):e70010. DOI:10.1111/nan.70010. PMID:40025904. IF:3,400 (Q1/3D).
 - Schiava M, Parkhurst Y, Henderson M, Polvikoski T, Valtcheva MV, Nishino I, Inoue M, Nishimori Y, Saito Y, Stojkovic T, Villar RN, Romero NB, Evangelista T, Malfatti E, Souvannanorath S, Pegoraro E, Riguzzi P, Monforte M, Bortolani S, Torchia E, Sabatelli M, Tasca G, Straub V, Marini C, Guglieri M, Cetin H, Gelpi E, Klotz S, De Bleecker JL, Alonso A, Baets J, De Ridder W, De Jonghe P, Claeys KG, Thal DR, Bevilacqua JA, Luo SS, Zhu WH, Lin J, Papadimas G, Papadopoulos C, Zamba E, Xirou S, Pal E, Rodolico C, Kostera A, Kierdaszuk B, Kaminska A, Muelas N, Vilchez JJ, Domínguez C, Hernández A, Alonso J, Nedkova V, Aledo C, Oldfors A, Badrising UA, Kushlaf H, Lloyd TE, Ikenaga C, Alfano LN, Quinn CC, Walk D, Vorgerd M, Wehl C, Olivé M, Diaz J, Int VCPGRP. Muscle Biopsy Findings in Valosin-Containing Protein Multisystem Proteinopathy. Neurology-Genetics. 2025; 11(4):e200265. DOI:10.1212/NXG.0000000000200265. PMID:40678441. IF:3,700 (Q1/3D).
 - Schoser B, Attarian S, Graham R, Holdbrook F, Goldman M, Díaz J, ATB200 GRP. Challenges in multinational rare disease clinical studies during COVID-19: regulatory assessment of cipaglucosidase alfa plus miglustat in adults with late-onset Pompe disease. JOURNAL OF NEUROLOGY. 2025; 272(1):103. DOI:10.1007/s00415-024-12843-x. PMID:39775064. IF:4,600 (Q1/2D).
 - Segarra A, Domínguez C, Natera D, Kapetanovic S, Hernández A, Estévez B, Llansó L, Ortez C, Jou C, Martí I, López A, Rodríguez MJ, González L, Nedkova V, Fernández R, Rodríguez B, Jimenez C, Juntas R, López A, Surrallés J, Nascimento A, Gallardo E, Olivé M, Gallano P, González L. Translating Muscle RNAseq Into the Clinic for the Diagnosis of Muscle Diseases. Annals of Clinical and Translational Neurology. 2025; 12(7). DOI:10.1002/acn3.70078. PMID:40413734. IF:3,900 (Q1/3D).
 - Slioui A, Tammam G, Vanoli F, Della A, Vohanka S, Gilhus NE, Moroni I, Leite MI, Piehl F, Antozzi C, Pini J, Stascheit F, Attarian S, Santos E, Verschuuren J, Canonge L, García J, Perriard C, Cortés E, Mantegazza R, Meisel A, Sacconi S. Toward European harmonisation of national myasthenia gravis registries: modified Delphi procedure-based expert consensus on collectable data. Orphanet Journal of Rare Diseases. 2025; 20(1):115. DOI:10.1186/s13023-024-03520-3. PMID:40069719. IF:3,500 (Q2/4D).
 - Tejada C, Pegueroles J, Claramunt M, Pi A, Heras A, Gascón J, Idelsohn S, Rico M, Vidal N, Martín L, Caballero M, Lleixà C, Collet R, Llansó L, Carbayo A, Vesperinas A, Querol L, Pascual E. Digital biomechanical assessment of gait in patients with peripheral neuropathies. Journal of NeuroEngineering and Rehabilitation. 2025; 22(1):159. DOI:10.1186/s12984-025-01694-w. PMID:40653470. IF:5,200 (Q1/1D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Thomma RCM, Halstead SK, de Koning LC, Wiegers E, Gourlay DS, Tio AP, van W, Andersen H, Antonini G, Arends S, Attarian S, Barroso FA, Bateman KJ, Benedetti L, Van den Bergh P, Bürmann J, Busby M, Casasnovas C, Dardiotis E, Davidson A, Feasby TE, Fehmi J, Galassi G, García T, Granit V, Gutiérrez G, Hadden RDM, Harbo T, Hartung HP, Hasan I, Holt JKL, Islam Z, Karafiath S, Katzberg HD, Kolb N, Kusunoki S, Kuwabara S, Kuwahara M, Lehmann HC, Leonhard SE, Martín L, Monges S, Nobile E, Pardo J, Pereon Y, Querol L, Reisin RC, Rinaldi S, Ripellino P, Roberts RC, Scheidegger O, Shahrizaila N, Sheikh KA, Silvestri NJ, Sindrup SH, Stein B, Tan CY, Tankisi H, Visser LH, Waheed W, Huizinga R, Jacobs BC, Willison HJ, IGOS C. Large-scale profiling of antibody reactivity to glycolipids in patients with Guillain-Barré syndrome. *BRAIN*. 2025; 148(11). DOI:10.1093/brain/awaf102. PMID:40096525. IF:11,700 (Q1/1D).
- Valls A, Ruiz C, Immanuel J, Alonso S, Gallardo E, Fernández R, Bonilla M, Lersundi A, Hernández A, Domínguez C, Vilchez JJ, Iruzubieta P, de Munain AL, Sáenz A. The Role of Integrin β 1D Mislocalization in the Pathophysiology of Calpain 3-Related Limb-Girdle Muscular Dystrophy. *Cells*. 2025; 14(6):446. DOI:10.3390/cells14060446. PMID:40136695. IF:5,200 (Q2/3D).
- Verdú J, Bolano C, González A, Fitzsimmons S, Warman J, Kocak GS, Mucida D, Smith IC, Vissing J, Poulsen NS, Luo SS, Domínguez C, Bermejo L, Gómez D, Sotoca J, Pichiecchio A, Nicolosi S, Monforte M, Brogna C, Mercuri E, Bevilacqua JA, Díaz J, Pizarro B, Krkoska P, Alonso J, Olivé M, Niks EH, Kan HE, Lilleker J, Roberts M, Buchignani B, Shin J, Esselin F, Le E, Childs AM, Malfatti E, Sarkozy A, Perry L, Sudhakar S, Zanoteli E, Di FT, Matthews E, Attarian S, Bendahan D, Garibaldi M, Fionda L, Alonso A, Carlier R, Okhovat AA, Nafissi S, Nalini A, Vengalil S, Hollingsworth K, Marini C, Straub V, Tasca G, Bacardit J, Díaz J, Myo C. Myo-Guide: A Machine Learning-Based Web Application for Neuromuscular Disease Diagnosis With MRI. *Journal of Cachexia Sarcopenia and Muscle*. 2025; 16(3):e13815. DOI:10.1002/jcsm.13815. PMID:40275674. IF:9,100 (Q1/1D).
- Villalobos E, Mehra P, Diaz J. From fibro/adipogenic progenitors to adipocytes: Understanding adipogenesis in muscle degeneration for disease modulation. *JOURNAL OF PHYSIOLOGY-LONDON*. 2025; 603(19). DOI:10.1113/JP288924. PMID:40846464. IF:4,400 (Q1/1D).

SCIENTIFIC PRODUCTION – Clinical Practice Guidelines

- Domínguez-González C, Barba Romero MÁ, Caballero Eraso C, de Las Heras J, Farrero Muñoz E, García-Campos Ó, González M, Grau JM, Hernández-Voth A, Juntas Morales R, León Hernández JC, Ley Martos M, López-Padilla D, Muelas N, Nascimento A, Olivé M, Paradas C, Pardo Fernández J, Pascual SI, Pitarch I, Sancho J, Díaz-Manera J. Recommendations for the diagnosis, treatment, and follow-up of late-onset Pompe disease. *Neurologia (Engl Ed)*. 2025 Dec 24;501933. doi: 10.1016/j.nrleng.2025.501933. Epub ahead of print. PMID: 41453611.
- Povedano Pandés M, Rojas García R, Querol Gutiérrez L, Rodríguez de Rivera FJ, Colomer Font C, Noé Sebastián E, Navarro Pérez MD, Juárez Belaunde A, Ferri Campos J, Guijarro Castro TC. Guía de recomendaciones para el diagnóstico y el tratamiento neurorrehabilitador de los estados secuelas pospoliomielíticos [Guide of recommendations for the diagnosis and neurorrehabilitative treatment of post-polio myelitic sequelae]. *Rev Esp Salud Pública*. 2025 Jun 18;99:e202506006. Spanish. PMID: 40530649; PMCID: PMC12175752.
- Sivera Mascaró R, García Sobrino T, Horga Hernández A, Pelayo Negro AL, Alonso Jiménez A, Antelo Pose A, Calabria Gallego MD, Casasnovas C, Cemillán Fernández CA, Esteban Pérez J, Fenollar Cortés M, Frassetto Carrera M, Gallano Petit MP, Giménez Muñoz A, Gutiérrez Gutiérrez G, Gutiérrez Martínez A, Juntas Morales R, Ciano-Petersen NL, Martínez Ulloa PL, Mederer Hengstl S, Millet Sancho E, Navacerrada Barrero FJ, Navarrete Faubel FE, Pardo Fernández J, Pascual Pascual SI, Pérez Lucas J, Pino Mínguez J, Rabasa Pérez M, Sánchez González M, Sotoca J, Rodríguez Santiago B, Rojas García R, Turon-Sans J, Vicent Carsí V, Sevilla Mantecón T. Clinical practice guidelines for the diagnosis and management of Charcot-Marie-Tooth disease. *Neurologia (Engl Ed)*. 2025 Apr;40(3):290-305. doi: 10.1016/j.nrleng.2024.02.008. Epub 2024 Mar 1. PMID: 38431252.

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

Parkinson Disease and Movement Disorders

Group leader

Kulisevsky Bojarski, Jaime (FGS)

Researchers

Aracil Bolaños, Ignacio (FGS)

Borrell Pichot, María (FGS)

Campolongo Perillo, Antonia (FGS)

García Sánchez, Carmen (FGS)

Gironell Carrero, Alexandre (FGS)

Horta Barba, Andrea (IR)

Martínez Horta, Saúl Indra (FGS)

Olmedo Saura, Gonzalo (IR)

Pagonabarraga Mora, Javier (FGS)

Pascual Sedano, Berta M (FGS)

Pérez Pérez, Jesús (FGS)

Puig Davi, Arnau (IR)

Ruiz Barrio, Iñigo (IR)

Salvat Rovira, Nil (UAB)

Sampedro Santalo, Frederic (FGS)

Vázquez Oliver, Anna (CIBER)

Research technicians

Berzosa González, Irene (IR)

Bojtos, Lidia (IR)

Bonavita, Sofia (IR)

Burgos Renedo, María (IR)

Franch Martí, Carla (IR)

González Castillo, Diego (IR)

Ji, Yi (IR)

Pérez Carasol, Laura (IR)

Pons Pons, Gracia (IR)

Rivas Asensio, Elisa María (IR)

Rodríguez-Antigüedad Muñoz, Jon (IR)

Rubio Romera, Margarita (IR)

Socarrás Arredondo, María Andrea (IR)

Soler Almendros, Judit (IR)



DESCRIPTION

Led by Jaime Kulisevsky, MD, PhD, and based at the Movement Disorders Unit of Sant Pau Hospital and the Biomedical Research Institute, the group focuses on Parkinson's disease, Huntington's disease, atypical Parkinsonisms, tremor, and other movement disorders. Its main research lines include the study of neuronal mechanisms underlying cognitive impairment and neuropsychiatric symptoms, the development of specific diagnostic tools, and the analysis of pharmacological responses. These approaches integrate neuroimaging, neuropsychology, clinical assessment, brain stimulation, genetics, and fluid biomarkers, among other methodologies

MAIN LINES OF RESEARCH

- Research on cognitive impairment, behavioural dysfunction, and other motor and non-motor symptoms in Parkinson's disease, using neurophysiological and neuroimaging techniques to identify biomarkers and to develop disease-specific tools for cognitive and functional assessment. (Kulisevsky Bojarski, Jaime; Pagonabarraga Mora, Javier; Pascual Sedano, Berta M.)
- Investigation of clinical progression, cognitive phenotypes, and biomarkers in Huntington's disease, in both premanifest and manifest stages, through international cohort studies, multimodal neuroimaging, and the analysis of large-scale databases. (Martínez-Horta, Saúl Indra; Pérez-Pérez, Jesús)
- Development of specific cognitive assessment tools for progressive supranuclear palsy, along with the study of neural correlates of clinical progression, cognitive decline, and behavioural alterations. (Pagonabarraga Mora, Javier)
- Clinical, neurophysiological, and neuroimaging characterisation of essential tremor, aimed at improving diagnostic accuracy and advancing the understanding of underlying disease mechanisms. (Gironell Carrero, Alexandre)

SCIENTIFIC CHALLENGES

- 1. Parkinson's Disease (PD)
 - General
 - COPPADIS: Cohort of Patients with Parkinson's Disease in Spain (national collaborative study).
 - Intensification for Specialist Physicians within the "Strategic Research and Innovation Plan" (PERIS; Expedient No. SLT008/18).
 - Cognition
 - DuoCog: randomised, double-blind, crossover study comparing immediate versus intraduodenal levodopa on cognition and mood.
 - Neuropsychiatric disorders
 - Prospective study evaluating a novel music therapy approach for apathy and depression.
 - Choral singing intervention in PD: effects on apathy and depression.
 - Effects of mindfulness on temperament and character dimensions (TCI).
 - Natural history and neural correlates of psychotic symptoms in PD.
 - Advanced PD
 - Nutritional assessment in patients receiving intraduodenal levodopa.
 - Prospective study of cognition, behaviour, sleep, and quality of life in patients treated with deep brain stimulation (DBS) and intraduodenal levodopa.
 - Prospective study on patient satisfaction following DBS.
 - Subthalamic DBS in PD: functional reorganization of brain networks and its impact on postsurgical complications.
 - Mobility monitoring using wearable sensors in fluctuating PD for therapeutic purposes (multicentre clinical trial, INV-PROC-A118).
- 2. Huntington's Disease (HD)
 - Coordination of the Cognitive Phenotype Working Group (European Huntington's Disease Network).
 - Spanish coordination of Enroll-HD, a global prospective registry study (PI in Spain: J. Kulisevsky).
 - Validation of cognitive (HD-CRS) and functional (HD-CFRS) scales.
 - Development and validation of novel tools for cognitive and functional assessment in HD.
- 3. Tremor
 - Development of a tremor diagnostic system based on a mobile application and dedicated software (in collaboration with Mediktor).
 - Evaluation of perampanel in essential tremor: real-world study.
- 4. Other Neurodegenerative Diseases
 - Neural correlates of hypofrontality across progressive supranuclear palsy (PSP) subtypes.
 - Neuropsychiatric and behavioural symptoms in PSP subtypes.
 - FXTAS: collaborative research with the Genetics Department of Hospital Clínic (Barcelona) and the Associació Catalana X Fràgil (ACXF).
 - Collaboration with GEMT-CAT (Catalan Neurological Society Movement Disorders Group) on the Consensus Document on Genetics in Movement Disorders.
- 5. Neuroimaging and Data Engineering
 - Dynamic connectivity models of cognitive impairment in PD (in collaboration with the Center for Brain and Cognition, Pompeu Fabra University, Barcelona).
 - Neuroimaging and neurophysiology of hallucinations in PD: "Unravelling dysfunctional brain networks in patients with Parkinson's disease suffering from hallucinations" (in collaboration with EPFL, Switzerland).
 - Effects of dopaminergic treatment on neurocognitive networks in PD (collaborative study with Hospital del Mar, Barcelona).
 - Functional and structural brain correlates in HD, including cognition, apathy, depression, irritability, biomarkers, and oxytocin levels (collaboration with Hospital Universitario de Burgos).
 - Analysis of large-scale collaborative databases (Enroll-HD, PPMI, COPPADIS).
 - Analysis of local databases (PSP, HD, PD).
- 6. Parkinson's Disease and Movement Disorders Laboratory
 - Processing, biobanking, and biomarker analysis of human biofluids (plasma, serum, CSF, and urine) across movement disorders.
 - Development and optimisation of methods for extracellular vesicle isolation from multiple biofluids.
 - Identification of molecular signatures in extracellular vesicles (brain, plasma, CSF, urine) in Huntington's disease to improve prognosis and patient stratification in clinical trials.
 - Evaluation of tau and phosphorylated alpha-synuclein in skin tissue for early and differential diagnosis of atypical Parkinsonian syndromes.

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

ACTIVE & AWARDED GRANTS

- Aracil Bolaños, Ignacio. Contratos Juan Rodés 2022. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2026. 180.000,00 €
- García Sánchez, Carmen. Dramatitzant la salut: el paper del teatre per al benestar emocional, social i cognitiu. CX23-00002. Fundació La Caixa. Duration: 2024-2026. 5.280,00 €
- Kulisevsky Bojarski, Jaime. Desarrollo y validación de instrumentos específicos de evaluación cognitiva basados en la biología de la enfermedad de Huntington. PI21/01758. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 244.420,00 €
- Kulisevsky Bojarski, Jaime. Ensayo clínico multicéntrico, aleatorizado, doble ciego y controlado con placebo, para evaluar la eficacia y la seguridad del donepezilo frente al placebo en el deterioro cognitivo leve asociado a la enfermedad de Parkinson. ICI22/00082. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2026. 575.328,45 €
- Kulisevsky Bojarski, Jaime. Investigación y desarrollo de una nueva terapia para el tratamiento de la enfermedad de Huntington. CPP2022-009575. Ministerio de Ciencia e Innovación (MICIIN). Duration: 2023-2026. 312.446,20 €
- Kulisevsky Bojarski, Jaime. Grup de Recerca en Malaltia de Parkinson i Trastorns del Moviment. 2021 SGR 01141. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). 2022-2025. 60.000,00 €
- Kulisevsky Bojarski, Jaime. Centro de Investigación Biomédica en Red de Enfermedades Neurodegenerativas. CIBERNED. CB06/05/0047.
- Olmedo Saura, Gonzalo. Contratos Río Hortega 2024. CM24/00023. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 65.000,00 €
- Pérez Pérez, Jesús. Estudio longitudinal de los correlatos biológicos, clínicos y neuroradiológicos en ataxias cerebelosas y paraparesias espásticas genéticas. (BCN-CASP Project). FEDAES 2025. Federación de Ataxias de España. 2025-2026. 6.000,00 €
- Ruiz Barrio, Iñigo. Contratos Río Hortega 2022. CM22/00072. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2025. 65.000,00 €

DOCTORAL THESES DEFENDED

- Busteed, Laura Elizabeth. The Functional Utility of Language Features in Enhancing Clinical Management of Progressive Supranuclear Palsy and Parkinson's Disease. 06/03/2025. Universitat Autònoma de Barcelona. Supervisors: Pagonabarraga Mora, Javier; Kulisevsky Bojarski, Jaime. <https://hdl.handle.net/10803/693974>
- Martínez Molina, Cristina. Fármacos inhibidores de Janus quinasa en el tratamiento de la artritis reumatoide. 09/04/2025. Universitat Autònoma de Barcelona. Supervisors: Vidal Alcorisa, Sílvia; Corominas Macias, Hector; Pagonabarraga Mora, Javier. <https://hdl.handle.net/10803/694340>
- Rodríguez-Antigüedad Muñoz, Jon. Evolución y pronóstico del deterioro cognitivo incipiente en la enfermedad de Parkinson. 18/12/2025. Universitat Autònoma de Barcelona. Supervisors: Kulisevsky Bojarski, Jaime. <https://hdl.handle.net/10803/696602>
- Ruiz Barrio, Iñigo. Estudio de signos clínicos y biomarcadores en taupatías primarias, secundarias y atrofia multisistémica. 14/01/2025. Universitat Autònoma de Barcelona. Supervisors: Kulisevsky Bojarski, Jaime; Pagonabarraga Mora, Javier. <https://hdl.handle.net/10803/693553>
- SCIENTIFIC PRODUCTION – Articles & Reviews
- Bojtos L, Rodríguez J, Pagonabarraga J, Martínez S, Kulisevsky J. Fatigue and neuropsychiatric symptoms in Parkinson's disease: a narrative review. *Frontiers in Neurology*. 2025; 16:1670644. DOI:10.3389/fneur.2025.1670644. PMID:41211291. IF:2,800 (Q2/5D).
- Busteed L, Horta A, Reig A, García C, Pascual B, Gich I, Ciffone PR, Kulisevsky J, Pagonabarraga J. The discriminative linguistic profiles of progressive supranuclear palsy and Parkinson's disease. *NEUROLOGIA*. 2025; 40(9). DOI:10.1016/j.nrl.2023.06.010. IF:3,100 (Q2/4D).
- Camacho L, Labandeira CM, Bravo SB, Torres MV, Bejr H, Molina A, Atienza M, Lanciego JL, Cantero JL, Kulisevsky J, Labandeira JL, Rodríguez AI.

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Brain-derived extracellular vesicle proteomics reveals neuroprotection induced by the ARB candesartan in Parkinson's disease patients. *npj Parkinsons Disease*. 2025; 12(1):19. DOI:10.1038/s41531-025-01230-6. PMID:41366251. IF:8,200 (Q1/1D).
- Cattaneo C, Pagonabarraga J. Sex Differences in Parkinson's Disease: A Narrative Review. *Neurology and Therapy*. 2025; 14(1). DOI:10.1007/s40120-024-00687-6. PMID:39630386. IF:4,800 (Q1/2D).
 - De Almeida Simao M, Poveda S, Daniel ER, Ganora AD, Vargas MV, Kulisevsky J. Perceptions of neuromuscular electrostimulation of patients with Parkinson's disease and their caregivers: the impact on swallowing and speech from a qualitative perspective. *Journal Of Patient-Reported Outcomes*. 2025; 9(1):122. DOI:10.1186/s41687-025-00931-z. PMID:41105286.
 - De la Riva P, Rodríguez J, Marta J, Gómez V, Arenaza G, Gorostidi A, Díez N, de Arce A, Garmendia E, Zumeta E, Larrea JA, Bergareche A, Arregui A. The role of endothelial dysfunction in the age-related poor prognosis of stroke patients undergoing endovascular treatment. *Journal of Stroke & Cerebrovascular Diseases*. 2025; 34(10):108412. DOI:10.1016/j.jstrokecerebrovasdis.2025.108412. PMID:40769286. IF:1,800 (Q3/7D).
 - Di N, de Tena IB, Sánchez A, Pereda A, Enfedaque F, González C, Rio LMM, Bortolozzi A, Rodríguez R, Costas C, Molina L, Vazquez A, Ozaita A, Guzmán M, Perea G, Ginés S. Restoration of CB1 receptor function in hippocampal GABAergic neurons rescues memory deficits in Huntington's disease models. *Translational Neurodegeneration*. 2025; 14(1):44. DOI:10.1186/s40035-025-00500-w. PMID:40855505. IF:15,200 (Q1/1D).
 - Escamilla S, Pérez R, Márquez C, Camporesi E, Brinkmalm G, Padovani A, Pilotto A, Tolassi C, Arici D, Volonghi I, Zetterberg H, Blennow K, Pérez J, Kulisevsky J, Cuchillo I, Sáez J. Alterations of NMDAR Subunits in the Cerebrospinal Fluid Across Neurodegenerative and Immunological Disorders. *JOURNAL OF NEUROCHEMISTRY*. 2025; 169(8):e70192. DOI:10.1111/jnc. 70192. PMID:40823742. IF:4,000 (Q2/3D).
 - Ferreira JJ, Stocchi F, Antonini A, Rascol O, Ebersbach G, Kulisevsky J, Fonseca MM, Ramos D, Rocha JF, Brigas HC, Holenz J, Poewe W. Early start of opicapone in Parkinson's disease: evidence from a pooled analysis of phase 3 trials for sustained benefit in patients with recent onset of motor fluctuations. *Frontiers in Neurology*. 2025; 16:1715748. DOI:10.3389/fneur. 2025.1715748. PMID:41473225. IF:2,800 (Q2/5D).
 - García M, Castany C, Creus J, Golbano A, Escaramís G, Pérez J, Balantzategi U, Hernan M, Brito V, Kulisevsky J, Martí E, Pérez E. Sertraline treatment prevents motor dysfunction in a Huntington's disease mouse model and functional decline in patients. *Neurotherapeutics*. 2025; 22(6):e00716. DOI:10.1016/j.neurot.2025.e00716. PMID:40774881. IF:6,900 (Q1/1D).
 - García P, Lara HR, Compta Y, Fernández M, van der Lee SJ, de Rojas I, Saiz L, Painous C, Camara A, Muñoz E, Martí MJ, Valldeoriola F, Puerta R, Illán I, Pagonabarraga J, Dols O, Kulisevsky J, Fortea J, Lleó A, Olivé C, de Boer SCM, Hulsman M, Pijnenburg Y, Belloso RD, Muñoz L, Rueda DB, Gómez P, Aldecoa I, Aragonés G, Vara JH, Mendioroz M, Pérez J, Visser PJ, den A, Papma JM, Montes AM, Rodríguez E, Blázquez J, Miguel A, García F, Cano A, Valero S, Marquié M, Capdevila M, Rosende M, Quintela I, Carracedo A, Tàrraga L, Real LM, Royo JL, Erro ME, Guerrero C, Torres DC, Blázquez M, San Millán B, Teijeira S, Rolan DV, Hernández I, Sánchez A, de la Casa B, López SS, Baviera R, Lavín A, Taipa R, Amer G, Martínez E, Fernández M, Lage C, Alvarez V, Molina L, Holstege H, Mir P, Belbin O, Boada M, Fernández V, Bullido MJ, Rábano A, Sánchez P, Ruiz A. A Spanish-Portuguese GWAS of progressive supranuclear palsy reveals a novel risk locus in NFASC. *EUROPEAN JOURNAL OF HUMAN GENETICS*. 2025; 33(7). DOI:10.1038/s41431-025-01872-3. PMID:40379966. IF:4,600 (Q1/2D).
 - González B, Coebergh J, Pagonabarraga J, Morgante F, Deeley Q, Edwards MJ. Structured clinical diagnostic assessment reveals autism spectrum disorder in adults with functional neurological disorder. *Scientific Reports*. 2025; 15(1):40423. DOI:10.1038/s41598-025-20508-6. PMID:41253885. IF:3,900 (Q1/2D).
 - Kulisevsky J, García P, Outeiro TF, Gurevich T, Klivényi P, Van T, Milanov I, Pirker W, Popescu BO, Toft M, Szász JA. Pharmacogenetics in advanced Parkinson's disease. *JOURNAL OF NEURAL TRANSMISSION*. 2025; 132(11). DOI:10.1007/s00702-025-03057-0. PMID:41222708. IF:4,000 (Q1/2D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Martínez S, Quevedo A, Puig A, Sampedro F, Oltra J, Pérez J, Franch C, Olmedo G, Rivas E, Vazquez A, Pérez L, Horta A, Pagonabarraga J, Kulisevsky J. Consolidation deficits in episodic memory define distinct clinical and neurodegenerative profiles in Huntington's disease. *NeuroImage-Clinical*. 2025; 48:103894. DOI:10.1016/j.nicl.2025.103894. PMID:41172859. IF:3,600 (Q1/1D).
- Mateu M, Stanton N, Santaló FS, Vela JI, Cascajosa JD, Pérez ES, Rego D, Chico A. Retinal Microperimetry as a Novel Tool for Early Detection of Subclinical Cognitive Dysfunction and Brain Damage in Type 1 Diabetes: A Pilot Study. *Endocrinology Diabetes & Metabolism*. 2025; 8(1):e70018. DOI:10.1002/edm2.70018. PMID:39707866.
- Moreu A, Puig A, Martínez S, Kulisevsky J, Sampedro F, Pérez J, Horta A, Olmedo G, Pagonabarraga J, Kulisevsky J. A randomised clinical trial to evaluate the efficacy of cognitive rehabilitation and music therapy in mild cognitive impairment in Huntington's disease. *JOURNAL OF NEUROLOGY*. 2025; 272(3):202. DOI:10.1007/s00415-025-12927-2. PMID:39934473. IF:4,600 (Q1/2D).
- Olmedo G, Bernardi E, Bojtos L, Martínez S, Pagonabarraga J, Kulisevsky J, Pérez J. Update on the Symptomatic Treatment of Huntington's Disease: From Pathophysiology to Clinical Practice. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(13):6220. DOI:10.3390/ijms26136220. PMID:40650011. IF:4,900 (Q1/3D).
- Pérez J, García S, Valle TF, Painous C, Querol MR, Ruiz PJG, Diago EB, Delgado EC, Pastor BV, Villaplana MCP, Santana IM, Estrada MB, Garride MC, Ribera PM, Álvarez C, Maurino J, de Prado A, López JL. Huntington Disease Health Related Quality of Life, Function and Well Being: The Patient's Perspective. *Neurology and Therapy*. 2025; 14(1). DOI:10.1007/s40120-024-00655-0. PMID:39370480. IF:4,800 (Q1/2D).
- Pérez J, Olmedo G, Martínez S, Bernal S, Pagonabarraga J, Kulisevsky J. Update on Genetic Chorea. *EUROPEAN JOURNAL OF NEUROLOGY*. 2025; 32(10):e70357. DOI:10.1111/ene.70357. PMID:41104576. IF:3,900 (Q1/3D).
- Pérez C, Caballol N, Buongiorno M, Rivera M, Ariztegui NL, López L, Hernández J, Rusiñol AB, Carreró AG, Saúco MA, Gómez EF, Pérez DA, Arroyo SE, Martínez SM, Mir P, Juan JMS, Martínez JC, Rodríguez A. Comparison of clinical measures of motor function with a Holter monitor in Parkinson's disease. *Clinical Parkinsonism & Related Disorders*. 2025; 12:100325. DOI:10.1016/j.prdoa.2025.100325. PMID:40329979.
- Puig A, Franch C, Ruiz I, Sampedro F, Pérez J, Matias JA, Cuetos F, Olmedo G, Pérez L, Horta A, Aracil I, Pagonabarraga J, Kulisevsky J, Martínez S. Early Language Impairment as an Integral Part of the Cognitive Phenotype in Huntington's Disease. *Annals of Clinical and Translational Neurology*. 2025; 12(6). DOI:10.1002/acn3.70022. PMID:40244831. IF:3,900 (Q1/3D).
- Rodríguez J, Martínez S, Puig A, Horta A, Pagonabarraga J, Fonticoba TD, Jesús S, Cosgaya M, Caldentey JG, avila MA, Caballol N, Legarda I, Vara JH, Cabo I, Manzanares LL, Aramburu IG, Mayordomo VG, Ardura JG, García JD, Borrue C, Vila BS, Saúco MA, Vela L, Escalante S, Cubo E, Mendoza Z, Parees I, Alonso PS, Losada M, Ariztegui NL, Gaston I, Martínez JR, Buongiorno MT, Ordas C, Valero C, Puente V, Kurtis M, Estrada MB, Martínez P, Mir P, Santos D, Adames AD, Kulisevsky J. Heterogeneity of cognitive progression and clinical predictors in Parkinson's disease-subjective cognitive decline. *JOURNAL OF NEUROLOGY*. 2025; 272(3):246. DOI:10.1007/s00415-024-12808-0. PMID:40042541. IF:4,600 (Q1/2D).
- Rodríguez J, Olmedo G, Pagonabarraga J, Martínez S, Kulisevsky J. Approaches for treating neuropsychiatric symptoms in Parkinson's disease: a narrative review. *Therapeutic Advances in Neurological Disorders*. 2025; 18:17562864251336903. DOI:10.1177/17562864251336903. PMID:40433403. IF:4,100 (Q1/2D).
- Rodríguez J, Puig A, Ruiz I, Pagonabarraga J, Vázquez A, Horta A, Kulisevsky J, Martínez S. CSF Biomarker-Based Cognitive Trajectories in Parkinson's Disease-Subjective Cognitive Decline. *Annals of Clinical and Translational Neurology*. 2025; 12(8). DOI:10.1002/acn3.70075. PMID:40501082. IF:3,900 (Q1/3D).
- Rodríguez J, Rajalingam R, Krüger C, Teixeira D, Sun C, Fernández E, Duarte A, Saffie P, Barrett MJ, Flanigan JL, Emamikhah M, Patel N, San Luciano M, Cooper C, Bahr N, Oguh O, Buhrmann A, Vater M, Fuchshofen R, Vulinovic F, Parreidt

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- MI, Weissbach A, Lohmann K, Klein C, Marras C, Camargos S. Genotype-Phenotype Relations for the Dystonia-Parkinsonism Genes GLB1, SLC6A3, SLC30A10, SLC39A14, and PLA2G6: MDSGene Systematic Review. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(9):4074. DOI:10.3390/ijms26094074. PMID:40362326. IF:4,900 (Q1/3D).
- Rodríguez A, Pérez C, Caballol N, Buongiorno M, Rivera M, Ariztegui NL, López L, Hernández J, Bayes A, Carreró AG, Saúco MA, Gómez EF, Pérez DA, Arroyo SE, Martí S, Mir P, Juan JMS, Martínez JC, Tebé C, MoMoPa EC Res GRP. Parkinson's disease medication adjustments based on wearable device information compared to other methods: randomised clinical trial. *npj Parkinsons Disease*. 2025; 11(1):249. DOI:10.1038/s41531-025-00977-2. PMID:40835832. IF:8,200 (Q1/1D).
 - Santos D, Pagonabarraga J, Escamilla F, García PJ, Infante J, Kulisevsky J, Linazasoro G, Luquín MR, Martínez JC, Jesús S, Vela L, Campos FJ, Caballero F, Mir P, Panel of Experts Phase 1. Dopamine agonist therapy in Parkinson's disease: Spanish expert consensus on its use in different clinical situations. *Neurologia*. 2025; 40(2). DOI:10.1016/j.nrleng.2023.04.008. PMID:37419211.
 - Santos D, Fonticoba TD, Jesús S, Cosgaya M, Caldentey JG, Caballol N, Legarda I, Vara JH, Cabo I, Manzanares LL, Aramburu IG, Rivera M, Mayordomo VG, Nogueira V, García JD, Borrué C, Vila BS, Sauco MA, Vela L, Escalante S, Cubo E, Mendoza Z, Pareés I, Alonso PS, Losada M, Ariztegui NL, Gastón I, Kulisevsky J, Seijo M, Valero C, Redondo RA, Ordás C, Menendez M, McAfee D, Martínez P, Mir P, COPPADIS GRP. Dysphagia in Parkinson's disease. A 5-year follow-up study. *NEUROLOGICAL SCIENCES*. 2025; 46(6). DOI:10.1007/s10072-025-08027-8. PMID:39969751. IF:2,400 (Q3/6D).
 - Stocchi F, Kulisevsky J, Jost WH. A Real-World Study on Unstable Parkinson's Disease: Levodopa Dosage Management and the Role of Nonmotor Symptoms. *Movement Disorders Clinical Practice*. 2025; 12(12). DOI:10.1002/mdc3.70188. PMID:40545913. IF:2,700 (Q2/5D).
 - Toscano C, García C, Ros V, Barguilla A, Saladich IG, Rodríguez K, Torra R, Boronat S, Sierra A. Cognitive and neuro-psychiatric profile in adult patients with epilepsy secondary to Tuberous Sclerosis Complex. *EPILEPSY & BEHAVIOR*. 2025; 166:110380. DOI:10.1016/j.yebeh.2025.110380. PMID:40101321. IF:2,300 (Q2/4D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

Molecular Neuropharmacology

Group leader

Pol Rigau, Olga (IR)

Researchers

Bai, Xue (UAB)

Martínez Martel, Ignacio (UAB)

Negrini Ferrari, Sylmara Esther (UAB)

Pereira Coutinho, Joana (UAB)

Wang, Weitao (UAB)



DESCRIPTION

The Molecular Neuropharmacology group investigates the molecular mechanisms underlying pain chronification and its emotional and cognitive comorbidities, a major clinical challenge due to the limited efficacy and adverse effects of current therapies. Our research focuses on gaseous signalling pathways, oxidative and inflammatory mechanisms, and their interaction with opioid and cannabinoid systems to identify novel molecular targets and develop more effective therapeutic strategies for inflammatory, neuropathic, and osteoarthritis pain and their associated comorbidities.

MAIN LINES OF RESEARCH

- Neurobiological mechanisms underlying chronic pain and its emotional and cognitive alterations, with emphasis on neuroinflammation, oxidative stress, and neuronal–glial interactions in osteoarthritis-related, inflammatory, and neuropathic pain. (Pol Rigau, Olga).
- Role of gaseous signalling molecules in chronic pain, including carbon monoxide, hydrogen sulfide, and molecular hydrogen, in the regulation of nociceptive processing and pain-associated comorbidities. (Pol Rigau, Olga).
- Interaction between gaseous signalling pathways and analgesic systems, including opioid and cannabinoid receptors, to enhance the efficacy and reduce adverse effects of current therapies. (Pol Rigau, Olga).
- Sex-related mechanisms in chronic pain and associated mood disorders, influencing pain sensitivity and treatment response across different preclinical pain models. (Pol Rigau, Olga).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

SCIENTIFIC CHALLENGES

- Identify brain circuits and molecular mechanisms linking chronic pain with emotional and cognitive comorbidities.
- Explore the analgesic potential of novel gaseous signalling molecules whose role in chronic pain remains unexplored.
- Evaluate advanced drug-delivery systems to optimise the therapeutic use of gaseous signalling molecules in chronic pain.
- Improve the efficacy and safety of current analgesic therapies through rational pharmacological combination strategies.
- Determine sex-dependent mechanisms influencing chronic pain and treatment responses.

ACTIVE & AWARDED GRANTS

- Pol Rigau, Olga. Nuevas dianas moleculares para el tratamiento del dolor crónico. PI21/00592. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 166.980,00 €

DOCTORAL THESES DEFENDED

- Martínez Martel, Ignacio. New targets for the treatment of chronic pain in mice. 16/12/2025. Universitat Autònoma de Barcelona. Supervisors: Pol Rigau, Olga. <https://hdl.handle.net/10803/696423>
- Pansarim, Vítor. "Ativação do sistema endocanabinoide reduz nocicepção e aversão à dor em camundongos com dor inflamatória persistente: envolvimento dos receptores μ e δ opioides e da enzima heme oxigenase-1". 24/07/25. University of São Paulo. Supervisors: Leite-Panissi, Christie; Pol Rigau, Olga.

SCIENTIFIC PRODUCTION – Articles & Reviews

- Martínez I, Negrini SE, OLGA R. MCC950 Reduces the Anxiodepressive-like Behaviours and Memory Deficits Related to Paclitaxel-Induced Peripheral Neuropathy in Mice. *Antioxidants*. 2025; 14(2):143. DOI:10.3390/antiox14020143. PMID:40002330. IF:6,600 (Q1/1D).
- Martínez I, Negrini SE, OLGA R. Preventing Cisplatin-Induced Neuropathy and Related Emotional Disorders with the Coadministration of Duloxetine and Hydrogen-Rich Water in Male and Female Mice. *Antioxidants*. 2025; 14(8):1004. DOI:10.3390/antiox14081004. PMID:40867900. IF:6,600 (Q1/1D).
- Tort NA, Negrini SE, OLGA R. Hydrogen-Rich Water Potentiates Cannabinoid- and Gabapentinoid-Induced Analgesia in Neuropathic Pain. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(24):12155. DOI:10.3390/ijms262412155. PMID:41465581. IF:4,900 (Q1/3D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

Pharmacological Research in Humans

Group leader

Antoni Joan Arbos, Rosa María (FGS)

Researchers

Cortes Pestana, Mayro Jaime (FGS)

Pontes García, Caridad (FGS)

Research technicians

Castillo Ocaña, Marta (IR)

Coimbra Hurtado, María Jimena (IR)

Fraga Varela, Angela (IR)

Garrido Sánchez, María Teresa (IR)

González Cuadros, Mireia (IR)

Martínez Bonifacio, David (IR)

Martínez Martínez, María Isabel (IR)

Molina Perello, Pol (IR)

Puntes Rodríguez, Montserrat (IR)

Sánchez Núñez, Isabel (IR)



DESCRIPTION

The main objective (CIM) is to perform clinical drug trials and/or clinical research with the assurance of compliance with the legal, ethical and methodological requirements stated in international standards.

Clinical trials (phase I): Activity is focused on the evaluation of systemic and local tolerability, pharmacokinetics, bioavailability and bioequivalence (generics) and pharmacological effects.

Studies are also conducted in healthy volunteers and in special populations with specific characteristics, such as the healthy elderly, obese individuals, post-menopausal women, or individuals with renal or hepatic insufficiency.

Clinical trials (phases Ib, IIa): Specific interventions are performed in this phase, and controlled monitoring of the patient's response is required.

Furthermore, support from the integration of administrative, computer and statistical systems enables optimal performance of clinical studies.

MAIN LINES OF RESEARCH

- Phase I clinical trials (healthy volunteers) whose main objectives include: first-time-in-humans, safety and tolerability, pharmacokinetics, bioavailability and bioequivalence (generic drugs), pharmacodynamics, interactions (drug-drug, drug-food), evaluation and characterisation of biomarkers, proofs of concept, acceptability and preference studies (Coimbra Hurtado, María Jimena; Molina Perello, Pol).
- Follow-up studies in populations with the same or different characteristics: the elderly, obese volunteers, postmenopausal volunteers, patients with liver or kidney failure (Puntes Rodríguez, Montserrat).
- Collaboration with clinical services to conduct phase II or phase III studies (Garrido Sánchez, María Teresa).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

SCIENTIFIC CHALLENGES

- Consolidate and strengthen leadership in this field in Spain, conserve relationships with the pharmaceutical industry on a national level and strengthen and extend relations abroad with multinational enterprises and industries from other sectors.
- Broaden the range of questions to address in research projects.
- Promote dissemination of our activity with a double objective: to return the knowledge generated to society and to demystify research in humans, bringing it closer to the community so as to foster participation in clinical trials (particularly in specific sectors of the population, such as the elderly).
- Set up educational activities related to the two main research lines, i.e., the application of good clinical practices (GCPs) in clinical research (pathology and treatment) and social (quality of life, prevention of accident risk) consequences.

ACTIVE & AWARDED GRANTS

- Antonijoan Arbos, Rosa. Investigación del potencial de nuevas moléculas para el tratamiento de enfermedades fibróticas (DEFIBER III). CPP2021-008747. Ministerio de Ciencia e Innovación (MICINN). Duration: 2022-2025. 243.536,44 €
- Antonijoan Arbos, Rosa. Desarrollo clínico de una nueva terapia para el tratamiento de la narcolepsia (Adenowake). CPP2023-010422. Ministerio de Ciencia, Innovación y Universidades (MICIU). Duration: 2024-2027. 153.550,00 €
- Antonijoan Arbos, Rosa. Descubrimiento y desarrollo clínico de antagonistas no esteroideos del receptor de progesterona para el tratamiento de los fibromas uterinos (PR4UF). CPP2023-010778. Ministerio de Ciencia, Innovación y Universidades (MICIU). Duration: 2024-2027. 367.263,05 €
- Antonijoan Arbos, Rosa. Estudio y desarrollo de una nueva estrategia para modular la microbiota vaginal con el compuesto OXO-001. CPP2024-011783. Ministerio de Ciencia, Innovación y Universidades (MICIU). Duration: 2025-2028. 147.129,81 €
- Antonijoan Arbos, Rosa. Plataforma ISCIII de Soporte para la Investigación Clínica del IIB-Sant Pau. PT23/00176. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 306.936,00 €
- Antonijoan Arbos, Rosa. Mejoras en la UiC para una Participación Accesible, Cómoda y Humana de Pacientes Vulnerables en la Investigación Clínica. UICM24/00039. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2026. 1.406.625,00 €
- Antonijoan Arbos, Rosa. ERA4TB (European Accelerator of Tuberculosis Regime) project. ERA4TB GA 853989. European Commission. Duration: 2022-2026. 277.500,00 €

DOCTORAL THESES DEFENDED

- García López-Rey, Borja. Bayesian designs: scientific efficiency and regulatory acceptability in oncology drug developments. 30/10/2025. Universitat Autònoma de Barcelona. Supervisors: Torres Benítez, Ferran; Pontes García, Caridad. <https://hdl.handle.net/10803/695773>
- Lestón Vázquez, Marta. Estudio de la utilización y la seguridad de los datos reales de terapia farmacológica durante el embarazo. 31/10/2025. Universitat Autònoma de Barcelona. Supervisors: Giner Soriano, María; Morros Pedros, Rosa María; Antonijoan Arbos, Rosa María. <https://hdl.handle.net/10803/695866>
- Molina Perelló, Pol. Perspectiva de gènere en els estudis de fase I. 28/02/2025. Universitat Autònoma de Barcelona. Supervisors: Antonijoan Arbos, Rosa María. <https://hdl.handle.net/10803/693946>

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

SCIENTIFIC PRODUCTION – Articles & Reviews

- Arbat A, Canals I, Coimbra J, Molina P, Llorens M, Torres R, Perello J, Moral M, Antonijoan RM, Calaf J. Safety, Tolerability and Pharmacokinetics of Sodium Tungstate (OXO-001) in Healthy Female Volunteers of Childbearing Age: A Randomised, Double-Blind, Dose-Finding, and Placebo-Controlled Phase I Study. *International Journal of Fertility & Sterility*. 2025; 19(2). DOI:10.22074/ijfs.2024.2013704.1554. PMID:40200776. IF:0,471 (Q4/10D).
- Asla Q, Garrido M, Urgell E, Terzan S, Santos A, Fernández M, Varghese N, Atila C, Calabrese A, Biagetti B, Plessow F, Gich I, Christ M, Eckert A, Webb SM, Lawson EA, Aulinas A. Oxytocin levels in response to CRH administration in hypopituitarism and hypothalamic damage: a randomised, crossover, placebo-controlled trial. *Scientific Reports*. 2025; 15(1):2360. DOI:10.1038/s41598-025-86566-y. PMID:39824923. IF:3,900 (Q1/2D).
- Asla Q, Garrido M, Urgell E, Terzan S, Santos A, Varghese N, Atila C, Biagetti B, Plessow F, Christ M, Eckert A, Webb SM, Lawson EA, Aulinas A. Melatonin as a Possible Stimulus to Unmask an Oxytocin-Deficient State in Hypopituitarism and Hypothalamic Damage. *JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM*. 2025; 110(12). DOI:10.1210/clinem/dgaf201. PMID:40166823. IF:5,100 (Q1/2D).
- Brunet E, García B, Vela E, Pontes C, Melcarne L, Frisancho LE, Llovet LP, Pedregal P, Lario S, Ramírez MJ, Villoria A, Calvet X. Update on the Prevalence, Incidence, Mortality, and Trends in Treatment of Inflammatory Bowel Disease in a Population-Based Registry in Catalonia Between 2017 and 2023. *Journal of Clinical Medicine*. 2025; 14(16):5711. DOI:10.3390/jcm14165711. PMID:40869536. IF:2,900 (Q1/2D).
- Delgado CE, Antonijoan RM, Gich I, Anaya R, Rodríguez M, Millán A, Llorca J, Usua G, Ruiz A, Merchán A, Martínez MJ, AFFEcT GRP. Economic evaluation of a strategy to shorten the time to surgery with neuraxial anaesthesia compared with usual clinical practice in patients on chronic antiplatelet therapy with a proximal femur fracture. *Frontiers In Health Services*. 2025; 4:1423975. DOI:10.3389/frhs.2024.1423975. PMID:39901976.
- López BG, Carot G, Ouchi D, Torres F, Pontes C. Use of Bayesian approaches in oncology clinical trials: A cross-sectional analysis. *Frontiers in Pharmacology*. 2025; 16:1548997. DOI:10.3389/fphar.2025.1548997. PMID:40201693. IF:4,800 (Q1/2D).
- Veszelei I, Godman B, Aaltonen K, Selke GW, Garuoliene K, Cangini A, Kurdi A, Rodrigues AT, Pontes C, Torre C, Lunghi C, Burton E, Poplavska E, Jónsdóttir F, Petrova G, Langner I, Iaru I, Odnoletkova I, Slaby J, Gvozdanovic K, Saastamoinen L, Laius O, Benkö R, Ziogaite S, McTaggart S, Mueller T, de Pando T, Tesar T, Mitkova Z, Wettermark B. Introduction of Biopharmaceuticals in Europe: A Cross-Sectional Study of Early Diffusion Patterns and Data Availability. *BIODRUGS*. 2025; 39(5). DOI:10.1007/s40259-025-00732-2. PMID:40779010. IF:6,900 (Q1/1D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

Mental Health

Group leader

Portella Moll, María Jesús (IR)

Researchers

Alemany Santamaria, Carlo (FGS)
 Almenta Gallego, David (FGS)
 Avila Parcet, Aina (FGS)
 Cano Catala, Marta (IR)
 Carceller Sindreu, María Del Mar (FGS)
 Cardoner Alvarez, Narcis (FGS)
 Carmona Farres, Cristina (FGS)
 Carrasco Hernández, Julia (IR)
 Casellas Pujol, Elisabet (FGS)
 Corripio Collado, Iluminada (IR)
 De Diego Adeliño, Francisco Javier (FGS)
 De La Peña Arteaga, Víctor (IR)
 Diaz Pérez, Anna María (FGS)
 Farré Martínez, Adriana (FGS)
 Faustino Bosch, Gloria (IR)
 Gawron , Leonor Patricia (FGS)
 Grasa Bello, Eva María (CIBER)
 Jaramillo Muñumer, María (CIBER)
 Lo Jacono , Alessandro (IR)
 Madre Rull, Merce (FGS)
 Martín Blanco, Ana (FGS)
 Palazón Llecha, Alba (UdG)
 Pascual Mateos, Juan Carlos (FGS)
 Pérez Blanco, Josefina (FGS)
 Porta Casteras, Daniel (IR)
 Pousa Tomas, Esther (FGS)
 Puigdemont Campos, María Dolors (FGS)
 Pulido Orjuela, María Camila (UAB)
 Roldan Bejarano, Alexandra (FGS)
 Serrano Gimeno, Victor (FGS)
 Soler Ribaudi, Joaquín (FGS)
 Tiana Sastre, Thais (FGS)
 Trujols Albet, Joan (FGS)
 Vicent Gil, Muriel (FGS)

Research technicians

Borrell Pozo, Julia (IR)
 Forner Puntonet, Mireia (FGS)
 Jubero Urgell, Miriam (IR)
 Otero Castellanos, Daniela (IR)
 Pero Navarra, Mariona (IR)



DESCRIPTION

The Sant Pau Mental Health Research Group develops primarily clinical research lines aimed at addressing the needs of individuals treated at the Psychiatry Department of the Hospital de la Santa Creu i Sant Pau, thus covering a wide spectrum of psychiatric disorders and mental health.

MAIN LINES OF RESEARCH

- **Mood disorders and suicide:** This research line studies major depressive disorder and suicide, in close collaboration with other research lines within the group (Narcís Cardoner and Javier de Diego).
- **Imaging for precision psychiatry:** Study of dimensional response biomarkers to rapid-acting antidepressants. This research line aims to elucidate the mechanisms of action of rapid-acting antidepressants through the integration of magnetic resonance imaging and syndromic and dimensional clinical assessments, with the goal of identifying individualised brain biomarkers that optimise the personalisation of antidepressant treatment and promote progress toward precision psychiatry (Marta Cano).
- **Psychotic disorders:** Research related to treatment-resistant schizophrenia and psychological therapy for schizophrenia spectrum disorders based on CBTp (Feeling Safe, MCT, Unified Protocol) (Eva Grasa and Alexandra Roldán).
- **Borderline personality disorder:** Research on new third-generation psychotherapeutic approaches such as Mindfulness, Dialectical Behaviour Therapy, Acceptance and Commitment Therapy, and Positive Psychology (Joaquim Soler).
- **Eating disorders:** Research focused on evidence-based treatment strategies, mainly behavioural interventions, with ongoing projects (Mar Carceller Sindreu and Cristina Carmona).
- **Intensive home treatment (IHT) and community intervention:** This line focuses on studies evaluating patient and caregiver care experiences, as well as improving home treatments, aiming to enhance people's quality of life (Ana Martín Blanco).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Addictive behaviours: This line aims to establish bidirectional connections between clinical practice and research in the field of addictive disorders in order to suggest hypotheses, incorporate recent advances, develop new

measurement instruments and evaluate the effectiveness of interventions, always trying to incorporate the patient's perspective on the path towards these objectives (Mercè Madre).

SCIENTIFIC CHALLENGES

- Foster research that reduces the healthcare, social and personal costs of mental illness by exploring areas such as epidemiology, etiopathogenesis, physiopathology, prevention and treatment.
- Foster research into mental health therapies.
- Foster research to improve the quality of life of patients with mental disorders.

ACTIVE & AWARDED GRANTS

- Cardoner Álvarez, Narcís. Unravelling the influence of gut microbiota and derived metabolites on major depression: A cross-sectional neuroimaging-metabolomics study based on knowledge transfer from irritable bowel syndrome (IBS) and a porcine model: MOODGUT. MARATO 202209-30. Fundació La Marató de TV3. Duration: 2023-2026. 182.500,00 €
- Cardoner Alvarez, Narcís. Avaluació d'intervencions de prevenció del dol per supervivents de suïcidi: IDOLS. Fundació La Caixa. Duration: 2023-2025. 32.336,70€.
- Cardoner Álvarez, Narcís & Cano Català, Marta. Efectos antidepresivos de la psilocibina en ausencia de experiencia psicodélica serotoninérgica: un enfoque dimensional de neuroimagen funcional. PI24/01927. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 158.750,00 €
- Cardoner Álvarez, Narcís. Estudio CESAR: "Comparación de esketamina en aerosol nasal frente a aripiprazol, ambos en combinación con un ISRS/IRSN, para el trastorno depresivo mayor resistente al tratamiento en adultos mayores". ICI23/00029. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 92.850,00 €
- Cano Catala, Marta. Ayudas para contratos Ramón y Cajal (RYC) 2024. RYC2024-050082-I. 2026-2031. 257.200,00 €
- De Diego Adeliño, Francisco Javier. Depression and its treatment: Role of miRNAs in the anterior cingulate cortex, as peripheral biomarkers, and their targeted modulation by nano-tools as a promising antidepressant therapy (DemiRNApy).
- MARATO 202207-32. Fundació la Marató de TV3. Duration: 2023-2026. 72.837,50 €
- De Diego Adeliño, Francisco Javier. Biomarcadores multimodales de conectividad y de señal neural para la personalización de la estimulación cerebral profunda (DBS) en la depresión refractaria. PI23/00469. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 62.500,00 €
- De La Peña Arteaga, Víctor. Ayudas para contratos Juan de la Cierva 2022. JDC2022-048445-I. Ministerio de Ciencia e Innovación (MICINN). Duration: 2024-2025. 67.400,00€
- De La Peña Arteaga, Víctor. Contratos Sara Borrell 2025. CD25/00029. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 95.000,00 €
- Murillo Hernández, Ariana. Contratos PFIS 2025. FI25/00306. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2029. 89.900,00 €
- Pascual Mateos, Juan Carlos. Ensayo clínico controlado y aleatorizado para evaluar la eficacia de la combinación de oxitocina y entrenamiento en autocompensación en pacientes con trastorno límite de personalidad. PI21/00505. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 68.970,00 €
- Porta Casteras, Daniel. Ayudas para contratos Juan de la Cierva 2023. JDC2023-050777-I. Ministerio de Ciencia, Innovación y Universidades. Duration: 2025-2027. 72.000,00 €
- Portella Moll, María. A Phase III, Randomised, Active Comparator-controlled, Clinical Trial to Study the Efficacy and Safety of the INtegral Cognitive REMediation program (INCREM) in

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- patients with Depression. MARATO 202227-30. Fundació la Marató de TV3. Duration: 2023-2026. 186.408,75 €
- Portella Moll, María & Vicent Gil, Muriel. Proteínas Sinápticas e Inflamatorias como Marcadores de Disfunción Cognitiva en Pacientes con Depresión Mayor Tratados con el Programa de Remediación Cognitiva RIDEM. PI23/00468. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 115.000,00 €
 - Portella Moll, María. Grup de Recerca en Salut Mental Sant Pau. 2021 SGR 00832. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2022-2025. 60.000,00 €.
 - Portella Moll, María. Towards the next generation of excellent young doctoral researchers in mental health by developing an intersectoral & transdisciplinary approach. 101126533 — TOUCH. HORIZON-MSCA-2022-COFUND-01 (UAB). Duration: 2024-2029. 84.600,00 €.
 - Portella Moll, María. Co-creació d'Aut-CARE (Autism Cognitive-Affective REmediation for adults). CX23-00055. Fundació La Caixa. Duration: 2024-2026. 45.652,68 €
 - Belbin, Olivia Elizabeth & Portella Moll, María. Synapsing Mental Disorders and Neurodegenerative Diseases: Towards More Effective Diagnosis and Management of Psychiatric Symptoms 101156566. HORIZON-HLTH-2024-DISEASE-03-14-two-stage. European Union. Duration: 2024-2029. 1.014.147,61 €
 - Soler Ribaudi, Joaquin. Assaig controlat aleatoritzat per avaluar l'eficàcia de l'entrenament d'habilitats de la RO-DBT en pacients amb trastorns alimentaris i trets de l'espectre autista: un estudi de prova de concepte. MARATO 202231-10. Fundacio la Marato de TV3. Duration: 2023-2026. 148.306,25 €
 - Soler Ribaudi, Joaquín. Eficacia y viabilidad de un entrenamiento basado en la compasión para la prevención secundaria del comportamiento suicida: un ensayo clínico aleatorizado. PI25/01269. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 50.484,38 €
 - Trujols Albet, Joan. La perspectiva del paciente en tratamiento con agonistas opioides en la priorización de variables de resultado: Revisión sistemática mixta y desarrollo de una escala centrada en el paciente. 20211073. PNSD. Ministerio de Sanidad, Servicios Sociales e Igualdad. Duration: 2022-2025. 17.846,00 €

DOCTORAL THESES DEFENDED

- Aguilar Fernández, Alfredo. Desregulación emocional, otras alteraciones del procesamiento emocional y psicopatología en la obesidad y en los trastornos de la conducta alimentaria. 12/12/2025. Universitat Autònoma de Barcelona. Supervisors: Cardoner Álvarez, Narcís; Via Virgili, Esther. <https://hdl.handle.net/10803/696406>
- Canosa García, Irene. iFightDepression-Survive: desarrollo y evaluación de un programa online para prevenir la repetición de la conducta suicida. 16/05/2025. Universitat Autònoma de Barcelona. Supervisors: Elices, Matilde; Pérez Sola, Victor; Soler Ribaudi, Matilde. <https://hdl.handle.net/10803/694626>
- Corcoles Martínez, David. Conducta de acumulación: características, particularidades, complicaciones y diferentes estrategias de manejo en la práctica clínica real. 19/03/2025. Universitat Autònoma de Barcelona. Supervisors: Mane Santacana, Anna; Martín López, Luis Miguel; De Diego Adeliño, Francisco Javier. <https://hdl.handle.net/10803/694122>
- De Francisco Prófumo, Seyla. Emotional intelligence and emotional diagnosis in addiction treatment: A comparative evaluation of interventions in a day hospital. 03/10/2025. Universitat de Barcelona. Supervisors: Eiroá, Francisco José; Trujols, Joan.
- García Estela, Aitana. Improving Functioning in Individuals with Transdiagnostic Mild-Moderate Depressive Symptoms: Evidence from the IDEA Randomised Controlled Trial and Beyond. 15/05/2025. Universitat Autònoma de Barcelona. International mention. Supervisors: Colom Victoriano, Francesc; Pérez Sola, Victor; Portella Molla, María Jesús. <https://hdl.handle.net/10803/694556>
- Membrives Martín, Sonia. Evaluación de la respuesta cerebral ante la aceptación y el rechazo social en mujeres adultas con anorexia nerviosa

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- mediante técnicas de neuroimagen. 24/10/2025. Universitat Autònoma de Barcelona. Supervisors: Cardoner Álvarez, Narcís; Via Virgili, Esther. <https://hdl.handle.net/10803/695724>
- Ros Abarca, Sandra. Más allá de la gravedad clínica: la influencia de la sintomatología depresiva en la calidad de vida de los pacientes con hidradenitis supurativa. 15/09/2025. Universitat Autònoma de Barcelona. Supervisors: Puig Sanz, Lluís; de Diego Adeliño, Francisco Javier; Trujols Albet, Joan. <https://hdl.handle.net/10803/695301>
- Solà Arnau, Ivan. Síntesi de l'evidència i reducció de danys: aproximació metodològica per a la incorporació de la perspectiva de les persones que usen drogues per via parenteral. 30/01/2025. Universitat Autònoma de Barcelona. Supervisors: Robleda Font, Gemma; Trujols Albet, Joan; Urrutia Cuchi, Gerard. <https://hdl.handle.net/10803/693587>

SCIENTIFIC PRODUCTION – Articles & Reviews

- Avila A, Martín A, Gawron L, Cano M, Peña VD, Carceller M, Soler J, Portella MJ, Faustino G, Cardoner N, Farrés C. Evaluating the efficacy of radically open dialectical behaviour therapy (RO-DBT) in patients with anorexia nervosa: study protocol for a randomised controlled clinical trial. BMC Psychiatry. 2025; 25(1):403. DOI:10.1186/s12888-025-06854-9. PMID:40251556. IF:3,600 (Q1/3D).
- Bioque M, Llorca V, MacDowell KS, Amoretti S, Mezquida G, Cuesta MJ, Díaz CM, Ibáñez A, Segarra R, González A, Roldán A, Sáiz PA, Mané A, Lobo A, Martínez A, Cano G, Berrocoso E, Bernardo M, 2EPs GRP. Impact of Relapse on BDNF Receptor Expression in Patients With a First Episode of Schizophrenia. SCHIZOPHRENIA BULLETIN. 2025; 51(5). DOI:10.1093/schbul/sba012. PMID:39977257. IF:4,800 (Q1/2D).
- Camacho V, Castro MN, De Pino G, Duarte B, Wainsztein AE, Herlyn DL, Goldberg X, Costanzo EY, Cordero N, Menchón JM, Soriano C, Guinjoan SM, Villarreal MF. Occipital structure is linked to vagal tone in borderline personality but not in major depressive disorder. PSYCHIATRY RESEARCH-NEUROIMAGING. 2025; 352:112044. DOI:10.1016/j.psychres.2025.112044. PMID:40818358. IF:2,100 (Q1/1D).
- Cañizares S, Nuño L, Barrio P, Forner M, Gavotti C, Monrás M, Gavín P, Navinés R, Flores L, Barrios M, Andreu A, Molero J, Jimenez A, Vidal J, Lligoña A. Alcohol and Other Substance Screening in Bariatric Surgery Candidates: Utility of Self-Report and Toxicology Tests, Including Ethyl-Glucuronide. OBESITY SURGERY. 2025; 35(4)DOI:10.1007/s11695-025-07774-z. PMID:40072740. IF:3,100 (Q1/2D).
- Cardoner N, Gutiérrez L, Saiz P, Lahera G, Álvarez MA, Ortega PA, Pérez M. Does pregabalin offer potential as a first-line therapy for generalised anxiety disorder? A meta-analysis of efficacy, safety, and cost-effectiveness. Frontiers in Pharmacology. 2025; 16:1483770. DOI:10.3389/fphar.2025.1483770. PMID:39989902. IF:4,800 (Q1/2D).
- Castosa MDV, Sancho MDJ, Albet JT. Effect of a music therapy intervention on the mood of the critically ill. Enfermería Intensiva. 2025; 36(3):500549. DOI:10.1016/j.enfi.2025.500549.
- Cendrós M, Catalán R, Torra M, Penadés R, González A, Brunet M, Pérez J, Culléll N, Serra A, Hernández MH, Arranz MJ. Influence of Glutamate Neurotransmission Genes on the Outcomes of Antipsychotic Treatments. PHARMACOPSYCHIATRY. 2025; 58(05). DOI:10.1055/a-2603-0871. PMID:40527340. IF:2,200 (Q3/6D).
- Chavarría P, Tortella M, Fortea L, De la Peña V, Juaneda A, Martínez I, Vilajosana E, Radua J, Shackman AJ, Soriano C, Fullana MA. Combining Life History Calendars and Ecological Momentary Assessment for Evaluating Everyday Stress and Its Impact on Mental Health in Healthy Adults: Longitudinal Study. STRESS AND HEALTH. 2025; 41(6):e70128. DOI:10.1002/smi.70128. PMID:41307189. IF:2,700 (Q2/4D).
- Díaz L, Verdager M, García H, Ferrer M, López R, Palma C, Lamarca M, Espinosa V, Barrigón ML, González F, Pousa E, Grasa E, Lorente E, Gutiérrez A, Barajas A, Ruiz I, Cid J, Moritz S, Rico J, Sevilla J, Haro JM, Ochoa S, Spanish GRP. Sex-based differences in Jumping to Conclusions: a multidimensional analysis of first-

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- episode psychosis. SCHIZOPHRENIA. 2025; 11(1):60. DOI:10.1038/s41537-025-00579-0. PMID:40221473. IF:4,100 (Q1/2D).
- Espinosa V, Bagaeva A, López R, Barajas A, Barrigón ML, Birulés I, Frigola E, Díaz L, González F, Grasa E, Gutiérrez A, Lorente E, Pélaez T, Pousa E, Ruiz I, Verdaguer M, Ochoa S, Metacognition G. Neuropsychological profiles in first-episode psychosis and their relationship with clinical, metacognition and social cognition variables. EUROPEAN ARCHIVES OF PSYCHIATRY AND CLINICAL NEUROSCIENCE. 2025; 275(3). DOI:10.1007/s00406-024-01813-z. PMID:38806850. IF:3,700 (Q1/3D).
 - Forte MF, Clougher D, Segura AG, Mezquida G, Sánchez AM, Vieta E, Garriga M, Lobo A, González AM, Díaz CM, Roldán A, Martínez A, de la Serna E, Mané A, Mas S, Torrent C, Allot K, Bernardo M, Amoretti S, PEPs GRP. From Genetics to Psychosocial Functioning: Unravelling the Mediating Roles of Cognitive Reserve, Cognition, and Negative Symptoms in First-Episode Psychosis. ACTA PSYCHIATRICA SCANDINAVICA. 2025; 151(5). DOI:10.1111/acps.13779. PMID:39722475. IF:5,000 (Q1/2D).
 - Forte L, Ortuño M, De Prisco M, Oliva V, Albajes A, Fortea A, Madero S, Solanes A, Vilajosana E, Yao YW, Del Fabro L, Sole E, Verdolini N, Farré A, Serra M, Pico M, Lukito S, Wise T, Carlisi C, Arnone D, Kempton MJ, Hauson AO, Wollman S, Soriano C, Rubia K, Norman L, Fusar P, Mataix D, Valenti M, E, Cardoner N, Solmi M, Zhang JT, Pan PL, Il J, Fullana MA, Vieta E, Radua J. Atlas of Gray Matter Volume Differences Across Psychiatric Conditions: A Systematic Review With a Novel Meta-Analysis That Considers Co-Occurring Disorders. BIOLOGICAL PSYCHIATRY. 2025; 98(1). DOI:10.1016/j.biopsych.2024.10.020. PMID:39491638. IF:9,000 (Q1/1D).
 - Gawron LP, Clifford KR, Guillén AR, Carceller M, Farrés CC, Bonnin CD, Portella MJ. Adapting Barlow's Unified Protocol for Transdiagnostic Treatment of Emotional Disorders in Overweight Adults: A Nonrandomized Controlled Feasibility Study. INTERNATIONAL JOURNAL OF EATING DISORDERS. 2025; 58(9). DOI:10.1002/eat.24474. PMID:40418102. IF:4,300 (Q1/1D).
 - Gawron LP, Garrido I, Amaro MA, Hernández M, Carceller M, Carmona C, Portella MJ, Pousa E, Insight Barcelona Work GRP. Dimensions of insight in eating disorders: clinical and psychological predictors. PSYCHIATRY RESEARCH. 2025; 351:116566. DOI:10.1016/j.psychres.2025.116566. PMID:40482577. IF:3,900 (Q1/2D).
 - Gawron LP, Garrido I, Carmona C, Carril S, Carceller M, Avila A, Amaro MA, Hernández M, Portella MJ, Pousa E, Insight Barcelona Work GRP. Understanding the structure of insight in eating disorders: validation of the SAI-ED in a Spanish clinical sample. Journal of Eating Disorders. 2025; 13(1):184. DOI:10.1186/s40337-025-01360-5. PMID:40855569. IF:4,500 (Q1/1D).
 - Gil GJ, Segura AG, Sánchez AM, Amoretti S, Giné E, Vieta E, Mezquida G, Lobo A, González A, Andreu A, Roldán A, Forte MF, Castro J, Bergé D, Rodríguez N, Ballesteros A, Mas S, Cuesta MJ, Bernardo M, PEPs GRP. Interrelationships between polygenic risk scores, cognition, symptoms, and functioning in first-episode psychosis: A network analysis approach. EUROPEAN NEUROPSYCHOPHARMACOLOGY. 2025; 92. DOI:10.1016/j.euroneuro.2024.12.002. PMID:39721378. IF:6,700 (Q1/1D).
 - Gil J, Alemany C, Iglesias M, de Arriba A, Foguet Q, Hernández R, Carrión MI, Alcoverro O, Ortiz SA, Torrent A, Bassa A, Ros L, Bergé D, Giménez A, Urretavizcaya M, Martínez E. Practice of Electroconvulsive Therapy in Catalonia in 2022. JOURNAL OF ECT. 2025; 41(2). DOI:10.1097/YCT.0000000000001091. PMID:39652058. IF:1,800 (Q3/7D).
 - González C, López R, Bobes T, Catalán A, Aymerich C, Rodríguez R, Gutiérrez A, Díaz O, González A, Cano G, Zubia M, Guinart D, del M, Vilella E, García L, Ochoa S, Correa P, Balanzá V, Sánchez JV, Pousa E, Miret S, Falip C, Reguera P, Fernández R, García I, Campos C, Crosas JM, Cobo J, Pardina H, Perona S, Muñoz M, Yorca A, de la Foz V, Ayesa R. Validation of the virtual reality functional capacity assessment tool (VRFCAT) in a Spanish sample of individuals with psychosis and healthy controls. EUROPEAN PSYCHIATRY. 2025; 68(1):e171. DOI:10.1192/j.eurpsy.2025.10134. PMID:41249148. IF:6,700 (Q1/1D).
 - González C, Pousa E, Reguera P, Gutiérrez A, Rodríguez R, del M, González A, Cano G, Zubia M, Sánchez JV, Correa P, Balanzá V, López R, Bobes T, Catalán A, Aymerich C, Díaz O, Guinart D, Vilella

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- E, García L, Ochoa S, Miret S, Falip C, Fernández R, García I, Campos C, Crosas JM, Cobo J, Pardina H, Perona S, Yorca A, de la Foz V, Ayesa R. Validation and normative data for the BAC app in Spanish-speaking individuals with psychosis and healthy controls. *EUROPEAN PSYCHIATRY*. 2025; 68(1):e112. DOI:10.1192/j.eurpsy.2025.10076. PMID:40785579. IF:6,700 (Q1/1D).
- Grasa E, Forment A, Alonso A, Ramalho L, Roldán A, Pousa E, Aussó S, Berdun J, Tesoro AG, Escudero J, Corripio I. Defining the Patient Journey and Identifying Digital Health Solutions in Treatment-Resistant Schizophrenia. *ACTAS ESPAÑOLAS DE PSIQUIATRÍA*. 2025; 53(6). DOI:10.62641/aep.v53i6.1959. PMID:41437755. IF:1,600 (Q3/7D).
 - Gratacós M, Pousa E, Ochoa S, Santos JM. Psychological interventions to improve cognitive biases in people with schizophrenia: A systematic review. *EUROPEAN JOURNAL OF PSYCHIATRY*. 2025; 39(3):100304. DOI:10.1016/j.ejpsy.2025.100304. IF:1,500 (Q3/7D).
 - Julià A, Jaén I, García A, Pascual JC, Sintés A, Lara A, Méndez I, Romero S, Puntí J, Soler J, Banqué M, López M, Solé J, Vega D. Delivering real-time support for self-injury: A systematic review on ecological momentary interventions. *Internet Interventions: The Application of Information Technology in Mental and Behavioural Health*. 2025; 40:100826. DOI:10.1016/j.invent.2025.100826. PMID:40342957. IF:4,100 (Q1/2D).
 - Lamarca M, Romero A, Balsells S, López R, Vila R, Pousa E, Grasa E, Barrigon M, Birulés I, Peláez T, Gutiérrez A, Cabezas A, Lorente E, Cid J, Ruiz I, González F, Legido T, Moreno B, Barajas A, Ochoa S. The Role of Sex, Quality of Life, Self-Esteem and Cognitive Insight in Reducing Personal Stigma in Psychosis. *CLINICAL PSYCHOLOGY & PSYCHOTHERAPY*. 2025; 32(6):e70171. DOI:10.1002/cpp.70171. PMID:41215569. IF:2,700 (Q2/3D).
 - Miquel N, Vicent M, Martínez I, Porta D, Mar L, López M, Andrews JR, Soriano C, Menchón JM, Cardoner N, Alonso P, Serra M, López C. Efficacy and fMRI-based response predictors to mindfulness-based cognitive therapy in obsessive-compulsive disorder: Study protocol for a randomised clinical trial. *SPANISH JOURNAL OF PSYCHIATRY AND MENTAL HEALTH*. 2025; 18(1). DOI:10.1016/j.rpsm.2022.11.002. PMID:37839958. IF:2,800 (Q1/1D).
 - Molero P, Ibáñez A, de Diego J, Ramos JA, Dorado MG, Rengel PML, Saiz PA. A Real-World Study on the Use, Effectiveness, and Safety of Esketamine Nasal Spray in Patients with Treatment-Resistant Depression: INTEGRATE Study. *ADVANCES IN THERAPY*. 2025; 42(5). DOI:10.1007/s12325-025-03149-z. PMID:40106175. IF:4,000 (Q1/3D).
 - Nicolaou S, Julià A, Otero D, Schmidt C, Pascual JC, Soler J, Marco J, Vega D. Reward-related neural activation during social media exposure in young women with non-suicidal self-injury: evidence for a continuum of severity in the reward network. *Translational Psychiatry*. 2025; 15(1):308. DOI:10.1038/s41398-025-03536-8. PMID:40846692. IF:6,200 (Q1/1D).
 - Nicolaou S, Pascual JC, Soler J, Ortega G, Marco J, Vega D. Mapping punishment avoidance learning deficits in non-suicidal self-injury in young adults with and without borderline personality disorder: An fMRI study. *JOURNAL OF AFFECTIVE DISORDERS*. 2025; 370. DOI:10.1016/j.jad.2024.11.026. PMID:39542117. IF:4,900 (Q1/2D).
 - Ousdal OT, Argyelan M, Laroy M, Anand A, Bouckaert F, Camprodon JA, Cano M, Cardoner N, Dannlowski U, Dols A, Emsell L, Espinoza R, Hebbrecht K, Hurlemann R, Jorgensen M, Kiebs M, Kishimoto T, Narr KL, Nordanskog P, Opel N, Redlich R, Rhebergen D, Sartorius A, Schrijvers D, Sienaert P, Soriano C, Takamiya A, ten F, Tendolkar I, Urretavizcaya M, van L, van P, van G, van J, Vandenbulcke M, Verdijk J, Wade BSC, Antoine Y, Brekke N, Prudic J, McClintock S, Kessler U, Bartsch H, Odegaard K, Haavik J, Hammar Å, Abbott C, Olteidal L. Effects of electroconvulsive therapy on hippocampal longitudinal axis and its association with cognitive side effects. *Communications Medicine*. 2025; 5(1):409. DOI:10.1038/s43856-025-01120-1. PMID:41034627.
 - Palazón A, Trujols J, Madre M, Duran S, Batlle F, Mallorqui N. The Predictive Value of Emotion Regulation in Cocaine Use Disorder Severity: Psychotherapeutic Implications During Hospitalisation for Detoxification. *CLINICAL PSYCHOLOGY & PSYCHOTHERAPY*. 2025; 32(5):e70155. DOI:10.1002/cpp.70155. PMID:40983318. IF:2,700 (Q2/3D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Pérez M, Penades C, Martínez P, García G, Aguilar EJ, Escarti MJ, Grasa E, Corripio I, Sanjuan J, Nacher J. Volume alterations of the hippocampus and amygdala in patients with schizophrenia and persistent auditory hallucinations. SPANISH JOURNAL OF PSYCHIATRY AND MENTAL HEALTH. 2025; 18(4). DOI:10.1016/j.rpsm.2023.05.002. PMID:37495479. IF:2,800
- Pérez V, Puigdemont D, de Diego J, Elices M, Leal I, Cabello M, Rodríguez R, Álvarez MA, García L, García E, Escartí MJ, Montejo AL, Montes JM, Usall J, Gallego A, Luján E, López R, González A, Ortiz A, Blanch J, Urretavizcaya M, Colom F, García J, Ayuso JL. The DEPRE'5 study: pragmatic, multicentre, five-arm, parallel-group randomised controlled trial with blinded assessment to compare treatment strategies in major depression after a failed selective serotonin reuptake inhibitor treatment. BRITISH JOURNAL OF PSYCHIATRY. 2025; 227(5). DOI:10.1192/bjp.2025.13. PMID:40530754. IF:7,600 (Q1/1D).
- Pérez V, Soler J, Schmidt C, Vega D, Pascual JC. Could intranasal oxytocin enhance the effects of psychotherapy in individuals with mental disorders? A systematic review and meta-analysis. PSYCHONEUROENDOCRINOLOGY. 2025; 171:107206. DOI:10.1016/j.psyneuen.2024.107206. PMID:39366103. IF:3,600 (Q1/3D).
- Radua J, Savage HS, Vilajosana E, Jamieson A, Abler B, Åhs F, Beckers T, Cardoner N, Cisler JM, Diniz JB, Bach DR, Elsenbruch S, Greening SG, Holt DJ, Kaczurkin AN, Keil A, Kindt M, Koch K, LaBar KS, Lam CL, Larson CL, Lonsdorf TB, Merz CJ, McLaughlin KA, Neria Y, Pine DS, van CM, Shackman AJ, Soriano C, Spoormaker VI, Stout DM, Straube B, Straube T, Tuominen L, Visser RM, Ahumada L, Arolt V, Batistuzzo MC, Bazán PR, Biggs EE, Cano M, Chavarría P, Cooper SE, Dannlowski U, de la Peña V, Decross SN, Domschke K, Ehlers MR, Graner JL, Hamm AO, Herrmann MJ, Huggins AA, Icenhour A, Juaneda A, Junghoefer M, Kircher T, Koelkebeck K, Kuhn M, Labrenz F, Lissek SM, Lotze M, Lueken U, Margraf J, Martínez I, Moeck R, Morriss J, Ortuño M, Pittig A, Porta D, Richter J, Ridderbusch IC, Rief W, Roesmann K, Rosén J, Russmann AN, Sjouwerman R, Spohrs J, Ströhle A, Suarez B, Ulrich M, Wittchen HU, Zhu X, Waller L, Walter H, Thompson PM, Bas JM, Groenewold NA, Stein DJ, van der Wee NJ, Dunsmoor JE, Marquand AF, Harrison BJ, Fullana MA. Neural correlates of human fear conditioning and sources of variability in 2199 individuals. Nature Communications. 2025; 16(1):7869. DOI:10.1038/s41467-025-63078-x. PMID:40849409. IF:15,700 (Q1/1D).
- Ramos JA, Mora F, Arostegui S, Cardoner N, Etxeandia JI, Gómez R, Gómez M, Montes JM, Vieta E. Treatment-resistant depression and intranasal esketamine: Spanish clinical consensus on practical aspects. EUROPEAN JOURNAL OF PSYCHIATRY. 2025; 39(3):100313. DOI:10.1016/j.ejpsy.2025.100313. IF:1,500 (Q3/7D).
- Romero A, López R, Vila R, Lamarca M, Pousa E, Grasa E, Barajas A, Barrigón ML, Birules I, Peláez T, Gutiérrez A, Lorente E, Cid J, Ruiz I, González F, Legido T, Moreno B, Moritz S, Ochoa S, Spanish GRP. The Influence of Metacognition, Social Cognition, Self-Esteem, and Quality of Life on Personal Stigma in First-Episode Psychosis. Stigma And Health. 2025; 10(4). DOI:10.1037/sah0000513.
- Rubio S, Bernal S, Almenta D, Pérez J, Camacho V, Sala I, Sánchez MB, Castro JG, Selma J, Santos MA, Carbayo A, Turon J, Rojas R, Alcolea D, Fortea J, Lleó A, Dols O, Illán I. A Novel CHMP2B Splicing Variant in Atypical Presentation of Familial Frontotemporal Lobar Degeneration. Annals of Clinical and Translational Neurology. 2025; 12(9). DOI:10.1002/acn3.70023. PMID:40244880. IF:3,900 (Q1/3D).
- Safont G, Garriga M, Amoretti S, Cuesta MJ, Parellada M, González A, Bergé D, Rodríguez R, Bejarano AR, Sarró S, Ibáñez Á, Usall J, Gutiérrez M, Vieta E, Arranz B, Berrocoso E, Verdolini N, Bernardo M, 2EPS G. Sex and substance use in first episode psychosis: Impact on clinical symptoms, psychosocial functioning and cognitive performance. SPANISH JOURNAL OF PSYCHIATRY AND MENTAL HEALTH. 2025; 18(2). DOI:10.1016/j.rpsm.2022.03.002. IF:2,800 (Q2/4D).
- Saiz C, De la Peña V, Bertolín S, Díez I, Juaneda A, Martínez I, Chavarría P, Subirà M, Menchón JM, Sepulcre J, Fullana MA, Soriano C. Mapping cross-modal functional connectivity of major neurotransmitter systems in the human brain. Brain Structure & Function. 2025; 230(7):137. DOI:10.1007/s00429-025-02996-4. PMID:40828212. IF:2,900 (Q1/1D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Segura AG, Prohens L, Julià L, Amoretti S, Ribero M, Pino L, Cano G, Mane A, Rodríguez R, Roldan A, Sarró S, Ibañez A, Usall J, Lobo A, García C, Cuesta MJ, Parellada M, González A, Berrocoso E, Mas S, Rodríguez N, Pérez A, Salmeron S, González J, Gurriarán X, Farré A, Pousa E, Zorrilla I, Mar L, Trabsa A, Martínez L, Sánchez A, Jiménez E, Pomarol E, Salvador R, Butjosa A, Elena RA, Moreno L, Torres A, Saiz J, León L, Rivero O, González L, De C, Bernardo M, 2EPS GRP. Methylation profile scores of environmental exposures and risk of relapse after a first episode of schizophrenia. *EUROPEAN NEUROPSYCHOPHARMACOLOGY*. 2025; 94. DOI:10.1016/j.euroneuro.2025.02.003. PMID:39956014. IF:6,700 (Q1/1D).
- Segura AG, Verdolini N, Valli I, García C, Diaz CM, Vieta E, Mezquida G, Lobo A, González A, Andreu A, Roldan A, Martínez A, Baeza I, Mane A, Labad J, Müller DJ, Guasch N, Bernardo M, Mas S, Bioque GM, González J, Andrés P, Cavone V, Corripio I, Duque A, Mar L, Marin J, De C, Vaquero D, Rivero O, Fabra M, Trabsa A, Legido T, Forte MF, Serra M, de la Serna H, Castro J, Contreras F, García MP, González L, Echevarría RS, Rabadán AZ, Rodríguez R, Martínez I, Usall J, Barajas A, Sarro S, Pomarol E, Ibañez A, Cuesta MJ, PEPs GRP. Polygenic risk score of glycemic homeostasis, Type 2 Diabetes Mellitus and glycemic components in first episode psychosis. *SCHIZOPHRENIA RESEARCH*. 2025; 285. DOI:10.1016/j.schres.2025.09.019. PMID:41075679. IF:3,500 (Q1/3D).
- Seppälä J, Grasa E, Alonso A, Roldan A, Haapea M, Isohanni M, Miettunen J, Mendlivso JC, Almazán C, Rubinstein K, Caspi A, Unoka Z, Farkas K, Reixach E, Berdun J, Usall J, Ochoa S, Corripio I, Jääskeläinen E, Resist MGRP. Mobile Therapeutic Attention for Treatment-Resistant Schizophrenia (m-RESIST) Solution for Improving Clinical and Functional Outcomes in Treatment-Resistant Schizophrenia: Prospective, Multicenter Efficacy Study. *Jmir Human Factors*. 2025; 12:e67659. DOI:10.2196/67659. PMID:40372941.
- Serrarens C, Toenders YJ, Pozzi E, Aleman A, Alexander N, Basgöze Z, Belov V, Berger K, Brosch K, Bülow R, Busatto GF, Capitao LP, Connolly CG, Couvy B, Cullen KR, Dannlowski U, Davey CG, De Zubicaray GI, Dima D, Dohm K, Enneking V, Erwin T, Evermann U, Fu CHY, Fuentes P, Godlewska BR, Gonul AS, Gotlib IH, Goya R, Grabe HJ, Groenewold NA, Grotegerd D, Gruber O, Hahn T, Hall G, Harrison B, Heindel W, Hermesdorf M, Ho TC, Ichikawa N, Itai E, Jahanshad N, Jamalabadi H, Jamieson AJ, Jansen A, Kircher T, Klimes B, Krämer B, Krug A, Lancaster TM, Leehr EJ, Li M, Linden D, MacMaster F, McMahon KL, Medland SE, Mehler D, Meinert S, Mwangi B, Nenadic I, Okada G, Okamoto Y, Opel N, Pfarr JK, Pomarol E, Portella MJ, Redlich R, Reneman L, Repple J, Ringwald K, Rodríguez E, Rosa PGP, Sacchet MD, Sämann PG, Salvador R, Schranter A, Shinzato H, Sim K, Simulionyte E, Soares JC, Stein DJ, Stein F, Straube B, Strike LT, Thomas F, Thomopoulos SI, Thompson PM, Van MJ, Usemann P, Uyar A, van der Wee N, van der Werff S, Vives Y, Völzke H, Walter M, Whittle S, Wittfeld K, Wroblewski A, Wu MJ, Yang TT, Zunta GB, Veltman DJ, Schmaal L, van LS. Regional brain morphology and current antidepressant use: findings from 32 international cohorts from the ENIGMA major depressive disorder working group. *MOLECULAR PSYCHIATRY*. 2025; 30(12). DOI:10.1038/s41380-025-03310-8. PMID:41184571. IF:10,100 (Q1/1D).
- Soler J, Arqueros M, Schmidt C, Otero D, Soria A, Campins MJ, Catalan A, Casellas E, Espeso R, Pascual JC. Scale to measure dialectical thinking from a dialectical behaviour therapy perspective. *EUROPEAN JOURNAL OF PSYCHIATRY*. 2025; 39(2):100305. DOI:10.1016/j.ejpsy.2025.100305. IF:1,500 (Q3/7D).
- Verdaguer M, López R, Díaz L, Ferrer M, Grasa E, Pousa E, Lorente E, Birulés I, Peláez T, Barrigón ML, Ruiz I, González F, Cid J, Gutiérrez A, Barajas A, Ochoa S, Spanish GRP. Sex-based differences in neurocognitive functioning in first-episode psychosis: An exploratory analysis. *PSYCHIATRY RESEARCH*. 2025; 354:116803. DOI:10.1016/j.psychres.2025.116803. PMID:41167092. IF:3,900 (Q1/2D).
- Vicent M, Trujols J, Sagues T, Serra M, Navarra G, Mantellini CL, Crivillés S, Portella MJ, Cardoner N. Insights on the cognitive enhancement effect of desvenlafaxine in major depressive disorder. *Annals of General Psychiatry*. 2025; 24(1):16. DOI:10.1186/s12991-025-00552-2. PMID:40108685. IF:3,100 (Q2/4D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Young AH, Llorca PM, Fagiolini A, Falkai P, Cardoner N, Nielsen RE, Blomqvist O, Godinov Y, Rive B, Diels J, Mulhern S, Reif A. Efficacy of esketamine nasal spray over quetiapine extended release over the short and long term: sensitivity analyses of ESCAPE-TRD, a randomised phase IIIb clinical trial. *BRITISH JOURNAL OF PSYCHIATRY*. 2025; 226(2). DOI:10.1192/bjp.2024.124. PMID:39618237. IF:7,600 (Q1/1D).

SCIENTIFIC PRODUCTION – Clinical Practice Guidelines

- Ramos JA, Mora F, Arostegui S, Cardoner N, Etxeandia JI, Gómez R, Gómez M, Montes JM, Vieta E. Treatment-resistant depression and intranasal esketamine: Spanish clinical consensus on practical aspects. *EUROPEAN JOURNAL OF PSYCHIATRY*. 2025; 39(3):100313. DOI:10.1016/j.ejpsy.2025.100313. IF:1,500 (Q3/7D).
- Portella MJ, Ribas M, Lombardia C, Álvarez A, Verges A, Hervas A, Bové A, et al. Pla d'atenció a les persones en l'espectre autista. Barcelona: Direcció General de Planificació en Salut. Generalitat de Catalunya; 2025; doi: 10.62727//DSalut//13391; <http://hdl.handle.net/11351/13391>
- Ochoa S, Pousa E, Barajas A, Grasa E, Peñades R, Crespo-Facorro B. Guía de manejo psicoterapéutico de personas con psicosis. UAB, Sant Pau, SJD, HVR, CIBERSAM. ES-NPR-2500050 v1.0. ES-NPSCZ-0102. 2025. https://peplau.es/wp-content/uploads/2025/04/guia_manejo_psicoterapeutico_3-final_vf.pdf



Neurobiology of Dementias

Group leader

Fortea Ormaechea, Juan (FGS)

Researchers

Abdelnour Ruiz, Carla Sonsiree (CIBER)	Gimenez Badia, Sandra (FGS)
Alcolea Rodríguez, Daniel Andrés (IR)	Illan Gala, Ignacio (FGS)
Armas Galve, María Pilar (UPC)	Lleo Bisa, Alberto (FGS)
Arranz Martínez, Javier José (FGS)	Maure Blesa, Lucía (IR)
Arriola Infante, José Enrique (IR)	Padilla Franco, Concepción (UOC)
Aumatell Escabias, Joaquim (IR)	Parra Santana, José Allende (UAB)
Barroeta Espar, Isabel (FGS)	Perea Cabrera, Olga (UOC)
Bejanin, Alexandre Pierre Armand (IR)	Porto Torres, María Fernanda (UB)
Belvis Nieto, Robert (FGS)	Rodríguez Baz, Iñigo (IR)
Benítez Amaro, Aleyda (IR)	Rozalem Aranha, Mateus (IR)
Brigide De Almeida Mantovani, Dimitri (USP)	Rubio Guerra, Sara (IR)
Bueno López, Ana (CIBER)	Sala Matavera, Isabel (FGS)
Carmona Iragui, María (FGS)	Sánchez Aced, Erika (IR)
Cervera Carles, Laura (CIBER)	Sandkühler, Katja (LMU)
Colceriu, Carmen María (ISGlobal)	Santos Santos, Miguel Angel (FGS)
Del Hoyo Soriano, Laura (IR)	Sirisi Dolcet, Sonia (IR)
Delaby, Constance Jeanne (INM)	Valle Tamayo, Natalia (IR)
Dols Icardo, Oriol (IR)	Vaque Alcazar, Lidia (FGS)
García Castro, Jesús (FGS)	Videla Toro, Laura (IR)
Ghaderi, Shahla (BBRC)	Zhao, Zili (UAB)
	Zsadanyi, Sara Erzsebet (UAB)

Research technicians

Alvarez Sánchez, Esther (IR)	Palmieri Zinna, Marisa Alejandra (IR)
Bakkali Labouri, Iman (IR)	Pertierra, Lucía (IR)
Carreras Vega, Mireia (IR)	Reyes Santiago, Daniel (IR)
Casart Muñoz, Natalia (IR)	Ribosa Nogue, Roser (IR)
Clos Batet, Susana (IR)	Rodríguez Rodríguez, Eva (CIBER)
De Saralegui Cabot, Paula (IR)	Sánchez López, Oriol (IR)
Farré Maduell, Ariadna (IR)	Sánchez Saudinos, María Belen (IR)
Filella Merce, Julia (IR)	Sanjuan Hernández, Aida (IR)
Flores Ramírez, María (IR)	Selma i González, Judit (IR)
Franquesa Mullerat, María (IR)	Torres Alcala, Soraya (IR)
Gallardo Rubiales, Berta (CIBER)	Valldeneu Castells, Sílvia (IR)
García Hernández, Estefanía (IR)	Vera Campuzano, Elena (IR)
Gil Gracia, Paula (IR)	Zhu, Nuole (IR)
Lorente Gordillo, Oriol (IR)	
Morcillo Nieto, Alejandra Omaira (IR)	
Mota Rodríguez, Cecilia (IR)	
Muñoz Llahuna, Laia (IR)	

DESCRIPTION

The Sant Pau Memory Unit research group is a multidisciplinary team of over 70 professionals, including clinicians, scientists, engineers, and technicians, working within a strongly translational framework that integrates clinical care with biomarker, imaging, and computational research. The group maintains high scientific productivity, secures competitive funding, leads collaborative projects, and provides advanced training for residents and early-career researchers in an international, innovation-driven environment, fostering rapid translation into clinical practice.

MAIN LINES OF RESEARCH

- Natural History, Diagnosis and Treatment of Frontotemporal Lobular Degeneration. (Illan Gala, Ignacio)
- Characterisation of epilepsy in Alzheimer's disease and Down syndrome. (Carmona Iragui, María)
- Sleep and neurodegeneration. (Gimenez Badia, Sandra)
- Integrative Genomic and Transcriptomic Approaches to Neurodegenerative Diseases with a Focus on Neuroinflammation. (Dols Icardo, Oriol)
- Clinical application of biochemical markers in degenerative dementias. (Alcolea Rodríguez, Daniel Andres)
- New tools for neuropsychological assessment in people with Down syndrome. (Del Hoyo Soriano, Laura)
- New neuropsychological assessment tools in neurodegenerative dementias are sporadic. (Sala Matavera, Isabel)

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Multimodal neuroimaging in neurodegenerative diseases. (Bejanin, Alexandre Pierre Armand)
- Cellular and neuropathological basis of neurodegenerative diseases. (Leo Bisa, Alberto)
- Neurobiology of Language and Cognition in Degenerative Disease: From Mechanisms to Clinical Application. (Santos Santos, Miguel Angel)
- Sporadic and Genetically Determined Alzheimer's Disease: From Natural History to Biological Diagnosis and Treatment. (Fortea Ormaechea, Juan)

SCIENTIFIC CHALLENGES

Since its founding more than 20 years ago, our research group has undergone sustained, exponential growth and is now firmly established as an international leader in translational research on neurodegenerative dementias. We currently host 19 principal investigators leading active competitive grants. While this expansion reflects our scientific maturity and productivity, it also poses increasing organisational and structural challenges. Our group remains distinctive within the institutional setting, both in size and in the integration of high-level clinical care with scientific excellence. Moving forward, our priority is to ensure sustainable growth while preserving the values, cohesion, and translational vision that have driven our success.

The field of dementia is undergoing a profound transformation. Digital health tools, blood-based biomarkers, and disease-modifying therapies for Alzheimer's disease are now a clinical reality rather than a future prospect, reshaping diagnostic pathways, patient stratification, and therapeutic decision-making. Ultrasensitive plasma technologies, including digital immunoassays such as those developed by Quanterix, together with automated

platforms from Fujirebio, are becoming central to both research and routine care. Combined with our large, deeply phenotyped cohorts and active participation in multicentre clinical trials, our group is uniquely positioned to lead the implementation and validation of these innovations in real-world clinical practice.

Based on this evolving landscape, the main challenges for the coming years include:

- maintaining high-impact scientific productivity and competitive funding.
- strengthening leadership in European and international collaborative projects.
- expanding strategic partnerships with pharmaceutical and biotechnology companies to promote innovation, intellectual property, and technology transfer.
- adapting research structures to the integration of disease-modifying therapies into routine care.
- continuing to advance the development, validation, and clinical implementation of next-generation digital and blood-based biomarkers.

ACTIVE & AWARDED GRANTS

- Abdelnour Ruiz, Carla Sonsiree. Contratos Juan Rodés 2025. JR25/00034. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2029. 246.100,00 €
- Alcolea Rodríguez, Daniel Andres. Caracterización multimodal de las etapas prodrómicas del espectro Alzheimer-Lewy. PI22/00611. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2025. 153.670,00 €
- Alcolea Rodríguez, Daniel Andres. Contratos para la intensificación de la actividad investigadora en el Sistema Nacional de Salud 2023. INT23/00048. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 60.000,00 €
- Alcolea Rodríguez, Daniel Andres. Agregación de alfa-sinucleína en LCR y en vesículas extracelulares neuronales: Asociación con la neuropatología cortical y los correlatos clínicos. PI25/00422. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 183.937,96 €
- Aumatell Escabias, Joaquim. Contratos PFIS 2024. FI24/00215. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2028. 119.567,00 €

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Arriola Infante, José Enrique. Contratos Río Hortega 2022. CM22/00219. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2025. 65.000,00 €
- Bejanin, Alexandre Pierre Armand. Contract Miguel Servet I 2020. CP20/00038. Instituto de Salud Carlos III (ISCIII). Duration: 2021-2026. 202.500,00 €
- Bejanin, Alexandre Pierre Armand. Neuroimagen multimodal de la enfermedad de pequeños vasos relacionada con la enfermedad de Alzheimer en el síndrome de Down. PI22/00307. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2025. 165.770,00 €
- Bejanin, Alexandre Pierre Armand. Multimodal imaging of small vessel disease in genetic AD. AARG-22-923680. Alzheimer's Association. Duration: 2022-2025. 126.532,76 €
- Bejanin, Alexandre Pierre Armand. Urban design for brain and cognitive health: exploring its impact on ageing and dementia. 23S06157-001. Ajuntament de Barcelona. Duration: 2023-2025. 35.401,10 €
- Benítez Amaro, Aleyda. Contratos Sara Borrell 2024. CD24/00083. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2028. 95.000,00 €
- Benítez Amaro, Aleyda. Ayudas para contratos Juan de la Cierva 2023. JDC2023-052299-I. Ministerio de Ciencia, Innovación y Universidades (MICIU). Duration: 2025-2025
- Carmona Iragui, María. Caracterización de la epilepsia y de los trastornos del sueño en la enfermedad de Alzheimer esporádica y en la asociada al síndrome de Down. PI22/00785. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2025. 135.520,00 €
- Carmona Iragui, María. Ensayo en fase III para evaluar la seguridad y la eficacia de LEvetiracetam para prevenir las crisis epilépticas en adultos con síndrome de Down y enfermedad de Alzheimer. ICI23/00032. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2027. 905.677,30 €
- Carmona Iragui, María. Estudi de l'impacte i del abordatge de l'epilèpsia en la malaltia d'Alzheimer associada a la síndrome de Down. SLT042/25/000036. Departament de Salut. Duration: 2026-2028. 149.760,00 €
- Carmona Iragui, María. Multimodal assessment of brain inflammatory biomarkers in DS-associated AD. AARG-22-973966. Alzheimer's Association. Duration: 2023-2025. 141.246,28 €
- Carmona Iragui, María. 2nd Conference on Genetically Determined Alzheimer's Disease: Research Advances in Down Syndrome & Autosomal Dominant Alzheimer's Disease. #2425_GRT-2024B. Jérôme Lejeune Fondation. Duration: 2024-2025. 10.000,00 €
- Del Hoyo Soriano, Laura. Contratos Miguel Servet 2024. CP24/00112. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2029. 308.600,00 €
- Del Hoyo Soriano, Laura. Reduced Learning Over Repeated Exposures and its association with preclinical Alzheimer's Disease in Down syndrome: a novel digitalised outcome measure for preventive clinical trials. No.2326 2024a. Jérôme Lejeune Fondation. Duration: 2024-2027. 49.985,00 €
- Dols Icardo, Oriol. Caracterización transcriptómica y neuropatológica del tejido postmortem de pacientes con esclerosis lateral amiotrófica portadores de la expansión del gen C9orf72. PI21/01395. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2024. 87.120,00 €
- Dols Icardo, Oriol. Assessing peripheral inflammation in DS at different stages of AD. AARF-22-924456. Alzheimer's Association. Duration: 2022-2026. 147.402,61 €
- Dols Icardo, Oriol. Identificación de ARN pequeños en suero como biomarcadores subrogados de los niveles de pTDP43 en el sistema nervioso central. FUNDELA 2023. Fundela Fundación Española de Investigación de Esclerosis Lateral (FUNDELA). Duration: 2023-2025. 50.000,00 €
- Dols Icardo, Oriol. PMP-DEGESCO: Validation of a precision medicine tool based on online cognitive evaluation, genetic risk stratification and blood-based biomarkers for the identification of preclinical Alzheimer's Disease. PMP22/00022. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2025. 290.400,00 €
- Dols Icardo, Oriol. Assessing the role of CSF immune cells in ALS. FUND. LUZON 2024. Fundación Luzon. Duration: 2024-2027. 158.960,00 €
- Dols Icardo, Oriol. Caracterización del papel de las células Natural Killer y de sus exosomas en la ELA. FUNDELA 2024. Fundela, Fundación Española

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- De Investigación De Esclerosis Lateral. Duration: 2024-2025. 69.850,00 €
- Dols Icardo, Oriol. Estudio del papel de la inflamación periférica en el continuo esclerosis lateral amiotrófica/demencia frontotemporal a resolución celular. PI24/01087. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 121.250,00 €
 - Dols Icardo, Oriol. Assessing the role of the peripheral immune system in the Down Syndrome population at different stages of Alzheimer's Disease using single-cell RNA sequencing. PDC-2023-51. Jerome Lejeune Foundation. Duration: 2024-2026. 130.000,00 €
 - Forteza Ormaechea, Juan. Caracterización de la inflamación relacionada con amiloide: nuevos marcadores inflamatorios y su impacto en la macro- y microestructura cortical en la enfermedad de Alzheimer preclínica y prodrómica. PI20/01473. Instituto de Salud Carlos III (ISCIII). Duration: 2021-2025. 214.775,00 €
 - Forteza Ormaechea, Juan. Interacción entre la inflamación del sistema nervioso periférico y central en la enfermedad de Alzheimer y el síndrome de Down. PI23/01786. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 252.500,00 €
 - Forteza Ormaechea, Juan. Neurobiología de le demencias. Unitat de memòria. Neurologia. SLT028/23/000127. Departament de Salut. Duration: 2023-2025. 81.000,00 €
 - Forteza Ormaechea, Juan. Clinical trials to prevent Alzheimer's Disease in Down Syndrome. NIH SOUTHERN R33AG066543. University of Southern California. Duration: 2019-2025. 340.242,00 €
 - Forteza Ormaechea, Juan. Sleep and Temperature Disturbance as Risk Factors for Alzheimer's Disease in Down Syndrome: A Longitudinal Study. NIH NY Fortea 1RF1AG080769-01. National Institute on Ageing (NIA) at the National Institute of Health (NIH). Duration: 2023-2028. 1.829.573,72 €
 - Forteza Ormaechea, Juan. DS-ARC: A Remote Digital Cognitive Assessment for Down Syndrome-Associated Alzheimer's Disease. NIH FORTEA Washington 1R01AG081394-01. National Institute On Aging/NIH/DHHS. Duration: 2023-2028. 751.864,51 €
 - Forteza Ormaechea, Juan. Longitudinal multicenter head-to-head harmonisation of tau PET. 5R01AG073267-04. National Institute of Health (NIH). Duration: 2024-2029. 502.069,00 €
 - Forteza Ormaechea, Juan. The role of immune deregulation and NGF dysmetabolism in the development of Alzheimer's disease in individuals with Down syndrome. AG087280. National Institute of Health (NIH). Duration: 2024-2026. 247.100,00 €
 - Forteza Ormaechea, Juan. Genetically Determined Alzheimer's Disease: Research Advances in Down Syndrome & Autosomal Dominant Alzheimer's Disease Conference. ALZSI-25-1501518. Alzheimer's Association. Duration: 2025-2025. 22.694,20 €
 - García Castro, Jesús. Contratos Río Hortega 2023. CM23/00176. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 65.000,00 €
 - Gimenez Badia, Sandra. Evaluation of the circadian rest-activity rhythm in adults with DS. GBHI ALZ UK-23-971107. Alzheimer's Association. Duration: 2023-2026. 24.987,00 €
 - Illan Gala, Ignacio. Avanzando en la clasificación de la demencia frontotemporal y la esclerosis lateral amiotrófica mediante neuroimagen microestructural y funcional, y biomarcadores sanguíneos de neurodegeneración y neuroinflamación. PI21/00791. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 129.470,00 €
 - Illan Gala, Ignacio. Cambios microestructurales en la degeneración lobular frontotemporal: implicaciones diagnósticas, pronósticas y etiológicas. PI24/00598. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 215.000,00 €
 - Illan Gala, Ignacio. Ressonància magnètica i tau en vesícules extracel·lulars com a biomarcadors diagnòstics i pronòstics en les taupaties 4R. SLT042/25/000032. Departament de Salut. Duration: 2026-2028. 149.760,00 €
 - Lleo Bisa, Alberto. Estudio de la patología sináptica de Tau mediante Array Tomography y microscopía de superresolución. FUND. TATIANA 2022. Fundación Tatiana Pérez de Guzmán El Bueno. Duration: 2023-2026. 33.000,00 €
 - Lleo Bisa, Alberto. Acúmulo de Proteína precursora de amiloide-C99 (APP-C99) como mecanismo de enfermedad en la enfermedad

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- de Alzheimer: implicaciones terapéuticas. PI20/01330. Instituto de Salud Carlos III (ISCIII). Duration: 2021-2025. 183.920,00 €
- Lleo Bisa, Alberto & Sirisi Dolcet, Sonia. APP-C99 como componente patogénico clave y diana terapéutica en la enfermedad de Alzheimer. PI23/01767. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 215.000,00 €
- Lleo Bisa, Alberto. Mecanismos de vulnerabilidad de interneuronas parvalbumina-dependientes de sexo en la enfermedad de Alzheimer. AC24/00133. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 155.000,00 €
- Lleo Bisa, Alberto. Are epigenomic changes in the Alzheimer's Disease continuum modifiable? A discovery, validation and interventional study. FPM 2022-1227. Fundació Pasqual Maragall. Duration: 2024-2029. 147.372,47 €
- Lleo Bisa, Alberto. A novel therapeutic target for Alzheimer's disease beyond Aβ. GINJOL 2024-13-002. Fundació Institució dels Centres de Recerca de Catalunya (iCERCA). Duration: 2025-2025. 10.000,00 €
- Lleo Bisa, Alberto. Centro de Investigación Biomédica en Red de Enfermedades Neurodegenerativas. CIBERNED. CB06/05/0063. Instituto de Salud Carlos III (ISCIII).
- Lleo Bisa, Alberto. iLEADS-24-1277370. 10080_ BAR. Alzheimer's Association. Duration: 2024-2026. 90.337,40 €
- Maure Blesa, Lucía. Contratos Río Hortega 2023. CM23/00291. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 65.000,00 €
- Rozalem Aranha, Mateus. Evaluation of cortical microinfarcts in individuals with Down syndrome. AARFD-21-852492. Alzheimer's Association. Duration: 2022-2025. 147.627,00 €
- Rodríguez Baz, Iñigo. Contratos Río Hortega 2022. CM22/00052. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2025. 65.000,00 €
- Rodríguez Baz, Iñigo. Contratos Sara Borrell 2025. CD25/00223. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 95.000,00 €
- Rodríguez Baz, Iñigo. Alpha-Synuclein Seed Amplification Assay: Validation and Kinetics Analysis. AACSF-25-1486364. Alzheimer's Association. Duration: 2025-2028. 213.746,34 €
- Rubio Guerra, Sara. Contratos Río Hortega. CM25/00195. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2027. 65.000,00 €
- Sánchez Aced, Erika. Contratos i-PFIS 2022. IFI22/00015. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2027. 89.900,00 €
- Sánchez Aced, Erika. Caracterización de nuevos anticuerpos monoclonales contra la proteína precursora de amiloide en tejido cerebral humano usando Array Tomography Microscopy. MV24/00031. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2025. 9.660,00 €
- Santos Santos, Miguel Ángel. Afasia primaria progresiva: Caracterización multimodal de los síntomas, la fisiopatología y la progresión. PI19/00882. Instituto de Salud Carlos III (ISCIII). Duration: 2020-2024. 111.320,00 €
- Santos Santos, Miguel Angel. Molecular bases of bilingualism's protective effect vs cognitive decline. AACSF-22-972945. Alzheimer's Association. Duration: 2023-2025. 164.789,51 €
- Santos Santos, Miguel Angel. Bilingual Factors Associated with Cognitive Reserve and Linguistic Resilience in Hispanics with Primary Progressive Aphasia. NIH - UTexas 1R01AG080470-01. National Institute on Ageing (NIA) at the National Institute of Health (NIH). Duration: 2023-2027. 1.063.462,00 y
- Selma y González, Judit. Contratos PFIS 2025. FI25/00235. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2029. 119.567,00 €
- Sirisi Dolcet, Sonia. Caracterización de nuevos anticuerpos monoclonales dirigidos a la región C-terminal de la proteína APP en tejido cerebral postmortem de pacientes con enfermedad de Alzheimer. CAS24/00166. Ministerio de Ciencia, Innovación y Universidades (MICIU). Duration: 2026-2026. 11.353,00 €
- Valle Tamayo, Natalia. Contratos PFIS 2022. FI22/00077. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2027. 119.567,00 €
- Valle Tamayo, Natalia. The role of Neuropentraxin 2 pathology in ALS and other neurodegenerative diseases. MV24/00056. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2025. 10.580,00 €

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

DOCTORAL THESES DEFENDED

- Ballvé Martín, Alejandro. Mixed dementia in Alzheimer's disease associated with cerebrovascular disease: environmental risk factors, clinical and radiological features, and the role of fluid biomarkers. 12/11/2025. Universitat Autònoma de Barcelona. Supervisors: Delgado, Pilar; Maisterra, Olga; Lleo Bisa, Alberto. <https://hdl.handle.net/10803/695886>
- Caballero Ávila, Marta. Detección de nuevos autoanticuerpos en neuropatías inflamatorias. 10/12/2025. Universitat Autònoma de Barcelona. Supervisors: Querol Gutiérrez, Luis Antonio; Lleixà Rodríguez, María de la Cinta; Alcolea Rodríguez, Daniel Andrés. <https://hdl.handle.net/10803/696414>
- Carbayo Viejo, Álvaro. Estudio del sustrato neuropatológico y de las bases moleculares en el espectro de la esclerosis lateral amiotrófica-demenia frontotemporal. 14/02/2025. Universitat Autònoma de Barcelona. Supervisors: Rojas García, Ricardo; Lleo Bisa, Alberto. <https://hdl.handle.net/10803/693748>
- Martá Ariza, Mitchell. Proteomics analysis of molecular features in Down syndrome, sporadic and autosomal dominant Alzheimer's disease. 21/11/2025. Universitat Autònoma de Barcelona. Supervisors: Wisniewski, Thomas; Fortea Ormaechea, Juan; Lleó Bisa, Alberto. <https://hdl.handle.net/10803/696123>

SCIENTIFIC PRODUCTION – Articles & Reviews

- Aguilar P, Palpatzis E, Akinci M, Canal A, Pereira JB, Bejanin A, Arenaza EM, Alzheimers Dis Neuroimaging I. Temporal associations of neuropsychiatric symptoms, demographics and amyloid with subsequent tau burden in older adults. JPAD-Journal of Prevention of Alzheimer's Disease. 2025; 12(9):100294. DOI:10.1016/j.tjpad.2025.100294. PMID:40750514. IF:7,800 (Q1/1D).
- Aibar JA, González N, Mirapeix RM, Sánchez NM, Arsequell CR, Pichot MB, Nieto RB, Fenoy GP, Schmidt CD, Hernández FM, Fernández FS, Rodríguez RR. Deep brain stimulation for chronic refractory cluster headache: A case series about long-term outcomes and connectivity analysis. HEADACHE. 2025; 65(3). DOI:10.1111/head.14875. PMID:39601224. IF:4,000 (Q1/2D).
- Alvarez E, Carbayo A, Valle N, Muñoz L, Aumatell J, Torres S, Rubio S, García J, Selma J, Alcolea D, Turon J, Lleo A, Illán I, Fortea J, Rojas R, Dols O. Single-cell RNA sequencing highlights the role of distinct natural killer subsets in sporadic amyotrophic lateral sclerosis. Journal of Neuroinflammation. 2025; 22(1):15. DOI:10.1186/s12974-025-03347-0. PMID:39849490. IF:10,100 (Q1/1D).
- Andersen OM, de Waal MWJ, Monti G, Tesi N, Jensen A, De Geus C, van R, Vogel M, Ahmad S, Amin N, Amouyel P, Beecham GW, Bellenguez C, Berr C, Bis JC, Boland A, Bossù P, Bouwman F, Bras J, Charbonnier C, Clarimon J, Cruchaga C, Daniele A, Dartigues JF, Debette S, Deleuze JF, Denning N, Destefano AL, Dols O, van CM, Farrer LA, Fernández MV, van der Flier WM, Fox NC, Galimberti D, Genin E, Gille JJP, Grenier B, Grozeva D, Guen YL, Guerreiro R, Haines JL, Holmes C, Hummerich H, Ikram MA, Ikram MK, Kawalia A, Kraaij R, Lambert JC, Lathrop M, Lemstra AW, Lleo A, Myers RM, Mannens M, Marshall R, Martín ER, Masullo C, Mayeux R, Mead S, Mecocci P, Meggy A, Mol MO, Nacmias B, Naj AC, Napolioni V, Cochran JN, Nicolas G, Pasquier F, Pastor P, Pericak MA, Pijnenburg Y, Piras F, Quenez O, Ramirez A, Raybould R, Redon R, Reinders MJT, Richard AC, Riedel SG, Rivadeneira F, van JGJ, Rousseau S, Ryan NS, Sánchez P, Schellenberg GD, Scheltens P, Schott JM, Seshadri S, Sie D, Sims R, Sistermans EA, Sorbi S, van JC, Tijms B, Uitterlinden AG, Visser PJ, Wagner M, Wallon D, Wang LS, Williams J, Yokoyama JS, Zarea A, van der Lee SJ, Olsen JG, Hulsman M, Holstege H. Domain mapping of disease mutations reveals pathogenic SORL1 variants in Alzheimer's disease. Molecular Neurodegeneration. 2025; 20(1):122. DOI:10.1186/s13024-025-00907-z. PMID:41327266. IF:17,500 (Q1/1D).
- Andre C, Stankeviciute L, Michaelian JC, Antonsdottir IM, Benca RM, Coulthard EJ, D'Rozario AL, Dijk D, Gimenez S, Gorgoni M, Leng Y, Lucey BP, Pase MP, Rainey SR, Rosenzweig I, Spira AP, Winer JR, Rauchs G, Naismith SL, Sleep

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- and Circadian Professional Interest Area of the International Society of RHYTHMS. International recommendations for sleep and circadian research in ageing and Alzheimer's disease: A Delphi consensus study. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(10). DOI:10.1002/alz. 70742. IF:11,100 (Q1/1D).
- Arranz J, Ferrer R, Zhu NL, Rubio S, Rodríguez I, Arriola JE, Maure L, García J, Selma J, Carmona M, Barroeta I, Illán I, Santos M, Fortea J, Lleó A, Tondo M, Alcolea D. Prospective evaluation of plasma pTau217 stability for the detection of Alzheimer's disease in a tertiary memory clinic. *Alzheimer's Research & Therapy*. 2025; 17(1):150. DOI:10.1186/s13195-025-01779-7. PMID:40618130. IF:7,600 (Q1/1D).
 - Arriola JE, García E, García D, Marín AM, Luque A, Almodóvar A, Sánchez MB, Maillet D, Franco E. TMA-93 (binding by images): Cutoffs optimisation based on Alzheimer's disease biomarkers. *JOURNAL OF ALZHEIMER'S DISEASE*. 2025; 105(1). DOI:10.1177/13872877251325759. PMID:40116687. IF:3,100 (Q2/5D).
 - Arriola JE, Morcillo AO, Zsadanyi SE, Franquesa M, Vaqué L, Rozalem M, Arranz J, Rodríguez I, Maure L, Videla L, Barroeta I, Soriano LD, Benejam B, Fernández S, Sanjuan A, Giménez S, Alcolea D, Belbin O, Flotats A, Camacho V, Lleó A, Carmona M, Fortea J, Bejanin A. Regional Brain Metabolism across the Alzheimer's Disease Continuum in Down Syndrome. *ANNALS OF NEUROLOGY*. 2025; 98(1). DOI:10.1002/ana. 27226. PMID:40084922. IF:7,700 (Q1/1D).
 - Barba L, Bellomo G, Alcolea D, Wojdala AL, Gaetani L, Fortea J, Abu S, Lleó A, Parnetti L, Belbin O, Otto M, Oeckl P. Serum level changes of the synaptic marker beta-synuclein in Alzheimer's disease continuum and other dementias. *JOURNAL OF NEUROLOGY NEUROSURGERY AND PSYCHIATRY*. 2025; 96(12). DOI:10.1136/jnnp-2025-336189. PMID:40571405. IF:7,500 (Q1/1D).
 - Barroeta I, Videla L, Carmona M, Fortea J, Rafii MS. Current advances and unmet needs in Alzheimer's disease trials for individuals with Down syndrome: Navigating new therapeutic frontiers. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(6):e70258. DOI:10.1002/alz. 70258. PMID:40528298. IF:11,100 (Q1/1D).
 - Bartrés D, Demnitz H, Cabello M, Vaqué L, Saunders R, Touron E, Cattaneo G, Gonneaud J, Klimecki O, Bargalló N, Sánchez J, Tormos JM, Chételat G, Pascual A, Marchant NL, Andre C, Bachelet R, Lugo SB, Chocat A, Collette F, Coll N, Dautricourt S, de la Sayette V, Delarue M, Devouge EF, Frison E, Goldet K, Jessen F, Krolak P, Kuhn E, Landeau B, Lefranc V, Lutz A, Mezenge F, Meiberth D, Michel L, Molinuevo JL, Ourry V, Poisnel G, Quillard A, Rauchs G, Salmon E, Schild AK, Schimmer C, Smagghe D, Smith R, Schlosser M, Vuilleumier P, Wallet C, Walker Z, Whitfield T, Wirth M. Psychological profiles associated with mental, cognitive and brain health in middle-aged and older adults. *Nature Mental Health*. 2025; 3(1). DOI:10.1038/s44220-024-00361-8.
 - Benítez A, García E, Lhoëst MTL, Martínez A, Borrás C, Tondo M, Céspedes MV, Caruana P, Pepe A, Bochicchio B, Cenarro A, Civeira F, Prades R, Escola JC, Llorente V. Targeting LDL aggregation decreases atherosclerotic lipid burden in a humanised mouse model of familial hypercholesterolemia: Crucial role of ApoB100 conformational stabilisation. *ATHEROSCLEROSIS*. 2025; 410:118630. DOI:10.1016/j. atherosclerosis.2024.118630. PMID:39547850. IF:5,700 (Q1/1D).
 - Benítez A, García E, Lhoëst MTL, Polishchuk A, Zegri I, Vilades D, Guerra JM, Fernández L, Mirabet S, Samouillan V, Shirihi O, Liesa M, Enrich C, Llorente V. LRP1 immunotherapy enhances cardiomyocyte respiration by restricting cholesteryl ester accumulation in mitochondria. *JOURNAL OF LIPID RESEARCH*. 2025; 66(5):100783. DOI:10.1016/j.jlr.2025.100783. PMID:40122209. IF:4,100 (Q2/4D).
 - Bernhardt AM, Rodríguez I, Aldecoa I, Arranz J, Arriola JE, Maure L, Carmona M, Longen S, Trossbach SV, Giese A, Matthias T, Benejam B, Videla L, Soriano LD, Barroeta I, Sanjuan A, Fernández S, Vaqué L, Aranha MR, Morcillo AO, Nübling G, Wagemann O, Stockbauer A, Tondo M, Bejanin A, Lleó A, Alcolea D, Molina L, Fortea J, Levin J. Alpha-synuclein co-pathology in Down syndrome-associated Alzheimer's disease. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(6):e70342. DOI:10.1002/alz. 70342. PMID:40528443. IF:11,100 (Q1/1D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Bolsewig K, Willemse E, Sánchez P, Rábano A, Martínez M, Doecke JD, Bellomo G, Vermunt L, Alcolea D, Halbgebauer S, 't SI, Mattsson N, Veverova K, Fowler CJ, Boonkamp L, Koel M, Hussaini Z, Ruiters DN, Gaetani L, Toja A, Fortea J, Pijnenburg Y, Lemstra AW, van der Flier WM, Hort J, Otto M, Hansson O, Parnetti L, Masters CL, Lleó A, Teunissen CE, Milán MD. Increased plasma DOPA decarboxylase levels in Lewy body disorders are driven by dopaminergic treatment. *Nature Communications*. 2025; 16(1):1139. DOI:10.1038/s41467-025-56293-z. PMID:39881147. IF:15,700 (Q1/1D).
- Borràs C, Canyelles M, Santos D, Rotllan N, Núñez E, Vázquez J, MasPOCH D, Cano M, Zhao Q, Carmona M, Sirisi S, Lleó A, Fortea J, Alcolea D, Blanco F, Escolà JC, Tondo M. Cerebrospinal fluid lipoprotein-mediated cholesterol delivery to neurons is impaired in Alzheimer's disease and involves APOE4. *JOURNAL OF LIPID RESEARCH*. 2025; 66(8):100865. DOI:10.1016/j.jlr.2025.100865. PMID:40701521. IF:4,100 (Q2/4D).
- Bougacha S, Roquet D, Landeau B, Saul E, Naveau M, Sherif S, Bejanin A, Dhenain M, Raj A, Vivien D, Chetelat G, Alzheimer's Dis Neuroimaging I. Contributions of connectional pathways to shaping Alzheimer's disease pathologies. *Brain Communications*. 2025; 7(1):fcae459. DOI:10.1093/braincomms/fcae459.
- Boyle R, Koops EA, Ances B, Andrews EJ, Arenaza EM, Benjanin A, Brickman AM, Buckley RF, Clas GS, Costello E, Coughlan GT, Conley AC, Deng F, Faria DD, Edwards N, Flores L, Fortea J, Saidi LG, Head E, Hom CL, Koenig K, Lao PT, Lengyel I, Li YJ, Loi S, Loughrey D, McGlinchey E, Newhouse P, Pertierra L, Prokopiou PC, Qi Q, Resende E, Russell J, Scanlon CE, Schneider C, Schultz SA, Seto M, Shaka S, Soldan A, Alcazar LV, Weng YH, Wilson JE, Zaman SH, Zsadyani SE, Hartley S. Resistance and resilience to Alzheimer's disease in Down syndrome. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(4):e70151. DOI:10.1002/alz. 70151. PMID:40289889. IF:11,100 (Q1/1D).
- Bracher M, Melograna F, Ulm B, Bellenguez C, Grenier B, Duroux D, Nevado AJ, Holmans P, Tijms BM, Hulsman M, de Rojas I, Campos R, van der Lee S, Castillo A, Küçükali F, Peters O, Schneider A, Dichgans M, Rujescu D, Scherbaum N, Deckert J, Riedel S, Hausner L, Molina L, Düzel E, Grimmer T, Wiltfang J, Heilmann S, Moebus S, Teges T, Scarmeas N, Dols O, Moreno F, Pérez J, Bullido MJ, Pastor P, Sánchez R, Alvarez V, Boada M, García P, Puerta R, Mir P, Real LM, Piñol G, García JM, Rodríguez E, Soininen H, Heikkinen S, de Mendonça A, Mehrabian S, Traykov L, Hort J, Vyhnalek M, Sandau N, Thomassen JQ, Pijnenburg Y, Holstege H, van J, Ramakers I, Verhey F, Scheltens P, Graff C, Papenberg G, Giedraitis V, Williams J, Amouyel P, Boland A, Deleuze JF, Nicolas G, Dufouil C, Pasquier F, Hanon O, Debette S, Grünblatt E, Popp J, Ghidoni R, Galimberti D, Arosio B, Mecocci P, Solfrizzi V, Parnetti L, Squassina A, Tremolizzo L, Borroni B, Wagner M, Nacmias B, Spallazzi M, Seripa D, Rainero I, Daniele A, Piras F, Masullo C, Rossi G, Jessen F, Kehoe P, Magda T, Sánchez P, Sleegers K, Ingelsson M, Hiltunen M, Sims R, van der Flier W, Andreassen OA, Ruiz A, Ramirez A, Frikke R, Amin N, Roshchupkin G, Lambert JC, Van K, van C, Escott V, E. Machine learning in Alzheimer's disease genetics. *Nature Communications*. 2025; 16(1):6726. DOI:10.1038/s41467-025-61650-z. PMID:40691194. IF:15,700 (Q1/1D).
- Buehner BJ, Morcillo AO, Zsadyani SE, Aranha MR, Arriola JE, Vaqué L, Arranz J, Rodríguez I, Blesa LM, Videla L, Barroeta I, Soriano LD, Benejam B, Fernández S, Hernández AS, Bargalló N, González S, Giménez S, de Flores R, Yushkevich PA, Alcolea D, Belbin O, Lleó A, Carmona M, Fortea J, Bejanin A. Medial temporal lobe atrophy in Down syndrome along the Alzheimer's disease continuum. *BRAIN*. 2025; 148(7). DOI:10.1093/brain/awaf133. PMID:40243675. IF:11,700 (Q1/1D).
- Calabria M, Suades A, Juncadella M, Ortiz J, Ugas L, Sala I, Lleó A. Dissociating language switching from executive control in bilinguals with MCI. *CORTEX*. 2025; 183. DOI:10.1016/j.cortex.2024.11.020. PMID:39765077. IF:3,300 (Q1/1D).
- Castro JG, Rubio S, Casaletto KB, González JS, Memel M, Vaqué L, Morcillo A, Arriola J, Dols O, Bejanin A, Belbin O, Fortea J, Alcolea D, Carmona M, Barroeta I, Santos M, Saudinós MBS, Matavera IS, Heuer HW, Forsberg LK, Kantarci K, Staffaroni AM, Tartaglia C, Rankin KP, Boeve B, Boxer A, Rosen HJ, Lleó A, Illán I, ALLFTD C. Sex differences in the executive and behavioral reserve of autosomal dominant frontotemporal

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- dementia. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(4):e70070. DOI:10.1002/alz. 70070. PMID:40277045. IF:11,100 (Q1/1D).
- De Dios A, Pages N, Ojeda S, Riera P, Pelegrín R, Morollon N, Belvis R, Real J, Masip M. Persistence, effectiveness, and tolerability of anti-calcitonin gene-related peptide monoclonal antibodies in patients with chronic migraine. *HEADACHE*. 2025; 65(1). DOI:10.1111/head. 14827. PMID:39268992. IF:4,000 (Q1/2D).
 - Delaby C, Al Herk A, Hirtz C, Jacot W, Laigre M, Pouderoux S, Pradeilles N, Lehmann S, Darlix A. Hepcidin as an emerging predictor biomarker of leptomeningeal metastases in patients with metastatic breast cancer. *BMC CANCER*. 2025; 25(1):1801. DOI:10.1186/s12885-025-15124-6. PMID:41272605. IF:3,400 (Q2/4D).
 - Delaby C, Alcolea D, Busto G, Gabelle A, Ayrignac X, Bennys K, Muiño E, Villatoro P, Fernández I, Pradeilles N, El Bounasri S, Torres S, Hirtz C, Zetterberg H, Lleó A, Fortea J, Lehmann S. Plasma Hepcidin as a potential informative biomarker of Alzheimer disease and vascular dementia. *Alzheimer's Research & Therapy*. 2025; 17(1):42. DOI:10.1186/s13195-025-01696-9. PMID:39948603. IF:7,600 (Q1/1D).
 - Delaby C, Gabelle A, Duchiron M, Busto G, Morchikh M, Hirtz C, Mondesert E, Cristol JP, Barnier G, Perrein F, Turpinat C, Jurici S, Bennys K, Lehmann S. Impact of preanalytical delay on the performance of plasma Aβ42, Aβ42/40, p-tau217, and p-tau217/Aβ42 in detecting brain amyloidosis in the ALZAN cohort. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(11):e70867. DOI:10.1002/alz. 70867. PMID:41166452. IF:11,100 (Q1/1D).
 - Delaby C, Ladang A, Martínez J, Zecca C, Logroscino G, Koertvelyessy P, Tumani H, Parchi P, Quadrio I, Hart M, Olsen DA, Alcolea D, Blennow K, Fortea J, Lleó A, Algeciras A, Ayrignac X, Bedel A, Santos G, Borelli W, Bouaziz E, Baldeiras I, Bigot E, Bjerke M, Pérez MC, Casoli T, Chabrashvili T, Chapman MD, Cusato J, Dursun E, Fourier A, Galimberti D, Gezen D, Gordon BA, Gouju J, Florez SD, Sánchez JH, Herwerth M, Imperiale D, Kaczorowski F, Kasuga K, Keshavan A, Khalil M, Kuhle J, Leithner C, Lewczuk P, Letournel F, Tsolaki M, Giuffre GM, Blanc MC, Mroczko B, Rodríguez J, Musso G, Kulczynska A, Nogueira L, Paquet C, Baiardi S, Gaetani L, Parnetti L, Garay RP, Poesen K, Quillard M, Borja ER, Schraen S, Terracciano D, Bachhuber F, Halbgebauer S, Tzartos S, Tzartos J, Unterwalder N, Vermunt L, Wellington CL, Zetterberg H, Teunissen C, Lehmann S. Clinical use and reporting of neurofilament quantification in neurological disorders: A global overview. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(6):e70343. DOI:10.1002/alz. 70343. PMID:40551293. IF:11,100 (Q1/1D).
 - Doecke JD, Bellomo G, Vermunt L, Alcolea D, Halbgebauer S, In't S, Mattsson N, Veverova K, Fowler CJ, Boonkamp L, Houtkamp IM, Koel M, Verberk I, Gaetani L, Toja A, Wojdala AL, Fortea J, Pijnenburg Y, Lemstra A, van der Flier W, Hort J, Otto M, Hansson O, Parnetti L, Masters CL, Lleó A, González A, Contador J, Suárez M, Fernández A, Puig A, Ortiz P, Jimenez E, Minguillón C, del Campo M, Teunissen C. Diagnostic performance of plasma Aβ42/40 ratio, p-tau181, GFAP, and NfL along the continuum of Alzheimer's disease and non-AD dementias: An international multi-center study. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(6):e14573. DOI:10.1002/alz. 14573. PMID:40551285. IF:11,100 (Q1/1D).
 - Dols O, Carbayo A, Jericó I, Blasco O, Alvarez E, Pérez M, Bernal S, Rodríguez B, Cusco I, Turon J, Cabezas M, Caballero M, Vesperinas A, Llansó L, Pagola I, Torné L, Valle N, Muñoz L, Rubio S, Illán I, Cortés E, Gelpi E, Rojas R. Identification of a pathogenic mutation in ARPP21 in patients with amyotrophic lateral sclerosis. *JOURNAL OF NEUROLOGY NEUROSURGERY AND PSYCHIATRY*. 2025; 96(2). DOI:10.1136/jnnp-2024-333834. PMID:38960585. IF:7,500 (Q1/1D).
 - Echeverry LM, Llambrich S, Heredia A, Giménez S, Rozalem M, Inampudi P, Heuzé Y, Sevillano X, Fortea J, Martínez N, Alzheimers Dis Neuroimaging I. Potential of facial biomarkers for Alzheimer's disease and obstructive sleep apnea in Down syndrome and the general population. *FASEB JOURNAL*. 2025; 39(6):e70480. DOI:10.1096/fj.202403009R. PMID:40123509. IF:4,200 (Q1/2D).
 - Falgas N, Maure L, Ances B, Flores L, Hartley S, Hassenstab J, Iulita MF, Janicki M, Koenig K, Lao PT, Levin J, McDade E, Meijer L, Rafii MS, Snyder HM, Sánchez R, Fortea J, Infante JA,

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Balasa M, Barroeta I, Barthelemy RN, Bejanin A, Benejam B, Bosch B, Bradshaw A, Carmona M, Cohen A, Alberti AC, Csincsik L, Cuello AC, Soriano LD, Dijkstra J, Edwards N, Gimenez S, González F, Gordon B, Fernández SG, Handen B, Jacob C, Johnson E, Johansson C, Llado A, Lleó A, Morabito S, Morcillo AO, Montoliu L, Okafor M, Pérez A, Potier MC, Ringman J, Rodríguez I, Rubenstein E, Ryan NS, Strydom A, Vaqué L, Vermunt L, Toro LV, Zaman S. Genetically determined Alzheimer's disease research advances: The Down Syndrome & Autosomal Dominant Alzheimer's Disease 2024 Conference. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(7):e70309. DOI:10.1002/alz.70309. PMID:40604347. IF:11,100 (Q1/1D).
- Flores L, Hamlett ED, Araya P, Barone E, Bhattacharyya A, Carmona M, Chan L, Christian B, Costa A, Costanzo F, Soriano LD, Dierssen M, Eichler EE, Fisher E, Galbraith M, Ghosh S, Gimenez S, Guedj F, Guidi S, Iulita MF, Mobley W, Pelleri MC, Potier MC, Rabin KR, Rachubinski A, Rebillat AS, Rubenstein E, Saternos H, Sordo L, Strydom A, Valle N, Waugh KA, Yu E, Zeldich E, Busciglio J, Head E. Imagine, Discover, Inspire: Proceedings of the 4th International Conference of the Trisomy 21 Research Society. *NEUROMOLECULAR MEDICINE*. 2025; 27(1):5. DOI:10.1007/s12017-024-08824-y. PMID:39756004. IF:3,900 (Q2/3D).
 - Fortea J, Ferrer E. An overview of the rivastigmine 13.3 mg/24h transdermal patch as a treatment option for Alzheimer's disease. *Expert Review of Neurotherapeutics*. 2025; 25(9). DOI:10.1080/14737175.2025.2527211. PMID:40600688. IF:3,400 (Q2/3D).
 - Franquesa M, Morcillo AO, Arriola JE, Zsadanyi SE, Vaqué L, Rozalem M, Arranz J, Rodríguez I, Maure L, Videla L, Barroeta I, Soriano LD, Benejam B, Fernández S, Hernández AS, Giménez S, Alcolea D, Belbin O, Lleó A, Carmona M, Fortea J, Bejanin A. Study of brain perfusion in adults with Down syndrome along the Alzheimer's disease continuum. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(9):e70581. DOI:10.1002/alz.70581. PMID:40968330. IF:11,100 (Q1/1D).
 - Frisoni GB, Hansson O, Nichols E, Garibotto V, Schindler SE, van der Flier WM, Jessen F, Villain N, Arenaza EM, Crivelli L, Fortea J, Grinberg LT, Ismail Z, Minoshima S, Ossenkoppele R, Zetterberg H, Petersen RC, Dubois B. New landscape of the diagnosis of Alzheimer's disease. *LANCET*. 2025; 406(10510). DOI:10.1016/S0140-6736(25)01294-2. PMID:40997838. IF:88,500 (Q1/1D).
 - García E, Claudi L, Lhoëst MTL, Polishchuk A, Samouillan V, Amaro AB, Pinero J, Escolà JC, Sabidó E, Leta R, Vilades D, Cortes VL. Reduced blood EPAC1 protein levels as a marker of severe coronary artery disease: the role of hypoxic foam cell-transformed smooth muscle cells. *Journal of Translational Medicine*. 2025; 23(1):523. DOI:10.1186/s12967-025-06513-3. PMID:40346550. IF:7,500 (Q1/2D).
 - García P, Lara HR, Compta Y, Fernández M, van der Lee SJ, de Rojas I, Saiz L, Painous C, Camara A, Muñoz E, Martí MJ, Valdeoriola F, Puerta R, Illán I, Pagonabarraga J, Dols O, Kulisevsky J, Fortea J, Lleó A, Olivé C, de Boer SCM, Hulsman M, Pijnenburg Y, Belloso RD, Muñoz L, Rueda DB, Gómez P, Aldecoa I, Aragonés G, Vara JH, Mendioroz M, Pérez J, Visser PJ, den A, Papma JM, Montes AM, Rodríguez E, Blázquez J, Miguel A, García F, Cano A, Valero S, Marquié M, Capdevila M, Rosende M, Quintela I, Carracedo A, Tàrraga L, Real LM, Royo JL, Erro ME, Guerrero C, Torres DC, Blázquez M, San Millán B, Teijeira S, Rolan DV, Hernández I, Sánchez A, de la Casa B, López SS, Baviera R, Lavín A, Taipa R, Amer G, Martínez E, Fernández M, Lage C, Alvarez V, Molina L, Holstege H, Mir P, Belbin O, Boada M, Fernández V, Bullido MJ, Rábano A, Sánchez P, AGUSTIN M. A Spanish-Portuguese GWAS of progressive supranuclear palsy reveals a novel risk locus in NFASC. *EUROPEAN JOURNAL OF HUMAN GENETICS*. 2025; 33(7). DOI:10.1038/s41431-025-01872-3. PMID:40379966. IF:4,600 (Q1/2D).
 - Gascón J, Mosquera JL, Blanch M, Martí P, Fontal B, Trapero C, Rojo N, Rico I, Campdelacreu J, Fowler C, Laws SM, Tort A, Sánchez R, Bello J, Fortea J, Lleó A, Mehanian C, Swerdlow RH, Reñe R, Barrachina M. Mitochondrial methylcytosines as blood-based biomarkers for Alzheimer's disease dementia prognosis. *iScience*. 2025; 28(9):113418. DOI:10.1016/j.isci.2025.113418. PMID:40978150. IF:4,100 (Q1/2D).
 - Giménez S, Vaqué L, Zhu NL, Benejam B, Arranz J, Maure L, Videla L, Carmona M, Barroeta I, Rebillat

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- AS, Rodríguez I, Bejanin A, Arriola JE, Bueno A, Fernández S, Ribas L, Zsadanyi SE, Morcillo AO, Alcolea D, Lisgaras CP, Blessing E, Osorio RS, Lleo A, Fortea J. Impact of Alzheimer's disease on sleep in adults with Down syndrome. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(7):e70400. DOI:10.1002/alz.70400. PMID:40604343. IF:11,100 (Q1/1D).
- Giner M, Morros R, Monfà R, Ouchi D, Fernández S, Vedia C, Monné SB, Martínez E, Fanlo SC, Morollón N, Nieto RB, Delgado CE, García A. Comparison of the effectiveness of first-line preventive treatment of migraine in primary care: study protocol for a pragmatic clinical trial (PREMI study). *Trials*. 2025; 26(1):311. DOI:10.1186/s13063-025-08961-0. PMID:40859286. IF:2,000 (Q3/7D).
 - González AC, Goossens J, Campuzano EV, Sala I, Sánchez MB, Rodríguez I, Lidón L, Perlaza D, Bejanin A, Haapasalo A, Fortea J, Alcolea D, Lleo A, Vanmechelen E, Belbin O. Evaluation of cerebrospinal fluid levels of VAMP-2 and SNAP-25 in a dementia with Lewy bodies clinical cohort stratified by Alzheimer's pathophysiological biomarkers. *Alzheimer's Research & Therapy*. 2025; 17(1):51. DOI:10.1186/s13195-025-01685-y. PMID:39994784. IF:7,600 (Q1/1D).
 - González MC, Oftedal L, Lange J, Tovar DA, Tysnes OB, Paquet C, Marquie M, Boada M, Alcolea D, Rejdak K, Papuc E, Hort J, Falup C, Aarsland D, Alves G, Maple J. Relationship of cognitive decline with glucocerebrosidase activity and amyloid-beta 42 in DLB and PD. *Annals of Clinical and Translational Neurology*. 2025; 12(5). DOI:10.1002/acn3.52295. PMID:40051075. IF:3,900 (Q1/3D).
 - Guillén N, Contador J, Buongiorno M, Alvarez I, Culell N, Alcolea D, Lleó A, Fortea J, Piñol G, Carnes A, Ispuerto ML, Vilas D, Puig A, Fernández A, Balasa M, Sánchez R, Lladó A. Agreement of cerebrospinal fluid biomarkers and amyloid-PET in a multicenter study. *EUROPEAN ARCHIVES OF PSYCHIATRY AND CLINICAL NEUROSCIENCE*. 2025; 275(1). DOI:10.1007/s00406-023-01701-y. PMID:37898567. IF:3,700 (Q1/3D).
 - Heredia A, Echeverry LM, González A, Hostalet N, Pomarol E, Fortea J, Fatjó M, Martínez N, Sevillano X, Alzheimers Dis Neuroimaging I. BioFace3D: An end-to-end open-source software for automated extraction of potential 3D facial biomarkers from MRI scans. *COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE*. 2025; 271:109010. DOI:10.1016/j.cmpb.2025.109010. PMID:40818363. IF:4,800 (Q1/1D).
 - Hok YS, Vermunt L, Peeters CFW, van der Ende EL, de Boer SCM, Meeter LH, de Houwer J, Seelaar H, van JC, Hu WT, Lleó A, Alcolea D, Engelborghs S, Sieben A, Chen A, Irwin DJ, van der Flier WM, Pijnenburg Y, Teunissen CE, del Campo M. Large-scale CSF proteome profiling identifies biomarkers for accurate diagnosis of frontotemporal dementia. *Molecular Neurodegeneration*. 2025; 20(1):93. DOI:10.1186/s13024-025-00882-5. PMID:40866991. IF:17,500 (Q1/1D).
 - Huber H, Arranz J, Arslan B, Leuzy A, Kittel O, Di G, Benejam B, Videla L, Barroeta I, Soriano LD, Maure L, Rodríguez I, Infante J, Illán I, Bejanin A, Montoliu L, Lleo A, Carmona M, Alcolea D, Blennow K, Zetterberg H, Fortea J, Ashton NJ. Plasma p-tau217 as a biomarker of Alzheimer's disease pathology in individuals with Down syndrome. *Nature Communications*. 2025; 16(1):9900. DOI:10.1038/s41467-025-65882-x. PMID:41213934. IF:15,700 (Q1/1D).
 - Ivain P, Baksh A, Saini F, Idris M, Tamayo M, Wells J, Benejam B, Loosli SV, Sandkühle K, Wlasich E, Wagemann O, Levin J, Martet D, Sacco S, Falquero S, Clert M, Rebillat AS, Khoo WM, Smith MA, Beresford J, Zaman S, Carmona M, Videla L, Fortea J, Langballe EM, Medboen IT, Larsen FK, Baldimtsi E, Paradisi R, Ntallakis P, Tsolaki M, Papantoniou G, McGlinchey E, Mccarron M, Kennelly S, Strydom A. Validation of the CAMCOG-DS-II, a neuropsychological test battery for Alzheimer's disease in people with Down syndrome: A Horizon 21 European Down syndrome Consortium study. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(3):e70071. DOI:10.1002/alz.70071. PMID:40145416. IF:11,100 (Q1/1D).
 - Jacobs T, Brien CO, Figueredo L, Gogola A, Gaggi NL, Hurwitz B, Pirraglia E, Herzog S, Ramos J, Shepherd TM, Palta P, Fortea J, Wisniewski TM, Betensky RA, Lopresti B, Mielke MM, Convit A, Osorio RS, Alzheimers Dis Neuroimaging I. Body mass index and blood volume influence plasma biomarkers and positron emission tomography

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- classification in preclinical Alzheimer's disease. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(10):e70765. DOI:10.1002/alz. 70765. PMID:41074913. IF:11,100 (Q1/1D).
- Jerele C, Tzortzakakis A, Nemy M, Rennie A, Arranz J, Montal V, Bejanin A, Aarsland D, Westman E, Fortea J, Lleó A, Alcolea D, Kramberger MG, Ferreira D. Cerebrovascular co-pathology and cholinergic white matter pathways along the Lewy body continuum. *Brain Communications*. 2025; 7(3):fcf173. DOI:10.1093/braincomms/fcaf173. PMID:40391186.
 - Kac PR, Alcolea D, Montoliu L, Fernández S, Rodríguez JL, Maure L, González F, Benejam B, Turton M, Barroeta I, Harrison P, Videla L, Ashton NJ, Lleó A, Zetterberg H, Carmona M, Karikari TK, Fortea J, Blennow K. Plasma p-tau212 as a biomarker of sporadic and Down syndrome Alzheimer's disease. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(4):e70172. DOI:10.1002/alz. 70172. PMID:40275833. IF:11,100 (Q1/1D).
 - Ledreux A, Carmona M, Videla L, Benejam B, Barroeta I, Lleó A, Alcolea D, Fortea J. Cargo of small extracellular vesicles from neuronal origin shows progression of dementia in individuals with Down syndrome. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(6):e70380. DOI:10.1002/alz. 70380. PMID:40524460. IF:11,100 (Q1/1D).
 - Lehmann S, Gabelle A, Duchiron M, Busto G, Morchikh M, Delaby C, Hirtz C, Mondesert E, Cristol JP, Barnier G, Perrein F, Jurici S, Bennys K, A. Comparative performance of plasma pTau181/AB42 , pTau217/AB42 ratios, and individual measurements in detecting brain amyloidosis. *EBioMedicine*. 2025; 117:105805. DOI:10.1016/j.ebiom.2025.105805. PMID:40513421. IF:10,800 (Q1/1D).
 - Lhoëst MTL, Martínez A, García E, Dandurand J, Polishchuk A, Benítez A, Cenarro A, Civeira F, Bernabé A, Vilades D, Escolà JC, Samouillan V, Llorente V. ApoB100 remodelling and stiffened cholesteryl ester core raise LDL aggregation in familial hypercholesterolemia patients. *JOURNAL OF LIPID RESEARCH*. 2025; 66(1):100703. DOI:10.1016/j.jlr.2024.100703. PMID:39557294. IF:4,100 (Q2/4D).
 - Lioudyno MI, Sevrioukov EA, Olivarria GM, Hitchcock L, Javonillo DI, Campos SM, Rivera I, Wright ST, Head E, Fortea J, Wisniewski T, Cuello AC, Do S, Lane TE, Busciglio J. SARS-CoV-2 infection of human cortical cells is influenced by the interaction between aneuploidy and biological sex: insights from a Down syndrome in vitro model. *ACTA NEUROPATHOLOGICA*. 2025; 149(1):54. DOI:10.1007/s00401-025-02895-2. PMID:40445428. IF:9,300 (Q1/1D).
 - Lisgaras CP, Giménez S, Carmona M, Maure L, Blessing E, Fortea J, Osorio RS. High-frequency oscillations >250 Hz in people with Down syndrome and associated Alzheimer's disease dementia. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(7):e70386. DOI:10.1002/alz. 70386. PMID:40642994. IF:11,100 (Q1/1D).
 - Liu XL, de Boer SCM, Cortez K, Poos JM, Illán I, Heuer H, Forsberg LK, Casaletto K, Memel M, Appleby BS, Barmada S, Bozoki A, Clark D, Cobigo Y, Darby R, Dickerson BC, Domoto K, Galasko DR, Geschwind DH, Ghoshal N, Graff NR, Grant IM, Hsiung GYR, Honig LS, Huey ED, Irwin D, Kantarci K, Léger GC, Litvan I, Mackenzie IR, Masdeu JC, Mendez MF, Onyike CU, Pascual B, Pressman P, Bayram E, Ramos EM, Roberson ED, Rogalski E, Bouzigues A, Russell LL, Foster PH, Ferry E, Masellis M, van J, Jiskoot L, Seelaar H, Sánchez R, Laforce R, Graff C, Galimberti D, Vandenberghe R, de Mendonça A, Tiraboschi P, Santana I, Gerhard A, Levin J, Sorbi S, Otto M, Pasquier F, DuCharme S, Butler CR, Le I, Finger E, Rowe JB, Synofzik M, Moreno F, Borroni B, Boeve BF, Boxer AL, Rosen HJ, Pijnenburg Y, Rohrer JD, Tartaglia MC, ALLFTD C, GENFI C. Sex differences in clinical phenotypes of behavioral variant frontotemporal dementia. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(4):e14608. DOI:10.1002/alz. 14608. PMID:40277074. IF:11,100 (Q1/1D).
 - Macías M, Alba JJ, Acha B, Blanco I, Fernández AF, Álvarez J, Urdániz A, Roldán M, Robles M, Cabezón E, Alcolea D, de Gordo JSR, Corroza J, Cabello C, Erro ME, Jericó I, Fraga MF, Mendioroz M. Advancing Personalised Medicine in Alzheimer's Disease: Liquid Biopsy Epigenomics Unveil APOE e4-Linked Methylation Signatures. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(7):3419. DOI:10.3390/ijms26073419. PMID:40244264. IF:4,900 (Q1/3D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Martá M, Leitner DF, Kanshin E, Suazo J, Pedrosa AG, Thierry M, Lee EB, Devinsky O, Drummond E, Fortea J, Lleó A, Ueberheide B, Wisniewski T. Comparison of the amyloid plaque proteome in Down syndrome, early-onset Alzheimer's disease, and late-onset Alzheimer's disease. *ACTA NEUROPATHOLOGICA*. 2025; 149(1):9. DOI:10.1007/s00401-025-02844-z. PMID:39825890. IF:9,300 (Q1/1D).
- Maure L, Carmona M, Lott I, Head E, Wisniewski T, Rafii MS, Espinosa J, Flórez J, Mobley WC, Holland A, Strydom A, Zaman S, Fortea J. The history of Down syndrome-associated Alzheimer's disease: past, present, and future. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(6):e70158. DOI:10.1002/alz.70158. PMID:40469048. IF:11,100 (Q1/1D).
- McGlinchey E, Ranchod K, Stroebe R, Lusizi B, Galvin M, Kleinhans AV, Fortea J, Hoffman J, Makanya S. Bridging perspectives: The value of collaboration between Traditional Healing Practitioners and Medical Doctors in dementia research and care in South Africa. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(6):e70370. DOI:10.1002/alz.70370. PMID:40566835. IF:11,100 (Q1/1D).
- McGlinchey E, Tewolde S, He A, Fortea J, Mbakile L, Tefera A, Epenge E, Hassenstab J, Jaek A, Ranchod K, El S, Levin J, Salama M, Rubenstein E, Akinyemi R, Akinyemi T, Farombi T, Lawlor B, Ikanga J, Ashton NJ, Stout S, Balls J, Kleinhans AV, Maina R, Merali Z. Down syndrome in Africa: Challenges, opportunities, and future directions. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(6):e70388. DOI:10.1002/alz.70388. PMID:40538002. IF:11,100 (Q1/1D).
- Memel M, Staffaroni AM, Ilan I, Castro JG, Kornak J, Tartaglia CM, Saloner R, VandeBunte AM, Paolillo EW, Cadwallader CJ, Chen C, Gorno ML, Mandelli M, Apostolova L, Graff N, Litvan I, Bayram E, Pressman PS, Miyagawa T, Mackenzie I, Goldman J, Darby RR, Appleby BS, Petrucelli L, Gendron T, Heuer HW, Forseberg LK, Rojas JC, Boeve BF, Brushaber N, Domoto K, Ghoshal N, Lapid M, Pascual B, Lee S, Ramos EM, Ramanan V, Rademakers R, Rascovsky K, Pantelyat A, Masdeu JC, Snyder A, Boxer AL, Rosen HJ, Casaletto K, ALLFTD C. Sex differences in the clinical manifestation of autosomal dominant frontotemporal dementia. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(4):e14630. DOI:10.1002/alz.14630. PMID:40277077. IF:11,100 (Q1/1D).
- Mondesert E, Delaby C, de la Cruz E, Kuhle J, Benkert P, Pradeilles N, Duchiron M, Morchikh M, Camu W, Cristol JP, Hirtz C, Esselin F, Lehmann S. Comparative Performances of 4 Serum NfL Assays, pTau181, and GFAP in Patients With Amyotrophic Lateral Sclerosis. *NEUROLOGY*. 2025; 104(6):e213400. DOI:10.1212/WNL.00000000000213400. PMID:40009787. IF:8,500 (Q1/1D).
- Mondésert E, Schraen S, Quadrio I, Bousiges O, Bouvier D, Delaby C, Bedel A, Lehmann S, Fourier A. A French multicenter analytical evaluation of the automated Lumipulse G sNfL blood assay (Fujirebio®) and its comparison to four other immunoassays for serum neurofilament light chain assessment in clinical settings. *CLINICA CHIMICA ACTA*. 2025; 565:120007. DOI:10.1016/j.cca.2024.120007. PMID:39454987. IF:2,900 (Q1/1D).
- Montoliu L, Bian SJ, Dammer EB, Alcolea D, Sauer M, Martá M, Ashton NJ, Belbin O, Fuchs J, Watson CM, Ping LY, Duong DM, Nilsson J, Barroeta I, Lantero J, Videla L, Benejam B, Roberts BR, Blennow K, Seyfried NT, Levey AI, Carmona M, Gobom J, Lleó A, Wisniewski T, Zetterberg H, Fortea J, Johnson E. Proteomic analysis of Down syndrome cerebrospinal fluid compared to late-onset and autosomal dominant Alzheimer <acute accent>s disease. *Nature Communications*. 2025; 16(1):6003. DOI:10.1038/s41467-025-61054-z. PMID:40595720. IF:15,700 (Q1/1D).
- Muñoz A, Campoy S, Valín P, Casas J, Fernández I, González N, Santos S, Osorio YG, González A, Campdelacreu J, Portocarrero L, Sánchez LMC, Sánchez SMG, Pérez A, Sánchez NM, López A, Mínguez A, Sánchez A, Ros AL, Hernández CM, López AA, Layos A, Caronna E, Torres M, Alpuente A, Pozo P, Belvís R, García D, Díaz J, Guerrero AL, Gago AB, Huerta M. Atogepant after anti-CGRP monoclonal antibodies failure in migraine: a multicenter real-world study of effectiveness, safety, persistence and predictors of response. *JOURNAL OF HEADACHE AND PAIN*. 2025; 27(1):2. DOI:10.1186/s10194-025-02239-1. PMID:41315923. IF:7,900 (Q1/1D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Naranjo L, Sarto J, Nos C, Alcolea D, Rodríguez I, Navalpotro I, Fernández A, Bertrán B, Erro ME, Pelayo AL, Esteve C, Fernández S, Massot A, Boltes A, Torrents A, Guanyabens N, Palomino A, Egri N, Lladó A, Balasa M, Romera MA, Antón MD, Couso RS, Sánchez R, Ruiz R, Spanish SCJDGRP. Isolated CSF RT-QulC positivity associates with a less aggressive disease course and decreased levels of neuronal/glial damage biomarkers in patients with sporadic Creutzfeldt-Jakob disease. *JOURNAL OF NEUROLOGY*. 2025; 272(3):198. DOI:10.1007/s00415-024-12757-8. PMID:39932589. IF:4,600 (Q1/2D).
- Nicolas A, Sherva R, Grenier B, Kim Y, Kikuchi M, Timsina J, de Rojas I, Dalmaso MC, Zhou XP, Le Y, Arboleda CE, Bicalho M, Guerchet M, van der Lee S, Goss M, Castillo A, Bellenguez C, Küçükali F, Satizabal CL, Fongang B, Yang Q, Peters O, Schneider A, Dichgans M, Rujescu D, Scherbaum N, Deckert J, Riedel S, Hausner L, Molina L, Duzel E, Grimmer T, Wiltfang J, Heilmann S, Moebus S, Teges T, Scarneas N, Dols O, Moreno F, Pérez J, Bullido MJ, Pastor P, Sánchez R, Alvarez V, Cao H, Ip NY, Fu A, Ip FCF, Olivar N, Muchnik C, Cuesta C, Campanelli L, Solis P, Politis DG, Kochen S, Brusco LI, Boada M, García P, Puerta R, Mir P, Real LM, Pinol G, García JM, Royo JL, Rodríguez E, Soininen H, Heikkinen S, de Mendonça A, Mehrabian S, Traykov L, Hort J, Vyhnalek M, Rasmussen KL, Thomassen JQ, Pijnenburg Y, Holstege H, van JC, Seelaar H, Claassen J, Jansen WJ, Ramakers I, Verhey F, van der Lugt A, Scheltens P, Ortega J, Mera A, Mahecha MF, Pardo R, Arboleda G, Bahrami S, Fominykh V, Selbaek G, Graff C, Papenberg G, Giedraitis V, Boland A, Deleuze JF, de Marco LA, de Moraes EN, Viana BD, Cintra MTG, Juarez T, Griswold AJ, Forund T, Haines J, Farrer L, Destefano A, Wijsman E, Mayeux R, Pericak M, Kunkle B, Goate A, Schellenberg GD, Vardarajan B, Wang LS, Leung YY, Dalgard CL, Nicolas G, Wallon D, Dufouil C, Pasquier F, Hanon O, Debette S, Gruenblatt E, Popp J, Angel B, Gloger S, Chacon MV, Aranguiz R, Orellana P, Slachevsky A, González C, Albala C, Fuentes P, Sachdev P, Mather KA, Hauger RL, Merritt V, Panizzon M, Zhang R, Gaziano JM, Ghidoni R, Galimberti D, Arosio B, Mecocci P, Solfrizzi V, Parnetti L, Squassina A, Tremolizzo L, Borroni B, Nacmias B, Caffarra P, Seripa D, Rainero I, Daniele A, Piras F, Leonard HL, Yokoyama JS, Nalls MA, Miyashita A, Hara N, Ozaki K, Niida S, Williams J, Masullo C, Amouyel P, Preux PM, Mbelesso P, Bandzouzi B, Saykin A, Jessen F, Kehoe PG, Van C, Ben N, Frikke R, Cherni L, Greicius MD, Tsolaki M, Sánchez P, Silva M, Porter T, Laws SM, Sleegers K, Ingelsson M, Dartigues JF, Seshadri S, Rossi G, Morelli L, Hiltunen M, Sims R, van der Flier W, Andreassen OA, Arboleda H, Cruchaga C, Escott V, Ruiz A, Lee KH, Ikeuchi T, Ramirez A, Gim J, Logue M, Lambert JC, E. Transferability of European-derived Alzheimer's disease polygenic risk scores across multiethnicity populations. *NATURE GENETICS*. 2025; 57(7). DOI:10.1038/s41588-025-02227-w. PMID:40533518. IF:29,000 (Q1/1D).
- Oomens JE, van V, Vos SJB, Freeze WM, Maserejian NN, Curiale G, Gillis C, Boada M, van der Flier WM, Hort J, Johnson SC, Lleo A, Ramakers IH, Rodrigue KM, Sánchez P, Sarazin M, Scarneas N, Zetterberg H, Alcolea D, Barkhof F, Blennow K, Bottlaender M, den A, Cerman J, Drake M, Fortea J, Handels R, Ingala S, Jimenez JF, Karavasilis S, Lagarde J, Legdeur N, Lorenzini L, Marquie M, Moonen J, Olivieri P, Orellana A, Ossenkoppele R, Rivera LA, Rodríguez E, Laza AR, Teunissen CE, Tijms BM, Velonakis G, Verhey FRJ, Visser PJ, Jansen WJ. Cerebral Microbleeds and Amyloid Pathology Estimates From the Amyloid Biomarker Study. *JAMA Network Open*. 2025; 8(1):e2455571. DOI:10.1001/jamanetworkopen.2024.55571. PMID:39841474. IF:9,700 (Q1/1D).
- Oomens JE, Vos SJB, Maserejian NN, Boada M, Didic M, Engelborghs S, Fladby T, van der Flier WM, Frisoni GB, Fröhlich L, Gill KD, Grimmer T, Hort J, Itoh Y, Iwatsubo T, Klimkiewicz A, Landau SM, Lee DY, Lleó A, Martínez P, de Mendonça A, Meyer PT, Parchi P, Pardini M, Parnetti L, Popp J, Rami L, Reiman EM, Rinne JO, Rodrigue KM, Sánchez P, Santana I, Scarneas N, Scheltens P, Skoog I, Sperling RA, Stern Y, Villeneuve S, Waldemar G, Wiltfang J, Zetterberg H, Alcolea D, Allegri RF, Altomare D, Bateman RJ, Baiardi S, Baldeiras I, Blennow K, den A, van MA, Byun MS, Cerman J, Chen KW, Chipi E, Day GS, Drzezga A, Ekblad LL, Förster S, Fortea J, Freund Y, Frings L, Guedj E, Habeck CG, Handels R, Hausner L, Hellwig S, Jiménez JF, Juaristi AI, Kandimalla R, Kern S, Kirsebom B, Kornhuber J, Legdeur N, Levin J, Maier W, Marquié M, Minatani S, Morbelli SD, Mroczko B, Ntanasi E, de Oliveira

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- CR, Orellana A, Peters O, Prabhakar S, Ramakers IH, Rodríguez E, Ruiz A, Rütther E, Sakhardande J, Selnes P, Silva D, Soininen H, Spuru L, Takeda A, Teunissen CE, Tijms BM, Vermunt L, Wallin ÅK, Wiels W, Yannakoulia M, Yi D, Zettergren A, Ossenkoppele R, Verhey FRJ, Visser PJ, Jansen WJ, A, A4 GRP, D, EPAD C, F, J, Korean Brain Aging Study Early Diag Prediction Alzheimers Dis K, PREVENT GRP. Associations of lifestyle factors with amyloid pathology in persons without dementia. *JOURNAL OF ALZHEIMER'S DISEASE*. 2025; 108(3). DOI:10.1177/13872877251379083. PMID:41234025. IF:3,100 (Q2/5D).
- Oosthoek M, Vijverberg E, Blujdea ER, Veld S, Avilés MP, Zsadanyi SE, Hok YS, Visser A, van der Flier WM, Barkhof F, del Campo M, Schut MC, Bejanin A, Alcolea D, Teunissen CE, Vermunt L. CHIT1 and DDAH1 levels relate to amyloid-related imaging abnormalities risk profile in Alzheimer's disease patients. *Alzheimer's Research & Therapy*. 2025; 17(1):169. DOI:10.1186/s13195-025-01799-3. PMID:40696469. IF:7,600 (Q1/1D).
 - Pardo J, Roura I, Montal V, Martín C, Oltra J, Campabadal A, Bargallo N, Serradell M, Maya G, Montini A, Gaig C, Pont C, Fortea J, Iranzo A, Junqué C, Segura B. Cortical macro- and microstructural changes in isolated rapid eye movement sleep behaviour disorder. *npj Parkinsons Disease*. 2025; 11(1):199. DOI:10.1038/s41531-025-01058-0. PMID:40610447. IF:8,200 (Q1/1D).
 - Petersen ME, Flores L, Head E, Montoliu L, Strydom A, Pape SE, Fortea J, Ashton NJ, Udeh C, O'Bryant SE, German D, Despa F, Mapstone M, Zetterberg H. Blood biomarkers in Down syndrome: Facilitating Alzheimer's disease detection and monitoring. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(1). DOI:10.1002/alz. 14364. PMID:39535517. IF:11,100 (Q1/1D).
 - Puerta R, de Rojas I, García P, Olivé C, Sotolongo O, García A, García F, Montreal L, Tartari JP, Sanabria A, Pytel V, Lage C, Quintela I, Aguilera N, Rodríguez E, Alarcón E, Orellana A, Pastor P, Pérez J, Piñol G, de Munain AL, García JM, Royo JL, Bullido MJ, Álvarez V, Real LM, Anchuelo AC, Gómez D, Larrad MTM, Franco E, Mir P, Medina M, Sánchez R, Dols O, Sáez ME, Carracedo A, Tárraga L, Alegret M, Valero S, Marquié M, Boada M, Juan PS, Cavazos JE, Cabrera A, Cano A, Ruiz A, Alzheimers Dis Neuroimaging I. Linking genomic and proteomic signatures to brain amyloid burden: insights from GR@ACE/DEGESCO. *FUNCTIONAL & INTEGRATIVE GENOMICS*. 2025; 25(1):73. DOI:10.1007/s10142-025-01581-6. PMID:40133566. IF:3,100 (Q2/4D).
 - Puig N, Camps P, García E, Benítez A, Aguilera A, Fernández A, Quesada JLS, Llorente V, Benítez S. sICAM-1 concentrations are associated with inflammation in contralateral carotid plaque in patients with ischemic stroke. *Clínica E Investigación En Arteriosclerosis*. 2025; 37(2):100729. DOI:10.1016/j.arteri.2024.07.002. PMID:39095307.
 - Rafii MS, Schlachetzki Z, Barroeta I, Head E, Fortea J, Ances BM. Down syndrome and Alzheimer's disease: insights into biomarkers, clinical symptoms, and pathology. *LANCET NEUROLOGY*. 2025; 24(9). DOI:10.1016/S1474-4422(25)00237-6. PMID:40818475. IF:45,500 (Q1/1D).
 - Rennie A, Nemy M, Jerele C, Rodríguez I, Montal V, Bejanin A, Kramberger MG, Aarsland D, Fortea J, Lleó A, Westman E, Alcolea D, Ferreira D. Regional associations between cerebrovascular disease and cholinergic white matter pathways in the Lewy body continuum. *npj Parkinsons Disease*. 2025; 11(1):250. DOI:10.1038/s41531-025-01118-5. PMID:40841717. IF:8,200 (Q1/1D).
 - Rodríguez E, Rydell MT, Ullgren A, Montal V, Illán I, Fortea J, Jelic V, Bouzigues A, Russell LL, Foster PH, Ferry E, van JC, Jiskoot LC, Seelaar H, Sánchez R, Laforce R, Galimberti D, Vandenberghe R, de Mendonça A, Tiraboschi P, Santana I, Gerhard A, Levin J, Sorbi S, Otto M, Pasquier F, Ducharme S, Butler CR, Le I, Finger E, Tartaglia MC, Masellis M, Rowe JB, Synofzik M, Moreno F, Borroni B, Rohrer JD, Westman E, Graff C, Genetic Frontotemporal Dementia Initiative G. Cortical microstructure is associated with disease severity and clinical progression in genetic frontotemporal dementia: a GENFI study. *MOLECULAR PSYCHIATRY*. 2025; 30(12). DOI:10.1038/s41380-025-03280-x. PMID:41068257. IF:10,100 (Q1/1D).
 - Rodríguez I, Benejam B, Morcillo AO, Vaqué L, Arriola JE, Camacho V, Aranha MR, Carmona M, Videla L, Barroeta I, Fernández S, Zsadanyi SE, Giménez S, Arranz J, Blesa LM, Alcolea D, Lleó A, Bejanin A, Fortea J. Posterior Cortical Atrophy

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Due to Alzheimer Disease in a Person With Down Syndrome. *NEUROLOGY*. 2025; 104(1):e210179. DOI:10.1212/WNL.00000000000210179. PMID:39689339. IF:8,500 (Q1/1D).
- Rubenstein E, Tewolde S, Michals A, Fortea J, Jimenez MP, Skotko BG, Tripodis Y, Weuve J, Rosellini AJ. Novel predictors of Alzheimer's disease in Down syndrome were identified using machine learning. *JOURNAL OF ALZHEIMER'S DISEASE*. 2025; 108(3). DOI:10.1177/13872877251385423. PMID:41105592. IF:3,100 (Q2/5D).
 - Rubio S, Bernal S, Almenta D, Pérez J, Camacho V, Sala I, Sánchez MB, Castro JG, Selma J, Santos MA, Carbayo A, Turon J, Rojas R, Alcolea D, Fortea J, Lleó A, Dols O, Illán I. A Novel CHMP2B Splicing Variant in Atypical Presentation of Familial Frontotemporal Lobar Degeneration. *Annals of Clinical and Translational Neurology*. 2025; 12(9). DOI:10.1002/acn3.70023. PMID:40244880. IF:3,900 (Q1/3D).
 - Rubio S, Sala I, Sánchez MB, Videla L, Bejanin A, Estanga A, Ecay M, de Luis CL, Rami L, Tort A, Castellví M, Pozueta A, García M, Gómez D, Lage C, López S, Sánchez P, Balasa M, Llado A, Altuna M, Tainta M, Arranz J, Zhu NL, Alcolea D, Lleo A, Fortea J, Rodríguez ER, Sánchez R, Martínez P, Illán I. Amyloid-negative neuropsychological norms: Added value in the era of biomarkers and disease-modifying therapies. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*. 2025; 17(4):e70223. DOI:10.1002/dad2.70223. PMID:41383878.
 - Rubio S, Sánchez MB, Sala I, Videla L, Bejanin A, Estanga A, Ecay M, de Luis CL, Rami L, Tort A, Castellví M, Pozueta A, García M, Gómez D, Lage C, López S, Sánchez P, Balasa M, Llado A, Altuna M, Tainta M, Arranz J, Zhu NL, Alcolea D, Lleo A, Fortea J, Rodríguez ER, Sánchez R, Martínez P, Illán I. Development of amyloid-negative neuropsychological norms using GAMLSS. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*. 2025; 17(4):e70224. DOI:10.1002/dad2.70224. PMID:41383879.
 - Salvadó G, Janelidze S, Bali D, Dolado AO, Theriault J, Brum WS, Binette AP, Stomrud E, Mattsson N, Palmqvist S, Coomans EM, Teunissen CE, van der Flier WM, Rahmouni N, Benzinger TLS, Gispert JD, Blennow K, Dore V, Feizpour A, Rowe CC, Alcolea D, Fortea J, Villeneuve S, Johnson SC, Rosa P, Petersen RC, Jack CR, Schindler SE, Suárez M, Ossenkoppele R, Hansson O, ADNI ALFA PREVENT AD Study GRP. Plasma Phosphorylated Tau 217 to Identify Preclinical Alzheimer's Disease. *JAMA Neurology*. 2025; 82(11). DOI:10.1001/jamaneurol. 2025.3217. PMID:40952756. IF:21,300 (Q1/1D).
 - Sánchez B, Zhang LD, Salaberry AC, Rozalem M, Moldenhauer F, Brudfors M, Ashburner J, Nachev P, de Asúa DR, Strange BA. Performance of computed tomography and magnetic resonance morphometry in evaluating brain atrophy in Down syndrome. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(8):e70296. DOI:10.1002/alz. 70296. PMID:40762120. IF:11,100 (Q1/1D).
 - Sánchez E, Moya B, Escabias JA, Torres S, Colom M, Pegueroles J, de Quintana C, Bayes A, Molina L, Aldecoa I, Belbin O, Fortea J, Spires T, Pujals S, Sirisi S, Lleo A. Enhancing Lateral Resolution Using Two-Colour Direct Stochastic Optical Reconstruction Microscopy to Unravel Synaptic Tau Pathology in Alzheimer's Disease. *NEUROPATHOLOGY AND APPLIED NEUROBIOLOGY*. 2025; 51(2):e70010. DOI:10.1111/nan.70010. PMID:40025904. IF:3,400 (Q1/3D).
 - Sauer M, Gomes BF, Shahrouki P, Lantero J, Montoliu L, Camporesi E, Belbin O, Alcolea D, Kumar A, Sharma M, Singh S, Brinkmalm G, Gobom J, Carmona M, Schöll M, Janelidze S, Deep G, Blennow K, Zetterberg H, Brinkmalm A, Lleó A, Fortea J, Hansson O, Ashton NJ, Nilsson J. Development and validation of a novel Simoa assay for NPTX2 in Alzheimer's disease and Down syndrome. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(6):e70241. DOI:10.1002/alz. 70241. PMID:40522075. IF:11,100 (Q1/1D).
 - Sauter C, Dorn H, Bueno A, Eggert T, Schmid G, Danker H. Effects of radiofrequency electromagnetic fields on cognitive function in elderly subjects (60+years)-Results of an experimental randomised sham-controlled double-blind cross-over study in women and in men. *ENVIRONMENTAL RESEARCH*. 2025; 285:122479. DOI:10.1016/j.envres.2025.122479. PMID:40744201. IF:7,700 (Q1/1D).
 - Selma J, Rubio S, García J, Vera E, Sala I, Sánchez MB, Zhu N, Arranz J, Arriola JE, Rodríguez Í,

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Maure L, Dols O, Videla L, Valldeneu S, Barroeta I, Santos M, Carmona M, Vaqué L, Alvarez E, Lorente O, Carreras M, Belbin O, Arslan B, Ashton NJ, Zetterberg H, Blennow K, Montoliu L, Bejanin A, Lleó A, Fortea J, Alcolea D, Illán I. Association of Plasma Phosphorylated Tau 217 With Clinical Deterioration Across Alzheimer Disease Stages. *NEUROLOGY*. 2025; 105(1):e213769. DOI:10.1212/WNL.00000000000213769. PMID:40472304. IF:8,500 (Q1/1D).
- Solé C, Cattaneo G, Cabello M, Mulet L, Vaqué L, Roca A, Alviarez V, Bargalló N, Solana J, Pascual A, Bartrés D. Use of Multiple Languages Provides Cognitive Reserve Amidst Age-Related White Matter Changes. *JOURNALS OF GERONTOLOGY SERIES B-PSYCHOLOGICAL SCIENCES AND SOCIAL SCIENCES*. 2025; 80(6):gbaf064. DOI:10.1093/geronb/gbaf064. PMID:40197522. IF:3,200 (Q1/1D).
 - Soriano LD, Sandkühler K, Videla L, Benejam B, Carmona M, Wlasich E, Kustermann J, Barroeta I, Vaqué L, Rodríguez I, Bejanin A, Fernández S, Arranz J, Arriola JE, Maure L, Juan AS, Nübling G, Wagemann O, Stockbauer A, Hassenstab J, Levin J, Fortea J. Discrepancies in assessing intellectual disability levels in adults with Down syndrome: Implications for dementia diagnosis. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(6):e70307. DOI:10.1002/alz.70307. PMID:40528393. IF:11,100 (Q1/1D).
 - Soriano LD, Wagemann O, Bejanin A, Levin J, Fortea J. Sex-related differences in genetically determined Alzheimer's disease. *Frontiers in Ageing Neuroscience*. 2025; 17:1522434. DOI:10.3389/fnagi.2025.1522434. PMID:40103931. IF:4,500 (Q1/2D).
 - Suárez M, Abdelnour C, Alcolea D, Mendióroz M, Balasa M, Morenas E, Puig A, Sánchez P, Villarejo A, Sánchez R, Trabajo GRP, Estudio Conducta Demencias GRP, Soc N. Blood-based biomarkers for Alzheimer's disease: Positioning document and usage recommendations from the Behavioural Neurology and Dementia Study Group of the Spanish Society of Neurology. *NEUROLOGIA*. 2025; 40(7). DOI:10.1016/j.nrl.2024.08.002. PMID:40685136. IF:3,100 (Q2/4D).
 - Suemoto CK, Paradela R, Leite R, Paes VR, Pasqualucci CA, Ferriolli E, Zatz M, Santos GD, de Alexandria M, Pereira AC, Fortea J, Naslavsky M, Grinberg LT. Apolipoprotein E and Alzheimer's disease pathology in a diverse autopsy study. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(11):e70927. DOI:10.1002/alz.70927. PMID:41268805. IF:11,100 (Q1/1D).
 - Tort A, Pérez A, Falgàs N, Borrego S, Esteller D, Bosch B, Castellví M, Juncà J, del Val A, Fernández G, Antonell A, Sánchez MB, Rubio S, Zhu NL, García M, Pozueta A, Estanga A, Ecay M, de Luis CL, Tainta M, Altuna M, Rodríguez E, Sánchez P, Martínez P, Lleó A, Fortea J, Illán I, Balasa M, Lladó A, Rami L, Sánchez R. Decreased practice effects in cognitively unimpaired amyloid betapositive individuals: a multicenter, longitudinal, cohort study. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(3):e70016. DOI:10.1002/alz.70016. PMID:40133248. IF:11,100 (Q1/1D).
 - Ulugut H, Younes K, Montembeault M, Bertoux M, Irish M, Kumfor F, Fumagalli GG, Samanci B, Illán I, Thompson JC, Santillo AF, Englund E, Waldö ML, Riedl L, van den Stock J, Vandenbulcke M, Vandenberghe R, Laforce R, Ducharme S, Pressman PS, Caramelli P, de Souza LC, Takada LT, Gurvit H, Diehl J, Galimberti D, Pasquier F, Weintraub S, Miller BL, Sturm VE, Whitwell JL, Boeve B, Rohrer JD, Piguet O, Gorno ML, Joséphs KA, Snowden J, Rowe JB, Warren JD, Rankin KP, Pijnenburg Y, Int RTVFTDGRP. Clinical recognition of frontotemporal dementia with right temporal predominance: a consensus statement from the International Working Group. *Communications Medicine*. 2025; 5(1):523. DOI:10.1038/s43856-025-01252-4. PMID:41387629.
 - Valle N, Aranha MR, Pérez R, Serrano S, Videla L, Barroeta I, Benejam B, Chiva G, Jiménez A, Busciglio J, Wisniewski T, Do S, Álvarez E, Muñoz L, Bejanin A, Belbin O, Alcolea D, Carmona M, Lleó A, Cuello AC, Fortea J, Dols O, Iulita MF. Nerve growth factor precursor alterations in neuron-derived extracellular vesicles from individuals with Down syndrome along the Alzheimer's disease continuum. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(4):e70137. DOI:10.1002/alz.70137. PMID:40257051. IF:11,100 (Q1/1D).
 - Van V, Jansen WJ, van der Flier WM, Martínez P, Hort J, Ramakers I, Rouaud O, Laakso M,

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Engelborghs S, Popp J, Lleó A, Wallin A, Tsolaki M, Teunissen CE, Vandenberghe R, Freund Y, Frölich L, Zetterberg H, Streffer J, Lovestone S, Moonen J, Van A, Veverová K, Legdeur N, Den A, Damian D, Hall A, Bralten J, Fanelli G, Franke B, Poelmans G, Bulló M, Jimenez S, Fernández F, Salas J, Dalsgaard S, Visser PJ, Vos SJB. The association of diabetes with Alzheimer's disease biomarkers and vascular burden across European ageing and memory clinic cohorts. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(10):e70804. DOI:10.1002/alz. 70804. PMID:41165072. IF:11,100 (Q1/1D).
- Vaque L, Videla L, Benejam B, Soriano LD, Barroeta I, Fernández S, Rodríguez I, Arriola JE, Arranz J, Blesa LM, Sanjuan A, Morcillo AO, Bejanin A, Arenaza EM, Lleó A, Bartres D, Carmona M, Fortea J. Generational effects in Down syndrome: Enriched environment enhances functionality without reducing Alzheimer's disease risk. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(10):e70447. DOI:10.1002/alz. 70447. PMID:41041908. IF:11,100 (Q1/1D).
 - Videla L, Benejam B, Barroeta I, Fernández S, Altuna M, Arranz J, Rodríguez I, Arriola JE, Maure L, Soriano LD, Illán I, Estellés T, Sanjuan A, Vaqué L, Aranha MR, Morcillo AO, Zsadyani SE, Franquesa M, Valldeneu S, Sánchez MB, Padilla C, Carreras M, Lorente O, Valle N, Sánchez E, Dols O, Sirisi S, Muñoz L, Torres S, El Bennadi SE, Sánchez O, Garzón D, Ribas L, Elbachiri S, Mota C, Tondo M, Camacho V, Giménez S, Delaby C, Belbin O, Iulita MF, Montal V, Pegueroles J, Vilaplana E, Clarimon J, González S, Molina L, Aldecoa I, Alcolea D, Bejanin A, Videla S, Blesa R, Lleó A, Carmona M, Fortea J. The Down Alzheimer Barcelona Neuroimaging Initiative (DABNI) and its contributions to understanding Alzheimer's disease in Down syndrome: A decade of discovery. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(6):e70259. DOI:10.1002/alz. 70259. PMID:40528282. IF:11,100 (Q1/1D).
 - Wagemann O, Nübling G, Martínez FJ, Wlasich E, Loosli SV, Sandkühler K, Stockbauer A, Prix C, Katzdobler S, Petrera A, Hauck SM, Fortea J, Romero R, Jiménez C, Sáez JMG, Höglinger G, Levin J. Exploratory analysis of the proteomic profile in plasma in adults with Down syndrome in the context of Alzheimer's disease. *Alzheimer's & dementia : the journal of the Alzheimer's Association*. 2025; 21(3):e70040. DOI:10.1002/alz. 70040. PMID:40110647. IF:11,100 (Q1/1D).
 - Wiels WA, Oomens JE, Engelborghs S, Baeken C, von C, Boada M, Didic M, Dubois B, Fladby T, van der Flier WM, Frisoni GB, Froehlich L, Gill KD, Grimmer T, Hildebrandt H, Hort J, Itoh Y, Iwatsubo T, Klimkowicz A, Lee DY, Lleo A, Martínez P, de Mendonca A, Meyer PT, Kapaki EN, Parchi P, Pardini M, Parnetti L, Popp J, Rami L, Reiman EM, Rinne JO, Rodrigue KM, Sánchez P, Santana I, Sarazin M, Scarmeas N, Skoog I, Snyder PJ, Sperling RA, Villeneuve S, Wallin A, Wiltfang J, Zetterberg H, Ossenkoppele R, Verhey FRJ, Vos SJB, Visser PJ, Jansen WJ. Depressive Symptoms and Amyloid Pathology. *JAMA Psychiatry*. 2025; 82(3). DOI:10.1001/jamapsychiatry. 2024.4305. PMID:39841452. IF:17,100 (Q1/1D).
 - Xu XY, Kwon J, Yan RQ, Apio C, Song SM, Heo G, Yang QJ, Timsina J, Liu MH, Budde J, Blennow K, Zetterberg H, Lleó A, Ruiz A, Molinuevo JL, Lee VMY, Deming Y, Heslegrave AJ, Hohman TJ, Pastor P, Peskind ER, Albert MS, Morris JC, Park T, Cruchaga C, Sung YJ. Sex Differences in Apolipoprotein E and Alzheimer's Disease Pathology Across Ancestries. *JAMA Network Open*. 2025; 8(3):e250562. DOI:10.1001/jamanetworkopen. 2025.0562. PMID:40067298. IF:9,700 (Q1/1D).
 - Zhu NL, Altuna M, Arranz J, Rodríguez I, Sánchez MB, Videla L, Valldeneu S, Carrera M, Romero S, Fortea J, Lleó A, Giménez S, Alcolea D. Sleep-related changes in astrocytic biomarkers are modulated by APOE e4 genotype in cognitively unimpaired adults. *Brain Communications*. 2025; 7(6):fcf437. DOI:10.1093/braincomms/fcaf437. PMID:41268178.

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

Molecular Physiology of the Synapse

Group leader

Bayes Puig, Àlex (IR)

Researchers

Cazurro Gutierrez, Ana Laura (VHIR)

Del Castillo Berges, Diego (IR)

Zerpa Rios, Oriana Victoria (UAB)



DESCRIPTION

The Molecular Physiology of the Synapse Laboratory is focused on understanding the organisation and dynamics of the proteome from synapses of the forebrain, particularly excitatory synapses from the cortex and hippocampus. We want to unravel how synaptic proteome physiology orchestrates synaptic plasticity, ultimately contributing to cognition and behaviour. Furthermore, we aim to understand how disruption of normal molecular synaptic physiology can contribute to certain disorders, particularly cognitive disorders such as Intellectual Disability or Autism.

MAIN LINES OF RESEARCH

- Molecular and cellular analyses of the vertebrate synapse (Bayes Puig, Alejandro).
- Molecular and cellular dysfunctions underlying intellectual disability and autism (Bayes Puig, Alejandro).
- Research into animal models of mental and behavioural disorders (Bayes Puig, Alejandro).
- Development of new biochemical methods to study the synapse (Bayes Puig, Alejandro).

SCIENTIFIC CHALLENGES

- Characterise the molecular roots of cognition and behaviour.
- Identify the synaptic molecules and mechanisms involved in mental and behavioural disorders, mainly intellectual disabilities and autism spectrum disorders.
- Identify drugs which might help treat mental and behavioural disorders.
- Study the reversibility after birth of neurodevelopmental disorders affecting cognition.

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

ACTIVE & AWARDED GRANTS

- Bayes Puig, Alejandro. La sobreactivación de Camk2 sustentaría las disfunciones sinápticas observadas en la encefalopatía epiléptica SYNGAP1. PID2021-124411OB-I00. Ministerio de Ciencia e Innovación (MICINN). Duration: 2022-2026. 181.500,00 €
- Bayes Puig, Alejandro. Explorando las Sinapsis y las Oscilaciones Cerebrales: Nuevas Estrategias Terapéuticas para los Trastornos Relacionados con SYNGAP1. PID2024-160538OB-I0000. Ministerio de Ciencia e Innovación (MICINN). Duration: 2025-2028. 250.000,00 €
- Bayes Puig, Alejandro. Red para el estudio integrativo de los circuitos sinápticos y su papel en la enfermedad. RED2024-154082-T. Ministerio de Ciencia e Innovación (MICINN). Duration: 2025-2027. 28.000,00 €
- Bayes Puig, Alejandro. Grup De Senyalització Sinàptica. 2021 SGR 01005. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2022-2025. 40.000,00 €.
- Bayes Puig, Alejandro. Blood Cells as a New Resource for Clinical Research in SYNGAP1-related Disorders. SEEDGRANT 2024. SynGAP Research Foundation. Duration: 2024-2026. 25.000,00 €

DOCTORAL THESES DEFENDED

- Del Castillo Berges, Diego. NREM Alterations Accompany Dysregulation of Synaptic Proteome Dynamics in Syngap1 Heterozygous Mice. 29/07/2025. International mention. Universitat Autònoma de Barcelona. Supervisors: Bayes Puig, Alejandro; Lizcano de Vega, José Miguel. <https://hdl.handle.net/10803/695202>

SCIENTIFIC PRODUCTION – Articles & Reviews

- Reig R, del Castillo D, Burgas A, Arco D, Zepa O, Ramos D, Picañol J, Castellanos A, Soto D, Roher N, Sindreu C, Bayés A. Synaptic proteome diversity is shaped by the levels of glutamate receptors and their regulatory proteins. *Nature Communications*. 2025; 16(1):10487. DOI:10.1038/s41467-025-65490-9. PMID:41290593. IF:15,700 (Q1/1D).
- Sánchez E, Moya B, Escabias JA, Torres S, Colom M, Pegueroles J, de Quintana C, Bayes A, Molina L, Aldecoa I, Belbin O, Fortea J, Spires T, Pujals S, Sirisi S, Lleo A. Enhancing Lateral Resolution Using Two-Colour Direct Stochastic Optical Reconstruction Microscopy to Unravel Synaptic Tau Pathology in Alzheimer's Disease. *NEUROPATHOLOGY AND APPLIED NEUROBIOLOGY*. 2025; 51(2):e70010. DOI:10.1111/nan.70010. PMID:40025904. IF:3,400 (Q1/3D).
- Sorokina O, Dominic D, Bayés A, Armstrong JD, Grant SGN. SynaptopathyDB integrates synaptic proteomes, genetic and phenotypic data to advance research on nervous system disorders. *Scientific Reports*. 2025; 15(1):42986. DOI:10.1038/s41598-025-26969-z. PMID:41330977. IF:3,900 (Q1/2D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

Stroke Pharmacogenomics and Genetics

Group leader

Fernández Cadenas, Israel (IR)

Researchers

Carcel Marquez, Jara (IR)

Muiño Acuña, Elena (FGS)

Villatoro González, Paula (IR)

Cullell Fornes, Natalia (FUND. MUTUA TERRASSA)

Martín Campos, Jesús María (IR)

Marine Llorente, Laia (IR)

Niu, Xinhui (UAB)

Huang, Min (UAB)

Gallego Fabrega, Cristina (IR)

Appiani Imlauer, Franco Emanuel (IR)

Wang, Hairui (UAB)

Research technicians

Llucia Carol, Laia (IR)

Casellas Sánchez, Eric (IR)

Boldo Cobo, Paula (IR)



DESCRIPTION

The Stroke Pharmacogenomics and Genetics group is a multi-disciplinary group composed by 17 members, including biologists, psychologists, biotechnologists and neurologists. The objectives of the group are to find treatments for stroke and other neurological diseases that can be used in clinical practice. To find these treatments, we are using genome-wide techniques such as GWAS, EWAS, TWAS, and PWAS, as well as microbiome analysis. This includes genetics, epigenetics, transcriptomics, proteomics, and microbiomics, using large patient cohorts.

MAIN LINES OF RESEARCH

- L1 Genetic risk factors in stroke. (Carcel Marquez, Jara).
- L2 Pharmacogenetics of neurovascular diseases. (Fernández Cadenas, Israel).
- L3 Genetic and epigenetic risk factors associated with the neurological deterioration and the disability after stroke. (Gallego Fabrega, Cristina; Cullell Fornes, Natalia).
- L4 Genetic, epigenetic and proteomic factors associated with the endophenotypes of the acute phase of stroke. Integromics. (Fernández Cadenas, Israel).
- L5 Microbiome and Stroke. (Fernández Cadenas, Israel).
- L6 Lipids and Stroke. (Martín Campos, Jesús María).
- L7 CADASIL and other neurological diseases. (Muiño Acuña, Elena).

SCIENTIFIC CHALLENGES

- Integration of multi-omic data to find the key drivers associated with stroke risk and outcome.
- To find drug targets and treatments in stroke risk and outcome using bioinformatic and AI analysis.
- To understand the biological mechanisms of stroke and other neurological pathologies.
- To find treatments for CADASIL, a rare disease that causes vascular dementia and stroke.

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

ACTIVE & AWARDED GRANTS

- Appiani Imlauer, Franco Emanuel. Contratos Río Hortega 2025. CM25/00102. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2027. 65.000,00 €
- Carcel Marquez, Jara. Gen-X project: Genetic and epigenetic study of ischemic stroke and its sex differences. MARATO 202306-30. Fundació La Marató de TV3. Duration: 2024-2027. 199.801,25 €
- Carcel Marquez, Jara. Proyecto NeuroG3n. Integración de la Genómica 3D y de la Accesibilidad de la Cromatina para Identificar Mecanismos Genéticos del Deterioro Neurológico Post-Ictus. PI25/01351. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 178.625,00 €
- Fernández Cadenas, Israel. COPYCTUS: Estudio de la variación del número de copias y análisis genómico 3D para identificar dianas terapéuticas relacionadas con el deterioro neurológico posictus. PI21/01088. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2025. 96.800,00 €
- Fernández Cadenas, Israel. Elucidating the Key Mediators and Mechanisms of Cerebral Oedema and Hemorrhagic Transformation after Hemispheric Stroke using Quantitative Imaging and Genetics. NIH RO1 edema. (Raj Dhar and Spanish network) NIH - WUSTL. Duration: 2022-2027. 344.242,00 €
- Fernández Cadenas, Israel. Causal biomarkers to predict acute treatment response in stroke through multi-omic data. BIOMERGE. EPPermed JTC 2025. European Commission. Duration: 2025- 2029. 249.720,00 €
- Fernández Cadenas, Israel. CADASIL-Historia Natural (CADANHIS). AC23_2/00041. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2027. 179.375,00 €
- Fernández Cadenas, Israel. Stopped-Stroke. Reversible epigenetic therapies to SToP biological age and reduce STroke risk. MARATO 202310-30. Fundació La Marató de TV3. Duration: 2024-2027. 133.972,50 €
- Fernández Cadenas, Israel. OneCareAI - AI Powered Neurovascular Health Monitoring. 2024 PROD 00080. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2024-2026. 38.500,00 €
- Fernández Cadenas, Israel. Genètica i Epigenètica Neurovascular (NEUGEN). 2021 SGR 00836. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2022-2025. 40.000,00 €
- Fernández Cadenas, Israel. Evaluación de la eficacia de la leiriglitazona y búsqueda de biomarcadores potenciales en enfermedades de la sustancia blanca. CPP2023-010519. Ministerio de Ciencia, Innovación y Universidades. Duration: 2024-2027. 331.125,64€
- Fernández Cadenas, Israel. PROMETEO: Estudio proteo-genómico de la integrómica de datos para identificar tratamientos que mejoren la evolución neurológica tras el ictus. PI24/02102. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 196.250,00 €
- Gallego Fabrega, Cristina. TIME-ICH: Investigación temporal de la metilación y el edema en la hemorragia intracerebral. PI25/01388. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 211.487,50 €
- Muiño Acuña, Elena. Contratos Juan Rodés 2023. JR23/00045. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2027. 246.100,00 €
- Muiño Acuña, Elena. BiTE CADASIL: Identificación de Biomarcadores y potenciales dianas terapéuticas en CADASIL, así como ensayo en el modelo celular de esta enfermedad mediante reposicionamiento farmacológico. PI25/01267. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 181.250,00 €

SCIENTIFIC PRODUCTION – Articles & Reviews

- Aguilera A, Guasch M, Moniche F, Puig N, Pardo B, Benítez S, Freijo MD, Marín R, Luna A, Gallego C, Fernández I, Ezcurra G, Jiménez J, Lambea A, Gómez B, Martínez A, Arenillas JF, Prats L, Rodríguez J, Ramos A, de Celis E, Martínez JP, Trillo S, Ortega J, Martí J, Camps P. Vascular Endothelial Growth Factor-A and Collateral Circulation in Patients with Acute Ischemic Stroke due to Intracranial Large Vessel Occlusion. *Translational Stroke Research*. 2025; 17(1):3. DOI:10.1007/s12975-025-01399-1. PMID:41326757. IF:4,300 (Q1/2D).
- Alcaide E, Mola M, Escaramís G, Lazcano U, Fernández I, Reig J, Jiménez J, Giralt E, Cuadrado E, Ois A, Rodríguez A, Vallverdú M, Medina A, Jiménez C, Tur S, Díaz RM, Bruque CD, Andreu N, González I, Casals F, Vives C, Fernández I, Jiménez J, Balcells S, Rabionet R. Rare Variant Association Analysis Uncovers Involvement of VNN2 in Stroke Outcome. *STROKE*. 2025; 56(9). DOI:10.1161/STROKEAHA.124.049365. PMID:40495801. IF:8,900 (Q1/1D).
- Braun RG, Edwardson MA, Aldridge CM, Cramer SC, Cruchaga C, Engelter ST, Lee JM, Maguire JM, Stanne TM, Stamova B, Traenka C, Gallego C, Cadenas IF, Lindgren AG. Blood Biospecimen Recommendations for Research on Stroke Outcomes and Recovery. *STROKE*. 2025; 56(10). DOI:10.1161/STROKEAHA.125.050793. PMID:40982604. IF:8,900 (Q1/1D).
- Bugallo A, Muiño E, Bravo SB, Hervella P, Arias S, Rodríguez M, Vara E, Quintas R, Pérez L, Maisterra O, Pizarro J, Martorell MR, Vives C, Fernández I, Castillo J, Campos F. NOTCH3 Variant Position Affects the Phenotype at the Pluripotent Stem Cell Level in CADASIL. *NEUROMOLECULAR MEDICINE*. 2025; 27(1):18. DOI:10.1007/s12017-025-08840-6. PMID:40016442. IF:3,900 (Q2/3D).
- DeDiego ML, López R, Pedragosa J, López D, Nogales A, Durbán J, Cardona F, Lluçà L, Rivero V, Vazquez P, Sánchez LP, Cobo M, Lloret L, Márquez L, Ruiz F, Lozano F, Sibila O, Faner R, Castro P, Domingo C, Robles V, Bedini JL, Rico V, Agüero D, Soriano A, Nalda AM, Martínez AP, Colobran R, Soler P, Serra A, Dietl B, Arranz MJ, Dalmau D, Signes J, Gil J, Todolí J, Martínez J, Rojo S, Fiz A, Arribas E, Cal P, Bernado D, Vogel M, Wiemann S, Abolhassani H, Pan Q, Pujol A, Su HC, Lee D, Zhang SY, Casanova JL, Fernández I, Pérez J, Planas AM, COVID Human Genetic E. OAS1 and OAS3 genetic variants enhance inflammatory responses to SARS-CoV-2. *iScience*. 2025; 28(12):113966. DOI:10.1016/j.isci.2025.113966. PMID:41438061. IF:4,100 (Q1/2D).
- Delaby C, Alcolea D, Busto G, Gabelle A, Aygnac X, Bennys K, Muiño E, Villatoro P, Fernández I, Pradeilles N, El Bounasri S, Torres S, Hirtz C, Zetterberg H, Lleó A, Fortea J, Lehmann S. Plasma Hepcidin as a potential informative biomarker of Alzheimer disease and vascular dementia. *Alzheimer's Research & Therapy*. 2025; 17(1):42. DOI:10.1186/s13195-025-01696-9. PMID:39948603. IF:7,600 (Q1/1D).
- Farré X, Blay N, Iraola S, Fernández F, Alzate S, Lluçà L, Espinosa A, Castaño G, Dobaño C, Moncunill G, Karachaliou M, García J, Kogevinas M, Barceló C, Cadenas I, de Cid R. VEGFA sex-specific signature is associated to long COVID symptom persistence. *BMC Medicine*. 2025; 23(1):552. DOI:10.1186/s12916-025-04402-6. PMID:41074076. IF:8,300 (Q1/1D).
- Gravesteijn G, Rutten JW, Cerfontaine MN, Hack RJ, Liao YC, Jolly AA, Guey S, Hsu SL, Park JY, Yuan Y, Kopczak A, Rifino N, Neilson SJ, Poggesi A, Shourav M, Saito S, Ishiyama H, Mayoral AD, Nogueira R, Muino E, Andersen P, De Stefano N, G, Sukhonpanich N, Mele F, Park A, Lee JS, Rodríguez M, Vonk SJJ, Brodtmann A, Boerjesson A, Pantoni L, Fernández I, Silva AR, Montanaro V, Kalaria RN, Loperigolo D, Ihara M, Meschia JF, Muir KW, Bersano A, Pescini F, Duering M, Choi JC, Ling C, Kim H, Markus HS, Chabriat H, Lee YC, Oberstein S. Disease Severity Staging System for NOTCH3-Associated Small Vessel Disease, Including CADASIL. *JAMA Neurology*. 2025; 82(1). DOI:10.1001/jamaneurol.2024.4487. PMID:39610302. IF:21,300 (Q1/1D).
- Guasch M, Camps P, Toscano C, Guisado D, Martínez A, Prats L, Ramos A, Fernández I, Martínez JP, Fernández I, Avellaneda C, de Celis E, Rodríguez J, Freijo MD, Luna A, Moniche F, Pardo B, Ortega J, Arenillas JF, Cortijo E, Martí J. Influence of dehydration on collateral circulation and clinical outcome after endovascular therapy in patients with acute ischemic stroke. *NEUROLOGIA*. 2025; 40(9). DOI:10.1016/j.nrl.2023.04.007. PMID:41077187. IF:3,100 (Q2/4D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Guasch M, Dhar R, Kumar A, Cifarelli J, Ezcurra G, Lambea A, Ramos A, Martínez A, Prats L, Guisado D, Fernández I, Aguilera A, Marín R, Martínez J, Ortega J, Fernández I, Avellaneda C, Rodríguez J, de Celis E, Moniche F, Freijo M, Cortijo E, Trillo S, Camps P, Martí J. Early automated cerebral oedema assessment following endovascular therapy: impact on stroke outcome. *Journal of NeuroInterventional Surgery*. 2025; 17(4). DOI:10.1136/jnis-2024-021641. PMID:38637151. IF:4,300 (Q1/1D).
- Guasch M, Díaz GE, Lambea A, Ramos A, Martínez A, Prats L, Fernández JM, Toscano C, Martí J, Martínez JP, Fernández I, Cardona P, Rodríguez N, Vázquez AR, Gomis M, Xuclà T, Rodríguez A, Cánovas D, Seró L, Purroy F, Salvat M, Abilleira S, Camps P, Catalan Stroke Code Reperfusion Consortium CICAT &. Influence of Asymptomatic Hemorrhagic Transformation After Endovascular Treatment on Stroke Outcome. *NEUROLOGY*. 2025; 104(9):e213509. DOI:10.1212/WNL.0000000000213509. PMID:40228188. IF:8,500 (Q1/1D).
- Lledós M, Prats L, Muiño E, Cullell N, Lluçà L, Cárcel J, Gallego C, Martín JM, Marín R, Aguilera A, Guasch M, Ezcurra G, Camps P, Freijo MD, Martí J, Fernández I. Influence of the Gut Microbiota on Acute Ischemic Stroke Functional Outcomes at Three Months. *EUROPEAN JOURNAL OF NEUROLOGY*. 2025; 32(7):e70265. DOI:10.1111/ene.70265. PMID:40686474. IF:3,900 (Q1/3D).
- Núñez D, Fernández A, del Río C, Penalba A, Lluçà L, Muiño E, Ezcurra G, Guasch M, Cullell N, Serrano G, Arias L, Vives C, Tur S, Urra X, Castellanos M, Krupinski J, Freijo M, Jiménez J, Fernández I, Segura T, Martí J, Fernández I, Montaner J. Plasma proteomics uncovers divergent molecular signatures in ischemic stroke and intracerebral haemorrhage. *Biomarker Research*. 2025; 13(1):136. DOI:10.1186/s40364-025-00848-1. PMID:41152969. IF:11,500 (Q1/1D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

Genetic Diseases

Group leader

Gallano Petit, María Pia (FGS)

Researchers

Abuli Vidal, Anna (FGS)

Artigas Baleri, Alicia (CONSORCI MAR PARC SALUT)

Bernal Noguera, Sara (FGS)

Boronat Guerrero, Susana (FGS)

Cusco Marti, Ivon (FGS)

González Quereda, Lidia (FGS)

Lasa Laborde, Adriana María (FGS)

Riera Armengol, Pau (FGS)

Rodríguez Santiago, Benjamin (FGS)

Roig Mombru, María Del Carmen (FGS)

Segarra Casas, Alba (IR)

Serra Juhe, Clara (FGS)

Tejero Laguna, Eudald (IR)

Vega Hanna, Lourdes Rita (FGS)

Villa Marcos, Olaya (FGS)

Research technicians

Baena Gimeno, Manel (FGS)

Cliville Santano, Nuria (FGS)

Cornet Ciurana, Monica (FGS)

Rodríguez Fernández, María José (FGS)



DESCRIPTION

The Genetic Diseases Group is a multidisciplinary group with an important clinical component in its research within the Genetics Department of the Hospital de Sant Pau. Its activities also have a translational orientation facilitated by the clinical environment in which it performs the laboratory work.

The primary objective of the Genetic Diseases Group is to advance molecular diagnosis of genetic and rare diseases through genomic, transcriptomic, functional, and pharmacogenetic studies, improving knowledge of the molecular mechanisms of known genes and identifying new ones. The results of these genetic studies allow us to establish, in many cases, different therapeutic options and to offer genetic counselling to families. The fact that the group is composed entirely of Sant Pau Genetics Dept staff supports the clinical translational impact of their research.

MAIN LINES OF RESEARCH

Genetics of congenital myopathies, congenital and adult muscular dystrophies, including limb girdle muscle dystrophies, and congenital myasthenic syndromes.

- Spinal atrophy and SMN genes.
- Genetics of hereditary cancer.
- Pharmacogenetics.
- Cardiogenetics.
- Genetics in paediatrics-obstetrics.

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

SCIENTIFIC CHALLENGES

Congenital myopathies, congenital and adult muscular dystrophies, including limb girdle muscle dystrophies, and congenital myasthenic syndromes:

- Identification of mutations and genetic variants.
- Studies of molecular pathology and disease mechanisms of neuromuscular diseases-related genes.
- Transcriptome analysis by RNA-Seq technology.
- Functional studies on the DMD genes to determine the pathogenic effect of the identified variants.
- Long Read Sequencing by ONT technology to characterise long repeat expansions in size and composition.

Spinal atrophy and SMN genes:

- To design new strategies for the study and improvement of the molecular diagnosis of atypical cases.
- To perform functional studies for the characterisation of genetic variants of uncertain clinical effect to improve diagnosis.
- Studies of molecular pathology, disease mechanisms, and SMN gene expression.
- Identification of modifying genes.
- Study of biomarkers for validation processing in spinal muscular atrophy.
- Study of the neuromuscular junction in human development.

Hereditary cancer:

- Development of Precision Medicine in hereditary syndromes of predisposition to cancer: an approach to the diagnosis, treatment and prevention of cancer through the identification of pathogenic variants in multigene assays.
- Development of functional studies for the characterisation of genetic variants of uncertain clinical effects.
- Analysis of biomarkers in liquid biopsy-free circulating tumour DNA (ctDNA) as a predictor of response to the treatment of breast cancer.

- Contribution to the development of an open database of genetic variants included in Hereditary Cancer Genetic Testing Panels.

Pharmacogenetics:

- Identification of biomarkers of response/toxicity to drugs used in cancer, rheumatology, inflammatory bowel diseases, cardiology, and haematology.
- Congenital coagulopathies: molecular pathology of haemophilia.
- Duchenne and Becker muscular dystrophy: molecular pathology of the DMD gene.
- Identification of the molecular alterations responsible for hereditary hearing loss.
- Studies of the molecular pathology causing ataxias.
- Clinical and Molecular diagnosis of complex diseases of pediatric-onset with special attention to Neurodevelopmental Disorders.

Cardiogenetics:

- Clinical and Molecular studies of patients with cardiomyopathies (dilated, hypertrophic, arrhythmogenic, non-compacted, etc) to identify disease-associated genetic variants.
- Study of clinically discordant families with the same pathogenic genetic variant to identify phenotype modifiers in cardiomyopathies.
- Clinical and Molecular characterisation of patients with aortic diseases (Aortic Aneurysms, Aortic Valvular Disease, Aortic Occlusive Disease, Traumatic Aortic Disease, Aortic Dissections).

Paediatrics-obstetrics:

- Clinical and Molecular studies of syndromic patients: Identification of responsible variants and discovery of new genes.
- Clinical and Molecular studies of fetal anomalies detected during pregnancy.

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

ACTIVE & AWARDED GRANTS

- Boronat Guerrero, Susana. Study of genomic disease burden to complement Cause of Death investigation in Sub-Saharan Africa: a pilot study from Child Health and Mortality Prevention Surveillance (CHAMPS) Network. QPP1126780 GATES. Gates Foundation. Duration: 2023-2025. 248.609,60 €
- Gallano Petit, María Pia. Centro de Investigación Biomédica en Red de Enfermedades Raras. CIBERER. CB06/07/0011. Instituto de Salud Carlos III (ISCIII).
- González Quereda, Lidia. Análisis integrado de datos genómicos y transcriptómicos para el avance del conocimiento molecular y del diagnóstico de las miopatías. PI22/01859. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2026. 87.120,00 €
- González Quereda, Lidia. Application of novel sequencing technologies to solve the most complex dystrophinopathy cases. DUCHENNE ESPAÑA 2024. Asociación Duchenne Parent Project España. Duration: 2025-2026. 59.907,92 €
- Riera Armengol, Pau. Integración de la farmacogenética y la telemedicina mediante salud móvil para el manejo de los efectos adversos en pacientes con cáncer colorrectal. (ePGx study). FEFH 2022. Fundación Española de Farmacia Hospitalaria. Duration: 2022-2025. 15.400,00 €

DOCTORAL THESES DEFENDED

- Segarra Casas, Alba. Improving genetic diagnosis of hereditary myopathies by integrating transcriptome, genome sequencing and reanalysis. 23/10/2025. Universitat Autònoma de Barcelona. Supervisors: Surrallés Calonge, Jordi; González Quereda, Lidia. <https://hdl.handle.net/10803/695670>
- Tejero Laguna, Eudald. Genomic data reanalysis and variant reinterpretation in genetic diseases: A bioinformatic and clinical reevaluation in inherited cardiac conditions and suspected Fanconi anaemia patient cohorts. 31/10/2025. Universitat Autònoma de Barcelona. Supervisors: Surrallés Calonge, Jordi; Rodríguez Santiago, Benjamín. <https://hdl.handle.net/10803/695929>

SCIENTIFIC PRODUCTION – Articles & Reviews

- Alonso J, Barrachina O, González L, Viguera ML, Luján M, Guitart M, Martínez JM, Carbayo A, Gallano P, Díaz J, Olivé M, Rojas R. Novel DES mutation presenting with isolated restrictive respiratory failure. Expanding the clinical spectrum. NEUROLOGIA. 2025; 40(5) DOI:10.1016/j.nrl.2023.03.002. PMID:40523712. IF:3,100 (Q2/4D).
- Da IM, Plaza A, Ruiz J, Juanes A, Riera P. The Role of Pharmacogenetic Biomarkers in Pain. Biomedicines. 2025; 13(8):1935. DOI:10.3390/biomedicines13081935. PMID:40868188. IF:3,900 (Q1/3D).
- De Dios A, Pages N, Ojeda S, Riera P, Pelegrín R, Morollón N, Belvis R, Real J, Masip M. Persistence, effectiveness, and tolerability of anti-calcitonin gene-related peptide monoclonal antibodies in patients with chronic migraine. HEADACHE. 2025; 65(1)DOI:10.1111/head.14827. PMID:39268992. IF:4,000 (Q1/2D).
- Dols O, Carbayo A, Jericó I, Blasco O, Alvarez E, Pérez M, Bernal S, Rodríguez B, Cusco I, Turon J, Cabezas M, Caballero M, Vesperinas A, Llansó L, Pagola I, Torné L, Valle N, Muñoz L, Rubio S, Illán I, Cortés E, Gelpi E, Rojas R. Identification of a pathogenic mutation in ARPP21 in patients with amyotrophic lateral sclerosis. JOURNAL OF NEUROLOGY NEUROSURGERY AND PSYCHIATRY. 2025; 96(2)DOI:10.1136/jnnp-2024-333834. PMID:38960585. IF:7,500 (Q1/1D).
- Esmel R, Ríaza L, Dolader P, Rodríguez B, Lasa A, Muñoz P, Fernández P, Figueras M, Bianco L, Bueno A, Vargas L, Camprubí E, Marimon C, Sabaté A, Rosés F, Gran F. Infarct-like myocarditis in adolescents: Exploring genetic insights from diagnosis through follow-up. INTERNATIONAL JOURNAL OF CARDIOLOGY. 2025; 432:133255. DOI:10.1016/j.ijcard.2025.133255. PMID:40246029. IF:3,200 (Q2/3D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Felipe DF, Casas D, Sadok SH, Fernández MT, Vega L, Plaza L, Villa AV, Armstrong J, Guillén E, Martínez AF. Unveiling the Spectrum: Clinical and Molecular Insights from a Spanish Pediatric Cohort with Hypermobility Disorders and Ehlers-Danlos Syndrome. *Genes*. 2025; 16(8):925. DOI:10.3390/genes16080925. PMID:40869974. IF:2,800 (Q2/5D).
- Iruzubieta P, Verdú J, Töpf A, Luce L, Claeys KG, De Ridder W, González L, de la Hoz CPD, Poza JJ, Zulaica M, de Jonghe P, Duff J, Mroczek M, Martín P, Hernández A, Domínguez C, Baets J, Gallano P, Díaz J, Straub V, de Munain AL, Fernández R. Clinical and imaging spectrum of non-congenital dominant ACTN2 myopathy. *JOURNAL OF NEUROLOGY*. 2025; 272(2):150. DOI:10.1007/s00415-025-12893-9. PMID:39812845. IF:4,600 (Q1/2D).
- Llansó L, Ravenscroft G, Aceituno C, Gutiérrez A, Parmar J, Gallano P, Caballero M, Carbayo A, Vesperinas A, Collet R, Blanco R, Laing N, Hove L, Gallardo E, Olivé M. A Homozygous ATP2A2 Variant Alters Sarcoendoplasmic Reticulum Ca²⁺-ATPase 2 Function in Skeletal Muscle and Causes a Novel Vacuolar Myopathy. *NEUROPATHOLOGY AND APPLIED NEUROBIOLOGY*. 2025; 51(1):e70000. DOI:10.1111/nan.70000. PMID:39817497. IF:3,400 (Q1/3D).
- Llansó L, Stevanovski I, Morís G, Collet R, Segarra A, González L, Rodríguez B, Gallano P, Álvarez R, Vesperinas A, Blanco R, San B, Navarro C, Illa I, Ravenscroft G, Deveson IW, Gallardo E, Olivé M. Repeat Expansions in PLIN4 Cause Autosomal Dominant Vacuolar Myopathy With Sarcolemmal Features. *Annals of Clinical and Translational Neurology*. 2025; 12(10)DOI:10.1002/acn3.70146. PMID:40693562. IF:3,900 (Q1/3D).
- Lobo D, Sainz L, Laiz A, De Dios A, Fontcuberta L, Fernández S, Masip M, Riera P, Pages N, Ros S, Gomis M, Corominas H. Designing an integrated care pathway for spondyloarthritis: A Lean Thinking approach. *JOURNAL OF EVALUATION IN CLINICAL PRACTICE*. 2025; 31(2)DOI:10.1111/jep.14132. PMID:39253893. IF:2,100 (Q2/3D).
- Pérez J, Olmedo G, Martínez S, Bernal S, Pagonabarraga J, Kulisevsky J. Update on Genetic Chorea. *EUROPEAN JOURNAL OF NEUROLOGY*. 2025; 32(10):e70357. DOI:10.1111/ene.70357. PMID:41104576. IF:3,900 (Q1/3D).
- Rubio S, Bernal S, Almenta D, Pérez J, Camacho V, Sala I, Sánchez MB, Castro JG, Selma J, Santos MA, Carbayo A, Turon J, Rojas R, Alcolea D, Fortea J, Lleó A, Dols O, Illán I. A Novel CHMP2B Splicing Variant in Atypical Presentation of Familial Frontotemporal Lobar Degeneration. *Annals of Clinical and Translational Neurology*. 2025; 12(9) DOI:10.1002/acn3.70023. PMID:40244880. IF:3,900 (Q1/3D).
- Segarra A, Domínguez C, Natera D, Kapetanovic S, Hernández A, Estévez B, Llansó L, Ortez C, Jou C, Martí I, López A, Rodríguez MJ, González L, Nedkova V, Fernández R, Rodríguez B, Jimenez C, Juntas R, López A, Surrallés J, Nascimento A, Gallardo E, Olivé M, Gallano P, González L. Translating Muscle RNAseq Into the Clinic for the Diagnosis of Muscle Diseases. *Annals of Clinical and Translational Neurology*. 2025; 12(7) DOI:10.1002/acn3.70078. PMID:40413734. IF:3,900 (Q1/3D).
- Segarra A, Iruzubieta P, Kapetanovic S, Hernández A, Jericó I, Fernández R, Maneiro M, Marco P, Zelaya MV, Rodríguez B, Calafell F, Töpf A, Straub V, Vallejo A, de Munain AL, Gallano P, González L. A founder variant in the RYR1 gene is associated with hyperCKemia, myalgia and muscle cramps. *EUROPEAN JOURNAL OF NEUROLOGY*. 2025; 32(1):e16471. DOI:10.1111/ene.16471. PMID:39742415. IF:3,900 (Q1/3D).
- Simoes AR, González SC, López MD, Duran G, Fernández A, Fernández MP, Fernández MS, Mata JG, Paez D, Riera P, Guino E, López L, de Santiago BG, Aspiroz EL, Rojas A, Castells A, Castellvi S, Ponte CR, Vymetalkova V, Carracedo A, Fernández C. Novel approaches for the discovery of pharmacogenetic biomarkers of chemotoxicity in patients with colorectal cancer. *BRITISH JOURNAL OF PHARMACOLOGY*. 2025; 182(21) DOI:10.1111/bph.70051. PMID:40624839. IF:7,700 (Q1/1D).
- Tejero E, de Haro MJR, Pujol R, Bogliolo M, Rodríguez B, Surrallés J. Ending diagnostic odyssey by reanalysis of whole exome sequencing data: reclassification of suspected Fanconi anaemia cases to dyskeratosis congenita and Diamond-Blackfan anaemia. *Orphanet Journal of Rare Diseases*. 2025; 20(1):511. DOI:10.1186/s13023-025-03928-5. PMID:41088272. IF:3,500 (Q2/4D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Trujillano L, Valenzuela I, Costa M, Cusco I, Fernández P, Cueto A, Lasa A, Masotto B, Abuli A, Codina M, del Campo M, Moreno J, Dominguez CP, Milla CP, de la Fuente RP, Quesada JF, Nunez N, Gener B, Ballesta MJ, Brea AJ, Fernández M, Trujillo JP, Ruiz A, Santos F, Roselló M, Orellana C, Martínez F, Martínez AF, Casas D, Serrano M, Palomares M, Rikeros E, Gómez MA, Tirado P, Juste JP, Ramos FJ, García E, Tizzano EF. Comprehensive Clinical and Genetic Characterisation of a Spanish Cohort of 22 Patients With Bainbridge-Ropers Syndrome. CLINICAL GENETICS. 2025; 107(6)DOI:10.1111/cge.14701. PMID:39833101. IF:2,300 (Q3/6D).
- Villanueva CL, Arbizu EA, Goruppi I, Lozano NB, Bianchi F, Martínez AP, Pina SM, Caballero A, Murzi M, Bettoletti F, Estremera F, Guerrero SB, Argente CG. Peroral endoscopic myotomy (POEM) as a treatment for pediatric achalasia: multicenter study and first results. Gastroenterología y Hepatología. 2025; 48(4):502262. DOI:10.1016/j.gastrohep.2024.502262. PMID:39343296. IF:1,900 (Q3/7D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

Neurosurgery

Group leader

Muñoz Hernández, Fernando (FGS)

Researchers

Aibar Duran, Juan Angel (FGS)

Borràs Pino, Xavier (FGS)

Casitas Hernando, Vicente (FGS)

De Quintana Schmidt, Cristian José (FGS)

Freixer Palau, Berta (FGS)

Leidinger, Andreas (FGS)

Noguera Marti, Marc (FGS)

Patino Alvarado, Juan Diego (FGS)

Rico Pereira, Marta (FGS)

Rodríguez Rodríguez, Rodrigo (FGS)

Roig Arsequell, Clara (FGS)

Sánchez Nevado, Raquel (FGS)

Tello Vicente, José Antonio (FGS)



DESCRIPTION

The neurosurgery team is a young research group with a clear mission: to improve patients' quality of life and, at the same time, contribute to improvements in healthcare practice through research into potentially surgical neurological diseases. There are 4 areas of knowledge where our group stands out nationally and internationally: neurooncology, skull base, functional neurosurgery and spine.

MAIN LINES OF RESEARCH

- Tumour biology: gliomas (prognostic value of different mutations in anaplastic astrocytoma and GBM). (Freixer, Berta; Casitas Vicente).
- Tumour biology: Neuroendocrine Tumours (pituitary adenomas). (Muñoz Hernández, Fernando).
- Biomarkers in anaplastic astrocytomas and glioblastoma multiforme. (Freixer, Berta; Casitas Vicente).
- Application of new technologies in the resection of intracranial tumours. (De Quintana Schmidt, Cristian José).
- Towards a pharmacological treatment for SYNGAP1 deficiency. Preclinical studies to investigate the efficacy of 4 drugs in the rescue of the main phenotypes. (Freixer, Berta; Casitas Vicente).
- Prospective study of patients operated on by endoscopic endonasal approach. (Muñoz Hernández, Fernando).
- Anatomical studies of the skull base. (Muñoz Hernández, Fernando).
- Clinical evaluation of neurostimulation techniques in different neurological entities (Parkinson's disease and neuropathic pain). (Rodríguez Rodríguez, Rodrigo; Aibar Duran, Juan Angel).
- Neurostimulation for resistant craniofacial pain (jointly with Neurology and Pain Clinic Unit). (Rodríguez Rodríguez, Rodrigo; Aibar Duran, Juan Angel).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- “Study of brain neuromodulation techniques for psychiatric indications (depression and schizophrenia)” (Rodríguez Rodríguez, Rodrigo; Aibar Duran, Juan Angel).
- Use of intraoperative ecography for treatment of brain tumours. (De Quintana Schmidt, Cristian José).
- Monitor the glioma tumour diagnosis, treatment and prognostic factors (Hospital Sant Pau). (Freixer, Berta; Casitas Vicente).
- Pituitary adenoma treatment: medial cavernous sinus wall approach to cure adenomas. (Muñoz Hernández, Fernando).
- Intraoperative neuromonitoring of oculomotor cranial nerves in skull base tumours. (Muñoz Hernández, Fernando).
- Pre-op and post-op volumetric study in OPEN laminectomies vs MISS (tubular) laminectomies. (Patino Alvarado, Juan Diego; Leidinger, Andreas).
- The impact of lateral lumbar interbody fusion on psoas muscle morphology. (Patino Alvarado, Juan Diego; Leidinger, Andreas).

SCIENTIFIC CHALLENGES

- Neurotech Laboratory is a research and development lab dedicated to the design and testing of human implantable and external neuromodulation devices aimed at improving specific neurological conditions.
- Neurostimulation for resistant craniofacial pain (jointly with Neurology and Pain Clinic Unit).
- Deep brain stimulation for resistant psychiatric disease: depression and schizophrenia.
- Use of intraoperative ecography for treatment of brain tumours. How to maximise the extent of resection.
- Use of tractography in resection of brain tumours
- Better outcomes in Pituitary Surgery by removing the tumour inside the cavernous sinus
- Use of artificial intelligence and volume calculation to assess outcomes of spine surgery
- Implementation of HIFU treatment in patients with neurological and psychiatric disorders.

DOCTORAL THESES DEFENDED

- Aibar Durán, Juan Ángel. Correlación entre el uso intraoperatorio de la ecografía cerebral neuronavegada y el ácido 5-aminolevulínico en la cirugía de gliomas de alto grado e histología de los márgenes de resección. Validez y fiabilidad de ambas técnicas. 17/01/2025. Universitat Autònoma de Barcelona. Supervisors: De Quintana Schmidt, Cristian José; Gallardo Alcañiz, Alberto; Mirapeix Lucas, Rosa María. <https://hdl.handle.net/10803/693535>

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

SCIENTIFIC PRODUCTION – Articles & Reviews

- Aibar JA, González N, Mirapeix RM, Sánchez NM, Arsequell CR, Pichot MB, Nieto RB, Fenoy GP, Schmidt CD, Hernández FM, Fernández FS, Rodríguez RR. Deep brain stimulation for chronic refractory cluster headache: A case series about long-term outcomes and connectivity analysis. *HEADACHE*. 2025; 65(3). DOI:10.1111/head.14875. PMID:39601224. IF:4,000 (Q1/2D).
- Aibar JA, Mirapeix RM, Alcañiz AG, Salgado L, Freixer B, Hernando VC, Hernández FM, de Quintana C. High-grade glioma: combined use of 5-aminolevulinic acid and intraoperative ultrasound for resection and a predictor algorithm for detection. *JOURNAL OF NEUROSURGERY*. 2025; 143(2). DOI:10.3171/2024.12.JNS242496. PMID:40250048. IF:3,600 (Q1/2D).
- Aibar JA, Watanabe RA, McDannold NJ, Cosgrove GR. New technique for direct targeting of the ventral intermediate nucleus using magnetic resonance-guided focused ultrasound. *Frontiers In Radiology*. 2025; 5:1588379. DOI:10.3389/fradi.2025.1588379. PMID:40568315.
- Bernardi E, Ros V, Coronel M, Lazzari R, Aibar JA, Sierra A. Electroencephalographic manifestations of intracranial hypertension in a patient with ventriculoperitoneal shunt malfunction. *SEIZURE-EUROPEAN JOURNAL OF EPILEPSY*. 2025; 133. DOI:10.1016/j.seizure.2025.10.017. PMID:41175508. IF:2,800 (Q2/5D).
- De la Riva AG, Rico M, Vorsic M, Rokavec V, Asencio C, F. Multicenter Randomised Controlled Clinical Trial to Compare the Safety and Performance of Two Bone Flap Fixation Systems. *Operative Neurosurgery*. 2025; 29(3). DOI:10.1227/ons.0000000000001461. PMID:39584820. IF:1,400 (Q3/6D).
- Gras JR, Casasayas M, Kolanczak K, Hernández FM, Martín MM, Moreno EG. Our experience in petroclival lesions using a contralateral transmaxillary approach. *NEUROCIRUGIA*. 2025; 36(1). DOI:10.1016/j.neucir.2024.10.009. PMID:39672470. IF:0,800 (Q3/8D).
- Gras JR, Casasayas M, Martel M, Kolanczak K, Massegur H, Hernández FM. Section and repositioning of the inferior turbinate in the design of extended septal flaps. *Acta Otorrinolaringologica Espanola*. 2025; 76(1). DOI:10.1016/j.otorri.2024.07.004.
- Mazurek MH, Bassa MJ, Padayachy L, Wetzel EA, Moiyadi A, Perin A, De Quintana C, Prada F, Nahed B, DiMeco F, Unsgard G. An International Course on Intraoperative Ultrasound in Neurosurgery: Evaluation of a Multicenter, Hands-On Course in Promoting Familiarity and Use of Intraoperative Ultrasound in Neurosurgery. *World Neurosurgery*. 2025; 204:124524. DOI:10.1016/j.wneu.2025.124524. PMID:41033596. IF:2,100 (Q2/4D).
- Paja M, Soto A, Hanzu FA, Guerrero F, Cámara R, Moure D, Gálvez A, Simó A, Villar R, Calatayud M, Vicente A, Recio JM, Serra G, Rojas PM, Parra P, Araujo M, Librizzi S, Irigaray A, Ollero D, Aznar S, Muñoz F, Aulinas A, González L, García R, Egaña N, González T, Menéndez E, Delgado AM, Abarca J, Sottile J, Picó AM, Novo C, Ortiz I, Tenorio C, de León R, de Pablos P, Crespo C, Peñalver D, Díaz G, Puig M, Biagetti B, Neuroendocrinology Spanish Endocrinol Nutr Soc SEEN GRP. Outcomes of transsphenoidal surgery for pituitary adenomas in Spain: a retrospective multicenter study. *Frontiers in Endocrinology*. 2025; 16:1529418. DOI:10.3389/fendo.2025.1529418. PMID:40060376. IF:4,600 (Q1/3D).
- Rico M, Muñoz F. Anterior clinoid process metastasis with sudden loss of vision: role of emergency optic nerve decompression. *Egyptian Journal Of Neurosurgery*. 2025; 40(1):17. DOI:10.1186/s41984-025-00371-3.
- Sánchez E, Moya B, Escabias JA, Torres S, Colom M, Pegueroles J, de Quintana C, Bayes A, Molina L, Aldecoa I, Belbin O, Fortea J, Spires T, Pujals S, Sirisi S, Lleo A. Enhancing Lateral Resolution Using Two-Colour Direct Stochastic Optical Reconstruction Microscopy to Unravel Synaptic Tau Pathology in Alzheimer's Disease. *NEUROPATHOLOGY AND APPLIED NEUROBIOLOGY*. 2025; 51(2):e70010. DOI:10.1111/nan.70010. PMID:40025904. IF:3,400 (Q1/3D).
- Sumarroca A, Vega C, López S, Leidinger A, Pedemonte G, León X, Costa JM. Lower lip reconstruction with the Karapandzic flap or the Colmenero flap: Description of results. *Acta Otorrinolaringologica Espanola*. 2025; 76(2). DOI:10.1016/j.otorri.2024.10.001. PMID:39923991.

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

Molecular Neurodegeneration

Group leader

Belbin, Olivia Elizabeth (IR)

Researchers

Cervantes González, Alba (IR)

Lidon Gil, Laia (IR)

Xuanyang, Bai (UAB)

Research technicians

Capilla López, María Dolores (IR)

Imbastari, Francesca (IR)

Perlaza Meneses, Danna Alejandra (IR)



DESCRIPTION

The Molecular Neurodegeneration research line was formed in 2014 and was officially recognised as an emerging research group in 2022. Our focus is the search for novel biomarkers and therapeutic targets to aid the diagnosis and management of patients with neurodegenerative diseases and psychiatric disorders characterised by synaptopathy, employing techniques such as mass spectrometry, immunoassays, biochemical fractionation, and in vitro cell-based assays. The group is supported by national and international research and knowledge-transfer grants,, and our biomarkers are protected by a patent and licensed to ADx Neurosciences.

MAIN LINES OF RESEARCH

- Development and validation of fluid biomarkers of synapse degeneration in neurodegenerative diseases and psychiatric disorders characterised by synapse degeneration and dysfunction. (Belbin, Olivia Elizabeth).
- Omics approaches to understand the molecular basis of synapse degeneration in Alzheimer's disease. (Belbin, Olivia Elizabeth).
- Development of pathway-based polygenic risk scores to elucidate the genetic factors underlying Alzheimer's disease and use of in vitro cell-based assays to assess their function. (Belbin, Olivia Elizabeth).

SCIENTIFIC CHALLENGES

- Consolidating our own niche while maintaining synergy with the Neurobiology of Dementia research group.
- Maintain our scientific production and funding, prioritising the projects with higher impact.
- Establishing Tools for Early Detection of Alzheimer's disease through polygenic risk score.
- Incorporating Synaptic biomarkers into longitudinal studies and clinical trials through closer relations with Pharma.
- Exploring synaptic biomarker utility in primary psychiatric disorders.
- Explore the effect of disease comorbidities on synaptic biomarkers.

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

ACTIVE & AWARDED GRANTS

- Belbin, Olivia Elizabeth. Prediagnostic early synaptic disturbances in neurodegenerative diseases. JPND2021-650-078. EU JOINT ACTIONS. Alteraciones preclínicas de la sinapsis en enfermedades neurodegenerativas. AC21_2/00017. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2025. 154.880,00 €
- Belbin, Olivia Elizabeth. Estudio traslacional de una predicción de riesgo poligénico y de biomarcadores para la detección de la degeneración sináptica en la enfermedad de Alzheimer. PI21/00063. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2025. 111.320,00 €
- Belbin, Olivia Elizabeth. Role of synaptic miRNA and astrocyte miRNA delivery in Alzheimer's disease. AARG-22-974373. Alzheimer's Association. Duration: 2022-2026. 141.222,50 €
- Belbin, Olivia Elizabeth. Validación de prototipos de inmunoensayos para la detección y el seguimiento de la sinaptopatía en biofluidos de pacientes con enfermedades neurodegenerativas y trastornos afectivos. DTS22/00111. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2026. 84.700,00 €
- Belbin, Olivia Elizabeth. Grup de Recerca en Demències: Sant Pau. 2021 SGR 00979. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2022-2025. 40.000,00 €.
- Belbin, Olivia Elizabeth. Evaluación de proteínas del complejo SNARE como biomarcadores del líquido cefalorraquídeo de la degeneración sináptica en cohortes de pacientes con demencia
- con cuerpos de Lewy. PI24/00968. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 115.000,00 €
- Belbin, Olivia Elizabeth. Synapsing Mental Disorders and Neurodegenerative Diseases: Towards More Effective Diagnosis and Management of Psychiatric Symptoms 101156566. HORIZON-HLTH-2024-DISEASE-03-14-two-stage. European Union. Duration: 2024-2029. 1.014.147,61 €
- Cervantes González, Alba. Contratos PFIS 2022. FI22/00241. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2027. 119.567,00 €
- Cervantes González, Alba. Proteínas sinápticas y lisosómicas como biomarcadores de enfermedades neurodegenerativas. MV24/00054. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2025. 20.700,00 €
- Lidon Gil, Laia. Contratos Sara Borrell 2024. CD24/00161. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2028. 95.000,00 €
- Peris Subiz, Julia. Contratos Río Hortega 2025. CM25/00219. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2027. 65.000,00 €
- Perlaza Meneses, Danna Alejandra. Clinical and in vitro studies to develop predictive and therapeutic tools for Alzheimer's disease based on genetically-regulated synapse vulnerability. 2025 FI-1 00481. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2025-2028. 27.321,28 €

SCIENTIFIC PRODUCTION – Articles & Reviews

- Arriola JE, Morcillo AO, Zsadanyi SE, Franquesa M, Vaqué L, Rozalem M, Arranz J, Rodríguez I, Maure L, Videla L, Barroeta I, Soriano LD, Benejam B, Fernández S, Sanjuan A, Giménez S, Alcolea D, Belbin O, Flotats A, Camacho V, Lleó A, Carmona M, Fortea J, Bejanin A. Regional Brain Metabolism across the Alzheimer's Disease Continuum in Down Syndrome. ANNALS OF NEUROLOGY. 2025; 98(1). DOI:10.1002/ana.27226. PMID:40084922. IF:7,700 (Q1/1D).
- Barba L, Bellomo G, Alcolea D, Wojdala AL, Gaetani L, Fortea J, Abu S, Lleó A, Parnetti L, Belbin O, Otto M, Oeckl P. Serum level changes of the synaptic marker beta-synuclein in Alzheimer's disease continuum and other dementias. JOURNAL OF NEUROLOGY NEUROSURGERY AND PSYCHIATRY. 2025; 96(12). DOI:10.1136/jnnp-2025-336189. PMID:40571405. IF:7,500 (Q1/1D).
- Buehner BJ, Morcillo AO, Zsadanyi SE, Aranha MR, Arriola JE, Vaqué L, Arranz J, Rodríguez I, Blesa LM, Videla L, Barroeta I, Soriano LD, Benejam B, Fernández S, Hernández AS, Bargalló N, González S, Giménez S, de Flores R, Yushkevich PA, Alcolea D, Belbin O, Lleó A, Carmona M, Fortea J, Bejanin A. Medial temporal lobe atrophy in

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Down syndrome along the Alzheimer's disease continuum. *BRAIN*. 2025; 148(7). DOI:10.1093/brain/awaf133. PMID:40243675. IF:11,700 (Q1/1D).
- Castro JG, Rubio S, Casaletto KB, González JS, Memel M, Vaqué L, Morcillo A, Arriola J, Dols O, Bejanin A, Belbin O, Fortea J, Alcolea D, Carmona M, Barroeta I, Santos M, Saudinós MBS, Matavera IS, Heuer HW, Forsberg LK, Kantarci K, Staffaroni AM, Tartaglia C, Rankin KP, Boeve B, Boxer A, Rosen HJ, Lleó A, Illán I, ALLFTD C. Sex differences in the executive and behavioral reserve of autosomal dominant frontotemporal dementia. *Alzheimers & Dementia*. 2025; 21(4):e70070. DOI:10.1002/alz. 70070. PMID:40277045. IF:11,100 (Q1/1D).
 - Franquesa M, Morcillo AO, Arriola JE, Zsadanyi SE, Vaqué L, Rozalem M, Arranz J, Rodríguez I, Maure L, Videla L, Barroeta I, Soriano LD, Benejam B, Fernández S, Hernández AS, Giménez S, Alcolea D, Belbin O, Lleó A, Carmona M, Fortea J, Bejanin A. Study of brain perfusion in adults with Down syndrome along the Alzheimer's disease continuum. *Alzheimers & Dementia*. 2025; 21(9):e70581. DOI:10.1002/alz. 70581. PMID:40968330. IF:11,100 (Q1/1D).
 - García P, Lara HR, Compta Y, Fernández M, van der Lee SJ, de Rojas I, Saiz L, Painous C, Camara A, Muñoz E, Marti MJ, Valldeoriola F, Puerta R, Illán I, Pagonabarraga J, Dols O, Kulisevsky J, Fortea J, Lleó A, Olivé C, de Boer SCM, Hulsman M, Pijnenburg Y, Belloso RD, Muñoz L, Rueda DB, Gómez P, Aldecoa I, Aragonés G, Vara JH, Mendioroz M, Pérez J, Visser PJ, den A, Pappa JM, Montes AM, Rodríguez E, Blázquez J, Miguel A, García F, Cano A, Valero S, Marquié M, Capdevila M, Rosende M, Quintela I, Carracedo A, Tàrraga L, Real LM, Royo JL, Erro ME, Guerrero C, Torres DC, Blázquez M, San Millán B, Teixeira S, Rolan DV, Hernández I, Sánchez A, de la Casa B, López SS, Baviera R, Lavín A, Taipa R, Amer G, Martínez E, Fernández M, Lage C, Alvarez V, Molina L, Holstege H, Mir P, Belbin O, Boada M, Fernández V, Bullido MJ, Rábano A, Sánchez P, AGUSTIN M. A Spanish-Portuguese GWAS of progressive supranuclear palsy reveals a novel risk locus in NFASC. *EUROPEAN JOURNAL OF HUMAN GENETICS*. 2025; 33(7). DOI:10.1038/s41431-025-01872-3. PMID:40379966. IF:4,600 (Q1/2D).
 - González AC, Goossens J, Campuzano EV, Sala I, Sánchez MB, Rodríguez I, Lidón L, Perlaza D, Bejanin A, Haapasalo A, Fortea J, Alcolea D, Lleó A, Vanmechelen E, Belbin O. Evaluation of cerebrospinal fluid levels of VAMP-2 and SNAP-25 in a dementia with Lewy bodies clinical cohort stratified by Alzheimer's pathophysiological biomarkers. *Alzheimer's Research & Therapy*. 2025; 17(1):51. DOI:10.1186/s13195-025-01685-y. PMID:39994784. IF:7,600 (Q1/1D).
 - Montoliu L, Bian SJ, Dammer EB, Alcolea D, Sauer M, Martá M, Ashton NJ, Belbin O, Fuchs J, Watson CM, Ping LY, Duong DM, Nilsson J, Barroeta I, Lantero J, Videla L, Benejam B, Roberts BR, Blennow K, Seyfried NT, Levey AI, Carmona M, Gobom J, Lleó A, Wisniewski T, Zetterberg H, Fortea J, Johnson E. Proteomic analysis of Down syndrome cerebrospinal fluid compared to late-onset and autosomal dominant Alzheimer's disease. *Nature Communications*. 2025; 16(1):6003. DOI:10.1038/s41467-025-61054-z. PMID:40595720. IF:15,700 (Q1/1D).
 - Sánchez E, Moya B, Escabias JA, Torres S, Colom M, Pegueroles J, de Quintana C, Bayes A, Molina L, Aldecoa I, Belbin O, Fortea J, Spires T, Pujals S, Sirisi S, Lleó A. Enhancing Lateral Resolution Using Two-Colour Direct Stochastic Optical Reconstruction Microscopy to Unravel Synaptic Tau Pathology in Alzheimer's Disease. *NEUROPATHOLOGY AND APPLIED NEUROBIOLOGY*. 2025; 51(2):e70010. DOI:10.1111/nan.70010. PMID:40025904. IF:3,400 (Q1/3D).
 - Sauer M, Gomes BF, Shahrouki P, Lantero J, Montoliu L, Camporesi E, Belbin O, Alcolea D, Kumar A, Sharma M, Singh S, Brinkmalm G, Gobom J, Carmona M, Schöll M, Janelidze S, Deep G, Blennow K, Zetterberg H, Brinkmalm A, Lleó A, Fortea J, Hansson O, Ashton NJ, Nilsson J. Development and validation of a novel Simoa assay for NPTX2 in Alzheimer's disease and Down syndrome. *Alzheimers & Dementia*. 2025; 21(6):e70241. DOI:10.1002/alz. 70241. PMID:40522075. IF:11,100 (Q1/1D).
 - Selma J, Rubio S, García J, Vera E, Sala I, Sánchez MB, Zhu N, Arranz J, Arriola JE, Rodríguez Í, Maure L, Dols O, Videla L, Valldeneu S, Barroeta I, Santos M, Carmona M, Vaqué L, Alvarez E, Lorente O, Carreras M, Belbin O, Arslan B, Ashton

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- NJ, Zetterberg H, Blennow K, Montoliu L, Bejanin A, Lleó A, Fortea J, Alcolea D, Illán I. Association of Plasma Phosphorylated Tau 217 With Clinical Deterioration Across Alzheimer Disease Stages. *NEUROLOGY*. 2025; 105(1):e213769. DOI:10.1212/WNL.00000000000213769. PMID:40472304. IF:8,500 (Q1/1D).
- Valle N, Aranha MR, Pérez R, Serrano S, Videla L, Barroeta I, Benejam B, Chiva G, Jiménez A, Busciglio J, Wisniewski T, Do S, Álvarez E, Muñoz L, Bejanin A, Belbin O, Alcolea D, Carmona M, Lleó A, Cuello AC, Fortea J, Dols O, Iulita MF. Nerve growth factor precursor alterations in neuron-derived extracellular vesicles from individuals with Down syndrome along the Alzheimer's disease continuum. *Alzheimers & Dementia*. 2025; 21(4):e70137. DOI:10.1002/alz. 70137. PMID:40257051. IF:11,100 (Q1/1D).
 - Videla L, Benejam B, Barroeta I, Fernández S, Altuna M, Arranz J, Rodríguez I, Arriola JE, Maure L, Soriano LD, Illán I, Estellés T, Sanjuan A, Vaqué L, Aranha MR, Morcillo AO, Zsadanyi SE, Franquesa M, Valldeneu S, Sánchez MB, Padilla C, Carreras M, Lorente O, Valle N, Sánchez E, Dols O, Sirisi S, Muñoz L, Torres S, El Bennadi SE, Sánchez O, Garzón D, Ribas L, Elbachiri S, Mota C, Tondo M, Camacho V, Giménez S, Delaby C, Belbin O, Iulita MF, Montal V, Pegueroles J, Vilaplana E, Clarimon J, González S, Molina L, Aldecoa I, Alcolea D, Bejanin A, Videla S, Blesa R, Lleó A, Carmona M, Fortea J. The Down Alzheimer Barcelona Neuroimaging Initiative (DABNI) and its contributions to understanding Alzheimer's disease in Down syndrome: A decade of discovery. *Alzheimers & Dementia*. 2025; 21(6):e70259. DOI:10.1002/alz. 70259. PMID:40528282. IF:11,100 (Q1/1D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

Epilepsy

Group leader

Sierra Marcos, Alba (FGS)

Researchers

Acosta Mejuto, María Belén (FGS)

Barguilla Arribas, Ainara (Hospital Dos de Maig)

Bonnin Roig, Caterina Del Mar (FGS)

Boronat Guerrero, Susana (FGS)

Díaz Gómez, María Asunción (FGS)

Ibáñez López, Nuria (FGS)

Ros Castello, Victoria (FGS)

Turon Viñas, Eulalia (FGS)

Turon Viñas, Marc (FGS)

Research technicians

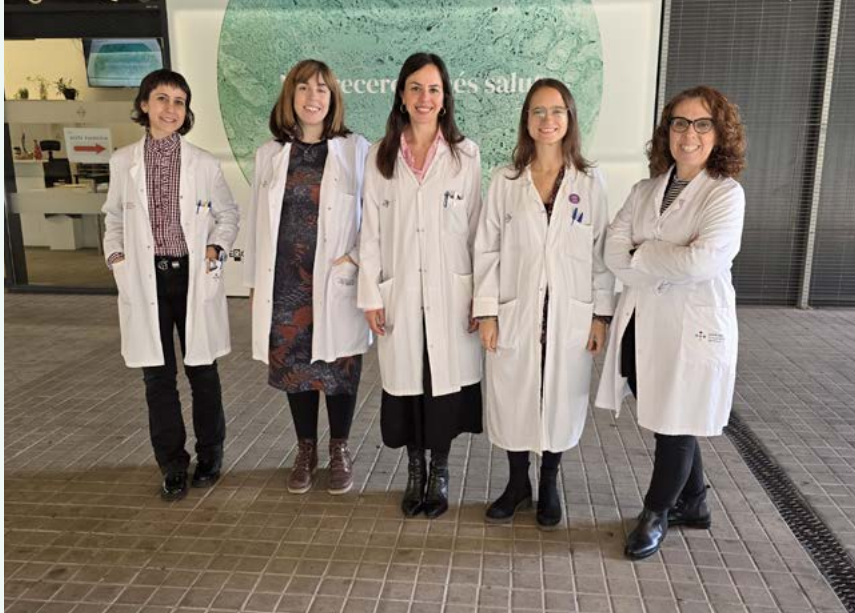
Artigas Baleri, Alicia (IR)

Espriu Aguado, Gisela (IR)

Gutierrez Martín, Paula (IR)

Jorda Pallarolas, Mireia (IR)

Rubies Olives, Julia (IR)



DESCRIPTION

The Epilepsy Research Group is an emerging group, made up of researchers with a long history of research into epilepsy in both children and adults, with a common interest in delving into the pathophysiological bases of epilepsy and in the management of seizures and associated comorbidities. Our research lines are aligned with the clinical activity carried out in our centre, which has been selected within the Catalan territory as a reference for Rare Epilepsies, thanks to the XUEC networks (Network of Clinical Expertise Units for Rare Epilepsies of Genetic and/or Structural Basis and Network of Rare Diseases of Genetic Basis). In this way, we promote translational research that enables us to address the clinical needs of patients with epilepsy, both adult and pediatric patients.

MAIN LINES OF RESEARCH

- Natural history of rare diseases that occur with epilepsy, especially those of genetic cause. Electroclinical phenotypy and neuroimaging of epileptic and developmental encephalopathies (EDS), with particular interest in: Dravet Syndrome, SYNGAP1, SLC6A1, Tuberous Sclerosis Complex.
- Development of clinical trials of molecules in the treatment of drug-resistant epilepsy and EED. Personalised therapies for rare diseases such as epilepsy and drug repositioning.
- Pharmacogenetics, health and ethnic determinants linked to response and tolerance to different antiseizure medications.
- Neuropsychological and psychiatric comorbidities of epilepsy. Impact on personal, family and social development.
- Status epilepticus and acute seizures: Urgent management, design of diagnostic strategies and tools for determining prognosis.
- Quantitative analysis of the EEG signal, applied to different diseases of the central nervous system.

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

SCIENTIFIC CHALLENGES

- Understand the genetic and pathophysiological bases of rare epilepsies and epileptic and developmental encephalopathies, with particular interest in: Dravet Syndrome, SYNGAP1, SLC6A1, Tuberous Sclerosis Complex.
- Characterise clinical, electroencephalographic and neuroimaging phenotypes to improve the diagnosis and classification of epilepsies.
- To develop personalised therapies and clinical trials in drug-resistant epilepsy and rare diseases.
- To study the pharmacogenetics and health determinants that influence the response and tolerance to antiseizure medications.
- To analyse neuropsychological and psychiatric comorbidities and their impact on quality of life.
- To improve the approach to status epilepticus and the development of diagnostic and prognostic tools.
- To promote the applicability of quantitative EEG studies in the diagnosis of neurological disorders.
- To promote translational research and multidisciplinary collaboration within the XUEC networks and other national and international initiatives.

ACTIVE & AWARDED GRANTS

- Boronat Guerrero, Susana. VISOR EEG (dispositivo de registro hoter de EEG). CPP2021-008311. Ministerio de Ciencia e Innovación (MICINN). Duration: 2022-2025. 121.887,00 €
- Boronat Guerrero, Susana. Study of genomic disease burden to complement Cause of Death investigation in Sub-Saharan Africa: a pilot study from Child Health and Mortality Prevention Surveillance (CHAMPS) Network. OPP1126780 GATES. Gates Foundation. Duration: 2023-2025. 252.118,96 €
- Turon Viñas, Eulalia. PReDICT: Ictus pediátrico asociado a enfermedades raras: Diagnóstico y tratamiento integrando la multiómica y la inteligencia artificial. PMPER24/00021. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2026. 39.764,37 €

SCIENTIFIC PRODUCTION – Articles & Reviews

- Aledo A, Boronat S, García JJ, García A, Gil A, Uranga JJR, Sánchez R, Smeyers P, Villanueva V. Delphi consensus on referral criteria for pediatric patients with suspected Dravet syndrome. *EPILEPSY & BEHAVIOR*. 2025; 167:110401. DOI:10.1016/j.yebeh.2025.110401. PMID:40158412. IF:2,300 (Q2/4D).
- Bernardi E, Ros V, Coronel M, Lazzari R, Aibar JA, Sierra A. Electroencephalographic manifestations of intracranial hypertension in a patient with ventriculoperitoneal shunt malfunction. *SEIZURE-EUROPEAN JOURNAL OF EPILEPSY*. 2025; 133. DOI:10.1016/j.seizure.2025.10.017. PMID:41175508. IF:2,800 (Q2/5D).
- Borrell M, Fons C, Boronat S, Sierra A. Successful management of refractory epilepsy in creatine transporter deficiency with cannabidiol and clobazam: A case report. *Epilepsia Open*. 2025; 10(1). DOI:10.1002/epi4.13116. PMID:39679854. IF:2,900 (Q2/4D).
- Diaz U, Brothwell SLC, Darling A, Baide H, Lemonde H, Turon E, Korenev S, Ibañez S, Beesley C, Gissen P, Parida A, Santra S, Wassmer E, Batzios S. From Neonatal Encephalopathy to Adult Survival: Revisiting the Natural History of D-Bifunctional Protein Deficiency in a Multicentre International Case Series. *JOURNAL OF INHERITED METABOLIC DISEASE*. 2025; 49(1):e70118. DOI:10.1002/jimd. 70118. PMID:41367148. IF:3,800 (Q2/3D).
- Esmel R, Turón E, Pujol M, Giorgi S, Pérez M, Pérez A, Aibar JA, Boronat S. Cardiac Implications in Dravet Syndrome: Can Electrocardiogram and Echocardiography Detect Hidden

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

- Risks?. PEDIATRIC NEUROLOGY. 2025; 164. DOI:10.1016/j.pediatrneurol.2025.01.005. PMID:39862709. IF:2,100 (Q2/4D).
- Magallares B, Cerdá D, Betancourt J, Fraga G, Park H, Codes H, Quesada E, López M, Torrent M, Marín A, Herrera S, Gich I, Boronat S, Casademont J, Corominas H, Malouf J. Risk factors associated with low bone mineral density and childhood osteoporosis in a population undergoing skeletal growth: a cross-sectional analytic study. *Frontiers in Endocrinology*. 2025; 16:1587985. DOI:10.3389/fendo.2025.1587985. PMID:40487764. IF:4,600 (Q1/3D).
 - Magallares B, Malouf J, Codes H, Park HS, Betancourt J, Fraga G, Quesada E, López M, Torrent M, Marín A, Herrera S, Gich I, Boronat S, Casademont J, Corominas H, Cerdá D. Pediatric densitometry: is the Z score adjustment necessary in all cases?. *Frontiers in Endocrinology*. 2025; 16:1587382. DOI:10.3389/fendo.2025.1587382. PMID:40270717. IF:4,600 (Q1/3D).
 - Olivé G, Fonseca E, Chen LW, Fetta A, Martínez E, Guasp M, González V, Delgadillo V, Cantarín V, Jiménez M, Monge L, Felipe A, Beseler B, Turón E, Fernández J, Martínez MJ, Vázquez M, Fernández LA, Alvarez M, Muñoz B, Camacho A, Nuñez N, Spatola M, Sabater L, Blanco Y, Saiz A, Graus F, Dalmau J, Armangué T, Spanish Pediat Autoimmune Encephalitis study GRP. Differential diagnosis and comparison of diagnostic algorithms in children and adolescents with autoimmune encephalitis in Spain: a prospective cohort study and retrospective analysis. *LANCET NEUROLOGY*. 2025; 24(1). DOI:10.1016/S1474-4422(24)00443-5. PMID:39706634. IF:45,500 (Q1/1D).
 - Toscano C, García C, Ros V, Barguilla A, Saladich IG, Rodríguez K, Torra R, Boronat S, Sierra A. Cognitive and neuro-psychiatric profile in adult patients with epilepsy secondary to Tuberous Sclerosis Complex. *EPILEPSY & BEHAVIOR*. 2025; 166:110380. DOI:10.1016/j.yebeh.2025.110380. PMID:40101321. IF:2,300 (Q2/4D).
 - Villanueva CL, Arbizu EA, Goruppi I, Lozano NB, Bianchi F, Martínez AP, Pina SM, Caballero A, Murzi M, Bettoletti F, Estremera F, Guerrero SB, Argente CG. Peroral endoscopic myotomy (POEM) as a treatment for pediatric achalasia: multicenter study and first results. *Gastroenterología y Hepatología*. 2025; 48(4):502262. DOI:10.1016/j.gastrohep.2024.502262. PMID:39343296. IF:1,900 (Q3/7D).

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

Multiple Sclerosis and Central Nervous System Autoimmune Diseases Research

Group leader

Vidal Jordana, Angela (FGS)

Researchers

Castillo Campillo, Lorena (FGS)

Gómez Gutierrez, Cecilia (FGS)

Martín Aguilar, Lorena (FGS)

Olive Círrera, Gemma (FGS)

Vidal Fernández, María Nuria (FGS)

Research technicians

Caballero Avila, Marta (IR)



DESCRIPTION

Developing interdisciplinary research is essential to advance knowledge, optimise therapeutic strategies in multiple sclerosis and other autoimmune diseases of the central nervous system, and ultimately improve patients' quality of life. Our group comprises a multidisciplinary team with broad expertise in neurology, immunology, neuro-ophthalmology, and clinical research. Each member brings a unique and complementary perspective, enabling a comprehensive approach to neuroimmunological diseases.

MAIN LINES OF RESEARCH

- Study of biological and imaging biomarkers in MS and other demyelinating diseases (Vidal Jordana, Angela; Martín Aguilar, Lorena).
- Study of neurological complications of systemic diseases and immunotherapy (CAR-T cells and immune checkpoint inhibitors) (Martín Aguilar, Lorena; Vidal Jordana, Angela).
- Clinical trials in MS and related disorders and patient-reported outcomes studies (Vidal Jordana, Angela).

SCIENTIFIC CHALLENGES

- Available biological and imaging biomarkers, when used in isolation, provide limited accuracy for diagnosing and monitoring autoimmune CNS diseases; there is a critical need to integrate and validate combined biomarkers that can reliably guide early and personalised treatment decisions.
- Neurological complications of emerging immunotherapies such as CAR-T cells and immune checkpoint inhibitors remain unpredictable and poorly characterised, representing a major challenge for early detection, risk stratification, and effective clinical management.

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

ACTIVE & AWARDED GRANTS

- Martín Aguilar, Lorena. Contratos Juan Rodes 2021. JR21/00060. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 180.000,00 €
- Olive Cirera, Gemma. AEP INVEST 2025. Nuevos biomarcadores pronósticos para la neuropatía periférica autoinmune. Asociación Española de Pediatría. Duration: 2025-2027. 25.500,00 €
- Vidal Jordana, Angela. Perfil de biomarcadores séricos en neuropatías ópticas agudas (ON-BIOmark): impacto en el diagnóstico y pronóstico visual. PI25/00730. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 127.500,00 €

DOCTORAL THESES DEFENDED

- Caballero Ávila, Marta. Detección de nuevos autoanticuerpos en neuropatías inflamatorias. 10/12/2025. Universitat Autònoma de Barcelona. Supervisors: Querol Gutiérrez, Luis Antonio; Lleixà Rodríguez, María de la Cinta; Alcolea Rodríguez, Daniel Andrés. <https://hdl.handle.net/10803/696414>

SCIENTIFIC PRODUCTION – Article & Reviews

- Caballero M, Martín L, Collet R, Querol L, Pascual E. A pathophysiological and mechanistic review of chronic inflammatory demyelinating polyradiculoneuropathy therapy. *Frontiers in Immunology*. 2025; 16:1575464. DOI:10.3389/fimmu. 2025.1575464. PMID:40297573. IF:5,900 (Q1/2D).
- Caballero M, Pascual E, Lleixà C, Martín L, Collet R, Querol L. The changing landscape of primary autoimmune neuropathies. *Nature Reviews Neurology*. 2025; 21(10). DOI:10.1038/s41582-025-01133-3. PMID:40913126. IF:33,100 (Q1/1D).
- Fonseca EG, Olivé G, Chen LW, Paredes F, Enamorado NN, Duran SB, Mendibe MD, Visa N, Vázquez M, Felipe A, Romeu G, Martínez E, Blanco Y, Sepulveda M, Saiz A, Dalmau J, Armangue T. Clinical Features of Children With MOG-IgG Who Fulfil Criteria of Multiple Sclerosis and Overlapping Disorders. *Neurology-Neuroimmunology & Neuroinflammation*. 2025; 12(4):e200400. DOI:10.1212/NXI.0000000000200400. PMID:40505071. IF:7,500 (Q1/1D).
- Guasp M, Saiz A, Ruiz M, Almendrote M, Bruna J, González J, Kaneko J, Martín L, Martínez FA, Noda K, Molina AR, Sequeiros S, Simabukuro MM, Takenaka M, Zurdo M, Dalmau JO, Iizuka T, Graus F. Progressive Encephalomyelitis With Rigidity and Myoclonus With Glycine Receptor Antibodies Clinical Features and Outcomes. *Neurology-Neuroimmunology & Neuroinflammation*. 2025; 12(6):e200473. DOI:10.1212/NXI.0000000000200473. PMID:40953327. IF:7,500 (Q1/1D).
- Llansó L, Ravenscroft G, Aceituno C, Gutiérrez A, Parmar J, Gallano P, Caballero M, Carbayo A, Vesperinas A, Collet R, Blanco R, Laing N, Hove L, Gallardo E, Olivé M. A Homozygous ATP2A2 Variant Alters Sarcoendoplasmic Reticulum Ca²⁺-ATPase 2 Function in Skeletal Muscle and Causes a Novel Vacuolar Myopathy. *NEUROPATHOLOGY AND APPLIED NEUROBIOLOGY*. 2025; 51(1):e70000. DOI:10.1111/nan.70000. PMID:39817497. IF:3,400 (Q1/3D).
- Muñoz G, Guasp M, Muñoz A, Luchoro JF, Martínez E, Naranjo L, Erro ME, Martín L, Iizuka T, Simabukuro MM, Romera MA, Couso RS, Sabater L, Saiz A, Graus F, Dalmau JO, Ruiz R, Anti GRP. Cytokine and Chemokine Profiles in Anti-LGI1 Encephalitis Markers of Severity and Outcome. *Neurology-Neuroimmunology & Neuroinflammation*. 2025; 12(6):e200492. DOI:10.1212/NXI.0000000000200492. PMID:41115260. IF:7,500 (Q1/1D).
- Tejada C, Pegueroles J, Claramunt M, Pi A, Heras A, Gascón J, Idelsohn S, Rico M, Vidal N,

5.1.3 Neurological Diseases, Neuroscience & Mental Health Area

Martín L, Caballero M, Lleixà C, Collet R, Llansó L, Carbayo A, Vesperinas A, Querol L, Pascual E. Digital biomechanical assessment of gait in patients with peripheral neuropathies. *Journal of NeuroEngineering and Rehabilitation*. 2025; 22(1):159. DOI:10.1186/s12984-025-01694-w. PMID:40653470. IF:5,200 (Q1/1D).

- Thomma RCM, Halstead SK, de Koning LC, Wiegers E, Gourlay DS, Tio AP, van W, Andersen H, Antonini G, Arends S, Attarian S, Barroso FA, Bateman KJ, Benedetti L, Van den Bergh P, Bürmann J, Busby M, Casasnovas C, Dardiotis E, Davidson A, Feasby TE, Fehmi J, Galassi G, García T, Granit V, Gutiérrez G, Hadden RDM, Harbo T, Hartung HP, Hasan I, Holt JKL, Islam Z, Karafiath S, Katzberg HD, Kolb N, Kusunoki S, Kuwabara S, Kuwahara M, Lehmann HC, Leonhard SE, Martín L, Monges S, Nobile E, Pardo J, Pereon Y, Querol L, Reisin RC, Rinaldi S, Ripellino P, Roberts RC, Scheidegger O, Shahrizaila N, Sheikh KA, Silvestri NJ, Sindrup SH, Stein B, Tan CY, Tankisi H, Visser LH, Waheed W, Huizinga R, Jacobs BC, Willison HJ, IGOS C. Large-scale profiling of antibody reactivity to glycolipids in patients with Guillain-Barré syndrome. *BRAIN*. 2025; 148(11). DOI:10.1093/brain/awaf102. PMID:40096525. IF:11,700 (Q1/1D).

5.1.4 Epidemiology, Public Health and Primary Care Area



5.1.4 Epidemiology, Public Health and Primary Care Area

Pablo Alonso Coello

Area Director

Research in this area involves studying population health and its social, political, and environmental determinants, with a special focus on inequalities and their consequences. It evaluates the effectiveness and health impact of public interventions and policies, as well as promotes evidence-based, practical medicine to make health interventions more effective, appropriate, and safe. Furthermore, it is crucial to develop and evaluate methods or strategies to improve the generation, evaluation, communication, and transfer of scientific evidence. This area focuses on the epidemiology of communicable diseases in the Barcelona population, with special attention to the impact of prevention and control strategies developed. The aim of this area is therefore to achieve wellness in public health through improving policies and medical management.

RESEARCH GROUPS

Clinical Epidemiology and Healthcare Services

Alonso Coello, Pablo Ignacio

Evaluation of Public Health Policies and Programmes

Continente Garcia, Xavier

Urban Health Inequalities

Carrere Balcells, Juli

Transmissible Diseases

Rius Gibert, Cristina

Primary Care

Reyes Reyes, Carlen

DataHealth Lab – Data and Health Laboratory

Ranzani, Otavio

5.1.4 Epidemiology, Public Health and Primary Care Area

Clinical Epidemiology and Healthcare Services

Group leader

Alonso Coello, Pablo Ignacio (IR)

Researchers

Álvarez Bustins, Gerard (ACCIb)
 Bausa Peris, Roser (FGS)
 Bolibar Ribas, Ignasi (FGS)
 Bonfill Cosp, Xavier (FGS)
 Bosch Llonch, Felix (ACCIb)
 Bruning González, Pilar Gabriela (FGS)
 Canelo Aybar, Carlos Gilberto (ACCIb)
 Casino Rubio, Gonzalo (ACCIb)
 Castañeda Nieto, Adriana (FGS)
 De La Pava Cortes, Iván Camilo (ACCIb)
 De La Torre Pérez, Laura (ACCIb)
 Furnival Adams, Joanna Elena Claire (ACCIb)
 García Abajo, José Miguel (FGS)
 Garcidueñas Fimbres, Tany Elizabeth (FGS)
 Gich Saladich, Ignasi Josep (FGS)
 Illan Cortadelles, Cristina (FGS)
 Madrid Aris, Eva Montserrat (ACCIb)
 Martínez Garcia, Laura (ACCIb)
 Martínez Zapata, María José (IR)
 Mira Catala, Pablo (FGS)
 Navarro Blasco, Lydia (FGS)
 Nieto Gutiérrez, Wendy Carolina (ACCIb)
 Pereira Nunes Pinto, Ana Carolina (ACCIb)
 Pérez Bracchiglione, Javier Andres (CIBER)
 Popova Sherozia, Ekaterine (IR)
 Puig Reixach, Maria Teresa (FGS)
 Quintana Ruiz, Maria Jesús (FGS)
 Requeijo Lorenzo, Carolina (FGS)
 Rigau Comas, David (ACCIb)
 Rojas Reyes, María Ximena (IR)
 Roque Figuls, Marta Cristina (IR)
 Samso Jofra, Laura (FGS)
 Sola Arnau, Ivan (FGS)
 Urrutia Cuchi, Gerard (FGS)
 Vicuna Trassard, Johanna Helene (FGS)
 Villegas Arbeláez, Esteban (IR)

Research technicians

Auladell Rispau, Ariadna (IR)
 Beltrán Puerta, Jessica (ACCIb)
 Bonfill Garcia, Aleix (ACCIb)
 Cervera Alepuz, Andrea (ACCIb)
 Fernández Sáenz, Fiorella Karina (ACCIb)
 García López, Yasmin (ACCIb)
 García Mas, Margarita (ACCIb)
 Gasulla Delgado, Laia (IR)
 Giros Boixados, Meritxell (IR)
 Gorgues Sendra, Marta (FGS)
 Haspert Nogue, Florencia Belen (IR)
 Medina Aedo, Nedavia Melixa (IR)
 Parellada Calderer, Elisenda (ACCIb)
 Savall Esteve, Olga (IR)
 Sola Roca, Judit (ACCIb)



DESCRIPTION

We are an internationally recognised research group dedicated to advancing evidence-based healthcare. Our work spans applied clinical research, health services evaluation, and non-commercial clinical trials. As a leading hub for evidence synthesis, we produce a wide range of synthesis outputs and clinical practice guidelines, conduct cutting-edge methodological research, and offer tailored advice and training to a broad spectrum of stakeholders. Our group proudly hosts both a Cochrane Centre and a GRADE Centre, and actively promotes knowledge translation through numerous collaborative initiatives.

MAIN LINES OF RESEARCH

- Clinical research (Martínez Zapata, María José).
- Health services research and appropriateness of clinical practice (Bonfill Cosp, Xavier).
- Evidence synthesis, clinical practice guidelines, and decision-making (Alonso Coello, Pablo Ignacio).

SCIENTIFIC CHALLENGES

- To foster the design and coordination of multicentre clinical trials, nationally and internationally, in key areas such as surgical patient safety, perioperative medicine, and non-pharmacological interventions, consolidating these as a strategic programme within the Sant Pau Research Institute.
- To promote the integration of research findings into clinical practice, supporting the implementation of evidence to improve the quality and appropriateness of care.
- To establish our group as a national and international leader in evidence synthesis, methodological research, and education and capacity-building in evidence-based practice.

5.1.4 Epidemiology, Public Health and Primary Care Area

- To increase the global visibility and influence of our group as a key player in guideline development and methodology, both nationally and internationally.
- To systematically embed a gender perspective and other equity dimensions across all stages of our research, from design and conduct to analysis and reporting.
- To advance informed and shared decision-making in healthcare by integrating multiple sources of evidence, including clinical practice guidelines and real-world data, and by developing decision support tools that incorporate patient values and preferences.
- To continue developing user-focused knowledge translation strategies and tools to ensure the effective and timely dissemination of scientific evidence.
- To attract international talent across our priority research areas and to secure competitive international funding, particularly from the European Union.

ACTIVE & AWARDED GRANTS

- Alonso Coello, Pablo Ignacio. Grup de Recerca Clínica i Sanitària Aplicada. 2021 SGR 00982. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duración: 2022-2025. 40.000,00 €.
- Alonso Coello, Pablo Ignacio. Desarrollos metodológicos para guías de práctica clínica en el Sistema Nacional de Salud (SNS). PI23/01813. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 65.000,00 €
- Alonso Coello, Pablo Ignacio. Optimap: Optimización de la antibioterapia en las infecciones respiratorias en niños. DTS25/00144. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 147.620,00 €
- Alonso Coello, Pablo Ignacio. Centro de Investigación Biomédica en Red de Epidemiología. CB06/02/1010. Instituto de Salud Carlos III (ISCIII).
- Bonfill Cosp, Xavier. Impacto del COVID-19 sobre la morbilidad y mortalidad de los. PI21/00062. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2025. 168.190,00 €
- Iskakova, Ainel. Contratos PFIS 2025. FI25/00148. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2029. 89.900,00 €
- Martínez Zapata, Maria Jose. Evaluación de una estrategia terapéutica para acortar el tiempo de estancia hospitalaria en la apendicitis complicada pediátrica: ensayo clínico aleatorizado, paralelo, multicéntrico, abierto, de no inferioridad. ICI23/00070. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 252.560,00 €
- Martín Zapata, Maria José. Desarrollo, implementación e impacto de una terapia digital para el seguimiento postoperatorio de pacientes de cirugía cardíaca: Estudio DIGITPOSCARD. PI24/00914. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 90.000,00 €
- Rojas Reyes, María Ximena. Fortalecimiento de la capacidad en la toma de decisiones en el Sistema de Salud español a través de evidencia viva: un marco de trabajo innovador. PI21/01564. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2025. 114.950,00 €
- Roque Figuls, Marta Cristina. Decisiones informadas ante exposiciones ambientales sensibles al clima: impacto de las olas de calor en la salud y el papel de la síntesis de la evidencia. PI25/00825. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 58.750,00 €
- Urrutia Cuchi, Gerard. Resultados centrados en el paciente y utilización de recursos después de la cirugía no cardíaca (España) (PACORUS-S). PI21/01742. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2025. 75.020,00 €
- Urrutía Cuchí, Gerard. Living Evidence to Inform Health Decisions Program. 2023 INNOV 00016. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duración: 2024-2025. 84.000,00 €
- Villegas Arbelaez, Esteban. Contratos PFIS 2024. FI24/00265. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2029. 89.900,00 €

5.1.4 Epidemiology, Public Health and Primary Care Area

DOCTORAL THESES DEFENDED

- Asenjo Lobos, Claudia. Evidencia del uso de antipsicóticos atípicos en esquizofrenia. 07/11/2025. Universitat Autònoma de Barcelona. Supervisors: Madrid Aris, Eva Montserrat; Bonfill Cosp, Xavier. <https://hdl.handle.net/10803/695877>
- Cámara Cabrera, Jaume. Modalidad anestésica wide awake en cirugía ortopédica y traumatología. 18/12/2025. Universitat Autònoma de Barcelona. Supervisors: Rodríguez Baeza, Alfonso; Urrutia Cuchi, Gerard; Torner Pifarre, Pere. <https://hdl.handle.net/10803/696391>
- Corral Partearroyo, Carmen. Improving initial medication adherence in primary care: pragmatic evaluation of a complex behavioural intervention. 23/10/2025. Universitat Autònoma de Barcelona. Supervisors: Rubio Valera, María; Gil Girbau, María Montserrat; Martínez Zapata, María José. <https://hdl.handle.net/10803/695712>
- De los Ríos Pérez, Ana María. Predicción de supervivencia en trauma pediátrico: evaluación de escalas pronósticas y desarrollo de nuevos modelos en un centro de trauma en Colombia. 14/10/2025. Universitat Autònoma de Barcelona. Supervisors: Fandiño Losada, Carlos Andrés; Bonfill Cosp, Xavier. <https://hdl.handle.net/10803/695707>
- Roura Carvajal, Sonia. Pragmatismo y efectividad en los ensayos clínicos en terapia manual: Un análisis metodológico. 28/10/2025. Universitat Autònoma de Barcelona. Supervisors: Álvarez Bustins, Gerard; Urrutia Cuchi, Gerard; Sitjà Rabert, Mercè. <https://hdl.handle.net/10803/696050>
- Solà Arnau, Ivan. Síntesi de l'evidència i reducció de danys: aproximació metodològica per a la incorporació de la perspectiva de les persones que usen drogues per via parenteral. 30/01/2025. Universitat Autònoma de Barcelona. Supervisors: Robleda Font, Gemma; Trujols Albet, Joan; Urrutia Cuchi, Gerard. <https://hdl.handle.net/10803/693587>

SCIENTIFIC PRODUCTION - Articles & Reviews

- Agache I, Balbin GJ, Saenz FKF, Sola I, Alonso P, Haahtela T, Traidl C, O'Mahony L, Damialis A, Lauerma A, Nadeau KC, Pali I, Palomares O, Renz H, Schwarze J, Vercelli D, Canelo C, Jutel M, Akdis CA. Impact of Residential Greenness Exposure on the Development of Allergic Diseases and Asthma and on Asthma Control: A Systematic Review for the EAACI Guidelines of Environmental Science for Allergic Diseases and Asthma. *ALLERGY*. 2025; 80(11). DOI:10.1111/all.16653. PMID:40632014. IF:12,000 (Q1/1D).
- Agache I, Salazar J, Rodríguez Y, Sáenz FKF, Haahtela T, Traidl C, Damialis A, Vecillas L, Giovannini M, Nadeau KC, Pali I, Palomares O, Renz H, Schwarze J, Pinto BS, Urrutia M, Venter C, Vercelli D, Winders T, Sola I, Alonso P, Canelo C, Jutel M, Akdis CA. The Impact of Rhinovirus, Syncytial Respiratory Virus and Helminth Infection on the Risk of New-Onset Asthma and Other Allergic Conditions-A Systematic Review for the EAACI Guidelines on Environmental Science for Allergic Diseases and Asthma. *ALLERGY*. 2025; 80(7). DOI:10.1111/all. 16611. PMID:40495394. IF:12,000 (Q1/1D).
- Aguilera RA, Serón P, Gutiérrez R, Herrera B, Pérez V, Inostroza G, Yáñez C, Fuentes H, Arriagada HB, Inostroza J, Melo M, Alarcón M, Muñoz M, Pinzón M, López P, Roco A, Angarita L, Bonfill X, Zaror C. Which Physical Therapy Intervention Is Most Effective in Reducing Secondary Lymphedema Associated with Breast Cancer? A Systematic Review and Network Meta-Analysis. *Journal of Clinical Medicine*. 2025; 14(19):6762. DOI:10.3390/jcm14196762. PMID:41095841. IF:2,900 (Q1/2D).
- Alayo I, Pujol O, Alonso J, Ferrer M, Amigo F, Diest A, Aragonès E, Peña AA, Del Barco AA, Campos M, Espuga M, González A, Haro JM, López N, de Salazar A, Molina JD, Ortí RM, Parellada M, Pelayo JM, Forjaz MJ, Pérez A, Pijoan JI, Plana N, Polentinos E, Puig MT, Rius C, Sanz F, Serra C, Urreta I, Bruffaerts R, Vieta E, Pérez V, Mortier P, Vilagut G, MINDCOVID GRP. Identifying the most important predictors for suicidal thoughts and behaviours among healthcare workers active during the Spanish COVID-19 pandemic: a machine-learning approach. *Epidemiology and*

5.1.4 Epidemiology, Public Health and Primary Care Area

- Psychiatric Sciences. 2025; 34:e28. DOI:10.1017/S2045796025000198. PMID:40340775. IF:6,100 (Q1/1D).
- Alvarado R, Yim TW, Hernández E, de la Torre E, Munarriz C, Martínez MJ. Surgical interventions for presbyopia. The Cochrane database of systematic reviews. 2025; (4):CD015711. DOI:10.1002/14651858.CD015711.pub2. IF:9,400 (Q1/1D).
 - Arias L, Barragán N, Elizondo U, Boldu A, Rocha CA, Niño E, Santandreu FM, Quesada F, Ricci I, Gorrotxategi PJ, de la Poza M, Mas G, Gibert A, González J, Alonso P. Development and assessment of an online communication skills course to optimise antibiotic prescribing for children in primary care. *Bmc Primary Care*. 2025; 26(1):247. DOI:10.1186/s12875-025-02919-6. PMID:40775754. IF:2,600 (Q1/1D).
 - Asenjo C, Arancibia M, Cortés M, Huang TM, Li T, Madrid E, Bonfill X, Leucht S. Comparative efficacy and safety of clozapine vs. risperidone in schizophrenia and related disorders: An updated systematic review. *PSYCHIATRY RESEARCH*. 2025; 351:116670. DOI:10.1016/j.psychres.2025.116670. PMID:40774180. IF:3,900 (Q1/2D).
 - Asenjo C, Arancibia M, Garcia C, Cortés M, Huang TM, Li T, Madrid E, Leucht S. Comparative efficacy and safety of Clozapine vs. Quetiapine in schizophrenia and related disorders: An updated systematic review. *PSYCHIATRY RESEARCH*. 2025; 353:116764. DOI:10.1016/j.psychres.2025.116764. PMID:41101242. IF:3,900 (Q1/2D).
 - Asla Q, Garrido M, Urgell E, Terzan S, Santos A, Fernández M, Varghese N, Atila C, Calabrese A, Biagetti B, Plessow F, Gich I, Christ M, Eckert A, Webb SM, Lawson EA, Aulinas A. Oxytocin levels in response to CRH administration in hypopituitarism and hypothalamic damage: a randomised, crossover, placebo-controlled trial. *Scientific Reports*. 2025; 15(1):2360. DOI:10.1038/s41598-025-86566-y. PMID:39824923. IF:3,900 (Q1/2D).
 - Auladell A, Khabsa J, Pollock D, Solà I, Rada G, Akl EA, Urrutia G, Rojas MX. Structured evidence summaries designed to inform decision-makers in health research: a scoping review protocol. *JBI Evidence Synthesis*. 2025; 23(10). DOI:10.11124/JBIES-24-00357. PMID:41017306.
 - Belley EP, Whitlock RP, Lamy A, Alhussein MM, Lomivorotov V, Brady K, Chan MTV, Allard RV, Ajello S, Wang CY, Paparella D, Fremes S, Urrutia G, Hajjar LA, Hillis GS, Shukevich D, Mills NL, Margari V, Mills JD, Billing JS, Methangkool E, Polanczyk CA, Sant'Anna R, McIntyre WF, Mathur J, Binbraik Y, Jathappa N, Baranchuk A, Romanov A, Zhizhov R, Losik D, De Viti D, Chan XL, Ng TY, Amendolagine F, Gaudino M, Spence JD, White H, Jaffe AS, Alpert JS, Mian R, Bouvier S, Vincent J, Yusuf S, Devereaux PJ. Association Between Electrocardiographic Changes and Myocardial Injury or Death After Cardiac Surgery. *CANADIAN JOURNAL OF CARDIOLOGY*. 2025; 41(12). DOI:10.1016/j.cjca.2025.09.035. PMID:41015246. IF:5,300 (Q1/2D).
 - Beltrán A, Parker L, Moral I, Caballero JP, Chilet E, Hernández I, Alonso P, Ronda E, Gómez L, Lumbreras B. Impact of patients' age and comorbidities on prostate cancer overdiagnosis in clinical practice. *PLoS One*. 2025; 20(2):e0315979. DOI:10.1371/journal.pone.0315979. PMID:39970139. IF:2,600 (Q2/4D).
 - Bendersky J, Zapata S, Uribe M, Villanueva J, Bonfill X, Souper R. Evidence gaps in orthognathic surgery: an international Delphi study. *INTERNATIONAL JOURNAL OF ORAL AND MAXILLOFACIAL SURGERY*. 2025; 54(5). DOI:10.1016/j.ijom.2024.11.001. PMID:39603881. IF:2,700 (Q1/3D).
 - Cosp XB, Savall O, Bracchiglione J, Requeijo C, Santero M, Appropriateness of Oncological Treatments Adv Canc ASTAC SYSTGRP. Mismatch between evidence and related clinical recommendations about the treatment of advanced oesophageal cancer patients with anticancer drugs: A critical historical review. *Journal Of Cancer Policy*. 2025; 44:100580. DOI:10.1016/j.jcpc.2025.100580. PMID:40147630.
 - Brotons C, Moral I, Abajo JMG, Mendivelso JC, Rico OC, Díaz A, Elosua R, Pardo DE, Guerrero MMF, Fondado MG, Gorostidi M, Canino MMG, Grau M, Herraiz CG, Lahoz C, Martínez E, Rivas N, Ortega E, Pallarés V, Rodilla E, Royo MA, Febres LMS, Olmo RS, Torres MM, Velescu A, Zamora A, Armario P. Practices of low value or unnecessary practices in vascular prevention Document of the Spanish Interdisciplinary Committee for Vascular Prevention. *Hipertensión Y Riesgo Vascular*. 2025; 42(3). DOI:10.1016/j.hipert.2025.01.002. PMID:39956741.

5.1.4 Epidemiology, Public Health and Primary Care Area

- Buitrago D, Medina M, Montesinos C, Vargas WR, Hernández ML, Castro CA, Pardo H, Bonfill X. Quality and Bias in Randomised Controlled Trials Published in Latin American Nursing Journals: A Meta-Epidemiological Study. *JOURNAL OF NURSING SCHOLARSHIP*. 2025; 57(6). DOI:10.1111/jnu. 70049. PMID:40993964. IF:2,900 (Q1/2D).
- Busteed L, Horta A, Reig A, García C, Pascual B, Gich I, Ciffone PR, Kulisevsky J, Pagonabarraga J. The discriminative linguistic profiles of progressive supranuclear palsy and Parkinson's disease. *NEUROLOGIA*. 2025; 40(9). DOI:10.1016/j.nrl.2023.06.010. IF:3,100 (Q2/4D).
- Cabanas R, Boix L, Ferrer M, Grau M, Gracia N, Torrella N, Morales M, Esteve E, Guzmán JA, Caballero FM, Molina B, González S, Lobato A, López C, Cánovas E, Urrútia G. The effectiveness of core stability exercises on functional outcomes in early subacute stroke recovery: a randomised controlled trial. *Topics in Stroke Rehabilitation*. 2025; 32(6). DOI:10.1080/10749357.2024.2439712. PMID:39742466. IF:2,500 (Q1/2D).
- Canelo C, Alonso P, Muratov S, Tarride JE, Dimitrova N, Giusti F, Borisch B, Castells X, Duffy SW, Fitzpatrick P, Follmann M, Giordano L, Hofvind S, Lebeau A, Quinn C, Torresin A, Rossi PG, Schünemann H, Nyström L, Broeders M, ECIBC G. Evaluation of breast cancer screening programmes: Candidate performance indicators and their association with breast cancer mortality. *BREAST*. 2025; 84:104621. DOI:10.1016/j.breast.2025.104621. PMID:41202390. IF:7,900 (Q1/1D).
- Canto GD, Pauletto P, Stefani CM, Gonçalves TMSV, Carvas CJR, Flores C, Pinto A, Trevisani VFM. Spin Bias in randomized controlled trials of botulinum toxin for bruxism management: a meta-epidemiologic study. *BMC Medical Research Methodology*. 2025; 25(1):125. DOI:10.1186/s12874-025-02547-9. PMID:40340732. IF:3,400 (Q1/2D).
- Castaño JR, Barceló A, Royuela E, Sanabria JP, García V, Neblett R, Bulbena A, Pérez V, Montes A, Urrútia G, Feliu A, Luciano JV. Effectiveness of peri-operative psychological interventions for the reduction of postsurgical pain intensity, depression, anxiety and pain catastrophising. *EUROPEAN JOURNAL OF ANAESTHESIOLOGY*. 2025; 42(7). DOI:10.1097/EJA.0000000000002157. PMID:40462461. IF:6,800 (Q1/1D).
- De la Torre L, Santero M, Nieto W, Giesen C, Nardin A, Cosma C, Pires PS, Guida A, Simonini M, Lazo CQ, Xie F, Alonso P. Determinants of cost-effectiveness results of biological therapies for severe asthma: a systematic methodological assessment. *JOURNAL OF CLINICAL EPIDEMIOLOGY*. 2025; 178:111621. DOI:10.1016/j.jclinepi.2024.111621. PMID:39638078. IF:5,200 (Q1/1D).
- De Melo SM, da M, Torloni MR, Riera R, De Cicco K, Latorraca CO, Pinto A. Anti-PD-1 and anti-PD-L1 antibodies for glioma. The Cochrane database of systematic reviews. 2025; (1):CD012532. DOI:10.1002/14651858.CD012532.pub2. PMID:39777725. IF:9,400 (Q1/1D).
- De Oliveira JSR, Fernández RS, Molina MR, Pinto A, Rocha CR, Ferreira TM, Peres SV. -Patient safety risk associated with synchronous telehealth: A scoping review. *PLoS One*. 2025; 20(12):e0336992. DOI:10.1371/journal.pone.0336992. PMID:41401191. IF:2,600 (Q2/4D).
- Delgado CE, Antonijoan RM, Gich I, Anaya R, Rodríguez M, Millan A, Llorca J, Usua G, Ruiz A, Merchán A, Martínez MJ, AFfEcT GRP. Economic evaluation of a strategy to shorten the time to surgery with neuraxial anaesthesia compared with usual clinical practice in patients on chronic antiplatelet therapy with a proximal femur fracture. *Frontiers In Health Services*. 2025; 4:1423975. DOI:10.3389/frhs.2024.1423975. PMID:39901976.
- Dewidar O, Darzi AJ, Sayfi S, Pardo JP, Welch V, Wright GC, Akl EA, Khabsa J, Lin JS, Morgan RL, Pottie K, Tufte J, Khawandi J, Wang XQ, Oloyede O, Lotfi T, Yao XM, Pinto A, Chi Y, Mustafa RA, Schunemann HJ, Tugwell P. Seven principles for integrating health equity considerations in the practice guideline enterprise. *JOURNAL OF CLINICAL EPIDEMIOLOGY*. 2025; 182:111777. DOI:10.1016/j.jclinepi.2025.111777. PMID:40154757. IF:5,200 (Q1/1D).
- Dewidar O, Say S, Pardo JP, Welch V, Wright GC, Akl EA, Khabsa J, Lin JS, Wang XQ, Darzi AJ, Lot T, Pottie K, Khawandi J, Morgan RL, Pinto A, Tufte J, Brennan SE, Motilall A, Oloyede O, Mustafa RA, Petkovic J, Nieuwlaat R, Xia J, Yao

5.1.4 Epidemiology, Public Health and Primary Care Area

- XM, Chi Y, Schünemann HJ, Tugwell P. Enhancing health equity considerations in guidelines: health equity extension of the GIN-McMaster Guideline Development Checklist. *Eclinicalmedicine*. 2025; 82:103135. DOI:10.1016/j.eclim.2025.103135. PMID:40224676. IF:10,000 (Q1/1D).
- Diaz S, Varela LB, Escobar CM, Santero M, Bracchiglione J, Garegnani L. Short versus long drug regimens for Chagas disease. *The Cochrane database of systematic reviews*. 2025; 5. DOI:10.1002/14651858.CD016172. IF:9,400 (Q1/1D).
 - Elizondo U, Rocha C, Leache L, León M, Saiz LC, Solà I, Montesinos C, Meade AG, Boldú A, Bolibar I, Niño E, Alonso P. Educational interventions and contextual factors for optimising antibiotic prescription in paediatric uncomplicated acute respiratory tract infections in primary care: scoping review of reviews. *BMC Paediatrics*. 2025; 25(1):421. DOI:10.1186/s12887-025-05688-4. PMID:40420306. IF:2,000 (Q2/4D).
 - Fa M, Grau A, Moya E, Gich I, Valera M. Reproducibility of the Barrack and Gruen Grading Systems in Assessing Cement Mantle Quality in Hip Arthroplasty. *Indian Journal of Orthopaedics*. 2025; 59(8). DOI:10.1007/s43465-025-01394-6. PMID:40852559. IF:1,100 (Q3/7D).
 - Fa M, Serra J, Moya E, Crusi X, Gich I, Valera M. Hydroxyapatite-coated total primary hip replacement: 28-year follow-up survivorship. *Hip International*. 2025; 35(2). DOI:10.1177/11207000241306004. PMID:39757970. IF:1,100 (Q3/7D).
 - Franco J, Guo Y, Varela LB, Aqra Z, Alhalahla M, Rodríguez MM, Oscoco E, Araujo BP, Banda S, Liquitay C, Bracchiglione J, Meza N, Madrid E. Tirzepatide for adults living with obesity. *The Cochrane database of systematic reviews*. 2025; (10):CD016018. DOI:10.1002/14651858.CD016018. PMID:41161687. IF:9,400 (Q1/1D).
 - Garcia A, Balsells M, Solà I, Corcoy R. Detection and treatment of early gestational diabetes mellitus: a systematic review and meta-analysis of randomised controlled trials. *AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY*. 2025; 233(5). DOI:10.1016/j.ajog.2025.04.059. PMID:40320104. IF:8,400 (Q1/1D).
 - Garcia BMSP, Vieira A, Pinto A, Eid R, Genta PR, Mól CG, Nawa RK. Comparative effectiveness of noninvasive ventilation interfaces in critically ill adults: A systematic review and Bayesian network meta-analysis. *Intensive and Critical Care Nursing*. 2025; 91:104202. DOI:10.1016/j.iccn.2025.104202. PMID:40848550. IF:4,700 (Q1/1D).
 - Garcia E, Rojas MX, Ardila MC, Rondón MA, Peñaranda A, Barragán AM, Pérez A, Moreno S, Sotaquirá L, Caraballo L, Dennis RJ. Factors associated with asthma symptoms in Colombian subpopulations aged 1 to 17 and 18 to 59: Secondary analysis of the study "Prevalence of asthma and other allergic diseases in Colombia 2009-2010". *ALLERGOLOGIA ET IMMUNOPATHOLOGIA*. 2025; 53(1). DOI:10.15586/aei.v53i1.1122. PMID:39786878. IF:2,100 (Q3/6D).
 - Garg AX, Marcucci M, Cuerden MS, Sontrop JM, Painter TW, Lomivorotov V, Sessler DI, Chan MTV, Borges FK, Leslie K, Duceppe E, Parikh CR, Roshanov P, Martínez MJ, Wang CY, Xavier D, Efremov S, Landoni G, Kleinlugtenbelt YV, Szczeklik W, Schmartz D, Meyhoff CS, Short TG, Amir M, Torres D, Wittmann M, Patel A, Ruetzler K, Parlow JL, Jayaram R, Polanczyk CA, Fleischmann E, Tandon V, Astrakov SV, Conen D, Wu WKK, Cheong CC, Ayad S, Kirov M, de Nadal M, Likhvantsev VV, Paniagua P, Aguado HJ, Ofori SN, Vincent J, Copland I, Balasubramanian K, Biccari BM, Srinathan S, Ismoilov S, Wang MK, Kurz A, Belley EP, Bhatt K, Eikelboom J, Gross P, Lamy A, McGillion M, McIntyre W, Richards T, Spence J, Van T, Whitlock R, Devereaux PJ, POISE GRP. A sub-study of the POISE-3 randomised trial examined the effects of a perioperative hypotension-avoidance strategy versus a hypertension-avoidance strategy on the risk of acute kidney injury. *KIDNEY INTERNATIONAL*. 2025; 107(1). DOI:10.1016/j.kint.2024.10.007. PMID:39490985. IF:12,600 (Q1/1D).
 - Gil P, Rives J, Viladés D, García A, Genua I, Miñambres I, Grau M, Gich I, Camacho M, Benítez S, Julve J, Sánchez JL, Pérez A. Association of Epicardial Adipose Tissue with Novel Inflammation and Heart Failure Biomarkers in Type 2 Diabetes Patients: Effect of Metabolic Control. *Journal of Clinical Medicine*. 2025; 14(13):4687. DOI:10.3390/jcm14134687. PMID:40649060. IF:2,900 (Q1/2D).
 - González J, Vergara L, Meza N, González C, Ramirez P, Escobar CM, Munoz SR, Madrid

5.1.4 Epidemiology, Public Health and Primary Care Area

- E. Interventions for improving adherence to exercise-based treatments in people with knee osteoarthritis. The Cochrane database of systematic reviews. 2025; 7. DOI:10.1002/14651858.CD016088. IF:9,400 (Q1/1D).
- González L, Castellet H, Martínez C, González N, Guijarro F, Lloveras N, Pratcorona M, Gich I, Berenguer P, Perera J, Zamora L, Mascaró M, Sampol A, García A, Vives S, Tormo M, Arnan M, Villamor N, Nomdedéu JF. CD200 in acute myeloid leukaemia: marked upregulation in CEBPA biallelic mutated cases. *Diagnostic Pathology*. 2025; 20(1):56. DOI:10.1186/s13000-025-01655-w. PMID:40307896. IF:2,300 (Q2/5D).
 - Gutarra RB, Vázquez JC, Glujovsky D, Lizaraso F, Viteri A, Martínez MJ. Vasodilators for women undergoing fertility treatment. The Cochrane database of systematic reviews. 2025; (3):CD010001. DOI:10.1002/14651858.CD010001.pub4. PMID:40047216. IF:9,400 (Q1/1D).
 - Hernández A, González Y, del Pino T, Valcárcel C, de Armas A, Herrera E, Navarro JP, Carmona M, Rojas MX, Trujillo MM. Genicular artery embolisation for knee osteoarthritis: a systematic review with meta-analysis and cost-analysis. *Gaceta Sanitaria*. 2025; 39:102459. DOI:10.1016/j.gaceta.2025.102459. PMID:39965462. IF:1,500 (Q3/7D).
 - Jin YH, Yan SY, Yao XM, Dahm P, Alonso P, Brignardello R, Keitz S, Rylance J, Cheung M, Agoritsas T, Kunkle R, Murad MH, Guyatt G. Study protocol for developing the evaluation instrument of guideline adherence to GRADE approach (GRADE-Check). *BMJ Open*. 2025; 15(11):e105534. DOI:10.1136/bmjopen-2025-105534. PMID:41213689. IF:2,300 (Q2/3D).
 - Justribó C, Padrós J, Mesa J, Bara J, Zuñil JC, Bustins GA. Assessment of chronic overlapping pain comorbidities for the management of temporomandibular disorders: Secondary analysis of a randomised clinical trial. *PHYSIOTHERAPY THEORY AND PRACTICE*. 2025; 41(7). DOI:10.1080/09593985.2024.2419637. PMID:39467222. IF:1,500 (Q2/5D).
 - Leao EI, Rocha A, Pinto ACPN, Adao D, Saconato H. Robotic-assisted thoracoscopic surgery lobectomy versus open or video-assisted thoracoscopic surgery lobectomy for early-stage non-small cell lung cancer. The Cochrane database of systematic reviews. 2025; 12. DOI:10.1002/14651858.CD016158. IF:9,400 (Q1/1D).
 - León M, Martínez EC, Pérez YA, Pou MA, García AL, Bas AS, Rodríguez S, Espinoza C, Roca P, Osuna AG, Valverde DF, Nanco BM, Medina M, Perestelo L, Alonso P. Family physicians' attitudes and practice on screening and prevention of fragility fractures, and shared decision-making with postmenopausal women: a qualitative study in Spain. *BMC Primary Care*. 2025; 26(1):260. DOI:10.1186/s12875-025-02966-z. PMID:40835900. IF:2,600 (Q1/1D).
 - Lima JP, Mbuagbaw L, Prasad M, Kumar A, Wafeu GS, Bonnet R, Agoritsas T, Li SY, Liu ZM, Alonso P, Nishijuka FA, Mirza R, Silva CM, Alshanketi R, Alsahafi I, Alnuaimi A, Heen AF, Schwartz L, Guyatt G. Determinants of treatment decisions in advanced dementia: a protocol for a cross-cultural mixed-methods study. *BMJ Open*. 2025; 15(12):e105188. DOI:10.1136/bmjopen-2025-105188. PMID:41475825. IF:2,300 (Q2/3D).
 - Loyola G, Morales D, Leyton F, Alonso P, Bracchiglione J. Incorporating patients in the development of clinical practice guidelines. *Medwave*. 2025; 25(5):e3063. DOI:10.5867/medwave.2025.05.3063. PMID:40472352.
 - Magallares B, Cerdá D, Betancourt J, Fraga G, Park H, Codes H, Quesada E, López M, Torrent M, Marín A, Herrera S, Gich I, Boronat S, Casademont J, Corominas H, Malouf J. Risk factors associated with low bone mineral density and childhood osteoporosis in a population undergoing skeletal growth: a cross-sectional analytic study. *Frontiers in Endocrinology*. 2025; 16:1587985. DOI:10.3389/fendo.2025.1587985. PMID:40487764. IF:4,600 (Q1/3D).
 - Magallares B, Malouf J, Codes H, Park HS, Betancourt J, Fraga G, Quesada E, López M, Torrent M, Marín A, Herrera S, Gich I, Boronat S, Casademont J, Corominas H, Cerdá D. Pediatric densitometry: is the Z score adjustment necessary in all cases?. *Frontiers in Endocrinology*. 2025; 16:1587382. DOI:10.3389/fendo.2025.1587382. PMID:40270717. IF:4,600 (Q1/3D).

5.1.4 Epidemiology, Public Health and Primary Care Area

- Majoie M, Visser A, Ulubas M, van G, Alonso P, Valli C, Nino de Guzman E, Gartlehner G, Nussbaumer B, Klerings I, James R, Service D, Evers S, Kleijnen J, Leone M, Verstegen D. Curriculum Innovations: Teaching Residents About Guideline Development and Cost-Conscious Care: A Mixed-Method Evaluation Study. *Neurology. Education.* 2025; 4(1). DOI:10.1212/NE9.0000000000200198.
- Marcucci M, Chan MTV, Painter TW, Efremov S, Aguado HJ, Astrakov SV, Kleinlugtenbelt YV, Patel A, Cata JP, Amir M, Kirov M, Leslie K, Duceppe E, Borges FK, de Nadal M, Tandon V, Landoni G, Likhvantsev VV, Lomivorotov V, Sessler DI, Martínez MJ, Xavier D, Fleischmann E, Wang CY, Meyhoff CS, Wittmann M, Torres D, Highton D, Jacka M, Vishwanath B, Zarnke K, Sidhu RS, Oriani G, Ayad S, Minear S, Weaver TE, Ruetzler K, Brusasco C, Parlow JL, Maxwell E, Miller S, Mrkobrada M, Bhatt KSC, Rahate P, Kowark A, De Blasio G, Ofori SN, Conen D, Srinathan S, Szczeklik W, Jayaram R, Ellerkmann RK, Momeni M, Copland I, Vincent J, Balasubramanian K, Li ZR, Wang MK, Li DY, McGillion MH, Kurz A, Sharma M, Short TG, Devereaux PJ, ogPOISE Trial Investigators Study 3&GRP. Effects of a Hypotension-Avoidance Versus a Hypertension-Avoidance Strategy on Neurocognitive Outcomes After Noncardiac Surgery. *ANNALS OF INTERNAL MEDICINE.* 2025; 178(7). DOI:10.7326/ANNALS-24-02841. PMID:40456161. IF:15,200 (Q1/1D).
- Mateos M, Garcia A, Molano D, Solà I, Gordo F, Martín MC, López J, Zamora J. Recommendations for the use of biomarkers for the management of adults with sepsis: a scoping review and critical appraisal. *BMJ Open.* 2025; 15(7):e090922. DOI:10.1136/bmjopen-2024-090922. PMID:40623745. IF:2,300 (Q2/3D).
- Meade A, Santero M, Savall O, Bracchiglione J, Leache L, Selva A, Macias I, Cerdà P, Cosp XB. Immunotherapy or Targeted Therapy Versus Best Supportive Care for Advanced Gastric Cancer: A Systematic Review and Meta-analysis of Randomised Trials. *Journal Of Gastrointestinal Cancer.* 2025; 56(1):75. DOI:10.1007/s12029-024-01155-y. PMID:40032744.
- Meza N, Bracchiglione J, Liquitay C, Madrid E, Varela LB, Guo Y, Urrútia G, Er S, Tiller S, Shokraee K, Busco FA, Solà I, Vargas MO, Novik AV, Poloni D, Franco J. Liraglutide for adults living with obesity. The Cochrane database of systematic reviews. 2025; (10):CD016017. DOI:10.1002/14651858.CD016017. PMID:41161684. IF:9,400 (Q1/1D).
- Miravittles M, Calle M, Molina J, Almagro P, Gómez JT, Trigueros JA, Sánchez E, Cosio BG, Casanova C, López JL, Riesco JA, Simonet P, Rigau D, Isakova A, Sanz MP, Sobradillo P, Alcázar B, Garin N, Soler JJ. Update 2025 of the Spanish COPD Guidelines (GesEPOC): Pharmacological Treatment of Stable COPD. *ARCHIVOS DE BRONCONEUMOLOGÍA.* 2025; 61(12). DOI:10.1016/j.arbres.2025.10.008. PMID:41198528. IF:9,200 (Q1/1D).
- Morgano GP, Wiercioch W, Piovani D, Neumann I, Nieuwlaet R, Piggott T, Alonso P, Mbuagbaw L, Rigoni M, Bognanni A, Celedon N, Mustafa RA, Pottie K, Leontiadis GI, Akl EA, Bonovas S, Schünemann HJ. Defining decision thresholds for judgments on health benefits and harms using the grading of recommendations assessment, development, and evaluation (GRADE) evidence to decision (EtD) frameworks: a randomised methodological study (GRADE-THRESHOLD). *JOURNAL OF CLINICAL EPIDEMIOLOGY.* 2025; 179:111639. DOI:10.1016/j.jclinepi.2024.111639. PMID:39662641. IF:5,200 (Q1/1D).
- Ofori S, Wang MK, Popova E, Chan M, McIntyre WF, Sessler DI, Giulia V, Warwas M, Balasubramanian K, Tandon V, Finley C, Anna GT, Cata J, Srinathan S, Reimer C, McLean S, Trujillo JC, Fleischmann E, Voltolini L, Cruz P, Maziak DE, Gutiérrez L, Amir M, Bossard M, Wang CY, Devereaux PJ, Conen D, COP I. Smoking, Colchicine and Postoperative Outcomes in Thoracic Surgery: Post Hoc Analysis of the COP-AF Randomized Controlled Trial. *Cjc Open.* 2025; 7(7). DOI:10.1016/j.cjco.2025.04.008. PMID:40698308.
- Osorio D, Plana MN, Rubio M, Muñoz J, Bolibar I, Franco MT, Secanell M, Soler M, Fernández P, Suclupe S, Salas K, Torres D, Ferreira I, FIS GRP. Patient-Reported Incident Measure (PRIM) tools for reporting patient safety incidents: a scoping review protocol. *BMJ Open.* 2025; 15(6):e096983. DOI:10.1136/bmjopen-2024-096983. PMID:40550710. IF:2,300 (Q2/3D).

5.1.4 Epidemiology, Public Health and Primary Care Area

- Otero E, Raspall MJF, Franco PG, Martínez JF, Saladich IG, Sala NJ, Gisbert ML, Cordero JR, Verdúm JI, Sancho G. Mapping clinical and imaging factors that might predict cardiac events in breast cancer patients. *Frontiers in Oncology*. 2025; 15:1552908. DOI:10.3389/fonc.2025.1552908. PMID:40134591. IF:3,300 (Q2/4D).
- Paniagua P, Rincón MD, Candela A, Marcos M, Barquero M, Gich I, Medina L, Bosch A, Garrido D, Ordoñez J, Urrutia G. Improving the Compliance of Massive Haemorrhage Protocols Through Education Is Associated with Patient Survival. *Journal of Clinical Medicine*. 2025; 14(13):4632. DOI:10.3390/jcm14134632. PMID:40649007. IF:2,900 (Q1/2D).
- Park LJ, Marcucci M, Ofori SN, Borges FK, Nenshi R, Kanstrup CTB, Rosen M, Landoni G, Lomivorotov V, Painter TW, Xavier D, Martínez MJ, Szczeklik W, Meyhoff CS, Chan MTV, Simunovic M, Bogach J, Serrano PE, Balasubramanian K, Cadeddu M, Yang I, Kim WH, Devereaux PJ. Safety and Efficacy of Tranexamic Acid in General Surgery. *JAMA Surgery*. 2025; 160(3). DOI:10.1001/jamasurg.2024.6048. PMID:39813061. IF:14,900 (Q1/1D).
- Perelló J, Estadella J, Gich I, Llurba E, Calaf J. Usefulness of the Heavy Menstrual Bleeding Diagnostic Tools SAMANTA Questionnaire and Heavy Menstrual Bleeding-Visual Analogue Scale Tool for Iron Deficiency Screening: An Exploratory Analysis from the COLIBRI Study. *WOMENS HEALTH REPORTS*. 2025; 6(1). DOI:10.1177/26884844251382731. PMID:41142484.
- Pérez Bracchiglione J, Meza N, Franco J, Liquitay C, Novik AV, Vargas MO, Lazcano G, Poloni D, Langlotz FR, Roqué M, Munoz SR, Madrid E. Semaglutide for adults living with obesity. *The Cochrane database of systematic reviews*. 2025; (10):CD015092. DOI:10.1002/14651858.CD015092.pub2. PMID:41161683. IF:9,400 (Q1/1D).
- Pérez Bracchiglione J, Song Y, Meneses JF, Gomes HD, Albiger B, Solà I, Rigau D, Alonso P. Users' experience of frameworks to support evidence-informed decision-making in public health: a scoping review. *Eurosurveillance*. 2025; 30(19):2400184. DOI:10.2807/1560-7917.ES.2025.30.19.2400184. PMID:40376821. IF:7,800 (Q1/1D).
- Pérez N, Acuña P, San Martín S, Varas J, Cordova C, Casalino R, Madrid E. Stromal Cells, Extracellular Matrix Components, and Adenosine A3 Receptor in Prostate Biopsies: Association With Histological Grade, PSA Levels, and Clinical Tumour Stage. *JOURNAL OF HISTOCHEMISTRY & CYTOCHEMISTRY*. 2025; 73(7-8). DOI:10.1369/00221554251349873. PMID:40682346. IF:1,500 (Q4/10D).
- Pérez N, Concha S, Acuna P, Martín SS, Córdova C, Varas J, Toledo D, Madrid E. E-cadherin, N-cadherin and ADAM12 in localised prostate cancer: A clinicopathological study. *PATHOLOGY RESEARCH AND PRACTICE*. 2025; 273:156160. DOI:10.1016/j.prp.2025.156160. PMID:40774061. IF:3,200 (Q2/3D).
- Perrot JC, Segura M, Flotats G, Closa C, Gich I, Garcia C, Alba A, Nadal MJ, Pintor A, Terra J, Ramirez E, Beranuy M, Bascunana H, Plaza V, Gueell MR. Long COVID-19: Impact of a personalised rehabilitation program. *Rehabilitacion*. 2025; 59(2):100903. DOI:10.1016/j.rh.2025.100903. PMID:40156968.
- Prat MS, Cuevas AL, Ribas IB, Fanegas EP, Pujol JA, GEMPAC G. Development and validation of a risk score to predict community-acquired pneumonia occurrence in the adult population. *Respiratory Investigation*. 2025; 63(4). DOI:10.1016/j.resinv.2025.04.012. PMID:40288222.
- Rives J, Gil P, Viladés D, García A, Genua I, Miñambres I, Grau M, Gich I, Puig N, Benítez S, Julve J, Pérez A, Sánchez JL. Low-Density Lipoprotein Subfraction Phenotype Is Associated with Epicardial Adipose Tissue Volume in Type 2 Diabetes. *Journal of Clinical Medicine*. 2025; 14(3):862. DOI:10.3390/jcm14030862. PMID:39941533. IF:2,900 (Q1/2D).
- Rocha A, Pinto A, Stein C, Colpani V, Graf D, Dorneles G, Belli KC, Parahiba S, Falavigna M, Martins SO, Atallah AN. Brazilian Public Health System protocol for the diagnosis, treatment, and clinical monitoring of acute ischemic stroke. *ARQUIVOS DE NEURO-PSIQUIATRIA*. 2025; 83(05):s00451806923. DOI:10.1055/s-0045-1806923. PMID:40541244. IF:1,600 (Q3/7D).

5.1.4 Epidemiology, Public Health and Primary Care Area

- Rocha CR, Reis FSD, Rocha A, Pinto A, Ciconelli RM. An evidence-based care program in a local healthcare setting in Brazil: Experience and impact. *Clinics*. 2025; 80:100640. DOI:10.1016/j.clinsp.2025.100640. PMID:40245788. IF:2,400 (Q1/3D).
- Rodrigues N, Bonfill X, Quintana MJ, Santero M, Bártolo A, Olid AS. Sexual dysfunction in women with breast cancer: a systematic review. *SUPPORTIVE CARE IN CANCER*. 2025; 33(4):332. DOI:10.1007/s00520-025-09352-6. PMID:40163251. IF:3,000 (Q1/1D).
- Roqué M, Giné M, Rugles CG, Perrotta C, Vilaró J. Chest physiotherapy for acute bronchiolitis in paediatric patients between 0 and 24 months old: a Cochrane review. *Emergencias*. 2025; 37(4). DOI:10.55633/s3me/060.2025. IF:6,300 (Q1/1D).
- Roura S, Álvarez G, Hohenschurz D, Sola I, Núñez R, Bracchiglione J, Fernández C, Phalip J, Gich I, Sitjà M, Urrútia G. A call for improving the internal validity and the reporting of manual therapy trials self-labelled as pragmatic: A methodological review. *International Journal of Osteopathic Medicine*. 2025; 55:100754. DOI:10.1016/j.ijosm.2025.100754. IF:1,500 (Q2/5D).
- Roura S, Álvarez G, Hohenschurz D, Solà I, Núñez R, Bracchiglione J, Fernández C, Phalip J, Gich I, Sitjà M, Urrútia G. Alignment between the research question, design, and terminology is required in manual therapy trials: a methodological study. *JOURNAL OF CLINICAL EPIDEMIOLOGY*. 2025; 183:111817. DOI:10.1016/j.jclinepi.2025.111817. PMID:40348148. IF:5,200 (Q1/1D).
- Salazar J, Moustgaard H, Bracchiglione J, Hróbjartsson A. Empirical evidence of observer bias in randomised clinical trials: updated and expanded analysis of trials with both blinded and non-blinded outcome assessors. *JOURNAL OF CLINICAL EPIDEMIOLOGY*. 2025; 183:111787. DOI:10.1016/j.jclinepi.2025.111787. PMID:40258524. IF:5,200 (Q1/1D).
- Salido M, Moliner C, Zoratti L, Puig T, Carreras F, Serra R. 25-year follow-up on marked ventricular repolarisation abnormalities in athletes: Long-term outcomes and cardiovascular prognosis. *INTERNATIONAL JOURNAL OF CARDIOLOGY*. 2025; 427:133060. DOI:10.1016/j.ijcard.2025.133060. PMID:40010514. IF:3,200 (Q2/3D).
- Sanchis MJ, Guilabert M, Parker LA, Caballero JP, Chilet E, Gómez L, Alonso P, Cebrián A, López M, Moral I, Ronda E, Canelo C, Hernández I, Párraga I, Del Campo M, Lumbreras B. Perspectives of clinicians and screening candidates on shared decision-making in prostate cancer screening with the prostate-specific antigen (PSA) test: a qualitative study (PROSHADE study). *Bmj Evidence-Based Medicine*. 2025; 30(3). DOI:10.1136/bmjebm-2024-113113. PMID:39797674. IF:7,600 (Q1/1D).
- Sanguedolce F, Tedde A, Basile G, Di F, Baboudjian M, Uleri A, Mancon S, Chernysheva D, Figuls MR, Gallioli A, Territo A, Rouprêt M, Palou J, Breda A. Prostate Cancer Outcomes in Immunocompromised Patients: A Systematic Review and Meta-analysis. *European Urology Oncology*. 2025; 8(4). DOI:10.1016/j.euo.2025.05.021. PMID:40533295. IF:9,300 (Q1/1D).
- Sénéquier A, Draper J, Bustins GA, Braithwaite FA, Brown J, Corcoran D, Forrest L, Godsí E, MacMillan A, Menard M, Carvajal SR, Scocca C, Treffel L, Vaucher P, Wagner A, Soliman N, Abbey H, Hohenschurz D. METHODOLOGICAL ASPECTS OF RESEARCH INTEGRITY AND CULTURE Investigating the trustworthiness of randomized controlled trials in osteopathic research: a systematic review with meta-analysis. *JOURNAL OF CLINICAL EPIDEMIOLOGY*. 2025; 183:111788. DOI:10.1016/j.jclinepi.2025.111788. PMID:40252854. IF:5,200 (Q1/1D).
- Senerth E, Whaley P, Akl E, Beverly B, Alonso P, Jalil E, Khattar J, Palmer NR, Rooney A, Schuenemann HJ, Thayer KA, Tsaioun K, Morgan RL. Development of a framework to structure decision-making in environmental and occupational health: A systematic review and Delphi study. *ENVIRONMENT INTERNATIONAL*. 2025; 195:109209. DOI:10.1016/j.envint.2024.109209. PMID:39787778. IF:9,700 (Q1/1D).
- Senerth E, Whaley P, Akl E, Beverly B, Alonso P, Rooney A, Schuenemann HJ, Thayer KA, Tsaioun K, Morgan RL. GRADE guidance 40: The GRADE evidence-to-decision framework for environmental and occupational health. *ENVIRONMENT INTERNATIONAL*. 2025; 197:109314. DOI:10.1016/j.envint.2025.109314. PMID:39965475. IF:9,700 (Q1/1D).

5.1.4 Epidemiology, Public Health and Primary Care Area

- Song Y, Bracchiglione J, Meneses J, Gomes HD, Albiger B, Solà I, Rigau D, Alonso P. Frameworks to support evidence-informed decision-making in public health and infectious disease prevention and control: a scoping review. *Eurosurveillance*. 2025; 30(19):2400185. DOI:10.2807/1560-7917.ES.2025.30.19.2400185. PMID:40376818. IF:7,800 (Q1/1D).
- Sousa AS, Rocha CR, Rocha A, Piva SR, Jahnke N, Trevisani V, Pinto ACPN. Non-invasive ventilation for cystic fibrosis. *The Cochrane database of systematic reviews*. 2025; 11. DOI:10.1002/14651858.CD002769.pub6. IF:9,400 (Q1/1D).
- Sousa TS, Jardim RAC, Silva CFR, Sousa AS, Iosimuta N, Trevisani VFM, Pinto ACPN. Early mobilisation after skin graft for burn injury in adults. *The Cochrane database of systematic reviews*. 2025; 5. DOI:10.1002/14651858.CD016109. IF:9,400 (Q1/1D).
- Sousa B, Marques M, Neumann I, Chi Y, Nowak AJ, Reinap M, Awad M, Nothacker M, Trucl M, Brozek J, Alonso P, Wiercioch W, Qaseem A, Akl EA, Schünemann HJ, Board Trustees Guidelines Int Network 2024. *Guidelines International Network: Principles for Use of Artificial Intelligence in the Health Guideline Enterprise*. *ANNALS OF INTERNAL MEDICINE*. 2025; 178(3). DOI:10.7326/ANNALS-24-02338. PMID:39869912. IF:15,200 (Q1/1D).
- Szigethy E, Merzah M, Sola I, Urrútia G, Bonfill X. Scoping review of anticancer drug utilisation in lung cancer patients at the end of life. *Clinical & Translational Oncology*. 2025; 27(5). DOI:10.1007/s12094-024-03711-1. PMID:39367901. IF:2,500 (Q3/6D).
- Tibau A, Hwang TJ, Romano A, Borrell M, Gich I, Molto C, Kesselheim AS. Factors in Time to Full Approval or Withdrawal for Anticancer Medicines Granted Accelerated Approval by the FDA. *JAMA Network Open*. 2025; 8(3):e252026. DOI:10.1001/jamanetworkopen.2025.2026. PMID:40136298. IF:9,700 (Q1/1D).
- Tobias A, Chua PC, Ith S, Yu LS, Stafoggia M, Roque M, Lwin KS, Hashizume M. Desert dust, sandstorms, and infectious diseases: A scoping review. *ENVIRONMENTAL RESEARCH*. 2025; 285:122582. DOI:10.1016/j.envres.2025.122582. PMID:40812701. IF:7,700 (Q1/1D).
- Tobías A, Querol X, Roqué M, Lwin KS, Yuan L, Ith S, Wai HZ, Chua PL, Solà I, Renzi M, Stafoggia M, Hashizume M. Short-term exposure to desert dust and sandstorms and all-cause and cause-specific mortality and morbidity: A systematic review and meta-analysis. *ENVIRONMENT INTERNATIONAL*. 2025; 196:109277. DOI:10.1016/j.envint.2025.109277. PMID:39889591. IF:9,700 (Q1/1D).
- Toscano C, García C, Ros V, Barguilla A, Saladich IG, Rodríguez K, Torra R, Boronat S, Sierra A. Cognitive and neuro-psychiatric profile in adult patients with epilepsy secondary to Tuberous Sclerosis Complex. *EPILEPSY & BEHAVIOR*. 2025; 166:110380. DOI:10.1016/j.yebeh.2025.110380. PMID:40101321. IF:2,300 (Q2/4D).
- Vaucher P, Carnes D, Hohenschurz D, Thomson O, Vogel S, Arienti C, Bright P, Bustins GA, Esteves J, Esteves NK, Fawkes C, Rinne S, Roura S, Treffel L, Wagner A, Draper J. European research Priorities for Osteopathic Care (PROCare): a sequential exploratory investigation and survey. *BMJ Open*. 2025; 15(10):e100757. DOI:10.1136/bmjopen-2025-100757. PMID:41101954. IF:2,300 (Q2/3D).
- Venter C, Alonso P, Beltran J, Bracchiglione J, Fernández K, Riera P, Solà I, Arasi S, Canani RB, Fleischer D, Eguiluz I, Meyer R, Roberts G, Roth F, Santos AF, Skypala I, Smith PK, Sokolowska M, Torres MJ, Vassilopoulou E, Walter J, O'Mahony L. Protocol: Scoping review of the association between complementary feeding, growth, and immune health in infants and toddlers-An EAACI guideline paper. *PEDIATRIC ALLERGY AND IMMUNOLOGY*. 2025; 36(8):e70145. DOI:10.1111/pai.70145. PMID:40747578. IF:4,500 (Q1/1D).
- -Whaley P, Alper B, Dehnbostel J, Alva C, Antoniou S, Bognanni A, Bracchiglione J, Dalsbo TK, Grant S, Hunter J, Iorio A, Lagisz M, Lehmann H, Li SY, Meerpohl J, Mokrane S, Monaco C, Neumann I, Pottie K, Sayfi S, Sekercioglu N, Singh J, Sousa B, Tufte J, Vasanthan LT, Wang L, Xia J, Yao XM, Schünemann H. GRADE concept paper 9: rationale and process for creating a GRADE Ontology. *JOURNAL OF CLINICAL EPIDEMIOLOGY*. 2025; 187:111921. DOI:10.1016/j.jclinepi.2025.111921. PMID:40769258. IF:5,200 (Q1/1D).cncr.35552. PMID:39264834. IF:6,100 (Q1/2D). Document type: Article.

5.1.4 Epidemiology, Public Health and Primary Care Area

- Halik A, Tilgner M, Silva P, Estrada N, Altwasser R, Jahn E, Heuser M, Hou HA, Pratcorona M, Hills RK, Metzeler KH, Fenwarth L, Dolnik A, Terre C, Kopp K, Blau O, Szyska M, Christen F, Krönke J, Vasseur L, Löwenberg B, Esteve J, Valk PJM, Duchmann M, Chou WC, Linch DC, Döhner H, Gale RE, Döhner K, Bullinger L, Yoshida K, Damm F. Genomic characterization of AML with aberrations of chromosome 7: a multinational cohort of 519 patients. *Journal of Hematology & Oncology*. 2024; 17(1):70. DOI:10.1186/s13045-024-01590-1. PMID:39160538. IF:29,500 (Q1/1D). Document type: Article.
- Hernández A, González T, Sobas M, Sträng E, Castellani G, Abáigar M, Valk PJM, Ramiro AV, Benner A, Metzeler KH, Azibeiro R, Tettero JM, Martínez J, Pratcorona M, EliceGUI JM, Mills KI, Thiede C, Sanz G, Döhner K, Heuser M, Haferlach T, Turki AT, Reinhardt D, Schulze R, Barbus M, Hernández JM, Huntly B, Ossenkoppele G, Döhner H, Bullinger L. Rearrangements involving 11q23.3/*<i>KMT2A</i>* in adult AML: mutational landscape and prognostic implications – a HARMONY study. *LEUKEMIA*. 2024; 38(9). DOI:10.1038/s41375-024-02333-4. PMID:38965370. IF:12,800 (Q1/1D). Document type: Article.
- Orgueira AM, Encinas MMP, Varela ND, Wang YH, Mora E, Díaz M, Montoro MJ, Marín HP, Ortega FR, Tormo M, Jerez A, Nomdedeu J, Sánchez CD, Arenillas L, Cárcel P, Romero MTC, Cirici BX, Arango ER, Barreto R, Benlloch L, Lin CC, Tien HF, Míguez CP, Crucitti D, Campelo MD, Valcárcel D. Validation of the Artificial Intelligence Prognostic Scoring System for Myelodysplastic Syndromes in chronic myelomonocytic leukaemia: A novel approach for improved risk stratification. *BRITISH JOURNAL OF HAEMATOLOGY*. 2024; 204(4). DOI:10.1111/bjh.19341. PMID:38411250. IF:5,100 (Q1/2D). Document type: Article.

SCIENTIFIC PRODUCTION - Clinical Practice Guidelines

- Agache I, Balbin GJ, Saenz FKF, Sola I, Alonso P, Haahtela T, Traidl C, O'Mahony L, Damialis A, Lauerma A, Nadeau KC, Pali I, Palomares O, Renz H, Schwarze J, Vercelli D, Canelo C, Jutel M, Akdis CA. Impact of Residential Greenness Exposure on the Development of Allergic Diseases and Asthma and on Asthma Control: A Systematic Review for the EAACI Guidelines of Environmental Science for Allergic Diseases and Asthma. *ALLERGY*. 2025; 80(11). DOI:10.1111/all.16653. PMID:40632014. IF:12,000 (Q1/1D).
- Agache I, Salazar J, Rodríguez Y, Sáenz FKF, Haahtela T, Traidl C, Damialis A, Vecillas L, Giovannini M, Nadeau KC, Pali I, Palomares O, Renz H, Schwarze J, Pinto BS, Urrutia M, Venter C, Vercelli D, Winders T, Sola I, Alonso P, Canelo C, Jutel M, Akdis CA. The Impact of Rhinovirus, Syncytial Respiratory Virus and Helminth Infection on the Risk of New-Onset Asthma and Other Allergic Conditions-A Systematic Review for the EAACI Guidelines on Environmental Science for Allergic Diseases and Asthma. *ALLERGY*. 2025; 80(7). DOI:10.1111/all.16611. PMID:40495394. IF:12,000 (Q1/1D).
- Canelo C, Alonso P, Muratov S, Tarride JE, Dimitrova N, Giusti F, Borisch B, Castells X, Duffy SW, Fitzpatrick P, Follmann M, Giordano L, Hofvind S, Lebeau A, Quinn C, Torresin A, Rossi PG, Schünemann H, Nyström L, Broeders M, ECIBC G. Evaluation of breast cancer screening programmes: Candidate performance indicators and their association with breast cancer mortality. *BREAST*. 2025; 84:104621. DOI:10.1016/j.breast.2025.104621. PMID:41202390. IF:7,900 (Q1/1D).
- Miravittles M, Calle M, Molina J, Almagro P, Gómez JT, Trigueros JA, Sánchez-Angarita E, Cosío BG, Casanova C, López-Campos JL, Riesco JA, Simonet P, Rigau D, Isakova A, Pastor Sanz M, Sobradillo P, Alcázar-Navarrete B, Garin N, Soler-Cataluña JJ. Update 2025 of the Spanish COPD Guidelines (GesEPOC): Pharmacological Treatment of Stable COPD. *Arch Bronconeumol*. 2025 Dec;61(12):766-782. English, Spanish. doi: 10.1016/j.arbres.2025.10.008. Epub 2025 Oct 14. PMID: 41198528.

5.1.4 Epidemiology, Public Health and Primary Care Area

Evaluation of Public Health Policies and Programmes

Group leader

Continente Garcia, Xavier (ASPB)

Researchers

Barbaglia Navarro, Maria Gabriela (ASPB)

Bartoli Checa, Montserrat (ASPB)

Calderon Delgado, Josep (ASPB)

Cortés Francisco, Nuria (ASPB)

Ferrer Fons, Maria (ASPB)

Garcia Altes, Anna (AQuAS)

Garrido Albaina, Amaia (ASPB)

López Medina, Maria José (ASPB)

Pérez Giménez, Anna (ASPB)

Planell Cerezo, Raquel (ASPB)

Puigpinos Riera, Rosa (ASPB)

Sabate Camps, Sara (ASPB)

Sánchez Martínez, Francesca (ASPB)

Serral Cano, Gemma (ASPB)

Research technicians

Leon Pujadas, Gabriel (CIBER-ASPB)



DESCRIPTION

The main objective of our group is to advance research on the evaluation of policies, programs, and other interventions in public health. We promote high-quality research, internationalisation, and knowledge transfer to the scientific community, technicians, policymakers, and citizens. We generate evidence on the effectiveness and impact of public policies, plans, or interventions (tobacco control laws, mental health plans, housing policies, urban interventions) that may affect population health. We promote the development and application of innovative evaluation methodologies with an equity and gender perspective.

MAIN LINES OF RESEARCH

- Needs Assessment and Health Monitoring (Barcelona Health Survey, FRESC survey and monitoring of second-hand smoke). (López Medina, Maria Jose; Serral Cano, Gemma).
- Evaluation of public health policies and Action Plans (Tobacco control Law, Barcelona mental health action plan, Barcelona Drug and Addictions Action Plan, housing with services, and urban interventions). (López Medina, Maria Jose; Continente Garcia, Xavier).
- Evaluation of public health programmes and services (school-based prevention programmes, community-based interventions, breast cancer screening programmes). (Continente Garcia, Xavier; Serral Cano, Gemma).

SCIENTIFIC CHALLENGES

- To promote research into the evaluation of policies and programmes.
- To support the debate on conceptual and methodological aspects of the impact evaluation of interventions on population health.

5.1.4 Epidemiology, Public Health and Primary Care Area

- To consolidate the group's research, fostering less developed aspects such as economic evaluation and evaluation of health protection interventions.
- To develop a theoretical corpus of concepts, principles, methods, and examples that contribute to filling the gap in undergraduate and postgraduate teaching regarding the design and evaluation of public policies, plans, and other interventions.
- To promote the impact evaluation of policies, plans, and other interventions with an equity and gender perspective.

ACTIVE & AWARDED GRANTS

- Bartolí Checa, Montserrat. Perspectiva de gènere als programes de reducció de danys: resultats en salut i en l'accessibilitat als serveis de les dones cís-gènere i persones de gènere díssident amb un consum problemàtic de drogues. 2025 DI 00065. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duración: 2025-2028. 21.600,00 €
- Contínente García, Xavier. Evaluación del programa Transformem els patis escolars de la ciudad de Barcelona. CX24-00107. Fundació La Caixa. Duration: 2025-2027. 89.980,00 €
- López Medina, María Jose. Grup de recerca en avaluació de polítiques i programes de salut pública. 2021 SGR 00977. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duración: 2022-2025.
- López Medina, Maria Jose. Joint Action on Health Promotion and Disease Prevention, including Smoke and Aerosol Free Environments. JA-SAFE 101233428. European Commission. Duration: 2025-2028. 181.675,30 €

DOCTORAL THESES DEFENDED

- Sanz Mas, Marta. Adaptar les escoles al canvi climàtic amb mesures verdes, blaves i grises a Barcelona: una avaluació amb mètodes míxtos. Data: 05/06/2025. Universitat Pompeu Fabra. Supervisors: López Medina, Mª José; Contínente García, Xavier. <http://hdl.handle.net/10803/695176>

SCIENTIFIC PRODUCTION - Article & reviews

- Agache I, Balbin GJ, Saenz FKF, Sola I, Alonso P, Haahtela T, Traidl C, O'Mahony L, Damialis A, Lauerma A, Nadeau KC, Pali I, Palomares O, Renz H, Schwarze J, Vercelli D, Canelo C, Jutel M, Akdis CA. Impact of Residential Greenness Exposure on the Development of Allergic Diseases and Asthma and on Asthma Control-A Systematic Review for the EAACI Guidelines of Environmental Science for Allergic Diseases and Asthma. ALLERGY. 2025; 80(11). DOI:10.1111/all. 16653. PMID:40632014. IF:12,000 (Q1/1D)
- Agache I, Salazar J, Rodríguez Y, Saenz FKF, Haahtela T, Traidl C, Damialis A, Vecillas L, Giovannini M, Nadeau KC, Pali I, Palomares O, Renz H, Schwarze J, Pinto BS, Urrutia M, Venter C, Vercelli D, Winders T, Sola I, Alonso P, Canelo C, Jutel M, Akdis CA. The Impact of Rhinovirus, Syncytial Respiratory Virus and Helminth Infection on the Risk of New-Onset Asthma and Other Allergic Conditions-A Systematic Review for the EAACI Guidelines on Environmental Science for Allergic Diseases and Asthma. ALLERGY. 2025; 80(7). DOI:10.1111/all. 16611. PMID:40495394. IF:12,000 (Q1/1D).
- Albinini S, Orecchia L, Mjaess G, Aoun F, Del Giudice F, Antonelli L, Moschini M, Soria F, Mertens LS, Gallioli A, Marcq G, Pradere B, Bochner B, Breda A, Briganti A, Catto J,

5.1.4 Epidemiology, Public Health and Primary Care Area

- Decaestecker K, Gontero P, Kamat A, Lambert E, Minervini A, Mottrie A, Roupert M, Shariat S, Wijnburg C, Rieken M, Wiklund P, Mari A; EAU-YAU Urothelial Carcinoma working group and ERUS society. Enhanced Recovery After Surgery for patients undergoing radical cystectomy: Surgeons' perspectives and recommendations ten years after its implementation. *Eur J Surg Oncol*. 2025 Mar;51(3):109543. doi: 10.1016/j.ejso.2024.109543. Epub 2024 Dec 19. PMID: 39799856.
- Borger MA, de Waha S, Marsan NA, Zühlke L, Mestres CA, Fosbol E, Bonaros N, Pizzi MN, Brida M, Sionis A, Delgado V, Task Force ESC Guidelines Management E. Key priorities for the implementation of the 2023 ESC Guidelines for the management of endocarditis in low-resource settings. *European Heart Journal-Quality of Care and Clinical Outcomes*. 2025; 11(5). DOI:10.1093/ehjqcco/qcae106. PMID:40152919. IF:4,600 (Q1/2D).
 - Canelo C, Alonso P, Muratov S, Tarride JE, Dimitrova N, Giusti F, Borisch B, Castells X, Duffy SW, Fitzpatrick P, Follmann M, Giordano L, Hofvind S, Lebeau A, Quinn C, Torresin A, Rossi PG, Schünemann H, Nyström L, Broeders M, ECIBC G. Evaluation of breast cancer screening programmes: Candidate performance indicators and their association with breast cancer mortality. *BREAST*. 2025; 84:104621. DOI:10.1016/j.breast.2025.104621. PMID:41202390. IF:7,900 (Q1/1D).
 - Chico A, Pazos M, Nattero L, Simó O, Durán M, Ugarte E, Aguilera E, Andía V, Moreno J, Granados M, Rebollo A, Fernández E, Quirós C, Alpañés M, Márquez R, Beato P, Lado O, Picón M, Spanish S, Diabet Technology Working GRP. Beyond glycemic metrics: Real-world benefits of connected insulin pens in type 1 diabetes. *DIABETES RESEARCH AND CLINICAL PRACTICE*. 2025;226:112377. DOI:10.1016/j.diabres.2025.112377. PMID:40695413. IF:7,400 (Q1/1D).
 - Cimerman J, Fernández C, Forero D, Garrillo J, Rodríguez A, Torremorell MD, Martínez Peralta S, Ribot T, Bavestrello P, Cano C, Nitola-Mendoza L, Bleda M, Rojas YL, Salvado N, Teran CM, Antonio M, Duran A, Sendros MJ. ICO-ICS Praxi per a l'atenció al final de la vida, Institut Català d'Oncologia (ICO) Institut Català de la Salut (ICS), 2025, ISBN: 978-84-128170-7-2. <http://hdl.handle.net/11351/14111>
 - de Miguel-Díez J, Torres-Castro R, Sanz Herrero F, Menéndez Villanueva R, Solís Gómez B, Quirós Fernández S, Pérez Rojo R, Mora Cuesta VM, Entrenas Castillo M, Serrano Fernández L, Cabrera Martínez MM, Mediano O, García-Ortega A, García Rivero JL, de la Rosa-Carrillo D. SEPAR Recommendations on Vaccination for Chronic Respiratory Patients. *Arch Bronconeumol*. 2025 Jun 17:S0300-2896(25)00218-2. English, Spanish. doi: 10.1016/j.arbres.2025.06.005. Epub ahead of print. PMID: 40592680.
 - Del Galdo F, Lescoat A, Conaghan PG, Bertoldo E, Čolić J, Santiago T, Suliman YA, Matucci-Cerinic M, Gabrielli A, Distler O, Hoffmann-Vold AM, Castellví I, Balbir-Gurman A, Vonk M, Ananyeva L, Rednic S, Tarasova A, Ostojic P, Boyadzhieva V, El Aoufy K, Farrington S, Galetti I, Denton CP, Kowal-Bielecka O, Mueller-Ladner U, Allanore Y. EULAR recommendations for the treatment of systemic sclerosis: 2023 update. *Ann Rheum Dis*. 2025 Jan;84(1):29-40. doi: 10.1136/ard-2024-226430. Epub 2025 Jan 2. PMID: 39874231.
 - Domínguez-González C, Barba Romero MÁ, Caballero Eraso C, de Las Heras J, Farrero Muñoz E, García-Campos Ó, González M, Grau JM, Hernández-Voth A, Juntas Morales R, León Hernández JC, Ley Martos M, López-Padilla D, Muelas N, Nascimento A, Olivé M, Paradas C, Pardo Fernández J, Pascual SI, Pitarch I, Sancho J, Díaz-Manera J. Recommendations for the diagnosis, treatment, and follow-up of late-onset Pompe disease. *Neurologia (Engl Ed)*. 2025 Dec 24:501933. doi: 10.1016/j.nrleng.2025.501933. Epub ahead of print. PMID: 41453611.
 - Escalada San Martín FJ, Bretón Lesmes I, Gómez Peralta F, Merino Torres JF, Pomares Gómez F, Chico Ballesteros A, González-Clemente JM, González Pérez de Villar N, Morales Portillo C, Pinés Corrales PJ, Ricart Engel W, Benedito Pérez de Inestrosa MT, Miranda Fernández-Santos C, Arranz E, Fontán Vinagre G, Perán JF, Sedisa, Martínez Brocca MA. Executive summary of the document 'Diabetes Day Hospital. Value proposition. *Endocrinol Diabetes Nutr (Engl Ed)*. 2025 Oct;72(8):501601. doi: 10.1016/j.endien.2025.501601. Epub 2025 Sep 12. PMID: 40946027.

5.1.4 Epidemiology, Public Health and Primary Care Area

- Faba OR, Boissier R, Budde K, Figueiredo A, Hevia V, García EL, Regele H, Zakri RH, Olsburgh J, Bezuidenhout C, Breda A. European Association of Urology Guidelines on Renal Transplantation: Update 2024. *Eur Urol Focus*. 2025 Mar;11(2):365-373. doi: 10.1016/j.euf.2024.10.010. Epub 2024 Nov 2. PMID: 39489684.
- Fernández C, Puig M, Aguiló S, Rodríguez B, López MP, Capilla R, Ferré C, Mir M, Arnau I, Ruíz M, Martín E, Álvarez E, Sousa Y, Piñera P, Liñán M, Martín FJ, Castejón S, González JJ, Del Arco C. Recomendaciones del Grupo de Trabajo sobre Medicina Geriátrica de Urgencias de la Sociedad Española de Medicina de Urgencias y Emergencias sobre el cribado de fragilidad, valoración geriátrica e intervención en el Servicio de Urgencias (Recomendaciones GEM-SEMES). *Revista Española de Urgencias y Emergencias*. 2025; 4(3). DOI:10.55633/s3me/REUE021.2025.
- García MD, Cruzado JM, Farrero M, Peiró MTB, Crespo M, Jiménez JFD, Molina BD, Rivera CF, Bravo I, Jiménez VL, Melilli E, Pérez SM, Tamajón MLP, Sousa DR, Calabia ER, Marrero DH. Management of heart disease in renal transplant recipients: a national Delphi survey-based SET/SEC/SEN consensus document. *REVISTA ESPAÑOLA DE CARDIOLOGÍA*. 2025; 78(3). DOI:10.1016/j.rec.2024.09.008. PMID:39442797. IF:4,900 (Q1/2D).
- García MD, Farrero M, Blasco MT, Crespo M, Delgado J, Díaz B, Fernández C, Garrido IP, López V, Melilli E, Mirabet S, Pérez ML, Rangel D, Rodrigo E, Cruzado JM, Hernández D, Spanish T, Spanish N, Spanish Soc Cardiology SET SEC S. Management of Kidney Disease in Heart Transplant Patients: A National Delphi Survey-based Consensus Expert Paper. *TRANSPLANTATION*. 2025; 109(9). DOI:10.1097/TP.0000000000005302. PMID:39928546. IF:5,000 (Q1/1D).
- Gnech M, 't Hoen L, Radmayr C, Burgu B, Bogaert G, O'Kelly F, Castagnetti M, Quaedackers J, Silay MS, Kennedy U, van Uitert A, Skott M, Pakkasjärvi N, Bujons A, Yuan Y, Rawashdeh YF. Congenital Lower Urinary Tract Obstruction: Update and Summary of the European Association of Urology and European Society for Paediatric Urology Guidelines. *Eur Urol Focus*. 2025 May;11(3):519-527. doi: 10.1016/j.euf.2025.01.012. Epub 2025 Feb 4. PMID: 39909817.
- Gnech M, 't Hoen L, Skott M, Bogaert G, Castagnetti M, O'Kelly F, Quaedackers J, Rawashdeh YF, Kennedy U, van Uitert A, Yuan Y, Capecci M, Artoni A, Karaöz-Bulut G, Pakkasjärvi N, Burgu B, Bujons A, Silay MS, Radmayr C. Managing Preoperative Anxiety and Thromboprophylaxis in Children Undergoing Urological Procedures: An Update of the European Association of Urology/European Society for Paediatric Urology Guidelines on Paediatric Urology. *Eur Urol Open Sci*. 2025 Apr 15;75:133-140. doi: 10.1016/j.euros.2025.02.006. PMID: 40291787; PMCID: PMC12032177.
- Karagiannis T, Advani A, Davies MJ, Del Prato S, Dinneen SF, Kuss O, Lorenzoni V, Mathieu C, Mauricio D, Tankova T, Zaccardi F, Holt RIG, Tsapas A; EASD Guidelines Oversight Committee. European Association for the Study of Diabetes (EASD) Standard Operating Procedure for the development of guidelines. *Diabetologia*. 2025 Aug;68(8):1600-1615. doi: 10.1007/s00125-025-06370-1. Epub 2025 May 26. PMID: 40447848; PMCID: PMC12245959.
- Lecube A, Lecube A, Azriel S, Barreiro E, Blay G, Carretero-Gómez J, Ciudin A, Fernández JM, Flores L, de Hollanda A, Martínez E, Miñambres I, Moizé V, Morales C, Ramírez V, Salvador J, Soler MJ, Supervía M, Valentí V, Vicente-Rodríguez G, Vilarrasa N, Malagón MM. The Spanish GIRO Guideline: A Paradigm Shift in the Management of Obesity in Adults. *Obes Facts*. 2025;18(4):375-387. doi: 10.1159/000544880. Epub 2025 Mar 29. PMID: 40159422; PMCID: PMC12055014.
- Lei S, Zhang XY, Song LG, Wen JH, Zhang Z, Tian JQ, Yang R, Xu SH, Qiu SH, Macisaac RJ, Aleksova J, Mac F, Dupuis ME, Benaiges D, Mauricio D, Sommer AP, Barzilay JI, Gallagher JC, PanLL, Ji LL, Fang P, Li Y, Liu Q, Zhao JS, Xue Y, Shen YQ, Wang LM, Han JF, Liu GH. Expert consensus on vitamin D in osteoporosis. *Annals Of Joint*. 2025; 10:1. DOI:10.21037/aoj-24-48. PMID:39981430.
- Li R, Hensley PJ, Babjuk M, Bukavina L, Psutka SP, Lerner SP, O'Donnell MA, Lotan Y, Bree KK, Redorta JP, McConkey DJ, Lee BH, Mariappan P, Mertens LS, Soloway MS, Svatek RS, Tan WS, Williams SB, Gupta S, Buckley R, Kamat AM. Intermediate-risk Non-muscle-invasive Bladder Cancer: Recommendations for Definitions, Risk Stratification, Management Strategies, and Clinical Trial Design from the

5.1.4 Epidemiology, Public Health and Primary Care Area

- International Bladder Cancer Group. *Eur Urol Oncol*. 2025 Dec;8(6):1685-1695. doi: 10.1016/j.euo.2025.08.003. Epub 2025 Oct 10. PMID: 41076366.
- Martín F, Lesmes IB, Peralta FG, Torres JFM, Gómez FP, Ballesteros AC, González JM, de VillarNGP, Portillo CM, Corrales PJP, Engel WR, de Inestrosa MTBP, Fernández CM, Arranz E, VinagreGF, Perán JF, S, Brocca M. Executive summary of the document 'Diabetes Day Hospital. Value proposition. *Endocrinología, Diabetes y Nutrición*. 2025; 72(8):501601.DOI:10.1016/j.endien.2025.501601. PMID:40946027. IF:1,800 (Q3/8D).
 - Martínez-Brocca MA, Bellido V, Cardona-Hernández R, Castaño L, Conget I, Fernández A, Gómez Gila AL, Leiva-Gea I, Mauricio D. Executive summary. Screening, staging and follow-up of type 1 diabetes in preclinical stages: consensus of the scientific societies SED, SEEN and SEEP. *An Pediatr (Engl Ed)*. 2025 Nov;103(5):503944. doi: 10.1016/j.anpede.2025.503944. PMID: 41266045.
 - Mata Fernández C, Sebio A, Orcajo Rincón J, Martín Broto J, Martín Benlloch A, Marcilla Plaza D, López Pousa A, Gracia Alegría I, Giuppi M, Collado Ballesteros E, Bernabeu D, de Alava E, Valverde Morales C. Clinical practice guidelines for the treatment of Ewing sarcoma (Spanish Sarcoma Research Group-GEIS). *Clin Transl Oncol*. 2025 Mar;27(3):824-836. doi: 10.1007/s12094-024-03602-5. Epub 2024 Aug 19. PMID: 39158802; PMCID: PMC11914306.
 - Medina Á, Muntañola A, Crespo M, Ramírez Á, Hernández-Rivas JÁ, Abrisqueta P, Alcoceba M, Delgado J, de la Serna J, Espinet B, González M, Loscertales J, Serrano A, Terol MJ, Yáñez L, Bosch F; en nombre del Grupo Español de Leucemia Linfocítica Crónica (GELLC). Guidelines for the diagnosis and treatment of chronic lymphocytic leukaemia and small lymphocytic lymphoma from Chronic Lymphocytic Leukaemia Spanish Group (GELLC). *Med Clin (Barc)*. 2025 Mar 28;164(6):305-305.e17. English, Spanish. doi: 10.1016/j.medcli.2024.10.018. Epub 2025 Jan 10. PMID: 39799061.
 - Melmed S, di L, Fleseriu M, Mercado M, Karavitaki N, Gurnell M, Salvatori R, Tsagarakis S, Losa M, Maffei P, Pereira AM, Geer EB, Katznelson L, van der Lely AJ, Bollerslev J, Esposito D, Webb SM, Zatelli MC, Valassi E, Neggers S, Chanson P, Ho KKY, Ioachimescu AG, Biller BMK, Samson SL, Kaiser UB, Schilbach K, Luque RM, Casanueva FF, Shimon I, Boguszewski CL, Biermasz N, Colao A, Pirchio R, Lamberts SWJ, Kadioglu P, Buchfelder M, Frara S, Chiloire S, Petersenn S, Gadelha MR, Puig M, Luger A, Brue T, Beckers A, Ferone D, Clemmons DR, Greenman Y, Marazuela M, Mortini P, Strasburger CJ, Giustina A. Consensus on acromegaly therapeutic outcomes: an update. *Nature Reviews Endocrinology*. 2025; 21(11). DOI:10.1038/s41574-025-01148-2. PMID:40804505. IF:40,000 (Q1/1D).
 - Miravittles M, Calle M, Molina J, Almagro P, Gómez JT, Trigueros JA, Sánchez-Angarita E, Cosío BG, Casanova C, López-Campos JL, Riesco JA, Simonet P, Rigau D, Isakova A, Pastor Sanz M, Sobradillo P, Alcázar-Navarrete B, Garin N, Soler-Cataluña JJ. Update 2025 of the Spanish COPD Guidelines (GesEPOC): Pharmacological Treatment of Stable COPD. *Arch Bronconeumol*. 2025 Dec;61(12):766-782. English, Spanish. doi: 10.1016/j.arbres.2025.10.008. Epub 2025 Oct 14. PMID: 41198528.
 - Morales-Múnera CE, Montoya F, de Loredó N, Sendagorta E. [Translated article] AEDV Expert Document on the Management of Ulcerative Venereal Infections. *Actas Dermosifiliogr*. 2025 Feb;116(2):T159-T168. English, Spanish. doi: 10.1016/j.ad.2024.11.012. Epub 2024 Nov 19. PMID: 39566736.
 - Ochoa S, Pousa E, Barajas A, Grasa E, Peñades R, Crespo-Facorro B. Guía de manejo psicoterapéutico de personas con psicosis. UAB, Sant Pau, SJD, HVR, CIBERSAM. ES-NPR-2500050 v1.0. ES-NPSCZ-0102. 2025. https://peplau.es/wp-content/uploads/2025/04/guia_manejo_psicoterapeutico_3-final_vf.pdf
 - Ostermann M, Alshamsi F, Artigas Raventos A, Cecconi M, Ichai C, Jones C, Malbrain MLNG, Monnet X, Nalos M, Peng Z, Pfortmueller CA, Prowle J, Ranzani O, Shankar-Hari M, Wong A, Møller MH, De Backer D; European Society of Intensive Care Medicine. European Society of Intensive Care Medicine Clinical Practice Guideline on fluid therapy in adult critically ill patients: Part 3-fluid removal at de-escalation phase. *Intensive Care Med*. 2025 Oct;51(10):1749-1763. doi: 10.1007/s00134-025-08058-x. Epub 2025 Aug 19. PMID: 40828463. IF:21,200 (Q1/1D).

5.1.4 Epidemiology, Public Health and Primary Care Area

- Park HS, Díaz Del Campo P, Plana MN, Polo y La Borda J, Guerra-Rodríguez M, Moreno M, Cañete JD. Efficacy of withdrawal or tapering of bDMARDs vs standard regimen in axial spondyloarthritis patients: systematic review and meta-analysis informing the update of the Spanish Society of Rheumatology Guideline. *Front Med (Lausanne)*. 2025 Sep 10;12:1621313. doi: 10.3389/fmed. 2025.1621313. PMID: 41001393; PMCID: PMC12457669. IF:3,000 (Q1/2D).
- Pedro J, Arrieta F, Botana M, Gimeno JA, Martínez JI, de Victoria E, Ribalta J, Sánchez V, Pérez A, Trabajo Enfermedad Cardiovasc Soc Española Diabet GRP. Lipid-lowering drug therapy for reducing cardiovascular risk in diabetes. A clinical view of the Cardiovascular Disease Working Group of the Spanish Diabetes Society. *Endocrinología, Diabetes y Nutrición*. 2025; 72(2):101523. DOI:10.1016/j.endien.2025.101523. PMID:39924389. IF:1,800 (Q3/8D).
- Pilco-Terán M, Shabaka A, Furlano M, Tato Ribera A, Galán Carrillo I, Gutiérrez E, Torra R, Fernández-Juárez G; en representación del Grupo de Trabajo de Enfermedades Renales Hereditarias (GTERH) y del Grupo de Trabajo de Enfermedades Glomerulares de la Sociedad Española de Nefrología (GLOSEN). Indications for genetic testing in adults with focal segmental glomerulosclerosis. *Nefrología (Engl Ed)*. 2025 Feb;45(2):135-149. doi: 10.1016/j.nefro.2025.02.001. Epub 2025 Feb 13. PMID: 39952830. IF:2,600 (Q2/4D).
- Portella MJ, Ribas M, Lombardia C, Álvarez A, Verges A, Hervas A, Bové A, et al. Pla d'atenció a les persones en l'espectre autista. Barcelona: Direcció General de Planificació en Salut; 2025; doi: 10.62727//DSalut//13391; <http://hdl.handle.net/11351/13391>
- Povedano Pandés M, Rojas García R, Querol Gutiérrez L, Rodríguez de Rivera FJ, Colomer Font C, Noé Sebastián E, Navarro Pérez MD, Juárez Belaunde A, Ferri Campos J, Guijarro Castro TC. Guía de recomendaciones para el diagnóstico y el tratamiento neurorrehabilitador de los estados secuelas pospoliomielíticos [Guide of recommendations for the diagnosis and neurorrehabilitative treatment of post-polio myelitic sequelae]. *Rev Esp Salud Pública*. 2025 Jun 18;99:e202506006. Spanish. PMID: 40530649; PMCID: PMC12175752.
- Puig L, Carrascosa JM, Rivera R, Vilarrasa E, de la Cueva P, López-Ferrer A. Generalised Pustular Psoriasis: Review and Consensus of the Psoriasis Group of the Spanish Academy of Dermatology and Venereology. *Actas Dermosifiliogr*. 2025 Dec 8;117(3):104544. English, Spanish. doi: 10.1016/j.ad.2025.104544. Epub ahead of print. PMID: 41371399.
- Ramos JA, Mora F, Arostegui S, Cardoner N, Etxeandia JI, Gómez R, Gómez M, Montes JM, Vieta E. Treatment-resistant depression and intranasal esketamine: Spanish clinical consensus on practical aspects. *EUROPEAN JOURNAL OF PSYCHIATRY*. 2025; 39(3):100313. DOI:10.1016/j.ejpsy.2025.100313. IF:1,500 (Q3/7D).
- Rodríguez I, Ruiz E, Herrera S, Sabé N, Los I, Silva JT, Pérez E, Machuca I, Álvarez R, Valerio M, Castón JJ, Aguilera V, Bodro M, Cano A, Cantón R, Carmona P, Carratalà J, Cordero E, Cruzado JM, Fariñas MC, Fernández M, Fondevila C, Fortún J, García MD, Gutiérrez A, Iturbe D, Justo I, Len O, López F, Oliva M, Martín P, Martínez L, Mazuecos A, Mirabet S, Muñoz P, Oliver A, Pérez MJ, Rodríguez J, San R, Sánchez J, Solé A, Verdú EV, Villa J, Torre J, Aguado JM. Management of multidrug-resistant gram-negative bacilli infections in adult solid organ transplant recipients: GESITRA-IC/SEIMC, CIBERINFEC, and SET recommendations update. *Transplantation Reviews*. 2025; 39(3):100937. DOI:10.1016/j.trre.2025.100937. PMID:40414085. IF:2,500 (Q1/1D).
- Romero M, Escalada J, Noguerol M, Pérez A, Carretero J, Crespo J, Mascort JJ, Aguilar I, Tinahones F, Canones P, Gómez R, de Luis D, Trullós IG, Aller R, Rubio MA. Multidisciplinary clinical practice guideline for the management of hepatic metabolic steatosis. *Gastroenterología y Hepatología*. 2025; 48(8):502442. DOI:10.1016/j.gastrohep.2025.502442. PMID:40221023. IF:1,900 (Q3/7D).
- Serra-López J, Miranda A, Soria A, López N, Castañón E, Majem M. Clinical practice guide for nurses to optimise comprehensive care of patients undergoing immunotherapy. *Enferm Clin (Engl Ed)*. 2025 Nov-Dec;35(6):502193. doi: 10.1016/j.enfcl.2025.502193. Epub 2025 Apr 7. PMID: 40204238.
- Sivera Mascaró R, García Sobrino T, Horga Hernández A, Pelayo Negro AL, Alonso

5.1.4 Epidemiology, Public Health and Primary Care Area

- Jiménez A, Antelo Pose A, Calabria Gallego MD, Casanovas C, Cemillán Fernández CA, Esteban Pérez J, Fenollar Cortés M, Frassetto Carrera M, Gallano Petit MP, Giménez Muñoz A, Gutiérrez Gutiérrez G, Gutiérrez Martínez A, Juntas Morales R, Ciano-Petersen NL, Martínez Ulloa PL, Mederer Hengstl S, Millet Sancho E, Navacerrada Barrero FJ, Navarrete Faubel FE, Pardo Fernández J, Pascual Pascual SI, Pérez Lucas J, Pino Mínguez J, Rabasa Pérez M, Sánchez González M, Sotoca J, Rodríguez Santiago B, Rojas García R, Turon-Sans J, Vicent Carsí V, Sevilla Mantecón T. Clinical practice guidelines for the diagnosis and management of Charcot-Marie-Tooth disease. *Neurologia (Engl Ed)*. 2025 Apr;40(3):290-305. doi: 10.1016/j.nrleng.2024.02.008. Epub 2024 Mar 1. PMID: 38431252.
- Skott M, Kennedy U, Gnech M, van Uitert A, Bujons A, Hoen L, Rawashdeh YF, Silay MS, O'Kelly F, Quaedackers J, Pakkasjärvi N, Yuan Y, Burgu B, Castagnetti M, Bogaert G, Radmayr C. European Association of Urology-European Society of Paediatric Urology Guidelines on Paediatric Urology: Summary of 2024 Updates. Part II. *Eur Urol*. 2025 Aug;88(2):190-203. doi: 10.1016/j.eururo.2025.02.022. Epub 2025 Mar 20. PMID: 40118740.
 - Somani BK, Rassweiler J, Liatsikos E, Motttrie A, Knoll T, Bedke J, Bianchi G, Sarica K, Briganti A, Brouwers T, Breda A. European Association of Urology Policy on Telesurgery. *Eur Urol*. 2025 Oct;88(4):318-324. doi: 10.1016/j.eururo.2025.06.018. Epub 2025 Jul 19. PMID: 40685283.
 - Suárez-Calvet M, Abdelnour C, Alcolea D, Mendióroz-Iriarte M, Balasa M, Morenas-Rodríguez E, Puig-Pijoan A, Sánchez-Juan P, Villarejo A, Sánchez-Valle R; por el Grupo de trabajo en biomarcadores en sangre del Grupo de Estudio de Conducta y Demencias de la Sociedad Española de Neurología. Blood-based biomarkers for Alzheimer's disease: positioning document and usage recommendations from the Behavioural Neurology and Dementia Study Group of the Spanish Society of Neurology. *Neurologia (Engl Ed)*. 2025 Sep;40(7):700-712. doi: 10.1016/j.nrleng.2025.07.004. Epub 2025 Jul 18. PMID: 40685136.
 - t Hoen LA, van Uitert A, Bussmann M, Bezuidenhout C, Ribal M, Canfield S, Yuan Y, Omar MI, Castagnetti M, Burgu B, O'Kelly F, Quaedackers J, Rawashdeh Y, Silay S, Bujons A, Bogaert G, Pakkasjärvi N, Skott M, Kennedy U, Gnech M, Radmayr C. Annual updates of the European Association of Urology - European Society for Pediatric Urology (EAU-ESPU) paediatric urology guidelines: Are large-language models (LLM) better than the usual structured methodology? *J Pediatr Urol*. 2025 Dec;21(6):1643-1649. doi: 10.1016/j.jpuro.2025.05.030. Epub 2025 Jun 2. PMID: 40514273.
 - Torra R, Lipska-Zietkiewicz B, Acke F, Antignac C, Becker JU, Cornec-Le Gall E, van Eerde AM, Feltgen N, Ferrari R, Gale DP, Gear S, Gross O, Haeberle S, Heidet L, Lennon R, Massella L, Pfau K, Pizarro MDPV, Topaloglu R, Wlodkowski T, Zealey H; ERKNet, ERA Genes&Kidney and ESPN Inherited renal disorders working group. Diagnosis, management and treatment of the Alport syndrome - 2024 guideline on behalf of ERKNet, ERA and ESPN. *Nephrol Dial Transplant*. 2025 May 30;40(6):1091-1106. doi: 10.1093/ndt/gfae265. PMID: 39673454; PMCID: PMC12209846. IF:5,600 (Q1/1D).
 - Torres T, Brembilla NC, Langley RG, Warren RB, Thaçi D, Kolios AGA, Prinz JC, Londono-Garcia A, Nast A, Santin M, Goletti D, Abreu M, Spuls P, Boehncke WH, Puig L. Treatment of psoriasis with biologic and non-biologic targeted therapies in patients with latent tuberculosis infection or at risk for tuberculosis disease progression: Recommendations from a SPIN-FRT expert consensus. *J Eur Acad Dermatol Venereol*. 2025 Jan;39(1):52-69. doi: 10.1111/jdv. 20287. Epub 2024 Aug 16. PMID: 39149807.
 - Torres VE, Ahn C, Barten TRM, Brosnahan G, Cadnapaphornchai MA, Chapman AB, Cornec-Le Gall E, Drenth JPH, Gansevoort RT, Harris PC, Harris T, Horie S, Liebau MC, Liew M, Mallett AJ, Mei C, Mekahli D, Odland D, Ong ACM, Onuchic LF, Pei YP, Perrone RD, Rangan GK, Rayner B, Torra R, Balk EM, Gordon CE, Earley A, Mustafa RA, Devuyst O. KDIGO 2025 clinical practice guideline for the evaluation, management, and treatment of autosomal dominant polycystic kidney

5.1.4 Epidemiology, Public Health and Primary Care Area

- disease (ADPKD): executive summary. *Kidney Int.* 2025 Feb;107(2):234-254. doi: 10.1016/j.kint.2024.07.010. PMID: 39848746.
- Vaz-Salgado MA, Valverde-Morales C, Álvarez R, Asencio JM, Collado E, de Alava E, Díaz Beveridge R, Gómez-Mateo MC, Gracia Alegria I, Marquina G, Martín Broto J, Martínez-Trufero J, Narváez JA, Redondo A, Sebio A, Verges R, Viñals JM, García Del Muro X. Diagnosis and Therapy of Soft Tissue Sarcomas: Spanish Group for Research in Sarcomas (GEIS) Guidelines. *Cancers (Basel)*. 2025 Sep 29;17(19):3158. doi: 10.3390/cancers17193158. PMID: 41097686; PMCID: PMC12523295.
 - Wollenberg A, Kinberger M, Arents B, Aszodi N, Barbarot S, Bieber T, Brough HA, Calzavara-Pinton P, Christen-Zaech S, Deleuran M, Dittmann M, Fosse N, Gáspár K, Gerbens LAA, Gieler U, Girolomoni G, Gregoriou S, Holland S, Mortz CG, Nast A, Nygaard U, Rehbinder EM, Ring J, Rossi M, Serra-Baldrich E, Simon D, Szalai ZZ, Szepietowski JC, Torrelo A, Werfel T, Werner RN, Flohr C. European Guideline (EuroGuiDerm) on atopic eczema: Living update. *J Eur Acad Dermatol Venereol.* 2025 Sep;39(9):1537-1566. doi: 10.1111/jdv.20639. Epub 2025 May 2. PMID: 40317496; PMCID: PMC12376260.
 - Wyckoff JA, Lapolla A, Asias-Dinh BD, Barbour LA, Brown FM, Catalano PM, Corcoy R, Di Renzo GC, Drobycki N, Kautzky-Willer A, Murad MH, Stephenson-Grey M, Tabák AG, Weatherup E, Zera C, Singh-Ospina N. Preexisting Diabetes and Pregnancy: An Endocrine Society and European Society of Endocrinology Joint Clinical Practice Guideline. *J Clin Endocrinol Metab.* 2025 Aug 7;110(9):2405-2452. doi: 10.1210/clinem/dgaf288. Erratum in: *J Clin Endocrinol Metab.* 2025 Oct 16;110(11):e3932. doi: 10.1210/clinem/dgaf494. PMID: 40652453; PMCID: PMC12342393.
 - Wyckoff JA, Lapolla A, Asias-Dinh BD, Barbour LA, Brown FM, Catalano PM, Corcoy R, Di Renzo GC, Drobycki N, Kautzky-Willer A, Murad MH, Stephenson-Grey M, Tabák AG, Weatherup E, Zera C, Singh-Ospina N. Preexisting Diabetes and Pregnancy: An Endocrine Society and European Society of Endocrinology Joint Clinical Practice Guideline. *Eur J Endocrinol.* 2025 Jun 30;193(1):G1-G48. doi: 10.1093/ajendo/lvaf116. PMID: 40652450.

5.1.4 Epidemiology, Public Health and Primary Care Area

Urban Health Inequalities

Group leader

Pérez González, Catherine) (ASPB)
(until July 2025)

Carrere Balcells, Juli (ASPB)
(from July 2025)

Researchers

Arechavala Roe, Teresa (ASPB)
Artazcoz Lazcano, Lucía (ASPB)
Asensio Sala, Alba (ASPB)
Bartoll Roca, Xavier (ASPB)
Bolao Baro, Assumpcio (ASPB)
Borrell Thio, Carme (ASPB)
Cortés Albaladejo, Mónica (ASPB)
Cortés Franch, Immaculada (ASPB)
Daban Aguilar, Ferran (ASPB)
Fernández Sánchez, Ana (ASPB)
Font Ribera, Laia (ASPB)
Gómez Gutierrez, Anna (ASPB)
González Marin, Patricia (ASPB)
Gotsens Miquel, Mercè (ASPB)
Juarez Martínez, Olga (ASPB)
Macaya Munne, Irene (CIBER-ASPB)
Malmusi, Davide (Aj BCN)
Mari Dell'Olmo, Marc (ASPB)
Novoa Pardo, Ana (ASPB)
Oliveras Puig, Laura (ASPB)
Olle Espluga, Laia (ASPB)
Palencia Fernández, Laia (ASPB)
Pasarín Rua, María Isabel (ASPB)
Pérez González, Catherine (ASPB)
Portaña Tudela, Samuel (ASPB)
Puig Barrachina, Vanessa (ASPB)
Ramos Vaquero, Pilar (ASPB)
Reyes Segura, Alexia (ASPB)
Rodellar Torras, Santiago (ASPB)
Rodríguez Sanz, Maica (ASPB)
Roel Herranz, Elena (ASPB)
Ruiz Muñoz, Dolores (ASPB)
Sánchez Ledesma, Esther (ASPB)
Serra Colomer, Julia (Aj BCN)
Valmayor Safont, Sara (ASPB)
Vázquez Álvarez, Noelia (ASPB)
Vila Brugalla, Montserrat (ASPB)

Research technicians

Álvarez Bruned, Laia (IR)
Coy Pérez, Artur (IR)
Vasquez Vera, Maria Constanza (IR)



DESCRIPTION

The Urban Health Inequalities Group (GIUH) is a consolidated research group with a long-standing track record in studying social and environmental determinants of health in urban contexts and their unequal distribution across population groups. The group analyses the mechanisms shaping health inequalities and evaluates urban and public health policies, health promotion strategies and community interventions. Its work aims to generate actionable evidence to inform policies and improve population health and health equity.

MAIN LINES OF RESEARCH

- The group's main objective is to advance knowledge on the determinants of health in urban areas and their unequal distribution across population groups, and to evaluate the impact of public policies on population health. According to the group's organisation, the main lines of research are:
- Health effects of environmental exposures: including air pollution, environmental noise and climate change, as well as other characteristics of the urban environment, and the analysis of their distribution and impact on population health in urban settings. (PhD Laia Font; PhD Marc Marí; PhD Laura Oliveres)
- Housing and health: study of the mechanisms linking residential insecurity, housing conditions and energy poverty with health outcomes, and evaluation of housing policies and interventions such as housing cooperatives in cession of use. (PhD Juli Carrere; PhD Anna Fernández)
- Health impact assessment of urban planning and environmental policies: particularly those aimed at reducing air pollution and environmental noise (e.g. Eixos Verds, Protegim les escoles), including road safety interventions and policies for climate change mitigation and adaptation, such as climate shelters. (PhD Catherine Pérez; PhD Anna Gómez)

5.1.4 Epidemiology, Public Health and Primary Care Area

- Promotion of equitable and healthy relationships and prevention of gender violence: evaluation of programmes aimed at improving the health and well-being of children, adolescents and young people in school settings from an intersectional perspective. (PhD Glòria Pérez; PhD Olga Juárez; PhD Vanessa Puig)
- Working conditions and health: analysis of the health effects of unemployment, job insecurity, involuntary part-time work and time poverty, considering both paid employment and unpaid domestic and care work. (PhD Imma Cortés; PhD Lucía Artazcoz)
- Inequalities in prevention and health promotion: study of social inequalities in preventive services such as vaccination and early detection programmes, and development and evaluation of interventions aimed at reducing these inequalities. (PhD Sara Valmajor; PhD Alba Asensio)
- Community health programmes at neighbourhood level: evaluation of programmes implemented within the framework of Barcelona Salut als Barris and analysis of the mechanisms influencing their effectiveness in reducing social inequalities in health. (PhD Maribel Pasarín; PhD Ferran Daban)
- Determinants of safe, healthy and sustainable diets: evaluation of policies, surveillance programmes and interventions related to food environments, marketing, production systems and consumption patterns. (PhD Maica Rodríguez-Sanz; Samuel Portaña)
- Social inequalities in health: analysis of health inequalities across axes such as gender, social class, territory, age and ethnicity, including the study of intersectionality and the social construction and measurement of social class and its impact on health. (PhD Carme Borrell; PhD Lucía Artazcoz)

SCIENTIFIC CHALLENGES

- Advancing the understanding of how social and environmental determinants shape health in urban contexts and their unequal distribution across population groups, in order to better identify the mechanisms driving health inequalities.
- Developing innovative methods and integrating diverse data sources to monitor urban health and health inequalities and to better understand complex urban health determinants.
- Fostering interdisciplinary collaboration between public health, urban planning, environmental sciences and social sciences to address complex urban health challenges.
- Strengthening the translation of scientific evidence into effective public policies, health promotion strategies and community interventions that improve population health and advance health equity.

ACTIVE & AWARDED GRANTS

- Cortes Franch, Immaculada. Condicions de treball i salut de les persones que exerceixen treball de cura a Barcelona, i impacte de polítiques públiques. 2024 DI 00064. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2024-2027. 37.800,00 €
- Juarez Martínez, Olga & Pérez Albarracín, Gloria. Evaluación de una estrategia de promoción de relaciones saludables i equitativas en el contexto escolar. PI23/01236. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 50.000,00 €
- Pérez González, Cathériné. INSeguridad residencial é infancia: impacto én salud y propuésta dé abordajés para la Protécclón y émpodéRAMiénto dé la infancia aféctada (INSPIRA). PI23/01634. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 140.000,00 €
- Pérez González, Catherine. Salut i desigualtats a l'entorn urbà. 2021 SGR 01462. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2022-2025. 60.000,00 €
- Pérez González, Catherine. Prevention-oriented Rights-based approach to Support Mental health in vulnerable population groups. JA PRISM 101233316. European Commission. Duration: 2025-2028. 71.610,26 €
- Rodríguez Sanz, Maica. Transformació dígital del control oficial de la seguretat alimentària. 2024 DI 00092. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2024-2027. 21.600,00 €

5.1.4 Epidemiology, Public Health and Primary Care Area

- Valmayor, Sara. Effectiveness of a theatre skills training intervention on vaccine hesitancy among pediatric nurses and paediatricians: a mixed methods study. PI21/01710. Instituto de Salud Carlos III (ISCIII). 2022–2026. 141.570,00 €.

DOCTORAL THESES DEFENDED

- Olívélla Círicí, Marc. Desigualtats en salut adolescent a Barcelona: COVID-19, ús d'Internet i benestar mental des d'una òptica salubrista. 27/11/2025. Universitat Pompeu Fabra. Supervisors: Pérez Albarracín, Glòria; Pasarín i Rua, M. Isabel. <https://hdl.handle.net/10803/696033>
- Reyes Segura, Alexía. El impacto de la vivienda cooperativa en la salud de las personas: compartir para vivir. 13/02/2025. Universitat Pompeu Fabra. Supervisors: Borrell i Thió, Carme; Fernández Sánchez, Ana; Novoa Pardo, Ana. <https://hdl.handle.net/10803/693722>

SCIENTIFIC PRODUCTION - Articles & Reviews

- Aaserud KN, Mari M, Palencia L, Carrere J, López MJ, Oliveras L. Energy poverty and health inequalities in Barcelona: A cross-sectional trends study in the context of COVID-19, energy crisis and climate change, 2016–2021. *HEALTH & PLACE*. 2025; 91:103401. DOI:10.1016/j.healthplace.2024.103401. PMID:39733659. IF:4,100 (Q1/2D).
- Artazcoz L, Carrere J, Pérez K, Sánchez E, Serral G, López MJ. Socioeconomic characteristics, health and well-being of nonbinary adolescents in a Southern European City. *BMC PUBLIC HEALTH*. 2025; 25(1):1932. DOI:10.1186/s12889-025-23080-w. PMID:40420040. IF:3,600 (Q1/2D).
- Bartoll X, Barbaglia MG, Puigdomènech E, Clotas C, Bartoli M, Pérez K. Is living close to a drug treatment centre associated with stigma?. *INTERNATIONAL JOURNAL OF DRUG POLICY*. 2025; 136:104707. DOI:10.1016/j.drugpo.2025.104707. PMID:39842389. IF:4,400 (Q1/1D).
- Borrell C, Carrere J, Rodríguez M, Gómez A, Daban F, Pérez G, Artazcoz L, Pasarín MI, Bartoll X, Sánchez E, Serral G, Mari M, Montalvo T, Pérez K. City PROFILE: "Barcelona: The experience of 40 years of health reports, a health for all policies tool". *CITIES*. 2025; 161:105862. DOI:10.1016/j.cities.2025.105862. IF:6,600 (Q1/1D).
- Bosch G, Queralt A, Valero N, Lleó T, Portolés C, Vargas H, Parra E, González R, Rius C, Gómez A. Sprinkler irrigation of urban sport fields as a potential source of Legionella. *Archives of Environmental & Occupational Health*. 2025; 80(1-2). DOI:10.1080/19338244.2025.2451903. PMID:39874031. IF:0,900 (Q4/9D).
- Brugueras S, Continente X, Daban F, March S, García I, Vázquez N, López MJ. Promoting Well-Being and Workforce Inclusion Through Healthy Leisure: Evidence from a Community-Based Youth Intervention. *Journal of Prevention*. 2025; DOI:10.1007/s10935-025-00889-0. PMID:41359211. IF:1,500 (Q3/7D).
- Campoy M, Espelt A, Borao O, Artazcoz L, Feliu A, Jubany J. Social and occupational aspects related to persistent low back pain in women geriatric nursing assistants. *International Journal of Occupational Safety and Ergonomics*. 2025; DOI:10.1080/10803548.2025.2512658. PMID:40576141. IF:1,600 (Q3/7D).
- Drou G, Bosque M, González H, Teixidó E, Vives C, Folch C, Sánchez E, Rogés J, Serral G, Espelt A. Mental Well-Being, Sexual Orientation, and Interpersonal Stigma in Cisgender Adolescents in Catalonia, From a Gender and Territorial Perspective. *Psychology of Sexual Orientation and Gender Diversity*. 2025; DOI:10.1037/sgd0000800. IF:3,900 (Q1/1D).
- Espelt A, Borrell C, Sanahuja J, Codinach E, Espelt C, Daban F, Campoy M, Trapé J, Muntaner C. Being Called Social Does Not Necessarily Make You Community-Focused. *International Journal of Social Determinants of Health and Health Services*. 2025; 55(3). DOI:10.1177/27551938251324155. PMID:40207809. IF:2,600 (Q2/4D).

5.1.4 Epidemiology, Public Health and Primary Care Area

- González H, Vives C, López MJ, Sanz B, Pérez K, Pérez G, Cortés M, Serral G, Barceló MA, Ruiz I, Mateo I, Cabrera A, Bosque M, Folch C, Espelt A. Territorial and social inequalities in mental distress and self-perceived health among schooled adolescents: a cross-sectional study in central Catalonia and Barcelona. *BMC PUBLIC HEALTH*. 2025; 25(1):2246. DOI:10.1186/s12889-025-23515-4. PMID:40604585. IF:3,600 (Q1/2D).
- Guxens M, Botella N, Stafoggia M, Canto M, Petricola S, Valentín A, Lertxundi A, Fernández A, Freire C, García A, Díez E, Mari M, Iñiguez C, López MJ, Ramis R, Binter AC. Particulate matter exposure during pregnancy and birth outcomes: exposure windows of susceptibility and socioeconomic inequalities. *EUROPEAN JOURNAL OF EPIDEMIOLOGY*. 2025; 40(9). DOI:10.1007/s10654-025-01274-1. PMID:40705228. IF:5,900 (Q1/1D).
- Henderson E, Valmayor S, Porthé V, Asensio A, Bruna X, Elizondo U, Ramírez A, Ricós G, Vidal J, Pasarín MI, Rius C, Roel E, Díez E, CONFIVAC GRP. A mixed methods study protocol for CONFIVAC, an intervention to enhance paediatric nurses' and paediatricians' skills to promote vaccination and vaccine confidence. *Vaccine*. X. 2025; 24:100635. DOI:10.1016/j.jvacx.2025.100635.
- López C, Continente X, Fons MF, Guxens M, Cortés E, Pérez K, López MJ. An urban intervention to transform the school surroundings in Barcelona: A mixed-methods evaluation of "Let's Protect Schools" effects on road safety, street liveliness, and wellbeing. *CITIES*. 2025; 165:106164. DOI:10.1016/j.cities.2025.106164. IF:6,600 (Q1/1D).
- López MJ, Pérez K, Borrell C, Continente X. Twenty years evaluating the health impact of urban policies in the city of Barcelona. *HEALTH POLICY*. 2025; 155:105306. DOI:10.1016/j.healthpol.2025.105306. PMID:40188591. IF:3,400 (Q1/2D).
- Mangot L, Bartoll X, Sánchez E, Cortes M, Liefbroer AC, Pérez K. Emerging socioeconomic correlates of loneliness. Evidence from the Barcelona Health Survey 2021. *SOCIAL PSYCHIATRY AND PSYCHIATRIC EPIDEMIOLOGY*. 2025; 60(4). DOI:10.1007/s00127-024-02789-w. PMID:39556241. IF:3,500 (Q1/3D).
- Mateo M, García A, Jacques C, Puig V, Medina L. "It Meant Changing My Skin": A Photo-Elicitation Study on the Emotional and Social Well-Being of Women During Perimenopause in Barcelona, Spain. *Women's Reproductive Health*. 2025; DOI:10.1080/23293691.2025.2567387.
- Mehdipanah R, Pérez K, Palència L, Bushman G, Heinze J, Borrell C. Long-term effects of urban renewal on health and health inequalities: the Neighbourhoods Law in Barcelona, Spain. *JOURNAL OF EPIDEMIOLOGY AND COMMUNITY HEALTH*. 2025; 79(5). DOI:10.1136/jech-2023-221453. PMID:39837609. IF:3,700 (Q1/2D).
- Olivella M, Molina X, Olea MJM, Vanegas J, Matus EC, Pasarín MI, Munoz C, Pérez G. Perceptions of the Effect of COVID-19 on the Health of Mapuche Young Adults in Chile. *International Indigenous Policy Journal*. 2025; 16(1):18461. DOI:10.18584/iipj.2025.16.1.18461.
- Olivella M, Nicolao I, Sánchez E, Serral G, Clotas C, Continente X, Pérez K, Pérez G. Association of Physical Activity, Mental Health and Contextual Factors with Problematic Internet Use in Adolescents from Barcelona: A Cross-sectional Study. *Revista Española de Salud Pública*. 2025; 99:e202503014. IF:0,800 (Q4/9D).
- Olivella M, Vilagut G, Sánchez E, Serral G, Cortés M, Cejas PM, Pasarín M, Alonso J, Pérez G. Gender and socioeconomic inequalities in adolescent mental well-being in Barcelona: a repeated cross-sectional study. *Journal Of Public Health-Heidelberg*. 2025; DOI:10.1007/s10389-025-02573-3.
- Pérez G, Salobral R, Simon P, Artazcoz L, Rodríguez M, Pasarín MI, Borrell C. Managing future pandemics in an urban context: a challenge for public health. *Gaceta Sanitaria*. 2025; 39:102469. DOI:10.1016/j.gaceta.2025.102469. PMID:40188558. IF:1,500 (Q3/7D).
- Pérez K, Palència L, López MJ, León BB, Puig A, Gómez A, Nieuwenhuijsen M, Carrasco G, Borrell C. Environmental and health effects of the Barcelona superblocks. *BMC PUBLIC HEALTH*. 2025; 25(1):634. DOI:10.1186/s12889-025-21835-z. PMID:39962528. IF:3,600 (Q1/2D).
- Pérez K, Santamariña E, López MJ, Artazcoz L, Ferrando J, Pastor C, Hyder AA, Borrell C. 25 years of providing evidence on road safety

5.1.4 Epidemiology, Public Health and Primary Care Area

- interventions at the city level. *Frontiers in Public Health*. 2025; 12:1463878. DOI:10.3389/fpubh.2024.1463878. PMID:39989864. IF:3,400 (Q1/2D).
- Pericas C, Vilaplana C, Martínez H, Artazcoz L, Bartoll X, Alamo D, Arcas MM, Rius C, Grau M. Exploring Social Inequalities in Post-pandemic Labour Market Shifts and Job Dissatisfaction in Barcelona: Insights From a Southern European City. *Cureus*. 2025; 17(3)DOI:10.7759/cureus.80847.
 - Pistillo A, Giuliadori A, Palomar A, Gallo E, Aragonés E, Ballester J, Mari M, Basagaña X, Duarte T. High temperature and mental health in 3.3 million adults living in Barcelona metropolitan area: a 12-year time series analysis of primary care data. *ENVIRONMENT INTERNATIONAL*. 2025; 203:109748. DOI:10.1016/j.envint.2025.109748. PMID:40886399. IF:9,700 (Q1/1D).
 - Puyol Y, Oliveras L, Marí M, Bartoll X, Pérez K, Gómez A, Bereziartua A, Lertxundi A, Font L. Social and urban determinants of school commuting in Barcelona and its relationship with air quality around schools. *Journal of Transport & Health*. 2025; 44:102084. DOI:10.1016/j.jth.2025.102084. IF:3,300 (Q1/3D).
 - Reyes A, Novoa AM, Borrell C, Carrere J, Pérez K, Gamboa C, Daví L, Fernández A. Grant-of-use cooperative housing and its relation with health and wellbeing: A conceptual framework. *CITIES*. 2025; 163:106066. DOI:10.1016/j.cities.2025.106066. IF:6,600 (Q1/1D).
 - Rodilla JM, Payri R, Puchol G, Pasarin M. Homelessness and mental health: determinant factors in exiting rootlessness for adults residing in a homelessness program. *Empiria*. 2025; (63). DOI:10.5944/empiria.63.2025.43877.
 - Roel E, Henderson E, Valmayor S, Porthé V, Asensio A, Ramírez A, Bruna X, Pasarin MI, Rius C, Díez E, CONFIVAC GRP. Effectiveness of CONFIVAC, an intervention to enhance paediatric nurses and paediatricians' skills to promote vaccination: A mixed-methods cluster randomised trial. *VACCINE*. 2025; 62:127603. DOI:10.1016/j.vaccine.2025.127603. PMID:40818260. IF:3,500 (Q2/4D).
 - Sanz M, Continente X, Bruguera S, Marí M, Oliveras L, López MJ. Evaluating the effect of green, blue, and grey measures for climate change adaptation on children's well-being in schoolyards in Barcelona. *LANDSCAPE AND URBAN PLANNING*. 2025; 253:105206. DOI:10.1016/j.landurbplan.2024.105206. IF:9,200 (Q1/1D).
 - Sanz M, Continente X, Marí M, López MJ. Community Use and Perceptions of Climate Shelters in Schoolyards in Barcelona. *International Journal of Public Health*. 2025; 70:1608083. DOI:10.3389/ijph.2025.1608083. PMID:39990015. IF:2,400 (Q2/4D).
 - Urtaran M, Novoa AM, Martín S, Pérez K. How an urban regeneration programme impact people's health and wellbeing: an evaluation from citizens' perception using concept mapping. *BMC PUBLIC HEALTH*. 2025; 25(1):716. DOI:10.1186/s12889-025-21827-z. PMID:39984935. IF:3,600 (Q1/2D).
 - Vergara C, Marí M, Oliveras L, Martínez MA. Taking advantage of sampling designs in spatial small-area survey studies. *STATISTICAL MODELLING*. 2025; 25(2). DOI:10.1177/1471082X231226287. IF:1,000 (Q3/6D).
 - Yadav P, de la Torre JA, Bakolis I, Bartoll X, Kogel CC, Farran JC, Dregan A, Forero CG, Botella L, Martín V, Molina AJ, Mortier P, Nielsen L, Pérez K, Puertolas B, Ronaldson A, Santini Z, Schiaffino A, Serrano A, Stewart S, Valderas JM, Alonso J, Vilagut G. Internal structure, reliability and cross-cultural validity of the Warwick-Edinburgh Mental Wellbeing Scale in three European populations. *Bmj Mental Health*. 2025; 28(1):e301433. DOI:10.1136/bmjment-2024-301433. PMID:40074231. IF:4,900 (Q1/2D).

5.1.4 Epidemiology, Public Health and Primary Care Area

Transmissible Diseases

Group leader

Rius Gibert, Cristina (ASPB)

Researchers

Artigas Baeza, Alba (ASPB)

Avellanes Gil, Ingrid (ASPB)

Brugueras Torrella, Sílvia (ASPB)

Clos Guix, Roser (ASPB)

De Andrés Aguayo, Anna (ASPB)

Forcadell Díez, Lluís (ASPB)

Forns Canton, Maria Lluïsa (ASPB)

Guillaumes Puigbarraca, Montserrat (ASPB)

Hernández Pineda, Anna (ASPB)

Jansa López Del Vallado, Josep Maria (ASPB)

Marcos Arroita, Isabel (ASPB)

Masdeu Corcoll, Eva (ASPB)

Mercuriali, Lilas (ASPB)

Millet Vilanova, Joan Pau (ASPB)

Montalvo Porro, Tomás (ASPB)

Ospina Valencia, Jesús Edison (ASPB)

Prieto García, Raquel (ASPB)

Rodríguez López, Raquel (ASPB)

Ros Samso, Miriam (ASPB)

Simon Vivan, Pere (ASPB)

Vargas Leguas, Hernán Andrés (ASPB)

Research technicians

Arranz Martín, Lidia (ASPB)

Barahona Quintana, Laura (ASPB)

Collado Quifer, Laura (ASPB)

Domingo Jiménez, Cristina (ASPB)

Moreno Silvente, Paula (IR)

Palma Díaz, David Ignacio (CIBER-ASPB)

Pericas Escalé, Carlos (ASPB)

Ros De Los Santos, Erik (IR)



DESCRIPTION

Our group has consolidated a productive research activity, aligned with the public health needs of the city of Barcelona and aimed at generating scientific, social, and institutional impact. Our group's research is integrated into the ASPB's epidemiological surveillance, enabling direct transfer of results into public health policies and interventions in Barcelona. Main lines of work: prevention and control of tuberculosis (TB); surveillance of Sexually transmitted Infections (STIs) (including Mpox epidemic); surveillance of vector-borne diseases.

MAIN LINES OF RESEARCH

- Strengthening TB surveillance and control with a focus on inequalities: research focused on the epidemiological characterisation of TB and latent tuberculosis infection will be consolidated and expanded, with special attention to vulnerable populations (homeless people, migrant population, children and close contacts). The use of advanced methodologies, such as temporospatial modelling and WGS, will be promoted to improve the identification of transmission chains and the evaluation of interventions. Millet Joan Pau, Prieto Raquel, Ros Miriam, Brugueras Sílvia.
- Innovation in the prevention and control of STIs and HIV: research aimed at improving early diagnosis and contact tracing through digital and community strategies, especially in young populations. Priority will be given to the development, implementation and evaluation of artificial intelligence-based tools for the prevention of STIs and HIV, integrating the gender perspective and addressing specific barriers to access to information, diagnosis and treatment. This line also includes the analysis of emerging outbreaks (Mpox 2022) and the surveillance of new sexual health alerts. Pericas Carles, Forcadell Lluís, Palma David.

5.1.4 Epidemiology, Public Health and Primary Care Area

1. Surveillance and research on vector-borne diseases in urban contexts: Research aimed at the surveillance and control of vector-borne diseases, especially arboviruses, will be strengthened in the context of climate change and global mobility. The group will conduct studies to characterise the patterns of importation of cases, their territorial and social distribution, and their relationship with environmental, meteorological, and entomological factors. By integrating epidemiological, entomological, environmental, and social data, predictive models will be developed to identify areas of the city with a higher risk of autochthonous transmission and to anticipate future scenarios. This knowledge will allow, on the one hand, to evaluate and improve existing surveillance and control systems and guide prevention, surveillance and control strategies adapted to the urban environment and, on the other hand, the predictive models and methodology will be applicable to other European cities that share the same mosquito, imported cases and similar climatic conditions. Vargas Hernán, Montalvo Tomás, Marcos Isabel, Barahona Laura.
2. CHW for communicable disease control: With the increase in immigration, we have incorporated CHWs who aid in the prevention and control of these diseases. They act as mediators and translators. Ospina Jesús.
3. Incidence studies of measles, whooping cough and other vaccine-preventable diseases as well as studies of factors influencing the transmission of these diseases in different settings and the effectiveness of immunisation and chemoprophylaxis. Urcelay Andoni Urcelay.
4. Outbreaks: Investigation of the causes and implementation of control measures as in the case of different kinds of outbreaks. Martín Laura, De Andrés Anna.
5. Monitor vaccine hesitancy, identify its determinants, and develop interventions to reduce and prevent it. Rius Cristina, Hernández Anna.

SCIENTIFIC CHALLENGES

- Epidemiological characterisation of TB and latent tuberculosis infection in vulnerable populations (homeless people, migrant population, children and close contacts).
- TB temporospatial modelling and WGS to improve the identification of transmission chains.
- Development, implementation and evaluation of artificial intelligence-based tools for the prevention of STIs and HIV, integrating the gender perspective and addressing specific barriers to access to information, diagnosis and treatment.
- Characterisation of the patterns of importation of vector-borne diseases, their territorial and social distribution, and the relationship with environmental, meteorological and entomological factors.
- Development of vector-borne diseases predictive models to identify areas of the city with a higher risk of autochthonous transmission and anticipate future scenarios.

ACTIVE & AWARDED GRANTS

- Montalvo Porro, Tomás. An early warning and response system for the detection and prevention of vector-borne disease importation and spread in the Mediterranean (IDAlert). IDAlert. Unión Europea. Duration: 2022-2027. 60.000,00 €
- Montalvo Porro, Tomás. Eco-Epidemiological Intelligence for early Warning and response to mosquito-borne disease risk in Endemic and emerging settings. 1010886640. HORIZON-CL6-2022-GOVERNANCE-01. Unión Europea. Duration: 2023-2026. 48.363,75 € (ASPB Participant)

5.1.4 Epidemiology, Public Health and Primary Care Area

- Rius Gibert, Cristina. Infecció tuberculosa latent en col·lectius vulnerables a Barcelona ciutat en risc de progressió a tuberculosi. 2024 DI 00009. Duration: 2024-2027. 21.600,00 €
- Rius Gibert, Cristina. Intervención para el fortalecimiento de capacidades en profesionales de salud ligados al continuo de cuidados del VIH y las infecciones de transmisión sexual (ITS) en la ciudad de Barcelona. PI24/02150. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 122.500,00 €
- Rius Gíbert, Crístina. ITrencant barreres: Un nou enfocament per a la conscienciació, el diagnòstic, el tractament i la notificació a les parelles sexuals de les ITS en joves a Catalunya - El Projecte TESTA'T-iCoNNECTA-Joves. MARATO 202401-31. Fundació La Marató de TV3. Duración: 2024-2027. 57.191,01 €

SCIENTIFIC PRODUCTION - Articles & Reviews

- Alayo I, Pujol O, Alonso J, Ferrer M, Amigo F, Diest A, Aragonès E, Peña AA, Del Barco AA, Campos M, Espuga M, González A, Haro JM, López N, de Salazar A, Molina JD, Ortí RM, Parellada M, Pelayo JM, Forjaz MJ, Pérez A, Pijoan JI, Plana N, Polentinos E, Puig MT, Rius C, Sanz F, Serra C, Urreta I, Bruffaerts R, Vieta E, Pérez V, Mortier P, Vilagut G, MINDCOVID GRP. Identifying the most important predictors for suicidal thoughts and behaviours among healthcare workers active during the Spanish COVID-19 pandemic: a machine-learning approach. *Epidemiology and Psychiatric Sciences*. 2025; 34:e28. DOI:10.1017/S2045796025000198. PMID:40340775. IF:6,100 (Q1/1D).
- Borrell C, Carrere J, Rodríguez M, Gómez A, Daban F, Pérez G, Artazcoz L, Pasarín MI, Bartoll X, Sánchez E, Serral G, Mari M, Montalvo T, Pérez K. City PROFILE: "Barcelona: The experience of 40 years of health reports, a health for all policies tool". *CITIES*. 2025; 161:105862. DOI:10.1016/j.cities.2025.105862. IF:6,600 (Q1/1D).
- Bosch G, Millet JP, Orcau A, Moreira I, Pericas C, Forn L, Marcos I, Prieto R, Hernández A, Arranz L, Rius C. Unsuccessful tuberculosis treatment in HIV-positive patients and associated factors. *ENFERMEDADES INFECCIOSAS Y MICROBIOLOGÍA CLÍNICA*. 2025; 43(10). DOI:10.1016/j.eimc.2025.06.008. IF:2,500 (Q2/5D).
- Bosch G, Queralta A, Valero N, Lleó T, Portolés C, Vargas H, Parra E, González R, Rius C, Gómez A. Sprinkler irrigation of urban sport fields as a potential source of Legionella. *Archives of Environmental & Occupational Health*. 2025; 80(1-2). DOI:10.1080/19338244.2025.2451903. PMID:39874031. IF:0,900 (Q4/9D).
- Bruguera S, Continente X, Daban F, March S, García I, Vázquez N, López MJ. Promoting Well-Being and Workforce Inclusion Through Healthy Leisure: Evidence from a Community-Based Youth Intervention. *Journal of Prevention*. 2025; DOI:10.1007/s10935-025-00889-0. PMID:41359211. IF:1,500 (Q3/7D).
- Busquets N, Gardela J, José E, Solé A, Salvador MJ, Obón E, Molina R, Aranda C, Montalvo T, Corbella I, Bou MA, Martínez MJ, Vázquez A, Piron M, Sauleda S, Pailler L, Napp S. West Nile virus transmission in the Metropolitan Area of Barcelona (Spain): A One-Health surveillance approach. *One Health*. 2025; 21:101150. DOI:10.1016/j.onehlt.2025.101150. PMID:40746420. IF:4,500 (Q1/1D).
- Casares LD, Pereiro JE, Fernández MTT, García XC, Millet JP, Solchaga VP, Elorza EN, García JT, de Santiago AD, Márquez RL, Gallardo JFM, Galán VG, Alonso MM, Brusola AG, Rey RR, García LA, Herrero FS, Serrano RG, Fullola MG, Díez MT, Zanon TT, Portero MF, García PA, López A, Aznar ML, Camprecios JM, Saborit N, Montalvá AS. Multicentre controlled open randomised clinical trial to assess efficacy and safety of an anti-tuberculosis drug combination based on optimised-dose rifampicin, optimised-dose moxifloxacin and optimised-dose linezolid for TB: the RML-TB trial protocol. *Bmj Open Respiratory Research*. 2025; 12(1):e002475. DOI:10.1136/bmjresp-2024-002475. PMID:41360613. IF:3,400 (Q2/3D).

5.1.4 Epidemiology, Public Health and Primary Care Area

- Chamley G, Alcayna T, Almuedo A, Antoniou C, Badolo A, Bartumeus F, Boodram LL, Bueno R, Codeco C, Coelho FC, Costa F, Cox H, Haddad N, Ab Hamid N, Kittayapong P, Korukluog G, Michaelakis A, Maciel R, Montalvo T, Munoz J, Oliveras SS, Palmer JRB, Pizard CJB, Ribeiro GS, Lowe R. Strengthening resilience to emerging vector-borne diseases in Europe: lessons learnt from countries facing endemic transmission. *Lancet Regional Health-Europe*. 2025; 53:101271. DOI:10.1016/j.lanepe.2025.101271. PMID:40247854. IF:13,000 (Q1/1D).
- Ciruela P, Soldevila N, Torner N, Basile L, Mosquera MD, Marcos MA, Martínez A, Jané M, Rius C, Domínguez A, Catalan Influenza Severe Acute Resp Infection Sentinel S. Acute Influenza Virus-Associated Encephalitis and Other Neurological Complications in Severe Hospitalized Laboratory-Confirmed Influenza Cases-Catalonia 2010-2020. *Pathogens*. 2025; 14(3):237. DOI:10.3390/pathogens14030237. PMID:40137722. IF:3,300 (Q2/5D).
- Dominguez A, Torner N, Soldevila N, Varela C, Guerrero M, Peñuelas M, Avellón A, Borrás E, Martínez A, Plans P, Pericas C, Rius C, Godoy P. Hepatitis A in Spain: Evolution of hospitalisation in the period 2000-2021. *PLoS One*. 2025; 20(9):e0332317. DOI:10.1371/journal.pone.0332317. PMID:40991636. IF:2,600 (Q2/4D).
- Eritja R, Sanpera I, Delacour S, Ruiz I, Puig MA, Bengoa M, Alarcón PM, Barceló C, Mariani S, Martínez Y, Bravo D, Polina A, Pereira JM, González MA, Escartin S, Melero R, Blanco L, Magallanes S, Collantes F, Ferraguti M, González MI, Gutierrez R, Silva MI, San Sebastián O, Calvo MC, Mendoza M, Macías D, Cisneros P, Cevitanes A, Frontera E, Mato I, Fúster F, Domench M, Rodríguez ME, Casanovas R, Montalvo T, Miranda MA, Figuerola J, Lucientes J, Garriga J, Palmer JRB, Bartumeus F. Integrating Citizen Science and Field Sampling into Next-Generation Early-Warning Systems for Vector Surveillance: Twenty Years of Municipal Detections of Aedes Invasive Mosquito Species in Spain. *Insects*. 2025; 16(9):904. DOI:10.3390/insects16090904. PMID:41009087. IF:2,900 (Q1/2D).
- Espasa M, Pagán B, Fernández M, Orcau A, Tudó G, Garcia F, Martínez JA, Soler N, Horvath L, San L, Martínez D, Casals C, Vila J, Millet JP, Caylà JA, González J. Trends in Antituberculosis Drug Resistance and Associated Factors: A 31-Year Observational Study at a Tertiary Hospital in Barcelona. *Antibiotics-Basel*. 2025; 14(9):875. DOI:10.3390/antibiotics14090875. PMID:41009854. IF:4,600 (Q1/2D).
- Fuentes MV, Puchades P, Gosálvez C, Sáez S, Cholvi M, Ruvira S, Sanxis J, Pascual J, Bueno R, Franco S, Peracho V, Montalvo T, Trelis M, Debenedetti AL, Galán MT. The Role of the Norway Rat, *Rattus norvegicus*, as a Reservoir of Zoonotic Helminth Species in the City of Barcelona (Spain). *Animals*. 2025; 15(3):298. DOI:10.3390/ani15030298. PMID:39943068. IF:2,700 (Q1/2D).
- Gasull M, Pumarega J, Aguilar R, Campi L, Prieto D, Villar J, Rius C, Bolívar F, Trasande L, Dobaño C, Moncunill G, Porta M. Stability of cytokine and immunoglobulin concentrations in the general population: prepandemic basal concentrations and intraindividual changes until the COVID-19 pandemic. *Frontiers in Public Health*. 2025; 13:1548379. DOI:10.3389/fpubh.2025.1548379. PMID:40672932. IF:3,400 (Q1/2D).
- Godoy P, Pardos J, Cenoz MG, Parrón I, Martínez I, Ferras J, Rius C, Godoy S, Toledo D, Sanz I, Follia N, Miret C, Alsedà M, Plans P, Carol M, Bes N, Sala MR, Caylà J, Muñoz C, Castilla J, Domínguez A, SARS CoV Transmission Household Contacts Working GRP. Mask wearing by COVID-19 index cases reduces SARS-CoV-2 transmission to household contacts. *EPIDEMIOLOGY & INFECTION*. 2025; 153:e125. DOI:10.1017/S0950268825100642. PMID:41047709. IF:2,200 (Q2/5D).
- Godoy S, Alsedà M, Parrón I, Millet JP, Cayla JA, Follia N, Carol M, Orcau A, Toledo D, Ferrus G, Plans P, Barrabeig I, Clotet L, Domínguez A, March J, Godoy P. Exposure Time to a Tuberculosis Index Case as a Marker of Infection in Immigrant Populations. *Pathogens*. 2025; 14(2):175. DOI:10.3390/pathogens14020175. PMID:40005550. IF:3,300 (Q2/5D).
- González P, Barba R, Granda É, Guerras JM, Moreno S, Iglesias A, Fuster MJ, Expósito EG, Palma D, Belza MJ. From fear of infection to awareness against stigma: A mixed-methods analysis of discourses on HIV in a parliamentary context. *PLoS One*. 2025; 20(10):e0333537.

5.1.4 Epidemiology, Public Health and Primary Care Area

- DOI:10.1371/journal.pone.0333537. PMID:41052042. IF:2,600 (Q2/4D).
- González P, Granda E, Donat M, Palma D, Moreno S, Politi J, Guerras JM, Belza MJ. Drug Use Prevalence and Age of First Use in Sexual Minority Men Compared to General Population Men in Spain. *International Journal of Mental Health and Addiction*. 2025; 23(3). DOI:10.1007/s11469-023-01232-6. IF:2,500 (Q2/4D).
 - González P, Moreno S, Donat M, Palma D, Guerras JM, Belza MJ. Emergency Healthcare Utilisation and Unmet Care Needs in Chemsex Users: A Cross-Sectional Survey among Sexual Minority Men. *JOURNAL OF COMMUNITY HEALTH*. 2025; 50(3). DOI:10.1007/s10900-024-01440-8. PMID:39833399. IF:2,200 (Q2/5D).
 - Henderson E, Valmayor S, Porthé V, Asensio A, Bruna X, Elizondo U, Ramírez A, Ricós G, Vidal J, Pasarín MI, Rius C, Roel E, Díez E, CONFIVAC GRP. A mixed methods study protocol for CONFIVAC, an intervention to enhance paediatric nurses' and paediatricians' skills to promote vaccination and vaccine confidence. *Vaccine: X*. 2025; 24:100635. DOI:10.1016/j.jvax.2025.100635.
 - Laranjeiro MI, Navarro J, Bertolero A, Cerveira LR, Pereira E, dos I, Ramos JA, Coelho JP, Pereira JM, Seco J, Lemos MFL, Montalvo T, Paiva VH, Novais SC, Ceia FR. Spatial and interspecific differences of trace element concentrations in the feathers of pelagic and coastal seabirds from the Northeast Atlantic Ocean and the Western Mediterranean Sea. *MARINE POLLUTION BULLETIN*. 2025; 220:118351. DOI:10.1016/j.marpolbul.2025.118351. PMID:40602353. IF:4,900 (Q1/1D).
 - Marco A, Solé N, Prieto R, Abdo IJ, Millet JP, Turu E, I. Determinantes de tuberculosis en la población que ingresa en prisiones de Cataluña. *Revista Española de Sanidad Penitenciaria*. 2025; 27(3)
 - Martín V, Montalvo T, Ramirez F, Figuerola J, Morral C, Planell R, Sabate S, Bota G, Navarro J. Opportunistic Gulls Infected by Antibiotic-Resistant Bacteria Show Contrasting Movement Behaviour. *Ecology and Evolution*. 2025; 15(4):e71257. DOI:10.1002/ece3.71257. PMID:40235727. IF:2,300 (Q2/5D).
 - Martínez H, Soler VG, Díaz Y, Montoro M, Fernández G, Pericas C, Palma D, Villar M, Adell H, Quiles HG, Cortés JS, Gómez S, Marinero AR, Romano P, Muntada E, Casabona J, Agusti C. TESTATE STI project: an online chlamydia and gonorrhoea self-sampling strategy for gay, bisexual and other men who have sex with men and trans people in Catalonia (Spain). *SEXUALLY TRANSMITTED INFECTIONS*. 2025; 101(8). DOI:10.1136/sextrans-2024-056394. PMID:40000223. IF:2,900 (Q2/4D).
 - Max A, Martín V, Navarro J, Borrell A, Montalvo T, Garcia O. Characterisation of plastic ingestion in urban gull chicks and its implications for their use as pollution sentinels in coastal cities. *MARINE POLLUTION BULLETIN*. 2025; 211:117409. DOI:10.1016/j.marpolbul.2024.117409. PMID:39667134. IF:4,900 (Q1/1D).
 - Navero J, Sánchez A, Sulleiro E, Silgado A, Montalvo T, Barahona L, Busquets N, Muñoz J, Camprubí D, Valdivia M, Martínez A, Bou MA, Martínez I, Jane M, Rius C, Vargas H, Escudero B, Albarracín R, Navarro A, Navarro M, Barrachina J, Martínez MJ. Molecular Epidemiology of Travel-Associated and Locally Acquired Dengue Virus Infections in Catalonia, Spain, 2019. *Viruses-Basel*. 2025; 17(5):621. DOI:10.3390/v17050621. PMID:40431634. IF:3,500 (Q2/5D).
 - Oliveira CF, Solé M, Martín V, Rico M, Montalvo T, Navarro J. Physiological impact of air quality in urban gulls and its implications for their use as pollution sentinels in coastal cities. *JOURNAL OF HAZARDOUS MATERIALS*. 2025; 500:140518. DOI:10.1016/j.jhazmat.2025.140518. PMID:41275647. IF:11,300 (Q1/1D).
 - Palma D, Guillaumes M, Pericas C, de Andrés A, Prieto R, Álvarez L, Ospina J, Santiá P, García de Olalla P, Rius C. A new STI in the city: MPOX in Barcelona. First outbreak (5/2022-5/2023) and subsequent resurgence. *PLoS One*. 2025; 20(1):e0296141. DOI:10.1371/journal.pone.0296141. PMID:39821125. IF:2,600 (Q2/4D).
 - Pérez G, Salobral R, Simon P, Artazcoz L, Rodríguez M, Pasarín MI, Borrell C. Managing future pandemics in an urban context: a challenge for public health. *Gaceta Sanitaria*. 2025; 39:102469. DOI:10.1016/j.gaceta.2025.102469. PMID:40188558. IF:1,500 (Q3/7D).
 - Pericas C, Vilaplana C, Martínez H, Artazcoz L, Bartoll X, Alamo D, Arcas MM, Rius C, Grau M. Exploring Social Inequalities in Post-pandemic

5.1.4 Epidemiology, Public Health and Primary Care Area

- Labour Market Shifts and Job Dissatisfaction in Barcelona: Insights From a Southern European City. *Cureus*. 2025; 17(3). DOI:10.7759/cureus.80847.
- Porta M, Pumarega J, Aguilar R, Prieto D, Campi L, Rius C, Villar J, Vidal M, Jiménez A, Peña A, Muñoz MA, Trasande L, Bolúmar F, Moncunill G, Gasull M, Dobaño C. Pre-pandemic levels of cytokines and immunoglobulins and risk of SARS-CoV-2 infection and COVID-19 in the general population of Barcelona. *Frontiers in Public Health*. 2025; 13:1548456. DOI:10.3389/fpubh.2025.1548456. PMID:40910046. IF:3,400 (Q1/2D).
 - Prieto R, Millet JP, Soriano A, Espiau M, Broto C, Ronda M, López N, Noguera A, Corcoll EM, Jiménez CD, Samsó MR, Arroita M, Valencia J, Rebollo CG, Viván PS, Gibert CR. Tuberculosis household contact tracing in children: axes of inequality, Barcelona 2003-2022. *Frontiers in Public Health*. 2025; 13:1591552. DOI:10.3389/fpubh.2025.1591552. PMID:40510584. IF:3,400 (Q1/2D).
 - Rodrigo T, Millet JP, Bravo M, Taberner EM, Caylá JA, Prevent Control Programmes Autonomous Communities Working TB&GRP. Evolution of tuberculosis in Spain: Will the objectives of the End TB Strategy be achieved in Western European countries?. *ENFERMEDADES INFECCIOSAS Y MICROBIOLOGIA CLINICA*. 2025; 43(7). DOI:10.1016/j.eimc.2025.02.004. IF:2,500 (Q2/5D).
 - Roel E, Henderson E, Valmayor S, Porthé V, Asensio A, Ramírez A, Bruna X, Pasarín MI, Rius C, Díez E, CONFIVAC GRP. Effectiveness of CONFIVAC, an intervention to enhance paediatric nurses and paediatricians' skills to promote vaccination: A mixed-methods cluster randomised trial. *VACCINE*. 2025; 62:127603. DOI:10.1016/j.vaccine.2025.127603. PMID:40818260. IF:3,500 (Q2/4D).
 - Romero N, Torres M, Solis VH, Orellana F, Castells PA, Andrade D, Sánchez H, Jiménez P, Millet JP, Caylá JA, Martín M. Patterns and Treatment Timelines of Tuberculosis in Males From Ecuador's Largest Prison. *Journal of Correctional Health Care*. 2025; 31(5). DOI:10.1177/10783458251380507. PMID:40996080. IF:0,700 (Q4/9D).
 - Sanz M, Continente X, Bruguera S, Marí M, Oliveras L, López MJ. Evaluating the effect of green, blue, and gray measures for climate change adaptation on children's well-being in schoolyards in Barcelona. *LANDSCAPE AND URBAN PLANNING*. 2025; 253:105206. DOI:10.1016/j.landurbplan.2024.105206. IF:9,200 (Q1/1D).
 - Treskova M, Montalvo T, Rocklöv J, Hatfield C, Bartumeus F, Dasgupta S, Encarnação J, Lowe R, Semenza JC, Stiles P, Noya J, Valsecchi A, Bärnighausen T, Palmer JRB, Bunker A. Effects of mosquito-proofing storm drains on adult and larval mosquito abundance: Protocol of the IDAIert storm drain randomised controlled trial (IDEAS). *Methods*. 2025; 14:103102. DOI:10.1016/j.mex.2024.103102. PMID:39850761.
 - Vall E, Delgado L, Alcock L, Coll L, García JA, Iwarsson S, Jansà JM, Jansen CP, Koch S, Schwartz S, Rantakokko M, Sarukhan A, van W, Rochester L, Garcia J. Ageing towards walkable futures: insights from a multidisciplinary workshop held in Barcelona, Spain. *BMC PUBLIC HEALTH*. 2025; 25(1):195. DOI:10.1186/s12889-024-21223-z. PMID:39825288. IF:3,600 (Q1/2D).
 - Vergara A, Montalvo T, Sabaté S, Villanueva JL, Vilanova D, Planell R, Roca I, Ballesté C, Hurtado JC, Figuerola J, González R, Vila J. Prevalence of *Salmonella* spp. isolated from seagulls and pigeons in Barcelona, Spain and its genetic relatedness with *Salmonella* human clinical isolates. *Journal of Infection and Public Health*. 2025; 18(10):102933. DOI:10.1016/j.jiph.2025.102933. PMID:40886604. IF:4,000 (Q1/2D).

5.1.4 Epidemiology, Public Health and Primary Care Area

Primary Care

Group leader

Brotons Cuixart, Carles (EAP Sardunya)
(until november 2025)

Reyes Reyes, Carlen (EAP Sardunya)
(from november 2025)

Researchers

Balague Galito, Enriqueta (EAP Sardunya)
Brotons Cuixart, Carles (EAP Sardunya)
Cabricano Canga, Lorena
(EAP Dreta Eixample)
Casasa Plana, Albert (EAP Sardunya)
Castiñeiro Fernández, Noemi (EAP
Sardunya)
Cazar Recalde, Daniel (EAP Dreta Eixample)
Climent Olivares, Andrea (EAP Sardunya)
Cuixart Costa, Lluís (EAP Dreta Eixample)
Del Castillo Nesweda, Maria Zell
(EAP Dreta Eixample)
Díez Plana, Alba (EAP Sardunya)
Florensa Roquet-Jalmar, Elisabet (EAP
Dreta Eixample)
Fontes Santiago, Ana Beatriz (EAP
Sardunya)
Galán Díez, María Luisa (EAP Sardunya)
Gharibyan Avetisyan, Narine (EAP
Sardunya)
González Lera, Jara (EAP Sardunya)
Ibacache Álvarez, Daniela Andrea
(EAP Dreta Eixample)
Ichazo Tobella, Begoña (EAP Sardunya)
Llao Guardia, Maria (EAP Sardunya)
Llompert Llacer, Yolanda Julia
(EAP Dreta Eixample)
Martínez Gil, Mireia (EAP Sardunya)
Monteserin Nadal, Rosa (EAP Sardunya)
Moral Pelaez, Irene (EAP Sardunya)
Planchuelo Calatayud, Daniel
(EAP Dreta Eixample)
Posa Santamaria, Ana Isabel (EAP
Sardunya)
Puig Palma, Mireia (EAP Sardunya)
Rayo Martínez, Elisabet (EAP Sardunya)
Sellares Sallas, Jaume (EAP Sardunya)
Serrano Pons, Helena (EAP Sardunya)
Vila García, Judit (EAP Sardunya)
Vilella Moreno, Maria Teresa
(EAP Sardunya)

Research technicians

Tolra Mabilon, Jordi (EAP Sardunya)



DESCRIPTION

Our Research Unit was established in March 2002. We conduct clinical trials sponsored by pharmaceutical companies, as well as investigator-initiated experimental and observational studies funded through public and private competitive calls. In addition, we support other research projects promoted by our own healthcare professionals. All studies focus on common pathologies encountered in primary health care.

Our main research lines include cardiovascular disease prevention (particularly diabetes, hypertension, and hypercholesterolemia), vaccination, pharmacoepidemiology of the most frequently prescribed drugs in primary care, pharmacovigilance, and the use of new technologies (including artificial intelligence) to improve patient care from a primary care perspective.

The Research Unit comprises two family physicians, two research nurses, one statistician, and two administrative staff members.

We also collaborate with several academic and clinical institutions. We work closely with the Teaching Unit (UD ACEBA), providing support to medical and nursing residents in developing their research projects; with the Preventive Medicine Unit of Hospital de Santa Pau, supporting preventive medicine residents; and with the International University of Catalonia, assisting students with research activities when needed.

MAIN LINES OF RESEARCH

- Cardiovascular risk (Brotons Cuixart, Carles)
- Prevention and Health Promotion (Brotons Cuixart, Carles)
- Hypertension (Brotons Cuixart, Carles)
- Diabetes (Brotons Cuixart, Carles)
- Lipids (Brotons Cuixart, Carles)
- Immunisation (Brotons Cuixart, Carles)
- Pharmacoepidemiology and pharmacovigilance (Reyes Reyes, Carlen)
- Patients' safety studies (Reyes Reyes, Carlen)
- Artificial Intelligence applied to health (Reyes Reyes, Carlen)

5.1.4 Epidemiology, Public Health and Primary Care Area

SCIENTIFIC CHALLENGES

- To implement multicenter research projects in primary care.
- To encourage collaboration with other research groups of the Biomedical Research Institute Sant Pau.
- To increase the number of Primary Care Specialists with a PhD.
- To increase the number of researchers in primary care centres.
- To access competitive funding for primary care projects.
- To conduct innovative studies that can be applied in primary care.

ACTIVE & AWARDED GRANTS

- Reyes Reyes, Carlen & Brotons Cuixart, Carles. Diseño de una escala de riesgo de eventos adversos y evaluación del impacto de una intervención de desprescripción en atención primaria: estudio observacional y ensayo clínico. PI25/01466. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 115.000,00 €
- Reyes Reyes, Carlen. Diseño y validación de una herramienta para la detección automática de reacciones adversas medicamentosas: RADAR. IR Sant Pau. Padcelona SL. Duration: 2024-2025. 5.000,00 €.

SCIENTIFIC PRODUCTION - Articles & Reviews

- Mora Rodríguez, Angel. Ayudas para contratos predoctorales para la formación de doctores 2022. PRE2022-104819. Ministerio de Ciencia, Innovación y Universidades. Duration: 2024-2028. 111.758,00 €
- Surrallés Calonge, Jordi. The Fanconi anemia/BRCA pathway: Genomic medicine and advanced therapies. (FABRAT). PID2021-122411OB-I00. Ministerio de Ciencia e Innovación. Duration: 2022-2025. 417.000,00 €
- Surrallés Calonge, Jordi. Ayudas Programa Investigo 2022. 2022 INV-1 00048. Agència de Gestió d'Ajuts Universitaris i de Recerca AGAUR. Duration: 2022-2024. 66.217,84 €
- Surrallés Calonge, Jordi. Reposicionamiento de afatinib para HNSCC en pacientes con anemia de Fanconi. ICI22/00076. Instituto de Investigación Carlos III (ISCIII). Duration: 2023-2026. 396.101,20 €
- Surrallés Calonge, Jordi. Valorización y prueba de concepto de un inhibidor de la reparación del DNA por la vía Fanconi/BRCA para el tratamiento del cáncer por letalidad sintética. PDC2022-133233-I00. Ministerio de Ciencia, Innovación y Universidades (MICIU). Duration: 2022-2024. 149.500,00 €
- Surrallés Calonge, Jordi. Genomic medicine and rare diseases group. 2021 SGR 00835. Duration: 2022-2025. 40.000,00 €
- Surrallés Calonge, Jordi. AFAN trial. Phase Ib/II study to investigate the safety and efficacy of Afatinib when administered as therapy in Fanconi anemia patients with unresectable and / or metastatic locoregionally advanced squamous cell carcinoma of the oral cavity, oropharynx or hypopharynx or larynx. (FARF) Fanconi Anemia Research Fund. Conv. FARF Research Grant Award (RGA) Program. Duration: 2023-2027. 296.303 €
- Surrallés Calonge, Jordi. Genómica funcional: desarrollo e implementación de una plataforma para el estudio de casos de cáncer hereditario sin resolver (IMPACT_VUSCan). PMP22/00064. Duration: 2023-2025. 352.479,05 €

5.1.4 Epidemiology, Public Health and Primary Care Area

DOCTORAL THESES DEFENDED

- Cavero Moreno, Debora. DNA repair in cancer therapeutics: developing a specific inhibitor for tumors and targeted therapies to treat solid tumors in rare diseases. 18/10/2024. Universitat Autònoma de Barcelona. Supervisors: Surrallès Calonge, Jordi; Minguillón Pedreño, Jordi. <https://hdl.handle.net/10803/692827>.

SCIENTIFIC PRODUCTION

- Balagué L, Esko T, de Heredia ML, Abellán J, Acosta R, Aguado JM, Aguilar C, Aguilera S, Sabbagh AA, Alba J, Albu S, Alcalá K, Alcoba J, Batres SA, Algarin HR, Almadana V, Medeiros KA, Almeida J, Almoguera B, Alonso MR, Álvarez N, Walther R, Álvarez Y, Álvarez F, dos KA, Andreu A, Antonijoan MR, Martínez E, Arana E, Aranda C, Arango C, Araque C, Araujo NK, Arcanjo AC, Arnaiz A, Fernández FA, Arranz MJ, López J, Artiga MJ, Avello Y, Ayuso C, Martín BB, Baptista RC, Baldion AM, Barranco A, Barreda M, Barrera V, Belhassen M, Bernal D, Bernal E, Bezerra JF, Bezerra M, Blanca N, Blancas R, Boix L, Borobia A, Bravo E, Brion M, Brochado O, Brugada R, Bustos M, Cabello A, Cáceres A, Cáceres JJ, Calbo E, Calderón EJ, Camacho S, Ceballos FC, Cañadas Y, Carbonell C, Cardona S, Abad MSC, Segura CC, Carrillo JA, Campos MC, Casanovas C, Castaño L, Castaño CF, Castela JE, Candalija AC, Castillo MA, Chaves WG, Chiquillo S, Cid MA, Cienfuegos O, Conde R, Cunha GCR, Cordero ML, Corella D, Corrales A, Cortés JL, Corton M, Souza KSC, Silva FTC, Cruz R, Cuesta L, Tavares N, Carvalho MCC, Dalmau D, Dantas RCS, Darnaude MT, de Andrés R, de Juan C, Troca JJD, de la Horra C, de la Hoz AB, De Martino A, Cruz MS, Neri J, del Campo V, Delgado J, de Bustamante AD, Díaz A, Dietl B, Diz S, Alves MD, Domínguez E, Rosa LS, Luchessi AD, Echave J, Eiros R, Enciso CO, Escudero G, España PP, Sanabria GE, Fariñas MC, Fernández R, Fernández L, Fernández A, Fernández S, Martínez YF, Fernández MJ, Fernández U, Fernández A, Fernández M, Fernández R, Fernández T, Fernández C, Carioca A, Flores P, Fuenmayor L, Fuertes M, Fumadó V, Gadea I, Gagliardi L, Gago M, Gallego N, Galoppo C, García A, García C, García A, García J, García I, García C, García AC, García L, García M, Torrejón MCG, García I, García E, Garza E, Gentile A, Gil B, de Araújo JNG, Gómez M, Gómez J, Carrera LG, García MG, Sacristán AG, González A, Álvarez BG, de Quirós FGB, González R, González J, González M, Gonzalo H, Gorgojo O, Górgolas M, Guaragna F, Chaux JG, Guillén E, Guillén B, Guisado P, Gutiérrez LD, Gutiérrez JF, Heili S, Jacomo RH, Hernández E, Hernández C, Hernández LD, Hernández G, Hernández R, Herráez B, Herranz MT, Herrera M, Herrero MJ, Herrero A, Horcajada JP, Imaz N, Intxausti M, Iñigo A, Iñiguez M, Jara R, Jiménez A, Jiménez I, Jiménez P, Jiménez MA, Jordan I, Laguna R, Laorden D, Lasa M, Lattig MC, Lauriente A, Borja AL, Llanos L, López A, de Heredia ML, López E, López E, López R, López MA, Lorente L, Lorenzo J, Lozano JE, Lozano M, Mahillo I, Mancebo E, Mar C, Calvo CM, Marcos A, Marcos M, Marín A, Mariscal P, Martín L, Martín M, Martín C, Martín JA, Martín MD, Martín V, Martín MM, Martín M, Martínez A, Martínez O, Martínez R, Martínez P, Díaz CM, Martínez O, Martínez I, Martínez MF, Martínez S, Martínez JJ, Martínez A, Martínez A, Martínez V, Marzal L, Mazzeu JF, Medrano FJ, Meijome XM, Mejuto N, Mendes I, Duarte AL, Méndez A, Charris HM, Macías EM, Mercadillo F, Mercado AR, Mínguez P, Molina E, Molina AJ, Montoya JJ, Pinho SMT, Moreira P, Morelos X, Moreno R, Cuerda VM, Moreno A, Moreno J, Fernández AM, García PM, Neira P, Nevado J, Nieto I, Silbiger VN, Núñez R, Obrador A, Ocejó JG, Virginia O, Oliveira SF, Ondo L, Orfao A, Ortega E, Ortega L, Ortiz R, Ortiz F, Oteo JA, Pacheco M, Pacheco FJ, Padilla I, Panadero S, Parellada M, Pariente R, Friaza V, Paz E, Peces G, Kus MSP, Perales C, Santos NPC, Guegel GP, Pérez MJ, Pérez A, Pérez P, Pérez C, Pérez G, Pérez F, Pérez P, Pérez LA, Pérez ME, Perucho T, Pichardo LA, Ribeiro AP, Pinsach ML, Pinzón LA, Medeiros JFP, Pita G, Pla F, Planas L, Pompa EN, Porras GL, Pujol A, Quevedo ME,

5.1.4 Epidemiology, Public Health and Primary Care Area

- Quijada MA, Quintela I, Ramiro S, Sedes PR, Nunes JFR, Recalde D, Recio E, Resino S, Sousa RR, Rivadeneira CS, Roa D, Pardo MR, Fernandes MR, Rodríguez MA, Rodríguez A, Rodríguez E, Rodríguez MJ, Rodríguez F, Rodríguez M, Rodríguez C, Rodríguez JA, Maya BR, Rodríguez A, Rodríguez GE, Rodríguez PA, Rojo F, Romero A, Morilla R, Rondón F, Rosales A, Rubio C, Olivera MR, Ruiz F, Ruiz E, Ruiz JJ, Ruiz J, Ruiz M, Ryan P, Salamanca HD, Salazar L, Salgueiro GG, Sangil A, Sánchez O, Sánchez PL, López A, Sánchez C, Sánchez MC, Sánchez J, Sánchez J, Sancho C, Sande E, Santos A, Schlüter A, Segovia S, Serra A, Sevil F, Sevilla M, Sicolo MA, Silván C, Moraes VMS, Souza VS, Solé J, Soria JM, Sorlí JV, Silva NS, Souto JC, Sprockel JJ, Suárez JJ, Suárez DA, Taboada X, Tamayo E, Tamayo A, Taracido JC, Vasconcelos RHT, Tellería C, Carratto TMT, Tenorio JA, Teper A, Araujo I, Torres J, Torres L, Torres RP, Troya J, URíoste M, Valencia J, Valido A, Vargas JP, Varón B, Vega T, Velasco S, Vélez V, Víctor V, Vidán J, Silva GV, Vieitez M, Vilches C, Villalobos L, Villar F, Villar J, Villaverde C, Villoslada P, Virseda A, Costa TX, Yáñez Z, Zapatero A, Zarate R, Zazo S, Flores C, Riancho JA, Rojas A, Lapunzina P, Carracedo A, González JR, SCOURGE GRP. Clonal chromosomal mosaicism and loss of chromosome Y in elderly men increase vulnerability for SARS-CoV-2. *Communications Biology*. 2024; 7(1):202. DOI:10.1038/s42003-024-05805-6. PMID:38374351. IF:5,200 (Q1/2D). Document type: Article.
- Cavestro C, Morra F, Legati A, D'Amato M, Nasca A, Iuso A, Lubarr N, Morrison JL, Wheeler PG, Serra C, Rodríguez B, Turón E, Prouteau C, Barth M, Hayflick SJ, Ghezzi D, Tiranti V, Di I. Emerging variants, unique phenotypes, and transcriptomic signatures: an integrated study of <i>COASY</i>-associated diseases. *Annals of Clinical and Translational Neurology*. 2024; 11(6). DOI:10.1002/acn3.52079. PMID:38750253. IF:4,400 (Q1/2D). Document type: Article.
 - Dols O, Carbayo A, Jericó I, Blasco O, Álvarez E, Pérez M, Bernal S, Rodríguez B, Cusco I, Turon J, Cabezas M, Caballero M, Vesperinas A, Llansó L, Pagola I, Torné L, Valle N, Muñoz L, Rubio S, Illán I, Cortés E, Gelpi E, Rojas R. Identification of a pathogenic mutation in <i>ARPP21</i> in patients with amyotrophic lateral sclerosis. *JOURNAL OF NEUROLOGY NEUROSURGERY AND PSYCHIATRY*. 2024; DOI:10.1136/jnnp-2024-333834. PMID:38960585. IF:8,700 (Q1/1D). Document type: Article.
 - Llansó L, Segarra A, Domínguez C, Malfatti E, Kapetanovic S, Rodríguez B, de la Calle O, Blanco R, Dobrescu A, Nascimento A, Paipa A, Hernández A, Jou C, Mariscal A, González L, Arteche A, Lleixa C, Caballero M, Carbayo A, Vesperinas A, Querol L, Gallardo E, Olivé M. Absence of Pathogenic Mutations and Strong Association With HLA-DRB1*11:01 in Statin-Naïve Early-Onset Anti-HMGCR Necrotizing Myopathy. *Neurology-Neuroimmunology & Neuroinflammation*. 2024; 11(5):e200285. DOI:10.1212/NXI.0000000000200285. PMID:39106428. IF:7,800 (Q1/1D). Document type: Article.
 - Río P, Zubicaray J, Navarro S, Gálvez E, Sánchez R, Nicoletti E, Sebastián E, Rothe M, Pujol R, Bogliolo M, John P, Bastone AL, Schambach A, Wang W, Schmidt M, Larcher L, Segovia JC, Yáñez RM, Alberquilla O, Díez B, Fernández M, García L, Ramírez M, Galy A, Lefrere F, Cavazzana M, Leblanc T, de Andoin NG, López R, Catala A, Barquinero J, Rodríguez S, Rao G, Surrallés J, Soulier J, Díaz C, Schwartz JD, Sevilla J, Bueren JA, FANCOLEN I. Haematopoietic gene therapy of non-conditioned patients with Fanconi anaemia-A: results from open-label phase 1/2 (FANCOLEN-1) and long-term clinical trials. *LANCET*. 2024; 404(10471). DOI:10.1016/S0140-6736(24)01880-4. PMID:39642902. IF:98,400 (Q1/1D). Document type: Article.
 - Sierra A, Ribosa R, Vidal N, Aldecoa I, Turón E, Rodríguez B, Turón M, Boronat S, Molina L. Inherited <i>SCN1A</i> missense mutation in a Dravet Syndrome family: Neuropathological correlation, family screening and implications for adult carriers. *EPILEPSY RESEARCH*. 2024; 199:107266. DOI:10.1016/j.eplepsyres.2023.107266. PMID:38061235. IF:2,000 (Q3/7D). Document type: Article.

5.1.4 Epidemiology, Public Health and Primary Care Area

DataHealth Lab –
Data and Health
Laboratory

Group leader

Ranzani, Otavio (IR)

Researchers

Felez Galan, Miquel (FGS)

Gras Pacheco, Dolça (FGS)

San Jose Arribas, Carmen Alicia (FGS)



DESCRIPTION

The DataHealth Lab, led by Dr Otavio Ranzani, focuses on generating high-quality science with an impact on public health policies through the advanced use of data. Its core pillars are Epidemiology, Data Science, and Implementation Science. Its focus is on acute systemic stressors affecting individuals and health systems, addressing urgent challenges posed by climate change and respiratory and emerging infections.

MAIN LINES OF RESEARCH

- Effects of environmental pollutants and extreme temperatures on health, with an emphasis on the mechanisms of acute exposures.
- Epidemiology of post-infectious syndromes and evaluation of vaccine effectiveness.
- The impact of respiratory infections and antimicrobial resistance on health systems.
- Innovation in critical care through clinical trials, telemedicine, and artificial intelligence.

SCIENTIFIC CHALLENGES

- Generate methodologically rigorous and socially relevant evidence.
- Strengthen the group's national and international positioning.
- Enhance collaboration with other research groups at IR Sant Pau.
- Promote open, inclusive, and sustainable science

5.1.4 Epidemiology, Public Health and Primary Care Area

ACTIVE & AWARDED GRANTS

- Ranzani, Otavio. Ayudas para contratos Ramón y Cajal (RYC) 2023. RYC2023-045581-I. Ministerio de Ciencia, Innovación y Universidades (MICIU) Agencia Estatal de Investigación (AEI). 2025-2030. 251.800,00 €
- Ranzani, Otavio. Protegint la salut respiratòria a Catalunya: clima, contaminació i perspectives dels pacients (PRISMA-CAT). Fundació La Marató TV3. 2026-2028

DOCTORAL THESES DEFENDED

- Batista Da Silva, Amanda de Araujo. Preparação para emergências de saúde pública: a resposta à COVID-19 de uma comunidade vulnerabilizada no Brasil. 12/06/2025. Pontifícia Universidade Católica do Rio de Janeiro. Supervisors: Hamacher, Silvio; Bozza, Fernando Augusto; Ranzani, Otavio Tavares. <https://doi.org/10.17771/PUCRio.acad.70989>
- Lazar Neto, Felipe. Impacto da vacinação contra a COVID-19 em pacientes oncológicos: análise de banco de dados populacional. 17/06/2025. Universidade de São Paulo. Supervisors: Ranzani, Otavio. <https://teses.usp.br/teses/disponiveis/5/5150/tde-17102025-162745/pt-br.html>

SCIENTIFIC PRODUCTION - Articles & Reviews

- Cola JP, do TN, Ranzani OT, Santos A, Freire BS, Zanotti RL, Costa A, del Carro KB, Coelho LDL, Thomas CL, Bezerra DP, Cardoso OA, Miranda AE, Maciel E, Vicente CR. Sociodemographic characteristics, clinical manifestations, and concurrent outcomes of Oropouche fever and dengue in Espirito Santo, Brazil. REVISTA PANAMERICANA DE SALUD PUBLICA-PAN AMERICAN JOURNAL OF PUBLIC HEALTH. 2025; 49:e127. DOI:10.26633/RPSP.2025.127. PMID:41450792. IF:2,200 (Q2/5D).
- Cortes TR, Pescarini JM, Ranzani OT, Paixao ES, Neves DJD, Rebouças P, Ribeiro RD, Ferreira A, Galvao L, Brickley EB, Smeeth L, Jacobson LV, Silveira IH, Barreto ML. Ambient temperature and non-accidental mortality: A nationwide space-time-stratified case-crossover study within the 100 million Brazilian Cohort. ENVIRONMENT INTERNATIONAL. 2025; 205:109892. DOI:10.1016/j.envint.2025.109892. PMID:41232217. IF:9,700 (Q1/1D).
- de Carvalho JMD, McGuire SS, Oliveira LLR, Bellolio F, Ranzani OT, Besen B, Guimaraes HP, Lunardi MC, Mullan AF, Hajjar LA, Maia I. Prevalence and Impact of Violence Against Healthcare Workers in Brazilian Emergency Departments: A National Survey. Western Journal of Emergency Medicine. 2025; 26(6). DOI:10.5811/westjem.45138. PMID:41380058. IF:2,000 (Q2/4D).
- Maia I, Decker SRR, Silva L, von R, Alencar JCG, Hajjar LA, de Carvalho JMD, Pedrollo DF, Nogueira CG, Figueiredo NMP, Miranda CH, Martins D, Baumgratz TD, Bergesch B, Colleoni O, Zanettini J, Freitas AP, Tambelli R, Costa MC, Correia W, de Maria RG, U, Weber AP, Castro VD, Dornelles CFD, Tabach BS, Moreira NP, Gaspar PL, Guimaraes HP, Stanzani G, Gava TF, Mullan A, Brown CS, Bellolio F, Jeffery MM, Ranzani OT, Besen B, Brazilian Airway Registry Cooperat BARCO GRP. Ketamine, Etomidate, and Mortality in Emergency Department Intubations. JAMA Network Open. 2025; 8(12):e2548060. DOI:10.1001/jamanetworkopen. 2025.48060. PMID:41396604. IF:9,700 (Q1/1D).
- Martín FP, Poulain C, Mulier JH, Motos A, Gourain V, Ogan I, Montassier E, Launey Y, Lasocki S, Cinotti R, Fizelier CD, Ranzani O, Reyes LF, Martín I, Derde L, Torres A, Cremer O, Roquilly A. Identification and validation of robust hospital-acquired pneumonia subphenotypes associated with all-cause mortality: a multi-cohort derivation

5.1.4 Epidemiology, Public Health and Primary Care Area

- and validation. INTENSIVE CARE MEDICINE. 2025; 51(4). DOI:10.1007/s00134-025-07884-3. PMID:40261385. IF:21,200 (Q1/1D).
- Moreno R, Rhodes A, Ranzani O, Salluh J, Berger J, Coopersmith CM, Juffermans NP, Laffey J, Reinikainen M, Neto AS, Tavares M, Timsit JF, López M, Arulkumaran N, Azoulay E, Chaudhuri D, De Lange D, De Waele J, Dos CC, Du B, Einav S, Ferrer R, Fujii T, Gershengorn HB, Haniffa R, Hasan MS, Hollenberg S, Ippolito M, Jung CS, Kirov M, Lakbar I, Lipman J, Liu VC, Lobo SM, Martín GS, Metnitz P, Myatra SN, Oczkowski S, Paiva JA, Paruk F, Pekkarinen PT, Pilcher D, Piquilloud L, Pölkki A, Prescott HC, Blaser AR, Rezende E, Robba C, Rochwerf B, Schenck EJ, Sendagire C, Siaw M, Simpkin AJ, Soares M, Summers C, Szczeklik W, Takala J, Vincent JL, Wendon J, Zampieri FG, Shankar M, Singer M. Rationale and Methodological Approach Underlying the Development of the Sequential Organ Failure Assessment (SOFA)-2 Score. JAMA Network Open. 2025; 8(10):e2545040. DOI:10.1001/jamanetworkopen.2025.45040. PMID:41159829. IF:9,700 (Q1/1D).
 - Ostermann M, Alshamsi F, Raventos AA, Cecconi M, Ichai C, Jones C, Malbrain MLNG, Monnet X, Nalos M, Peng ZY, Pfortmueller CA, Prowle J, Ranzani O, Shankar M, Wong A, Moller MH, De Backer D, European Soc Intensive Care M. European Society of Intensive Care Medicine Clinical Practice Guideline on fluid therapy in adult critically ill patients: Part 3-fluid removal at de-escalation phase. INTENSIVE CARE MEDICINE. 2025; 51(10). DOI:10.1007/s00134-025-08058-x. PMID:40828463. IF:21,200 (Q1/1D).
 - Peres IT, Ranzani OT, Bastos LSL, Hamacher S, Edinburgh T, Garcia E, Bozza FA. Clinical characteristics, complications and outcomes of critically ill patients with Dengue in Brazil, 2012-2024: A nationwide, multicenter cohort study. INTERNATIONAL JOURNAL OF INFECTIOUS DISEASES. 2025; 159:108023. DOI:10.1016/j.ijid.2025.108023. PMID:40819682. IF:4,300 (Q1/2D).
 - Ranzani OT, Singer M, Salluh J, Shankar M, Pilcher D, Berger J, Coopersmith CM, Juffermans NP, Laffey J, Reinikainen M, Neto AS, Tavares M, Timsit JF, López M, Arulkumaran N, Aryal D, Azoulay E, Celi LA, Chaudhuri D, De Lange D, De Waele J, Dos CC, Du B, Einav S, Engelbrecht T, Fazla F, Ferrer R, Finazzi S, Fujii T, Gershengorn HB, Greene JD, Haniffa R, Hao SC, Hasan MS, Hollenberg S, Ippolito M, Jung C, Kirov M, Kobari S, Lakbar I, Lipman J, Liu V, Liu XL, Lobo SM, Magatti D, Martín GS, Metnitz B, Metnitz P, Myatra SN, Oczkowski S, Paiva JA, Paruk F, Pekkarinen PT, Piquilloud L, Pölkki A, Prescott HC, Blaser AR, Rezende E, Robba C, Rochwerf B, Ruckly S, Samei R, Schenck EJ, Secombe P, Sendagire C, Siaw M, Simpkin AJ, Soares M, Summers C, Szczeklik W, Takala J, Tanaka S, Tricella G, Vincent JL, Wendon J, Zampieri FG, Rhodes A, Moreno R. Development and Validation of the Sequential Organ Failure Assessment (SOFA)-2 Score. JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. 2025; 334(23). DOI:10.1001/jama.2025.20516. PMID:41159833. IF:55,000 (Q1/1D).
 - Rashan A, Püttmann DP, de Keizer NF, Dongelmans DA, Cornet R, Ranzani O, Waweru W, Smith M, Harris S, Beane A, Bakhshi F, Dutch Natl Intensive Care R. Using the Observational Medical Outcomes Partnership Common Data Model for a multi-registry intensive care unit benchmarking federated analysis: lessons learned. Jamia Open. 2025; 8(4):ooaf052. DOI:10.1093/jamiaopen/ooaf052. PMID:40698026.
 - Reinikainen M, Delamarre L, Blaser AR, Hollenberg SM, Lobo SM, Rezende E, Moreno R, Rhodes A, Ranzani OT, Singer M, Lakbar I. Association of noradrenaline dose with mortality in critically ill patients: a systematic review and dose-response meta-analysis. CRITICAL CARE. 2025; 29(1):498. DOI:10.1186/s13054-025-05717-9. PMID:41267052. IF:9,300 (Q1/1D).
 - Silveira IH, Rebouças P, Pescarini J, Cortes TR, Oliveira B, Neves DJD, Rocha AD, Ribeiro RD, Barreto ML, Ranzani OT, Paixao ES. Effects of ambient temperature on under-five mortality: a nationwide space-time-stratified case-crossover study in Brazil. ENVIRONMENTAL RESEARCH. 2025; 285:122683. DOI:10.1016/j.envres.2025.122683. PMID:40885509. IF:7,700 (Q1/1D).

5.1.4 Epidemiology, Public Health and Primary Care Area

SCIENTIFIC PRODUCTION – Clinical Practice Guidelines

- Ostermann M, Alshamsi F, Artigas Raventos A, Cecconi M, Ichai C, Jones C, Malbrain MLNG, Monnet X, Nalos M, Peng Z, Pfortmueller CA, Prowle J, Ranzani O, Shankar-Hari M, Wong A, Møller MH, De Backer D; European Society of Intensive Care Medicine. European Society of Intensive Care Medicine Clinical Practice Guideline on fluid therapy in adult critically ill patients: Part 3-fluid removal at de-escalation phase. *Intensive Care Med.* 2025 Oct;51(10):1749-1763. doi: 10.1007/s00134-025-08058-x. Epub 2025 Aug 19. PMID: 40828463. IF:21,200 (Q1/1D).

5.1.5 Translational Medicine Area



5.1.5 Translational Medicine Area

Dídac Mauricio

Area Director

Sant Pau Hospital is a tertiary high-complexity university hospital and, together with Fundació Puigvert, covers all specialities in medical care. This complexity leads to a high variety of biomedical translational research to improve patient's care in multiple fields including inflammatory or immunological processes and on factors linked to the innate immune system, osteoporosis, nephrology, surgery, aging-related macular degeneration, microbiology and infectious diseases, diabetes, pituitary, and other endocrine diseases, respiratory diseases, or perinatal health research and clinical approaches based on human cells and tissues. The primary focus of this research area is evidence-based translational medicine aimed at enhancing patient care.

RESEARCH GROUPS

Inflammatory Diseases

Vidal Alcorisa, Sílvia

Endocrinology, Diabetes, and Nutrition

Mauricio Puente, Dídac

Pituitary Gland Disorders

Aulinas Masó, Anna

Digestive Diseases

Escorsell Mañosa, María Àngels

Microbiology and Infectious Diseases

Navarro Risueño, Ferran

Multi-organ Damage and Rheumatology

Corominas Macías, Héctor

Chronic Respiratory Diseases

Castillo Villegas, Diego

Regenerative Medicine and Tissue Bioengineering

Castells Sala, Cristina

Nephrology

Guirado Perich, Lluís

Women and Perinatal Health

Llurba Olivé, Elisa

Advanced Medical Imaging, Artificial Intelligence, and Imaging-Guided Therapy

Munuera del Cerro, Josep Lluís

Critical Care Medicine

Subirà Cuyàs, Carles

Gynecologic and Breast Pathology

Cabrera Díaz, Sílvia

5.1.5 Translational Medicine Area

Inflammatory Diseases

Group leader

Vidal Alcorisa, Sílvia (IR)

Researchers

Akhlaghi Bagherjeri, Fateme (RMIT)

Alvarado Tapias, Edilmar Auxiliadora (FGS)

Bravo Gómez, Andrea Carolina (FGS)

Calvet Lacruz, Anna (FGS)

Chaturvedi, Minal (RMIT)

De La Calle Martín, Óscar (FGS)

Franco Leyva, Teresa (FGS)

Mariscal Rodríguez, Anais (FGS)

Martínez Martínez, Laura (FGS)

Moga Naranjo, María Esther (FGS)

Ndabakuranye, Jean Pierre (RMIT)

Quinn, Sam Anthony Elms (RMIT)

Sang Park, Hye (FGS)

Research technicians

Calahorra Aguilar, Verónica (FGS)

Canto Naves, Elisabeth (IR)

Mulet I Gual, María (IR)

Ortiz De Juana, María Àngels (IR)

Osuna Gomez, Ruben (IR)



DESCRIPTION

The Inflammatory Diseases group is a multidisciplinary team: Our research aims are: a) to study etiopathogenic mechanisms of immune-mediated diseases to develop tools to advance toward a more personalized medicine; b) to find biomarkers of response to immunotherapy treatments in cancer and chronic inflammatory diseases to select the most suitable drugs and to identify the patient population that can benefit from them, and c) to analyze the involvement immune system in the pathogenesis of autoimmune processes, immunodeficiencies, and immunosenescence.

MAIN LINES OF RESEARCH

- The role of the immune system in the development and perpetuation of autoimmune, immune mediated diseases and chronic inflammatory processes. (Vidal Alcorisa, Sílvia).
- The immunological response associated with the clinical course during immunomodulatory therapies. (Vidal Alcorisa, Sílvia).
- The involvement of autoantibodies, components of the adaptive immune system, in the pathogenesis of autoimmune processes. (Mariscal Rodríguez, Anais; Martínez Martínez, Laura).
- Mechanisms involved in immunodeficiency. (Martínez Martínez, Laura, de la Calle Martín, Óscar).
- Immunosenescence. (Franco Leyva, Teresa).
- Immunomodulatory mechanisms in hepatitis (Alvarado Tapias, Edilmar A.).

5.1.5 Translational Medicine Area

SCIENTIFIC CHALLENGES

- To understand the appearance and evolution of autoimmune events, immunodeficiencies, infections, and cardiovascular diseases to improve diagnostic tools.
- To decipher the immune response involved in the development or the control of tumours to discover new biomarkers of prognosis for immunotherapies.
- To elucidate biomarkers related to immune sense and susceptibility to infections.
- To characterise cellular immune responses in immunological disorders such as infections, hypersensitivity reactions, and immunodeficiencies.
- Different strategies were applied according to the goal and pathology:
- To characterise cell populations in complex human biological fluids by multiparametric flow cytometry analysis complemented with dimensionality reduction and data visualisation techniques.
- To study the expression and dynamics of inflammatory mediators with advanced clustering analysis.
- To identify new specificities of autoantibodies in subgroups of patients.
- To study mechanisms involved in immunodeficiency caused by alterations of molecular components.
- To identify new immunomodulator targets in hepatitis.

ACTIVE & AWARDED GRANTS

- Vidal Alcorisa, Sílvia. Malalties Inflamatòries -Immunologia. 2021 SGR 00987. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). 2022-2025.
- Alvarado Tapias, Edilmar. Identificación de biomarcadores no invasivos de reversión en la enfermedad hepática por alcohol a través del estudio: vesículas extracelulares y parámetros hemodinámicos. PI21/01995. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 87.120,00 €

DOCTORAL THESES DEFENDED

- Anguera Palacios, Geòrgia. Búsqueda de factores predictivos de la respuesta a la inmunoterapia. 16/06/2025. Universitat Autònoma de Barcelona. Supervisors: Majem Tarruella, Margarita; Vidal Alcorisa, Sílvia; Tibau Martorell, Ariadna. <https://hdl.handle.net/10803/694756>
- Cuyàs Espí, Berta. Les infeccions en la cirrosi hepàtica: impacte clínic de la pandèmia per COVID-19 en les infeccions i caracterització de la resposta immunitària in vitro davant d'Escherichia coli multiresistents. 17/11/2025. Universitat Autònoma de Barcelona. Supervisors: Soriano Pastor, German; Vidal Alcorisa, Sílvia. <https://hdl.handle.net/10803/695965>
- Martínez Molina, Cristina. Fármacos inhibidores de Janus quinasa en el tratamiento de la artritis reumatoide. 09/04/2025. Universitat Autònoma de Barcelona. Supervisors: Vidal Alcorisa, Sílvia; Corominas Macias, Hector; Pagonabarraga Mora, Javier. <https://hdl.handle.net/10803/694340>
- Sang Park, Hye. Impacte de la càrrega inflammatòria crònica en les afeccions cardíques de l'espondiloartritis. 07/07/2025. Universitat Autònoma de Barcelona. Supervisors: Corominas Macias, Hector; Laiz Alonso, Ana; Casademont Pou, Jordi. <https://hdl.handle.net/10803/695388>

5.1.5 Translational Medicine Area

SCIENTIFIC PRODUCTION - Articles & Reviews

- Aguado R, Irure J, Vargas ML, Roy G, Barrios Y, Martínez L, Rodríguez B, Montes MA, López M, Jurado A, GEAI S. Laboratory and Clinical Practices in the Study of Coeliac Disease in Children and Adults: Recommendations from a Spanish Multicentre Survey. *Nutrients*. 2025; 17(12):2032. DOI:10.3390/nu17122032. PMID:40573143. IF:5,000 (Q1/2D).
- Alvarado E, Brujats A, Puente A, Ardevol A, Rodríguez A, Fajardo J, Pavel O, Garcia M, Aracil C, Poca M, Cuyàs B, Cantó E, Montañés R, Garcia A, Escorsell A, Torras X, Villanueva C. Hemodynamic effects of carvedilol plus simvastatin in cirrhosis with severe portal hypertension and suboptimal response to β -blockers: A double-blind, placebo-controlled, randomised trial. *HEPATOLOGY*. 2025; 82(1). DOI:10.1097/HEP.0000000000001148. PMID:39509369. IF:15,800 (Q1/1D).
- Arguello M, Lynton E, Albiol N, López A, Sierra J, Moga E, Moreno C. Clinical and immunologic characteristics of nonhematologic autoimmune disorders in chronic lymphocytic leukaemia. *CANCER*. 2025; 131(24):e70216. DOI:10.1002/cncr.70216. PMID:41378669. IF:5,100 (Q1/3D).
- Arguello M, Mozas P, Albiol N, López M, Sierra J, Nomdedéu J, Martínez C, Moga E, Piñeyro JA, Delgado J, Osorio S, Moreno C. Risk scores predicting disease progression in early-stage CLL: Comparative analysis and usefulness of IGHV subset #2 to improve their accuracy. *CANCER*. 2025; 131(1):e35552. DOI:10.1002/cncr.35552. PMID:39264834. IF:5,100 (Q1/3D).
- Buddingh EP, Slatter M, Becerra JCA, Garcia LA, von E, Baris S, de la Calle O, Chan AY, Chan SB, Chandrakasan S, Chellapandian D, Dara J, Farmand S, Fasth A, Satter LF, Formankova R, Grunebaum E, Keogh SJ, Kiykim A, Kuhl J, Laberko A, Leahy TR, Lindemans C, Martínez C, Martínez L, Mitchell WG, Morris E, Oved JH, Polacik M, Riviere JG, Roifman CM, Kilic SS, Sedlacek P, Shah AJ, Vong L, Lankester AC, Albert MH, Neven B, Torgerson T, Leiding J, Schuetz C. Improved outcome of HSCT in STAT1 gain-of-function disease following JAK inhibition bridging. *Journal Of Human Immunity*. 2025; 1(3). DOI:10.70962/jhi.20250027. PMID: 41142635.
- Caballero M, Martín L, Pascual E, Michael MR, Koel M, Hoeftberger R, Wanschitz J, Alonso A, Armangue T, Baars AE, Carbayo A, Castek B, Collet R, De Winter J, del Real MA, Delmont E, Diamanti L, Doneddu PE, Hiew FL, Gallardo E, González A, Grinzinger S, Horga A, Iglseder S, Jacobs BC, Jauregui A, Killestein J, Pozza EL, Martínez L, Nobile E, Ortiz N, Pérez H, Poppert KN, Ripellino P, Roche JC, de Rivera FJR, Rostasy K, Sparasci D, Tejada C, Teunissen C, Vegezzi E, Xucla T, Zach F, Wieske L, Eftimov F, Lleixa C, Querol L. Long-Term Follow Up in Anti-Contactin-1 Autoimmune Nodopathy. *ANNALS OF NEUROLOGY*. 2025; 97(3). DOI:10.1002/ana.27142. PMID:39601182. IF:7,700 (Q1/1D).
- Cantó E, del Prado ME, Vilarrasa E, López A, de Aranibar FJGL, Ortiz MA, Gut M, Mulet M, Esteve A, Osuna R, Guinart A, Puig L, Vidal S. Transcriptomic Identification of Immune-Related Hubs as Candidate Predictor Biomarkers of Therapeutic Response in Psoriasis. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(17):8118. DOI:10.3390/ijms26178118. PMID:40943056. IF:4,900 (Q1/3D).
- Cuyàs B, Cantó E, Sánchez E, Miró E, Alvarado E, Román E, Poca M, Navarro F, Ferrero A, Escorsell MA, Vidal S, Soriano G. In Vitro Immune Response of Mononuclear Cells to Multidrug-Resistant *Escherichia coli*. *Microorganisms*. 2025; 13(5):1164. DOI:10.3390/microorganisms13051164. PMID:40431335. IF:4,200 (Q2/3D).
- Fortea JI, Alvarado E, Simbrunner B, Ezcurra I, Hernández V, Aracil C, Llop E, Puente A, Roig C, Reiberger T, García JC, Calleja JL, Ferrero A, Mandorfer M, Villanueva C, Crespo J. Carvedilol vs propranolol for the prevention of decompensation and mortality in patients with compensated and decompensated cirrhosis. *JOURNAL OF HEPATOLOGY*. 2025; 83(1). DOI:10.1016/j.jhep.2024.12.017. PMID:39701300. IF:33,000 (Q1/1D).
- Lessel I, Baresic A, Chinn IK, May J, Goenka A, Chandler KE, Posey JE, Afenjar A, AVerdúnk L, Bedeschi MF, Besnard T, Brager R, Brick L, Brugger M, Brunet T, Byrne S, de la Calle O, Capra V, Cardenas P, Chappé C, Chong HJ, Cogne B, Conboy E, Cope H, Courtin T, Deb W, Dilena R, Dubourg C, Elgizouli M, Fernandes E, Fitzgerald KK, Gangi S, George JK, Gucsavas M, Haack TB, Hadonou M, Hanker B, Hüning I,

5.1.5 Translational Medicine Area

- Iascone M, Isidor B, Järvelä I, Jin JJ, Jorge A, Josifova D, Kalinauskiene R, Kamsteeg EJ, Keren B, Kessler E, Kölbel H, Kozenko M, Kubisch C, Kuechler A, Leal SM, Leppälä J, Luu SM, Lyon GJ, Madan S, Mancardi M, Marchi E, Mehta L, Menendez B, Morel CF, Harasink SM, Nevay DL, Nigro V, Odent S, Oegema R, Pappas J, Pastore MT, Perilla Y, Platzer K, Powell N, Rabin R, Rekab A, Rezende RC, Robert L, Romano F, Scala M, Poths K, Schrauwen I, Sebastian J, Short J, Sidlow R, Sullivan J, Szakszon K, Tan QKG, Wagner M, Wieczorek D, Yuan B, Maeding N, Strunk D, Begtrup A, Banka S, Lupski JR, Tolosa E, Lessel D, Undiagnosed N. DNA-binding affinity and specificity determine the phenotypic diversity in BCL11B-related disorders. *AMERICAN JOURNAL OF HUMAN GENETICS*. 2025; 112(2). DOI:10.1016/j.ajhg.2024.12.012. PMID:39798569. IF:8,100 (Q1/1D).
- Magallares B, Cerdá D, Betancourt J, Fraga G, Park H, Codes H, Quesada E, López M, Torrent M, Marín A, Herrera S, Gich I, Boronat S, Casademont J, Corominas H, Malouf J. Risk factors associated with low bone mineral density and childhood osteoporosis in a population undergoing skeletal growth: a cross-sectional analytic study. *Frontiers in Endocrinology*. 2025; 16:1587985. DOI:10.3389/fendo.2025.1587985. PMID:40487764. IF:4,600 (Q1/3D).
 - Magallares B, Malouf J, Codes H, Park HS, Betancourt J, Fraga G, Quesada E, López M, Torrent M, Marín A, Herrera S, Gich I, Boronat S, Casademont J, Corominas H, Cerdá D. Pediatric densitometry: is the Z score adjustment necessary in all cases?. *Frontiers in Endocrinology*. 2025; 16:1587382. DOI:10.3389/fendo.2025.1587382. PMID:40270717. IF:4,600 (Q1/3D).
 - Martínez C, Vidal S, Diaz C, Park HS, Corominas H. Interindividual variability and its impact on the effectiveness of Janus kinase inhibitors in rheumatoid arthritis treatment. *Frontiers in Medicine*. 2025; 12:1512501. DOI:10.3389/fmed.2025.1512501. PMID:40224626. IF:3,000 (Q1/2D).
 - Ortiz MA, Anguera G, Cantó E, Alejandro J, Mora J, Osuna R, Mulet M, Mora P, Antonijuan A, Sánchez S, Ramírez O, Orantes V, Maroto P, Vidal S. Pilot Investigation on Markers of Bone Metabolism, Angiogenesis, and Neuroendocrine Activity as Potential Predictors of Survival of Metastatic Prostate Cancer Patients with Bone Metastases. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(10):4669. DOI:10.3390/ijms26104669. PMID:40429810. IF:4,900 (Q1/3D).
 - Osuna R, Castellví I, Mulet M, Tandaipan JL, Zamora C, Codes H, Ortiz MA, Diaz C, Cantó E, Magallares B, Guinart A, Moya P, Corominas H, Vidal S. Platelet-bound B cells and their role in SSC: Implications for disease subtypes and clinical outcomes. *Translational Research*. 2025; 282. DOI:10.1016/j.trsl.2025.07.001. PMID:40645372. IF:5,900 (Q1/1D).
 - Osuna R, López J, Mulet M, Nomdedéu J, Cantó E, Ortin R, Cayuela AS, Ortiz MA, Guinart A, Vidal S. Non-Competitive Binding of Isatuximab and Daratumumab to CD38: Implications for Targeted Therapy in Multiple Myeloma. *Pharmaceutics*. 2025; 17(10):1278. DOI:10.3390/pharmaceutics17101278. PMID:41155915. IF:5,500 (Q1/1D).
 - Osuna R, Zamora C, Novelli S, Garcia F, Rodríguez Y, Domingo A, Canet M, Olivera P, Mulet M, Cantó E, Valcarcel D, Sánchez B, Vidal S. Interplay of leucocyte-platelet complexes and clinical response to eltrombopag in immune thrombocytopenia patients. *BRITISH JOURNAL OF HAEMATOLOGY*. 2025; 206(4). DOI:10.1111/bjh.19779. PMID:39327831. IF:3,800 (Q1/3D).
 - Park HS, del Campo PD, Plana MN, La Borda JPY, Guerra M, Moreno M, Cañete JD. Efficacy of withdrawal or tapering of bDMARDs vs standard regimen in axial spondyloarthritis patients: systematic review and meta-analysis informing the update of the Spanish Society of Rheumatology Guideline. *Frontiers in Medicine*. 2025; 12:1621313. DOI:10.3389/fmed.2025.1621313. PMID:41001393. IF:3,000 (Q1/2D).
 - Puente A, Turón F, Martínez J, Fortea JI, Guerra MH, Alvarado E, Pons M, Magaz M, Llop E, Álvarez C, Navarrete AA, Berenguer M, Masnou H, Bañares R, Casado M, Ampuero J, Rios J, Saavedra C, Blasi A, Lisman T, Figuero CR, Huelin P, Tellez L, Arráez DM, Rodríguez M, Aguilera V, Loste M, Baiges A, Hernández V, Perelló C, Calleja JL, Genescà J, Villanueva C, González C, Albillos A, Crespo J, Garcia JC. Rivaroxaban to prevent complications of portal hypertension in

5.1.5 Translational Medicine Area

- cirrhosis: The CIRROXABAN study. JOURNAL OF HEPATOLOGY. 2025; 83(5). DOI:10.1016/j.jhep.2025.06.035. PMID:40691992. IF:33,000 (Q1/1D).
- Rudler M, Gea VH, Larrue H, Bouzbib C, Procopet B, Baiges A, Turon F, Villanueva C, Albillos A, Tapias EA, Gluud LL, Praktiknjo M, Genesca J, Ventura M, Villagrasa A, Rodrigues S, Mouri S, Giráldez A, Ridaura HM, Laleman W, Bureau C, Robic MA, Hartl L, Tellez L, Zipprich A, Canete N, Sultanik P, Deckmyn O, Mandorfer M, Senzolo M, Schepis F, Tripathi D, Pagan JCG, Thabut D, Baveno C. Pre-emptive TIPS should be considered in high-risk patients with both acute variceal bleeding and severe alcohol-related hepatitis. Jhep Reports. 2025; 7(12):101611. DOI:10.1016/j.jhepr.2025.101611. PMID:41362711. IF:7,500 (Q1/2D).
 - Sánchez R, Villanueva C, Genescà J, García JC, Castillo E, Calleja JL, Aracil C, Bañares R, Téllez L, Paule L, Morillas RM, Poca M, Peñas B, Augustin S, Abrales JG, Alvarado E, Bosch J, Albillos A. Progressive systemic inflammation precedes decompensation in compensated cirrhosis. Jhep Reports. 2025; 7(2):101231. DOI:10.1016/j.jhepr.2024.101231. PMID:39850960. IF:7,500 (Q1/2D).
 - Santos CS, Tandaipan JL, Castillo D, Codes H, Martínez L, Magallares B, Moya P, Mariscal A, Park HS, Díaz C, Fernández SP, Bernardez J, Corominas H, Álvarez ED, Castellví I. Nailfold videocapillaroscopy findings correlate with lung outcomes in idiopathic inflammatory myopathies-related interstitial lung disease. RHEUMATOLOGY. 2025; 64(SI). DOI:10.1093/rheumatology/keae669. PMID:39658251. IF:4,400 (Q1/1D).
 - Vega S, Román E, Soler Z, Ortiz MA, Rossi G, Biagini L, Sánchez E, Pons M, Laghi L, Mengucci C, Kaur N, Poca M, Cuyàs B, Serrano G, Alvarado E, Manichanh C, Soriano G. A Metagenomics Approach to Frailty in Patients With Cirrhosis Undergoing a Multifactorial Intervention. LIVER INTERNATIONAL. 2025; 45(12):e70418. DOI:10.1111/liv. 70418. PMID:41174950. IF:5,200 (Q1/2D).
 - Zamora C, Diaz C, Ortiz MA, Moya P, Park HS, Pitarch C, Cantó E, Osuna R, Mulet M, Garcia M, Collado D, Corominas H, Vidal S. Platelet-Derived Soluble CD40L and Its Impact on Immune Modulation and Anti-IL6R Antibody Treatment Outcome in Rheumatoid Arthritis. Cells. 2025; 14(9):625. DOI:10.3390/cells14090625. PMID:40358149. IF:5,200 (Q2/3D).

SCIENTIFIC PRODUCTION - Clinical Practice Guidelines

- Park HS, del Campo PD, Plana MN, La Borda JPY, Guerra M, Moreno M, Cañete JD. Efficacy of withdrawal or tapering of bDMARDs vs. standard regimen in axial spondyloarthritis patients: systematic review and meta-analysis informing the update of the Spanish Society of Rheumatology Guideline. Frontiers in Medicine. 2025; 12:1621313. DOI:10.3389/fmed.2025.1621313. PMID:41001393. IF:3,000 (Q1/2D).

5.1.5 Translational Medicine Area

Endocrinology, Diabetes, and Nutrition

Group leader

Mauricio Puente, Didac (FGS)

Researchers

Abraldes Zayas, Natalia (FGS)
 Aguilar Gálvez, Xavier (FGS)
 Antentas Peraile, María (IR)
 Castells Santamaria, Alba Aina (CIBER)
 Chico Ballesteros, Ana Isabel (FGS)
 Corcoy Pla, Rosa (FGS)
 Cubero Marcos, José María (FGS)
 Doria Cervos, Montserrat (FGS)
 Fernández Camins, Berta (IR)
 Franch Nadal, Josép (IDIAP Jordi Gol)
 Genua Trullós, Idoia (FGS)
 Julve Gil, Josép (IR)
 López Argudo, Alicia (FGS)
 Mangas Fernández, Natalia (FGS)
 Mato Matute, Eugenia (CIBER)
 Mendoza Mathison, Lilian Cristina (FGS)
 Mesa Pineda, Alex (FGS)
 Miñambres Donaire, Inka (FGS)
 Miranda Olivos, Romina Andrea (IR)
 Montori Grau, Marta (CIBER)
 Niño-Narvion García, Julia (UMU)
 Páez Espinosa, Enma Verónica (PUCE)
 Pérez Pérez, Antonio (FGS)
 Puig Piña, Rocío (FGS)
 Rojo López, Marina Idalia (IR)
 Rossell Rusiñol, Joana (CIBER)
 Sarda Simo, Helena (FGS)
 Sosa Guzmán, Delia María (PUCE)
 Tundidor Rengel, Diana
 (Hospital Dos de Maig)
 Vlachos, Bogdan (CIBER)

Research technicians

Acosta Isaac, Francisco René (IR)
 Boluda Sanson, Alejandro (IR)
 Cuixart Carruesco, Gemma (IR)
 García Patterson, Apolonia Gabriela (IR)
 Malcampo Manrubia, Mireia (IR)
 Martínez Mores, Santiago (IR)
 Pujol Jiménez, Isabel María (IR)
 Safont Pérez, Eva (IR)



DESCRIPTION

Our group, led by Dídac Mauricio, is a multidisciplinary team consisting of endocrinologists, pharmacologists, biologists, and nutritionists. The group has different research lines in the area of diabetes and its associated metabolic diseases and complications, encompassing epidemiological, clinical and translational research. We also address specific aspects of nutrition. This is a highly active, productive, and competitive group, both at national and international levels, a member of the XARTEC Salut network and AGAUR, and with 2 research groups belonging to the Centro de investigación biomédica en red (CIBER, ISCIII).

MAIN LINES OF RESEARCH

- Complications of diabetes, atherosclerosis, and cardiovascular disease. This line encompasses clinical and translational studies on the pathogenesis, biomarkers, and early detection and treatment of these complications, which account for most of the burden in terms of morbidity and mortality in diabetes. Several precision medicine projects in diabetes are currently underway. (Mauricio Puente, Didac).
- Epidemiology of diabetes, primary care research, and research with large databases. This line focuses on the epidemiological research of diabetes using various sources of real-world data, including large databases, especially the SIDIAP database (real-world evidence), in collaboration with J. Franch (IDIAP Jordi Gol research institute). (Mauricio Puente, Didac).
- Endocrinological diseases and pregnancy. Senior researcher in diabetes in pregnancy and technologies in the management of diabetes, such as insulin pumps and glucose sensors. This researcher's team has participated in landmark studies on gestational diabetes, including the CONCEPTT trial. (Corcoy Pla, Rosa).

5.1.5 Translational Medicine Area

- Thyroid nodular disease and cancer. Tumoral thyroid disease poses a diagnostic and therapeutic challenge. This researcher is currently focusing on the contribution of lipid metabolism in nodular thyroid malignancies. (Mato Matute, Eugenia).
- Diabetes and cardiovascular risk factors. This line studies the contribution of lipoprotein metabolism disorders to cardiovascular disease in patients with diabetes, dyslipidemia, and obesity. (Pérez Pérez, Antonio).
- Cellular injury in diabetes and associated metabolic diseases. The general objective is to identify new biomarker candidates related to tissue damage in obesity/diabetes and explore their potential use for the diagnosis/prognosis of mainly hepatic and myocardial complications, and the evaluation of new therapeutic strategies in this area in experimental models and in patients. (Julve Gil, Josép).

SCIENTIFIC CHALLENGES

- Endocrine neoplasms
- Molecular markers of the epithelial lineage: expression of the ABCG2 gene/BCRP1 transporter.
- Transcriptomics and proteomics as prediction and prognosis instruments for epithelial thyroid cancer.
- Intramural CELL-NANO-THYROID project: investigation of human mesenchymal cell capacity as an instrument for administering anti-tumour cell drugs in the form of conjugated nanoparticles.
- Role of cholesterol & cholesterol metabolites in thyroid neoplasms differentiation.
- Assessment of glycated immunoglobulins as serologic markers of thyroid carcinoma.
- Autoimmune Diabetes Mellitus
- Classic type 1 autoimmune diabetes mellitus: different aspects of the disease and its management.
- LADA type diabetes: prevalence of metabolic syndrome among patients with LADA compared to prevalence among patients with classic type 1 diabetes, type 2 diabetes, and the general non-diabetic population in European countries
- Diabetes and pregnancy
- Clinical research aimed at optimising care for women with pre-gestational and gestational diabetes at preconception, pregnancy, birth, and postpartum stages. Specifically, addressing the relevance of adequacy of pregnancy weight gain, maternal predictive characteristics, and association with pregnancy outcomes.
- Technology, Telemedicine, and Intelligent Systems for Therapeutic Optimisation of Diabetes Mellitus
- Technology in the treatment of diabetes with a special focus on insulin (new insulins, pumps), and glucose measurement, including sensors.
- Development of a technological platform for the prediction, prevention, and treatment of obesity, DM, HTA, dyslipidemia, and cardiometabolic risk.
- Optimisation of the Treatment of Obesity, Hyperlipidemia, Metabolic Syndrome, and Complications
- Mechanisms linking diabetes, obesity, and dyslipidemia with cardiovascular disease
- Optimal treatment and prevention of cardiovascular risk associated with obesity, hyperlipidemia, metabolic syndrome, and diabetes.
- Diabetic complications: atherosclerosis and microvascular disease
- Clinical and translational studies that explore research in the pathogenesis, biomarkers, and early detection and treatment of microvascular and chronic complications, especially atherosclerosis.
- We are currently focusing on different clinical and pathogenetic aspects of MASLD (metabolic-associated dysfunction steatotic liver disease) in diabetes.
- Erectile dysfunction (ED) in patients with type 2 diabetes: currently, a qualitative study on health care professionals, and an epidemiological study on ED using the SIDIAP database.

5.1.5 Translational Medicine Area

- Precision medicine in diabetes
- Genotyping and deep phenotyping of people with diabetes
- Use of artificial intelligence in the characterisation of diabetes
- Diabetic epidemiology: primary care research, with large databases.
- Research on diabetes mellitus in Primary Health Care of Catalonia. In recent years, the group has developed projects using the SIDIAP database in different aspects of real-world evidence
- Use of AI as an approach to characterise diabetes mellitus using real-world practice databases.
- Clinical trials in the area of Endocrinology, Diabetes, and Nutrition Research Group.
- There are currently 13 ongoing clinical trials in our group.
- Nicotinamide supplementation
- Research on the role of nicotinamide (NAM) supplementation in several tissues of experimental models (brain, intestinal epithelial, cardiac).
- In an interventional study, analyse the effects of NAM on the intestinal microbiome and its relationship with diabetes.
- Identification of new NAM-sensitive biomarkers to fight diabetes.

ACTIVE & AWARDED GRANTS

- Antentas Peraile, María. Ajuts per a la contractació de personal investigador predoctoral en formació dins dels àmbits de les tecnologies STEP (FI-STEP) 2025. 2025 STEP 00312. Agència de Gestió d'Ajuts Universitaris i de Recerca. (AGAUR). Duration: 2025-2028. 88.762,64 €
- Corcoy Pla, Rosa. Medical comorbidities in bipolar disorder: clinical validation of risk factors and biomarkers to improve prevention and treatment (BIPCOM). EraPerMed Corcoy. SLD100/22/000002. Unión Europea (GenCat FUNDING - Acciones complementarias). Duration: 2023-2026. 199.977,00 €
- Corcoy Pla, Rosa. Caracterització de subgrups de persones amb diabetis tipus 1: Anàlisi de característiques clíniques i glucomètriques utilitzant un enfocament d'intel·ligència artificial. ACD 2024. Associació Catalana de Diabetis. Duration: 2025-2027. 10.000,00 €
- Corcoy Pla, Rosa. Centro de Investigación Biomédica en Red en Bioingeniería, Biomateriales y Nanomedicina. CIBERBBN. CB06/01/0009. Instituto de Salud Carlos III (ISCIII).
- Corcoy Pla, Rosa. Grup de recerca en endocrinologia, diabetis i metabolisme. 2021 SGR 01211. Agència de Gestió d'Ajust Universitaris i de Recerca (AGAUR). 2022-2024.
- Genua Trullos, Idoia. Ús terapèutic de nicotinamida per al maneig d'esteatohepatitis metabòlica. ACD 2023. Associació Catalana de Diabetis. Duration: 2024-2026. 10.000,00 €
- Julve Gil, Josép. Potencial terapéutico de la suplementación con nicotinamida en la adiposidad, la señalización de la insulina y la enfermedad del hígado graso no alcohólico. PI21/00770. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 122.210,00 €
- Julve Gil, Josép. Contribución de moléculas derivadas del metabolismo de la nicotinamida a la enfermedad MASLD y el papel de la inflamación y la disbiosis intestinal: una aproximación clínica y traslacional. PI24/00156. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 240.000,00 €
- Julve Gil, Josép. Efecto de la nicotinamida sobre la fibrosis hepática y su relación con la microbiota intestinal. CNS2022-135559. Ministerio de Ciencia, Innovación y Universidades. (MICIU). 2023-2025. 180.290,00 €
- Mangas Fernández, Natalia. Formació a les infermeres de sala d'hospitalització per a l'Educació Terapèutica en Diabetis al pacient hospitalitzat. Percepció del coneixement inicial i satisfacció per part de l'equip d'infermeria. ACD 20242. Associació Catalana de Diabetis. Duration: 2025-2027. 6.000,00 €

5.1.5 Translational Medicine Area

- Mauricio Puente, Didac. Caracterización de subgrupos de diabetes tipo 2 al diagnóstico: un paso necesario hacia la medicina de precisión en diabetes. PI21/01163. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2025. 159.720,00 €
- Mauricio Puente, Didac. ImpactT2D: una estrategia genómica para implementar la medicina de precisión en la diabetes tipo 2. PMP21/00100. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 207.900,00 €
- Mauricio Puente, Didac. Endocrinología, Diabetes i Nutrició. SLT028/23/000205. Departament de Salut. Duration: 2023-2025. 81.000,00 €
- Mauricio Puente, Didac. Centro de Investigación Biomédica en Red de Diabetes y Enfermedades Metabólicas Asociadas (CIBERDEM). CB15/08/00071_2. Instituto de Salud Carlos III (ISCIII).
- Rosell Mases, Estela. Ayudas para contratos Juan de la Cierva 2024. JDC2024-053858-I. Ministerio de Ciencia, Innovación y Universidades (MICIU). Duration: 2026-2027. 76.600,00 €
- Safont Pérez, Eva. Caracterización de subgrupos de personas con diabetes tipo 1: análisis de características clínicas y glucométricas mediante una aproximación de inteligencia artificial. FSED 2024. Fundación Sociedad Española de Diabetes. Duration: 2025-2026. 20.000,00 €
- Sarda Simo, Helena. Impacto de las lipoproteínas remanentes y HDL en el riesgo cardiovascular: evaluación de biomarcadores predictivos en el estudio prospectivo Di@bet.es y un estudio longitudinal en sujetos con diabetes tipo 2. SED 2023. Sociedad Española de Diabetes. Duration: 2024-2025. 20.000,00 €

SCIENTIFIC PRODUCTION - Clinical Practice Guidelines

- Chico A, Pazos M, Nattero L, Simó O, Durán M, Ugarte E, Aguilera E, Andía V, Moreno J, Granados M, Rebollo A, Fernández E, Quirós C, Alpañés M, Márquez R, Beato P, Lado O, Picón M, Spanish S, Diabet Technology Working GRP. Beyond glycemic metrics: Real-world benefits of connected insulin pens in type 1 diabetes. DIABETES RESEARCH AND CLINICAL PRACTICE. 2025;226:112377. DOI:10.1016/j.diabetes.2025.112377. PMID:40695413. IF:7,400 (Q1/1D).
- Escalada San Martín FJ, Bretón Lesmes I, Gómez Peralta F, Merino Torres JF, Pomares Gómez F, Chico Ballesteros A, González-Clemente JM, González Pérez de Villar N, Morales Portillo C, Pinés Corrales PJ, Ricart Engel W, Benedito Pérez de Inestrosa MT, Miranda Fernández-Santos C, Arranz E, Fontán Vinagre G, Perán JF, Sedisa, Martínez Brocca MA. Executive summary of the document 'Diabetes Day Hospital. Value proposition. Endocrinol Diabetes Nutr (Engl Ed). 2025Oct;72(8):501601. doi: 10.1016/j.endien.2025.501601. Epub 2025 Sep 12. PMID: 40946027.
- Karagiannis T, Advani A, Davies MJ, Del Prato S, Dinneen SF, Kuss O, Lorenzoni V, Mathieu C, Mauricio D, Tankova T, Zaccardi F, Holt RIG, Tsapas A; EASD Guidelines Oversight Committee. European Association for the Study of Diabetes (EASD) Standard Operating Procedure for the development of guidelines. Diabetologia. 2025 Aug;68(8):1600-1615. doi: 10.1007/s00125-025-06370-1. Epub 2025 May 26. PMID: 40447848; PMCID: PMC12245959.
- Lecube A, Lecube A, Azriel S, Barreiro E, Blay G, Carretero-Gómez J, Ciudin A, Fernández JM, Flores L, de Hollanda A, Martínez E, Miñambres I, Moizé V, Morales C, Ramírez V, Salvador J, Soler MJ, Supervía M, Valentí V, Vicente-Rodríguez G, Vilarrasa N, Malagón MM. The Spanish GIRO Guideline: A Paradigm Shift in the Management of Obesity in Adults. Obes Facts. 2025;18(4):375-387. doi: 10.1159/000544880. Epub 2025 Mar 29. PMID: 40159422; PMCID: PMC12055014.
- Lei S, Zhang XY, Song LG, Wen JH, Zhang Z, Tian JQ, Yang R, Xu SH, Qiu SH, Macisaac RJ, Aleksova J, Mac F, Dupuis ME, Benaiges D, Mauricio D, Sommer AP, Barzilay JI, Gallagher JC, Pan LL, Ji LL, Fang P, Li Y, Liu Q, Zhao JS, Xue Y, Shen YQ, Wang LM, Han JF, Liu GH. Expert consensus on vitamin D in osteoporosis. Annals Of Joint. 2025; 10:1. DOI:10.21037/aoj-24-48. PMID:39981430.

5.1.5 Translational Medicine Area

- Martín F, Lesmes IB, Peralta FG, Torres JFM, Gómez FP, Ballesteros AC, González JM, de VillarNGP, Portillo CM, Corrales PJP, Engel WR, de Inestrosa MTBP, Fernández CM, Arranz E, VinagreGF, Perán JF, S, Brocca M. Executive summary of the document 'Diabetes Day Hospital. Value proposition. Endocrinología, Diabetes y Nutrición. 2025; 72(8):501601.DOI:10.1016/j.endien.2025.501601. PMID:40946027. IF:1,800 (Q3/8D).
- Martínez-Brocca MA, Bellido V, Cardona-Hernández R, Castaño L, Conget I, Fernández A, Gómez-Gila AL, Leiva-Gea I, Mauricio D. Executive summary. Screening, staging and follow-up of type 1 diabetes in preclinical stages: consensus of the scientific societies SED, SEEN and SEEP. AnPediatr. (Engl Ed). 2025 Nov;103(5):503944. doi: 10.1016/j.anpede.2025.503944. PMID:41266045.
- Pedro J, Arrieta F, Botana M, Gimeno JA, Martínez JI, de Victoria E, Ribalta J, Sánchez V, Pérez A, Trabajo Enfermedad Cardiovasc Soc Española Diabet GRP. Lipid-lowering drug therapy for reducing cardiovascular risk in diabetes. A clinical view of the Cardiovascular Disease Working Group of the Spanish Diabetes Society. Endocrinología, Diabetes y Nutrición. 2025; 72(2):101523.DOI:10.1016/j.endien.2025.101523. PMID:39924389. IF:1,800 (Q3/8D).
- Romero M, Escalada J, Noguerol M, Pérez A, Carretero J, Crespo J, Mascort JJ, Aguilar I, Tinahones F, Canones P, Gómez R, de Luis D, Trullós IG, Aller R, Rubio MA. Multidisciplinary clinical practice guideline for the management of hepatic metabolic steatosis. Gastroenterología y Hepatología. 2025; 48(8):502442. DOI:10.1016/j.gastrohep.2025.502442. PMID:40221023. IF:1,900 (Q3/7D).
- Wyckoff JA, Lapolla A, Asias-Dinh BD, Barbour LA, Brown FM, Catalano PM, Corcoy R, Di Renzo GC, Drobycki N, Kautzky-Willer A, Murad MH, Stephenson-Grey M, Tabák AG, Weatherup E, Zera C, Singh-Ospina N. Preexisting Diabetes and Pregnancy: An Endocrine Society and European Society of Endocrinology Joint Clinical Practice Guideline. Eur J Endocrinol. 2025 Jun30;193(1):G1-G48. doi: 10.1093/ajph/116. PMID: 40652450.
- Wyckoff JA, Lapolla A, Asias-Dinh BD, Barbour LA, Brown FM, Catalano PM, Corcoy R, Di Renzo GC, Drobycki N, Kautzky-Willer A, Murad MH, Stephenson-Grey M, Tabák AG, Weatherup E, Zera C, Singh-Ospina N. Preexisting Diabetes and Pregnancy: An Endocrine Society and European Society of Endocrinology Joint Clinical Practice Guideline. J Clin Endocrinol Metab. 2025 Aug7;110(9):2405-2452. doi: 10.1210/clinem/dgaf288. Erratum in: J Clin Endocrinol Metab. 2025 Oct16;110(11):e3932. doi: 10.1210/clinem/dgaf494. PMID: 40652453; PMCID: PMC12342393.

SCIENTIFIC PRODUCTION - Articles & Reviews

- Alarcón PP, Álvarez ED, Goitia CL, Rodríguez MM, Urbon L, Maldonado A, García S, Serrallonga NB, Aviño LR, Palomar JMR, López JG, Hoyas C, Corcoy R, Raimond TM, López ML, Madorell BS, Hernández M, Kyriakos G, Bellas LC, Borrás JG, Servant OS, Colet AM, Serrano C, Contreras C, Román AR, Díez M, Veladesojo A, Andujar P, Díez A, Galiana PA, Peris BP, Fernández E, Ferrer M, Alfonso FJG, Torre E. Does Combining a Mobile Dose Calculation App with a Continuous Insulin Infusion System Improve Glycemic Control and Quality of Life Compared with a Hybrid System in Patients with Type 1 Diabetes? A Descriptive Open-Label Sequential Study. Diabetes Technology & Therapeutics. 2025; 27(10). DOI:10.1177/15209156251363452. PMID:40729095. IF:6,300 (Q1/2D).
- Almendra R, Barros AJ, Pérez E, Julve J, Martínez J, Rodríguez C, Galán M. Identification of new therapeutic targets related to endoplasmic reticulum stress and mitochondrial dysfunction to reduce the risk of rupture in degenerative ascending aortic aneurysm. Clínica E Investigación En Arteriosclerosis. 2025; 37(4):100740. DOI:10.1016/j.arteri.2024.09.002. PMID:39424523.

5.1.5 Translational Medicine Area

- Amigó N, Castelblanco E, Julve J, Martínez N, Alonso N, Hernández M, Ribalta J, Guardiola M, Torán P, López V, Herrero C, Arteaga I, Ortega E, Franch J, Mauricio D. Advanced serum lipoprotein and glycoprotein profiling for cardiovascular event prediction in type 2 diabetes mellitus: the LIPOCAT study. *Cardiovascular Diabetology*. 2025; 24(1):88. DOI:10.1186/s12933-025-02636-5. PMID:39985069. IF:10,600 (Q1/1D).
- Antonio V, Camins BF, Vlachó B, Barrot J, Pérez JN, Torre EM, Mauricio D, Franch J, Researchers S. Clinical characteristics and management of type 2 diabetes in primary care in Spain. SED2 Study. *Endocrinología, Diabetes y Nutrición*. 2025; 72(4):501543. DOI:10.1016/j.endien.2025.501543. PMID:40180835. IF:1,800 (Q3/8D).
- Artime E, Hillman N, Tinahones FJ, Pérez A, Gimenez M, Duque N, Rubio M, Diaz S, Redondo J, Spaepen E, Pérez F, Conget I. Glucometrics and Patient-Reported Outcomes in Individuals With Type 1 Diabetes Mellitus: Insights From the Correlation of Time in Range (CorrelatIR) Study in Real-World Settings. *Cureus*. 2025; 17(2). DOI:10.7759/cureus.79134.
- Barranco M, Granado M, Yanes O, Capellades J, Junza A, Franch J, Vendrell J, Llauro G, Valdés S, García E, Bermúdez M, Valdivielso JM, López VM, Herrero C, Falguera M, Vilanova MB, Arteaga I, Torán P, Perera A, Castelblanco E, Mauricio D. Guanine and pregnenolone sulfate are associated with incident type 2 diabetes in two independent populations. *Frontiers in Endocrinology*. 2025; 16:1706886. DOI:10.3389/fendo.2025.1706886. PMID:41416067. IF:4,600 (Q1/3D).
- Barranco M, Rossell J, Alonso N, Weber RJM, Ortega E, Lloyd GR, Hernández M, Yanes O, Capellades J, Winder C, Junza A, Falguera M, Franch J, Dunn WB, Perera A, Castelblanco E, Mauricio D. Lipidomic analysis reveals metabolism alteration associated with subclinical carotid atherosclerosis in type 2 diabetes. *Cardiovascular Diabetology*. 2025; 24(1):152. DOI:10.1186/s12933-025-02701-z. PMID:40176064. IF:10,600 (Q1/1D).
- Barrot J, Caylà JA, Mata M, Real J, Vlachó B, Franch J, Mauricio D, COVID Working Primary Care 19GRPHLTH. Machine learning models for predicting COVID-19 prognosis in the primary health care setting. *BMC Primary Care*. 2025; 26(1):310. DOI:10.1186/s12875-025-02960-5. PMID:41087937. IF:2,600 (Q1/1D).
- Barrot J, Arpi CL, Granes MR, Planes ME, Fernández B, Vlachó B, Franch J. Chronic kidney disease screening in primary care: a descriptive analysis of the Girona Sud health region. *BMC Primary Care*. 2025; 26(1):409. DOI:10.1186/s12875-025-03117-0. PMID:41276836. IF:2,600 (Q1/1D).
- Beato PI, Chico A, Moreno J, Azriel S, Nattero L, Mora RV, Alonso N, Simó O, Aguilera E, Céspedes LMR, de Adana MR, Domínguez M, Márquez R, Díaz G, Martínez MA, Fernández KA, Buesa MA, Hernández MC, Quirós C. Transitioning between automated insulin delivery systems: A focus on personalisation. *DIABETES RESEARCH AND CLINICAL PRACTICE*. 2025; 222:112070. DOI:10.1016/j.diabres.2025.112070. PMID:40020785. IF:7,400 (Q1/1D).
- Blanco AJ, Merino JF, Almanza MR, Molina GC, Brito MA, Galindo D, Olmedo L, Mauricio D, Povedano ST, Barro J, Sánchez J, Mutiozabal MS, Pimentel B, Domínguez AP, Arias C, Fanjul V, de Isla LP, González JFN. Characterising the clinical profile and prevalence of people with diabetes attending the hospital setting by using unstructured healthcare data and natural language processing: the Diabetic@ study. *DIABETES RESEARCH AND CLINICAL PRACTICE*. 2025; 226:112214. DOI:10.1016/j.diabres.2025.112214. PMID:40319920. IF:7,400 (Q1/1D).
- Cai ZC, Najib S, Núñez MA, Martínez MA, García C, Viguerie N, Rossell J, Julve J, Croyal M, Oliveira AR, Martínez CM, Dumas SJ, Genoux A, Frutos MD, Ramos B, Martínez LO. ApoJ and apoL1 as novel determinants of MASH: a cross-sectional study. *Lipids in Health and Disease*. 2025; 24(1):319. DOI:10.1186/s12944-025-02733-0. PMID:41088161. IF:4,200 (Q1/3D).
- Carreras G, Mendoza LC, Colom C, Tirado M, Sardà H, Sánchez JL, Pérez A. Thyroid autoimmunity at onset of type 1 diabetes as a predictor of thyroid dysfunction: a thirty-year retrospective longitudinal study. *Frontiers in Endocrinology*. 2025; 16:1699111. DOI:10.3389/

5.1.5 Translational Medicine Area

- fendo.2025.1699111. PMID:41255538. IF:4,600 (Q1/3D).
- Castelblanco E, Salvador I, Carbonell M, Gratacòs M, Traveset A, Correig E, Hernández M, Alonso N, Franch J, Mauricio D. Choroidal thickness as predictor of subclinical carotid atherosclerosis in adults with type 1 diabetes. *Scientific Reports*. 2025; 15(1):8360. DOI:10.1038/s41598-025-93534-z. PMID:40069268. IF:3,900 (Q1/2D).
 - Chico A, Pazos M, Nattero L, Simó O, Durán M, Ugarte E, Aguilera E, Andía V, Moreno J, Granados M, Rebollo A, Fernández E, Quirós C, Alpañés M, Márquez R, Beato P, Lado O, Picón M, Spanish S, Diabet Technology Working GRP. Beyond glycemic metrics: Real-world benefits of connected insulin pens in type 1 diabetes. *DIABETES RESEARCH AND CLINICAL PRACTICE*. 2025; 226:112377. DOI:10.1016/j.diabres.2025.112377. PMID:40695413. IF:7,400 (Q1/1D).
 - Claro M, Viñals C, Giménez M, Perea V, Granados M, Serés T, Blanco J, Vinagre I, Mesa A, Milad C, Ayala D, Solà C, Esmatjes E, Conget I, Amor AJ. Hepatic steatosis with significant fibrosis is associated with preclinical carotid atherosclerosis in patients with type 1 diabetes. *DIABETES RESEARCH AND CLINICAL PRACTICE*. 2025; 226:112334. DOI:10.1016/j.diabres.2025.112334. PMID:40543571. IF:7,400 (Q1/1D).
 - Collantoni E, Miranda R, Ugur S, Baenas I, Tovar S, Dieguez C, Vilarrasa N, López R, Guerrero F, Jiménez S, Soriano C, Fernández F. Deciphering the association between morphological differences in hypothalamic subregions and circulating ghrelin and leptin concentrations: exploratory evidence in anorexia nervosa and obesity. *Translational Psychiatry*. 2025; 15(1):483. DOI:10.1038/s41398-025-03708-6. PMID:41253760. IF:6,200 (Q1/1D).
 - Cuixart G, Corcoy R, González C. Can a mobile application improve glucose-related and patient-reported outcome measures (PROMs) in people with type 1 diabetes mellitus? A randomised controlled trial using the mySugr® app. *Hormones-International Journal of Endocrinology and Metabolism*. 2025; 24(1). DOI:10.1007/s42000-024-00609-z. PMID:39412732. IF:2,500 (Q3/7D).
 - Garcia A, Balsells M, Solà I, Corcoy R. Detection and treatment of early gestational diabetes mellitus: a systematic review and meta-analysis of randomised controlled trials. *AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY*. 2025; 233(5). DOI:10.1016/j.ajog.2025.04.059. PMID:40320104. IF:8,400 (Q1/1D).
 - Gil P, Gimeno JA, Rodríguez L, Muniz J, Barrios V, Anguita M, Pérez A. HFpEF as the predominant and underrecognized heart failure phenotype in type 2 diabetes: evidence from the DIABET-IC study. *Cardiovascular Diabetology*. 2025; 24(1):419. DOI:10.1186/s12933-025-02995-z. PMID:41185008. IF:10,600 (Q1/1D).
 - Gil P, Rives J, Sánchez JL, Pérez A. Epicardial Fat and Heart Failure in Type 2 Diabetes: Metabolism, Imaging and Novel Biomarkers-A Translational Perspective. *Journal of Clinical Medicine*. 2025; 14(23):8413. DOI:10.3390/jcm14238413. PMID:41375727. IF:2,900 (Q1/2D).
 - Gil P, Rives J, Viladés D, García A, Genua I, Miñambres I, Grau M, Gich I, Camacho M, Benítez S, Julve J, Sánchez JL, Pérez A. Association of Epicardial Adipose Tissue with Novel Inflammation and Heart Failure Biomarkers in Type 2 Diabetes Patients: Effect of Metabolic Control. *Journal of Clinical Medicine*. 2025; 14(13):4687. DOI:10.3390/jcm14134687. PMID:40649060. IF:2,900 (Q1/2D).
 - Giorgino F, Alzaid F, Stoian AP, Chan JCN, Ji LN, Lumu W, Manrique H, Mauricio D, Saboo B, Senior PA, Yabe D, Zoungas S, Meireles M, Mathieu C, Czupryniak L. Global challenges in diabetes research and care: which way forward? An appraisal from the EASD Global Council. *DIABETOLOGIA*. 2025; 68(11). DOI:10.1007/s00125-025-06504-5. PMID:40928674. IF:10,200 (Q1/1D).
 - Gourdy P, Bonadonna RC, Mauricio D, Müller D, Mauquoi C, Vera C, Bonnemaire M, Freemantle N. Effectiveness and safety of insulin glargine 300 U/mL in insulin-naïve individuals according to diabetes duration: Results from the REALI European pooled data analysis. *DIABETES OBESITY & METABOLISM*. 2025; 27(1). DOI:10.1111/dom. 16008. PMID:39420531. IF:5,700 (Q1/2D).

5.1.5 Translational Medicine Area

- Julve J, Rodríguez R, Perret B, Martínez LO, Mauricio D. Targeting Atherosclerosis: Cholesterol-Lowering Therapies with a New Immunometabolic Dress for an Old Disease. *Journal of Clinical Medicine*. 2025; 14(24):8777. DOI:10.3390/jcm14248777. PMID:41464678. IF:2,900 (Q1/2D).
- Karagiannis T, Advani A, Davies MJ, Del Prato S, Dinneen SF, Kuss O, Lorenzoni V, Mathieu C, Mauricio D, Tankova T, Zaccardi F, Holt R, Tsapas A, EASD Guidelines Oversight C. European Association for the Study of Diabetes (EASD) Standard Operating Procedure for the development of guidelines. *DIABETOLOGIA*. 2025; 68(8). DOI:10.1007/s00125-025-06370-1. PMID:40447848. IF:10,200 (Q1/1D).
- Khan A, Syleouni ME, Brusaferrri G, Nyffeler M, Chico A, Moreno J, Beato PI. Clinical and Economic Impact of Hybrid Closed-Loop Systems for T1 Diabetes Management in Spain. *Endocrine Practice*. 2025; 31(12). DOI:10.1016/j.eprac.2025.08.002. PMID:40774615. IF:4,600 (Q1/3D).
- Lazarus JV, Agirre L, Miralles JE, Manolas MI, Tacke F, Villela CA, Al HA, Alqahtani SA, Alzubaidi LMY, Bansal M, Cusi K, Isaacs SD, Mauricio D, Miyake T, Moreira RO, Nakazawa S, Pannain S, Pericàs JM, Roden M, Takahashi H, Brachowicz N. Cost of Metabolic Dysfunction-Associated Steatotic Liver Disease Screening Among All People Living With Diabetes in Six Countries. *LIVER INTERNATIONAL*. 2025; 45(12):e70390. DOI:10.1111/liv. 70390. PMID:41194401. IF:5,200 (Q1/2D).
- Lei S, Zhang XY, Song LG, Wen JH, Zhang Z, Tian JQ, Yang R, Xu SH, Qiu SH, Macisaac RJ, Aleksova J, Mac F, Dupuis ME, Benaiges D, Mauricio D, Sommer AP, Barzilay JI, Gallagher JC, Pan LL, Ji LL, Fang P, Li Y, Liu Q, Zhao JS, Xue Y, Shen YQ, Wang LM, Han JF, Liu GH. Expert consensus on vitamin D in osteoporosis. *Annals Of Joint*. 2025; 10:1. DOI:10.21037/aoj-24-48. PMID:39981430.
- León J, Bermúdez M, Valdivielso JM, Pamplona R, Torres G, Mauricio D, Castro E, Fernández E, Caixàs A, Bueno M, Ciudín A, Hernández M, Simó R, Hernández C, Lecube A, ILERVAS C. Impact of the new EASO obesity definition on the detection of atheromatosis in subjects with low-to-moderate cardiovascular risk. *Frontiers in Endocrinology*. 2025; 16:1689960. DOI:10.3389/fendo.2025.1689960. PMID:41141356. IF:4,600 (Q1/3D).
- Llauradó G, Cedo L, Climent E, Badia J, Rojo G, Roux JFL, Yanes O, Vinaixa M, Granado M, Mauricio D, Fernández S, Vendrell J. Circulating short-chain fatty acids and Mediterranean food patterns. A potential role for the prediction of type 2 diabetes risk: The Di@bet.es Study. *BMC Medicine*. 2025; 23(1):337. DOI:10.1186/s12916-025-04186-9. PMID:40481510. IF:8,300 (Q1/1D).
- Ma CX, Ma XN, Li HL, Mauricio D, Fu SB. Endocrine-disrupting chemicals exposure: cardiometabolic health risk in humans. *Cardiovascular Diabetology*. 2025; 24(1):381. DOI:10.1186/s12933-025-02938-8. PMID:41035032. IF:10,600 (Q1/1D).
- Manzini E, Vlachos B, Franch J, Escudero J, Génova A, Reixach E, Andrés E, Pizarro I, Mauricio D, Perera A. A deep attention-based encoder for the prediction of type 2 diabetes longitudinal outcomes from routinely collected health care data. *EXPERT SYSTEMS WITH APPLICATIONS*. 2025; 274:126876. DOI:10.1016/j.eswa.2025.126876. IF:7,500 (Q1/1D).
- Martín F, Lesmes IB, Peralta FG, Torres JFM, Gómez FP, Ballesteros AC, González JM, de Villar NGP, Portillo CM, Corrales PJP, Engel WR, de Inestrosa MTBP, Fernández CM, Arranz E, Vinagre GF, Perán JF, S, Brocca M. Executive summary of the document 'Diabetes Day Hospital. Value proposition. *Endocrinología, Diabetes y Nutrición*. 2025; 72(8):501601. DOI:10.1016/j.endien.2025.501601. PMID:40946027. IF:1,800 (Q3/8D).
- Martínez MA, Bellido V, Cardona R, Castaño L, Conget I, Fernández A, Gila A, Leiva I, Mauricio D. Executive summary. Screening, staging and follow-up of type 1 diabetes in preclinical stages: Consensus of the scientific societies SED, SEEN and SEEP. *Endocrinología, Diabetes y Nutrición*. 2025; 72(9):501639. DOI:10.1016/j.endinu.2025.501639. PMID:41111054. IF:1,800 (Q3/8D).

5.1.5 Translational Medicine Area

- Mateu M, Stanton N, Santaló FS, Vela JI, Cascajosa JD, Pérez ES, Rego D, Chico A. Retinal Microperimetry as a Novel Tool for Early Detection of Subclinical Cognitive Dysfunction and Brain Damage in Type 1 Diabetes: A Pilot Study. *Endocrinology Diabetes & Metabolism*. 2025; 8(1):e70018. DOI:10.1002/edm2.70018. PMID:39707866.
- Mauricio D, Gratacòs M, Franch J. Managing diabetes across female reproductive stages. *TRENDS IN ENDOCRINOLOGY AND METABOLISM*. 2025; 36(5). DOI:10.1016/j.tem.2025.02.003. PMID:40089417. IF:12,600 (Q1/1D).
- Meek CL, Feig DS, Scott EM, Corcoy R, Murphy HR, CONCEPTT GRP. Lack of Validity of the Glucose Management Indicator in Type 1 Diabetes in Pregnancy. *DIABETES CARE*. 2025; 48(8). DOI:10.2337/dc24-2494. PMID:40173096. IF:16,600 (Q1/1D).
- Mendoza LC, Cohen O, Smaniotto V, Corcoy R. Switching to insulin lispro U-200 in a pregnant woman using a 780G advanced hybrid closed-loop led to a rapid improvement in glucose metrics. *DIABETES RESEARCH AND CLINICAL PRACTICE*. 2025; 222:112047. DOI:10.1016/j.diabres.2025.112047. PMID:39961514. IF:7,400 (Q1/1D).
- Merino M, Maravilla P, Artola S, Escalada J, Pérez A, Remón J, Trillo JL, Vallès JA, Hidalgo A. Tight and early HbA1c control in patients with type 2 diabetes mellitus in Spain: quantifying the social value. *Frontiers in Public Health*. 2025; 13:1511108. DOI:10.3389/fpubh.2025.1511108. PMID:40717941. IF:3,400 (Q1/2D).
- Mesa A, Franch J, Navas E, Mauricio D. Cardiovascular disease in women with type 1 diabetes: a narrative review and insights from a population-based cohort analysis. *Cardiovascular Diabetology*. 2025; 24(1):217. DOI:10.1186/s12933-025-02791-9. PMID:40399939. IF:10,600 (Q1/1D).
- Mesa A, Puig C, Pané A, Vinagre I, López E, Meler E, Alonso N, Quirós C, Amor AJ, Perea V. Preeclampsia as an independent predictor of atherosclerosis progression in women with type 1 diabetes: a 5-year prospective study. *Cardiovascular Diabetology*. 2025; 24(1):160. DOI:10.1186/s12933-025-02719-3. PMID:40205402. IF:10,600 (Q1/1D).
- Milad C, Viñals C, Perea V, Seres T, Blanco A, Vinagre I, Claro M, Solà C, Mesa A, Ayala D, Conget I, Gimenez M, Amor AJ. Adherence to Modified American Heart Association Cardiovascular Health Standards Is Associated With Lower Atherosclerotic Burden in Mediterranean Individuals With Type 1 Diabetes. *DIABETES-METABOLISM RESEARCH AND REVIEWS*. 2025; 41(6):e70088. DOI:10.1002/dmrr.70088. PMID:40965235. IF:6,000 (Q1/2D).
- Niño J, Rossell J, Rojo MI, Moreira E, Mateus E, Ruiz AJ, Ramos B, Martínez E, Martínez LO, Galán M, Julve J. Mitochondrial dysfunction in PBMC: a potential sensor for metabolic dysfunction-associated steatotic liver disease and therapeutic insight for NAD⁺-increasing strategies. *Exploration of Digestive Diseases*. 2025; 4. DOI:10.37349/edd.2025.100566.
- Orozco D, Mata M, Artola S, Álvarez F, Cebrián A, Pérez A, DIAMOND2 Study Coordinating GRP. Glycemic and weight control in people with type 2 diabetes: A real-world observational study in primary care. *Primary Care Diabetes*. 2025; 19(1). DOI:10.1016/j.pcd.2024.12.002. PMID:39741072. IF:2,300 (Q2/5D).
- Páez EV, Sosa DM, Buitrón LR, Dávila N, Cáceres MI, Robalino VF, Mato E. Morbidity and Mortality Profile of Leishmaniasis in an Andean Region of Ecuador in the Context of Climate Change. *Tropical Medicine and Infectious Disease*. 2025; 10(9):254. DOI:10.3390/tropicalmed10090254. PMID:41003564. IF:2,600 (Q1/1D).
- Pedro J, Arrieta F, Botana M, Gimeno JA, Martínez JI, de Victoria E, Ribalta J, Sánchez V, Pérez A, Trabajo Enfermedad Cardiovasc Soc Espanola Diabet GRP. Lipid-lowering drug therapy for reducing cardiovascular risk in diabetes. A clinical view of the Cardiovascular Disease Working Group of the Spanish Diabetes Society. *Endocrinología Diabetes y Nutrición*. 2025; 72(2):101523. DOI:10.1016/j.endien.2025.101523. PMID:39924389. IF:1,800 (Q3/8D).
- Perea V, Quirós C, Herrera MT, Azriel S, Wägner AM, Beato P, Soldevila B, Barquiel B, Pardo RM, Díaz G, Picón MJ, Colomo N, Amigó J, Climent E,

5.1.5 Translational Medicine Area

- Durán M, Corcoy R, Codina M, Cuesta M, Guedes BV, Vinagre I. Pregnancy outcomes with the pregestational use of Minimed 780G compared to Minimed 640G: findings from a multicenter cohort study. *ACTA DIABETOLOGICA*. 2025; 62(7). DOI:10.1007/s00592-024-02430-x. PMID:39630235. IF:2,900 (Q3/6D).
- Puig R, Rojo MI, Julve J, Castelblanco E, Ponomarenko J, Amezcua S, Vendrell J, Franch J, Torres JL, Mauricio D, Ramos S. Fecal Short-Chain Fatty Acids to Predict Prediabetes and Type 2 Diabetes Risk: An Exploratory Cross-Sectional Study. *Nutrients*. 2025; 17(18):3003. DOI:10.3390/nu17183003. PMID:41010528. IF:5,000 (Q1/2D).
 - Puig C, Viñals C, Conget I, Quirós C, Vinagre I, Berrocal B, Blanco AJ, Granados M, Mesa A, Serés T, Giménez M, Perea V, Amor AJ. Association between the GMI/HbA1c ratio and preclinical carotid atherosclerosis in type 1 diabetes: impact of the fast-glycator phenotype across age groups. *Cardiovascular Diabetology*. 2025; 24(1):75. DOI:10.1186/s12933-025-02637-4. PMID:39953520. IF:10,600 (Q1/1D).
 - Rego D, Mateu M, Chico A, Molina A, Díaz J, Vela JI. OCTA and Microperimetry Changes Preceding the Appearance of Diabetic Retinopathy in Patients with Type 1 Diabetes. *CURRENT EYE RESEARCH*. 2025; 50(4). DOI:10.1080/02713683.2024.2435357. PMID:39637437. IF:2,000 (Q2/5D).
 - Rives J, Gil P, Viladés D, García A, Genua I, Miñambres I, Grau M, Gich I, Puig N, Benítez S, Julve J, Pérez A, Sánchez JL. Low-Density Lipoprotein Subfraction Phenotype Is Associated with Epicardial Adipose Tissue Volume in Type 2 Diabetes. *Journal of Clinical Medicine*. 2025; 14(3):862. DOI:10.3390/jcm14030862. PMID:39941533. IF:2,900 (Q1/2D).
 - Romero M, Escalada J, Noguerol M, Pérez A, Carretero J, Crespo J, Mascort JJ, Aguilar I, Tinahones F, Canones P, Gómez R, de Luis D, Trullós IG, Aller R, Rubio MA. Multidisciplinary clinical practice guideline for the management of hepatic metabolic steatosis. *Gastroenterología y Hepatología*. 2025; 48(8):502442. DOI:10.1016/j.gastrohep.2025.502442. PMID:40221023. IF:1,900 (Q3/7D).
 - Sánchez RM, Ibarretxe D, Jiménez FF, Martínez S, Blanco A, Rodríguez BC, Rodríguez G, Ordiales MMM, Pérez A, González P, Armesto RA, Sánchez P, Masana L, Civeira F. Homozygous Familial Hypercholesterolemia in Spain: Data From the Registry of the Spanish Atherosclerosis Society. *JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM*. 2025; 110(8). DOI:10.1210/clinem/dgae784. PMID:39514762. IF:5,100 (Q1/2D).
 - Sardà H, Genua I, Miñambres I. GLP-1 receptor agonists in obesity treatment: Effects on cardiometabolic variables and cardiovascular disease. *MEDICINA CLINICA*. 2025; 165(1):106951. DOI:10.1016/j.medcli.2025.106951. PMID:40378625. IF:2,100 (Q2/3D).
 - Summer S, Borrell M, Bruno RM, Climie RE, Dipla K, Dogan A, Eruslanova K, Fraenkel E, Mattace F, Pugh C, Rochfort KD, Ross M, Roth L, Schmidt A, Schwarz D, Shadiow J, Sohrabi Y, Sonnenberg J, Tura O, Tuna BG, Julve J, Dogan S. Centenarians—the way to healthy vascular ageing and longevity: a review from VascAgeNet. *GeroScience*. 2025; 47(1). DOI:10.1007/s11357-024-01467-8. PMID:39725804. IF:5,400 (Q1/1D).
 - Takele WW, Redman LM, Liu K, Quinteros A, Ukke GG, Tobias DK, Merino J, Ahmad A, Aiken C, Benham JL, Bodhini D, Clark AL, Colclough K, Corcoy R, Cromer SJ, Duan DSY, Felton JL, Francis EC, Gillard P, Gingras V, Gaillard R, Haider E, Hughes A, Ikke JM, Jacobsen LM, Kahkoska AR, Kettunen JLT, Kreienkamp RJ, Lim LL, Männistö J, Massey R, McLennan NM, Miller RG, Morieri ML, Most J, Naylor RN, Ozkan B, Patel KA, Pilla SJ, Prystupa K, Raghavan S, Rooney MR, Schön M, Semnani Z, Sevilla M, Svalastoga P, Tam CH, Thuesen A, Tosur M, Wallace AS, Wang CC, Wong JJ, Yamamoto JM, Young K, Amouyal C, Andersen MK, Bonham MP, Chen ML, Cheng FF, Chikowore T, Chivers SC, Clemmensen C, Dabelea D, Dawed AY, Deutsch AJ, Dickens LT, Dimeglio LA, Dudenhöffer M, Evans C, Fernández MM, Fitipaldi H, Fitzpatrick SL, Gitelman SE, Goodarzi MO, Grieger JA, Guasch M, Habibi N, Hansen T, Huang CG, Harris A, Ismail HM, Hoag B, Johnson RK, Jones AG, Koivula RW, Leong A, Leung GKW, Libman IM, Long SA, Lowe WL, Morton RW, Motala AA, Onengut S, Pankow JS, Pathirana M, Pazmino S, Pérez D, Petrie JR, Powe

5.1.5 Translational Medicine Area

- CE, Jain R, Ray D, Ried M, Saeed Z, Santhakumar V, Kanbour S, Sarkar S, Monaco GSF, Scholtens DM, Selvin E, Sheu WHH, Speake C, Stanislawski MA, Steenackers N, Steck AK, Stefan N, Stoy J, Taylor R, Tye SC, Ukke GG, Urazbayeva M, van der Schueren B, Vatier C, Wentworth JM, Hannah W, White SL, Yu GC, Zhang YC, Zhou SJ, Beltrand J, Polak M, Aukrust I, de Franco E, Flanagan SE, Maloney KA, McGovern A, Molnes J, Nakabuye M, Njolstad PR, Pomares H, Provenzano M, Saint C, Zhang CL, Zhu YY, Auh S, de Souza R, Fawcett AJ, Gruber C, Mekonnen EG, Mixter E, Sherifali D, Eckel RH, Nolan JJ, Philipson LH, Brown RJ, Billings LK, Boyle K, Costacou T, Dennis JM, Florez JC, Gloyn AL, Gómez MF, Gottlieb PA, Greeley S, Griffin K, Hattersley AT, Hirsch IB, Hivert MF, Hood KK, Joséfson JL, Kwak SH, Laffel LM, Lim SS, Loos RJF, Ma RCW, Mathieu C, Mathioudakis N, Meigs JB, Misra S, Mohan V, Murphy R, Oram R, Owen KR, Ozanne SE, Pearson ER, Perng W, Pollin TI, Pop R, Pratley RE, Redondo MJ, Reynolds RM, Semple RK, Sherr JL, Sims EK, Sweeting A, Tuomi T, Udler MS, Vesco KK, Vilsboll T, Wagner R, Rich SS, Franks PW, Joséfson J, Lim S. Participant characteristics in the effectiveness of lifestyle interventions to optimize gestational weight gain: a systematic review and meta-analysis. *Communications Medicine*. 2025; 5(1):439. DOI:10.1038/s43856-025-01049-5. PMID:41136661.
- Torres JK, Rojo MI, Antentas M, Vendrell P, Ortega E, Alonso N, Castelblanco E, Muscarà A, Rubinat E, Alcubierre N, Hernández M, Rossell J, Granado M, Mauricio D, Julve J. Association between dietary niacin intake and diabetic retinopathy in a Catalan population: a cross-sectional study. *Frontiers in Nutrition*. 2025; 12:1626379. DOI:10.3389/fnut.2025.1626379. PMID:41164367. IF:5,100 (Q1/2D).
 - Viñals C, Conget I, Granados M, Solà C, Ayala D, Mesa A, Seres T, Domenech M, Perea V, Blanco J, Vinagre I, Giménez M, Amor AJ. Factors Involved in the Progression of Preclinical Atherosclerosis in People with Type 1 Diabetes. *Journal of Clinical Medicine*. 2025; 14(17):6004. DOI:10.3390/jcm14176004. PMID:40943764. IF:2,900 (Q1/2D).
 - Vlachos B, Julve J, Genua I, Fernández B, Real J, Franch J, Mauricio D, Ortega E. Hypertriglyceridemia and its relationship with all-cause mortality and pancreatitis: Results from a large retrospective clinical registry. *Journal of Clinical Lipidology*. 2025; 19(4). DOI:10.1016/j.jacl.2025.04.195. PMID:40467441. IF:4,600 (Q1/2D).
 - Voss EA, Yuan Z, Ali SR, Bosan R, Eworuke E, Brewster J, Vlachos B, Fernández B, Fernández S, Fonseca S, Jeffcoat C, Wang L. A study on the utilisation of canagliflozin in type 1 diabetes mellitus using real-world data from four European countries. *DIABETES OBESITY & METABOLISM*. 2025; 27(9). DOI:10.1111/dom.16574. PMID:40605139. IF:5,700 (Q1/2D).
 - Wyckoff JA, Lapolla A, Asias BD, Barbour LA, Brown FM, Catalano PM, Corcoy R, Di GC, Drobycki N, Kautzky A, Murad MH, Stephenson M, Tabák AG, Weatherup E, Zera C, Singh N. Preexisting Diabetes and Pregnancy: An Endocrine Society and European Society of Endocrinology Joint Clinical Practice Guideline. *JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM*. 2025; 110(9). DOI:10.1210/clinem/dgaf288. PMID:40652453. IF:5,100 (Q1/2D).
 - Wyckoff JA, Lapolla A, Asias BD, Barbour LA, Brown FM, Catalano PM, Corcoy R, Di GC, Drobycki N, Kautzky A, Murad MH, Stephenson M, Tabák AG, Weatherup E, Zera C, Singh N. Preexisting Diabetes and Pregnancy: An Endocrine Society and European Society of Endocrinology Joint Clinical Practice Guideline. *EUROPEAN JOURNAL OF ENDOCRINOLOGY*. 2025; 193(1). DOI:10.1093/ejendo/lvaf116. PMID:40652450. IF:5,200 (Q1/2D).

5.1.5 Translational Medicine Area

Pituitary Gland Disorders

Group leader

Webb Youdale, Susana (UAB)
(until July 2025)

Aulinas Maso, Anna (FGS)
(from July 2025)

Researchers

Asla Roca, Queral (FGS)
Biagetti, Betina (VHIR)
Gil Ortega, Joan (CIBER)
Webb Youdale, Susana (UAB)

Research technicians

Martínez Diaz, Ana (IR)
Mateu Salat, Manel (IR)
Santos Vives, Alicia (IR)



DESCRIPTION

We investigate pituitary diseases & their impact, i.e., acromegaly, Cushing's sd. (coordinators of the European registry ERCUSYN), hypopituitarism among others. We are currently carrying out the project "Epidemiology in Catalonia" & investigating residual myopathy and the impact on psychological aspects and health-related quality of life (with specific questionnaires developed by us and used worldwide) after treating these diseases, pathophysiology of oxytocin deficiency including its effect on sleep, thanks to a funded project by the AES 2024 and precision medicine in acromegaly, thanks to funded project by the IMPACT strategy in a multicentric study.

MAIN LINES OF RESEARCH

- ERCUSYN: European Registry of Cushing's Syndrome. Maintenance and operation of the database containing more than 2900 patients, the largest such database worldwide to date. (Webb Youdale, Susana; Santos Vives, Alicia; Aulinas Maso, Anna).
- Study of the physiological and pathological secretion of oxytocin in humans besides pregnancy and lactation. Identification and clinical relevance of an oxytocin-deficient state in patients with hypothalamic and pituitary diseases, who are presumably at the highest risk for an oxytocin deficiency. (Aulinas Maso, Anna).
- Effects of Mindfulness therapy in patients with acromegaly and Cushing's syndrome. Leader (Santos Vives, Alicia).
- Spanish Molecular Registry on Pituitary Adenomas (REMAH study). (Gil Ortega, Joan; Webb Youdale, Susana, Marín Bueno, Rebeca).
- ACROFAST and ACROMICS: Personalised Medicine in acromegaly, to identify markers with a therapeutic value. (Gil Ortega, Joan; Aulinas Maso, Anna; Webb Youdale, Susana).

5.1.5 Translational Medicine Area

- Epidemiology of hypothalamic-pituitary diseases in Catalonia. (Aulinas Maso, Anna; Webb Youdale, Susana).
- Study of bone microarchitecture and resistance and factors that determine them in Cushing's syndrome or acromegaly in remission. Model for investigating the body's bone-fat interaction. (Webb Youdale, Susana).
- Role of myosteatosis in the development and persistence of residual muscle weakness in treated acromegaly and Cushing syndrome. Study of the involved mechanisms. (Webb Youdale, Susana).
- Pathophysiology of sleep disorders in patients with hypothalamic and pituitary damage, using a multidisciplinary approach. (Aulinas Maso, Anna).
- Data collection to evaluate the natural history on a variety of rare diseases represented by the ERN's: Prospective observational data collection done by 2 platforms: e-REC and the Core Registry, as part of a collaboration with EndoERNS (Aulinas Maso, Anna; Marín Bueno, Rebeca).

SCIENTIFIC CHALLENGES

- Evaluate long-term persistent morbidity and mortality in patients who have had Cushing's syndrome or acromegaly, especially bone quality, psychological outcomes, muscular dysfunction and quality of life.
- Analyse and update the European database of patients with Cushing syndrome (ERCUSYN), which in 2025 included over 2900 patients, with partners from 65 centres in 27 countries.
- Identification of a provocative test to unmask an oxytocin-deficient state in patients with hypothalamic and pituitary diseases using a randomised, crossover, placebo-controlled design.
- Increase our understanding of oxytocin physiology and pathophysiology in healthy humans and clinical conditions (patients with hypothalamic and pituitary diseases, obesity and eating disorders), and its effect on sleep abnormalities.
- Conduct in vitro molecular analysis of operated pituitary adenomas within the REMAH (Molecular Registry of Pituitary Adenomas) study, initially sponsored by the Spanish Endocrinology and Nutrition Society (SEEN), to investigate personalised markers of therapeutic response (mainly in acromegaly, corticotroph adenomas and non-functioning pituitary adenomas).
- Analyse clinical and molecular aspects of pituitary adenomas diagnosed at a young age, in collaboration with Hospital Universitario Cruces.
- Perform the first epidemiological study in Catalonia on hypothalamic-pituitary diseases and compare it with the PADRIS database of CatSalut.
- Personalised Medicine (IMPACT strategy) through next-generation precision medicine in the diagnosis and treatment of Acromegaly.

ACTIVE & AWARDED GRANTS

- Aulinas Maso, Anna. Identificación y relevancia clínica de un estado deficiente de oxitocina: estudio piloto fisiopatológico aleatorizado, cruzado y controlado con placebo. PI20/01165. Instituto de Salud Carlos III (ISCIII). Duration: 2021-2025. 210.540,00 €.
- Aulinas Maso, Anna. Enfoque multidisciplinar para elucidar la fisiopatología de los trastornos del sueño en pacientes con daño hipotalámico e hipofisario. PI24/01428. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 190.000,00 €
- Aulinas Maso, Anna. Contratos para la intensificación de la actividad investigadora en el Sistema Nacional de Salud 2025. INT25/00083. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2027. 60.000,00 €
- Webb Youdale, Susan. Centro de Investigación Biomédica en Red de Enfermedades Raras. CIBERER. CB06/07/0044. Instituto de Salud Carlos III (ISCIII).

5.1.5 Translational Medicine Area

DOCTORAL THESES DEFENDED

- Marques Pamies, Montserrat. Herramientas para la implementación de la medicina de precisión en patología hipofisaria. 20/05/2025. Universitat Autònoma de Barcelona. Supervisors: Puig Domingo, Manuel Luis; Gil Ortega, Joan. <https://hdl.handle.net/10803/694559>

SCIENTIFIC PRODUCTION - Articles & Reviews

- Araujo M, Biagetti B, Menéndez E, Novoa I, Cordido F, Berrocal VR, Pascual E, Guerrero F, Vicente A, García R, González L, García M, Echarri AI, Rodríguez MDM, Novo C, Calatayud M, Villar R, Bernabéu I, Álvarez C, Jiménez CT, Abellán P, Venegas E, González I, Iglesias P, Blanco C, De Lara F, Novoa MPD, Torres E, Hanzu F, Lamas C, Rodríguez SA, Aulinas A, Recio JM, Aviles MD, Núñez M, Cámara R, Fano MP, Fajardo C, Cardoso L, Marques P, Martínez E, Ruz I, Marazuela M, Puig M. Predictors of therapeutic failure in GH and prolactin co-secreting pituitary adenomas. *Endocrine Connections*. 2025; 14(7):e250103. DOI:10.1530/EC-25-0103. PMID:40590355. IF:2,800 (Q3/6D).
- Araujo M, García R, González L, Hanzu FA, Orois A, Cámara R, García M, Echarri AI, Gimeno PG, Pascual E, Biagetti B, Cardona A, Molero IG, Simo A, Pérez FG, Villar R, Bernabéu I, Fajardo C, Novo C, Jimenez CT, Calatayud M, Rodríguez MDM, Cordido F, Castro A, Valero LM, Fano MP, Goi J, Aulinas A, Abellán P, Iglesias P, Soto A. Real-World Data on the Efficacy and Safety of Osilodrostat in Patients with Cushing's Disease in Spain. *Journal of Clinical Medicine*. 2025; 14(21):7575. DOI:10.3390/jcm14217575. PMID:41226972. IF:2,900 (Q1/2D).
- Araujo M, García R, González L, Nobre EL, Severino MD, Goi J, Pena MMP, Torre EM, Aida CL, Novoa I, Cordido F, Sanchón R, Guerrero F, Rodríguez RO, Rodríguez B, García M, Echarri AI, Simó A, Rodríguez MDM, Novo C, Calatayud M, Villar R, Bernabéu I, Tenorio C, Molero IG, Iglesias P, Blanco C, De Lara F, Aulinas A, Roca QA, Fano MP, Martínez AR, Cardoso LM, Marques P, Giustina A, Marazuela M, Puig M, Biagetti B. Prevalence and evolution of hypertension in a large Iberian cohort of patients with acromegaly. *Pituitary*. 2025; 28(6):119. DOI:10.1007/s1102-025-01586-1. PMID:41139153. IF:3,400 (Q2/4D).
- Araujo M, Torre EM, Lozano C, Garcia R, Fernández LG, Idrobo C, Achote E, Echarri AI, Rodríguez MDM, Paja M, Guerrero F, Castano JP, Garcia M, Novo C, Tenorio C, Villar R, Bernabeu I, Diaz E, Calatayud M, Álvarez C, Rojas PM, Recio JM, Aulinas A, Roca QA, Aviles MD, Mezquita EL, Fernández M, Molero IG, Ruz I, Aldecoa I, Garcia J, Martínez E, Hanzu F, Marazuela M, Puig M, Biagetti B. Validation and Limitations of the PANOMEN-3 Predictive Model for Tumor Recurrence and Progression in Pituitary Tumors. *JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM*. 2025; 110(12). DOI:10.1210/clinem/dgaf252. PMID:40277238. IF:5,100 (Q1/2D).
- Asanza EC, Biroli A, Pérez C, Araujo M, Cámara R, Guerrero F, Vicente A, Lamas C, Serra G, Echarri AI, Ollero MD, Molero I, Villar R, Rodríguez MDM, Feijoo PG, Berrocal VR, Sánchez N, Hurtado AG, Capristan V, Simó A, Gallach M, Pérez ES, Rosa VG, Modino SC, Torre EM, Aulinas A, Iglesias P, Díez JJ, Rodríguez V, Puig A, Blangini E, Bernabéu I, Álvarez C, Sarria S, Puig M, Abelló FA, Martínez E, Biagetti B. Neuroendocrinology Task Force Spanish Soc E. Age-related differences in the clinical features and management of pituitary apoplexy: a cohort study. *EUROPEAN JOURNAL OF ENDOCRINOLOGY*. 2025; 192(4). DOI:10.1093/ejendo/lvaf056. PMID:40129106. IF:5,200 (Q1/2D).
- Asla Q, Garrido M, Urgell E, Terzan S, Santos A, Fernández M, Varghese N, Atila C, Calabrese A, Biagetti B, Plessow F, Gich I, Christ M, Eckert A, Webb SM, Lawson EA, Aulinas A. Oxytocin levels in response to CRH administration in hypopituitarism and hypothalamic damage: a randomised, crossover, placebo-controlled trial. *Scientific Reports*. 2025; 15(1):2360. DOI:10.1038/s41598-025-86566-y. PMID:39824923. IF:3,900 (Q1/2D).

5.1.5 Translational Medicine Area

- Asla Q, Garrido M, Urgell E, Terzan S, Santos A, Varghese N, Atila C, Biagetti B, Plessow F, Christ M, Eckert A, Webb SM, Lawson EA, Aulinas A. Melatonin as a Possible Stimulus to Unmask an Oxytocin-Deficient State in Hypopituitarism and Hypothalamic Damage. JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM. 2025; 110(12). DOI:10.1210/clinem/dgae201. PMID:40166823. IF:5,100 (Q1/2D).
- Aulinas A, Galbiati F, Wronski ML, Carter CS, Nazarloo S, Holman K, Golden ER, Muhammed M, Hadaway N, Asanza E, Smith SE, Plessow F, Lawson EA. Arginine-Vasopressin Dynamics in Relation to Food Intake and 8-Week Intranasal Oxytocin Treatment in Adults With Obesity. JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM. 2025; 110(12). DOI:10.1210/clinem/dgaf237. PMID:40314146. IF:5,100 (Q1/2D).
- Aulinas A, Lawson EA. The Oxytocin System and Implications for Oxytocin Deficiency in Hypothalamic-Pituitary Disease. ENDOCRINE REVIEWS. 2025; 46(4). DOI:10.1210/endrev/bnaf008. PMID:39985439. IF:22,000 (Q1/1D).
- Biagetti B, Asanza EC, García P, Araujo M, Berrocal VR, Serra G, Guerrero F, Cámara R, Lamas C, García M, Vicente A, Echarri AI, Villar R, Rodríguez MDM, Pérez C, González I, Ramirez MNS, Hurtado AG, Capristan V, Simo A, Gallach M, Pérez ES, Rosa VG, Civantos S, Martínez E, García J, Torre EM, Aulinas A, Iglesias P, Díez JJ, Bernabéu I, Álvarez C, Puig M, Neuroendocrinology Area of the Spanish Society E. Trends and Outcomes in Pituitary Apoplexy Management: A Spanish Observational Multicenter Study. Neurosurgery. 2025; 97(1). DOI:10.1227/neu.0000000000003281. PMID:39636106. IF:3,900 (Q1/1D).
- Biagetti B, Asanza EC, Pérez C, Araujo M, Cámara R, Guerrero F, Vicente A, Lamas C, Serra G, Echarri AI, Ollero MD, Molero IG, Villar R, Rodríguez MDM, García P, Berrocal VR, Ramirez MNS, Hurtado AG, Capristan V, Simó A, Gallach M, Pérez ES, Rosa VG, Civantos S, Asensio D, Martínez E, Torre EM, Aulinas A, Iglesias P, Díez JJ, Bernabéu I, Álvarez C, Puig M, Neuroendocrinology Task Force Spanish Soc E. Pituitary Apoplexy: Comorbidities, Management, and Outcomes-A Spanish Observational Multicenter Study. JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM. 2025; 110(6). DOI:10.1210/clinem/dgae649. PMID:39298667. IF:5,100 (Q1/2D).
- Biagetti B, Asanza EC, Pérez C, Berrocal VR, Vicente A, Lamas C, Guerrero F, Simó A, Serra G, Echarri AI, Ollero MD, Molero IG, Villar R, Rodríguez MDM, García P, Ramirez MNS, Hurtado AG, Capristan V, Cámara R, Gallach M, Pérez ES, Rosa VG, Civantos S, Martínez E, Torre EM, Aulinas A, Iglesias P, Díez JJ, Bernabéu I, Álvarez C, Puig M, Araujo M, Spanish Soc Endocrinology N. Predictors of conversion to surgery in pituitary apoplexy: Insights from a Spanish multicenter observational study. Journal Of Clinical And Translational Endocrinology. 2025; 40:100399. DOI:10.1016/j.jcte.2025.100399. PMID:40486975.
- Biagetti B, Cardona A, Torre EM, Aulinas A, Ruz I, Centeno RG, González L, Echarri AI, Rodríguez MDM, Paja M, Guerrero F, Castano JP, Garcia M, Novo C, Tenorio C, Villar R, Bernabeu I, Diaz E, Calatayud M, Álvarez C, Rojas PM, Recio JM, Lozano C, Roca QA, Aviles MD, Mezquita EL, Argueso MF, Molero IG, Alberoa I, Idrobo C, Achote E, Martínez E, Marazuela M, Puig M, Hanzu F, Araujo M. Predictors of progression after surgery in non-functioning pituitary macroadenomas: a Spanish multicenter study. JOURNAL OF ENDOCRINOLOGICAL INVESTIGATION. 2025; 48(12). DOI:10.1007/s40618-025-02674-6. PMID:40779234. IF:3,500 (Q2/4D).
- Galbiati F, Becetti I, Lauze M, Aulinas A, Singhal V, Bredella MA, Lawson EA, Misra M. Increased copeptin may reflect vasopressin-related metabolic changes after bariatric surgery. Obesity. 2025; 33(2). DOI:10.1002/oby.24200. PMID:39725569. IF:4,700 (Q1/2D).
- Galbiati F, Plessow F, Plummer L, Campbell MB, Nazarloo S, Carter CS, Carroll RS, Kim HK, Pereira SA, Paulis D, Davis JM, Miller KK, Kaiser UB, Seminara SB, Aulinas A, Lawson EA. Sex-dependent increases in oxytocin levels in response to intravenous kisspeptin in humans. EUROPEAN JOURNAL OF ENDOCRINOLOGY. 2025; 192(3). DOI:10.1093/ejendo/lvaf001. PMID:39965102. IF:5,200 (Q1/2D).
- Guerrero F, Biagetti B, Paja M, Menéndez EL, Rivero G, Dios E, Hanzu FA, Rojas PM, Irigaray A, Rodríguez MDM, García R, Fernández LG, Enseñat J, Mora M, Villar R, García I, Araujo M, Gándara C, García M, Tenorio C, Novo C, Civantos S, Simó

5.1.5 Translational Medicine Area

- A, Aulinas A, Asla Q, Cordido F, Novoa I, Xifra G, Ayala M, Zamarron A, Berrocal M, Iglesias P, Spanish Soc Endocrinology N. Sellar and perisellar meningiomas: effects on pituitary function in a Spanish cohort observational study. *Pituitary*. 2025; 28(1):12. DOI:10.1007/s11102-024-01484-y. PMID:39733084. IF:3,400 (Q2/4D).
- Martel L, Bascuñana H, Corredor VP, González O, Ribé JV, Pons TC, Webb SM, Valassi E. Benefits of a 12-week individually tailored physical activity program in patients with Cushing's disease in remission and controlled acromegaly. *ENDOCRINE*. 2025; 90(1). DOI:10.1007/s12020-025-04331-7. PMID:40637819. IF:2,900 (Q3/6D).
 - Martel L, Bascuñana H, Cuartero J, Webb SM, Valassi E. Muscle dysfunction is associated with poor quality of life in long-term controlled patients with acromegaly. *Pituitary*. 2025; 28(3):68. DOI:10.1007/s11102-025-01539-8. PMID:40442526. IF:3,400 (Q2/4D).
 - Martínez MA, Alonso S, Marques M, Salinas I, Vázquez F, Soldevila B, Asensio D, Ciriza R, Santos A, Valassi E, Webb SM, Puig M. Quality of life and psychological status in people with acromegaly in relation to disease-related facial changes. *Endocrine Connections*. 2025; 14(5):e240545. DOI:10.1530/EC-24-0545. PMID:40214517. IF:2,800 (Q3/6D).
 - Mateu M, Stanton N, Santaló FS, Vela JI, Cascajosa JD, Pérez ES, Rego D, Chico A. Retinal Microperimetry as a Novel Tool for Early Detection of Subclinical Cognitive Dysfunction and Brain Damage in Type 1 Diabetes: A Pilot Study. *Endocrinology Diabetes & Metabolism*. 2025; 8(1):e70018. DOI:10.1002/edm2.70018. PMID:39707866.
 - Melmed S, di L, Fleseriu M, Mercado M, Karavitaki N, Gurnell M, Salvatori R, Tsagarakis S, Losa M, Maffei P, Pereira AM, Geer EB, Katznelson L, van der Lely AJ, Bollerslev J, Esposito D, Webb SM, Zatelli MC, Valassi E, Neggers S, Chanson P, Ho KKY, Ioachimescu AG, Biller BMK, Samson SL, Kaiser UB, Schilbach K, Luque RM, Casanueva FF, Shimon I, Boguszewski CL, Biermasz N, Colao A, Pirchio R, Lamberts SWJ, Kadioglu P, Buchfelder M, Frara S, Chiloiro S, Petersenn S, Gadelha MR, Puig M, Luger A, Brue T, Beckers A, Ferone D, Clemmons DR, Greenman Y, Marazuela M, Mortini P, Strasburger CJ, Giustina A. Consensus on acromegaly therapeutic outcomes: an update. *Nature Reviews Endocrinology*. 2025; 21(11). DOI:10.1038/s41574-025-01148-2. PMID:40804505. IF:40,000 (Q1/1D).
 - Mercè F, Asla Q, Illana FJ, Victòria F, Javier HL, Marta S, Iglesias C, Webb SM, Aulinas A. A novel likely pathogenic germline variant in CDKN1B in a patient with MEN4 and medullary thyroid cancer. *Familial Cancer*. 2025; 24(1):24. DOI:10.1007/s10689-025-00449-9. PMID:40009226. IF:2,000 (Q3/7D).
 - Paja M, Soto A, Hanzu FA, Guerrero F, Cámara R, Moure D, Gálvez A, Simó A, Villar R, Calatayud M, Vicente A, Recio JM, Serra G, Rojas PM, Parra P, Araujo M, Librizzi S, Irigaray A, Ollero D, Aznar S, Muñoz F, Aulinas A, González L, García R, Egaña N, González T, Menéndez E, Delgado AM, Abarca J, Sottile J, Picó AM, Novo C, Ortiz I, Tenorio C, de León R, de Pablos P, Crespo C, Peñalver D, Díaz G, Puig M, Biagetti B, Neuroendocrinology Spanish Endocrinol Nutr Soc SEEN GRP. Outcomes of transsphenoidal surgery for pituitary adenomas in Spain: a retrospective multicenter study. *Frontiers in Endocrinology*. 2025; 16:1529418. DOI:10.3389/fendo.2025.1529418. PMID:40060376. IF:4,600 (Q1/3D).
 - Rego D, Mateu M, Chico A, Molina A, Díaz J, Vela JI. OCTA and Microperimetry Changes Preceding the Appearance of Diabetic Retinopathy in Patients with Type 1 Diabetes. *CURRENT EYE RESEARCH*. 2025; 50(4). DOI:10.1080/02713683.2024.2435357. PMID:39637437. IF:2,000 (Q2/5D).

5.1.5 Translational Medicine Area

Digestive Diseases

Group leader

Escorsell Mañosa, María Angels (FGS)

Researchers

Acin Garces, Victor (FGS)

Alvarado Tapias, Edilmar Auxiliadora (FGS)

Bertoletti, Federico (FGS)

Brujats Rubirola, Anna (FGS)

Cáceres Chaparro, Federico Alen (FGS)

Concepción Martín, María Del Mar (FGS)

Cuyas Espi, Berta (FGS)

Escude Torrella, Laia (FGS)

Fajardo Ordóñez, Javier (FGS)

Gallego Moya, Adolfo (FGS)

Garcia Planella, Esther (FGS)

Giordano, Antonio (IR)

Gómez Oliva, Cristina (FGS)

González Muñoz, Carlos (FGS)

Gordillo Abalos, Jorge (FGS)

Guarnier Argente, Carlos (FGS)

Kaur, Naujot (FGS)

Murzi Pulgar, Maríanette Carolina (FGS)

Pedregal Pascual, Patricia (FGS)

Poca Sans, María (FGS)

Roig Ramos, Cristina (FGS)

Roman Abal, Eva María (FGS)

Romero Mascarell, Cristina (FGS)

Romito, Raffaella (FGS)

Ros Fargas, Oliva (FGS)

Sánchez Ardid, Elisabet (CIBER)

Soriano Pastor, German (FGS)

Torras Colell, Javier (FGS)

Ugas Dubreuil, Clara (FGS)

Villanueva Sánchez, Cándido (FGS)

Research technicians

Research technicians

Guinart Cuadra, Albert (IR)

Huerta Velez, Anna (IR)



DESCRIPTION

Our research group is highly heterogeneous, encompassing both clinical and experimental research. Our experience in clinical research has a wide circulation, starting more than 30 years ago. Experimental studies have also been done including gastroenterological as well as hepatic diseases either with high prevalence (alcoholic and viral liver diseases, non-alcoholic steatohepatitis, inflammatory bowel disease, etc) or outstanding relevance (variceal bleeding, esophageal diseases, Barrett's esophagus, etc). Indeed, our group plays an important role in the structure of CIBERehd (ISCIII).

MAIN LINES OF RESEARCH

- Experimental rat model of cirrhosis and ascites. (Soriano Pastor, German; Sánchez Ardid, Elisabet).
- Mechanisms and prevention of bacterial translocation in rats with cirrhosis. (Soriano Pastor, German; Sánchez Ardid, Elisabet). Experimental model of spontaneous and induced bacterial peritonitis: physiopathology and treatment. (Soriano Pastor, German; Sánchez Ardid, Elisabet).
- MiRNAs expression profile in inflammatory bowel disease after stimulation with toll-like receptor ligands. (Soriano Pastor, German; Sánchez Ardid, Elisabet). -Cirrosis regression in cirrhosis. (Villanueva Sánchez, Cándido; Alvarado Tapias, Edilmar Auxiliadora). -Physiopathology, diagnosis, treatment and prevention of compensated cirrhosis. (Soriano Pastor, German; Poca Sans, María; Roman Abal, Eva María).
- Physiopathology, diagnosis, treatment and prevention of decompensated cirrhosis (bacterial infections, ascites, hepatorenal syndrome in cirrhosis and hepatic encephalopathy in cirrhosis. (Soriano Pastor, German; Roman Abal, Eva María).
- Cognitive impairment, falls and quality of life in patients with cirrhosis. (Soriano Pastor, German; Roman Abal, Eva María).

5.1.5 Translational Medicine Area

- Physiopathology of portal hypertension and varicose haemorrhage. (Villanueva Sánchez, Cándido; Alvarado Tapias, Edilmar Auxiliadora; Brujats Rubirola, Anna).
- Physiopathology of non-varicose haemorrhage. (Villanueva Sánchez, Candido; Alvarado Tapias, Edilmar Auxiliadora; Brujats Rubirola, Anna; Roman Abal, Eva María).
- Diagnosis, treatment and prevention of hepatic vascular diseases. (Villanueva Sánchez, Candido; Alvarado Tapias, Edilmar Auxiliadora; Brujats Rubirola, Anna).
- Evaluation of alcohol hepatitis. (Alvarado Tapias, Edilmar Auxiliadora; Brujats Rubirola, Anna).
Diagnosis, prevention and treatment of non-alcoholic fatty liver disease. (Alvarado Tapias, Edilmar Auxiliadora; Cuyas Espi, Berta).
- Diagnosis and treatment of autoimmune and metabolic liver diseases. (Alvarado Tapias, Edilmar Auxiliadora; Torras Colell, Javier; Gallego Moya, Adolfo). -Diagnosis and treatment of chronic hepatitis B and C. (Torras Colell, Javier; Gallego Moya, Adolfo).
- Diagnosis and treatment of hepatocarcinoma. (Gallego Moya, Adolfo; Cuyas Espi, Berta; Roman Abal, Eva María). -Screening for colorectal cancer (Gordillo Abalos, Jorge; Pedregal Pascual, Patricia). -Study of Biliary and pancreatic diseases and pancreatic cancer (Concepcion Martín, María Del Mar; Guarner Argente, Carlos; Romito , Raffaella; Gómez Oliva, Cristina). -Physiopathology, diagnosis and treatment of intestinal inflammatory disease (inflammatory bowel disease). (García Planella, Esther; Bertolotti , Federico; Gordillo Abalos, Jorge). -Physiopathology, diagnosis, treatment and prevention of reflux disease, Helicobacter infection and oesophageal (Poca Sans, María; Escude Torrella, Laia).
- Study of the Small Bowel Diseases (Romero Mascarell, Cristina).
- Diagnosis and treatment in advanced gastrointestinal endoscopy. (Guarner Argente, Carlos; Concepción Martín, María Del Mar; Romero Mascarell, Cristina).
- Diagnosis and treatment of acute pancreatitis, prevention of acute post-ERCP pancreatitis, chronic pancreatitis and pancreatic neoplasms: molecular studies, early detection and treatment. (Gómez Oliva, Cristina; Romito , Raffaella).
- Participation in various public-private clinical trials. (Escorsell Mañosa, María Angels; Soriano Pastor, German; Villanueva Sánchez, Candido; Alvarado Tapias, Edilmar Auxiliadora; Gallego Moya, Adolfo; Argente, Carlos; García Planella, Esther; Gordillo Abalos, Jorge; Torras Colell, Javier; Cuyas Espi, Berta; Brujats Rubirola, Anna; Roman Abal, Eva María; Sánchez Ardid, Elisabet).

SCIENTIFIC CHALLENGES

- Consolidate the CIBEREHD, CIBER, and Institut de Salut Carlos III research group by studying complications in cirrhosis.
- Grup de Recerca de la UAB (Universitat Autònoma de Barcelona): Grup de Recerca de Complicacions de la Cirrosis Hepàtica.
- Grup de Recerca Consolidat de la Generalitat (SGR).
- Expand the hepatology research lab and develop new research.
- Consolidate the portal hypertension research group.
- Consolidate the non-alcoholic fatty liver disease research group.
- Consolidate the pancreatic illness research line.
- Consolidate the inflammatory bowel disease research line.
- Consolidate the polyps and colon cancer research line.
- Develop a digestive endoscopy research line.
- Consolidate the endoscopy unit as CSUR (central for reference and excellence) in peroral endoscopic myotomy in Spain.
- Group CIBERehd-evs.
- One of the key challenges is to continue being actively involved in national and international collaborative research networks and working groups, such as the Steering Committee of the Spanish REHEVASC registry, Delphi panels, the PREDICT, CANONIC and ACLARA study groups, the ENEIDA registry, the ERN RARE-LIVER network (VALDIG study), and the LIVERHOPE consortium and others.

5.1.5 Translational Medicine Area

ACTIVE & AWARDED GRANTS

- Alvarado Tapias, Edilmar. Contractes Juan Rodés 2020. JR20/00047. Instituto de Salud Carlos III (ISCIII). Duration: 2021-2025. 180.000,00 €
- Alvarado Tapias, Edilmar. Identificación de biomarcadores no invasivos de reversión de la enfermedad hepática por alcohol mediante el estudio de vesículas extracelulares y parámetros hemodinámicos. PI21/01995. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 87.120,00 €
- Giordano, Antonio. Evaluación de los cambios en la composición corporal y predicción de la respuesta al tratamiento médico mediante bioimpedancia eléctrica en la enfermedad inflamatoria intestinal (estudio BAMBIE). GETECCU 2024. Grupo Español de Trabajo en Enfermedad de Crohn y Colitis Ulcerosa. Duration: 2024-2026. 12.000,00 €
- Gordillo Abalos, Jorge. Prevalencia del virus del papiloma humano y sus implicaciones clínicas en población masculina con enfermedad inflamatoria intestinal de un hospital de tercer nivel (estudio PAPIMALE). GETECCU 2023. Grupo Español de Trabajo en Enfermedad de Crohn y Colitis Ulcerosa. Duration: 2024-2026. 12.000,00 €
- Soriano Pastor, German. Centro de Investigación Biomédica en Red de Enfermedades Hepáticas y Digestivas. CIBEREHD. CB06/04/0030. Instituto de Salud Carlos III (ISCIII).
- Villanueva Sánchez, Candid. Caracterización de la interrelación entre la hipertensión portal y la inflamación en la circulación intrahepática y sistémica en la cirrosis descompensada. PI22/01917. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2025. 93.170,00 €

DOCTORAL THESES DEFENDED

- Cuyàs Espí, Berta. Les infeccions en la cirrosi hepàtica: impacte clínic de la pandèmia per COVID-19 en les infeccions i caracterització de la resposta immunitària in vitro davant d'Escherichia coli multiresistents. 17/11/2025. Universitat Autònoma de Barcelona. Supervisors: Soriano Pastor, German; Vidal Alcorisa, Sílvia. <https://hdl.handle.net/10803/695965>
- González Muñoz, Carlos. Característiques i implicacions de les formes familiars de la malaltia inflamatòria intestinal. 17/11/2025. Universitat Autònoma de Barcelona. Supervisors: Domenech Morral, Eugeni. <https://hdl.handle.net/10803/695939>

SCIENTIFIC PRODUCTION - Articles & Reviews

- Alvarado E, Bataller R, Martí D. From food to alcohol: Why some patients develop new addictions after bariatric surgery. Gastroenterología y Hepatología. 2025; 48(5):502430. DOI:10.1016/j.gastrohep.2025.502430. PMID:40107607. IF:1,900 (Q3/7D).
- Alvarado E, Brujats A, Puente A, Ardevol A, Rodríguez A, Fajardo J, Pavel O, García M, Aracil C, Poca M, Cuyàs B, Cantó E, Montañés R, García A, Escorsell A, Torras X, Villanueva C. Hemodynamic effects of carvedilol plus simvastatin in cirrhosis with severe portal hypertension and suboptimal response to β -blockers: A double-blind, placebo-controlled, randomised trial. HEPATOLOGY. 2025; 82(1). DOI:10.1097/HEP.0000000000001148. PMID:39509369. IF:15,800 (Q1/1D).
- Alvarado E, Pose E, Gratacós J, Clemente A, López H, Bataller R. Alcohol-associated liver disease: Natural history, management and novel targeted therapies. Clinical and Molecular Hepatology. 2025; 31. DOI:10.3350/cmh.2024.0709. PMID:39481875. IF:16,900 (Q1/1D).
- Brunet E, García B, Vela E, Pontes C, Melcarne L, Frisnacho LE, Llovet LP, Pedregal P, Lario S, Ramírez MJ, Villoria A, Calvet X. Update on the Prevalence, Incidence, Mortality, and Trends in Treatment of Inflammatory Bowel Disease in a Population-Based Registry in Catalonia Between 2017 and 2023. Journal of Clinical Medicine. 2025; 14(16):5711. DOI:10.3390/jcm14165711. PMID:40869536. IF:2,900 (Q1/2D).
- Brunet E, Selva A, Bas F, Brujats A, Caballol B, Font R, Gómez B, González C, Busquets D,

5.1.5 Translational Medicine Area

- Monfort D, Vera DP, Maristany E, Cirera G, Torres G, Castro J, López J, González L, Márquez L, Gallach M, Esteve M, Tremosa G, Torra S, Robles V, Garcia P, Rodríguez I, Calvet X. Asymptomatic Inflammatory Bowel Disease Diagnosed During Colorectal Cancer Population Screening in Catalonia: Characteristics and Natural History. *Clinical and Translational Gastroenterology*. 2025; 16(2):e00740. DOI:10.14309/ctg.0000000000000740. PMID:39729123. IF:3,000 (Q2/4D).
- Cantó E, del Prado ME, Vilarrasa E, López A, de Aranibar FJGL, Ortiz MA, Gut M, Mulet M, Esteve A, Osuna R, Guinart A, Puig L, Vidal S. Transcriptomic Identification of Immune-Related Hubs as Candidate Predictor Biomarkers of Therapeutic Response in Psoriasis. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(17):8118. DOI:10.3390/ijms26178118. PMID:40943056. IF:4,900 (Q1/3D).
 - Cuyàs B, Cantó E, Sánchez E, Miró E, Alvarado E, Román E, Poca M, Navarro F, Ferrero A, Escorsell MA, Vidal S, Soriano G. In Vitro Immune Response of Mononuclear Cells to Multidrug-Resistant *Escherichia coli*. *Microorganisms*. 2025; 13(5):1164. DOI:10.3390/microorganisms13051164. PMID:40431335. IF:4,200 (Q2/3D).
 - Dajti E, Villanueva C, Berzigotti A, Brujats A, Albillos A, Genescà J, García JC, Colecchia A, Bosch J, PREDESCI I, Baveno EC. Exploring algorithms to select candidates for non-selective beta-blockers in cirrhosis: A post hoc analysis of the PREDESCI trial. *JOURNAL OF HEPATOLOGY*. 2025; 82(3). DOI:10.1016/j.jhep.2024.09.014. PMID:39303875. IF:33,000 (Q1/1D).
 - Díaz R, Poca M, Román E, Cuyàs B, Bañares I, Morales A, Martínez EH, Panadero R, Velasco C, Rapado M, Bretón I, Banares R, Soriano G, García R. Treatment of Vitamin D Deficiency in Decompensated Patients with Cirrhosis Is Associated with Improvement in Frailty. *MEDICAL SCIENCES*. 2025; 13(1):30. DOI:10.3390/medsci13010030. PMID:40137450.
 - Díaz R, Poca M, Roman E, Panadero R, Cuyàs B, Bañares I, Morales A, Puerto M, López R, Blazquez E, Fernández M, Correa R, Rapado M, Breton I, Bañares R, Soriano G, Garcia R. Vitamin D Supplementation Is Associated with Inflammation Amelioration and Cognitive Improvement in Decompensated Patients with Cirrhosis. *Nutrients*. 2025; 17(2):226. DOI:10.3390/nu17020226. PMID:39861356. IF:5,000 (Q1/2D).
 - Fortea JI, Alvarado E, Simbrunner B, Ezcurra I, Hernández V, Aracil C, Llop E, Puente A, Roig C, Reiberger T, García JC, Calleja JL, Ferrero A, Mandorfer M, Villanueva C, Crespo J. Carvedilol vs propranolol for the prevention of decompensation and mortality in patients with compensated and decompensated cirrhosis. *JOURNAL OF HEPATOLOGY*. 2025; 83(1). DOI:10.1016/j.jhep.2024.12.017. PMID:39701300. IF:33,000 (Q1/1D).
 - Giordano A, Pérez I, Gisbert JP, Ricart E, Martín MD, Mesonero F, Parga MLD, Rivero M, Iglesias E, Fernández S, Calafat M, Villarino M, Turrión M, Hernández A, Lidón RV, Carpio D, Brunet E, Moranta FR, García LA, Cuquerella JT, Bermejo F, Madero L, Esteve M, González C, Martínez P, Huguet JM, Calle JLP, Rodríguez I, Ausín MS, Poyatos RHL, García O, Marín GS, Taxonera C, Ponferrada A, Barreiro M, Bujanda L, Serra RB, Ramos L, Vera I, Abizanda ES, Piqueras M, Gómez CS, García MF, Arregui MV, Murillo NR, Llaó J, Lucendo AJ, Marín I, Camps B, Villafranca CM, Ceballos D, Ver Y, Fernández LI, Alcáin G, Valldosera G, Andrés PR, Martínez C, Coronel AF, Ginard D, García L, Gómez IB, Argueelles F, Miyashiro EI, de la Piscina PR, Villalba LH, Notari PA, Martínez TD, Fernández H, Gilabert P, Rosas CM, Nos P, Gil JL, López VMN, Muñoz F, Palomares MTDL, Lucio AS, Merino O, de Prado IN, Leal C, de Carpi JM, Sánchez LB, Arce NM, Frago S, Mateu BB, Domènech E, Planella EG, ENEIDA G. Ileal Predominance in Crohn's Disease Is Associated With Increased Intestinal Surgery and Biological Therapy Use, With Lower Treatment Persistence. *AMERICAN JOURNAL OF GASTROENTEROLOGY*. 2025; 120(1). DOI:10.14309/ajg.00000000000003207. PMID:39745305. IF:7,600 (Q1/1D).
 - Giordano A, Romero C, González B, Guarnier C. Integration of Artificial Intelligence-Enhanced Capsule Endoscopy in Clinical Practice: A Review of Market-Available Tools for Clinical Practice. *DIGESTIVE DISEASES AND SCIENCES*. 2025; 70(9). DOI:10.1007/s10620-025-09099-4. PMID:40490597. IF:2,500 (Q2/5D).
 - González C, Giordano A, Ricart E, Nos P, Iglesias E, Gisbert JP, García S, Mesonero F, Pascual I, Tardillo C, Rivero M, Riestra S, Mañosa M, Zabana

5.1.5 Translational Medicine Area

- Y, Gomollón F, Calvet X, García MF, Gutiérrez A, Pérez JL, Sierra M, Bermejo F, Arias L, Barreiro M, Barrio J, Lorente R, Guardiola J, Varela P, Ponferrada A, Marín I, Pascual CM, Garcia E, Domènech E, ENEIDA G. Influence of Familial Inflammatory Bowel Disease History on the Use of Immunosuppressants, Biological Agents and Surgery in Patients with Pediatric-Onset of the Disease in the Era of Biological Therapies. Results from the ENEIDA Registry. *Journal of Clinical Medicine*. 2025; 14(10):3352. DOI:10.3390/jcm14103352. PMID:40429348. IF:2,900 (Q1/2D).
- Gratacós J, Alvarado E, Martí D, López H, Bataller R, Pose E. Diagnosis and Management of Early Stages of ALD. *SEMINARS IN LIVER DISEASE*. 2025; 45(02). DOI:10.1055/a-2541-2892. PMID:39965759. IF:3,700 (Q2/3D).
 - Huerta A, García M, Villanueva C. Role of Tips in Acute Variceal Bleeding. *Current Hepatology Reports*. 2025; 24(1):27. DOI:10.1007/s11901-025-00694-7.
 - Idalsoaga F, Diaz LA, Dunn W, Mehta H, Caldentey V, Arnold J, Ayares G, Sarin SK, Maiwall R, Zhang W, Qian S, Simonetto D, Singal AK, Elfeki MA, Khan MQ, Mortuza R, Malhi G, Islam AH, Guizzetti L, Ramirez C, Cabezas J, Echavarria V, Poca M, Cuyas B, Soriano G, Cots MV, Higuera MF, Abrales JG, Al M, Skladany L, Havaj DJ, Rincón D, Shah V, Arrese M, Kamath PS, Bataller R, Arab JP. Pentoxifylline use in alcohol-associated hepatitis with acute kidney injury does not improve survival: a global study. *Egastroenterology*. 2025; 3(2):e100179. DOI:10.1136/egastro-2024-100179. PMID:40276593.
 - Idalsoaga F, Díaz LA, Dunn W, Mehta H, Muñoz K, Caldentey V, Arnold J, Ayares G, Mortuza R, Sarin SK, Maiwall R, Zhang W, Qian S, Simonetto D, Singal AK, Elfeki MA, Ramirez C, Malhi G, Ahmed A, Homsí H, Abid Z, Cabezas J, Echavarría V, Poca M, Soriano G, Cuyas B, Cots MV, Higuera MF, Ayala M, Pérez D, Gómez J, Abrales JG, Al M, Jalal PK, Ibrahim MA, García G, Goyes D, Skladany L, Havaj DJ, Sulejova K, Selcanova SA, Rincón D, Chacko KR, Restrepo JC, Yaquich P, Toro LG, Shah V, Arrese M, Kamath PS, Bataller R, Arab JP. Moderate alcohol-associated hepatitis: A real-world multicenter study. *Hepatology Communications*. 2025; 9(4):e0673. DOI:10.1097/HC9.0000000000000673. PMID:40131003. IF:4,600 (Q1/2D).
 - Juanola A, Mezzano G, Pose E, Moreta MJ, Incicco S, Gagliardi R, Johansen S, Torp N, Israelsen M, Jiménez N, Castillo J, Ribera J, Gratacos J, Soria A, Cárdenas A, Pérez M, Cervera M, Nadal R, Herms Q, Tonon M, Hansen T, Stankevici E, Huang Y, Vargas V, Zaccherini G, Alessandria C, Uschner FE, Beuers U, Francoz C, Mookerjee RP, Laleman W, Solé C, Bañares R, Cuyàs B, Ariza X, Coll M, Graupera I, Fabrellas N, Morales M, Thiele M, Krag A, Angeli P, Piano S, Solà E, Ginès P. PD-L1 and the risk of bacterial infection in patients with chronic liver diseases: An international multicohort study. *Jhep Reports*. 2025; 7(12):101597. DOI:10.1016/j.jhepr.2025.101597. PMID:41321934. IF:7,500 (Q1/2D).
 - Langtry A, Rabadan R, Alonso L, Filip I, Sabroso S, Moreno A, Lawlor R, Carrato A, Álvarez R, Iglesias M, Molero X, Löhr MJ, Michalski CW, Perea J, O'Rourke M, Barberà VM, Tardon A, Farré A, Muñoz L, Crnogorac T, Domínguez E, Gress TM, Greenhalf W, Sharp L, Balsells J, Costello E, Kleeff J, Kong B, Mora J, O'Driscoll D, Scarpa A, Ye WM, Real FX, de Maturana EL, Malats N, Gómez P, Molina E, Márquez M, Milne R, Alfaro A, Lobato T, Estudillo L, Beghelli S, Cubillo A, Hidalgo M, Peinado P, Salas I, Pascual JR, Earl J, Caminoa A, Guillén C, Rodríguez M, Longo F, Ferreira R, Pachon V, Vaz MA, Muñoz M, Ilzarbe L, Álvarez C, Bessa X, Bory F, Márquez L, Poves I, Burdío F, Grande L, Gimeno J, Guarner L, Balcells J, Salcedo M, Merino X, Esposito I, Mota C, Huang JQ, Verbeke C, Yu JR, Loinaz C, Rodríguez JL, Teijo A, Peláez P, Martín M, Artigas V, Guarner C, Sancho FJ, Concepcion M, Cajal TRY, Szafranska J, Murray L, Cantwell M, Gallego J, Barneo L, Rodríguez M, Pazos Y, Lozano A, Luaces M, Blanco F, Manzano JMS, Troncoso MLG, de Matos AO, Buchholz M, Neesse A, Kocher HM, Bhattacharya S, Abraham AT, Ennis D, Dowe T, Radon T, PanGenEU Consortium Investigators Alberto L. Deciphering the role of complement system genes in pancreatic cancer susceptibility and prognosis. *Nature Communications*. 2025; 16(1):10769. DOI:10.1038/s41467-025-65811-y. PMID:41315260. IF:15,700 (Q1/1D).
 - Laue T, Ballester MP, Meoli L, Grabitz C, Uson E, D'Antiga L, McLin V, Pujadas M, Carvalho A, Sahuco I, Bono A, D'Amico F, Viganò R, Diago E, Lanseros BT, Inglese E, Vazquez DM, Broekhoven A, Kikkert M, Morales SPT, Myeni SK, Riveiro M,

5.1.5 Translational Medicine Area

- Palom A, Zeni N, Brocca A, Cussigh A, Cmet S, Escudero MD, Stocco M, Natola LA, Ieluzzi D, Paon V, Sangiovanni A, Farina E, Dibenedetto C, Sánchez Y, Lucena A, Román E, Sánchez E, Sánchez R, López J, Jeyanesan D, Morocho AE, Canas I, Eastgate C, Di S, Lapenna L, Zaccherini G, Bongiovanni D, Riva A, Sharma R, Tsou HLP, Harris N, Zanaga P, Sayaf K, Hossain S, Crespo J, Robles M, Madejón A, Degroote H, Korenjak M, Verhelst X, García J, Andrade RJ, Iruzubieta P, Wright G, Caraceni P, Merli M, Patel VC, Gander A, Albillos A, Soriano G, Donato MF, Sacerdoti D, Toniutto P, Buti M, Duvoux C, Grossi PA, Berg T, Polak WG, Puoti M, Bosch A, Belli LS, Burra P, Russo FP, Coenraad M, Calleja JL, Perricone G, Chokshi S, Berenguer M, Clària J, Moreau R, Fernández J, Arroyo V, Angeli P, Sánchez C, Ampuero J, Piano S, Nicastro E, Rock N, Shawcross D, Edwards L, Mutschler F, Melk A, Mehta G, Baumann U, Jalan R. Pediatric Liver and Kidney Transplant Recipients Demonstrate Greater Serological Response to SARS-CoV-2 Vaccination Than Adults. *Transplantation Direct*. 2025; 11(5):e1787. DOI:10.1097/TXD.0000000000001787. PMID:40309027.
- Llao J, Mañosa M, Martín E, Zabana Y, Navarro M, Téller M, García E, Busquets D, Monfort D, Pineda JR, Gutiérrez A, Villoria A, Menchén L, Bastida G, García FJ, Rivero M, Chaparro M, de Francisco R, Merino O, Rodríguez I, Acosta MBD, Rodríguez P, Rodríguez C, Calafat M, Domènech E, CECUM Study GETECCU GRP. Addition of pulse corticosteroids to oral prednisone in moderately active ulcerative colitis: a randomised, multicentre, open-label study by GETECCU. *Journal of Crohns & Colitis*. 2025; 19(11):jjaf182. DOI:10.1093/ecco-jcc/jjaf182. PMID:41258993. IF:8,700 (Q1/1D).
 - Magaz M, Giudicelli H, Abalde JG, Nicoara O, Turon F, Rajoriya N, Goel A, Raymenants K, Hillaire S, Téllez L, Elkrief L, Procopet B, Orts L, Nery F, Shukla A, Larrue H, Degroote H, Aguilera V, Llop E, Turco L, Indulti F, Gioia S, Tosetti G, Bitto N, Becchetti C, Alvarado E, Roig C, Diaz R, Praktiknjo M, Konicek AL, Olivas P, Fortea JI, Masnou H, Puente A, Ardèvol A, Navascués CA, Romero M, Scheiner B, Semmler G, Mandorfer M, Damiao F, Baiges A, Ojeda A, Simón M, González C, Díaz A, García A, De Gottardi A, Hernández M, Genescà J, Drilhon N, Ferreira CN, Reiberger T, Rodríguez M, Morillas RM, Crespo J, Trebicka J, Bañares R, Villanueva C, Berzigotti A, Primignani M, La Mura V, Riggio O, Schepis F, Verhelst X, Calleja JL, Bureau C, Albillos A, Nevens F, Hernández V, Tripathi D, Rautou PE, García JC, ERN R. Porto-sinusoidal vascular liver disorder with portal hypertension: Natural history and long-term outcome. *JOURNAL OF HEPATOLOGY*. 2025; 82(1). DOI:10.1016/j.jhep.2024.07.035. PMID:39181213. IF:33,000 (Q1/1D).
 - Mañosa M, Oller B, Garcia E, Guardiola J, Cañete F, González C, Camps B, Calafat M, Domènech E. Faecal calprotectin-based strategy for long-term monitoring of patients with Crohn's disease without or with mild endoscopic postoperative recurrence. *DIGESTIVE AND LIVER DISEASE*. 2025; 57(3). DOI:10.1016/j.dld.2024.11.028. PMID:39730282. IF:3,800 (Q2/3D).
 - Mesonero F, Zabana Y, Fernández A, Solá A, Caballol B, Leo E, García MJ, Bertoletti F, Bastida G, Suris G, Casis B, Ferreira R, Calafat M, Jiménez I, Miranda J, Lamuela LJ, Fajardo I, Torrealba L, Nájera R, Sáiz RM, González I, Vicuña M, García N, Gutiérrez A, López A, Benítez JM, de Célix CR, Tejido C, Brunet E, Hernández A, Suárez C, Rodríguez I, Piqueras M, Castaño A, Ramos L, Sobrino A, Rodríguez MC, Elosua A, Montoro M, Baltar R, Huguet JM, Hermida B, Caballero A, Sánchez L, Bouhmidi A, Pajares R, Baston I, López A, Albillos A, Barreiro M, GETECCU Young Members G. Types, behaviour and therapeutic requirements of inflammatory pouch disorders: Results from the RESERVO study of GETECCU. *DIGESTIVE AND LIVER DISEASE*. 2025; 57(2). DOI:10.1016/j.dld.2024.09.023. PMID:39455313. IF:3,800 (Q2/3D).
 - Osuna R, Castellví I, Mulet M, Tandaipan JL, Zamora C, Codes H, Ortiz MA, Diaz C, Cantó E, Magallares B, Guinart A, Moya P, Corominas H, Vidal S. Platelet-bound B cells and their role in SSc: Implications for disease subtypes and clinical outcomes. *Translational Research*. 2025; 282. DOI:10.1016/j.trsl.2025.07.001. PMID:40645372. IF:5,900 (Q1/1D).
 - Osuna R, López J, Mulet M, Nomdedéu J, Cantó E, Ortin R, Cayuela AS, Ortiz MA, Guinart A, Vidal S. Non-Competitive Binding of Isatuximab and Daratumumab to CD38: Implications for Targeted Therapy in Multiple Myeloma. *Pharmaceutics*. 2025; 17(10):1278. DOI:10.3390/pharmaceutics17101278. PMID:41155915. IF:5,500 (Q1/1D).

5.1.5 Translational Medicine Area

- Pedregal P, Guarner C, Tan EH, Golozar A, Duarte T, Rosen AW, Delmestri A, Man WY, Burn E, Prieto D, Newby D. Incidence and Survival of Colorectal Cancer in the United Kingdom From 2000 to 2021: A Population-Based Cohort Study. *AMERICAN JOURNAL OF GASTROENTEROLOGY*. 2025; 120(12). DOI:10.14309/ajg.0000000000003460. PMID:40167184. IF:7,600 (Q1/1D).
- Pose E, Jiménez C, Zaccherini G, Campion D, Piano S, Uschner FE, de Wit K, Roux O, Ganananadan K, Laleman W, Solé C, Alonso S, Cuyàs B, Ariza X, Juanola A, Ma AT, Napoleone L, Gratacós J, Tonon M, Pompili E, Sánchez J, Allegretti AS, Morales M, Carol M, Pérez M, Fabrellas N, Pich J, Martell C, Joyera M, Domenech G, Ríos J, Torres F, Serra M, Hernández R, Solà E, Graupera I, Watson H, Soriano G, Bañares R, Mookerjee RP, Francoz C, Beuers U, Trebicka J, Angeli P, Alessandria C, Caraceni P, Vargas VM, Abraldes JG, Kamath PS, Ginès P, LIVERHOPE C. Simvastatin and Rifaximin in Decompensated Cirrhosis: A Randomized Clinical Trial. *JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*. 2025; 333(10). DOI:10.1001/jama.2024.27441. PMID:39908052. IF:55,000 (Q1/1D).
- Puente A, Turón F, Martínez J, Fortea JI, Guerra MH, Alvarado E, Pons M, Magaz M, Llop E, Álvarez C, Navarrete AA, Berenguer M, Masnou H, Bañares R, Casado M, Ampuero J, Rios J, Saavedra C, Blasi A, Lisman T, Figuero CR, Huelin P, Tellez L, Arráez DM, Rodríguez M, Aguilera V, Loste M, Baiges A, Hernández V, Perelló C, Calleja JL, Genescà J, Villanueva C, González C, Albillos A, Crespo J, Garcia JC. Rivaroxaban to prevent complications of portal hypertension in cirrhosis: The CIRROXABAN study. *JOURNAL OF HEPATOLOGY*. 2025; 83(5). DOI:10.1016/j.jhep.2025.06.035. PMID:40691992. IF:33,000 (Q1/1D).
- Ramírez W, Alvarado E, Shalaby S, Hernández V. Recompensation in Cirrhosis: Biomarkers and Strategies. *SEMINARS IN LIVER DISEASE*. 2025; 45(01). DOI:10.1055/a-2542-9930. PMID:40179966. IF:3,700 (Q2/3D).
- Rivero L, Castillo J, Garcia A, Zafra BG, Redondo PD, Rodríguez HN, Ponce M, San Juan M, Barrera PB, Seoane A, Carrasco MA, Zaffalon D, Guarner C, Murzi M, Jover R, Medina L, Rubio KA, Matias DJ, Suárez BG, Córdova H, Fernández A, Araujo I, Ginés A, Pellisé M, Balaguer F, Fernández G. Colonoscopy in symptomatic patients: Validation of AEG-SEED prioritization criteria and added value of FIT. The endoprior study. *Gastroenterologia y Hepatologia*. 2025; 48(9):502471. DOI:10.1016/j.gastrohep.2025.502471. PMID:40409590. IF:1,900 (Q3/7D).
- Sala M, Pascual S, Roca MRR, Matilla AM, Campos M, Delgado M, Ferrer MT, Montero JL, González JM, Guerrero A, Aracil C, Rodríguez C, Romero M, Sogbe M, Vazquez S, Olmo JF, Minguez B, Cortes L, Vallejo N, Unceta PR, Clos A, Diaz D, Sánchez AG, Castro RQ, Bustamante J, Perello C, Ponce J, Serra HA, Llamaza CJ, Montoliu S, Fernández C, Guiberteau A, Vergara M, Fernández AM, Gutierrez ML, Hernaez T, Coll S, Cuyas B, Morillas MJ, Olmedo SR, Fernández M, Roget M, Ramos IC, Rio GPD, Rifa R, Gacho PC, Barrio ML, Gómez M, Penas I, Serra I, Cachero A, Reig M, Giraldez A, Guerrero M, Segarra JX, Lledo JL, Diaz A, Delgado C, Inarrairaegui M, Rodríguez M, Lazaro M, Bermudez M, Lue A, Molina E, Macias MA, Rodríguez M, Chiminazzo V, Varela M. Evolving epidemiology of HCC in Spain. *Jhep Reports*. 2025; 7(5):101336. DOI:10.1016/j.jhepr.2025.101336. PMID:40248605. IF:7,500 (Q1/2D).
- Sánchez R, Villanueva C, Genescà J, García JC, Castillo E, Calleja JL, Aracil C, Bañares R, Téllez L, Paule L, Morillas RM, Poca M, Peñas B, Augustin S, Abraldes JG, Alvarado E, Bosch J, Albillos A. Progressive systemic inflammation precedes decompensation in compensated cirrhosis. *Jhep Reports*. 2025; 7(2):101231. DOI:10.1016/j.jhepr.2024.101231. PMID:39850960. IF:7,500 (Q1/2D).
- Torras C, Bañares J, Martí A, Acin V, Pagès L, Gutiérrez L, Casabella A, Ferrusquía J, Sánchez J, Pérez M, Fuertes D, Garcia M, Cuyàs B, Masnou H, Amador A, Soriano G, Pericàs JM, Gasch O, Solé C. Comparison of Bacterial Infections in Patients With Cirrhosis Between Hospitals With and Without Liver Transplant in Catalonia. *LIVER INTERNATIONAL*. 2025; 45(5):e70076. DOI:10.1111/liv.70076. PMID:40211829. IF:5,200 (Q1/2D).
- Ukashi O, Amiot A, Laharie D, Menchen L, Gutierrez A, Fernandes S, Pessarelli T, Correia

5.1.5 Translational Medicine Area

- F, González C, López J, Calabrese G, Ferreiro R, Tamir N, Dussias NK, Mousa A, Oliveira R, Richard N, Veisman I, Sharif K, Ben S, Soutullo C, Dragoni G, Rotulo S, Favale A, Calmejane L, Bazin T, Elosua A, Lopes S, Felice C, Mauriz V, Rodrigues IC, Jougon J, Botto I, de Sousa HT, Bertani L, Abadia PR, De Bernardi A, Zabana Y, Serra X, Viola A, Acosta MBD, Yanai H, Armuzzi A, Magro F, Kopylov U. Inter-Rater Disagreements in Applying the Montreal Classification for Crohn's Disease: The Five-Nations Survey Study. *United European Gastroenterology Journal*. 2025; 13(5). DOI:10.1002/ueg2.12757. PMID:39825768. IF:6,700 (Q1/2D).
- Valero C, Pardines M, Montes N, Dauden E, Fernández B, Garcia E, Garcia FG, Gratacós J, Pérez JJ, Julia A, Marsal S, Lamana A, Garcia R, González I, Triguero A. Differential Expression of Galectin-1 and Galectin-9 in Immune-Mediated Inflammatory Diseases. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(18):9087. DOI:10.3390/ijms26189087. PMID:41009653. IF:4,900 (Q1/3D).
 - Vega S, Román E, Soler Z, Ortiz MA, Rossi G, Biagini L, Sánchez E, Pons M, Laghi L, Mengucci C, Kaur N, Poca M, Cuyàs B, Serrano G, Alvarado E, Manichanh C, Soriano G. A Metagenomics Approach to Frailty in Patients With Cirrhosis Undergoing a Multifactorial Intervention. *LIVER INTERNATIONAL*. 2025; 45(12):e70418. DOI:10.1111/liv. 70418. PMID:41174950. IF:5,200 (Q1/2D).
 - Villanueva C, Tripathi D, Bosch J. Preventing the progression of cirrhosis to decompensation and death. *Nature Reviews Gastroenterology & Hepatology*. 2025; 22(4). DOI:10.1038/s41575-024-01031-x. PMID:39870944. IF:51,000 (Q1/1D).
 - Villanueva CL, Arbizu EA, Goruppi I, Lozano NB, Bianchi F, Martínez AP, Pina SM, Caballero A, Murzi M, Bettoletti F, Estremera F, Guerrero SB, Argente CG. Peroral endoscopic myotomy (POEM) as a treatment for pediatric achalasia: multicenter study and first results. *Gastroenterología y Hepatología*. 2025; 48(4):502262. DOI:10.1016/j.gastrohep.2024.502262. PMID:39343296. IF:1,900 (Q3/7D).

5.1.5 Translational Medicine Area

Microbiology and Infectious Diseases

Group leader

Navarro Risueño, Ferran (FGS)

Researchers

Altaba Sastre, Raúl (FGS)
 Armero Jurado, Patricia (UAB)
 Ballarin Laliena, Gemma (FGS)
 Berengua Pereira, Carla (FGS)
 Cermeño Reyes, Sílvia (FGS)
 Córdoba Herrera, Christian (F. Puigvert)
 Cortes Palacios, Ana Pilar (FGS)
 De Benito Hernández, María Natividad (FGS)
 Escola Verge, Laura (FGS)
 Facundo Molas, Carme (F. Puigvert)
 Fayos De Arizon, Leonor (F. Puigvert)
 Fernández Piqueras, Engracia (FGS)
 Garrigo Fullola, Montserrat (FGS)
 Grillo, Sara (FGS)
 Llovet Pellejero, Teresa (FGS)
 López-Contreras González, Joaquín (FGS)
 Marti Orench, Neus (FGS)
 Miro Cardona, Elisenda (FGS)
 Muñoz Batet, Carmen (FGS)
 Pérez Mir, Mónica (F. Puigvert)
 Piriz Marabajan, Marta Sonsoles (FGS)
 Pomar Solchaga, Virginia (FGS)
 Rivera Martínez, María Alba (FGS)
 Roch Villaverde, Nerea (FGS)
 Rombauts, Alexander (FGS)
 Rubio Bueno, Marc (FGS)
 Sánchez Reus, Fernando (FGS)
 Serra Cabañas, Nuria (F. Puigvert)
 Simonetti, Antonella Francesca (FGS)

Research technicians

Artesero Sosa, Iris (IR)
 Español Fran, Montserrat (FGS)
 Gómez Martínez, Laura (FGS)
 Pereira Da Terra Miraballes, Gabriela (FGS)



DESCRIPTION

The group's research topics are focused on Clinical Microbiology (CM), Infectious Diseases (ID) and Kidney Transplant (KT). The CM and ID projects are focused on antimicrobial resistance and stewardship, severe and bloodstream infections, healthcare- and device-associated infections, mycobacterial and chronic Infections, antifungal innovation, emerging and re-emerging infections, and microbiome dynamics in kidney transplant patients (KT) and endometriosis. The KT unit also examines biomarkers.

MAIN LINES OF RESEARCH

Clinical Microbiology:

- Detection and characterisation of different antidrug mechanisms of resistance (Miro Cardona, Elisenda; Rivera Martínez, María Alba; Rubio Bueno, Marc; Navarro Risueño, Ferran).
- Epidemiology of tuberculosis and anti-tuberculosis resistance mechanisms. (Rubio Bueno, Marc; Garrigo Fullola, Montserrat).
- Molecular diagnosis in infectious diseases, taxonomy. (Navarro Risueño, Ferran; Miró Cardona, Elisenda).
- Microbiome description in clinical samples (Navarro Risueño, Ferran; Miro Cardona, Elisenda; Rubio Bueno, Marc).
- Leishmaniosis (epidemiology, characterisation, and diagnosis) and Chagas (diagnosis and congenital infection) (Muñoz Batet, Carmen; Llovet Pellejero, Teresa).
- Medical care projects (Sánchez Reus, Fernando, Berengua Pereira, Carla, Soares Pereira Batista, Celso).
- Early bloodstream infection detection by NGS of cfDNA (Rivera Martínez, María Alba; Navarro Risueño, Ferran; Rubio Bueno, Marc).

5.1.5 Translational Medicine Area

Infectious Diseases:

- Restricted-use policies for antimicrobial agents and suitable use of antimicrobial agents. (Navarro Risueño, Ferran; Rivera Martínez, María Alba, infecciosos).
- Study of antimicrobial multiresistant microorganism infections requiring patient isolation. (Navarro Risueño, Ferran; Rivera Martínez, María Alba; infecciosos).
- Study of foreign body infections as joint prostheses, catheters, cardiac prostheses and pacemakers. (De Benito Hernández, María Natividad; Grillo, Sara; Pomar Solchaga, Virginia; Navarro Risueño, Ferran).
- Tuberculosis infectious diseases (Pomar Solchaga, Virginia; Garrigo Fullola, Montserrat).
- Impact of New EUCAST Definitions for Antimicrobial Susceptibility Categories with a Bundle to Mitigate Adverse Effects (Escola Verge, Laura; Rivera Martínez, María Alba).
- Impact of infective endocarditis on frailty and quality of life among the elderly population (Escola Verge, Laura).
- Kidney Transplant Unit:
- Description of the faecal microbiome in kidney transplant patients and recurrent urinary tract infections (Pérez Mir, Monica; Miro Cardona, Elisenda).

SCIENTIFIC CHALLENGES

- **Technique Standardisation:** Each research area, including Clinical Microbiology, Kidney Transplant, and Infectious Diseases, requires standardised techniques. Ensuring consistency in methodologies across diverse disciplines poses a significant challenge.
- **Data Management and Analysis:** With the incorporation of advanced techniques such as massive sequencing, we have the challenge of applying the most innovative tools in bioinformatics analysis, as well as organising and analysing big data. One objective of various projects is to describe different pipelines.
- **Sample Quality and Handling:** Maintaining sample integrity and minimising contamination during collection, processing, and storage is vital across all research areas. Developing standardised protocols and ensuring reproducibility are key challenges.
- **Interdisciplinary Collaboration:** As research becomes increasingly multidisciplinary, fostering effective collaboration among experts from diverse fields poses a challenge. Overcoming communication barriers and integrating knowledge from different disciplines are essential for holistic research outcomes.
- **Addressing Antimicrobial Resistance:** Understanding and combating antimicrobial resistance remains a critical challenge in Clinical Microbiology and Infectious Diseases research. Developing novel strategies to tackle resistant pathogens while preserving antibiotic efficacy is imperative.
- **Integration into Healthcare Systems:** Successfully integrating research findings and innovative technologies into existing healthcare systems presents logistical and structural challenges.

ACTIVE & AWARDED GRANTS

- Rivera Martínez, María Alba & Navarro Risueño, Ferran. Diagnóstico etiológico de la infección del torrente sanguíneo en pacientes adultos con sepsis mediante secuenciación masiva. PI22/00280. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2025. 87.120,00 €

5.1.5 Translational Medicine Area

DOCTORAL THESES DEFENDED

- Córdoba Herrera, Christian. La incompatibilidad en eplets como determinante en la exposición a tacrolimus en pacientes con trasplante renal. 07/07/2025. Universitat Autònoma de Barcelona. Supervisors: Guirado Perich, Luis; Alijotas Reig, Jaime. <https://hdl.handle.net/10803/694860>
- Cruells Gascón, Adrià. Alteració microbiana en la infecció recurrent del tracte urinari en el microbioma intestinal i vaginal. 08/04/2025. Universitat Autònoma de Barcelona. Supervisors: Miró Cardona, Elisenda; Navarro Risueño, Ferran; López-Contreras González, Joaquín. <https://hdl.handle.net/10803/694333>

SCIENTIFIC PRODUCTION - Articles & Reviews

- Batista CSP, Rivera A, Albarran M, Rubio M, Belen I, López C, Miro E, Navarro F, Sánchez F. Community-Onset Fungal Infections: Epidemiology and Genomic Characterisation at a Tertiary-Care Hospital in Barcelona, Spain. *Journal Of Fungi*. 2025; 11(11):808. DOI:10.3390/jof11110808. PMID:41295189. IF:4,000 (Q1/1D).
- Batista S, Fernández M, San Nicolás L, Martínez D, Narváez S, Espasa M, Losilla EG, Rubio M, Garrigo M, Tudó G, González J. Design and Validation of a Simplified Method to Determine Minimum Bactericidal Concentration in Nontuberculous Mycobacteria. *Antibiotics-Basel*. 2025; 14(4):381. DOI:10.3390/antibiotics14040381. PMID:40298560. IF:4,600 (Q1/2D).
- Becerra F, Gómez S, Hernández M, Xanthopoulou K, Gijón D, Siverio A, Berbel D, Cercenado E, Rivera A, De Malet A, Xercavins M, De Gopegui ER, Canoura L, Martínez JA, Seral C, Del Pozo JL, Cotarelo M, Ponz R, Higgins PG, Durán X, Cantón R, Oliver A, Horcajada JP, Ruiz P, ITUBRAS GRP. Whole Genome Sequencing Analysis of *Klebsiella pneumoniae* Isolates from Health Care-Associated Bacteremia of Urinary Origin in Spain: Findings from the Multicenter ITUBRAS-2 Cohort Study. *Open Forum Infectious Diseases*. 2025; 12(4):ofaf164. DOI:10.1093/ofid/ofaf164. PMID:40201725. IF:3,800 (Q1/3D).
- Blancas D, Simonetti AF, Chico C, Serdà S, Jou E, Moreno E, Pérez C, Carmezim J, García J. Bacteraemia due to *E.coli* in urinary tract infections in adults: a prospective epidemiological study following implementation of guidelines in a regional hospital. *BMC INFECTIOUS DISEASES*. 2025; 25(1):1544. DOI:10.1186/s12879-025-11987-z. PMID:41219722. IF:3,000 (Q2/4D).
- Carbó M, Miró E, Hurtado JC, Avila A, Robert N, Rivas GF, Llaneras J, Segura AR, Guardiola JM, Miró E, Sentis L, del Castillo JG, Gené E, Miró O, VIHgila P. Role of emergency departments in HIV screening in Barcelona (Spain) and impact of a targeted opt-in strategy for HIV testing. *European Journal of Emergency Medicine*. 2025; 32(4). DOI:10.1097/MEJ.0000000000001229. PMID:40557507. IF:4,200 (Q1/1D).
- Casares LD, Pereiro JE, Fernández MTT, García XC, Millet JP, Solchaga VP, Elorza EN, García JT, de Santiago AD, Márquez RL, Gallardo JFM, Galán VG, Alonso MM, Brusola AG, Rey RR, García LA, Herrero FS, Serrano RG, Fullola MG, Díez MT, Zanon TT, Portero MF, García PA, López A, Aznar ML, Camprecios JM, Saborit N, Montalvá AS. Multicentre controlled open randomised clinical trial to assess efficacy and safety of an anti-tuberculosis drug combination based on optimised-dose rifampicin, optimised-dose moxifloxacin and optimised-dose linezolid for TB: the RML-TB trial protocol. *Bmj Open Respiratory Research*. 2025; 12(1):e002475. DOI:10.1136/bmjresp-2024-002475. PMID:41360613. IF:3,400 (Q2/3D).
- Cuyàs B, Cantó E, Sánchez E, Miró E, Alvarado E, Román E, Poca M, Navarro F, Ferrero A, Escorsell MA, Vidal S, Soriano G. In Vitro Immune Response of Mononuclear Cells to Multidrug-Resistant *Escherichia coli*. *Microorganisms*. 2025; 13(5):1164. DOI:10.3390/microorganisms13051164. PMID:40431335. IF:4,200 (Q2/3D).
- Díaz JM, Lloret MJ, Domínguez JD, Aranda A, de Arizón LF, Jiménez EM, Bover J, Valdivielso JM, Rodríguez ME. Magnesium Balance in Chronic Kidney Disease: Mineral Metabolism, Immunosuppressive Therapies and Sodium-Glucose Cotransporter 2 Inhibitors. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(12):5657. DOI:10.3390/ijms26125657. PMID:40565121. IF:4,900 (Q1/3D).

5.1.5 Translational Medicine Area

- Duch P, Simonetti AF, Figueras A, Rivera A, de Gamarra EF, Gras L, Moreno ME, Ramos JR, Zarate B, Navarro F, López J, Escolà L. Successful implementation of a bundle to prevent increased excessive-spectrum antimicrobial use under new EUCAST susceptibility definitions: a quasi-experimental study in a tertiary hospital. *JOURNAL OF HOSPITAL INFECTION*. 2025; 161. DOI:10.1016/j.jhin.2025.04.016. PMID:40306370. IF:3,100 (Q1/3D).
- Gasch O, Almendral A, Andrés M, Càmarà J, Domenech D, Garcia X, García MJ, Jiménez E, Marrón A, Moreno E, Pomar V, Vaqué M, Limón E, Pujol M, VINCat P. Surveillance of catheter-related bacteremia in VINCat program. *ENFERMEDADES INFECCIOSAS Y MICROBIOLOGÍA CLÍNICA*. 2025; 43. DOI:10.1016/j.eimc.2024.12.001. IF:2,500 (Q2/5D).
- Huisman GJJ, Berger SP, Thyrestrup PS, Hausken J, Veelo DP, Guirado L, Pol R, Jensen LL, Tonnessen TI, Bemelman FJ, Facundo C, Tamasi K, Lunter G, Jespersen B, Leuvenink HGD, Struys MMRF, Nieuwenhuijs GJ. Propofol-based versus sevoflurane-based anaesthesia for deceased donor kidney transplantation: the VAPOR-2 study protocol for an international multicentre randomised controlled trial. *BMJ Open*. 2025; 15(9):e098965. DOI:10.1136/bmjopen-2025-098965. PMID:40897490. IF:2,300 (Q2/3D).
- Lazzari R, Borja Cano M, Rivera Martínez A, Rubio Bueno M, Castella Rovira M, Puig Campmany M. *Vibrio fluvialis* cholangitis with bacteremia and refractory septic shock: a case report and review of the literature. *Infection*. 2025 Dec;53(6):2883-2887. doi: 10.1007/s15010-025-02535-7. PMID: 40377851. IF:3,600 (Q2/3D).
- Lloret MJ, Canal C, Montañés R, Di S, Arizón LFD, Tinoco A, Laiz A, Montolio D, Facundo C, Guirado L, Bover J. Study of bone turnover biomarker behaviour within the first year post-kidney transplant. *Revista De Osteoporosis Y Metabolismo Mineral*. 2025; 17(2). DOI:10.20960/RevOsteoporosMetabMiner. 00063.
- López J, Lloracha PD, Villaverde NR, Almendral A, López AF, Marimon M, Domínguez MA, Martínez JC, Salas JR, Benito N, Morata L, Zules R, Limón E, Pujol M, VINCat Orthopaedic Surgery Module T. Secular trends in periprosthetic joint infections following primary hip and knee arthroplasties: A 15-year cohort study from the VINCat Program (2008-2022). *ENFERMEDADES INFECCIOSAS Y MICROBIOLOGÍA CLÍNICA*. 2025; 43. DOI:10.1016/j.eimc.2025.02.007. PMID:40316368. IF:2,500 (Q2/5D).
- Machuca I, Dominguez A, Amaya R, Arjona C, Gracia I, Carralon M, Giron R, Gea I, De Benito N, Martín A, Galán F, Martínez JA, Iglesias R, Revuelto J, Caston JJ, Cano A, Ruiz E, Martínez L, Torre J. Real-World Experience of Imipenem-Relebactam Treatment as Salvage Therapy in Difficult-to-Treat *Pseudomonas aeruginosa* Infections (IMRECOR Study). *Infectious Diseases and Therapy*. 2025; 14(1). DOI:10.1007/s40121-024-01077-z. PMID:39612160. IF:5,300 (Q1/2D).
- Mancheño M, Murillo O, Benavent E, Sorlí L, Riera M, Cobo J, Benito N, Morata L, Ribera A, Sobrino B, Fernández M, Muñoz E, Bahamonde A, Barbero JM, del Toro MD, Villa J, Rigo R, Luque S, García I, Oliver A, Esteban J, Lora J. Efficacy and safety of colistin plus beta-lactams for bone and joint infection caused by fluoroquinolone-resistant gram-negative bacilli: a prospective multicenter study. *INFECTION*. 2025; 53(1). DOI:10.1007/s15010-024-02379-7. PMID:39249177. IF:3,600 (Q2/3D).
- Martínez Y, Simonetti AF, Navarro F. Megaprosthesis Infection by *Bacteroides fragilis* in a Patient With Ewing's Sarcoma: A Case Report and Literature Review. *Clinical Case Reports*. 2025; 13(2):e70185. DOI:10.1002/ccr3.70185. PMID:39931721.
- Monje A, Escolà L, Rivera A, Herrera S, Plaza A, Duch P, Pomar V, Roch N, Rouras L, López J, Ramos JR. Targeting Overtreatment of Asymptomatic Bacteriuria in the Emergency Department: Results from a Quasi-Experimental Clinical Pharmacist-Led Program Based on Education and Audit. *Antibiotics-Basel*. 2025; 14(12):1261. DOI:10.3390/antibiotics14121261. PMID:41463763. IF:4,600 (Q1/2D).
- Pérez MJ, Melilli E, Arias M, Franco A, Martínez R, Sancho A, Molina M, Facundo C, Polanco N, López V, Mazuecos A, Cabello S, García M, Suárez ML, Auyanet I, Espi J, Falcón TG, Ruiz JC, Galeano C, Artamendi M, Rodríguez ML, Portolés JM, Santana MA, Martín PL, Arhda N, Calvo M, Mendiluce A, Macía M, Pérez ML, de Teresa J, Gascó B, Soriano S, Tabernero G, de la Vara L, Ramos AM, Martínez R, de Espinosa EM,

5.1.5 Translational Medicine Area

- Zalve JL, Pascual J, Rodríguez L, Gutiérrez A, Moreso F. Frailty Prevalence and Characterization Among Kidney Transplant Candidates in Spain: A Multicenter Study. *TRANSPLANT INTERNATIONAL*. 2025; 38:14098. DOI:10.3389/ti.2025.14098. PMID:40630784. IF:3,000 (Q1/1D).
- Roca J, Mir A, Muñoz C, Lung MY, Bellés A, Càmarà J, Cercenado E, Galán MA, Martín A, Moreno A, de la Cruz DN, Orellana MA, Palop B, Pérez A, Puigsech G, Quesada MD, Rivera A, Rodríguez A, de Gopegui ER, Sarvisé C, Soler A, Viñado B, Larrosa N, González JJ, GE EMIE Study T. Genomic characterization of invasive *Neisseria meningitidis* in Spain (2011/12-2022/23): expansion of clonal complex 213 and the potential threat to 4CMenB vaccine strain coverage. *Emerging Microbes & Infections*. 2025; 14(1):2482696. DOI:10.1080/22221751.2025.2482696. PMID:40105365. IF:7,500 (Q1/1D).
 - Rubio M, Fernández M, Batista S, Martínez D, San Nicolas L, Portell E, Busquets MA, Estelrich J, González J, Navarro F, Tudó G, Garrigó M. Non-tuberculous mycobacteria isolates from patients with chronic pulmonary disease and no epidemiological relationship show sequence clusters through whole-genome sequencing. *Frontiers in Microbiology*. 2025; 16:1549030. DOI:10.3389/fmicb.2025.1549030. PMID:40135059. IF:4,500 (Q1/3D).
 - Ruiz J, Monje AE, Escolà L, Herrera S, Hernández H, Duch P, Fernández E, Rivera MA, Pereira CS, López J. Comparison of antimicrobial consumption indicators in the emergency department. *ENFERMEDADES INFECCIOSAS Y MICROBIOLOGÍA CLÍNICA*. 2025; 43(8). DOI:10.1016/j.eimc.2025.01.009. IF:2,500 (Q2/5D).
 - Sellarés J, Casanova F, Pérez MJ, Cucchiari D, Coloma A, Vila A, Facundo C, Kervella D, Molina M, Moreso F, Melilli E, Diekmann F, Crespo M, Bestard O. Blood Gene Expression Profiling and Donor-derived Cell-free DNA to Noninvasively Diagnose Clinical and Subclinical Kidney Transplant Rejection: A Real-life Appraisal Study. *TRANSPLANTATION*. 2025; 109(6). DOI:10.1097/TP.0000000000005257. PMID:40020163. IF:5,000 (Q1/1D).
 - Soldevila L, Carrera A, Mur I, Morata L, Rivera A, Bosch J, Montero A, Castillejo JM, Benito N, Martí S, Murillo O. Exploring the Microbiome of Diabetic Foot Ulcers: A Focus on Cases with a Clinical Worse Outcome. *Antibiotics-Basel*. 2025; 14(7):724. DOI:10.3390/antibiotics14070724. PMID:40724025. IF:4,600 (Q1/2D).
 - Subedi S, Harris PN, Chapman P, Chen AF, Davis JS, Liu PY, Marais LC, Salles MJ, Roberts JA, Rodríguez J, Wouthuyzen M, Paterson DL, Benito N. A global survey of diagnostic practices in prosthetic joint infections. *DIAGNOSTIC MICROBIOLOGY AND INFECTIOUS DISEASE*. 2025; 113(2):116919. DOI:10.1016/j.diagmicrobio.2025.116919. PMID:40480080. IF:1,800 (Q3/7D).
 - Tagini F, Uldum SA, Berengua C, Ivan B, Capaul R, Edouard S, Fischer A, Flipse J, de Artola DGM, Goldenberger D, Heddema E, Hermans M, Imkamp F, Kese D, Lejarraga C, Lienhard R, Maffioli C, Matheeussen V, Sauter PMM, Mitrovic I, Opota O, Orasch C, Drevinek P, Peuchant O, Liu PY, Puolakkainen M, Remy M, Thai KT, Wohlwend N, Greub G, ESCMID Study Mycoplasma Chlamydia infections ESGMAC GRP&. Epidemiological changes in Chlamydia pneumoniae molecular detections before, during and after the COVID-19 pandemic in 27 European sites and Taiwan, 2018 to 2023. *Eurosurveillance*. 2025; 30(23):2400682. DOI:10.2807/1560-7917.ES.2025.30.23.2400682. PMID:40511472. IF:7,800 (Q1/1D).
 - Torra R, Barros X, Díaz M, Fayos L, Furlano M, Pilco M, Pybus M, Shabaka A, Viera E, Ars E. When should the nephrologist consider genetics in patients with glomerular disease? *Clinical Kidney Journal*. 2025; 18(3):sfaf044. DOI:10.1093/ckj/sfaf044. PMID:40115110. IF:4,600 (Q1/2D).

5.1.5 Translational Medicine Area

Multi-organ Damage and Rheumatology

Group leader

Corominas Macias, Hector (FGS)

Researchers

Arroyo Díaz, Juan Antonio (FGS)
 Barceló Trias, Montserrat (FGS)
 Casademont Pou, Jordi (FGS)
 Casals Urquiza, Albert (FGS)
 Castellvi Barranco, Ivan (FGS)
 Clotet Vidal, Sandra (FGS)
 Díaz Torne, César (FGS)
 García Alija, Asier (FGS)
 Hernández De Sosa, Nerea (FGS)
 Laiz Alonso, Ana María (FGS)
 Magallares López, Berta Paula (FGS)
 Moya Alvarado, Patricia (FGS)
 Sainz Comas, Luis (FGS)
 Santos Gutiérrez, Álvaro (FGS)
 Tandaipan Jaime, José Luis (FGS)
 Torres Bonafonte, Olga (FGS)

Research technicians

Bernardez Moreno, Julia (IR)
 Codes Mendez, Helena (IR)
 Dutren Tella, Adriana (IR)
 Sihuro Cervantes, Margarita (IR)



MAIN LINES OF RESEARCH

Bone Metabolism and Osteoporosis

- Analysis of genetic influence on osteoporosis by means of aggregation studies in families of three or more generations with a minimum of 15 members.
- Bone structure study with quantitative CT of hip and spine, analysing the contribution of trabecular and cortical components using HRCT.
- Description of fat values and percentages in a normal population (in collaboration with the HIV Unit and CETIR Medical Group).
- Description of bone structure in patients with a history of acromegaly assessed by DXA and HRQCT.

Hypertension and Vascular Risk

- Hypertension and quality of life.
- Refractory hypertension.
- Use of alirocumab in hypercholesterolaemia.

Clinical Management, Internal Medicine and Geriatrics

- Health care quality indexes (mortality, readmissions, etc).
- Perioperative medicine, including orthogeriatrics.
- Geriatric evaluation prior to cardiac and vascular invasive procedures.
- Central Sensitisation Syndromes.

Rheumatology and Rheumatoid Arthritis

- Immunological basis and pathogenic studies of rheumatoid arthritis and other inflammatory conditions.
- Pharmacogenetic studies of disease-modifying and immunomodulatory drugs in autoimmune and inflammatory diseases.
- JAK-STAT pathway in autoimmune processes, mainly focused on rheumatoid arthritis.

5.1.5 Translational Medicine Area

Systemic Sclerosis

- Capillaroscopy patterns and correlation with auto-antibodies and pulmonary function tests.
- Study of capillaroscopy patterns in diffuse connective tissue diseases: QuantiCAP study.

Gout

- Epidemiology of hyperuricaemia and gout.
- Association of Parkinson's with clinical gout and arthritis. Sjögren Syndrome, SLE and others. Study of the pattern of interstitial lung disease in primary Sjögren's syndrome.

SCIENTIFIC CHALLENGES

- To establish stable work relations between the HSCSP Bone Metabolism and Genomics of Complex Diseases Groups and the Bone Metabolism Unit of Hospital del Mar Medical Research Institute and the Faculty of Biology of the University of Barcelona.
- To strengthen ties between the HSCSP Rheumatology and Immunology departments regarding the study of immunological diseases.

ACTIVE & AWARDED GRANTS

- Castellvi Barranco, Ivan. Early identification of treatment failure in pulmonary sarcoidosis through integrated multi-omic analysis: The PREDICT-SARC study. 201/U/2025. Fundació La Marató TV3. Duration: 2026-2028.
- Codes Mendez, Helena. Contratos Río Hortega 2025. CM25/00153. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2027. 65.000,00 €
- Díaz Torne, César. Reducción del depósito de cristales de urato monosódico: beneficios clínicos, antiinflamatorios y de riesgo cardiovascular en enfermos con gota. PI25/00373. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 102.125,00 €

DOCTORAL THESES DEFENDED

- Martínez Molina, Cristina. Fármacos inhibidores de Janus quinasa en el tratamiento de la artritis reumatoide. 09/04/2025. Universitat Autònoma de Barcelona. Supervisors: Vidal Alcorisa, Sílvia; Corominas Macias, Hector; Pagonabarraga Mora, Javier. <https://hdl.handle.net/10803/694340>
- Sang Park, Hye. Impacte de la càrrega inflamatòria crònica en les afeccions cardíques de l'espondiloartritis. 07/07/2025. Universitat Autònoma de Barcelona. Supervisors: Corominas Macias, Hector; Laiz Alonso, Ana; Casademont Pou, Jordi. <https://hdl.handle.net/10803/695388>
- Tandaipan Jaime, José Luis. Características de la afección muscular inflamatoria asociada a la esclerosis sistémica. 04/03/2025. Universitat Autònoma de Barcelona. Supervisors: Castellvi Barranco, Ivan; Gallardo Vigo, Eduardo; Casademont Pou, Jordi. <https://hdl.handle.net/10803/693975>
- Vílchez Oya, Francisco. Valor diagnóstico de la elastografía por ondas de corte en ultrasonido en la evaluación clínica de pacientes con artritis reumatoide. 09/07/2025. Universitat Autònoma de Barcelona. Supervisors: Corominas Macias, Hector; Monfort Faure, Jordi; Pedro-Botet Montoya, Juan. <https://hdl.handle.net/10803/695010>

5.1.5 Translational Medicine Area

SCIENTIFIC PRODUCTION - Articles & Reviews

- Añez G, Torrente V, Bonet M, Vilella MC, Orpinell L, Fernández AP, Busquets N, Pascual M, Corominas H, Díaz C, Moya P, De Agustín JJ. Clinical and ultrasound optimisation in rheumatoid arthritis for patients in sustained remission, can it work as a new optimisation tool?. *Journal Of Ultrasound*. 2025; 28(1). DOI:10.1007/s40477-024-00963-z. PMID:39424691.
- Bjorkekjaer HJ, Bruni C, Broch K, Brunborg C, Carreira PE, Airò P, Simeón CP, Truchetet ME, Giollo A, Balbir A, Martín M, Denton CP, Gabrielli A, Del Galdo F, Vonk MC, Fretheim H, Bitter H, Midtvedt O, Andreassen A, Hoie S, Tanaka Y, Riemekasten G, Mueller U, Matucci M, Castellví I, Siegert E, Hachulla E, Molberg O, Distler O, Hoffmann AM, EUSTAR C. A comparative analysis of risk stratification tools in SSc-associated pulmonary arterial hypertension: a EUSTAR analysis. *RHEUMATOLOGY*. 2025; 64(6). DOI:10.1093/rheumatology/keaf053. PMID:39878955. IF:4,400 (Q1/1D).
- Codes H, Castillo D, Moya P, Giménez A, Castellví I. ANCA-associated pulmonary fibrosis: vasculitis or not vasculitis. *CURRENT OPINION IN PULMONARY MEDICINE*. 2025; 31(5). DOI:10.1097/MCP.0000000000001187. PMID:40548517. IF:2,800 (Q2/5D).
- De Agustín JJ, Añez GA, Reina D, Heredia S, Ramírez J, Cuervo AM, Rodríguez J, Moragues C, Moya P, Alonso A, Moreno M, Arevalo M, Pujol M, Salvador G, Busquets N, Ponce A, Pastor MP. Usefulness of ultrasound in the assessment of the efficacy of apremilast in psoriatic arthritis: Articular, enthesitic and nail index. *Reumatologia Clinica*. 2025; 21(7):501921. DOI:10.1016/j.reuma.2025.501921.
- De Silva C, Díaz C, Gamble G, Horne A, Doyle A, Stamp LK, Dalbeth N. Mapping MSU crystal deposition within MTP joints in tophaceous gout: a dual-energy CT study. *RHEUMATOLOGY*. 2025; 64(11). DOI:10.1093/rheumatology/keaf347. PMID:40581776. IF:4,400 (Q1/1D).
- Del Galdo F, Lescoat A, Conaghan PG, Bertoldo E, Colic J, Santiago T, Suliman YA, Matucci M, Gabrielli A, Distler O, Hoffmann AM, Castellví I, Balbir A, Vonk M, Ananyeva L, Rednic S, Tarasova A, Ostojic P, Boyadzhieva V, El Aoufy K, Farrington S, Galetti I, Denton CP, Kowal O, Mueller U, Allanore Y. EULAR recommendations for the treatment of systemic sclerosis: 2023 update. *ANNALS OF THE RHEUMATIC DISEASES*. 2025; 84(1). DOI:10.1136/ard-2024-226430. PMID:39874231. IF:20,600 (Q1/1D).
- Gallego P, Ambroa E, Pérezalija J, Jornet N, Anson C, Tejedor N, Vivancos H, AGUSTIN M, Barceló M, Dominguez A, Riu V, Roda J, Carrasco P, Balocco S, Díaz O. Breast radiotherapy planning: A decision-making framework using deep learning. *MEDICAL PHYSICS*. 2025; 52(3). DOI:10.1002/mp.17527. PMID:39625151. IF:3,200 (Q1/3D).
- García P, López M, López BM, Dorta AG, Frade B, Lizarzaburu MS, Rúa I, Fiallo DV, de Miera FJTS, Melero RB, Santos DD, Miranda JA, Belando CG, Boselli G, Boteanu AL, Villalobos L, Selaya CC, Santos CS, Álvarez ED, Font J, Alonso ER, Araguás ET, Merayo EE, Rodríguez M, Monjo I, Gómez IV, Vela P, Merino C, Martínez MI, Beriain J, Ruiz A, Calvo J. VEXAS syndrome through a rheumatologist's lens: insights from a Spanish national cohort. *RHEUMATOLOGY*. 2025; 64(6). DOI:10.1093/rheumatology/keaf094. PMID:39937690. IF:4,400 (Q1/1D).
- Juárez FR, de Vicuña RG, Vicente E, Almaraz ER, Rivas NL, González MF, Marqués AO, Nack A, García JN, Alvarado PM, Itzazelaia EU, Lorenzo NA, de la Fuente JLM, Ramos C, Aransay VP, Alonso RB, Villanueva FB, Vidal MPM, Martín JMG, Rúa I. Mepolizumab efficacy and safety in patients with eosinophilic granulomatosis with polyangiitis in real practice: Data from a Spanish retrospective multicentric register from Rheumatology departments. *Reumatologia Clinica*. 2025; 21(1):101806. DOI:10.1016/j.reuma.2024.10.007.
- Lloret MJ, Canal C, Montañés R, Di S, Arizón LFD, Tinoco A, Laiz A, Montolio D, Facundo C, Guirado L, Bover J. Study of bone turnover biomarker behaviour within the first year post-kidney transplant. *Revista De Osteoporosis Y Metabolismo Mineral*. 2025; 17(2). DOI:10.20960/RevOsteoporosMetabMiner. 00063.
- Lobo D, Sainz L, Laiz A, De Dios A, Fontcuberta L, Fernández S, Masip M, Riera P, Pages N, Ros S, Gomis M, Corominas H. Designing an integrated

5.1.5 Translational Medicine Area

- care pathway for spondyloarthritis: A Lean Thinking approach. *JOURNAL OF EVALUATION IN CLINICAL PRACTICE*. 2025; 31(2). DOI:10.1111/jep.14132. PMID:39253893. IF:2,100 (Q2/3D).
- Magallares B, Cerdá D, Betancourt J, Fraga G, Park H, Codes H, Quesada E, López M, Torrent M, Marín A, Herrera S, Gich I, Boronat S, Casademont J, Corominas H, Malouf J. Risk factors associated with low bone mineral density and childhood osteoporosis in a population undergoing skeletal growth: a cross-sectional analytic study. *Frontiers in Endocrinology*. 2025; 16:1587985. DOI:10.3389/fendo.2025.1587985. PMID:40487764. IF:4,600 (Q1/3D).
 - Magallares B, Malouf J, Codes H, Park HS, Betancourt J, Fraga G, Quesada E, López M, Torrent M, Marín A, Herrera S, Gich I, Boronat S, Casademont J, Corominas H, Cerdá D. Pediatric densitometry: is the Z score adjustment necessary in all cases?. *Frontiers in Endocrinology*. 2025; 16:1587382. DOI:10.3389/fendo.2025.1587382. PMID:40270717. IF:4,600 (Q1/3D).
 - Martínez C, Vidal S, Díaz C, Park HS, Corominas H. Interindividual variability and its impact on the effectiveness of Janus kinase inhibitors in rheumatoid arthritis treatment. *Frontiers in Medicine*. 2025; 12:1512501. DOI:10.3389/fmed.2025.1512501. PMID:40224626. IF:3,000 (Q1/2D).
 - McCarty KL, Gaffo AL, Díaz C. Gout therapy updated. *Therapeutic Advances in Musculoskeletal Disease*. 2025; 17:1759720X251384584. DOI:10.1177/1759720X251384584. PMID:41146690. IF:4,100 (Q1/3D).
 - Narváez J, Domínguez M, Galíndez E, Mendizábal J, Abasolo L, Lluch J, Loricera J, Garrido N, Castañeda S, Moya P, Larena C, Estrada P, Galisteo C, Frutos AR, Sanjuan FO, Salman T, Rocha MV, Iñiguez CL, González MG, Blanco R, ARTESER Project Collaborative GRP. Sustained drug-free remission in giant cell arteritis. *RHEUMATOLOGY*. 2025; 64(5). DOI:10.1093/rheumatology/keae644. PMID:39589919. IF:4,400 (Q1/1D).
 - Osuna R, Castellví I, Mulet M, Tandaipan JL, Zamora C, Codes H, Ortiz MA, Díaz C, Cantó E, Magallares B, Guinart A, Moya P, Corominas H, Vidal S. Platelet-bound B cells and their role in SSC: Implications for disease subtypes and clinical outcomes. *Translational Research*. 2025; 282. DOI:10.1016/j.trsl.2025.07.001. PMID:40645372. IF:5,900 (Q1/1D).
 - Reyes C, Pou MA, Díaz C, Carbonell C, Brotons C, Martínez D. Association of morphine vs fentanyl prescription dispensation with adverse clinical outcomes. *Frontiers in Pharmacology*. 2025; 16:1579634. DOI:10.3389/fphar.2025.1579634. PMID:40635750. IF:4,800 (Q1/2D).
 - Santos CS, Tandaipan JL, Castillo D, Codes H, Martínez L, Magallares B, Moya P, Mariscal A, Park HS, Díaz C, Fernández SP, Bernardez J, Corominas H, Álvarez ED, Castellví I. Nailfold videocapillaroscopy findings correlate with lung outcomes in idiopathic inflammatory myopathies-related interstitial lung disease. *RHEUMATOLOGY*. 2025; 64(SI). DOI:10.1093/rheumatology/keae669. PMID:39658251. IF:4,400 (Q1/1D).
 - Zamora C, Díaz C, Ortiz MA, Moya P, Park HS, Pitarch C, Cantó E, Osuna R, Mulet M, García M, Collado D, Corominas H, Vidal S. Platelet-Derived Soluble CD40L and Its Impact on Immune Modulation and Anti-IL6R Antibody Treatment Outcome in Rheumatoid Arthritis. *Cells*. 2025; 14(9):625. DOI:10.3390/cells14090625. PMID:40358149. IF:5,200 (Q2/3D).
 - Zhang YL, Tedeschi SK, Abhishek A, Hensley O, Grossberg D, Cai K, Shea B, Singh JA, Christensen R, Serban T, Cipolletta E, Parperis K, Díaz C, McCarthy GM, Becce F, Gheita TA, Sirotti S, Christiansen SN, Coronel L, Stamp LK, Abdel YH, Pascart T, Filippou G, Hong LE, Fitzgerald J, Dalbeth N. Core domain set for chronic and/or recurrent manifestations of calcium pyrophosphate deposition disease: OMERACT delphi survey to establish consensus. *SEMINARS IN ARTHRITIS AND RHEUMATISM*. 2025; 72:152669. DOI:10.1016/j.semarthrit.2025.152669. PMID:40086154. IF:4,400 (Q1/1D).

5.1.5 Translational Medicine Area

Chronic Respiratory Diseases

Group leader

Castillo Villegas, Diego (FGS)

Researchers

Aguilera Molina, Marta (FGS)
 Alonso Leon, Ana María (FGS)
 Anton Albisu, Pedro Antonio (FGS)
 Blanco Bejar, Marta (FGS)
 Crespo Lessmann, Astrid (FGS)
 De La Rosa Carrillo, David (FGS)
 Fortuna Gutiérrez, Ana (FGS)
 Francesqui Candela, Joel Rodrigo (FGS)
 Giménez Palleiro, Ana María (FGS)
 Gutiérrez Pereyra, Fernando (FGS)
 Gutiérrez Rouco, Marta (FGS)
 Iglesias Aranda, Alicia (FGS)
 Martín Gutierrez, María Isabel (FGS)
 Mayos Pérez, Mercedes (FGS)
 Najas Sales, Victor (FGS)
 Pajares Ruiz, Virginia (FGS)
 Palones Femenia, Esther (FGS)
 Paz Del Río, Luis Daniel (FGS)
 Peiro Fabregas, Meritxell (FGS)
 Peñacoba Toribio, Patricia (FGS)
 Plaza Moral, Vicente (FGS)
 Podzamczar Valls, Ines (FGS)
 Pujal Montaña, Paula (FGS)
 Puy Rion, María Carme (FGS)
 Rafecas Codern, Albert (FGS)
 Ramos Barbon, David (FGS)
 Rodríguez García, Concepción (FGS)
 Ruiz Diaz, María Luisa (FGS)
 Santaolalla Tragant, Angels (FGS)
 Segura Medina, Macarena (FGS)
 Serra Mitja, Pere (FGS)
 Solanes García, Ingrid (FGS)
 Soto Retes, Lorena Concepción (FGS)
 Suarez Correa, Beatriz (FGS)
 Torrego Fernández, Alfonso (FGS)
 Trujillo Reyes, Juan Carlos (FGS)

Research technicians

Gaya Mestre, Inmaculada (FGS)
 Mateus Medina, Eder Fredy (IR)
 Vélez Segovia, Eduardo Antonio (IR)



DESCRIPTION

The Research Group on Chronic Respiratory Diseases operates closely with the Department of Respiratory Medicine and Allergy at the Hospital de la Santa Creu i Sant Pau. Boasting a robust history in pulmonary science, the group integrates clinical and translational approaches to investigate a wide spectrum of chronic respiratory conditions. The facility houses a basic science laboratory dedicated to molecular biology and animal modelling. Furthermore, the group is committed to the clinical evaluation of respiratory techniques, notably bronchoscopy and non-invasive ventilation.

MAIN LINES OF RESEARCH

- Asthma, Allergy, COPD, and Chronic Cough. (Crespo, Astrid)
- Chronic Bronchial Infection and Bronchiectasis. (De la Rosa, David)
- Interstitial Lung Diseases. (Castillo, Diego)
- Interventional Pulmonology. (Pajares, Virginia)
- Respiratory Failure and Non-invasive Ventilation. (Peñacoba, Patricia)
- Obstructive Sleep Apnea. (Fortuna, Ana)

SCIENTIFIC CHALLENGES

- Consolidate a leading clinical trial unit in respiratory diseases. Capture pre-clinical development contracts from the pharmaceutical and biotech industry, using the capabilities of our basic research lab and experimental animal models. Recruit research trainees seeking a doctoral degree. Support the development of multidisciplinary research networks, such as the Barcelona Respiratory Network and the Programme for Integrated Research for Asthma of the Spanish Society of Pneumology and Thoracic Surgery (SEPAR), and collaborate with, or become involved in, existing networks, such as CIBER-Respiratory Disorders. Achieve and transfer pharmaceutical discovery in the core research line of the basic science lab.

5.1.5 Translational Medicine Area

ACTIVE & AWARDED GRANTS

- Crespo Lessmann, Astrid & Plaza Moral, Vicente. Desarrollo de un modelo predictivo basado en IA para identificar biomarcadores metabólicos en las exacerbaciones del asma: un enfoque multidimensional. PI25/00902. Instituto de Salud Carlos III (ISIII). Duration: 2026-2028. 146.250,00 €
- De la Rosa Carrillo, David. Assaig clínic aleatoritzat, doble cec, paral·lel, comparat amb placebo per avaluar l'eficàcia i seguretat de tres pautes d'antibiòtic per a l'erradicació de *Pseudomonas aeruginosa* en pacients amb bronquiectàsies. Fundació La Marató TV. Duration: 2026-2028. 200.000,00 €
- Peñacobo Toribio, Patricia. Utilidad de la telemonitorización en el proceso de adaptación a la ventilación mecánica domiciliaria. SEPAR 2023. Sociedad Española de Neumología y Cirugía Torácica. Duration: 2022-2026. 16.740,00 €
- -Peñacobo Toribio, Patricia. Utilitat de la telemonitorització en el procés d'adaptació a la ventilació mecànica domiciliària. BECA ESTEVE-TEIJIN 2023. Societat Catalana de Pneumologia. Duration: 2023-2025. 12.000,00 €
- Ramos Barbon, David. Aislamiento, síntesis y ensayo farmacodinámico preclínico de un agente antirremodelación del músculo liso de las vías respiratorias en asma, derivado de células madre mesenquimales. PI21/00864. Instituto de Salud Carlos III (ISIII). Duration: 2022-2026. 145.200,00 €
- Ramos Barbon, David. Descubrimiento, síntesis i validació preclínica d'una nova teràpia anti-remodelació del múscul llis de les vies aèries, derivada de proteïnes del secretoma de cèl·lules mare mesenquimals per a l'asma. Fundació La Marató TV. Duration: 2026-2028. 199.936,00 €

DOCTORAL THESES DEFENDED

- La -Padró Casas, Clara. Estudi de factors de mal pronòstic en asma greu eosinofílica. 17/12/2025. Universitat Autònoma de Barcelona. Supervisors: Basagaña Torrentó, María Victoria; Martínez Rivera, Carlos; Plaza Moral, Vicente. <https://hdl.handle.net/10803/696397>
- Palones Femenia, Esther. Tos Crònica i Canvas (Cerebellar Ataxia with Neuropathy and Vestibular Areflexia Syndrome). 28/02/2025. Universitat Autònoma de Barcelona. Supervisors: Crespo Lessmann, Astrid; Plaza Moral, Vicente. <https://hdl.handle.net/10803/693952>
- Soto Retes, Lorena. Papel del sistema nervioso autónomo determinado mediante la variabilidad del ritmo cardíaco y de los intervalos cardíacos del electrocardiograma en el asma grave no controlada. 11/12/2025. Universitat Autònoma de Barcelona. Supervisors: Plaza Moral, Vicente. <https://hdl.handle.net/10803/696200>

SCIENTIFIC PRODUCTION - Article & Reviews

- Bermudo G, Del Rio B, Vicens V, Bordas J, Hernández M, Valenzuela C, Laporta R, Bobillo JR, Portillo K, Millán P, Balcells E, Badenes D, Bolívar S, Rodríguez JA, Ramirez CL, Tomás L, Roitegi KFD, Sellarés J, Castillo D, González J, Barril S, Gutiérrez Y, Caballero P, Alarcon J, Peñafiel J, Sanz J, Blavia R, Caupena C, Segovia P, Santos S, Ferrer A, Badia MB, Hereu P, Fuentes M, Montes A, Franquet T, Luburich P, Molina M. Pirfenidone in post-COVID-19 pulmonary fibrosis (FIBRO-COVID): a phase 2 randomised clinical trial. EUROPEAN RESPIRATORY JOURNAL. 2025; 65(4):2402249. DOI:10.1183/13993003.02249-2024. PMID:40154560. IF:21,000 (Q1/1D).
- Bonella F, Sánchez MCV, d'Alessandro M, Millan P, Santos RF, Schroeder N, Bastos HN, Molina M, Pernaute OS, Villegas DC, Bargagli E. Serum KL-6 as a biomarker to predict progression at one year in interstitial lung disease. Scientific Reports. 2025; 15(1):35243. DOI:10.1038/s41598-025-22483-4. PMID:41068354. IF:3,900 (Q1/2D).
- Codes H, Castillo D, Moya P, Giménez A, Castellvi I. ANCA-associated pulmonary

5.1.5 Translational Medicine Area

- fibrosis: vasculitis or not vasculitis. CURRENT OPINION IN PULMONARY MEDICINE. 2025; 31(5). DOI:10.1097/MCP.0000000000001187. PMID:40548517. IF:2,800 (Q2/5D).
- Company G, Pajares V, Rafecas A, Riu PJ, Rosell J, Bragós R, Nescolarde L. Machine learning allows robust classification of lung neoplasm tissue using an electronic biopsy through minimally invasive electrical impedance spectroscopy. Scientific Reports. 2025; 15(1):9716. DOI:10.1038/s41598-025-94826-0. PMID:40119130. IF:3,900 (Q1/2D).
 - Crespo A, Vélez E, Sáez J. Fenotipo hipersecretor en asma, diagnóstico e implicaciones. Revista de Asma. 2025; 10(1). DOI:10.69703/asma.v10i1.2.
 - Dalmases M, Sánchez M, Martínez D, Minguez O, Vaca R, Pascual L, Aguilá M, Gracia E, Benítez ID, Pinilla L, Cortijo A, Gort C, Claret RB, Martínez MA, Mediano O, Peralta SR, Fortuna AM, Marquez PP, Drager LF, Cabrini M, Masa JF, Penafiel JC, Vázquez S, Abad J, García F, Casitas R, Lee CH, Barbé F, Torres G. The Effect of Obstructive Sleep Apnea on Subclinical Target Organ Damage in Patients With Resistant Hypertension. ARCHIVOS DE BRONCONEUMOLOGÍA. 2025; 61(3). DOI:10.1016/j.arbres.2024.07.018. PMID:39277516. IF:9,200 (Q1/1D).
 - Espejo D, Plaza V, Quirce S, Trigueros JA, Munoz X. Influence of Outdoor Air Pollutants on Asthma: A Narrative Review. Open Respiratory Archives. 2025; 7(3). DOI:10.1016/j.opresp.2025.100448.
 - Flandes J, Cerchiaro LV, Disdier C, Alfayate J, Fernández I, Augustí C, Lucena CM, Martínez F, Pajares V, Andreo F, Centeno C, Montero C, Ariza M, Tuta E, Gallego R, Torregó A, González H, Cordovilla R, Vega BD, Cascón J, García JJ, García CL, Díaz P, Luque E, Pavón M, Cases E, Robles J, Uribe AM, Giraldo LF. Development and Validation of the Bronchoscope Quality Questionnaire for Assessing Bronchoscopists' Perception of Single-Use Flexible Bronchoscope Quality. RESPIRATION. 2025; 104(10). DOI:10.1159/000546088. PMID:40300585. IF:3,800 (Q1/3D).
 - Franquet T, Brenes JM, Radike M, Giménez A, Domingo P. Imaging of Immunodeficiency-Associated Lymphoproliferative Disorders. SEMINARS IN ULTRASOUND CT AND MRI. 2025; 46(4). DOI:10.1053/j.sult.2025.06.001. PMID:40543829. IF:1,900 (Q3/6D).
 - Franquet T, Raoof S, Lee KS, Han JH, Gimenez A, Brenes JM, Asmar J, Domingo P. Lung Nodules and Masses in Patients Who Are Not HIV Immunocompromised: A Clinical Imaging Algorithmic Approach. CHEST. 2025; 167(4). DOI:10.1016/j.chest.2024.10.054. PMID:39571725. IF:8,600 (Q1/1D).
 - Garin N, Zarate B, Lertxundi U, da IM, Orive G, Crespo A, de la Rosa D. The environmental impact of inhalers: a framework for sustainable prescription practices in Spain. EUROPEAN JOURNAL OF HOSPITAL PHARMACY. 2025; 32(6). DOI:10.1136/ejpharm-2024-004402. PMID:39788701. IF:1,500 (Q4/8D).
 - Marin JM, Soriano JB, Marin M, De JP, Seijo LM, Cabrera C, Solanes I, Martínez C, Toledo N, Feu N, Amado C, Vigil L, Celli BR, Casanova C, CHAIN C. Sleep-disordered Breathing in Patients with Chronic Obstructive Pulmonary Disease: Prevalence and Outcomes. Annals of the American Thoracic Society. 2025; 22(8). DOI:10.1513/AnnalsATS.202501-030OC. PMID:40208311. IF:5,400 (Q1/2D).
 - Martín E, Hernández JM, Pérez JAP, Pérez J, Herrera E, González R, González O, Mederos E, Sánchez I, Poza P, Sardón O, Corcuera P, Cruz MJ, González FJ, Martínez C, Mullol J, Muñoz X, Olaguibel JM, Plaza V, Quirce S, Valero A, Sastre J, Korta J, del Pozo V, Lorenzo F, Villar J, Pino M, González MA. Alpha-1 antitrypsin deficiency and Pi*S and Pi*Z SERPINA1 variants are associated with asthma exacerbations. Pulmonology. 2025; 31(1):2416870. DOI:10.1016/j.pulmoe.2023.05.002. PMID:37236906. IF:6,400 (Q1/1D).
 - Martínez MA, Oliveira C, Girón R, García M, Máiz L, Sibila O, Golpe R, Rodríguez JL, Barreiro E, Méndez R, Prados C, R, Oscullo G, de la Rosa D. Reliability of blood eosinophil count in steady-state bronchiectasis. Pulmonology. 2025; 31(1):2416836. DOI:10.1016/j.pulmoe.2023.11.006. PMID:38182470. IF:6,400 (Q1/1D).
 - Menéndez R, Méndez R, Latorre A, González P, Peces G, Molina M, España PP, García E, Consuegra A, García MM, Panadero C, Figueira JM, de la Rosa D, Sibila O, Martínez MD, Toledo N, López C, Almonte W, Macías A, Villamon M, Dominguez M, Pérez EN, Lázaro J, Quirós S, Cordovilla R, Cano I, Torres A, R. Clustering patients with COVID-19 according to respiratory

5.1.5 Translational Medicine Area

- support requirements, and its impact on short- and long-term outcome (RECOVID study). *Pulmonology*. 2025; 31(1):2442175. DOI:10.1080/25310429.2024.2442175. PMID:39750717. IF:6,400 (Q1/1D).
- Niño J, Rossell J, Rojo MI, Moreira E, Mateus E, Ruiz AJ, Ramos B, Martínez E, Martínez LO, Galán M, Julve J. Mitochondrial dysfunction in PBMC: a potential sensor for metabolic dysfunction-associated steatotic liver disease and therapeutic insight for NAD⁺-increasing strategies. *Exploration of Digestive Diseases*. 2025; 4. DOI:10.37349/edd.2025.100566.
 - Ofori S, Wang MK, Popova E, Chan M, McIntyre WF, Sessler DI, Giulia V, Warwas M, Balasubramanian K, Tandon V, Finley C, Anna GT, Cata J, Srinathan S, Reimer C, McLean S, Trujillo JC, Fleischmann E, Voltolini L, Cruz P, Maziak DE, Gutiérrez L, Amir M, Bossard M, Wang CY, Devereaux PJ, Conen D, COP I. Smoking, Colchicine and Postoperative Outcomes in Thoracic Surgery: Post Hoc Analysis of the COP-AF Randomized Controlled Trial. *CJC Open*. 2025; 7(7). DOI:10.1016/j.cjco.2025.04.008. PMID:40698308.
 - Oscullo G, Bekki A, Oliveira C, Girón R, García M, Maíz L, Sibila O, Golpe R, Rodríguez JL, Barreiro E, Méndez R, Prados C, Rodríguez J, de la Rosa D, Martínez MA. Persistent Blood Eosinophilia and Eosinopenia: Relationship with Outcomes in Bronchiectasis. *ARCHIVOS DE BRONCONEUMOLOGÍA*. 2025; 61(8). DOI:10.1016/j.arbres.2025.01.018. PMID:39956702. IF:9,200 (Q1/1D).
 - Oscullo G, Méndez R, Oliveira C, Girón R, García M, Maíz L, Sibila O, Golpe R, Rodríguez J, Barreiro E, Prados C, Rodríguez JL, de la Rosa D, Martínez MA. Effect of N-Acetylcysteine on Bronchiectasis in a Real-life Study. Data From the Spanish RIBRON Registry. *ARCHIVOS DE BRONCONEUMOLOGÍA*. 2025; 61(4). DOI:10.1016/j.arbres.2025.02.015. PMID:40180519. IF:9,200 (Q1/1D).
 - Oscullo G, Méndez R, Oliveira C, Giron R, García M, Maíz L, Sibila O, Golpe R, Rodríguez JL, Barreiro E, Prados C, Rodríguez J, de la Rosa D, Martínez MA. What is the optimal dose of N-acetylcysteine in adult patients with bronchiectasis?-data from the RIBRON registry. *Journal of Thoracic Disease*. 2025; 17(10). DOI:10.21037/jtd-2025-1159. PMID:41229849. IF:1,900 (Q3/7D).
 - Pascual MB, Zapata JJ, Ramos D, Francesqui J, Alsina X, Hernández F, Sellares J. Biomarkers in Sarcoidosis: From Traditional Markers to Precision Medicine. *SEMINARS IN RESPIRATORY AND CRITICAL CARE MEDICINE*. 2025; 46(06). DOI:10.1055/a-2741-2030. PMID:41213628. IF:2,700 (Q2/5D).
 - Perrot JC, Segura M, Flotats G, Closa C, Gich I, Garcia C, Alba A, Nadal MJ, Pintor A, Terra J, Ramirez E, Beranuy M, Bascunana H, Plaza V, Gueell MR. Long COVID-19: Impact of a personalised rehabilitation program. *Rehabilitacion*. 2025; 59(2):100903. DOI:10.1016/j.rh.2025.100903. PMID:40156968.
 - Rivas DD, Martínez E, Plaza V, Serrano CC, Benchimol C, Flores HI, Sánchez S, Martínez MD, Aracil CF, Alonso AT, Rebollo JCS, Gambasica ZV, Campos RMD, Mulato PT, Gimeno IE, Laorden D, Arismendi E, Malanda NM, Damia AD, Galván MF, Dávila I, Bobo J, Cosio BG, de Llano L, REMOTE GRP. Early Failure, Late Failure, and Sustained Response to Biologics in Severe Asthma: A Long-term, Real-world, Multicentre study. *ARCHIVOS DE BRONCONEUMOLOGÍA*. 2025; 61(12). DOI:10.1016/j.arbres.2025.04.003. PMID:40348717. IF:9,200 (Q1/1D).
 - Santos CS, Tandaipan JL, Castillo D, Codes H, Martínez L, Magallares B, Moya P, Mariscal A, Park HS, Díaz C, Fernández SP, Bernardez J, Corominas H, Álvarez ED, Castellví I. Nailfold videocapillaroscopy findings correlate with lung outcomes in idiopathic inflammatory myopathies-related interstitial lung disease. *RHEUMATOLOGY*. 2025; 64(SI). DOI:10.1093/rheumatology/keae669. PMID:39658251. IF:4,400 (Q1/1D).
 - Tabar AI, Delgado J, González E, Dominguez J, Soto L, Asthma & GRP, S. Safety and Effectiveness of Allergen Immunotherapy in Patients with Severe Allergic Asthma. *Journal of Asthma and Allergy*. 2025; 18. DOI:10.2147/JAA.S546044. PMID:40994702. IF:3,000 (Q2/4D).
 - Trujillo JC, Soriano JB, Marzo M, Higuera O, Gorospe L, Pajares V, Olmedo ME, Arrabal N, Flores A, García JF, Crespo M, Carcedo D, Heuser C, Obradovic MMS, Olghi N, Choman EN, Seijo LM. Cost-effectiveness of a machine learning risk prediction model (LungFlag) in the selection of

5.1.5 Translational Medicine Area

high-risk individuals for non-small cell lung cancer screening in Spain. JOURNAL OF MEDICAL ECONOMICS. 2025; 28(1). DOI:10.1080/13696998.2024.2444781. PMID:39697091. IF:3,000 (Q1/2D).

- Zapater A, Pinilla L, Gracia E, Targa A, Torres G, Mínguez O, Pascual L, Cortijo A, Martínez D, Benítez ID, García MC, De Batlle J, Abad J, Duran J, Urrutia A, Mediano O, Masdeu MJ,

Ordax E, Masa JF, De la Peña M, Mayos M, Coloma R, Montserrat JM, Chiner E, Roncero A, Sanz D, Barbé F, Sánchez M, Spanish N. Unraveling the Molecular Mechanisms of OSA-Related Cardiovascular Event Recurrence: A Post Hoc Analysis From the ISAACC Study. ARCHIVOS DE BRONCONEUMOLOGÍA. 2025; 61(4). DOI:10.1016/j.arbres.2024.09.008. PMID:39438203. IF:9,200 (Q1/1D).

SCIENTIFIC PRODUCTION - Article & Reviews

- De Miguel-Díez J, Torres-Castro R, Sanz Herrero F, Menéndez Villanueva R, Solís Gómez B, Quirós Fernández S, Pérez Rojo R, Mora Cuesta VM, Entrenas Castillo M, Serrano Fernández L, Cabrera Martínez MM, Mediano O, García-Ortega A, García Rivero JL, de la Rosa-Carrillo D. SEPAR Recommendations on Vaccination for Chronic Respiratory Patients. Arch Bronconeumol. 2025 Jun 17:S0300-2896(25)00218-2. English, Spanish. doi: 10.1016/j.arbres.2025.06.005. Epub ahead of print. PMID: 40592680.

5.1.5 Translational Medicine Area

Regenerative Medicine and Tissue Bioengineering

Group leader

Castells Sala, Cristina (BST)

Researchers

Fariñas Barbera, Óscar (BST)

García Subirats, David (BST)

Rodríguez Martínez, José Ignacio (BST)

Ruiz Ponsell, Laia (BST)

Savio López, Andres (BST)

Tabera Fernández, Jaime (BST)



DESCRIPTION

BTB research lines can be divided in five blocks: amniotic membrane bank, cardiovascular bank, skin bank, ocular bank, and musculoskeletal bank. At the same time, these lines can be divided into three different sections: (1) new preservation techniques, (2) new processing technologies, and (3) therapeutic innovations.

In recent years, part of the effort has been invested in developing techniques to improve the processing methods and preservation times of the processed tissues, made available for clinical practice. Moreover, new processing methodologies such as decellularisation have been addressed.

MAIN LINES OF RESEARCH

- Tissue obtaining, clinical application, ethics and regulation. (Fariñas Barbera, Óscar; Savio López, Andrés).
- Preservation of living tissue. (Castells Sala, Cristina).
- Tissue decellularisation. (Castells Sala, Cristina).
- Medical products of advanced therapies through the recellularization of decellularised tissues. (Castells Sala, Cristina).
- SoHo bioinks for 3D printing. (Fariñas Barbera, Óscar).
- Processing and product improvement. (Castells Sala, Cristina).
- Technical innovation for tissue processing. (Tabera Fernández, Jaime).
- Extension of clinical indications of the grafts. (Fariñas Barbera, Óscar).
- Cellular therapy for eye diseases. (Castells Sala, Cristina).

5.1.5 Translational Medicine Area

SCIENTIFIC CHALLENGES

- Improvement and optimizations of the process related with the donor and tissue processing in clean rooms
- Advances in the development of criteria, regulation and ethics for donors and tissues.
- Technical excellence related to the processing of cells, tissues and advanced therapy medical products (ATMP).
- Development of new approaches and medical products of advanced therapies for regenerative medicine.

ACTIVE & AWARDED GRANTS

- Castells Sala, Cristina. Lesiones graves de nervio periférico: desarrollo de aloinjertos descelularizados de gran calibre y recelularización con células mesenquimales. PI24/01715. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 252.500,00 €
- Fariñas Barbera, Óscar. Desarrollo de un protocolo de producción de nervio descelularizado de gran calibre para su uso clínico en regeneración de nervios. SLT036/24/000013. Departament de Salut Generalitat de Catalunya. Duration: 2025-2026. 190.574,73 €

SCIENTIFIC PRODUCTION - Articles & Reviews

- Gelber PE, Ramírez E, Castellà A, González A, Fariñas O. No significant differences in postoperative clinical outcomes evolution after fresh osteochondral allograft transplantation of the knee between patients with pathological and non-pathological scores regarding anxiety, depression, kinesiphobia and catastrophizing factors. *Journal Of Experimental Orthopaedics*. 2025; 12(1):e70210. DOI:10.1002/jeo.2.70210. PMID:40059956.
- Iraola G, Berastegui E, Castells C, Martorell J, Bayes A, Muñoz C, Gálvez C. A narrative review of vascular conduits for coronary artery bypass grafting. *CELL TRANSPLANTATION*. 2025; 34:09636897251407160. DOI:10.1177/09636897251407160. PMID:41437519. IF:3,200 (Q1/1D).
- López P, Martínez J, Castells C, López L, Ruiz L, Fariñas O, Vilarrodona A. Pericardium decellularisation in a one-day, two-step protocol. *MOLECULAR AND CELLULAR BIOCHEMISTRY*. 2025; 480(3). DOI:10.1007/s11010-024-05086-x. PMID:39251464. IF:3,700 (Q2/5D).
- Martínez J, Castells C, Piteira A, Montagner G, Trojan D, Martínez P, Ocampo AA, Fernández ME, Bermejo J, Jashari R, Pérez ML, Agustí E, Tabera J, Vilarrodona A. Advancing Heart Valve Replacement: Risk Mitigation of Decellularised Pulmonary Valve Preparation for Its Implementation in Public Tissue Banks. *Therapeutics and Clinical Risk Management*. 2025; 21. DOI:10.2147/TCRM.S486508. PMID:40035073. IF:2,200 (Q2/5D).
- Van L, de Beco G, Van M, Claus P, van de Bruaene A, Roskams T, Castells C, Martínez JR, Vilarrodona A, Mastrobuoni S, Jashari R, Rega F. A novel decellularisation protocol with cryopreservation of pulmonary allografts in an ovine model. *Interdisciplinary Cardiovascular And Thoracic Surgery*. 2025; 40(6):ivaf131. DOI:10.1093/icvts/ivaf131. PMID:40465413. IF:1,300 (Q3/7D).

5.1.5 Translational Medicine Area

Nephrology

Group leader

Guirado Perich, Lluís (F. Puigvert)

Researchers

Ars Criach, Elisabet (F. Puigvert)
 Ayasreh Fierro, Nadia (F. Puigvert)
 Ballart Roig, Judith (F. Puigvert)
 Barros Freiria, Xoana (F. Puigvert)
 Canal Girol, Cristina (F. Puigvert)
 Coll Piera, Elisabet (F. Puigvert)
 Díaz Encarnación, María Montserrat (F. Puigvert)
 Fernández De La Llama, Patricia (F. Puigvert)
 Furlano, Monica María (F. Puigvert)
 Lloret Cora, María Jesús (F. Puigvert)
 Marco Rusiñol, Helena (F. Puigvert)
 Mateu Escudero, Sílvia (F. Puigvert)
 Pybus Oliveras, Marc (F. Puigvert)
 Torra Balcells, Roser (F. Puigvert)
 Viera Ramirez, Elizabeth Romelia (F. Puigvert)

Research technicians

Bardaji De Quixano, Beatriz (F. Puigvert)
 Domínguez Guasch, Anna (F. Puigvert)
 Garcia Manau, Pablo (IR)
 Leon Carrasco, Rafael (IR)
 Pilco Teran, Melissa Lorena (IR)
 Sanmiguel Amigo, Luz (F. Puigvert)
 Silva Torres, Irene (F. Puigvert)
 Tinoco Aranda, Adrià Patricia (IR)



DESCRIPTION

The Kidney Diseases Research Group is dedicated to advancing understanding and improving outcomes across a broad spectrum of kidney disorders, with a strong focus on inherited kidney diseases. Key projects explore autosomal dominant polycystic kidney disease from a gender and reproductive perspective, improve genetic diagnostics using advanced genomic tools, and develop predictive models for Autosomal Dominant Alport Syndrome. Innovative approaches, including artificial intelligence and natural language processing, aim to revolutionise diagnostic precision and patient identification through deep phenotyping and electronic health record analysis.

Beyond inherited conditions, the group investigates glomerulopathies—such as IgA nephropathy and thrombotic microangiopathy—as well as renal implications of inflammatory bowel disease. In chronic kidney disease (CKD), research spans bone health, dialysis-related genetic damage, and the gut microbiota's role. The group also delves into the mechanisms of inflammation-induced fibrosis and transplant-related complications, including graft inflammation, fibrosis pathways, and EPLETS in kidney transplantation.

Uniting clinical, molecular, and computational approaches, this multidisciplinary team is at the forefront of kidney research, aiming to enhance diagnosis, treatment, and long-term management for diverse patient populations.

MAIN LINES OF RESEARCH

Inherited Kidney Diseases:

- The FEMALE PKD project, which focuses on a comprehensive approach to autosomal dominant polycystic kidney disease from a gender perspective, with a primary emphasis on reproduction and hormonal aspects, assessing the impact on hepatic and renal factors in women. (Furlano, Monica María).

5.1.5 Translational Medicine Area

- To improve the genetic diagnostic yield of patients with suspected monogenic nephropathy, with previous negative genetic tests (gene panel/exome/MUC1), by incorporating new genomic techniques that can contribute to identifying the etiological diagnosis of their kidney disease. (Ars Criach, Elisabet).
- A cohort of individuals with Autosomal Dominant Alport Syndrome (ADAS) is being studied to identify genetic and epigenetic determinants of phenotypic variability, as well as transcriptomic profiling for the characterisation of associated molecular signatures. Clinical data are being integrated to develop a predictive tool for assessing the risk of progression to advanced chronic kidney disease in ADAS patients. (Pilco Teran, Melissa Lorena; Torra Balcells, Roser; Furlano, Monica María; Ars Criach, Elisabet).
- Inherited kidney diseases remain underdiagnosed, despite being the most common cause of early-onset chronic kidney disease (CKD), partly due to the challenges posed by clinical diagnosis, given their heterogeneity. The use of artificial intelligence to develop clinical diagnostic tools represents a paradigm shift. Currently, clinical diagnostic tools for rare diseases (none of which are specifically designed for inherited kidney diseases) rely on ontologies, but they have not been widely implemented due to their limited precision in describing these conditions. Within the framework of this project, an extensive curation of terms using HPO (Human Phenotype Ontology) annotations has been carried out, achieving a precise description of these diseases in the context of deep phenotyping. The quality of this data will enable the development of clinical diagnostic tools, enriched not only with this curated information but also with real patient data using machine learning techniques. (Torra Balcells, Roser).
- Identification of undiagnosed patients with inherited kidney disease by using natural language processing to extract data from electronic health records. (Torra Balcells, Roser).
- **Glomerulopathies:**
 - Study of the role of crescents in IgA nephropathy. Characteristics, prognosis, and treatment optimisation. (Marco Rusiñol, Helena).
 - Study of kidney diseases in patients with inflammatory bowel disease. Investigating possible association and prognosis. (Marco Rusiñol, Helena).
 - Clinical and histological patterns of renal thrombotic microangiopathy (TMA). TMA is a renal histological lesion caused by endothelial injury, usually associated with microangiopathic haemolysis, but in some cases it may be limited to the kidney, requiring renal biopsy (RB) for diagnosis. Current knowledge of its histopathology is insufficient to understand its etiopathogenesis and thus to guide its treatment. We would like to describe the clinical and histological presentation of renal TMA to determine whether there are differences between patients with and without peripheral haemolysis, as well as between patients with different etiologies or triggers of TMA. This information would improve the diagnostic and etiological approach to renal TMA and guide its management.
 - Chronic Kidney disease: Patients with chronic kidney disease (CKD) have a higher risk of fractures compared to the general population. Bone strength is determined not only by quantity (measured by DXA) but also by bone quality. Impact microindentation (IMI) is a technique that globally measures bone strength. This project investigates bone strength, as measured by IMI, in different CKD scenarios: prevalent hemodialysis patients, peritoneal dialysis patients, and newly transplanted patients. We study the relationship between IMI and other aspects of the bone phenotype (biomarkers, DXA, TBS, 3D-DXA), as well as its temporal evolution. (Lloret Cora, María Jesús).
 - Cardiovascular risk: This line investigates how positional (e.g., standing vs lying down) and temporal (day-night) variability in blood pressure affects target organ damage in elderly patients with hypertension. The study focuses on

5.1.5 Translational Medicine Area

identifying patterns of blood pressure fluctuation that may contribute to cardiovascular, renal, or cerebrovascular complications. Preliminary results suggest that greater variability in blood pressure—especially exaggerated nocturnal dips or postural changes—is significantly associated with increased markers of organ damage, including left ventricular hypertrophy, microalbuminuria, and white matter lesions on brain imaging. These findings underscore the importance of monitoring blood pressure dynamics beyond static measurements and support personalised approaches in managing hypertension in older adults. (Fernández De La Llama, Patricia).

- Dialysis: Evaluation of genetic damage in CKD and hemodialysis patients, and search for solutions (supplementation with antioxidants, switch to another hemodialysis technique, elimination of bisphenol A) and starting a new line of research on genetic damage and gut microbiota in hemodialysis patients. (Coll Pera, Elisabet).
- Inflammation and fibrosis: The main aim of

this topic is to study inflammation-induced fibrosis. The focus is on the infiltration of M2 macrophages in renal tissue and their relationship with fibrosis and progression to chronic kidney disease. This study has produced several articles on cadaveric vs living donor transplantation and, more recently, the role of macrophages in the difference in prognosis between ANCAS MPO vs PR3 vasculitis (in preparation). (Díaz Encarnación, María Montserrat; Bardaji De Quixano, Beatriz).

- -Transplantation: Advances in molecular HLA typing have made it possible to quantify mismatches at the epitope level, revealing that eplet incompatibility—particularly at HLA-DR/DQ loci—may play a critical role in graft outcomes and the development of donor-specific antibodies in kidney transplant recipients. Our research focuses on the impact of HLA class II eplet mismatches (HLA-DR/DQ) on kidney transplant outcomes, particularly their association with tacrolimus levels, graft survival, and acute rejection. (Guirado Perich, Lluís).

SCIENTIFIC CHALLENGES

Dialysis:

- Evaluation of mortality in patients with malnutrition in Hemodialysis.
- Evaluation of low acute phase angle as a marker of increased mortality in hemodialysis patients.

Genetic kidney diseases:

- Setting up a targeted RNA sequencing approach using a comprehensive renal gene panel to enrich RNA obtained from blood samples with transcripts involved in kidney diseases.
- Procurement of a multicentric cohort of pregnant women with ADPKD.
- Validation of the curation of HPO terms for inherited kidney diseases by European expert centres.
- Testing safety and efficacy of many new molecules for glomerular and genetic diseases.

ACTIVE & AWARDED GRANTS

- Ars Criach, Elisabet. Estudio genómico y transcriptómico en pacientes con nefropatía no filiada y con sospecha de causa monogénica. PI23/00426. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 102.500,00 €
- Fernández De La Llama, Patricia. Primary care interventions to prevent maternal and child chronic diseases of perinatal and developmental origin. RD21/0012/0019. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2025. 124.080,00 €
- Furlano, Monica María. FEMALE PKD: abordando la poliquistosis renal autosómica dominante desde una perspectiva de género. PI24/00823. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 138.750,00 €
- Torra Balcells, Roser. Búsqueda de enfermedades renales hereditarias no sospechadas: una aguja en un pajar. PI22/00361. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2027. 123.420,00 €

5.1.5 Translational Medicine Area

- Torra Balcells, Roser. Inflamación e inmunopatología de órganos y sistemas. RD21/0005/0006-1. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2025. 105.765,00 €
- Torra Balcells, Roser. RICORS2040-Renal. RD24/0004/0002. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 171.699,00 €
- Torra Balcells, Roser. Contratos para la intensificación de la actividad investigadora en el Sistema Nacional de Salud 2024. INT24/00049. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2026. 60.000,00 €
- Torra Balcells, Roser. Autosomal Dominant Tubulointerstitial Kidney Disease-Net: a European Registry-Based Clinical Research Platform. AC23_2/00043 EJP-RD. Instituto de Salud Carlos III (ISCIII). European Joint Programme. Duration: 2024-2026. 166.875,00 €

DOCTORAL THESES DEFENDED

- Córdoba Herrera, Christian. La incompatibilidad en eplets como determinante de la exposición a tacrolimus en pacientes trasplantados renales. 07/07/2025. Universitat Autònoma de Barcelona. Supervisors: Guirado Perich, Luis; Alijotas Reig, Jaime. <https://hdl.handle.net/10803/694860>
- García Manau, Pablo. Utilitat dels factors angiogènics en el retard de creixement intrauterí. 20/05/2025. Universitat Autònoma de Barcelona. Supervisors: Maiz Elizaran, Nerea; Mendoza Cobaleda, Manel; Gil Moreno, Antonio. <https://hdl.handle.net/10803/694537>
- Lloret Cora, María Jesús. Estudio de la resistencia ósea medida in vivo mediante microindentación por impacto en el primer año post-trasplante renal. 28/11/2025. Universitat Autònoma de Barcelona. Supervisors: Bover, Jordi; Guirado, Lluís; Alijotas Reig, Jaume. <https://hdl.handle.net/10803/696060>

SCIENTIFIC PRODUCTION - Articles & Reviews

- Bermejo S, González E, López K, Ibernón M, López D, Martín A, García R, Linares T, Díaz M, Martín N, Barros X, Marco H, Navarro MI, Esparza N, Elías S, Coloma A, Robles NR, Agraz I, Poch E, Rodas L, Lozano V, Fernández B, Hernández E, Martínez MI, Stanescu RI, Moirón JP, García N, Goicoechea M, Calero F, Bonet J, Liaño F, Pascual J, Praga M, Fulladosa X, Soler MJ. A predictive model of non-diabetic kidney disease in patients with diabetes mellitus and chronic kidney disease. A Spanish multi-centre study. NEFROLOGIA. 2025; 45(5). DOI:10.1016/j.nefro.2024.12.007. PMID:40518653. IF:2,600 (Q2/4D).
- Brand E, Linhart A, Deegan P, Jurcut R, Pisani A, Torra R, Feldt U. Clinical management of female patients with Fabry disease based on expert consensus. Orphanet Journal of Rare Diseases. 2025; 20(1):7. DOI:10.1186/s13023-024-03500-7. PMID:39773286. IF:3,500 (Q2/4D).
- Díaz JM, Lloret MJ, Domínguez JD, Aranda A, de Arizón LF, Jiménez EM, Bover J, Valdivielso JM, Rodríguez ME. Magnesium Balance in Chronic Kidney Disease: Mineral Metabolism, Immunosuppressive Therapies and Sodium-Glucose Cotransporter 2 Inhibitors. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2025; 26(12):5657. DOI:10.3390/ijms26125657. PMID:40565121. IF:4,900 (Q1/3D).
- Ferro CJ, Wanner C, Luyckx V, Stevens K, Cerqueira S, Darwish R, Fernández BF, Fiel D, Filev R, Grieger M, López A, Luman M, Malyszko J, Nikolova MK, Romero F, Skalioti C, Araujo C, Ziedina I, Gallego D, Ortiz A, Torra R, Vanholder R. ABCDE to identify and prevent chronic kidney disease: a call to action. NEPHROLOGY DIALYSIS TRANSPLANTATION. 2025; 40(9). DOI:10.1093/ndt/gfaf057. PMID:40107862. IF:5,600 (Q1/1D).
- Fontao SM, Manso P, Audije J, Gascueña DH, Dapena F, Aresté N, Sánchez E, Molina P, Ojeda R, Goicoechea M, Simó VE, Bezhhold GA, Prieto M, Lloret MJ, Santos AB, Buades JM, Narváez C, Sánchez R, Pérez RE, Jiménez M, Renal Española Working FDNGRP, Prurito GRP. Quality of life and clinical data in hemodialysis patients with different degrees of pruritus. Scientific Reports. 2025; 15(1):6222. DOI:10.1038/s41598-024-

5.1.5 Translational Medicine Area

- 83833-2. PMID:39979317. IF:3,900 (Q1/2D).
- García JM, Besada ML, Castro C, Carpio MS, Blasco M, Quiroga B, Cervienka M, Mouzo R, Torra R, Ortiz A, de Sequera P. Novel Truncating Variants in PODXL Represent a New Entity to Be Explored Among Podocytopathies. *Genes*. 2025; 16(4):464. DOI:10.3390/genes16040464. PMID:40282423. IF:2,800 (Q2/5D).
 - Gauckler P, Matyjek A, Kapsia S, Marinaki S, Quintana LF, Diaz MM, King C, Griffin S, Ramachandran R, Odler B, Eller K, Artan AS, Mirioglu S, Busch M, Schaepe M, Turkmen K, Cheung CK, Pepper RJ, Juarez GF, Pascual J, Aunon P, García C, Rodríguez A, Alberici F, Luzardo L, Chebotareva N, Schönermarck U, Fernández L, Radhakrishnan J, Guaman K, Peleg Y, Hoisnard L, Audard V, Papasotiriou M, Krnanska N, Tesar V, Hruskova Z, Bruchfeld A, Stangou M, Lioulis G, Faguer S, Ribes D, Salhi S, Windpessl M, Galesic K, Crnogorac M, Zagorec N, Mayer G, Kronbichler A, RITERM T. Long-Term Outcomes of Rituximab-Treated Adult Patients with Podocytopathies. *JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY*. 2025; 36(4). DOI:10.1681/ASN.0000000520. PMID:39431468. IF:9,400 (Q1/1D).
 - Geertsema P, Gansevoort RT, Arici M, Capasso G, Gall E, Furlano M, Fuster DG, Galletti F, Dos VG, Gómez MVP, Goumenos D, Halbritter J, Jambon E, Korst U, Leliveld AM, Musquera M, Figueiredo A, Nijenhuis T, Olsburgh J, Pol RA, Sayer JA, Stippel D, Torra R, Müller RU, Casteleijn NF. Nephrectomy in autosomal dominant polycystic kidney disease: a consensus statement of the ERA Genes & Kidney Working Group. *NEPHROLOGY DIALYSIS TRANSPLANTATION*. 2025; 40(5). DOI:10.1093/ndt/gfaf019. PMID:39848914. IF:5,600 (Q1/1D).
 - Gifre L, Fusaro M, Lloret MJ, Massó E, Peris P, Nogués X, Gelpi R, Prior A, Ara J, Cozzolino M, Ureña PA, Bover J. PTH Analog Therapy in CKD G4-G5D: Current Evidence and Potential Role of Abaloparatide in Adynamic Bone Disease. *Journal of Clinical Medicine*. 2025; 15(1):133. DOI:10.3390/jcm15010133. PMID:41517382. IF:2,900 (Q1/2D).
 - Gutzeit C, Grasset EK, Matthews DB, Maglione PJ, Britton GJ, Miller H, Magri G, Tomalin L, Stapylton M, Canales P, Sominskaia M, Guzman M, Pybus M, Vaquero ST, Radigan L, Tachó R, Nalda AM, Prat MG, Gallo MM, Dieli R, Clemente JC, Mehandru S, Suarez M, Faith JJ, Cunningham C, Cerutti A. Gut IgA functionally interacts with systemic IgG to enhance antipneumococcal vaccine responses. *Science Advances*. 2025; 11(7):eado9455. DOI:10.1126/sciadv.ado9455. PMID:39937896. IF:12,500 (Q1/1D).
 - Hughes DA, Sunder G, Jovanovic A, Brand E, West ML, Bichet DG, Pisani A, Nowak A, Torra R, Khan A, Azevedo O, Lehman A, Linhart A, Rutecki J, Giuliano JD, Krusinska E, Nordbeck P. Renal and multisystem effectiveness of 3.9 years of migalastat in a global real-world cohort: Results from the followME Fabry Pathfinders registry. *JOURNAL OF INHERITED METABOLIC DISEASE*. 2025; 48(1). DOI:10.1002/jimd.12771. PMID:39031114. IF:3,800 (Q2/3D).
 - Huisman GJJ, Berger SP, Thyrestrup PS, Hausken J, Veelo DP, Guirado L, Pol R, Jensen LL, Tonnessen TI, Bemelman FJ, Facundo C, Tamasi K, Lunter G, Jespersen B, Leuvenink HGD, Struys MMRF, Nieuwenhuijs GJ. Propofol-based versus sevoflurane-based anaesthesia for deceased donor kidney transplantation: the VAPOR-2 study protocol for an international multicentre randomised controlled trial. *BMJ Open*. 2025; 15(9):e098965. DOI:10.1136/bmjopen-2025-098965. PMID:40897490. IF:2,300 (Q2/3D).
 - Jawaid T, Elbarougy DE, Lavu S, Buia G, Senum SR, Olinger E, Yang HN, McDonnell SK, Bublitz JT, Ma J, Audrézet MP, Madsen CD, Schauer RS, Baker TA, Gregory AV, Orr SE, Barroso M, Neatu R, Joli G, Dahl NK, Kline TL, Gillion V, Dahan K, Jouret F, Perrone RD, Steinman TI, Peters DJM, Gitomer BY, Watnick TJ, Coto E, Chebib FT, Hogan MC, Olson JE, Larson NB, Ars E, Halbritter J, Demoulin N, Torres VE, Sayer JA, Cornec E, Harris PC, Genomics England Res C, UK B, HALT PKD, D, TAME PKD, Genkyst S, Mayo B, Regeneron CTR. Characterisation of the Cystic Phenotype Associated with Monoallelic ALG8 and ALG9 Pathogenic Variants. *JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY*. 2025; 36(6). DOI:10.1681/ASN.0000000613. PMID:39899384. IF:9,400 (Q1/1D).
 - Kallish S, Camporeale A, Hopkin RJ, Jovanovic A, Nordbeck P, Veleva BO, Krusinska E, Torra R. Long-term efficacy of migalastat in females with Fabry disease. *JOURNAL OF MEDICAL*

5.1.5 Translational Medicine Area

- GENETICS. 2025; 62(12). DOI:10.1136/jmg-2024-110596. PMID:40897525. IF:3,700 (Q2/3D).
- Lloret MJ, Canal C, Montañés R, Di S, Arizón LFD, Tinoco A, Laiz A, Montolio D, Facundo C, Guirado L, Bover J. Study of bone turnover biomarker behaviour within the first year post-kidney transplant. *Revista De Osteoporosis Y Metabolismo Mineral*. 2025; 17(2). DOI:10.20960/RevOsteoporosMetabMiner. 00063.
 - Nan MN, Garrido C, Garcia A, Manau PG, Ullmo J, Mora J, Sánchez O, Platero J, Cruz M, Llorba E, EuroPE G. N-terminal pro B-type natriuretic peptide as biomarker to predict pre-eclampsia and maternal-fetal complications. *ULTRASOUND IN OBSTETRICS & GYNECOLOGY*. 2025; 65(4). DOI:10.1002/uog.29202. PMID:40088200. IF:6,300 (Q1/1D).
 - Ortiz A, Kramer A, Ariceta G, Arevalo O, Gjerstad AC, Santiuste C, Trujillo S, Ferraro PM, Methven S, Santamaria R, Naumovic R, Resic H, Hommel K, Segelmark M, Ambuehl PM, Sorensen SS, Parmentier C, Vidal E, Bakkaloglu SA, Plumb L, Palsson R, Kerschbaum J, ten M, Stel VS, Jager KJ, Torra R. Inherited kidney disease and CAKUT are common causes of kidney failure requiring kidney replacement therapy: an ERA Registry study. *NEPHROLOGY DIALYSIS TRANSPLANTATION*. 2025; 40(5). DOI:10.1093/ndt/gfae240. PMID:39508350. IF:5,600 (Q1/1D).
 - Ortiz A, Kramer A, Rychlík I, Nangaku M, Yanagita M, Jager KJ, Caskey FJ, Stel VS, Kashihara N, Kuragano T, Suzuki Y, Takemoto Y, Yokoi H, Palladino G, Fliser D, Torra R, Wanner C. Maintaining kidney health in ageing societies: a JSN and ERA call to action. *NEPHROLOGY DIALYSIS TRANSPLANTATION*. 2025; 40(8). DOI:10.1093/ndt/gfaf068. PMID:40210592. IF:5,600 (Q1/1D).
 - Pilco M, Shabaka A, Furlano M, Ribera AT, Carrillo IG, Gutiérrez E, Torra R, Fernández G, Representac Trabajo Enfermedades Renales Hereditarias GTERH GRP, Trabajo Enfermedades Glomerulares Soc Española Nefrol GLOSEN GRP. Indications for genetic testing in adults with focal segmental glomerulosclerosis. *NEFROLOGIA*. 2025; 45(2). DOI:10.1016/j.nefro.2024.09.006. PMID:39952830. IF:2,600 (Q2/4D).
 - Riera A, Arafa MM, Farnetani G, Xavier MJ, Oud MS, Majzoub AA, Ramos L, Abrardo C, Spinelli M, Moreno D, Defazio G, Ars E, Pybus M, Curbelo JRS, Elbardisi HT, Nawaz S, Syed N, Ruiz E, van der Heijden GW, Fakhro KA, Veltman JA, Krausz C. Genetic determinants of testicular sperm extraction outcomes: insights from a large multicentre study of men with non-obstructive azoospermia. *Human Reproduction Open*. 2025; 2025(3):hoaf049. DOI:10.1093/hropen/hoaf049. PMID:40896145. IF:11,100 (Q1/1D).
 - Ruiz CE, Vela L, Nadal M, González N, Marcos R, Hernández A, Pastor S, Coll E. DNA Damage and Bisphenol Levels in Chronic Kidney Disease Patients Undergoing Hemodialysis. *Journal Of Xenobiotics*. 2025; 15(5):167. DOI:10.3390/jox15050167. PMID:41149753.
 - Segelmark M, Díaz M. Highlights from the breakout session: advances in treatment II. *RHEUMATOLOGY*. 2025; 64. DOI:10.1093/rheumatology/keae421. PMID:40071411. IF:4,400 (Q1/1D).
 - Torra R, Barros X, Díaz M, Fayos L, Furlano M, Pilco M, Pybus M, Shabaka A, Viera E, Ars E. When should the nephrologist consider genetics in patients with glomerular disease? *Clinical Kidney Journal*. 2025; 18(3):sfaf044. DOI:10.1093/ckj/sfaf044. PMID:40115110. IF:4,600 (Q1/2D).
 - Torra R, Lipska B, Acke F, Antignac C, Becker JU, Gall E, van AM, Feltgen N, Ferrari R, Gale DP, Gear S, Gross O, Hebaerle S, Heidet L, Lennon R, Massella L, Pfau K, Pizarro MDV, Topaloglu R, Wlodkowski T, Zealey H, ERKNet E, ESPN Inherited renal disorders working GRP. Diagnosis, management and treatment of the Alport syndrome-2024 guideline on behalf of ERKNet, ERA and ESPN. *NEPHROLOGY DIALYSIS TRANSPLANTATION*. 2025; 40(6). DOI:10.1093/ndt/gfae265. PMID:39673454. IF:5,600 (Q1/1D).
 - Torres VE, Ahn C, Barten TRM, Brosnahan G, Cadnapaphornchai MA, Chapman AB, Cornec E, Drenth JPH, Gansevoort RT, Harris PC, Harris T, Horie S, Liebau MC, Liew M, Mallett AJ, Mei CL, Mekahli D, Odland D, Ong A, Onuchic LF, Pei YPC, Perrone RD, Rangan GK, Rayner B, Torra R, Balk EM, Gordon CE, Earley A, Mustafa RA, Devuyst O. KDIGO 2025 clinical practice guideline for the evaluation, management, and treatment of autosomal dominant polycystic kidney disease (ADPKD): executive summary. *KIDNEY INTERNATIONAL*. 2025; 107(2). DOI:10.1016/j.

5.1.5 Translational Medicine Area

- kint.2024.07.010. PMID:39848746. IF:12,600 (Q1/1D).
- Toscano C, García C, Ros V, Barguilla A, Saladich IG, Rodríguez K, Torra R, Boronat S, Sierra A. Cognitive and neuro-psychiatric profile in adult patients with epilepsy secondary to Tuberous Sclerosis Complex. *EPILEPSY & BEHAVIOR*. 2025; 166:110380. DOI:10.1016/j.yebeh.2025.110380. PMID:40101321. IF:2,300 (Q2/4D).
 - Toso D, Furlano M, Tinoco A, Saltor TS, Ars E, Torra R. Phenotypic variability in cystinosis: Lessons from an atypical case. *NEFROLOGIA*. 2025; 45(7):501342. DOI:10.1016/j.nefro.2025.501342. IF:2,600 (Q2/4D).
 - Zagorec N, Calamel A, Delaporte M, Olinger E, Orr S, Sayer JA, Pillay VG, Denommé AS, Mau FT, Nambot S, Faivre L, Ars E, Torra R, Ong A, Devuyst O, Perico N, Després AM, Lemoine H, de Fallois J, Brousse R, Hummel A, Knebelmann B, Maisonneuve N, Halbritter J, Le Y, Audrézet MP, Cornec E, Genomics England Res C, CYSTic C, Genkyst GRP. Clinical Spectrum and Prognosis of Atypical Autosomal Dominant Polycystic Kidney Disease Caused by Monoallelic Pathogenic Variants of IFT140. *AMERICAN JOURNAL OF KIDNEY DISEASES*. 2025; 85(4). DOI:10.1053/j.ajkd.2024.10.009. PMID:39732359. IF:8,200 (Q1/1D).

SCIENTIFIC PRODUCTION - Clinical Practice Guidelines

- Pilco M, Shabaka A, Furlano M, Ribera AT, Carrillo IG, Gutiérrez E, Torra R, Fernández G, Representac Trabajo Enfermedades Renales Hereditarias GTERH GRP, Trabajo Enfermedades Glomerulares Soc Española Nefrol GLOSEN GRP. Indications for genetic testing in adults with focal segmental glomerulosclerosis. *NEFROLOGIA*. 2025; 45(2). DOI:10.1016/j.nefro.2024.09.006. PMID:39952830. IF:2,600 (Q2/4D).
- Torra R, Lipska B, Acke F, Antignac C, Becker JU, Gall E, van AM, Feltgen N, Ferrari R, Gale DP, Gear S, Gross O, Hebaerle S, Heidet L, Lennon R, Massella L, Pfau K, Pizarro MDV, Topaloglu R, Wlodkowski T, Zealey H, ERKNet E, ESPN Inherited renal disorders working GRP. Diagnosis, management and treatment of the Alport syndrome-2024 guideline on behalf of ERKNet, ERA and ESPN. *NEPHROLOGY DIALYSIS TRANSPLANTATION*. 2025; 40(6). DOI:10.1093/ndt/gfae265. PMID:39673454. IF:5,600 (Q1/1D).
- Torres VE, Ahn C, Barten TRM, Brosnahan G, Cadnapaphornchai MA, Chapman AB, Cornec E, Drenth JPH, Gansevoort RT, Harris PC, Harris T, Horie S, Liebau MC, Liew M, Mallett AJ, Mei CL, Mekahli D, Odland D, Ong A, Onuchic LF, Pei YPC, Perrone RD, Rangan GK, Rayner B, Torra R, Balk EM, Gordon CE, Earley A, Mustafa RA, Devuyst O. KDIGO 2025 clinical practice guideline for the evaluation, management, and treatment of autosomal dominant polycystic kidney disease (ADPKD): executive summary. *KIDNEY INTERNATIONAL*. 2025; 107(2). DOI:10.1016/j.kint.2024.07.010. PMID:39848746. IF:12,600 (Q1/1D).

5.1.5 Translational Medicine Area

Women and Perinatal Health

Group leader

Llurba Olive, Elisa (FGS)

Researchers

Alejos Abad, Obdulia (FGS)
 Álvarez Mora, María Bruna (UAB)
 Cabrera Díaz, Sílvia (FGS)
 Cerezuela González, Ana (UAB)
 Colavolpe Severi, Giulia (UAB)
 Cruz Lemini, Monica Cristina (FGS)
 Delgado Morell, Aina (FGS)
 Desy, Alexandra (UAB)
 Domínguez Gallardo, Carla (FGS)
 Gaggiotti Marre, Sofia (F. Puigvert)
 Garrido Giménez, Carmen (FGS)
 Llavore Fabregas, María (FGS)
 Luengo Cascudo, Cristina (FGS)
 Malgosa Gasol, Estel (UAB)
 Mantilla Salazar, Vanessa Estefanía (UAB)
 Marre Cifola, Diana (UAB)
 Martone Montero, Paula (UAB)
 Medina Mallen, María Del Carmen (FGS)
 Melnychuk Mykhaylevska, Taisiia (FGS)
 Mercade Carranza, Clara (FGS)
 Mora Hervas, Irene (FGS)
 Murcia Oliveras, María Teresa (IR)
 Nan, Madalina Nicoleta (FGS)
 Parra Roca, Juan (FGS)
 Pero García, Marta (FGS)
 Platero Diago, Judit (FGS)
 Polo Ramos, Ana María (F. Puigvert)
 Ramos De Luis, Anna (FGS)
 Remorini, Carolina (UAB)
 Rivera González, Angela (FGS)
 Saiz Eslava, María Jesús (FGS)
 Sánchez Garcia, Olga (IR)
 SanMartín Mases, Beatriz (FGS)
 Trilla Sola, Cristina (FGS)
 Ullmo, Johana (FGS)

Research technicians

Costa Sánchez, Noah (IR)
 Garcia Manau, Pablo (IR)
 San José Moya, Marta (IR)



DESCRIPTION

The Women and Perinatal Health Research Group is focused on the study of diseases arising from placental insufficiency, such as preeclampsia and growth restriction, maternal cardiovascular risk later in life, alterations of the fetal heart, and neurodevelopment. The group is the coordinator of the national network RICORS-SAMID entitled "Spanish Network in Maternal, Neonatal, Child and Developmental Health Research" (RD24/0013/0001, ISCIII), following the previous RICORS-SAMID (RD21/0012/0001, ISCIII), and it was recognised as a consolidated group by the Agència de Gestió d'Ajuts Universitaris i de Recerca, AGAUR Generalitat de Catalunya (2021 SGR 01002).

MAIN LINES OF RESEARCH

- Prediction and prevention of complications arising from placental insufficiency, intrauterine growth restriction/preeclampsia (IUGR/PE). (Llurba Olive, Elisa; Garrido Giménez, Carmen)
- Placental insufficiency and maternal cardiovascular risk later in life. (Llurba Olive, Elisa).
- Development of predictive methods based on the Integration of pre- and postnatal factors for the detection of abnormal neurodevelopment in congenital heart disease. (Llurba Olive, Elisa).
- Toxics and air pollution effects on pregnancy and fetal programming. (Llurba Olive, Elisa; Garrido Giménez, Carmen; Cruz Lemini, Mónica Cristina).
- Management of pelvic floor dysfunction: chronic pelvic pain, urinary incontinence and pelvic organ prolapse. (Mora Hervas, Irene).
- Maternal and fetal cardiovascular programming in assisted reproduction treatments (ART). (Llurba Olive, Elisa; Polo Ramos, Ana María).

5.1.5 Translational Medicine Area

- Cardiovascular Health and ART outcomes. (Llurba Olive, Elisa; Cruz Lemini, Monica Cristina; Polo Ramos, Ana María).
- COVID-19 and gestation. (Medina Mallén, María Del Carmen).
- Innovative methods in the delivery of care. (Cruz Lemini, Monica Cristina; Medina Mallen, María Del Carmen).

SCIENTIFIC CHALLENGES

- To study new placental biomarkers for the diagnosis and prognosis of preeclampsia (PE) and intrauterine growth restriction (IUGR), aiming to generate future hypotheses on prevention targets and therapeutic interventions for these diseases.
- To determine the utility of new placental biomarkers (sFlt-1/PIGF ratio) in the diagnosis and prognosis of preeclampsia (PE) with the aim of changing existing healthcare policies and thus improving maternal and neonatal health.
- To study new maternal cardiovascular risk biomarkers after experiencing placental insufficiency and explore preventive strategies to identify which mothers are at risk of long-term cardiovascular diseases.
- To study the role of placental insufficiency and hypoxia in congenital heart diseases with the aim of increasing our understanding of the relationship between hypoxia-dependent placental morphogenesis, placental function, and effects on fetal oxygen metabolism.
- To identify new biomarkers detectable during fetal and neonatal stages that help predict postnatal neurological risk in congenital heart diseases.
- To evaluate the impact of maternal exposure to environmental factors on gestation, placental complications, and fetal neurodevelopment with the aim of generating evidence to support the regulation and implementation of necessary interventions by health authorities.
- To evaluate the impact of Sars-Cov2 infection on gestation and the neonate.
- To conduct clinical research focused on improving obstetric care by implementing innovative solutions in the labour and postpartum process.

ACTIVE & AWARDED GRANTS

- Cruz Lemini, Monica Cristina & Polo Ramos, Ana María. Impacto del ejercicio y la dieta mediterránea vs. aspirina en la tasa de nacimientos vivos y programación cardiovascular en la fertilización in vitro. PI20/01504. Instituto de Salud Carlos III (ISCIII). Duration: 2021-2026. 183.920,00 €
- Cruz Lemini, Monica Cristina & Medina Mallen, María del Carmen. Inducción cervical con balón ambulatorio vs hospitalario para mejoría en la experiencia del parto (ORBITED): ensayo clínico abierto aleatorizado. PI24/00404. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 102.500,00 €
- Koller, Dora. Ayudas para contratos Ramón y Cajal (RYC) 2024. Ministerio de Ciencia, Innovación y Universidades (MICIU). RYC2024-050099-I. Duration: 2026-2030. 257.200,00 €
- Llurba Olive, Elisa. Primary care interventions to prevent maternal and child chronic diseases of perinatal and developmental origin. RD21/0012/0001. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2025. 245.080,00 €
- Llurba Olive, Elisa. Evaluación del riesgo cardiovascular en mujeres jóvenes después del embarazo con o sin complicaciones placentarias (Estudio CARDIOMOM). PI22/00462. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2027. 165.770,00 €
- Llurba Olive, Elisa & Garrido Giménez, Carmen. Mejorando la Predicción de la Preeclampsia de Inicio Tardío: Un Enfoque Pragmático Basado en Biomarcadores Cardiovasculares, Angiogénicos, Inflamatorios y Metabólicos (Late-CARE). PI25/01344. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 221.250,00 €

5.1.5 Translational Medicine Area

- Llubra Olive, Elisa. Spanish network in maternal, neonatal, child, and developmental health research (RICORS-SAMID). RD24/0013/0001. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 383.570,00 €
- Llubra Olive, Elisa. Investigación y desarrollo de una nueva terapia para el tratamiento de la endometriosis (EP4Endo). CPP2023-010439. Ministerio de Ciencia, Innovación y Universidades. Duration: 2024-2027. 321.600,00 €
- Llubra Olive, Elisa. ASISTE Avanzando en Soluciones Interactivas y Tecnológicas para la Experiencia del usuario. CPP2024-011332. Ministerio de Ciencia, Innovación y Universidades. Duration: 2025-2028. 153.643,99 €
- Llubra Olive, Elisa. Women and Perinatal Health Research Group. 2021 SGR 01002. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2022-2025.
- Mora Hervas, Irene. Estudio multicéntrico sobre la fijación al músculo elevador del ano en la colposacropexia laparoscópica (Estudio Multicéntrico FIMEA). PI21/00852. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 30.250,00 €
- Murcia Oliveras, María Teresa. Contratos Río Hortega 2023. CM23/00270. Instituto de Salud Carlos III (ISCIII). Duration: 2024-2026. 65.000,00 €
- Platero Diago, Judit. Contratos Río Hortega 2025. CM25/00131. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2027. 65.000,00 €
- Trilla Sola, Cristina & Polo Ramos, Ana María. Evaluación integral de la pérdida gestacional en el primer trimestre: análisis de su impacto y de las vías biológicas para desarrollar estrategias de manejo de la atención personalizadas. (estudio FIRST-CARE). PI24/01735. Instituto de Salud Carlos III (ISCIII). Duration: 2025-2027. 152.500,00 €

DOCTORAL THESES DEFENDED

- Luzarraga Aznar, Ana. Evaluación del impacto del perfil molecular del cáncer de endometrio en la predicción preoperatoria de la afectación ganglionar, del patrón de recidiva y del pronóstico tras la recidiva. 01/10/2025. Universitat Autònoma de Barcelona. Supervisors: Cabrera Diaz, Sílvia; Gil Moreno, Antonio. <https://hdl.handle.net/10803/695479>
- Nan, Madalina Nicoleta. Utilidad de los biomarcadores de disfunción cardíaca en enfermedades de origen placentario, como la preeclampsia, durante el embarazo. 11/11/2025. Universitat Autònoma de Barcelona. Supervisors: García Osuna, Álvaro; Llubra Olivé, Elisa; Mora Brugués, Josefina; Blanco Vaca, Francisco. <https://hdl.handle.net/10803/695950>
- Ullmo Prion, Johana. Remodelado y disfunción cardíaca en pacientes con riesgo de preeclampsia regulado por el ambiente antiangiogénico. 12/06/2025. Universitat Autònoma de Barcelona. Supervisors: Llubra Olivé, Elisa; Cruz-Lemini, Mónica. <https://hdl.handle.net/10803/694982>

SCIENTIFIC PRODUCTION - Articles & Reviews

- Aguilar S, Cosin M, Raimbault B, Gómez L, Sánchez O, Zanini MJ, Capdevila RP, Foraster M, Gascon M, Rivas I, Llubra E, Gómez MD, Sunyer J, Bustamante M, Vrijheid M, Dadvand P. Epigenome-wide association study of pregnancy exposure to green space and placental DNA methylation. ENVIRONMENTAL RESEARCH. 2025; 274:121286. DOI:10.1016/j.envres.2025.121286. PMID:40043929. IF:7,700 (Q1/1D).
- Aznar AL, Canton R, Loren G, Carvajal J, de la Calle I, Masferrer C, Serra F, Bebia V, Bonaldo G, Angeles MA, Cabrera S, Palomar N, Vilarmau C, Marti M, Rigau M, Colas E, Gil A. Current challenges and emerging tools in endometrial cancer diagnosis. INTERNATIONAL JOURNAL OF GYNECOLOGICAL CANCER. 2025; 35(4):100056. DOI:10.1016/j.ijgc.2024.100056. PMID:40011116. IF:4,700 (Q1/1D).

5.1.5 Translational Medicine Area

- Costa M, García A, Canyelles M, Martínez C, Nan N, Ferrer R, Blanco F, Guiñon L. Refining quality control strategies in highly automated laboratories: experience in the integration of multistage statistical designs and risk management. *Biochemia Medica*. 2025; 35(3):030704. DOI:10.11613/BM.2025.030704. PMID:41103687. IF:1,800 (Q3/6D).
- Costa N, Platero J, Garcia P, Sánchez O, Pellicer C, Jordi M, Garcia Z, Garrido C, Ullmo J, Nan M, Mora J, Garcia A, Cholíiz M, Cruz M, Medina MD, Llurba E. Long-Term Biochemical and Cardiovascular Profiles 3-6 Years After Preeclampsia: Impact of Angiogenic Imbalance During Pregnancy. *Journal of Clinical Medicine*. 2025; 14(23):8389. DOI:10.3390/jcm14238389. PMID:41375695. IF:2,900 (Q1/2D).
- Del Barco E, Molano L, Vargas M, Miserachs M, Puerto L, Garrido C, Soler Z, Muñoz B, Pratcorona L, Rimbaut S, Vidal M, Dalmau M, Casellas A, Carreras E, Manichanh C, Goya M. The Effect of Probiotics on Preterm Birth Rates in Pregnant Women After a Threatened Preterm Birth Episode (The PROPEV Trial). *Biomedicines*. 2025; 13(5):1141. DOI:10.3390/biomedicines13051141. PMID:40426968. IF:3,900 (Q1/3D).
- Dieberger AM, van MNM, Desoye G, Simmons D, Harreiter J, Devlieger R, Medina C, Lawlor DA, Elhakeem A. Effect of a physical activity and healthy eating lifestyle intervention in pregnancy on fetal growth trajectories: The DALI randomised controlled trial. *Pediatric Obesity*. 2025; 20(5). DOI:10.1111/ijpo. 13199. PMID:39828250. IF:2,700 (Q1/2D).
- Gómez L, Zhao Y, Rivas L, Eixarch E, Domínguez C, Galmes T, Muniesa M, Zanini MJ, Domínguez A, Cirach M, Nieuwenhuijsen M, Basagaña X, Querol X, Foraster M, Bustamante M, Pujol J, Gascon M, Llurba E, Gómez MD, Dadvand P, Sunyer J. Air pollution and fetal brain morphological development: a prospective cohort study. *Lancet Planetary Health*. 2025; 9(6). DOI:10.1016/S2542-5196(25)00093-2. PMID:40516539. IF:21,600 (Q1/1D).
- Gómez NR, Cabrera S, Bebia V, García V, Padilla P, Fabregas FF, Fuste P, Alonso P, Rodríguez TG, Fernández S, Chacón E, Álvarez J, Oliver R, Gil A. The MULTISENT Study: A Multicenter Study on the Detection Rate of Sentinel Lymph Node Mapping in Endometrial Cancer Across Spain. *ANNALS OF SURGICAL ONCOLOGY*. 2025; 32(12). DOI:10.1245/s10434-025-17836-2. PMID:40702200. IF:3,500 (Q1/2D).
- Laveriano EP, Renard E, Bustamante M, Pelegri D, García Z, Ruiz M, Cosin M, Llurba E, Gómez MD, Haro N, Pozo OJ, Dadvand P, Vrijheid M, Maitre L. Mapping of Determinants of Urinary Sex Steroid Metabolites During Late Pregnancy: Results from Two Spanish Cohorts. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(23):11598. DOI:10.3390/ijms262311598. PMID:41373750. IF:4,900 (Q1/3D).
- Nan MN, Garrido C, Garcia A, Manau PG, Ullmo J, Mora J, Sánchez O, Platero J, Cruz M, Llurba E, EuroPE G. N-terminal pro B-type natriuretic peptide as biomarker to predict pre-eclampsia and maternal-fetal complications. *ULTRASOUND IN OBSTETRICS & GYNECOLOGY*. 2025; 65(4). DOI:10.1002/uog.29202. PMID:40088200. IF:6,300 (Q1/1D).
- Panisello L, Mateu J, Novau N, Ayala N, Bernardo S, Ferrer M, Jiménez P, Llurba E, Lassale C, Gómez MD, Vioque J, González S, Contreras O, Foraster M, Gascon M, Sunyer J, Awad C, Júlvez J, Bullo M. Exploring the relationship between maternal carbohydrate quality and quantity during pregnancy and early childhood neurodevelopment: a prospective cohort study within the BiSC cohort. *EUROPEAN JOURNAL OF NUTRITION*. 2025; 64(8):327. DOI:10.1007/s00394-025-03829-0. PMID:41324685. IF:4,300 (Q1/3D).
- Perelló J, Estadella J, Gich I, Llurba E, Calaf J. Usefulness of the Heavy Menstrual Bleeding Diagnostic Tools SAMANTA Questionnaire and Heavy Menstrual Bleeding-Visual Analogue Scale Tool for Iron Deficiency Screening: An Exploratory Analysis from the COLIBRI Study. *WOMEN'S HEALTH REPORTS*. 2025; 6(1). DOI:10.1177/26884844251382731. PMID:41142484.
- Pujol J, Martínez G, Gómez L, Rivas I, Gómez MD, Llurba E, Blanco L, Cirach M, Persavento C, Querol X, Gascón M, Foraster M, Gispert JD, Falcón C, Deus J, Dadvand P, Sunyer J. Unravelling the impact of prenatal air pollution for neonatal brain maturation. *ENVIRONMENT INTERNATIONAL*. 2025; 204:109801. DOI:10.1016/j.envint.2025.109801. PMID:40986980. IF:9,700 (Q1/1D).

5.1.5 Translational Medicine Area

- Rolland M, Bustamante M, Jedynak P, Thomsen C, Sakhi AK, Foraster M, Gascon M, Gómez MD, Llorba E, Rivas I, Ouellet I, Ferrer M, Morillas A, Carras S, Bayat S, Lyon S, Pozo OJ, Vrijheid M, Sunyer J, Slama R, Dadvand P, Philippat C. Prenatal phenol exposure and child behaviour: insights into the hypothalamic-pituitary-adrenal axis from two prospective mother-child cohorts. *Lancet Planetary Health*. 2025; 9(12):101330. DOI:10.1016/j.lanplh.2025.101330. PMID:41386271. IF:21,600 (Q1/1D).
- Samuelsson K, Rivas I, Raimbault B, Domínguez A, Galmés T, Valentin A, Foraster M, Gascon M, Persavento C, Psyllidis A, Roig MDG, Olivé EL, Nieuwenhuijsen MJ, Helbich M, Sunyer J, Dadvand P. A comprehensive GPS-based analysis of activity spaces in early and late pregnancy using the ActMAP framework. *HEALTH & PLACE*. 2025; 91:103413. DOI:10.1016/j.healthplace.2025.103413. PMID:39824032. IF:4,100 (Q1/2D).
- Sinsamala RM, Anguita A, Basagaña X, Foraster M, Gascon M, Llorba E, Luo CL, Nieuwenhuijsen MJ, Persavento C, Rivas I, Zhao Y, Gómez MD, Sunyer J, Marcon A, Johannessen A, Dadvand P. Holistic evaluation of the impact of pregnancy urban exposome on infant wheezing and chest infections: an outcome-wide approach. *ENVIRONMENT INTERNATIONAL*. 2025; 205:109900. DOI:10.1016/j.envint.2025.109900. PMID:41223798. IF:9,700 (Q1/1D).
- Tarriel JE, Capó JP, González MS, Queiruga MB, Gatiús JR, Gomis M, Marre D, Olivé EL. Effectiveness of Virtual Reality in Reducing Pain and Stress During Office Hysteroscopy: A Randomised Controlled Trial. *Healthcare*. 2025; 13(2):131. DOI:10.3390/healthcare13020131. PMID:39857158. IF:2,700 (Q2/3D).
- Trilla C, Navarro L, Rius M, Espinos JJ. Pentoxifylline vaginal gel improves sperm motility and vitality in asthenozoospermic males: A randomised, blinded, in vitro study. *Frontiers in Pharmacology*. 2025; 16:1669045. DOI:10.3389/fphar.2025.1669045. PMID:41383477. IF:4,800 (Q1/2D).
- Trilla C, Platero J, Camprubí N, Mora J, Luna C, Oros D, Llorba E. First-Trimester Clinical Characteristics and Pregnancy Outcomes in Women with Recurrent Pregnancy Loss. *Journal of Clinical Medicine*. 2025; 14(16):5797. DOI:10.3390/jcm14165797. PMID:40869625. IF:2,900 (Q1/2D).
- Trilla C, Platero J, Mora J, Nan MN, Medina C, Alejos O, Parra J, Llorba E. Role of aspirin therapy in modulating uterine artery resistance and placental growth between first and second trimesters of pregnancy. *ULTRASOUND IN OBSTETRICS & GYNECOLOGY*. 2025; 66(5). DOI:10.1002/uog.70095. PMID:40974599. IF:6,300 (Q1/1D).
- Ullmo J, Cruz M, Bos L, Padilla M, Coma M, Martorell S, Mora J, Ordóñez J, Llorba E, AngioCor G. Cardiovascular risk assessment in women at high risk for pre-eclampsia in the first half of pregnancy. *ULTRASOUND IN OBSTETRICS & GYNECOLOGY*. 2025; 66(1). DOI:10.1002/uog.29247. PMID:40471220. IF:6,300 (Q1/1D).
- Vespalcova H, Knox B, Sakhi AK, Thomsen C, Aguilar S, Cosin M, Gómez L, Garcia OS, Llorba E, Gómez MD, Sunyer J, Dadvand P, Bustamante M, Vrijheid M. Association of in utero exposure to phthalate and DINCH metabolites with placental DNA methylation. *ENVIRONMENT INTERNATIONAL*. 2025; 206:109946. DOI:10.1016/j.envint.2025.109946. PMID:41275763. IF:9,700 (Q1/1D).
- Warkentin S, Márquez S, Vespalcová H, Knox B, Gascon M, Güil N, González S, Roig MDG, Lassale C, Llorba E, Rolland M, Sakhi AK, Thomsen C, Vioque J, Bustamante M, Sunyer J, Vrijheid M. Dietary patterns and exposure to non-persistent endocrine-disrupting chemicals during pregnancy. *ENVIRONMENT INTERNATIONAL*. 2025; 202:109612. DOI:10.1016/j.envint.2025.109612. PMID:40578114. IF:9,700 (Q1/1D).

5.1.5 Translational Medicine Area

Advanced Medical Imaging, Artificial Intelligence, and Imaging-Guided Therapy

Group leader

Munuera Del Cerro, Josép Lluís (FGS)

Researchers

Alfonso Cerdan, Sheila (FGS)
 Andrade Novillo, María Camila (FGS)
 Aubanell Creus, Anton (FGS)
 Benito Santamaria, Eric (FGS)
 Borrego Escobar, Lucía (FGS)
 Brenes Castro, José Manuel (FGS)
 Canales Alandi, Iván (FGS)
 Canales Aliaga, Lydia (FGS)
 Castells Buchle, Sara (FGS)
 Ciuffreda, Marco (FGS)
 Codo Tarraubella, Xenia (FGS)
 Davila Salmeron, Pol (FGS)
 Dinia, Lavinia (FGS)
 Domínguez Perea, Alejandro (FGS)
 Echiburu Salinas, Natalia Paulina (FGS)
 Garcia Cornet, Julia (FGS)
 Garcia Gamez, Andres (FGS)
 Gimenez Nadal, Anna (FGS)
 Gómez Alberdi, Lucia (FGS)
 Gómez Chiari, Marta Cecilia (FGS)
 Granell Moreno, Esther (FGS)
 Guerrero Vara, Rubén (FGS)
 Gutiérrez Melgarejo, Daniel Mauricio (FGS)
 Hernández Giraldo, Cristian David (FGS)
 Hernández Jover, Diana (FGS)
 Lagrecia Parga, Martín Pedro (FGS)
 Lozano Martínez, Gloria Andrea (FGS)
 Lushchenkova Rochniak, Oksana (FGS)
 Macedo Pascual, Miguel Ángel (FGS)
 Maneu Bernado, Laura (FGS)
 Martín Vásquez, Cristian Andrés (FGS)
 Mendez Escalante, Jorge Eliecer (FGS)
 Menso, María Magdalena (FGS)
 Montalban Becerra, Francisco (FGS)
 Oliva Ibarz, Javier (FGS)
 Otero Ruiz, Jorge Enrique (FGS)
 Pascual Escribano, Pompeu (FGS)
 Pernas Canadell, Juan Carlos (FGS)
 Renobales Barandiaran, Nikola Joséba (FGS)
 Reyes Calderon, Nataly Carolina (FGS)
 Rios Vives, Miguel Angel (FGS)
 Rodríguez López, Saray (FGS)
 Sánchez Casals, Eduard (FGS)
 Sánchez Fernández, Juan José (FGS)
 Selva Talon, Daniel (FGS)
 Settimo Vizcaino, Adrian (FGS)
 Tecame, Mario (FGS)
 Valverde Lavirgen, Sandra (FGS)
 Velasquez Mata, Egnardo Andres (FGS)
 Villalba Auñon, Jorge (FGS)

Research technicians

Campillos Cárdenas, María Nieves (FGS)
 Del Val Guardiola, Inés (FGS)
 Torres Fernández, Eugenia (FGS)



DESCRIPTION

Our group addresses different aspects of vascular biology, thrombosis and myocardial pathophysiology aimed at studying the mechanisms underlying the onset, progression and complications of cardiovascular diseases (CVDs) with high morbidity and mortality, such as atherosclerosis, aortic aneurysms, cardiac hypertrophy and myocardial infarction. Our ultimate goal is to develop tools for early diagnosis and new therapeutic strategies for these diseases.

MAIN LINES OF RESEARCH

- Artificial Intelligence.
- Quantitative Medical Imaging Advances and Radiomics.
- Innovative Imaging Technologies.
- Image-Guided Therapy 3D Imaging and Surgical Planning.
- Design and Testing of Medical Devices.

SCIENTIFIC CHALLENGES

- Increasing knowledge in the implementation of digital technologies in healthcare through the design and testing of tools supporting clinical and radiological decision-making, based on Artificial Intelligence and Robotics.
- Promoting the development and use of advanced biomarkers in medical imaging, including new acquisition methods, techniques, or procedures, especially quantitative and omics biomarkers.
- Encouraging the use of advanced imaging technologies and 3D printing for the enhancement of educational resources and clinical-surgical planning.
- Enhancing participation in national and international research networks focused on diagnostic imaging, as well as fostering collaboration in multidisciplinary research teams.

SCIENTIFIC PRODUCTION - Articles & Reviews

- Anta JA, Moreno J, López JG, Ríos MA, Munuera J, Rodríguez J. Artificial intelligence for detection and characterisation of focal hepatic lesions: a review. *Abdominal Radiology*. 2025; 50(4). DOI:10.1007/s00261-024-04597-x. PMID:39369107. IF:2,200 (Q2/5D).
- Bernaus S, Romagosa J, Mata C, Stephan C, Benítez R, Valls A, Munuera J. Novel classification of brain vascular tortuosity measures: A systematic review. *COMPUTERS IN BIOLOGY AND MEDICINE*. 2025; 190. DOI:10.1016/j.compbimed.2025.109990. IF:6,300 (Q1/1D).
- Carbó AV, Palomar A, Laredo C, Werner M, Dorado L, Remollo S, Munuera J, Puig J, Silva Y, de la Ossa NP, Gomis M, Bustamante A, Castaño C, Muñoz L, Domenech S, Terceño M, Millan M, Hernández M. Relevance of persistent perfusion deficits on clinical outcomes after successful endovascular treatment: a prospective serial magnetic resonance study. *Frontiers in Neurology*. 2025; 16:1478240. DOI:10.3389/fneur.2025.1478240. PMID:40083459. IF:2,800 (Q2/5D).
- Collet R, Camps P, Núñez A, Quesada H, Rizzo F, Rodríguez N, Amaro S, Llull L, Santana D, Estrada E, Flores A, Terceño M, Bashir S, Hernández M, Remollo S, Barrachina O, Cánovas D, Vivas E, Rodríguez A, Mauri G, Purroy F, Ramos A, Guasch M, Guisado D, Prats L, Martínez A, Lambea A, Ezcurra G, Branera J, Martínez JP, Dinia L, Salvat M, de la Ossa NP, Molina CA, Cardona P, Martí J, Catalan Stroke Code Reperfusion Consortium C. Rescue stenting after failed mechanical thrombectomy: The RES-CAT study. *European Stroke Journal*. 2025; 10(3). DOI:10.1177/23969873241308680. PMID:39745051. IF:4,500 (Q1/2D).
- Franquet T, Brenes JM, Radike M, Giménez A, Domingo P. Imaging of Immunodeficiency-Associated Lymphoproliferative Disorders. *SEMINARS IN ULTRASOUND CT AND MRI*. 2025; 46(4). DOI:10.1053/j.sult.2025.06.001. PMID:40543829. IF:1,900 (Q3/6D).
- Franquet T, Raoof S, Lee KS, Han JH, Gimenez A, Brenes JM, Asmar J, Domingo P. Lung Nodules and Masses in Patients Who Are Not HIV Immunocompromised: A Clinical Imaging Algorithmic Approach. *CHEST*. 2025; 167(4). DOI:10.1016/j.chest.2024.10.054. PMID:39571725. IF:8,600 (Q1/1D).
- Gras JR, Casasayas M, Kolanczak K, Hernández FM, Martín MM, Moreno EG. Our experience in petroclival lesions using a contralateral transmaxillary approach. *NEUROCIRUGIA*. 2025; 36(1). DOI:10.1016/j.neucir.2024.10.009. PMID:39672470. IF:0,800 (Q3/8D).
- Herrera D, Ochoa G, Stephan C, González M, Munuera J, Mata C. Magnetic resonance image enhancement and segmentation using conventional and deep learning denoising techniques for dynamic cerebral angiography. *Health Information Science and Systems*. 2025; 14(1):9. DOI:10.1007/s13755-025-00406-x. PMID:41357951. IF:3,400 (Q2/5D).
- Majercakova K, Aguilar NT, Verdúm JI, Bargallo HV, Capel AV, Soto MM, Melcon GGD, Cordero JVR, González JA, Rosell SB, Jover DH, Mitre SR, Ibanez AP, Sebío A, Sancho G. Role of Spatially Fractionated Radiotherapy (LATTICE) Treatment in Inoperable Bulky Soft-Tissue Sarcomas. *Cancers*. 2025; 17(4):624. DOI:10.3390/cancers17040624. PMID:40002219. IF:4,400 (Q2/3D).
- Romagosa J, Mata C, Benítez R, Valls A, Bernaus S, Ibnoulkhatib M, Stephan C, Munuera J. GradCAM as an explicability method to evaluate the performance of deep learning models in classifying pediatric arteriovenous malformations (AVM) in arterial spin labelling sequences (ASL). *Health Information Science and Systems*. 2025; 13(1):69. DOI:10.1007/s13755-025-00377-z. PMID:41127713. IF:3,400 (Q2/5D).
- Tomasello A, Moreu M, Terceño M, Dinia L, Caballo MRB, Requena M, Jablonska M, Cendrero J, Flores A, Ortega S, Diana F, Henández D, de Dios M, Rubiera M, Garcia A, Rizzo F, Olivé M, Pérez C, Gallego CT, Carmona T, Rodrigo M, Molina C, Ribo M. Randomised Study Comparing First-Line Dual Versus Single-Stent Retriever Technique: TWIN2WIN. *STROKE*. 2025; 56(2). DOI:10.1161/STROKEAHA.124.048496. PMID:39704055. IF:8,900 (Q1/1D).

5.1.5 Translational Medicine Area

Critical Care Medicine

Group leader

Subira Cuyas, Carles (FGS)

Researchers

Álvarez Viloria, Andrea Valeska (FGS)
 Baldira Martínez De Irujo, Jaume (FGS)
 Belles Casas, Ariadna (FGS)
 Betbese Roig, Antoni Jorge (FGS)
 Diaz Tormo, Carmen (FGS)
 Flores Orella, Matias Nicolas (FGS)
 García Nogales, Xaime (FGS)
 Gomila Sintes, Carme (FGS)
 Izura Gomez, Marta (FGS)
 Mas Serra, Arantxa (FGS)
 Moran Chorro, Indalecio (FGS)
 Morell Vila, Ana (FGS)
 Nieves, María Veronica (FGS)
 Reyes Kim, Kinu (FGS)
 Robles Conde, Itati (FGS)
 Rodríguez Farre, Nuria (FGS)
 Santos Rodríguez, José Alberto (FGS)
 Suárez Montero, Juan Carlos (FGS)
 Torrens Sonet, María (FGS)
 Valdes Garicano, Monica (FGS)
 Vera Artazcoz, Paula (FGS)
 Zapata Fenor, Luis (FGS)

Research technicians

Serrano Garcia, María Angeles (FGS)



DESCRIPTION

Our research group in Critical Care Medicine focuses on clinical and physiological studies related to respiratory failure, ventilatory support, invasive and non-invasive hemodynamic monitoring, including ultrasound, sepsis and acute kidney injury biomarkers, and the management of critically ill oncologic-hematologic patients.

In 2024, we participated in healthcare innovation programs such as Innopau and HealthTech.

MAIN LINES OF RESEARCH

- Respiratory Failure and Ventilatory Support: Consolidated research line focused on non-invasive monitoring of respiratory patterns, optimal PEEP titration, and weaning from mechanical ventilation. (Mas Serra, Arantxa; Moran Chorro, Indalecio; Subira Cuyas, Carles; Rodríguez Farre, Nuria).
- Invasive and Non-Invasive Hemodynamic Monitoring: Established national research network mainly focused on ultrasound-based monitoring. (Zapata Fenor, Luis, María Torrens).
- Sepsis and Acute Kidney Injury Biomarkers: Collaborative work in national and international trials focused on sepsis management and biomarker evaluation. (Betbese Roig, Antoni Jorge; Baldira Martínez De Irujo, Jaume; Vera Artazcoz, Paula).
- Critically Ill Onc-Hematologic Patients: Emerging research line within the group, with both in-hospital and national collaborations. (Gomila Sintes, Carme; Nieves, María Verónica).
- Toxicology: National collaborative network and acute poisoning registry (Baldira Martínez de Irujo, Jaume).
- Innovation in ICU Communication: Development of communication prototypes to enhance interaction between healthcare professionals and patients' relatives (Belles Casas, Ariadna; Baldira Martínez de Irujo, Jaume; Subira Cuyas, Carles).

5.1.5 Translational Medicine Area

SCIENTIFIC CHALLENGES

Our research group addresses critical unresolved questions in critical care medicine. Key scientific challenges include:

- 1. Predictive limitation of current clinical tools: Existing severity scores and clinical assessments lack sufficient sensitivity to accurately predict clinical evolution in critically ill patients. We aim to enhance predictive capacity by integrating advanced respiratory pattern analysis in both spontaneously breathing and mechanically ventilated patients, identifying subtle physiological markers that precede clinical deterioration.
- 2. Optimising mechanical ventilation weaning strategies: Ventilator liberation remains one of the most challenging decisions in critical care, with failure rates that prolong ICU stay and increase morbidity. Despite multiple proposed weaning protocols, there is insufficient high-quality evidence to determine which strategies are superior. Large-scale, adequately powered studies are needed to definitively compare weaning approaches and identify optimal liberation pathways. Our established multicenter network and proven experience in leading large collaborative trials position us to address this critical knowledge gap.
- 3. Physiological optimisation of ventilatory support: Fundamental questions persist regarding optimal ventilatory settings, particularly PEEP titration and patient-ventilator synchrony. Balancing lung protection with adequate gas exchange while minimising ventilator-induced lung injury demands deeper physiological understanding and individualised strategies. Our centre's expertise as a reference site for this type of research, combined with advanced monitoring capabilities during mechanical ventilation, enables us to investigate complex respiratory mechanics and hemodynamic interactions that remain poorly understood.
- 4. Advanced hemodynamic monitoring in critical illness: Hemodynamic assessment continues to evolve rapidly, with emerging technologies and techniques constantly reshaping our understanding of cardiovascular physiology in critically ill patients. As a reference centre in advanced echocardiography and invasive hemodynamic monitoring, we are positioned to address key questions regarding optimal monitoring strategies, hemodynamic targets, and their integration into clinical decision-making algorithms.
- 5. Integration of multimodal biomarkers: Combining clinics and monitoring with biomarkers of acute kidney injury, infection, and toxicological factors presents both a technical and conceptual challenge in creating comprehensive predictive models.
- 6. Advancing toxicological knowledge through systematic data collection: Understanding epidemiological trends, clinical presentations, and optimal management strategies requires comprehensive, high-quality data collection at a national level. Our leadership of the national acute poisoning registry provides a unique platform to systematically advance knowledge in this field and identify emerging toxicological threats.
- 7. Building excellence networks through multidisciplinary collaboration: We aim to strengthen partnerships with national and international research groups of excellence while fostering synergistic collaborations with other research teams within the Institut de Recerca Sant Pau. This multidisciplinary approach is essential for integrating diverse expertise, sharing resources, and translating findings into generalizable evidence that can transform clinical practice across diverse healthcare settings.
- 8. Bridging the communication gap in critical care: Developing innovative prototypes and tools that facilitate clear, empathetic, and timely communication represents a critical yet underexplored area requiring interdisciplinary approaches combining clinical expertise, human factors research, and technological innovation.

Addressing these challenges requires multidisciplinary expertise, robust collaborative networks at national and international levels, and integration of physiological research with clinical outcomes to transform critical care practice.

5.1.5 Translational Medicine Area

ACTIVE & AWARDED GRANTS

- Valdés Garicano, Mónica. Efecto del oxígeno a alto flujo nasal en el esfuerzo respiratorio del paciente intubado en modalidad de presión de soporte: estudio prospectivo experimental. SOCMIC 2025. Societat Catalana de Medicina Intensiva i Crítica. Duration: 2025-2026. 1.500,00 €

SCIENTIFIC PRODUCTION - Articles & Reviews

- Bagán JM, Quiles LP, Iglesias PP, Roig A, Tenas SS, García SP, Álvarez MG. The Potential Role of Albumin in Reducing Cardiac Surgery-Associated Acute Kidney Injury: A Randomised Controlled Trial. JOURNAL OF CARDIOTHORACIC AND VASCULAR ANESTHESIA. 2025; 39(2). DOI:10.1053/j.jvca.2024.10.012. PMID:39922683. IF:2,100 (Q2/4D).
- Bosma KJ, Burns K, Martín CM, Skrobik Y, Corts JM, Mulligan S, Lafreniere M, Thorpe KE, Montero JCS, Chorro IM, Rodríguez N, Butler R, Bentall T, Beduneau G, Enguerrand P, Santos M, Piraino T, Spadaro S, Montanaro F, Basmaji J, Campbell E, Mercat A, Beloncle FM, Carteaux G, Maraffi T, Charbonney E, Lecronier M, Dres M, Arabi YM, Amaral A, Marinoff N, Adhikari NKJ, Geagea A, Shin P, Vaporidi K, Kondili E, Shahin J, Campisi J, Rodríguez PO, Setten M, Goligher EC, Ferguson ND, Fanelli V, Ferreyra G, Lellouche F, Sibley S, Brochard L, PROMIZING I, Canadian Critical Care Trials GRP, REVA N. Proportional-Assist Ventilation for Minimizing the Duration of Mechanical Ventilation. NEW ENGLAND JOURNAL OF MEDICINE. 2025; 393(11). DOI:10.1056/NEJMoa2505708. PMID:40513024. IF:78,500 (Q1/1D).
- De Haro C, Xifra A, Batlle M, Sarlabous L, Santos V, Mora V, Suñol F, Gomà G, Estela J, Subirà C, López J, Fernández S, Godoy M, Fernández R, Magrans R, Telias I, Roca O, Brochard L, Blanch L. Longitudinal Characterization of Patient-Ventilator Asynchronies in Acute Hypoxemic Respiratory Failure. Respiratory Care. 2025; 70(11). DOI:10.1089/respcare.12673. PMID:40441677. IF:2,100 (Q3/6D).
- López JC, Sánchez L, Flordelis JL, Mor E, Bordeje ML, Portugal E, Lorencio C, Vera P, Aldunate S, Llorente B, Iglesias R, Monge D, Martínez JF, Gastaldo R, Mateu L, Gero M, Almorin L, Nieto B, Vaquerizo C, Grau T, Trujillano J, Servia L, ENPIC GRP. Nutrition Therapy in Critically Ill Patients with Obesity: An Observational Study. Nutrients. 2025; 17(4):732. DOI:10.3390/nu17040732. PMID:40005060. IF:5,000 (Q1/2D).
- Monard C, Marel A, Joannidis M, Ostermann M, Peng ZY, Doi K, De Rosa S, Bobek I, Sokolov D, Wu VC, Premuzic V, Mehta R, Bellomo R, Garcia X, Pizarro C, Zarbock A, Milet I, Reis T, Romain M, McB, Schneider A, Rimmelé T, ESICM S. Renal replacement therapy modalities and techniques in intensive care units: An international survey. JOURNAL OF CRITICAL CARE. 2025; 88:155076. DOI:10.1016/j.jcrc.2025.155076. PMID:40179459. IF:2,900 (Q2/4D).
- Schreiber AF, Subirà C, Sklar M, Santos M, Ko M, Panelli A, Schaller SJ, Theodore D, Rowley DD, Watson D, Bonde P, Kassis E, Talmor DS, Ranieri M, Goligher EC, Slutsky A, Brochard LJ. Multi-centre randomised superiority clinical trial in the early phase of mechanically ventilated patients to preserve diaphragm thickness using non-invasive magnetic phrenic nerve stimulation: STIMIT ACTIVATOR 1 pivotal trial. Trials. 2025; 26(1):202. DOI:10.1186/s13063-025-08838-2. PMID:40500715. IF:2,000 (Q3/7D).

5.1.5 Translational Medicine Area

Gynecologic and Breast Pathology

Group leader

Cabrera Díaz, Silvia (FGS)

Researchers

Estadella Tarriel, Josép Ramon (FGS)

Farres Rubi, Alba (FGS)

Guinot Gasull, Misericordia (FGS)

Luna Guibourg, Rocio (FGS)

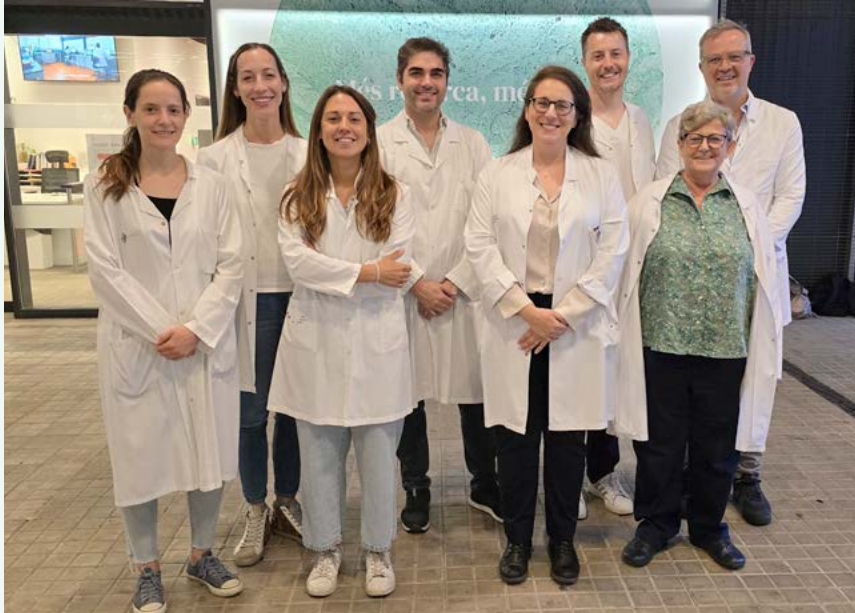
Melnychuk Mykhaylevska, Taisiia (FGS)

Mora Hervas, Irene (FGS)

Perello Capo, Josép (FGS)

Pero García, Marta (FGS)

Rovira Negre, Ramon (FGS)



DESCRIPTION

Gynaecological and breast pathologies, both benign and malignant, have a significant impact on women's health.

An increase in the incidence of certain gynaecological and breast cancers is expected, associated with a rise in their environmental risk factors. There is also a growing need to understand and address pathologies that have so far remained invisible, such as uterine myomatosis, endometriosis, menopause or infertility. This context reinforces the importance of promoting specific lines of research, developed in a highly complex hospital environment and carried out by specialists in the care of these patients.

Specialised research will enable the integration of care, teaching, and research with a multidisciplinary and translational perspective, fostering continuous improvement in healthcare and knowledge generation.

MAIN LINES OF RESEARCH

- Gynaecological neoplasms: Endometrial cancer, ovarian cancer, cervical cancer, vulvar cancer, vaginal cancer, breast cancer, and precancerous lesions.
- Benign pathologies with a high impact on women's quality of life: Endometriosis, fibroids, chronic pelvic pain, and genital prolapse.
- Gynaecological and reproductive endocrinology.

SCIENTIFIC CHALLENGES

- Early detection and prevention strategies: Developing more accurate and minimally invasive methods for early diagnosis, as well as identifying reliable biomarkers for screening and risk stratification.
- Improving personalised medicine approaches: Advancing precision medicine by identifying molecular and genetic profiles that allow tailored treatments and better prediction of therapeutic response.

5.1.5 Translational Medicine Area

- Translational research integration: Bridging the gap between basic research and clinical practice to ensure that scientific discoveries are effectively translated into improved patient outcomes.
- Improving management of chronic benign conditions: Enhancing understanding and treatment of high-impact benign diseases such as endometriosis and fibroids, which remain underdiagnosed and inadequately managed.
- Fertility preservation and reproductive health: Addressing the impact of gynaecological diseases and cancer treatments on fertility, and developing strategies to preserve reproductive function.
- Quality of life and long-term outcomes: Evaluating and improving long-term survivorship, including physical, psychological, and sexual health outcomes in affected women.

ACTIVE & AWARDED GRANTS

- Luna Guibourg, Rocio. Evolution of endometriosis lesions and patients' quality of life. MARATO 202419-10. Fundació la Marató de TV3. Duration: 2025-2028. 79.371,00 €
- Melnychuk Mykhaylevska, Taisiia & Miro Cardona, Elisenda. ENDO-GUT. Intervención terapéutica grupal mediante una dieta para mejorar la calidad de vida en pacientes con endometriosis. PI25/01484. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 197.500,00 €
- Mora Hervás, Irene. Estudio multicéntrico sobre fijación al músculo elevador del ano en la colposacropexia laparoscópica (Estudio Multicéntrico FIMEA). PI21/00852. Instituto de Salud Carlos III (ISCIII). Duration: 2022-2026. 30.250,00 €

DOCTORAL THESES DEFENDED

- Luzarraga Aznar, Ana. Evaluación del impacto del perfil molecular del cáncer de endometrio en la predicción preoperatoria de la afectación ganglionar, del patrón de recidiva y del pronóstico tras la recidiva. 01/10/2025. Universitat Autònoma de Barcelona. Supervisors: Cabrera Diaz, Sílvia; Gil Moreno, Antonio. <https://hdl.handle.net/10803/695479>

SCIENTIFIC PRODUCTION - Articles & Reviews

- Arbat A, Canals I, Coimbra J, Molina P, Llorens M, Torres R, Perello J, Moral M, Antonijoan RM, Calaf J. Safety, Tolerability and Pharmacokinetics of Sodium Tungstate (OXO-001) in Healthy Female Volunteers of Childbearing Age: A Randomised, Double-Blind, Dose-Finding, and Placebo-Controlled Phase I Study. *International Journal of Fertility & Sterility*. 2025; 19(2). DOI:10.22074/ijfs.2024.2013704.1554. PMID:40200776. IF:0,471 (Q4/10D).
- Argay I, Schettini G, Giorgi M, Habib N, Rovira R, Wattiez A, Amro B, Varbiro S, Centini G. Proficiency in Laparoscopic Training: online versus Onsite Suturing Courses. *JSLS-Journal of the Society of Laparoendoscopic Surgeons*. 2025; 29(4):e202500084. DOI:10.4293/JSLS.2025.00084. PMID:41438213. IF:1,800 (Q2/5D).
- Centini G, Colombi I, Ianes I, Perelli F, Ginetti A, Cannoni A, Habib N, Negre RR, Martire FG, Raimondo D, Lazzeri L, Zupi E. Fertility Sparing in Endometrial Cancer: Where Are We Now? *Cancers (Basel)*. 2025 Jan 1;17(1):112. doi: 10.3390/cancers17010112. PMID: 39796739; PMCID: PMC11720406. IF: 4,400 (Q2/3D).

5.1.5 Translational Medicine Area

- Di Spiezio Sardo A, Becker CM, Renner SP, Suvitie PA, Tarriel JE, Vannuccini S, Garcia Velasco JA, Verguts J, Mercurio A. Management of women with endometriosis in the 21st century. *Curr Opin Obstet Gynecol*. 2025 Jun 1;37(3):149-157. doi: 10.1097/GCO.0000000000001027. Epub 2025 Apr 10. PMID: 40237624; PMCID: PMC12039902. IF: 2,100 (Q2/4D).
- Di Spiezio Sardo A, Becker CM, Vannuccini S, Verguts J, Estadella Tarriel J, Suvitie PA, Guerra S, Renner SP, Garcia Velasco JA. Elective uterine preservation: a novel concept to tackle reproductive ageing. *Fertility preservation beyond ovaries*. *Reprod Biomed Online*. 2025 May;50(5):104704. doi: 10.1016/j.rbmo.2024.104704. Epub 2024 Nov 10. PMID: 40069979. IF: 3,500 (Q1/2D).
- Estadella Tarriel J, Perelló Capó J, Simó González M, Bailón Queiruga M, Real Gatus J, Gomis-Pastor M, Marre D, Llubra Olivé E. Effectiveness of Virtual Reality in Reducing Pain and Stress During Office Hysteroscopy: A Randomized Controlled Trial. *Healthcare (Basel)*. 2025 Jan 12;13(2):131. doi: 10.3390/healthcare13020131. PMID: 39857158; PMCID: PMC11765363. IF: 2,700 (Q2/3D).
- Giorgi M, Schettini G, La Banca L, Cannoni A, Ginetti A, Colombi I, Habib N, Rovira R, Martire F, Lazzeri L, Zupi E, Centini G. Prevention and Treatment of Intraoperative Complications During Gynaecological Laparoscopic Surgery: Practical Tips and Tricks-A Narrative Review. *Adv Ther*. 2025 May;42(5):2089-2117. doi: 10.1007/s12325-025-03165-z. Epub 2025 Mar 19. PMID: 40106176; PMCID: PMC12006249. IF: 4,100 (Q1/3D).
- Gómez-Hidalgo NR, Cabrera S, Bebia V, García-Pineda V, Padilla-Iserte P, Fabregas FF, Fuste P, Alonso P, Rodríguez TG, Fernández-González S, Chacón E, Álvarez JAP, Oliver R, Gil-Moreno A. The MULTISENT Study: A Multicenter Study on the Detection Rate of Sentinel Lymph Node Mapping in Endometrial Cancer Across Spain. *Ann Surg Oncol*. 2025 Jul 23. doi: 10.1245/s10434-025-17836-2. Epub ahead of print. PMID: 40702200. IF: 3,500 (Q1/2D).
- Habib N, Idoubba S, Fatcher F, Pieri E, Schettini G, Giorgi M, Negre RR, Gabriele C. Cervical Cancer Treatment and Fertility: What We Know and What We Do. *Cancers (Basel)*. 2025 Sep 18;17(18):3057. doi: 10.3390/cancers17183057. PMID: 41008899; PMCID: PMC12469036. IF: 4,400 (Q2/3D).
- Luzarraga Aznar A, Canton R, Loren G, Carvajal J, de la Calle I, Masferrer-Ferragutcasas C, Serra F, Bebia V, Bonaldo G, Angeles MA, Cabrera S, Palomar N, Vilarmau C, Martí M, Rigau M, Colas E, Gil-Moreno A. Current challenges and emerging tools in endometrial cancer diagnosis. *Int J Gynecol Cancer*. 2025 Apr;35(4):100056. doi: 10.1016/j.ijgc.2024.100056. Epub 2024 Dec 18. PMID: 40011116. IF: 4,700 (Q1/1D).
- Perelló-Capo J, Blanco Molina Á, Trujillo Santos J, López Menéndez Arqueros M, de la Viuda E, García-Ramos BO, Pérez Jaraíz D, Devesa Otero LI. Anamnesis Checklist for Informed Oral Contraceptive Choices: A Spanish Perspective. *Women's Health Rep (New Rochelle)*. 2025 Jan 13;6(1):50-59. doi: 10.1089/whr.2024.0073. PMID: 39882137; PMCID: PMC11773164. IF: 1,800 (Q3/6D).
- Perelló J, Estadella J, Gich I, Llubra E, Calaf J. Usefulness of the Heavy Menstrual Bleeding Diagnostic Tools SAMANTA Questionnaire and Heavy Menstrual Bleeding-Visual Analogue Scale Tool for Iron Deficiency Screening: An Exploratory Analysis from the COLIBRI Study. *WOMEN'S HEALTH REPORTS*. 2025; 6(1). DOI:10.1177/26884844251382731. PMID:41142484. IF:1,800 (Q3/D6).
- Perelló J, López G, Lahoz MI, López AI, Marcos M, Andeyro M, Cristóbal I, Rius J. Understanding Discontinuation Rates and Acceptance of the Low-Dose Levonorgestrel Intrauterine System in Spain: A Comprehensive Analysis of Bleeding Patterns and Influencing Factors. *WOMEN'S HEALTH REPORTS*. 2025; 6(1). DOI:10.1089/whr.2024.0113. PMID:40130030. IF:1,800 (Q3/D6).
- Perello J, Quílez JC, Calaf J. Beyond Contraception: Exploring Health Benefits of Short-Acting Reversible Contraceptives-A Narrative Review. *WOMEN'S HEALTH REPORTS*. 2025; 6(1). DOI:10.1177/26884844251405066. IF: 1,800 (Q3/6D).

5.1.6 Associated Groups

5.1.6 Associated Groups

RESEARCH GROUPS

Emerging Processes in Prevalent Diseases

Puig Campmany, Mireia

Radiophysics and Radioprotection

Carrasco De Fez, Pablo

Paediatrics

Moliner Calderon, Elisenda

Ophthalmology

Del Campo Carrasco, Zoraida

Nuclear Medicine

Flotats Giralt, Albert

Pharmacy

Feliu Ribera, Anna

Dermatology

Puig Sanz, Luis

Anaesthesiology

Paniagua Iglesias, Pilar

Plastic Surgery

Masia Ayala, Jaume

Palliative Care

Collette, Nadia Andree

Andrology

Ruiz Castañe, Eduard

Urology

Palou Redorta, Juan

Reproductive Health

Calaf Alsina, Joaquim

Radiation Oncology

Sancho Pardo, Gemma

Locomotor System

Lamas Gomez, Claudia Marfana

Pain and Neurosciences

Genove Cortada, María Merce

Nursing Care

Mas Dalmau, Gemma

Cardiac Surgery

Ginel Iglesias, Antonino

HIV and AIDS

Domingo Pedrol, Pere

General and Digestive Surgery

Moral Duarte, Antonio

Digital Health

Gomis Pastor, Mar

5.1.6 Associated Groups



Emerging Processes in Prevalent Diseases

Group leader

Puig Campmany, Mireia (FGS)

Researchers

Agra Montava, Ivan (FGS)	Jodar Manzanera, Victoria (FGS)
Albuxech Ginesta, Mireia (FGS)	Jordan Lucas, Sara (FGS)
Alquezar Arbe, Aitor (FGS)	Lazzari, Roberto (FGS)
Ávarez Albarrán, María Teresa (FGS)	Leal Cebrecos, Jesús (FGS)
Arenos Sambro, Roser (FGS)	López Ortega, Laura (FGS)
Barcons Pujol, Miquel (FGS)	Lozano Polo, Laura (FGS)
Blázquez Andión, Marta (FGS)	Macías Reyes, María José (FGS)
Borja Cano, María (FGS)	Mate Garcia, Veronica (FGS)
Borrego Yanes, Isel (FGS)	Mateo Roca, Miriam (FGS)
Caballero Flores, Francisco (FGS)	Mauri Plana, Albert (FGS)
Calvet Pujol, Adrià (FGS)	Moline Pareja, Antoni (FGS)
Cañón Santos, Antonio (FGS)	Montiel Dacosta, Josép Antoni (FGS)
Castella Rovira, Marta (FGS)	Moragues Escalona, Laura (FGS)
Castillero Diaz, Lluís Enric (FGS)	Motos Bescos, Meritxell (FGS)
Cercas Lobo, Sílvia (FGS)	Padilla Sainz, Marta (FGS)
Ceresuela Lobera, Andrés (FGS)	Palacio Álvarez, Pablo (FGS)
Davalos Benites, Lucio Jair (FGS)	Pérez Baena, Sergio (FGS)
Díez Díez, Verónica (FGS)	Pérez Méndez, María Carmenza (FGS)
Docio Alfaya, Marta (FGS)	Piera Salmeron, Aina (FGS)
Doi Grande, Adriana Laura (FGS)	Ponte Marquez, Paola Helena (FGS)
Donniacono, Domenico (FGS)	Ris Romeu, Josep (FGS)
Escribano Lázaro, Alicia (FGS)	Rodríguez Armas, María (FGS)
Fernández, Gastón (FGS)	Rojo Ruiz, Nagore (FGS)
Fernández Castaño, Irene (FGS)	Romero Carrete, Carlos José (FGS)
Fernández González, Diego (FGS)	Rossi, Amelia (FGS)
Garrido Quintero, María Andrea (FGS)	Santalo Bel, Miguel (FGS)
Gil Olivas, Eva (FGS)	Sanz López, Natalia (FGS)
Gómez Robles, Joaquín José (FGS)	Seres Roig, Montserrat (FGS)
González Díez, Ane (FGS)	Serrano García-Calvo, Alicia (FGS)
Guardiola Tey, José María (FGS)	Serrano Herran, Marta (FGS)
Hernández Ontiveros, Héctor (FGS)	Sizova, Marina (FGS)
Herrera Mateo, Sergio Antonio (FGS)	Torres Tornos, Andreu (FGS)
Higa Sansone, Jorge Leopoldo (FGS)	Trejo Gutiérrez, Olga María (FGS)
	Villarejo Jiménez, Ana (FGS)
	Villate Robles, Luisa Fernanda (FGS)

DESCRIPTION

Our group mainly studies urgent and emerging processes in prevalent diseases, with special interest in demographic aspects (gender perspective, older adults). It is an eminently clinical research, based on our own and multicenter projects. The interest lies in the knowledge of diseases, their diagnosis and treatment, taking into account their particularities, as well as the organisational aspects of emergency departments. In short, to promote quality, safe and efficient care in the emergency department.

MAIN LINES OF RESEARCH

- Clinical Organisation and Management (Puig Campmany, Mireia; Ris Romeu, Josép; Mateo Roca, Miriam)
- Patient safety and emergency department quality. (Álvarez Albarrán, María Teresa)
- Teaching (Montiel Dacosta, Josép Antoni; Higa Sansone, Jorge Leopoldo)
- Echography (Lazzari, Roberto)
- Organ Donation and Coordination (Puig Campmany, Mireia)
- Frailty and elderly (Blázquez Andión, Marta, Rizzi Bordigoni, Miguel Alberto)
- Processes. Infection (Mauri Plana, Albert; Álvarez Albarrán, María Teresa)
- Processes. Travel disease (Gil Olivas, Eva)
- Processes. Sexually transmitted diseases (Seres Roig, Montserrat; Gil Olivas, Eva)
- Processes. Sepsis (Moline Pareja, Antoni)
- Processes. Respiratory System Disorders and Acute Respiratory Failure (Moline Pareja, Antoni)
- Processes. Thromboembolic disease (Lozano Polo, Laura)
- Processes. Cardiovascular System (Santalo Bel, Miguel)

5.1.6 Associated Groups

- Processes. Acute coronary syndrome (Lazzari, Roberto)
- Processes. Ultrasensitive markers in acute coronary syndrome (Alquezar Arbe, Aitor)
- Processes. Cardiovascular Risk (Ponte Marquez, Paola Helena)
- Processes. Cardiac failure (Herrera Mateo, Sergio Antonio; Alquezar Arbe, Aitor)
- Processes. Arrhythmias (Trejo Gutierrez, Olga María; Hernández Ontiveros, Héctor)
- Processes. Diabetes care (Agra Montava, Ivan)
- Processes. Toxicology (Higa Sansone, Jorge Leopoldo; Hernández Ontiveros, Héctor)
- Processes. Psychiatry (Ponte Marquez, Paola Helena; Castella Rovira, Marta)
- Processes. Ultrasound in emergency patients (Lazzari, Roberto; Pérez Baena, Sergio)

SCIENTIFIC CHALLENGES

- Emergency and Urgent Care Management, new organisational models.
- Ageing population, frailty and emergency care.
- Medication-related health problems.
- Heart failure, new therapeutic scenarios.
- Prevention and home-care.
- Infection, diagnosis and control.
- Urgent processes from a gender perspective.
- Urgent processes with an age perspective.
- Training models in emergency ultrasound.
- Safety and quality.

SCIENTIFIC PRODUCTION – Articles & Reviews

- Aguirre NL, Gutiérrez SG, Miró O, Jacob J, Llorens P, Burillo G, Fernández C, Alquezar A, Aguiló S, Pérez FJM, Bermejo JJN, Vera MTM, García AG, Ezponda P, Lorenzo AM, Almela A, Martín JMS, Ramón SS, Liarte J, Díez M, Puente PH, Olagünaga AM, Fernández EC, Molina L, Juan MM, Rodríguez ED, del Castillo JG, members N. Predicting Hospitalisation In Older Patients Attended In The Emergency Department Using Classical And Artificial Intelligence Mathematical Strategies. *Journal Of Health Research*. 2025; 39(3). DOI:10.56808/2586-940X.1141.
- Alquézar A, Pérez S, Fernández C, Aguiló S, Burillo G, Jacob J, Llorens P, Patiño JS, García PQ, Mesino DR, Ungerer O, Vaswani A, Rodríguez M, Pineda MCS, Nieto PG, González F, Alcaraz AP, García MB, Benito MV, Chamorro F, Méndez CS, Blesa EF, Hernández RJG, Ramirez PP, del Castillo JG, Miró O, SIESTA N. Association between lactate determined at emergency department arrival and the probability of in-hospital mortality and intensive care admission in elderly patients. *European Journal of Emergency Medicine*. 2025; 32(3). DOI:10.1097/MEJ.0000000000001207. PMID:39693496. IF:4,200 (Q1/1D).
- Batista CSP, Rivera A, Albarran M, Rubio M, Belen I, López C, Miro E, Navarro F, Sánchez F. Community-Onset Fungal Infections: Epidemiology and Genomic Characterisation at a Tertiary-Care Hospital in Barcelona, Spain. *Journal Of Fungi*. 2025; 11(11):808. DOI:10.3390/jof1110808. PMID:41295189. IF:4,000 (Q1/1D).
- Béliz O, Pérez E, Miró O, Aguiló S, Burillo G, Alquézar A, Fernández C, Jacob J, Pérez FJM, Villalibre AM, Cardeñosa SC, Lázaro LS, Martínez MC, Soler EM, Fernández IB, Gil A, González RH, Carbó A, Rodrigo IC, Bañeres BG, Carrete CR, Gallardo RR, Soler AC, Nespereira EG, García AG, Ramos J, Diaz LH, del Castillo JG, Spanish Investigators Emergency Situations TEam S. Epidemiological and clinical management aspects related to urinary tract infections diagnosed in the emergency department in elderly patients in Spain: Results of the EDEN-36 study. *Revista Española de Quimioterapia*. 2025; 38(1). DOI:10.37201/req/066.2024. PMID:39539217. IF:2,200 (Q3/6D).
- Bernardi E, Ros V, Coronel M, Lazzari R, Aibar JA, Sierra A. Electroencephalographic manifestations of intracranial hypertension in a patient with ventriculoperitoneal shunt malfunction. *SEIZURE-EUROPEAN JOURNAL OF EPILEPSY*. 2025; 133. DOI:10.1016/j.seizure.2025.10.017. PMID:41175508. IF:2,800 (Q2/5D).

5.1.6 Associated Groups

- Burillo G, Rodríguez M, Parra P, Alquézar A, Fernández C, Aguiló S, Jacob J, Montero FJ, García EJ, Piñera P, Marinero C, Paramas L, Rosendo D, Cuevas L, Vaswani A, Quesada MC, Díaz MLP, Amarilla CL, González M, Mansilla J, Caballero M, Llopis F, Zambrano L, Toro V, Beddar F, Pedraza P, González J, Miró O. Analysis of patient-related factors associated with post-discharge adverse events in older patients quickly discharged home after emergency department care with no complementary investigations. *Signa Vitae*. 2025; 21(2). DOI:10.22514/sv.2025.017. IF:0,600 (Q4/9D).
- Cano MB, Valls MT, Montava IA, Robles JJG, González DF, Lazzari R. The key role of ECG in diagnosing secondary hypothermia in a patient with shock: a case report. *Emergency Care Journal*. 2025; 21(2):13543. DOI:10.4081/ecj.2025.13543.
- Carbó M, Miró E, Hurtado JC, Avila A, Robert N, Rivas GF, Llaneras J, Segura AR, Guardiola JM, Miró E, Sentis L, del Castillo JG, Gené E, Miró O, VIHgila P. Role of emergency departments in HIV screening in Barcelona (Spain) and impact of a targeted opt-in strategy for HIV testing. *European Journal of Emergency Medicine*. 2025; 32(4). DOI:10.1097/MEJ.0000000000001229. PMID:40557507. IF:4,200 (Q1/1D).
- Coll B, Hernández NM, Marco NC, Boixeda C, Rodríguez JJ, Alquézar A, Alonso CF, Burillo G, Montero FJ, del Castillo JG, Miró O, Investigadores Red SIESTA Spanish Investigators Emergency Situation T. Clinical-epidemiological aspects, hospitalisation, and reconsultations in older patients with atrial fibrillation in emergency departments in Spain (EDEN-35 study): sex-disaggregated analysis. *Emergencias : revista de la Sociedad Española de Medicina de Emergencias*. 2025; 37(3). DOI:10.55633/s3me/035.2025. PMID:40531120. IF:6,300 (Q1/1D).
- Congost GB, Brugaletta S, Cerezo PG, Bernal JV, Comalat MB, Mejías SM, Millán LM, Evangelista SR, Gabalda JR, Ortega JT, Garcia J, Jimenez M, Aizpurua DA, Campmany MP, Momblan M. Effectiveness of a nurse training intervention in the emergency department to improve the diagnosis and treatment of STEMI patients: EDUCAMI study. *HEART & LUNG*. 2025; 70. DOI:10.1016/j.hrtlng.2025.01.006. PMID:39813828. IF:2,600 (Q1/2D).
- Dalmases M, Sánchez M, Martínez D, Minguez O, Vaca R, Pascual L, Aguilá M, Gracia E, Benítez ID, Pinilla L, Cortijo A, Gort C, Claret RB, Martínez MA, Mediano O, Peralta SR, Fortuna AM, Marquez PP, Drager LF, Cabrini M, Masa JF, Penafiel JC, Vázquez S, Abad J, García F, Casitas R, Lee CH, Barbé F, Torres G. The Effect of Obstructive Sleep Apnea on Subclinical Target Organ Damage in Patients With Resistant Hypertension. *ARCHIVOS DE BRONCONEUMOLOGÍA*. 2025; 61(3). DOI:10.1016/j.arbres.2024.07.018. PMID:39277516. IF:9,200 (Q1/1D).
- Espinosa B, Llauger L, Gil V, Escoda R, Jacob J, Aguirre A, Mojarro EM, Tost J, Alquézar A, López ML, Millán J, Massó M, Cuquerella GS, Pagán F, Núñez J, Dauw J, Müllens W, Llorens P, Miró O, ICA GRP. Relationship between clinical congestion and worsening renal function after intravenous initiation of furosemide in patients with acute heart failure. *Internal and Emergency Medicine*. 2025; 20(5). DOI:10.1007/s11739-024-03796-0. PMID:39472392. IF:3,800 (Q1/2D).
- Fernández C, Puig M, Aguiló S, Rodríguez B, López MP, Capilla R, Ferré C, Mir M, Arnau I, Ruíz M, Martín E, Álvarez E, Sousa Y, Piñera P, Liñán M, Martín FJ, Castejón S, González JJ, Del Arco C. Recomendaciones del Grupo de Trabajo sobre Medicina Geriátrica de Urgencias de la Sociedad Española de Medicina de Urgencias y Emergencias sobre el cribado de fragilidad, valoración geriátrica e intervención en el Servicio de Urgencias (Recomendaciones GEM-SEMES). *Revista Española de Urgencias y Emergencias*. 2025; 4(3). DOI:10.55633/s3me/REUE021.2025.
- Fuentes E, Jacob J, del Castillo JG, Montero FJ, Alquezar A, García EJ, Aguiló S, Fernández C, Burillo G, Piñera P, Llauger L, Vázquez V, Carrasco E, Juárez R, Blanco MJ, Rodríguez ED, Rios R, Berenguer MA, Guiu S, López N, Delgado V, Diego FJ, Ezponda P, Martínez A, Ortega JV, García I, Borne S, Gil A, Llorens P, Miró O, EDEN GRP. Use of resources in elderly patients consulting the emergency department: analysis of the Emergency Department and Elder Needs Cohort (EDEN-21). *Internal and Emergency Medicine*. 2025; 20(1). DOI:10.1007/s11739-024-03638-z. PMID:38896167. IF:3,800 (Q1/2D).
- Fuentes E, Jacob J, del Castillo JG, Montero FJ, Alquezar A, Miró O, EDEN GRP. Short-and long-term characteristics and outcomes in patients

5.1.6 Associated Groups

- aged 65 or older living in nursing homes. EDEN-40 Study. REVISTA CLÍNICA ESPAÑOLA. 2025; 225(5):502281. DOI:10.1016/j.rce.2025.502281. PMID:40154880. IF:1,700 (Q2/4D).
- Haro A, Jacob J, Rossello X, Llorens P, Herrero P, Alquézar A, Llauger L, Aguirre A, Piñera P, Espinosa B, Gil V, Burillo G, López MP, Cabello I, Roset A, Martín E, Andueza JA, Tost J, Garrido JM, Domingo E, Calvo R, Miró O, ICA SEMES Res GRP. Impact of chronic renin-angiotensin-aldosterone inhibitors on short-term outcomes in patients with acute heart failure presenting to the emergency department. A propensity-matched analysis of the EAHFE cohort. INTERNATIONAL JOURNAL OF CARDIOLOGY. 2025; 418:132615. DOI:10.1016/j.ijcard.2024.132615. PMID:39393442. IF:3,200 (Q2/3D).
 - Julián A, Galán CD, Ochoa RI, Llorens P, Rodríguez RC, Delgado RC, Rodríguez JJ, Blanco IM, Campmany MP. Key Points of the Official Training Program for the Speciality of Emergency and Urgent Care Medicine in Spain. Emergencias : revista de la Sociedad Española de Medicina de Emergencias. 2025; 37(6). DOI:10.55633/s3me/095.2025. PMID:41574513. IF:6,300 (Q1/1D).
 - Lazzari R, Cano MB, Martínez AR, Bueno MR, Rovira MC, Campmany MP. Vibrio fluvialis cholangitis with bacteremia and refractory septic shock: a case report and review of the literature. INFECTION. 2025; 53(6). DOI:10.1007/s15010-025-02535-7. PMID:40377851. IF:3,600 (Q2/3D).
 - Llaneras J, Álvarez P, de Paz R, Carbó M, Saura M, Rebollo A, Olaizola C, Robert N, Carrillo A, Ramió C, Picart E, Guardiola JM, Smithson A, Rodríguez F, Leey C, González L, Ferro I, Michelini M, Sotomayor M, Rando A, Currant A, Gené E, Miró O, Urgencies VIHgila Catalan Soc Emergency Med SoCMUE GRP. Characterisation of new HIV diagnoses achieved in emergency departments using an opt-in strategy, Catalonia, Spain, July 2021 to March 2024. Eurosurveillance. 2025; 30(47):2400781. DOI:10.2807/1560-7917.ES.2025.30.47.2400781. PMID:41289038. IF:7,800 (Q1/1D).
 - Llorens P, Haro A, Gil V, Alquézar A, Jacob J, Espinosa B, de la Torre M, Núñez J, Rossello X, Miró O, Invest ICA SEMES GRP. Factors associated with the use of sodium-glucose cotransporter 2 (SGLT2) inhibitors after an episode of acute heart failure and prognostic impact. REVISTA CLÍNICA ESPAÑOLA. 2025; 225(6):502300. DOI:10.1016/j.rce.2025.502300. PMID:40316136. IF:1,700 (Q2/4D).
 - Marín C, Puig M, Ruiz J, Carazo C, Vicente J, Juanes A. Comprehensive approach to medication-related problems leading to emergency department visits from a gender perspective. Emergencias : revista de la Sociedad Española de Medicina de Emergencias. 2025; 37(3). DOI:10.55633/s3me/026.2025. PMID:40531118. IF:6,300 (Q1/1D).
 - Miró O, Fortuny MJ, Espinosa B, Alquezar A, Jacob J, Trullas JC, Aguilo O, Gil V, Bellido A, Llorens P, Grupo de investigación I. Alkalosis during emergency department evaluation of acute heart failure: Is there an association with mortality?. Emergencias : revista de la Sociedad Española de Medicina de Emergencias. 2025; 37(1). DOI:10.55633/s3me/003.2025. IF:6,300 (Q1/1D).
 - Miró O, Ivars N, Espinosa B, Jacob J, Alquézar A, Gil V, Bellido A, Serrano L, Herrero P, Fortuny MJ, Mir M, Soy E, Esquivias MA, Tost J, Travería L, Domingo E, Noceda J, López MP, Aguirre A, Alonso H, Romero M, López ML, López ML, Mueller C, Peacock WF, Puente PH, ICA GRP. Use of nebulised bronchodilators in acute heart failure: impact on outcomes. Internal and Emergency Medicine. 2025; 20(8). DOI:10.1007/s11739-025-04123-x. PMID:41162690. IF:3,800 (Q1/2D).
 - Miró O, Ivars N, Espinosa B, Jacob J, Alquézar A, López MP, Puente PH, López ML, Rodríguez B, Fuertes P, Salmerón PP, Tost J, Andueza JA, Baldrich ED, Garrido JM, Noceda J, Lucas FJ, García RM, Gil V, Masip J, Peacock WF, Mueller C, Llorens P, ICA GRP. Effect of seasonal influenza and COVID-19 vaccination on severity and long-term outcomes of patients with heart failure decompensation. EUROPEAN JOURNAL OF HEART FAILURE. 2025; 27(1). DOI:10.1002/ejhf.3469. PMID:39315591. IF:10,800 (Q1/1D).
 - Miró O, Mojarro EM, Huré G, Llorens P, Gil V, Alquézar A, Bibiano C, González NC, Massó M, Strebel I, Espinosa B, Masó SM, Wussler D, Shrestha S, López P, Jacob J, Millán J, Andueza JA, Alonso H, Pàmies SL, Cerda JF, Martínez CP, Herrero P, Peacock WF, Mueller C, ICA S, CRIB GRP. Digoxin initiation after an acute heart

5.1.6 Associated Groups

- failure episode and its association with post-discharge outcomes: an international multicenter analysis. *Internal and Emergency Medicine*. 2025; 20(1). DOI:10.1007/s11739-024-03744-y. PMID:39174687. IF:3,800 (Q1/2D).
- Miró O, Morales X, Cuerpo S, Möckel M, Burillo G, Alquézar A, Montero FJ, Jacob J, Bellido A, del Castillo JG, SIESTA Res Network M. Non-specific abdominal pain in elderly patients discharged from the emergency department: Frequency, outcomes and risk-factors for adverse events (EDEN-43 study). *AMERICAN JOURNAL OF EMERGENCY MEDICINE*. 2025; 93. DOI:10.1016/j.ajem.2025.04.007. PMID:40203496. IF:2,200 (Q2/4D).
 - Miró O, Peyrony O, Trullàs JC, Alquézar A, Núñez J, López P, Jacob J, Bueno H, Montero M, Arévalo JC, de la Espriella R, Miñana G, Sanchis J, Llorens P. Identification of phenotypes in heart failure with preserved ejection fraction among 8161 patients from 3 Spanish cohorts. *REVISTA ESPAÑOLA DE CARDIOLOGÍA*. 2025; 78(10). DOI:10.1016/j.rec.2025.02.021. PMID:40311842. IF:4,900 (Q1/2D).
 - Miró O, Rodríguez M, Alquézar A, Piñol C, del Castillo JG, Burillo G, SIESTAT. Emergency department length of stay of hospitalised patients and short-term outcomes (EDEN-18 Study). *Emergencias : revista de la Sociedad Española de Medicina de Emergencias*. 2025; 37(5). DOI:10.55633/s3me/077.2025. PMID:41185473. IF:6,300 (Q1/1D).
 - Monje A, Escolà L, Rivera A, Herrera S, Plaza A, Duch P, Pomar V, Roch N, Rouras L, López J, Ramos JR. Targeting Overtreatment of Asymptomatic Bacteriuria in the Emergency Department: Results from a Quasi-Experimental Clinical Pharmacist-Led Program Based on Education and Audit. *Antibiotics-Basel*. 2025; 14(12):1261. DOI:10.3390/antibiotics14121261. PMID:41463763. IF:4,600 (Q1/2D).
 - Montero FJ, Bajo I, Castillo JGD, Burillo G, Jacob J, Aguiló S, Pinera P, Alquezar A, Fernández C, Llorens P, Cho J, Casado B, Gayoso S, Sánchez G, Fernández ME, Gallardo P, Romero C, Llauger L, Vázquez V, Calle S, Cañete M, Ruescas E, Fernández F, Miró O, Researchers N. Factors associated with discharge home in older patients admitted to emergency department observation units: Looking for a predictive scale. *JOURNAL OF EVALUATION IN CLINICAL PRACTICE*. 2025; 31(2). DOI:10.1111/jep. 14124. PMID:39167727. IF:2,100 (Q2/3D).
 - Montero FJ, Bajo I, del Castillo JG, Burillo G, Fernández C, Aguiló S, Alquézar A, Jacob J, Llorens P, Ungerer O, Eiroa P, Parra P, Pineda MCS, Grinspan MR, Palacios MFP, Tejera MG, Garcia MB, Benito MV, Llopis F, Martos RM, Gallardo VT, Hernández RJG, García JP, Aguilera CL, Pulfer MD, Rodríguez ME, Vela MI, Romero MR, Gimenez AM, Miró O, SIESTA N. Admission rates and outcomes of elderly patients in emergency department observation units. A Spanish multicentre study. *Signa Vitae*. 2025; 21(10). DOI:10.22514/sv.2025.146. IF:0,600 (Q4/9D).
 - Plaza A, Juanes A, Sanz N, González J, Fernández J, García M, Ruiz J. Emergency Department Reconsultations After a Secondary Prevention Bundle for Medication-Related Problems: A Retrospective Cohort Study. *Journal of Clinical Medicine*. 2025; 14(19):6907. DOI:10.3390/jcm14196907. PMID:41095987. IF:2,900 (Q1/2D).
 - Romero C, Alquézar A, Núñez J, Gil V, Jacob J, Aguirre A, Jimenez AV, Borja M, de la Espriella R, Santas E, Sánchez C, Repullo D, Fuentes L, Bustos SA, Miñana G, Llorens P, Miró O. Predictors of long-term survival in patients with a first episode of acute heart failure. *POLISH HEART JOURNAL – KARDIOLOGIA POLSKA*. 2025; 83(9). DOI:10.33963/v.phj.107033. PMID:40613593. IF:3,800 (Q1/3D).
 - Ruiz J, Monje AE, Escolà L, Herrera S, Hernández H, Duch P, Fernández E, Rivera MA, Pereira CS, López J. Comparison of antimicrobial consumption indicators in the emergency department. *ENFERMEDADES INFECCIOSAS Y MICROBIOLOGÍA CLÍNICA*. 2025; 43(8). DOI:10.1016/j.eimc.2025.01.009. IF:2,500 (Q2/5D).

5.1.6 Associated Groups

SCIENTIFIC PRODUCTION – Clinical Practice Guidelines

- Fernández C, Puig M, Aguiló S, Rodríguez B, López MP, Capilla R, Ferré C, Mir M, Arnau I, Ruíz M, Martín E, Álvarez E, Sousa Y, Piñera P, Liñán M, Martín FJ, Castejón S, González JJ, Del Arco C. Recomendaciones del Grupo de Trabajo sobre Medicina Geriátrica de Urgencias de la Sociedad Española de Medicina de Urgencias y Emergencias sobre el cribado de fragilidad, valoración geriátrica e intervención en el Servicio de Urgencias (Recomendaciones GEM-SEMES). Revista Española de Urgencias y Emergencias. 2025; 4(3). DOI:10.55633/s3me/REUE021.2025.

5.1.6 Associated Groups

Radiophysics and Radioprotection

Group leader

Carrasco De Fez, Pablo (FGS)

Researchers

Anson Marcos, Cristina (FGS)

Barceló Pages, Marta (FGS)

Domínguez Perea, Alejandro (FGS)

Gallego Franco, Pedro (FGS)

Jornet Sala, Núria (FGS)

Martínez Ramos, Pol (FGS)

Pérez-Alija Fernández, Jaime (FGS)

Riu Molinero, Victor (FGS)

Roda García, Javier (FGS)

Ruiz Martínez, Agustin (FGS)

Tejedor Aguilar, Natalia (FGS)

Vivancos Bargallo, Helena (FGS)

Research technicians

Espinosa López, Núria (FGS)



DESCRIPTION

The Radiation Physics and Radiation Protection research group conducts applied research across three fields of application of ionising radiation in medicine: radiation therapy, nuclear medicine, and radiology. This research is intended to address knowledge gaps in the safe application of radiation in medicine arising from new technologies, techniques, procedures, or the application of new legislation.

MAIN LINES OF RESEARCH

- Artificial Intelligence applied to radiotherapy DVH prediction and to radiotherapy treatment plan optimisation. (Gallego Franco, Pedro; Pérez-Alija Fernández, Jaime; Tejedor Aguilar, Natalia).
- Clinical Audits in Radiotherapy. Line shared with the Radiation Oncology department. (Jornet Sala, Núria).
- Standardisation in Nuclear Medicine. (Ruiz Martínez, Agustin; Barceló Pages, Marta).
- Diagnostic Reference Levels (DRL) by means of a radiation dose management solution. (Barceló Pages, Marta; Ruiz Martínez, Agustin).
- Biological Dosimetry. (Carrasco De Fez, Pablo; Pérez-Alija Fernández, Jaime).
- Clinical transmission EPID-based in vivo dosimetry. At present, we have an agreement with Sun Nuclear Co. to clinically implement and suggest improvements to the SunCHECK® quality assurance platform in radiotherapy, including treatment unit and patient-related quality assurance, as well as PerFraction® software, used for in vivo dosimetry with the electronic portal device of linear accelerators. (Anson Marcos, Cristina; Jornet Sala, Núria).

5.1.6 Associated Groups

SCIENTIFIC CHALLENGES

- To make radiotherapy treatment planning less person-dependent, to decrease variability and optimise treatment plans.
- To define a strategy to perform clinical audits in radiotherapy at a regional level that could be escalated to national and international levels.
- To set up clinical audits in radiotherapy in Catalonia.
- To standardise image acquisition in PET and SPECT imaging.
- To get all imaging modalities integrated in the dose management system provided by the Catalan government, and to derive DRL values for all the equipment at HSCSP.
- To manage DRLs and compare them against regional, national and international values.
- To update the dose-biological effect calibration curve, relating chromosomal aberrations to radiation absorbed dose, based on modern automatic systems.
- To derive an easy test to classify irradiated individuals from a potential accident into those that would require special follow-up and treatment, and those that were exposed to non-critical doses.
- To derive clinically relevant tolerance actions for EPID-based in vivo dosimetry on each anatomical treatment site in radiation therapy.

ACTIVE & AWARDED GRANTS

- Jornet Sala, Núria. KAYAC + Knowledge on the Outcome of Adolescent and Young Adults. KAYAC. Autorité de Sûreté Nucléaire et de Radioprotection (ASNR). Duration: 2025-2029. 95.000,00 €
- Tejedor Aguilar, Natalia. Desarrollo y evaluación de modelos de inteligencia artificial para la predicción de dosis y la generación automática de planes de tratamiento clínicos para tratamientos de mama con IMRT. SEFM 2023. Duration: 2023-2025. 2.000,00 €

SCIENTIFIC PRODUCTION

- Brady AP, Brkljacic B, McNulty J, Loewe C, Coffey M, Visvikis D, Anacak Y, Garibaldi C, Hierath M, Jamar F, Jornet N, Lara PC, Leech M, Paulo G, Pesznyak C, Polycarpou I, Sánchez RM, Szucsich M, Zarb F, European R, E, E, E. A project to define standards for radiology staffing, education and training across the European Union. Insights into Imaging. 2025; 16(1):56. DOI:10.1186/s13244-025-01924-8. PMID:40075005. IF:4,500 (Q1/2D).
- Emiliani E, Bravo A, AGUSTIN M, Giron I, Fontanet S, Verri P, Sánchez A, Kanashiro AK, Skolarikos A, Somani B, Traxer O, Sánchez F, Millan F, Angerri O. Radiation exposure using leaded versus regular latex surgical gloves in endourological procedures: a prospective comparative study. Urolithiasis. 2025; 53(1):26. DOI:10.1007/s00240-024-01676-y. PMID:39932535. IF:2,200 (Q2/5D).
- Gallego P, Ambroa E, Pérezalija J, Jornet N, Anson C, Tejedor N, Vivancos H, AGUSTIN M, Barceló M, Dominguez A, Riu V, Roda J, Carrasco P, Balocco S, Díaz O. Breast radiotherapy planning: A decision-making framework using deep learning. MEDICAL PHYSICS. 2025; 52(3). DOI:10.1002/mp.17527. PMID:39625151. IF:3,200 (Q1/3D).
- Latorre A, Serrano S, Jornet N, Sempau J. On the robustness of the Transit-Guided Radiation Therapy technique against variations in linac operating conditions. PHYSICA MEDICA-EUROPEAN JOURNAL OF MEDICAL PHYSICS. 2025; 139:105206. DOI:10.1016/j.ejmp.2025.105206. PMID:41135169. IF:2,700 (Q2/4D).
- Majercakova K, Aguilar NT, Verdúm JI, Bargallo HV, Capel AV, Soto MM, Melcon GGD, Cordero JVR, González JA, Rosell SB, Jover DH, Mitre SR, Ibanez AP, Sebío A, Sancho G. Role of Spatially Fractionated Radiotherapy (LATTICE) Treatment in Inoperable Bulky Soft-Tissue Sarcomas. Cancers. 2025; 17(4):624. DOI:10.3390/cancers17040624. PMID:40002219. IF:4,400 (Q2/3D).
- Meattini I, Aznar MC, Boldrini L, Borgmann K, Clark CH, Faivre C, Forde E, van der Heide UA, Jereczek BA, Jornet N, Kirby AM, Ost P, Ratosa I,

5.1.6 Associated Groups

- Tanderup K, Troost E, Cortese AJ, Guckenberger M. Repositioning Radiation Oncology at the centre of integrated oncology care: A manifesto of the European Society for Radiotherapy and Oncology (ESTRO). *RADIOTHERAPY AND ONCOLOGY*. 2025; 210:111035. DOI:10.1016/j.radonc.2025.111035. PMID:40659192. IF:5,300 (Q1/2D).
- Otero E, Raspall MJF, Franco PG, Martínez JF, Saladich IG, Sala NJ, Gisbert ML, Cordero JR, Verdúm JI, Sancho G. Mapping clinical and imaging factors that might predict cardiac events in breast cancer patients. *Frontiers in Oncology*. 2025; 15:1552908. DOI:10.3389/fonc.2025.1552908. PMID:40134591. IF:3,300 (Q2/4D).
 - Stroom J, Ayadi M, Aarberg A, Batel V, Ceylan C, Cleary S, Greco C, Hoffmann L, Jackson A, Kelly C, Mayo C, Michailidou C, Murrell DH, Muscat S, Pagett CJH, Paradis KC, Pérez J, Yorke E, Zaila A, West N. Reirradiation dose constraints in clinical practice: Results of an international survey. *RADIOTHERAPY AND ONCOLOGY*. 2025; 210:111030. DOI:10.1016/j.radonc.2025.111030. PMID:40669609. IF:5,300 (Q1/2D).
 - Webster A, Fog LS, Hall E, van PSN, Nevens D, Montay P, Franco P, Joyce E, Jornet N, Clark CH, Bertholet J. ESTRO guidelines for developing questionnaires in survey-based radiation oncology research. *Clinical and Translational Radiation Oncology*. 2025; 51:100895. DOI:10.1016/j.ctro.2024.100895. PMID:39898327. IF:2,700 (Q2/4D).
 - Wilson LJ, Hadjipanteli A, Ostergaard DE, Bogaert E, Brown KF, DeJong R, Earley J, Edouard M, Khan M, Lindsay J, van der Himst J, Ding GX, Wood T, Aznar MC, Jornet N, Ntentas G. Cone beam CT dose optimisation: A review and expert consensus by the 2022 ESTRO Physics Workshop IGRT working group. *RADIOTHERAPY AND ONCOLOGY*. 2025; 209:110958. DOI:10.1016/j.radonc.2025.110958. PMID:40425073. IF:5,300 (Q1/2D).

5.1.6 Associated Groups

Paediatrics

Group leader

Moliner Calderon, Elisenda (FGS)

Researchers

Alvarez Pérez, Roser (FGS)
 Armendariz Lacasa, Laura (FGS)
 Barceló Carceller, Irene (FGS)
 Becerra Hervas, Judit (FGS)
 Bianchi, Federicha (FGS)
 Brio Sanagustin, Sonia (FGS)
 Carreras González, Gemma (FGS)
 Casas Resa, Judit (FGS)
 Castillo Gomez, Fatima (FGS)
 Coca Fernández, Elisabet (FGS)
 Escribano Sanz, Pablo (FGS)
 Esmel Vilomara, Roger (FGS)
 Fernández Miro, Joana (FETB)
 Fraga Rodríguez, Gloria M. (FGS)
 García Borau, María José (FGS)
 García Del Cerro, Gemma (FGS)
 González Rioja, Xoan (FGS)
 Josa Eritja, María (FGS)
 López Bernal, Ester (FGS)
 López Torija, Ivan (FGS)
 Pi Compañó, Albert (FGS)
 Porcar Farran, Daniel (FGS)
 Salazar Quiroz, Juan José (FGS)
 Sensarrich Roset, Mireia (FGS)
 Thio Casals, Julia (FGS)
 Tirado Capistros, Mireia (FGS)
 Torrent Español, Montserrat (FGS)
 Turon Viñas, Anna (FGS)
 Valle T-Figueras, José María (FGS)

Research technicians

Leon Gallart, Adrià (IR)
 Pérez-Portabella Cuso, Pere (IR)



DESCRIPTION

The Paediatric Research Group is an expanding team of paediatricians who, alongside their clinical work in the hospital, are deeply committed to advancing paediatric research to improve the care and treatment of the children we serve. Aware of the limitations posed by the relatively small population in our area of influence, we strongly recognise the value of collaborating with other centres to enhance the quality and impact of paediatric research.

Our objective is to build a cohesive and inclusive network that brings together all paediatric healthcare professionals in our region who share an interest in research. This includes paediatricians working in both hospital and primary care settings, with the aim of fostering community-based studies that address the major health challenges affecting children.

Our main research areas focus on paediatric haemato-oncology, particularly haematopoietic stem cell transplantation, infectious diseases, and paediatric and neonatal critical care. Within this latter field, we develop research lines focused on neonatal resuscitation, neonatal respiratory failure, and the development of personalised devices and interfaces using 3D printing in neonatology, aimed at improving respiratory support, reducing complications, and better adapting treatments to the anatomical needs of newborns.

MAIN LINES OF RESEARCH

- Pediatric Bone Marrow Transplantation. National Reference Centre (CSUR). (Sisini, Luisa).
- Hereditary Erythropathology. National Reference Centre (CSUR). (Torrent Español, Montserrat).
- Fanconi Anaemia and Other Hereditary Anaemias. (Torrent Español, Montserrat).
- Pediatric Sarcomas. National Reference Centre (CSUR). (Torrent Español, Montserrat).

5.1.6 Associated Groups

- Reference Centre for the Treatment of Bladder Exstrophy in the Neonatal Period. CSUR F. Puigvert – H. Sant Pau. Pau. (Moliner Calderón, Elisenda).
- Neonatal Infectious Diseases. (Moliner Calderón, Elisenda).
- Neonatal Resuscitation and Hypoxic-Ischemic Encephalopathy. (Garcia Borau, María José).
- Ultrasound in Critically Ill Neonates. (Salazar Quiroz, Juan José; Becerra Hervas, Judit).
- Neonatal Pharmacology. (Garcia Borau, María José).
- Devices and interfaces using 3D printing in neonatology (Moliner Calderon, Elisenda).
- Neonatal Resuscitation in Very Low Birth Weight Infants with Late Umbilical Cord Clamping (Moliner Calderon, Elisenda; Porcar Farran, Daniel).
- Hereditary Renal Diseases. (Fraga Rodríguez, Gloria M.)
- Genetic Disorders with Cardiac Expression. (Esmel Vilomara, Roger).
- Effect of Exercise on Cardiac Remodelling in Children Undergoing Chemotherapy. (Alvarez Pérez, Roser).
- Respiratory disorders in children. (Garcia Del Cerro, Gemma). Development of personalised.

SCIENTIFIC CHALLENGES

- Pediatric Bone Marrow Transplantation. National Reference Centre (CSUR). (Sisini, Luisa). Research focused on improving outcomes, reducing complications, and optimising protocols in paediatric haematopoietic stem cell transplantation.
- Hereditary Erythropathology. National Reference Centre (CSUR). (Torrent Español, Montserrat). Study of diagnosis, clinical management, and long-term outcomes of hereditary red blood cell disorders in children.
- Fanconi Anaemia and Other Hereditary Anaemias. (Torrent Español, Montserrat). Research on the genetic basis, clinical progression, and innovative treatments for Fanconi anaemia and other inherited anaemias.
- Pediatric Sarcomas. National Reference Centre (CSUR). (Torrent Español, Montserrat). Investigation of diagnosis, treatment strategies, and survival outcomes in children with soft tissue and bone sarcomas.
- Reference Centre for the Treatment of Bladder Exstrophy in the Neonatal Period. CSUR F. Puigvert – H. Sant Pau. (Moliner Calderón, Elisenda). Multidisciplinary research on early surgical management and long-term outcomes of neonatal bladder exstrophy.
- Neonatal Infectious Diseases. (Moliner Calderon, Elisenda). Study of epidemiology, prevention strategies, and management of infections in the neonatal period.
- Neonatal Resuscitation and Hypoxic-Ischemic Encephalopathy. (Garcia Borau, María José). Research on neonatal resuscitation strategies and neuroprotective interventions for hypoxic-ischemic encephalopathy.
- Ultrasound in Critically Ill Neonates. (Salazar Quiroz, Juan José; Becerra Hervas, Judit). Development and clinical application of bedside ultrasound techniques for diagnosis and monitoring of critically ill neonates.
- Neonatal Pharmacology. (Garcia Borau, María José). Research on pharmacokinetics, safety, and optimisation of drug therapies in neonatal patients.
- Devices and Interfaces Using 3D Printing in Neonatology. (Moliner Calderon, Elisenda). Development of personalised medical devices and respiratory interfaces using 3D printing to improve neonatal care.
- Neonatal Resuscitation in Very Low Birth Weight Infants with Late Umbilical Cord Clamping. (Moliner Calderón, Elisenda; Porcar Farran, Daniel). Research on resuscitation strategies in very low birth weight infants incorporating delayed umbilical cord clamping to improve cardiovascular transition and neonatal outcomes.
- Hereditary Renal Diseases. (Fraga Rodríguez, Gloria M.) Research on the genetic diagnosis, pathophysiology, and clinical management of inherited kidney diseases in children.

5.1.6 Associated Groups

- Genetic Disorders with Cardiac Expression. (Esmel Vilomara, Roger). Study of genetic syndromes with cardiac involvement, focusing on early detection and clinical management.
- Effect of Exercise on Cardiac Remodelling in Children Undergoing Chemotherapy. (Álvarez Pérez, Roser). Investigation of how physical exercise influences cardiac remodelling and cardiotoxicity in paediatric oncology patients.
- Respiratory Disorders in Children. (García Del Cerro, Gemma). Research on the diagnosis, treatment, and long-term outcomes of paediatric respiratory diseases.

ACTIVE & AWARDED GRANTS

- Armendariz Lacasa, Laura. Caracterización de las poblaciones de eosinófilos en pacientes pediátricos con asma eosinofílica; evaluación de la expresión de marcadores de activación mediante citometría de flujo. SENP 2023. Sociedad Española de Neumología Pediátrica. Duration: 2024-2026. 5.000,00 €

DOCTORAL THESES DEFENDED

- Esmel i Vilomara, Roger. Acute myocarditis in childhood: Linking early diagnostic indicators to aetiology and prognosis. 16/09/2025. Universitat Autònoma de Barcelona. Supervisors: Gran Ipiña, Ferran; Melendo Pérez, Susana; Rosés i Noguer, Ferran; Moreno Galdó, Antonio. <https://hdl.handle.net/10803/695309>

SCIENTIFIC PRODUCTION – Articles & Reviews

- Alonso A, Poindexter B, Aleem S, Healy H, Aguar M, Moliner E, Serrano MD, Arroyo R, Vento M. A phase 1b randomised, multicenter, dose determination trial of zelpultide alfa (recombinant human surfactant protein D) in preterm neonates at high risk of developing bronchopulmonary dysplasia. *Frontiers in Paediatrics*. 2025; 13:1639573. DOI:10.3389/fped. 2025.1639573. PMID:41018057. IF:2,000 (Q2/4D).
- Alòs M, Moliner E, Josa M, Torralbas J, Riba A. Evaluación de la eficacia del Neodisc en situaciones de urgencia en el neonato. Eficacia del uso de un sistema de soporte en situaciones de emergencia en neonatología: evaluación mediante simulación clínica. *Emergencias Pediátricas*. 2025; 4(2)
- Altarriba LC, Hsi SY, Ravit AM, Sanagustín SB, González X. Non-Invasive Capnography Versus Pulse Oximetry for Early Detection of Respiratory Depression During Pediatric Procedural Sedation: A Prospective Observational Study. *Children-Basel*. 2025; 12(7):938. DOI:10.3390/children12070938. PMID:40723131. IF:2,100 (Q2/4D).
- Batlle L, Pulido JP, Esteve A, Perurena J, Franco C, Aguilo A, Martínez M, Cea C, Rodríguez M, Soler P, Casals F, Velao SR, Torrent M, Alsina L, Colobran R. Somatic reversion in CD137 deficiency correlating with Epstein-Barr virus control and clinical improvement. *npj Genomic Medicine*. 2025; 10(1):78. DOI:10.1038/s41525-025-00535-y. PMID:41315311. IF:4,800 (Q1/2D).
- Carreras G, Mendoza LC, Colom C, Tirado M, Sardà H, Sánchez JL, Pérez A. Thyroid autoimmunity at onset of type 1 diabetes as a predictor of thyroid dysfunction: a thirty-year retrospective longitudinal study. *Frontiers in Endocrinology*. 2025; 16:1699111. DOI:10.3389/fendo.2025.1699111. PMID:41255538. IF:4,600 (Q1/3D).
- De Winter DP, Verweij E, Debeer A, Devlieger R, Lewi L, Verbeeck S, Maurice P, Jouannic JM,

5.1.6 Associated Groups

- Guillemin MG, Mailloux A, dos MCP, Pacheco C, Moreira M, Vaena MMD, Bohlin K, Tiblad E, Thorup E, Petersen OB, Sánchez M, Llorente AV, Poljak B, Khalil A, Le K, Ghesquiere L, Krivec JL, Soltirovska A, Dame C, Blank JD, Hohnacker A, Saxonhouse M, Connors NK, Geipel A, Rath J, Prasad S, van L, Geerts L, Schuler R, Thon N, Leibovitch L, Cohen S, Canul AA, Kelly E, Raghuram K, Caviglioli F, Colombo SFG, Elanjikal Z, Brayley J, Pfuertscheller D, Pichler G, Grisi A, Navarro E, Pereira J, Soares H, Zhou M, Borau MJG, Calderon EM, Galletti MF, Mariani GL, Mackin D, Malone F, Lampland A, Tse WT, Castleman J, van der Bom JG, de Haas M, Lopriore E, Fetus Newborn DIONYSUS I. Variations and Opportunities in Postnatal Management of Hemolytic Disease of the Fetus and Newborn. *JAMA Network Open*. 2025; 8(1):e2454330. DOI:10.1001/jamanetworkopen.2024.54330. PMID:39792381. IF:9,700 (Q1/1D).
- Dolader P, Corrales DCJ, Esmel R, Daina C, Izquierdo J, Fernández E, Garrido M, Navarro A, Camacho J, Fidalgo A, Sánchez R, Escudero F, Sorli M, Betrian P, Roses F, Gran F. Histological guided treatment in paediatric patients presenting with severe left ventricular dysfunction. *EUROPEAN JOURNAL OF PEDIATRICS*. 2025; 184(10):623. DOI:10.1007/s00431-025-06424-x. PMID:40965764. IF:2,600 (Q1/2D).
 - Esmel R, Dolader P, Melendo S, Rosés F, Gran F. High specificity electrocardiogram patterns for parvovirus B19 myocarditis in children: bridging electrocardiogram findings to aetiological diagnosis. *CARDIOLOGY IN THE YOUNG*. 2025; 35(5). DOI:10.1017/S1047951125001878. PMID:40337792. IF:0,700 (Q4/8D).
 - Esmel R, Riaza L, Costa L, Sabaté A, Gran F. Asymmetric Myocardial Involvement as an Early Indicator of Cardiac Dysfunction in Pediatric Dystrophinopathies: A Study on Cardiac Magnetic Resonance (CMR) Parametric Mappings. *PEDIATRIC CARDIOLOGY*. 2025; 46(3). DOI:10.1007/s00246-024-03488-8. PMID:38687374. IF:1,400 (Q3/6D).
 - Esmel R, Riaza L, Dolader P, Rodríguez B, Lasa A, Muñoz P, Fernández P, Figueras M, Bianco L, Bueno A, Vargas L, Camprubí E, Marimon C, Sabaté A, Rosés F, Gran F. Infarct-like myocarditis in adolescents: Exploring genetic insights from diagnosis through follow-up. *INTERNATIONAL JOURNAL OF CARDIOLOGY*. 2025; 432:133255. DOI:10.1016/j.ijcard.2025.133255. PMID:40246029. IF:3,200 (Q2/3D).
 - Esmel R, Turón E, Pujol M, Giorgi S, Pérez M, Pérez A, Aibar JA, Boronat S. Cardiac Implications in Dravet Syndrome: Can Electrocardiogram and Echocardiography Detect Hidden Risks?. *PEDIATRIC NEUROLOGY*. 2025; 164. DOI:10.1016/j.pediatrneurol.2025.01.005. PMID:39862709. IF:2,100 (Q2/4D).
 - Faria AG, Montenegro LR, Jorge A, Martín RM, Fragoso MCBV, Tinano FR, Seraphim CE, Canton A, Gomes LG, Martos GA, García IT, Carcavilla A, Tirado M, Souza NC, Argente J, Latronico AC, Mendonca BB, Brito VN. Peripheral precocious puberty in girls with McCune-Albright syndrome: a case series. *Archives of Endocrinology Metabolism*. 2025; 69(2):e240459. DOI:10.20945/2359-4292-2024-0459. PMID:40366083. IF:2,300 (Q3/7D).
 - Fraga GM, Devolder A. Poliquistosis renal autosómica dominante: riesgo de progresión y perspectivas de tratamiento en la edad pediátrica. *Anales de Nefrología Pediátrica*. 2025; 1(10).
 - López JL, Esmel R, Rodoman I, Constante AD, Kendall S, Freixa A, Diaz D, Cantarutti N, Moscatelli S, Jeewa A. Advancements and challenges in pediatric dilated cardiomyopathy: a comprehensive review of current approaches and future directions. *EUROPEAN JOURNAL OF PEDIATRICS*. 2025; 184(9):546. DOI:10.1007/s00431-025-06263-w. PMID:40794194. IF:2,600 (Q1/2D).
 - Magallares B, Cerdá D, Betancourt J, Fraga G, Park H, Codes H, Quesada E, López M, Torrent M, Marín A, Herrera S, Gich I, Boronat S, Casademont J, Corominas H, Malouf J. Risk factors associated with low bone mineral density and childhood osteoporosis in a population undergoing skeletal growth: a cross-sectional analytic study. *Frontiers in Endocrinology*. 2025; 16:1587985. DOI:10.3389/fendo.2025.1587985. PMID:40487764. IF:4,600 (Q1/3D).
 - Magallares B, Malouf J, Codes H, Park HS, Betancourt J, Fraga G, Quesada E, López M, Torrent M, Marín A, Herrera S, Gich I, Boronat S, Casademont J, Corominas H, Cerdá D. Pediatric densitometry: is the Z score

5.1.6 Associated Groups

- adjustment necessary in all cases?. *Frontiers in Endocrinology*. 2025; 16:1587382. DOI:10.3389/fendo.2025.1587382. PMID:40270717. IF:4,600 (Q1/3D).
- Papaevangelou V, Pedrero R, Syridou G, Baquero F, Rodríguez P, del Rosal T, Noguera A, Ríos M, Fortuny C, Villaverde S, Frick MA, Vallejo BA, Soler P, Saavedra J, Karagiannidou S, Rincón E, Busselo IS, Zuriarrain OM, Calderón EM, Tagarro A, Malumbres M, Colino E, Llanos EG, Ruiz AM, Mateos MS, Espuny XB, Alonso A, Ferreras L, Pérez IC, Posse AF, Lyall H, Blázquez D. Severe Neutropenia in Infants With Congenital Cytomegalovirus on Antiviral Therapy. *PEDIATRIC INFECTIOUS DISEASE JOURNAL*. 2025; 44(11). DOI:10.1097/INF.0000000000004905. PMID:40674644. IF:2,200 (Q2/3D).
 - Serralabós J, Castillo F, Sensarrich M, Barceló I, González X. Use of Standardised Dosing Sheets in Pediatric Emergency Care: Experience in a Third-Level Hospital. *CLINICAL PEDIATRICS*. 2025; 64(6). DOI:10.1177/00099228241301842. PMID:39660385. IF:0,700 (Q4/8D).
 - Villanueva CL, Arbizu EA, Goruppi I, Lozano NB, Bianchi F, Martínez AP, Pina SM, Caballero A, Murzi M, Betroletti F, Estremera F, Guerrero SB, Argente CG. Peroral endoscopic myotomy (POEM) as a treatment for pediatric achalasia: multicenter study and first results. *Gastroenterología y Hepatología*. 2025; 48(4):502262. DOI:10.1016/j.gastrohep.2024.502262. PMID:39343296. IF:1,900 (Q3/7D).
 - Villaverde S, Pedrero R, Papaevangelou V, Syridou G, Karagiannidou S, Lyall H, Payne H, Frick MA, Soler P, Baquero F, Rodríguez P, Fortuny C, Ríos M, Sánchez M, Saavedra J, Bringué X, Moliner E, Castells L, Muga O, Vives I, Gkentzi D, Lombardi G, Tagarro A, Colino E, Couceiro JA, Rojo P, de Vergas J, Blázquez D, cCMVnet Registry Study GRP. Antiviral Treatment and Risk of Hearing Loss in Asymptomatic and Mild Symptomatic Infants With Congenital Cytomegalovirus. *PEDIATRIC INFECTIOUS DISEASE JOURNAL*. 2025; 44(3). DOI:10.1097/INF.0000000000004583. PMID:39383383. IF:2,200 (Q2/3D).

5.1.6 Associated Groups

Ophthalmology

Group leader

Del Campo Carrasco, Zoraida (FGS)

Researchers

Castro Seco, Roberto (FGS)
 Crespi Vilimelis, Jaume (FGS)
 Díaz Cascajosa, Jesús (FGS)
 García Pares, Eva (FGS)
 Gil Arnal, Julian Miguel Angel (FGS)
 Gómez Prieto, María José (FGS)
 Lazaro Rodríguez, Victor (FGS)
 Liscombe Sepulveda, John Paul (FGS)
 Loscos Gimenez, Irene Victoria (FGS)
 Luna Marine, María Sabina (FGS)
 Molina Montero, José Alberto (FGS)
 Oliva Sierra, Ruth (FGS)
 Piquer Pérez, María Pilar (FGS)
 Rego Lorca, Daniela (FGS)
 Rodríguez Vidal, Cristina (FGS)
 Roselló Silvestre, Noemi (FGS)
 Sabater Cruz, Noelia (FGS)
 Salvador Miras, Ignacio (FGS)
 Téllez Vázquez, Jesús María (FGS)
 Vela Segarra, José Ignacio (FGS)

Research technicians

Benítez Reina, Pilar (IR)
 Fernández Iriarte, Jon (IR)
 Maymo Catala, Laura (IR)



DESCRIPTION

The research we conduct is primarily clinical and applied. It includes case studies, literature reviews, longitudinal studies, clinical trials, and evaluations of new technologies and treatments. We also collaborate with other clinical teams to investigate the potential ophthalmological toxicity of the drugs under study. Additionally, our research encompasses basic studies on biomarkers and disease mechanisms, as well as innovation in devices and therapies. In summary, we combine clinical, experimental, and technological innovation research to improve the diagnosis and treatment of eye diseases.

MAIN LINES OF RESEARCH

- Use of machine learning and artificial intelligence algorithms in various chronic ocular diseases: glaucoma, AMD (Díaz Cascajosa, Jesús).
- Glaucoma and drainage device surgery (MIGS – Minimally Invasive Glaucoma Surgery) (Tellez Vazquez, Jesús María).
- Glaucoma: clinical presentation and surgical indications in a tertiary care centre within our healthcare environment. (Loscos Giménez, Irene Victoria).
- Outcomes of PreserFlo according to the type of collagen matrix used (Duragen vs Ologen) versus no collagen matrix (Tellez Vazquez, Jesús María; Loscos Gimenez, Irene Victoria; Verdú, Alejandro).
- Blebmaker: advancing glaucoma surgical outcomes (Loscos Gimenez, Irene Victoria).
- Idebenone therapy for Leber hereditary optic neuropathy. (Castillo Campillo, Lorena).
- Extended depth of focus intraocular lens. (Lazaro Rodríguez, Victor; Gil Arnal, Julian Miguel Angel).
- Outcomes of transcaruncular anaesthesia across different ophthalmic surgeries (Sabater Cruz, Noelia; Del Campo Carrasco, Zoraida).

5.1.6 Associated Groups

- Evaluation of Immunoglobulins in the Tear Film of Patients with Atopic Dermatitis Undergoing Dupilumab Treatment (Sabater Cruz, Noelia; Del Campo Carrasco, Zoraida).
- Evaluation of Intravitreal Treatments in Age-Related Macular Degeneration (AMD) (Salvador Miras, Ignacio).
- Evaluation of Intravitreal Treatments in Diabetic Macular Oedema (Vela Segarra, José Ignacio; Crespi Vilamell, Jaume; Diaz Cascajosa, Jesús).
- Genotype–phenotype correlation in patients with USH2A mutations: a comparative study of patients with Usher syndrome and non-syndromic retinitis pigmentosa (Luna Marine, María Sabina).
- Strabology, surgical management (Roselló Silvestre, Noemi; Luna Marine, María Sabina).

SCIENTIFIC CHALLENGES

- Technological advancements.
- Therapeutic efficacy.
- Optimisation of treatments.
- Diagnostic approaches.

SCIENTIFIC PRODUCTION – Article & Reviews

- Caminal M, Vilimelis JC, Quinto CO, Pernias AS, Conversa S, Reyes AV, Cascajosa JD, Lorca DR, Pérez MPP, Segarra J. Anatomical and functional results of plasma rich in growth factors as a treatment for poor-prognosis macular holes. *Romanian Journal Of Ophthalmology*. 2025; 69(4). DOI:10.22336/rjo.2025.81. PMID:41971203.
- Castelblanco E, Salvador I, Carbonell M, Gratacòs M, Traveset A, Correig E, Hernández M, Alonso N, Franch J, Mauricio D. Choroidal thickness as predictor of subclinical carotid atherosclerosis in adults with type 1 diabetes. *Scientific Reports*. 2025; 15(1):8360. DOI:10.1038/s41598-025-93534-z. PMID:40069268. IF:3,900 (Q1/2D).
- Mateu M, Stanton N, Santaló FS, Vela JI, Cascajosa JD, Pérez ES, Rego D, Chico A. Retinal Microperimetry as a Novel Tool for Early Detection of Subclinical Cognitive Dysfunction and Brain Damage in Type 1 Diabetes: A Pilot Study. *Endocrinology Diabetes & Metabolism*. 2025; 8(1):e70018. DOI:10.1002/edm2.70018. PMID:39707866.
- Millá E, Moreno J, Duch S, Lanzagorta A, Téllez J, Piá JV, Arrondo E, Vila J, Antón A, Bóveda J, Loscos J, Spain Paul Glaucoma Implant GRPSPGG. Predictive factors for the success of the Paul glaucoma implant: a one-year multicenter prospective study. *Scientific Reports*. 2025; 15(1):38284. DOI:10.1038/s41598-025-18369-0. PMID:41184303. IF:3,900 (Q1/2D).
- Oliver D, Ros E, Segura G, Alonso T, Arcediano MA, Herranz A, Matas J, Seco RC, van der Veen RLP, Boixadera A, García J, Oliveres J. A Closer Look at Periocular Necrotising Fasciitis: A Systematic Review of Literature. *Diagnostics*. 2025; 15(9):1181. DOI:10.3390/diagnostics15091181. PMID:40361999. IF:3,300 (Q1/2D).
- Pérez G, Cruz NS, Carrasco ZD, Lázaro V, Weingartshofer RD, Arnal M, García AM, de Nadal MC, Giménez IL. Fusarium keratitis on the rise in southern Europe: Implications of contact lens use and global warming. *JOURNAL FRANÇAIS D'OPHTALMOLOGIE*. 2025; 48(7):104576. DOI:10.1016/j.jfo.2025.104576. PMID:40578182. IF:1,100 (Q3/8D).
- Rego D, Mateu M, Chico A, Molina A, Díaz J, Vela JI. OCTA and Microperimetry Changes Preceding the Appearance of Diabetic Retinopathy in Patients with Type 1 Diabetes. *CURRENT EYE RESEARCH*. 2025; 50(4). DOI:10.1080/02713683.2024.2435357. PMID:39637437. IF:2,000 (Q2/5D).
- Rodríguez C, Alday NM, Teijeiro MJB, Bande M. Ultrasound-Based Assessment of Posterior Vitreous Detachment in Healthy Eyes: Clinical and Biometric Factors Associated with More Advanced PVD. *Journal of Clinical Medicine*. 2025; 14(23):8587. DOI:10.3390/jcm14238587. PMID:41375890. IF:2,900 (Q1/2D).
- Rodríguez C, Pandelo LG, Martínez N, Bande M, Teijeiro MJB. Ultrasound-Enhanced Assessment of Vitreous Status in Exudative AMD: Associations with Neovascular Phenotypes, Treatment Burden, and Functional Outcomes. *Journal of Clinical Medicine*. 2025; 15(1):167. DOI:10.3390/jcm15010167. PMID:41517415. IF:2,900 (Q1/2D).

5.1.6 Associated Groups

Nuclear Medicine

Group leader

Flotats Giralt, Albert (FGS)

Researchers

Aris Cuadras, Gemma (FGS)

Asadurova, Stela Svetlozarova (FGS)

Calls Calahorro, Marc (FGS)

Camacho Martí, María Del Valle (FGS)

Castejon Echevarne, Simona (FGS)

Delisau Gil, Yaiza (FGS)

Duch Renom, Joan (FGS)

Fernández León, Alejandro (FGS)

Guzmán Prudencio, Gabriela (FGS)

Rodríguez Fontan, María (FGS)

Serrallonga Rovira, Berta (FGS)

Soldevila Lozano, Cristina (FGS)

Stefaneli Mormandi, Patricia (FGS)

Torres Quintana, María Paula (FGS)

Velasco Nuño, Mónica (FGS)



DESCRIPTION

Our research focuses on advanced molecular imaging in oncology, neurodegenerative disorders, and cardiovascular disease, integrating radiomics, quantitative imaging biomarkers, and AI-driven analytical methods. We also investigate radioligand therapy for targeted cancer treatment. Using state-of-the-art SPECT-CT, PET-CT, and diverse radiolabeled tracers, we study pathophysiological mechanisms to enhance diagnosis, staging, prognosis, therapy selection, and overall clinical decision-making. These integrated approaches aim to improve precision imaging and support personalised clinical care.

MAIN LINES OF RESEARCH

- Molecular Imaging in Cancer (Camacho Martí, Valle; Fernández León, Alejandro).
- Brain Imaging in Neurodegenerative Disorders (Camacho Martí, Valle).
- Cardiovascular Inflammation: (Fernández León, Alejandro; Velasco Nuño, Mónica).
- Infectious bone pathology: (Velasco Nuño, Monica).
- Cardiac Amyloidosis: (Flotats Giralt, Albert; Velasco Nuño, Mónica).
- Artificial Intelligence in Image Reading: (Flotats Giralt, Albert; Velasco Nuño, Mónica).

SCIENTIFIC CHALLENGES

- Innovative Technologies in Diagnosis and Therapy.
- Molecular Imaging of Diseases.
- Integration of Artificial Intelligence Tools in Research and Clinical Practice.

5.1.6 Associated Groups

ACTIVE & AWARDED GRANTS

- Camps Renom, Pol & Fernández León, Alejandro. Impacto de la Inflamación en la Progresión de la Aterosclerosis Carotídea y en el Riesgo de Ictus (estudio INCREASE). PI22/01659. Duration: 2023-2025. 141.570,00 €

DOCTORAL THESES DEFENDED

- Holgado Clua, Anna. Asociación entre parámetros metabólicos del 18FDG-PET-TC y el control local, regional y a distancia y la supervivencia en pacientes con carcinoma de orofaringe tratados con radioterapia. 11/07/2025. Universitat Autònoma de Barcelona. Supervisors: Fernández León, Alejandro; León Vintro, Xavier; Pujol Olmo, Albert. <https://hdl.handle.net/10803/695011>

SCIENTIFIC PRODUCTION – Articles & Reviews

- Arriola JE, Morcillo AO, Zsadyani SE, Franquesa M, Vaqué L, Rozalem M, Arranz J, Rodríguez I, Maure L, Videla L, Barroeta I, Soriano LD, Benejam B, Fernández S, Sanjuan A, Giménez S, Alcolea D, Belbin O, Flotats A, Camacho V, Lleó A, Carmona M, Fortea J, Bejanin A. Regional Brain Metabolism across the Alzheimer's Disease Continuum in Down Syndrome. ANNALS OF NEUROLOGY. 2025; 98(1). DOI:10.1002/ana.27226. PMID:40084922. IF:7,700 (Q1/1D).
- Díaz CV, Rodríguez PP, Perissinotti A, Guillén EF, Mora D, Ramírez J, Fernández PA, Martí VC, Cabrera MN, S. Procedure update and interpretation guide for the brain 18F-FDG PET study. Revista Española de Medicina Nuclear e Imagen Molecular. 2025; 44(4):500159. DOI:10.1016/j.rem.2025.500159. IF:1,000 (Q4/9D).
- Fanti S, Barba JJR, Behr S, Maurer T, Paredes P, Walz J, Duch J, Perdigo MS, Mainta IC, Bonnefoy PB, Coulanges M, Tang J, Seigne C, Wilke C, Catafau AM, Iagaru A, Aggarwal R, GuidePathstudy I. Imaging Efficacy of [18F] CTT1057 PET/CT in Patients with Biochemically Recurrent Prostate Cancer: Results from GuidePath-A Phase 3, Prospective Multicenter Study. JOURNAL OF NUCLEAR MEDICINE. 2025; 66(8). DOI:10.2967/jnumed.124.269266. PMID:40473464. IF:9,100 (Q1/1D).
- Moscoso A, Heeman F, Raghavan S, Costoya A, van M, Mainta I, Camacho V, Rodríguez O, Silva J, Perissinotti A, Gu YN, Yun JH, Peretti D, Ribaldi F, Coomans EM, Brum WS, Grothe MJ, Aguiar P, Bischof GN, Drzezga A, Seo SW, Villeneuve S, Malpetti M, O'Brien JT, Rowe JB, van de Giessen EM, Ossenkoppele R, Jagust WJ, Smith R, Hansson O, Frisoni GB, Garibotto V, Soleimani DN, Carrillo M, Dickerson BC, La Joie R, Rabinovici GD, Apostolova LG, Lamontagne PJ, Pontecorvo MJ, Johnson KA, Sperling RA, Weiner MW, Petersen RC, Jack CR, Vemuri P, Schoell M. Frequency and Clinical Outcomes Associated With Tau Positron Emission Tomography Positivity. JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. 2025; 334(3). DOI:10.1001/jama.2025.7817. PMID:40522652. IF:55,000 (Q1/1D).
- Noriega E, Moreno A, Nunno MV, García JMC, Castillo JJR, Schmülling UV, Rodríguez EL, Sánchez AR, Alfonso BR. National survey on nuclear imaging in infectious bone pathology: Results and diagnostic recommendations of the Musculoskeletal Pathology Working Group (MSP-WG). Revista Española de Medicina Nuclear e Imagen Molecular. 2025; 44(5):500165. DOI:10.1016/j.rem.2025.500165. PMID:40571056. IF:1,000 (Q4/9D).

5.1.6 Associated Groups

- Puig N, Camps P, Garcia E, Benítez A, Aguilera A, Fernández A, Quesada JLS, Llorente V, Benítez S. sICAM-1 concentrations are associated with inflammation in contralateral carotid plaque in patients with ischemic stroke. *Clínica E Investigación En Arteriosclerosis*. 2025; 37(2):100729. DOI:10.1016/j.arteri.2024.07.002. PMID:39095307.
- Rodríguez I, Benejam B, Morcillo AO, Vaqué L, Arriola JE, Camacho V, Aranha MR, Carmona M, Videla L, Barroeta I, Fernández S, Zsadanyi SE, Giménez S, Arranz J, Blesa LM, Alcolea D, Lleó A, Bejanin A, Fortea J. Posterior Cortical Atrophy Due to Alzheimer Disease in a Person With Down Syndrome. *NEUROLOGY*. 2025; 104(1):e210179. DOI:10.1212/WNL.00000000000210179. PMID:39689339. IF:8,500 (Q1/1D).
- Rubio S, Bernal S, Almenta D, Pérez J, Camacho V, Sala I, Sánchez MB, Castro JG, Selma J, Santos MA, Carbayo A, Turon J, Rojas R, Alcolea D, Fortea J, Lleó A, Dols O, Illán I. A Novel CHMP2B Splicing Variant in Atypical Presentation of Familial Frontotemporal Lobar Degeneration. *Annals of Clinical and Translational Neurology*. 2025; 12(9). DOI:10.1002/acn3.70023. PMID:40244880. IF:3,900 (Q1/3D).
- Videla L, Benejam B, Barroeta I, Fernández S, Altuna M, Arranz J, Rodríguez I, Arriola JE, Maure L, Soriano LD, Illán I, Estellés T, Sanjuan A, Vaqué L, Aranha MR, Morcillo AO, Zsadanyi SE, Franquesa M, Valldeneu S, Sánchez MB, Padilla C, Carreras M, Lorente O, Valle N, Sánchez E, Dols O, Sirisi S, Muñoz L, Torres S, El Bennadi SE, Sánchez O, Garzón D, Ribas L, Elbachiri S, Mota C, Tondo M, Camacho V, Giménez S, Delaby C, Belbin O, Iulita MF, Montal V, Pegueroles J, Vilaplana E, Clarimon J, González S, Molina L, Aldecoa I, Alcolea D, Bejanin A, Videla S, Blesa R, Lleó A, Carmona M, Fortea J. The Down Alzheimer Barcelona Neuroimaging Initiative (DABNI) and its contributions to understanding Alzheimer's disease in Down syndrome: A decade of discovery. *Alzheimers & Dementia*. 2025; 21(6):e70259. DOI:10.1002/alz. 70259. PMID:40528282. IF:11,100 (Q1/1D).

5.1.6 Associated Groups

Pharmacy

Group leader

Feliu Ribera, Anna (FGS)

Researchers

Amoros Reboredo, Patricia (FGS)
 Cardenete Ornaque, Juana (FGS)
 De Dios López, Anna (FGS)
 De Pourcq, Jan Thomas (FGS)
 Edo Peñarrocha, Josép (FGS)
 Fernández De Gamarra Martínez, Edurne (FGS)
 Gamez Lechuga, María (FGS)
 Garin Escriva, Noe (FGS)
 Gaso Gago, Ingrid (FGS)
 Juanes Borrego, Ana María (FGS)
 Marcos Fendian, Angel (FGS)
 Masip Torne, Montserrat (FGS)
 Medina Catalán, David (FGS)
 Moreno Martínez, María Estela (FGS)
 Pages Puigdemont, Neus (FGS)
 Pelegrin Cruz, Rebeca (FGS)
 Plaza Diaz, Adrian (FGS)
 Riba Sole, Mireia (FGS)
 Rodríguez Murphy, Esther (FGS)
 Rovira Medina, Teresa (FGS)
 Ruiz Ramos, Jesús (FGS)
 Vallez Valero, Lucía (FGS)
 Vila Gallego, Clara (FGS)
 Villamarin Vallejo, Laura (FGS)
 Zarate Tamames, Borja (FGS)

Research technicians

Berga Garrote, Núria (IR)
 Borrazas Oliveira, María Belén (FGS)
 Fernández Pérez, Ana (IR)
 Fuset González, Marina (IR)
 Gavilan Rubio, Martina (IR)
 González Moraga, Marta (IR)
 Gras Martín, Laura (IR)
 Jorba Cortada, Celia (IR)
 Juanes Borrego, María Elena (IR)
 Retamar Martel, Inés (IR)
 Rey Vecino, Pau (FGS)
 Rodríguez-Arias Pal, Ainhoa (IR)
 Zafri Kasas, Nabila (IR)



DESCRIPTION

The aim of our research group is to investigate and improve the use of medications and optimise patient outcomes through research and evidence-based practice.

MAIN LINES OF RESEARCH

- Observatory of medicines and therapeutic innovation (Feliu Ribera, Anna).
- Emergencies, critical care and gender research (Ruiz Ramos, Jesús).
- Respiratory care, environmental sustainability, clinical epidemiology and public health (Garin Escriva, Noe).
- Ambulatory care and telemedicine (Pages Puigdemont, Neus)
- Pharmacokinetics, pharmacogenetics and compounding (Feliu Ribera, Anna).

SCIENTIFIC CHALLENGES

- Evaluate the impact of different pharmaceutical care programmes on the effectiveness and safety of pharmacological treatments: personalised medicine (clinical pharmacokinetics & pharmacogenetics), health education, medication reconciliation, identification and prevention of drug-related health problems, etc.
- Use of clinical epidemiology to gain evidence in patient care: association between risk factors and health outcomes, study of drug interactions, adherence to medication, and assessment of regular clinical practice.
- Actively cooperate in independent clinical trials performed in Sant Pau.
- mHealth, eHealth, artificial intelligence, big data, and innovative procedures.

5.1.6 Associated Groups

SCIENTIFIC PRODUCTION – Articles & Reviews

- Aguilar CC, Negro E, de Gamarra EF, Castro BM, Abánades MP, Capafons SR, Conde CPM. Map of the residency rotations for a hospital pharmacy internal resident in Spain. *Farmacia Hospitalaria*. 2025; 49(5). DOI:10.1016/j.farma.2025.03.014. PMID:40348652.
- Aguilar CC, Negro E, Gamarra E, Castro BM, Abánades MP, Capafons SR, Conde CPM. [Translated article] Map of the residency rotations for hospital pharmacy residents in Spain. *Farmacia Hospitalaria*. 2025; 49(5). DOI:10.1016/j.farma.2025.06.010. PMID:40640013.
- Alvarado E, Brujats A, Puente A, Ardevol A, Rodríguez A, Fajardo J, Pavel O, García M, Aracil C, Poca M, Cuyàs B, Cantó E, Montañés R, García A, Escorsell A, Torras X, Villanueva C. Hemodynamic effects of carvedilol plus simvastatin in cirrhosis with severe portal hypertension and suboptimal response to β -blockers: A double-blind, placebo-controlled, randomised trial. *HEPATOLOGY*. 2025; 82(1). DOI:10.1097/HEP.0000000000001148. PMID:39509369. IF:15,800 (Q1/1D).
- Anguera G, Gallego O, Llobet M, Berga N, Moreno ME, Leon X, Kratz C, Garcia R, Minguillón J, Surrallés J. Opening of a phase Ib/II study to investigate the safety and efficacy of Afatinib in patients with Fanconi anaemia and unresectable locally advanced or metastatic head and neck squamous cell carcinoma. *BMC CANCER*. 2025; 25(1):1374. DOI:10.1186/s12885-025-14619-6. PMID:40859225. IF:3,400 (Q2/4D).
- Bernardez B, Higuera O, Martínez V, Cardeña A, Rodríguez J, Bertrán AS, Majem M, Moreno ME. Sex and gender differences in cancer pathogenesis and pharmacology. *Clinical & Translational Oncology*. 2025; 27(10). DOI:10.1007/s12094-025-03894-1. PMID:40164824. IF:2,500 (Q3/6D).
- Bertrán AS, Rodríguez J, Cardeña A, Martínez V, Higuera O, Bernardez B, Moreno ME, Majem M. Sex-related differences in the efficacy and toxicity of cancer treatments. *Clinical & Translational Oncology*. 2025; 27(9). DOI:10.1007/s12094-025-03893-2. PMID:40153220. IF:2,500 (Q3/6D).
- Caballero AC, Ujaldón C, Pujol P, Montserrat R, Guardiola M, Escudero E, Garcia I, Esquirol A, Martíno R, Jara P, Ezquerro P, Soria JM, Iranzo E, Moreno ME, Riba M, Sierra J, Alvarez C, Escribà L, Briones J. HSP-CAR30 with a high proportion of less-differentiated T cells promotes durable responses in refractory CD30+lymphoma. *BLOOD*. 2025; 145(16). DOI:10.1182/blood.2024026758. PMID:39841453. IF:23,100 (Q1/1D).
- Calle C, Elez E, Manzano JL, Moreno ME, Pericay C, Graefenhain R, Ariznavarreta A, Lizan L. Value contribution of trifluridine/tipiracil with bevacizumab for the treatment of metastatic colorectal cancer in Catalonia using a multicriteria decision analysis. *Journal Of Pharmaceutical Policy And Practice*. 2025; 18(1):2567970. DOI:10.1080/20523211.2025.2567970. PMID:41415036.
- Cerezuela MM, Moreno FB, Ramos JR, Pinto AD, Chiva ED, Rubio MV, González IA, Fernández CB, Moral LD, Lugea AE, García M, García TB, Sacristán SC, Fernández MA, Pérez SO, Tomás LPD. Development of a mobile application for the critically ill patient: Guide to medication reconciliation. *Farmacia Hospitalaria*. 2025; 49(6). DOI:10.1016/j.farma.2025.03.021. PMID:40368668.
- Cerezuela MM, Moreno FB, Ramos JR, Pintod AD, Chiva ED, Rubio MV, González IA, Fernández CB, Morali LD, Luge AJ, García M, García TB, Sacristán SC, Fernández MA, Pérez SO, Tomás LPD. [Translated article] Development of the mobile application Guide to medication reconciliation in the critically ill patient. *Farmacia Hospitalaria*. 2025; 49(6). DOI:10.1016/j.farma.2025.06.007. PMID:40681428.
- Colominas E, De Antonio M, Masip M, Conde MTM, Cardona G, Restituto DF, Comas D, Roch MA, López B, Torres FI, Retamero A, Knobel H, Luque S. Complementary and alternative medicine in HIV care: frequency of consumption, risks and interactions with antiretroviral therapy. *EUROPEAN JOURNAL OF HOSPITAL PHARMACY*. 2025; 32(3). DOI:10.1136/ejhpharm-2024-004118. PMID:38802166. IF:1,500 (Q4/8D).
- Da IM, Plaza A, Ruiz J, Juanes A, Riera P. The Role of Pharmacogenetic Biomarkers in Pain. *Biomedicines*. 2025; 13(8):1935. DOI:10.3390/biomedicines13081935. PMID:40868188. IF:3,900 (Q1/3D).
- De Dios A, Pages N, Ojeda S, Riera P, Pelegrín R, Morollon N, Belvís R, Real J, Masip M.

5.1.6 Associated Groups

- Persistence, effectiveness, and tolerability of anti-calcitonin gene-related peptide monoclonal antibodies in patients with chronic migraine. HEADACHE. 2025; 65(1). DOI:10.1111/head. 14827. PMID:39268992. IF:4,000 (Q1/2D).
- Duch P, Simonetti AF, Figueras A, Rivera A, de Gamarra EF, Gras L, Moreno ME, Ramos JR, Zarate B, Navarro F, López J, Escolà L. Successful implementation of a bundle to prevent increased excessive-spectrum antimicrobial use under new EUCAST susceptibility definitions: a quasi-experimental study in a tertiary hospital. JOURNAL OF HOSPITAL INFECTION. 2025; 161. DOI:10.1016/j.jhin.2025.04.016. PMID:40306370. IF:3,100 (Q1/3D).
 - Garin N, Zarate B, Lertxundi U, da IM, Orive G, Crespo A, de la Rosa D. The environmental impact of inhalers: a framework for sustainable prescription practices in Spain. EUROPEAN JOURNAL OF HOSPITAL PHARMACY. 2025; 32(6). DOI:10.1136/ejhpharm-2024-004402. PMID:39788701. IF:1,500 (Q4/8D).
 - Lobo D, Sainz L, Laiz A, De Dios A, Fontcuberta L, Fernández S, Masip M, Riera P, Pages N, Ros S, Gomis M, Corominas H. Designing an integrated care pathway for spondyloarthritis: A Lean Thinking approach. JOURNAL OF EVALUATION IN CLINICAL PRACTICE. 2025; 31(2). DOI:10.1111/jep. 14132. PMID:39253893. IF:2,100 (Q2/3D).
 - Marín C, Puig M, Ruiz J, Carazo C, Vicente J, Juanes A. Comprehensive approach to medication-related problems leading to emergency department visits from a gender perspective. Emergencias. 2025; 37(3). DOI:10.55633/s3me/026.2025. PMID:40531118. IF:6,300 (Q1/1D).
 - Marin JM, Molina M, Sola NR, Miserachs N, Alcón PM, De Pourcq JT, Ribas CQ, Trias LB, Fernández E, González J, Figueiredo C, Delgado R, Braza AJ, Lastra CF, Mariño EL, Modamio P. Biosimilars and reference biological medicines in the treatment of rheumatoid arthritis: a multicenter cross-sectional study in Catalonia, Spain. CLINICAL RHEUMATOLOGY. 2025; 44(9). DOI:10.1007/s10067-025-07568-9. PMID:40707848. IF:2,800 (Q2/5D).
 - Miravittles M, Calle M, Molina J, Almagro P, Gómez JT, Trigueros JA, Sánchez E, Cosio BG, Casanova C, López JL, Riesco JA, Simonet P, Rigau D, Iskakova A, Sanz MP, Sobradillo P, Alcázar B, Garin N, Soler JJ. Update 2025 of the Spanish COPD Guidelines (GesEPOC): Pharmacological Treatment of Stable COPD. ARCHIVOS DE BRONCONEUMOLOGÍA. 2025; 61(12). DOI:10.1016/j.arbres.2025.10.008. PMID:41198528. IF:9,200 (Q1/1D).
 - Monje A, Escolà L, Rivera A, Herrera S, Plaza A, Duch P, Pomar V, Roch N, Rouras L, López J, Ramos JR. Targeting Overtreatment of Asymptomatic Bacteriuria in the Emergency Department: Results from a Quasi-Experimental Clinical Pharmacist-Led Program Based on Education and Audit. Antibiotics-Basel. 2025; 14(12):1261. DOI:10.3390/antibiotics14121261. PMID:41463763. IF:4,600 (Q1/2D).
 - Muñoz FJ, Reyes RM, Pesántez D, Carrera G, Cascos E, Castro P, Fernández S, Font C, González L, Grafiá I, Llavata L, Monge I, Padrosa J, Reguart N, Téllez A, Tuca A, Viladot M, Zamora C, Amorós P, Marco J. Retrospective Cohort Study of Intrapericardial Cisplatin for Risk Reduction of Malignant Pericardial Effusion Recurrence. Current Oncology. 2025; 32(10):568. DOI:10.3390/curroncol32100568. PMID:41149488. IF:3,400 (Q2/4D).
 - Otero MJ, Díez MA, Cartelle HE, Hernández SJ, Blanco IM, Ucha MS, Perrín RS, Ramos JR. [Translated article] Evaluation of the safety of medication-use systems in hospital emergency services. Farmacia Hospitalaria. 2025; 49(2). DOI:10.1016/j.farma.2024.10.015. PMID:39580345.
 - Otero MJ, Díez MA, Cartelle HE, Hernández SJ, Blanco IM, Ucha MS, Perrín RS, Ramos JR. Evaluation of the safety of medication-use systems in hospital emergency services. Farmacia Hospitalaria. 2025; 49(2). DOI:10.1016/j.farma.2024.07.007. PMID:39181756.
 - Plaza A, Juanes A, Sanz N, González J, Fernández J, García M, Ruiz J. Emergency Department Reconsultations After a Secondary Prevention Bundle for Medication-Related Problems: A Retrospective Cohort Study. Journal of Clinical Medicine. 2025; 14(19):6907. DOI:10.3390/jcm14196907. PMID:41095987. IF:2,900 (Q1/2D).
 - Ramos J, Bonete M, Ruiz J, Calderón B, Campino A, de Lorenzo A, García M, García MD, García A, Real JM, Ginés A, Such A, Vallvé E, Alonso H, Representación Trabajo Atención Farmacéutica en Urgencias GRP. Impact on safety and cost of pharmaceutical interventions in the emergency

5.1.6 Associated Groups

- department (INTERPHAR): a standardised methodology for multicenter documentation. *Emergencias*. 2025; 37(5). DOI:10.55633/s3me/082.2025. PMID:41185476. IF:6,300 (Q1/1D).
- Ramos JR, Perrín RS, Martín M, Clemente YC, Díez MA, Pinto AD, Díaz AS, Almela A, Serrano PS, Grande A, Blanco CC. Adverse drug events associated with emergency department visits. *Emergencias*. 2025; 37(3). DOI:10.55633/s3me/025.2025. IF:6,300 (Q1/1D).
 - Redondo S, Costa M, Moreno ME, Arguello M, Riba M, Aso O, Iranzo E, Esquirol A, Sierra J, Briones J, Martíno R, Zapico E, Garcia I. Development and Clinical Validation of Liquid Chromatography-Tandem Mass Spectrometry for Measuring Ruxolitinib in Steroid-Refractory Graft-Versus-Host Disease: A First Step Towards Optimised Treatment. *EUROPEAN JOURNAL OF HAEMATOLOGY*. 2025; 114(3). DOI:10.1111/ejh.14349. PMID:39545520. IF:2,300 (Q2/5D).
 - Redondo S, García I, Esquirol A, Iranzo E, Arguello M, Saavedra S, Oñate G, Caballero AC, Garrido A, López J, Muntañola A, Paviglianiti A, Portos JM, Moreno ME, Riba M, Sierra J, Briones J, Martíno R. Standard Versus Reduced-Doses of Post-Transplant Cyclophosphamide in HLA Matched (10/10) Peripheral Blood Stem Cell Transplantation. *EUROPEAN JOURNAL OF HAEMATOLOGY*. 2025; 115(4). DOI:10.1111/ejh.70010. PMID:40697075. IF:2,300 (Q2/5D).
 - Ruiz J, Monje AE, Escolà L, Herrera S, Hernández H, Duch P, Fernández E, Rivera MA, Pereira CS, López J. Comparison of antimicrobial consumption indicators in the emergency department. *ENFERMEDADES INFECCIOSAS Y MICROBIOLOGÍA CLÍNICA*. 2025; 43(8). DOI:10.1016/j.eimc.2025.01.009. IF:2,500 (Q2/5D).

5.1.6 Associated Groups

Dermatology

Group leader

Puig Sanz, Luis (FGS)

Researchers

Altemir Vidal, Arcadi (FGS)
 Carmona Rocha, Elena (FGS)
 Garces Gatnau, Joan Ramon (FGS)
 García Muret, M. Pilar (FGS)
 Iznardo Ruiz, Helena (FGS)
 López Ferrer, Anna (FGS)
 López Sánchez, Cristina (FGS)
 Morales Munera, Caridad Elena (FGS)
 Peirano Pozo, Felipe Rolando (FGS)
 Roe Crespo, Esther (FGS)
 Ruiz Salas, Veronica (FGS)
 Rusiñol Batlle, Lluís (FGS)
 Serra Baldrich, Esther (FGS)
 Spertino, Jorge Luis (FGS)
 Vilarrasa Rull, Eva (FGS)
 Yelamos Pena, Oriol (FGS)

Research technicians

Bravo I González, Marina (IR)
 Díaz-Salazar Monreal, María (IR)
 Flores Climente, Víctor Adrián (IR)
 Fuentes García, Rubén (IR)
 Morilla Pérez, Nerea (IR)



DESCRIPTION

Clinical trials and translational research (in collaboration with the Inflammatory Diseases Translational Medicine Research Group) on inflammatory-mediated dermatoses, including psoriasis, atopic dermatitis, hidradenitis suppurativa, urticaria, vitiligo, and alopecia areata. Epidemiology, genetics, AI-assisted imaging, and treatment of different types of skin cancers and their precursors (melanoma, basal cell carcinoma, squamous cell carcinoma, actinic keratoses). Epidemiological research on Cutaneous Lymphoma.

MAIN LINES OF RESEARCH

- Psoriasis. (López Ferrer, Anna).
- Hidradenitis. (Vilarrasa Rull, Eva).
- Atopic dermatitis, urticaria, itch and chronic prurigo. (Serra Baldrich, Esther).
- Skin Cancer (MM and NMSC). (Yelamos Pena, Oriol).
- Cutaneous Lymphoma. (Carmona, Elena).

SCIENTIFIC CHALLENGES

- Translation of scientific results into clinical practice. External validation of AI studies.

DOCTORAL THESES DEFENDED

- Ros Abarca, Sandra. Más allá de la gravedad clínica: la influencia de la sintomatología depresiva en la calidad de vida de los pacientes con hidradenitis suppurativa. 15/09/2025. Universitat Autònoma de Barcelona. Supervisors: Puig Sanz, Lluís; de Diego Adeliño, Francisco Javier; Trujols Albet, Joan. <https://hdl.handle.net/10803/695301>

5.1.6 Associated Groups

SCIENTIFIC PRODUCTION – Articles & Reviews

- Abril C, Mansilla M, Escutia B, Sanmartín O, Garcés JR, Rodríguez MA, Ruiz V, de Eusebio E, Miñano R, González B, Artola JL, Alfaro A, Redondo P, Delgado Y, Sánchez JM, Allende I, Alonso ML, García B, de la Cueva P, Navarro R, Ciudad C, Carnero L, Vázquez H, Cano N, Serra C, Vilarrasa E, Sánchez P, López JL, Flórez A, Martorell A, Gil P, Morales V, Toll A, Ocerin I, Mayor M, Suárez R, Sainz L, Descalzo MA, Garcia I, Botella R, REGESMOHS Registro Espanol C. Mohs micrographic surgery in immunosuppressed vs immunocompetent patients: Results of a prospective nationwide cohort study (REGESMOHS, Spanish registry of Mohs surgery). JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY. 2025; 39(2). DOI:10.1111/jdv. 20103. PMID:38733285. IF:8,000 (Q1/1D).
- Angel J, Podlipnik S, Azón A, Boada A, Arrieta A, Marcoval J, López C, Sàbat M, Segura S, Bodet D, Sabat M, Curcó N, López D, Solà J, Quintana M, Baliu C, Martín S, Just M, Martín S, Malveyh J, Puig S, Carrera C, Martí RM. Acral Melanoma in the Caucasian Population: A Comprehensive Cohort Study on Epidemiological, Clinicopathological, and Prognostic Features. Actas Dermo-Sifiliograficas. 2025; 116(5). DOI:10.1016/j.ad.2024.10.060. PMID:39798598.
- Arguello M, Lynton E, Albiol N, López A, Sierra J, Moga E, Moreno C. Clinical and immunologic characteristics of nonhematologic autoimmune disorders in chronic lymphocytic leukaemia. CANCER. 2025; 131(24):e70216. DOI:10.1002/cncr.70216. PMID:41378669. IF:5,100 (Q1/3D).
- Augustin M, Serra E, Seneschal J, Grond S, Lampropoulou A, Elrayes M, Ogwu S, de la Torre I, Bewley A, Pinter A. Baseline Characteristics and Treatment Patterns of Patients with Atopic Dermatitis Treated with Oral Systemic Therapies: An Interim Analysis of the AD-REAL Study. ADVANCES IN THERAPY. 2025; 42(6). DOI:10.1007/s12325-025-03137-3. PMID:40192965. IF:4,000 (Q1/3D).
- Balado P, Morgado D, Gómez S, López A, Barco D, Ferrándiz C, Podlipnik S. An Updated Review of Topical Tretinoin in Dermatology: From Acne and Photoaging to Skin Cancer. Journal of Clinical Medicine. 2025; 14(22):7958. DOI:10.3390/jcm14227958. PMID:41302994. IF:2,900 (Q1/2D).
- Barker JN, Casanova E, Choon SE, Foley P, Fujita H, González C, Gooderham M, Marrakchi S, Puig L, Romiti R, Thaçi D, Zheng M, Strober B, Partnering Innovat Excellence Rare Skin Dis PIONEERS Working & GRP, DELPHI A. Global Delphi consensus on treatment goals for generalised pustular psoriasis. BRITISH JOURNAL OF DERMATOLOGY. 2025; 192(4). DOI:10.1093/bjd/ljae491. PMID:39844356. IF:9,600 (Q1/1D).
- Blauvelt A, Langley RG, Lebwohl M, Strober B, Warren RB, Puig L, Morita A, Gordon KB, Fernández P, Kavanagh S, Pinto JML, Lambert J, Hoepken B, Deherder D, Cross N, Thaçi D. Bimekizumab durability of efficacy through 196 weeks and safety through 4 years in patients with moderate to severe plaque psoriasis: Results from the BE BRIGHT open-label extension trial. JOURNAL OF THE AMERICAN ACADEMY OF DERMATOLOGY. 2025; 93(3). DOI:10.1016/j.jaad.2025.04.038. PMID:40286813. IF:11,800 (Q1/1D).
- Bouhatous YM, Bredrup C, Maurer A, Mirakovska L, Foster A, Kosaki K, Jost C, Demoulin JB, Luu M, Vabres P, Kurtz JE, Schaefer E, Guimier A, Cormier V, Lim D, Thompson S, Olson L, Kwon HR, Aguirre C, Hernández U, Martínez I, Iznardo H, Mascaro JMJ, Baselga E, Kalantari S, Mussa A, Gazzin A, Carli D, Svinvik I, Mutlu H, Bluefeather S, Zarate Y, Takenouchi T, Naicker T, Chateau A, Gokhul A, Dube A, Haniffa M, Peitee WO, Nordgren A, Carpentier M, Binquet C, Briffaut AS, Bal L, Pond D, Rustad CF, Bardou M, Faivre L. 'Knowing and Treating Kosaki/Penttinen syndrome' international collaborative consortium: recommendations for follow-up, natural history and a real-life observational study about safety and efficacy profile of tyrosine kinase inhibitors. JOURNAL OF MEDICAL GENETICS. 2025; 62(10). DOI:10.1136/jmg-2024-110600. PMID:40707250. IF:3,700 (Q2/3D).
- Butrón B, Llamas M, Armesto S, Sahuquillo A, Pujol J, Ruiz R, Martínez A, de la Cueva P, Romero A, Roustan G, Vilarrasa E, Ferrán M, Ovejero MC, Palomar C, Navares M, Novalbos J, Abad F, Dauden E, de la Fuente H. Genetic Polymorphisms in Psoriasis: Investigating Genetic Variations for Precise Profiling of Response to Brodalumab in Real-Life Clinical Practice. Actas Dermo-Sifiliograficas. 2025; 116(8). DOI:10.1016/j.ad.2025.03.030. PMID:40246146.

5.1.6 Associated Groups

- Cantó E, del Prado ME, Vilarrasa E, López A, de Aranibar FJGL, Ortiz MA, Gut M, Mulet M, Esteve A, Osuna R, Guinart A, Puig L, Vidal S. Transcriptomic Identification of Immune-Related Hubs as Candidate Predictor Biomarkers of Therapeutic Response in Psoriasis. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(17):8118. DOI:10.3390/ijms26178118. PMID:40943056. IF:4,900 (Q1/3D).
- Carmona E, Rusiñol L, Puig L. Exploring the Therapeutic Landscape: A Narrative Review on Topical and Oral Phosphodiesterase-4 Inhibitors in Dermatology. *Pharmaceutics*. 2025; 17(1):91. DOI:10.3390/pharmaceutics17010091. PMID:39861739. IF:5,500 (Q1/1D).
- Ceravalls J, Giménez AM, Exposito V, Chico NF, Moya AL, Bielsa I, Ribó P, Mascaró B, Bonfill M, Spertino J, Serra E, Baliu C, Melé G. Redefining Omalizumab Discontinuation in Chronic Spontaneous Urticaria: The Value of Optimisation and Predictive Factors of Relapse. A 52-Week Multicenter Study. *Actas Dermo-Sifiliográficas*. 2025; 116(7). DOI:10.1016/j.ad.2024.08.014.
- Cerezuela P, González M, Puertolas T, Manzano JL, Maldonado C, Yelamos O, Berciano MA, Martín J, Muñoz E, Espinosa E, Drozdowskyj A, Berrocal A, Soria A, Márquez I, Martín S, Quindos M, Puig S, Spanish Melanoma GEM GRP. Access to systemic treatment of non-melanoma skin cancer in Spain: a survey analysis. *Clinical & Translational Oncology*. 2025; 27(1). DOI:10.1007/s12094-024-03583-5. PMID:38951438. IF:2,500 (Q3/6D).
- Cheon JH, Ye BD, Armuzzi A, Rieder F, Girolomoni G, Puig L, Jung HJ, Feldman SR. The 'totality of evidence' and 'extrapolation' of SB17, a ustekinumab biosimilar. *EXPERT OPINION ON BIOLOGICAL THERAPY*. 2025; 25(6). DOI:10.1080/14712598.2025.2508838. PMID:40396611. IF:4,000 (Q2/3D).
- Colmenero M, del Boz J, Torres EB, Bernabéu J, Roé E, Vicente A, Valdivieso M, Martín A, Palencia SI, Montserrat MT, Azón A, Dañino M, Prims CT, Prat C, Giacaman A, Domínguez JJ, Alonso AB, Grau M, Descalzo MA, García I. Parental Assessment of Infantile Hemangioma Cosmetic Clinical Outcomes: Results of the Spanish Hemangioma Nationwide Prospective Cohort. *Actas Dermo-Sifiliográficas*. 2025; 116(4). DOI:10.1016/j.ad.2024.06.010. PMID:39032773.
- Dauden E, Ortiz JM, Notario J, Puig L, Santos J, Herrera E, Gómez L, Ruiz R. Secukinumab for Treatment of Plaque Psoriasis in Real-World Clinical Practice in Spain: A Literature Review. *Journal of Clinical Medicine*. 2025; 14(2):478. DOI:10.3390/jcm14020478. PMID:39860484. IF:2,900 (Q1/2D).
- Dobao PD, Barredo LC, Salvador JFS, Serra E, Pinto PH, Cano NH, De Frutos F, Gullón GR, Belloso RML, Ortega IA, Quesada AG, Gutiérrez MG, Calzada YG, Torredemer DA, Felius NL, Martín IH, Laserna FJR. Patient Burden and Impact of Moderate-to-Severe Atopic Dermatitis in the Spanish Healthcare System: The APOLO Cross-Sectional Study. *Dermatology Practical & Conceptual*. 2025; 15(3):5538. DOI:10.5826/dpc.1503a5538. PMID:40790435. IF:2,300 (Q2/5D).
- Escanilla C, Schroder C, Garrido V, Balague M, Ruiz V, Toscas JI, Cevallos C. Anterior Thoracic Trichilemmal Carcinoma: A Rare Case with a Novel Treatment. *REVISTA MÉDICA DE CHILE*. 2025; 153(4). DOI:10.4067/s0034-98872025000400310. PMID:40493479. IF:0,300 (Q4/8D).
- Fernández CPH, Borrego L, Arnau A, Sánchez TS, Carrillo JMC, Ninet VZ, Baldrich ES, Miquel FJM, Salvador JFS, Guijarro SC, Gilo AS, García PM, Triviño FN, Romero FT, Serna MR, Ninot GM, González IR, de la Fuente EG, Nieto M, Guillén PSP, Pérez JS, Rodríguez JJP, Ortega M, Pérez RG, Doval IG, Descalzo M. [Translated article] Should Hydroxyisohexyl 3-Cyclohexene Carboxaldehyde (Lyréal®) Still be Part of the Baseline Series?. *Actas Dermo-Sifiliográficas*. 2025; 116(10). DOI:10.1016/j.ad.2025.10.016. PMID:41076186.
- Fernández CPH, Borrego L, Arnau A, Sánchez TS, Carrillo JMC, Ninet VZ, Baldrich ES, Miquel FJM, Salvador JFS, Guijarro SC, Gilo AS, García PM, Triviño FN, Romero FT, Serna MR, Ninot GM, González IR, de la Fuente EG, Nieto M, Guillén PSP, Pérez JS, Rodríguez JJP, Ortega M, Pérez RG, Doval IG, Descalzo M. Should Hydroxyisohexyl 3-Cyclohexene Carboxaldehyde (Lyréal®) still be part of the Baseline Series?. *Actas Dermo-Sifiliográficas*. 2025; 116(10). DOI:10.1016/j.ad.2024.10.063. PMID:40024601.
- Garbayo P, Vilarrasa E, Bassas J, Mora V, Fuertes I, Luque M, Fornons R, Martín G, Aguayo RS,

5.1.6 Associated Groups

- Ceravalls J, Mollet J, Tomás AG, Masferrer E, Corral O, Matas C, del Estal J, Bailón DF, Calvet J, Romani J. Real-world adalimumab survival and discontinuation factors in hidradenitis suppurativa. *JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY*. 2025; 39(1). DOI:10.1111/jdv.20044. PMID:38687278. IF:8,000 (Q1/1D).
- Giavedoni P, Romaní J, de Cabo F, García FJ, Quintana M, Roè E, de Vega IF, Soria X, Aguayo R, Garbayo P, Castillo G, Vidal D, Mollet J, Serra L, González C, López E, Just M, Combalia M, Podlipnik S, Malveyh J, Wortsman X. Advanced Doppler Ultrasound Insights: A Multicenter Prospective Study on Healthy Skin. *Diagnostics*. 2025; 15(5):569. DOI:10.3390/diagnostics15050569. PMID:40075816. IF:3,300 (Q1/2D).
 - Grau M, Ciudad C, Molina A, Martorell A, Vilarrasa E, Albert I, Garcias J, Melgosa FJ, Rivera R, Campos M, Haselgruber S, Ochando G, Pascual JC, García R, Alfageme F. ADOLESBIO-HS: A Real-World Multicenter Case Series on the Effectiveness and Safety of Adalimumab in Adolescents with Moderate-to-Severe Hidradenitis Suppurativa. *DERMATOLOGY*. 2025; 241(5-6). DOI:10.1159/000546647. PMID:40587963. IF:2,700 (Q2/4D).
 - Hernández G, Martín M, Alonso S, Romero I, Salvado N, Farrés M, Osuna C, Bustínduy M, de Aranibar JG, Manresa M, Velasco M, Ferrer A, Riesco M, Genao D, Ruiz R, Boquete L, Martínez C, Rull E, Descalzo MA, Psoriasis GRP. Measurement Assessment of Minimal Disease Activity In Psoriasis in Spain: A National Cross-Sectional Study. *Actas Dermo-Sifiliográficas*. 2025; 116(1). DOI:10.1016/j.ad.2024.05.022. PMID:38876209.
 - Hernández GC, Martín MA, Alonso SA, Romero IB, Salvado NE, Farrés MF, Osuna CG, Bustínduy MG, de Aranibar JGL, Manresa MJ, Velasco ML, Ferrer AL, Riesco MR, Genao DR, Ruiz R, Boquete LS, Martínez CS, Rull EV, Descalzo MA, AEDV GRP. Measurement Assessment of Minimal Disease Activity in Psoriasis in Spain: A National Cross-Sectional Study. *Actas Dermo-Sifiliográficas*. 2025; 116(1). DOI:10.1016/j.ad.2024.10.009.
 - Kokolakis G, Vilarrasa E, Garg A, Alarcon I, Go M, Newbold G, Mamareli A, Richardson C, McGrath BM, Guillem P. Patient Perspectives on the Impact of Living With Hidradenitis Suppurativa: Results From the Global 'HS Uncovered' Burden of Disease Survey. *Jeadv Clinical Practice*. 2025; 4(4). DOI:10.1002/jvc2.70071.
 - Mansilla M, García C, Fernández P, Garbayo P, Pons M, Aguilar L, Jiménez D, Alcalá R, Martín G, Martorell A, Mahiques L, Alfageme F, Escutia B, Sahuquillo A, Fayos R, Soto A, Sánchez I, Botella R, Vilarrasa E, Molina A, Spanish Hidradenitis Suppurativa GEHS GRP. Long-Term Effectiveness and Safety of Bimekizumab in Patients with Moderate to Severe Hidradenitis Suppurativa Under Real Clinical Practice Conditions: The Importance of Combined Treatment in Hurley III Patients and Potential Factors Associated with Complete Response. *Dermatology and Therapy*. 2025; 15(11). DOI:10.1007/s13555-025-01521-z. PMID:40866757. IF:4,200 (Q1/1D).
 - Martorell A, Santos S, Sahuquillo A, Rivera R, Belinchón I, Ruiz D, Romero A, Ruiz R, Ferran M, Gallardo F, Almenara M, Suarez JA, González A, Martínez E, Fernández JM, del Alcázar E, García J, Rocamora V, Ara M, Mateu A, Llamas M, Vilarrasa E, Velasco M, De la Cueva P, Carrascosa JM, Magdaleno J. Real-world Safety and Efficacy of Risankizumab in Psoriatic Patients: A Multicenter, Retrospective, and Non-interventional Study. *Actas Dermo-Sifiliográficas*. 2025; 116(2). DOI:10.1016/j.ad.2024.02.030. PMID:38452889.
 - Mateu L, Nogueira X, Puig L, Spertino J. Predictors of response to omalizumab and relapse in chronic spontaneous Urticaria: a narrative review focusing on parameters available in routine clinical practice. *Frontiers In Allergy*. 2025; 6:1688464. DOI:10.3389/falgy.2025.1688464. PMID:41246132.
 - Mateu L, Puig L, Vilarrasa E. Surgical Approach to Hidradenitis Suppurativa. *Actas Dermo-Sifiliográficas*. 2025; 116(6). DOI:10.1016/j.ad.2024.10.061. PMID:40185225.
 - Mateu L, Puig L. Infection Risk and Vaccination in the Management of Psoriasis: Considerations for Biologic Therapy. *Psoriasis-Targets And Therapy*. 2025; 15. DOI:10.2147/PTT.S510141. PMID:40237012.
 - Morales CE, Montoya F, de Loredó N, Sendagorta E. AEDV Expert Document on the Management of Ulcerative Venereal Infections. *Actas Dermo-Sifiliográficas*. 2025; 116(2). DOI:10.1016/j.ad.2024.11.012. PMID:39566736.

5.1.6 Associated Groups

- Navarro A, Gracia T, Almagro M, De S, Florez A, Yélamos O, Montero T, González C, Diago A, Abadías I, Fuentelsaz V, Colmenero M, Bañuls J, Arias S, Buendía A, Almenara M, Gil P, Gilaberte Y. Multicenter, Prospective, Case-Control Study of Exosome in Melanoma. *Actas Dermo-Sifiliográficas*. 2025; 116(5). DOI:10.1016/j.ad.2024.09.022. PMID:39756676.
- Papp KA, Lebwohl MG, Puig L, Ohtsuki M, Beissert S, Gooderham M, Amin AZ, Wu TS, Rubant S, Bialik B, Ashley D, Soliman AM, Chen MM, Blauvelt A. Long-Term Safety and Efficacy of Risankizumab to Treat Moderate-to-Severe Plaque Psoriasis: Final LIMMitless Phase 3, Open-Label Extension Trial Results. *AMERICAN JOURNAL OF CLINICAL DERMATOLOGY*. 2025; 26(5). DOI:10.1007/s40257-025-00964-6. PMID:40728772. IF:8,800 (Q1/1D).
- Papp KA, Puig L, Beecker J, Chandran V, Claveau J, Cortes J, Dutz J, Hornick NI, Juergens RA, Melosky B, Patel AB, Sauder MB, Sehdev S, Sibaud V, Snow SL. Systemic treatment of immune checkpoint inhibitor-induced psoriasis: Inference-based guidance. *JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY*. 2025; 39(11). DOI:10.1111/jdv.20809. PMID:40685883. IF:8,000 (Q1/1D).
- Pesqué D, Borrego L, Zaragoza V, Sanz T, Miquel FJ, González R, Silvestre JF, Córdoba S, Carrascosa JM, Gatica ME, Ruiz I, Mercader P, Tous F, de Frutos F, Serra E, Pastor MA, Rodríguez M, Sánchez J, Sánchez A, Melé G, Guillén PSP, Pujol RM, Giménez AM. Polysensitization in the Spanish Contact Dermatitis Registry (REIDAC): A 2019-2022 prospective study with cluster and network analysis. *JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY*. 2025; 39(1). DOI:10.1111/jdv.19934. PMID:38411353. IF:8,000 (Q1/1D).
- Pesqué D, Planella N, Borrego L, Sanz T, Zaragoza V, Serra E, Miquel FJ, Silvestre JF, Córdoba S, Sánchez A, Mercader P, Navarro FJ, Ortiz FJ, Tous F, Rodríguez M, Melé G, Barrabés C, Ruiz I, Pastor MA, Carrascosa JM, Gómez E, Sánchez P, Sánchez J, Pereyra JJ, Gatica ME, González R, Pujol RM, Descalzo M, García I, Giménez AM. Patch test results to the Spanish baseline patch test series according to age groups: A multicentric prospective study from 2019 to 2023. *CONTACT DERMATITIS*. 2025; 92(2). DOI:10.1111/cod. 14702. PMID:39394969. IF:4,600 (Q1/1D).
- Pinter A, Brnabic A, Trovato E, Puig L, Carrascosa JM, Boye T, Megna M, Sabatino S, de la Torre I, Maul JT. Comparative Effectiveness and Durability of Biologics Through 24 Months for Patients with Moderate-to-Severe Psoriasis: Results from the International, Observational Psoriasis Study of Health Outcomes (PSoHO). *Dermatology and Therapy*. 2025; 15(10). DOI:10.1007/s13555-025-01494-z. PMID:40699538. IF:4,200 (Q1/1D).
- Puig L, Daudén E, Cuervas M, Novella C, Guisado C. Persistence and effectiveness of guselkumab treatment in patients with moderate-to-severe plaque psoriasis in a non-interventional real-world setting: The SPRING study. *JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY*. 2025; 39. DOI:10.1111/jdv. 19403. PMID:37567861. IF:8,000 (Q1/1D).
- Puig L, Sewerin P, Schuster C, Ng KJ, Papadimitropoulos M, Gadagamma S, Nuñez M, Lampropoulou A. Real-World Evidence for Ixekizumab in the Treatment of Psoriasis, Psoriatic Arthritis, and Axial Spondyloarthritis: Systematic Literature Review 2022-2023. *ADVANCES IN THERAPY*. 2025; 42(9). DOI:10.1007/s12325-025-03258-9. PMID:40676380. IF:4,000 (Q1/3D).
- Silverberg JI, Bieber T, Paller AS, Beck L, Kamata M, Puig L, Wiseman M, Ezzedine K, Irvine AD, Foley P, Del Rosso J, Gold LS, Johansson E, Dossentbach M, Gallo G, Akmaz B, Casillas M, Karlsson A, Curteis T, Chovatiya R. Lebrikizumab vs Other Systemic Monotherapies for Moderate-to-Severe Atopic Dermatitis: Network Meta-analysis of Efficacy. *Dermatology and Therapy*. 2025; 15(3). DOI:10.1007/s13555-025-01357-7. PMID:39953372. IF:4,200 (Q1/1D).
- Torres T, Brembilla NC, Langley RG, Warren RB, Thaci D, Kolios A, Prinz JC, Londono A, Nast A, Santin M, Goletti D, Abreu M, Spuls P, Boehncke WH, Puig L. Treatment of psoriasis with biologic and non-biologic targeted therapies in patients with latent tuberculosis infection or at risk for tuberculosis disease progression: Recommendations from a SPIN-FRT expert consensus. *JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY*. 2025; 39(1). DOI:10.1111/jdv.20287. PMID:39149807. IF:8,000 (Q1/1D).

5.1.6 Associated Groups

- Verdaguer J, Guerra A, Ferrándiz C, Abril C, Estrada RB, Masferrer E, López D, Deza G, Leal L, Martí I, Ruiz V, Yébenes M, Martín LM, Baliu C, Castany A, Boada A, Toll A, Jaka A. Histological deep margins in cutaneous squamous cell carcinoma of the scalp and risk of recurrence. JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY. 2025; 39(4). DOI:10.1111/jdv. 20250. PMID:39036869. IF:8,000 (Q1/1D).
- Wollenberg A, Kinberger M, Arents B, Aszodi N, Barbarot S, Bieber T, Brough HA, Calzavara P, Christen S, Deleuran M, Dittmann M, Fosse N, Gáspár K, Gerbens L, Gieler U, Girolomoni G, Gregoriou S, Holland S, Mortz CG, Nast A, Nygaard U, Rehbinden EM, Ring J, Rossi M, Serra E, Simon D, Szalai ZZ, Szepletowski JC, Torrelo A, Werfel T, Werner RN, Flohr C. European Guideline (EuroGuiDerm) on atopic eczema: Living update. JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY. 2025; 39(9). DOI:10.1111/jdv. 20639. PMID:40317496. IF:8,000 (Q1/1D).
- Yosipovitch G, Lio PA, Rosmarin D, Legat FJ, Serra E, Carrascosa JM, Bardolet L, Crane H, Casillas M, Pierce E, Zhong JL, Elmaraghy H, Ständer S. Lebrikizumab Improved Itch Symptoms and Reduced Itch Interference on Sleep over 52 Weeks in Patients with Moderate-to-Severe Atopic Dermatitis in Two Phase 3 Trials. DERMATOLOGY. 2025; 241(4). DOI:10.1159/000547142. PMID:40602386. IF:2,700 (Q2/4D).

SCIENTIFIC PRODUCTION – Clinical Practice Guidelines

- Morales-Múnera CE, Montoya F, de Lored N, Sendagorta E. [Translated article] AEDV ExpertDocument on the Management of Ulcerative Venereal Infections. Actas Dermosifiliogr. 2025Feb;116(2):T159-T168. English, Spanish. doi: 10.1016/j.ad.2024.11.012. Epub 2024 Nov 19. PMID: 39566736.
- Puig L, Carrascosa JM, Rivera R, Vilarrasa E, de la Cueva P, López-Ferrer A. Generalised Pustular Psoriasis: Review and Consensus of the Psoriasis Group of the Spanish Academy of Dermatology and Venereology. Actas Dermosifiliogr. 2025 Dec 8;117(3):104544. English, Spanish. doi: 10.1016/j.ad.2025.104544. Epub ahead of print. PMID: 41371399.
- Torres T, Brembilla NC, Langley RG, Warren RB, Thaçi D, Kolios AGA, Prinz JC, Londono-Garcia A, Nast A, Santin M, Goletti D, Abreu M, Spuls P, Boehncke WH, Puig L. Treatment of psoriasis with biologic and non-biologic targeted therapies in patients with latent tuberculosis infection or at risk for tuberculosis disease progression: Recommendations from a SPIN-FRT expert consensus. J Eur Acad Dermatol Venereol. 2025 Jan;39(1):52-69. doi: 10.1111/jdv. 20287. Epub2024 Aug 16. PMID: 39149807.
- Wollenberg A, Kinberger M, Arents B, Aszodi N, Barbarot S, Bieber T, Brough HA, Calzavara-Pinton P, Christen-Zaech S, Deleuran M, Dittmann M, Fosse N, Gáspár K, Gerbens LAA, Gieler U, Girolomoni G, Gregoriou S, Holland S, Mortz CG, Nast A, Nygaard U, Rehbinden EM, Ring J, Rossi M, Serra-Baldrich E, Simon D, Szalai ZZ, Szepletowski JC, Torrelo A, Werfel T, Werner RN, Flohr C. European Guideline (EuroGuiDerm) on atopic eczema: Living update. J Eur Acad Dermatol Venereol. 2025 Sep;39(9):1537-1566. doi: 10.1111/jdv. 20639. Epub 2025 May 2. PMID:40317496; PMCID: PMC12376260.

5.1.6 Associated Groups

Anaesthesiology

Group leader

Paniagua Iglesias, Pilar (FGS)

Researchers

Argilaga Nogues, Marta (FGS)
 Azparren Cabezon, Gonzalo (FGS)
 Bainac Albadalejo, Albert Lluís (FGS)
 Barbero Espinosa, Sílvia (FGS)
 Batalla González, Astrid María (FGS)
 Bericat Melero, Paula (FGS)
 Bueno Izquierdo, Ana (FGS)
 Cegarra SanMartín, Virginia (FGS)
 Cueva Castro, Luisa Fernanda (FGS)
 De La Torre Weinreiter, Maríano Raúl (FGS)
 Felipe Correoso, María Mar (FGS)
 Fonseca Pinto, Teresa (FGS)
 Font Gual, Adrià (FGS)
 García Alvarez, María Mercedes (FGS)
 García Rodríguez, Alejandro (FGS)
 Gil Sánchez, José María (FGS)
 Gine Servén, Marta (FGS)
 Gómez Caro, Ana María (FGS)
 González Fernández, Joaquín (FGS)
 Gracia Tomás, Roger (FGS)
 Guadalupe Fernández, Nerea (FGS)
 Gutiérrez Marques, Alejandro (FGS)
 Hermenegildo Chávez, Gisela Myrella (FGS)
 Herranz Pérez, Gracia (FGS)
 Hinojal Blanco, Ignacio (FGS)
 India Aldana, Inmaculada (FGS)
 Koller, Tobias Bernhard (FGS)
 Maestre Hittinger, María Luz (FGS)
 Martín Navarro, Manuel (FGS)
 Martínez García, Clara (FGS)
 Merten, Alfredo R. (FGS)
 Millán Moreno, Irina (FGS)
 Miralles Bagan, Jordi (FGS)
 Moreno Bueno, Marisa (FGS)
 Núñez Sacristán, Sergio (FGS)
 Pardo Pinzón, Laura Andrea (FGS)
 Parrilla Quiles, Laura (FGS)
 Paz Martín, Adriano (FGS)
 Pérez García, Sergio (FGS)
 Rivilla Lizano, M. Teresa (FGS)
 Rodríguez Prieto, Mireia (FGS)
 Sabate Tenas, Sergi (FGS)
 Sneyers Closa, Marijke (FGS)
 Solans Duran, José Ramon (FGS)
 Toral Fernández, Diego (FGS)
 Villamizar Avendaño, Angélica (FGS)



DESCRIPTION

The anesthesiology research team at the “Hospital de la Santa Creu i Sant Pau (HSCSP)” in Barcelona has extensive experience in both clinical and research fields.

With regard to research activities, Dr Pilar Paniagua and her colleagues are actively involved in an internationally recognised line of research in Perioperative Medicine (Integrated medical care provided to patients before, during, and after surgery). It focuses on risk assessment, clinical optimisation, and the prevention of complications to improve surgical outcomes and recovery.

This research line, coordinated by the Population Health Research Institute (PHRI) at McMaster University (Canada), promotes collaborative projects aimed at optimising diagnosis, risk prediction, prevention, and/or treatment strategies for high-risk surgical patients.

Within this framework, HSCSP has participated in several major projects, some of which have received competitive funding and been published in high-impact journals.

This research activity reflects the team’s commitment to improving outcomes in surgical patients through both international collaboration and locally driven innovation.

MAIN LINES OF RESEARCH

- ASPIRE: Detection of postoperative atrial fibrillation and evaluation of the need for anticoagulation (Investigators: Villamizar, Martín, Giné).
- DELPO: Identification of postoperative delirium and its association with postoperative complications (Investigators: Giné, Martín, Paz, Mur; REA Group).
- INVIBLADE: Comparison of different laryngoscope blades for postoperative intubation using video laryngoscopy (Investigators: Giné, G. Bartolo, Nuñez; REA + UCIPO Groups).

5.1.6 Associated Groups

- VASOPRESS: Use of vasopressin during intra- and postoperative periods in patients with shock (Investigators: Giné, M. Castela, Cegarra; REA + UCIPO Groups).
- FENICE II (Pending IRB approval): Fluid therapy in critically ill postoperative patients (Investigators: Gutierrez, Giné; REA Group).
- NUTSARC: Malnutrition and its relationship with postoperative complications in patients undergoing surgery for retroperitoneal sarcoma (Investigators: Giné, Gutierrez).
- NUTOVA: Malnutrition and postoperative complications in patients undergoing surgery for advanced ovarian cancer (Investigator: Giné).
- Detect-POAF (Pending IRB approval): Detection of postoperative atrial fibrillation using a wearable monitoring device (Investigators: M. Castela, Martín, Gutierrez).
- EUpReCHO (Pending IRB approval). European study on perioperative management and outcome following perioperative transthoracic echocardiography in noncardiac surgery patients.
- FGWTW: Fibrinogen substitution in cardiac surgery
- TRICS IV: Transfusion trigger in cardiac surgery
- MONACOD: Direct oral anticoagulation in non-cardiac surgery
- FvW in MAD: Von Willebrand factor in mechanical assisted devices.
- End Growth study: Endovascular treatment in intracerebral bleeding.
- SAVE study: Sevoflurane vs propofol in patients with acute ischemic stroke.

SCIENTIFIC CHALLENGES

- The field of anesthesiology is currently undergoing a significant transformation, driven by advances in technology, increasing patient complexity, and a growing emphasis on perioperative outcomes. As such, anaesthesia departments face a range of evolving scientific challenges that call for robust clinical research, innovation, and interdisciplinary collaboration. The following are key areas where current and future scientific efforts are particularly relevant:
- Personalised Anaesthesia and Precision Medicine
- Postoperative Delirium and Cognitive Dysfunction
- Advanced Hemodynamic Monitoring and Management
- Perioperative Pain Management and Opioid-Sparing Strategies
- Influence of Anaesthetic Techniques on Oncologic Outcomes
- Artificial Intelligence and Clinical Decision Support
- Anaesthesia Delivery in Non-Operating Room Environments
- Environmental Sustainability in Anaesthetic Practice
- Patient Safety and Quality Improvement
- Simulation-Based Education and Competency Assessment.

DOCTORAL THESES DEFENDED

- Barquero López, Marta. Evaluación de los requerimientos transfusionales y del resultado pronóstico de dos estrategias de reanimación hemostática en el paciente politraumatizado: protocolos de transfusión masiva a razón fija vs. terapia guiada por objetivos basada en técnicas viscoelásticas. Estudio observacional multicéntrico. 02/04/2025. Universitat Autònoma de Barcelona. Supervisores: Paniagua Iglesias, María Pilar; Navarro Soto, Salvador. <https://hdl.handle.net/10803/694235>

5.1.6 Associated Groups

SCIENTIFIC PRODUCTION – Articles & Reviews

- Alvarez RG, Ramasco F, Alonso JN, Mouriz L, Rama P, Bilbao I, Carbonell AP, Rodenas MA, Ortega F, Vives M, Calvo CA, Taboada M, Azzam A, Merino M, Martínez F, Dominguez D, de Llano CT, Adalia R, Aguilar G, Aldecoa C, Mancha B, Reyes A, Giné M, Prendes D, Fernández CG, de la Calle I, Cendrero M, López AM, Herrero JJ, de la Torre I, Kattan E, Hernández G. Hemodynamic support Prospective multicenter observational study of patients in shock treated with vasopressin: Protocol of the VASOPRESIN with vasopressin: VASOPRES Registry study protocol. *Revista Española De Anestesiología Y Reanimación*. 2025; 72(7):501768. DOI:10.1016/j.redar.2025.501768.
- Bagán JM, Quiles LP, Iglesias PP, Roig A, Tenas SS, García SP, Álvarez MG. The Potential Role of Albumin in Reducing Cardiac Surgery-Associated Acute Kidney Injury: A Randomised Controlled Trial. *JOURNAL OF CARDIOTHORACIC AND VASCULAR ANESTHESIA*. 2025; 39(2). DOI:10.1053/j.jvca.2024.10.012. PMID:39922683. IF:2,100 (Q2/4D).
- Delgado CE, Antonijoan RM, Gich I, Anaya R, Rodríguez M, Millán A, Llorca J, Usua G, Ruiz A, Merchán A, Martínez MJ, AFFEcT GRP. Economic evaluation of a strategy to shorten the time to surgery with neuraxial anaesthesia compared with usual clinical practice in patients on chronic antiplatelet therapy with a proximal femur fracture. *Frontiers In Health Services*. 2025; 4:1423975. DOI:10.3389/frhs.2024.1423975. PMID:39901976.
- Garg AX, Marcucci M, Cuerden MS, Sontrop JM, Painter TW, Lomivorotov V, Sessler DI, Chan MTV, Borges FK, Leslie K, Ducepe E, Parikh CR, Roshanov P, Martínez MJ, Wang CY, Xavier D, Efremov S, Landoni G, Kleinlugtenbelt YV, Szczeklik W, Schmartz D, Meyhoff CS, Short TG, Amir M, Torres D, Wittmann M, Patel A, Ruetzler K, Parlow JL, Jayaram R, Polanczyk CA, Fleischmann E, Tandon V, Astrakov SV, Conen D, Wu WKK, Cheong CC, Ayad S, Kirov M, de Nadal M, Likhvantsev VV, Paniagua P, Aguado HJ, Ofori SN, Vincent J, Copland I, Balasubramanian K, Biccard BM, Srinathan S, Ismoilov S, Wang MK, Kurz A, Belley EP, Bhatt K, Eikelboom J, Gross P, Lamy A, McGillion M, McIntyre W, Richards T, Spence J, Van T, Whitlock R, Devereaux PJ, POISE GRP. A sub-study of the POISE-3 randomised trial examined the effects of a perioperative hypotension-avoidance strategy versus a hypertension-avoidance strategy on the risk of acute kidney injury. *KIDNEY INTERNATIONAL*. 2025; 107(1). DOI:10.1016/j.kint.2024.10.007. PMID:39490985. IF:12,600 (Q1/1D).
- Giménez GM, Cruz MCM, Mach MF, Tenas SS. Intrathecal catheter after accidental dural puncture in obstetric patients: Safety and effectiveness in reducing post-dural puncture headache. *Revista Española De Anestesiología Y Reanimación*. 2025; 72(4):501671. DOI:10.1016/j.redar.2024.501671.
- Paniagua P, Rincón MD, Candela A, Marcos M, Barquero M, Gich I, Medina L, Bosch A, Garrido D, Ordoñez J, Urrutia G. Improving the Compliance of Massive Haemorrhage Protocols Through Education Is Associated with Patient Survival. *Journal of Clinical Medicine*. 2025; 14(13):4632. DOI:10.3390/jcm14134632. PMID:40649007. IF:2,900 (Q1/2D).
- Ramírez CE, Amatria GR, Obiols PC, Martínez D, Raynard M, Draper BV, Masgoret P, Cosmen CR, Giménez LS, García MM, Mestres G, Melo M, Galindo AN, Gaig NM, Sánchez V, Royo DV, Comino NLP, Pérez IB, Farré CS, Salillas LT, Gelabert AA, Homs M, Ribas P, Teixell C, Moral A, Tena B, Castiñeira AF, Gay MA, Pelai BF, Bartoló CG, Iniesta CM, Font AP, Esteller PG, Clave JL, Pera SG, Batalla A, Raidi VV. Assessing the Experience and Management of Acute Post-Operative Pain from Caesarean Delivery: A Multi-Centre Cohort Study. *Journal of Clinical Medicine*. 2025; 14(13):4638. DOI:10.3390/jcm14134638. PMID:40649012. IF:2,900 (Q1/2D).
- Ripollés J, Zorrilla A, Leon A, Abad A, Galán P, Muñoz JL, Zapata D, Ramiro A, Aldecoa C, Molnar V, Jordá L, Cuéllar A, Berges H, Landaluce A, Fernández R, Aracil N, Pacual AM, Ubré M, Logroño M, Romero A, Soriano V, Romero JM, Nogués E, Mugarra A, Sánchez S, Serrat J, Orts FJ, Llácer M, Gil S, Alday E, Calero A, Gimeno P, Sánchez R, Bustos D, Batalla A, Chornet MR, Rodríguez R, Antona JF, Jerico C,

5.1.6 Associated Groups

Pedregosa A, Navarro A, Viñas T, Erce J, Oriol MP, Abad A. Enhanced recovery after surgery and long-term oncologic outcomes: Post-hoc analysis of the POWER study. *Revista Española De Anestesiología Y Reanimación*. 2025; 72(9):501926. DOI:10.1016/j.redar.2025.501926. PMID:40912546.

- Tauron M, Roselló E, Muñoz C, Fernández C, Montiel J, Casellas S, Irabien A, Corominas L, Piedra C, Julià I, Fernández C, Cegarra V, Guadalupe N, Molina M, Tabilo JF, Gotsens C, Gómez V, Berastegui E, Ginel AJ. Buckberg versus Del Nido in isolated aortic valve replacement: a prospective, two-centre, randomised trial. *Interdisciplinary Cardiovascular And Thoracic Surgery*. 2025; 40(3):ivaf054. DOI:10.1093/icvts/ivaf054. PMID:40065513. IF:1,300 (Q3/7D).

5.1.6 Associated Groups

Plastic Surgery

Group leader

Masia Ayala, Jaume (FGS)

Researchers

Condrea, Sílvia (FGS)

Guerrero Lojano, Andrea Elisabeth (FGS)

Leoveanu, Floriana Irina (FGS)

López Fernández, Susana (FGS)

Lusetti, Irene Laura (FGS)

Olivares Domínguez, María de Leyre (FGS)

Pérez Sempere, María (FGS)

Pons Playa, Gemma (FGS)

Vega García, María Del Carmen (FGS)

Vela Lasagabaster, Arturo (FGS)

Zamora Alarcon, Paul David (FGS)

Manukyan Papikyan, Anna (FGS)

Research technicians

Mohedano Puig, María Elena (IR)



DESCRIPTION

The research group at the Department of Plastic Surgery at Hospital Sant Pau focuses on key areas, including lymphedema surgery and disorders of the lymphatic system. The main areas of work include diagnostic methods, indocyanine green and lymphoresonance, surgical techniques for secondary lymphedema treatment, and prevention. Another significant research line is the development of new perforator flaps using imaging techniques, which has led to major scientific advancements in the past 20 years. We have also begun exploring lymphatic brain disease surgery, particularly for Alzheimer's.

The department collaborates with European centres, including Helsinki University Hospital, Ghent University Hospital, and the Gustave Roussy Institute in Paris.

MAIN LINES OF RESEARCH

- The LYMPH Trial - Microsurgical versus Conservative Complex Physical Decongestion Therapy for Chronic Breast Cancer-Related Lymphedema: A Pragmatic, Randomised, Multicenter Superiority Trial (Masià Ayala, Jaume; Lusetti, Irene Laura; Pons Playa, Gemma; Condrea, Sílvia).

DOCTORAL THESES DEFENDED

- Ibarra Estupiñán, Erick Andreé. Evaluación intraoperatoria de la perfusión de colgajos libres de perforantes en la reconstrucción mamaria mediante termografía infrarroja dinámica, angiografía con verde de indocianina y espectroscopía infrarroja. 05/12/2025. Universitat Autònoma de Barcelona. Supervisors: Fernández Garrido, Manuel; León Vintó, Xavier; Masià Ayala, Jaume. <https://hdl.handle.net/10803/696201>

5.1.6 Associated Groups

SCIENTIFIC PRODUCTION – Articles & Reviews

- Badia JM, Rubio I, Morales C, Bueno J, Rodríguez LM, Sancho J, Marín O, López S, Masiá J, Balibrea JM. Closed-Incision Negative Pressure Therapy: Scoping Review and Multidisciplinary Consensus Recommendations of the Spanish Observatory of Infection in Surgery. *International Wound Journal*. 2025; 22(10):e70750. DOI:10.1111/iwj.70750. PMID:41054272. IF:2,500 (Q1/3D).
- Campos J, Suominen S, Pons G, Al AM, Lusetti I, Sirota M, Vela F, Pires L, Sánchez F, Abellán E, Masiá J. Lymphatic Patterns in the Superficial Circumflex Iliac Artery Perforator Flap. *JOURNAL OF RECONSTRUCTIVE MICROSURGERY*. 2025; 41(03). DOI:10.1055/a-2340-9629. PMID:38848754. IF:2,300 (Q2/3D).
- Casanovas A, Mur E, Ayala JM, Fernández C, Sebio R. Effects of Nordic Walking on Physical Fitness in Patients with Cancer: A Systematic Review. *Cancers*. 2025; 17(19):3170. DOI:10.3390/cancers17193170. PMID:41097698. IF:4,400 (Q2/3D).
- Casasayas M, Holgado A, León X, Kolanczak K, Pérez M, Quer M, Gras JR. Endoscopic-assisted maxillectomy: our experience in tumours affecting the posterior wall of the maxillary sinus. *JOURNAL OF LARYNGOLOGY AND OTOTOLOGY*. 2025; 139(11). DOI:10.1017/S0022215125102958. PMID:40734309. IF:0,800 (Q3/8D).
- Cheng MH, Chang DW, Masia J. Introduction of the 10th World Symposium for Lymphedema Surgery. *JOURNAL OF SURGICAL ONCOLOGY*. 2025; 131(1). DOI:10.1002/jso.27919. PMID:39387585. IF:1,900 (Q2/4D).
- Fonseca M, Cañete A, Mandriaza L, Gómez J, Masiá J, Marcelain K, Ibaceta D, Erazo C, Gámez B, Rius M, Disi F. Cryopreserved Total Skin Allografts From Living Donors for Complex Wound Management: A New Paradigm in Regenerative Wound Care. *International Wound Journal*. 2025; 22(9):e70759. DOI:10.1111/iwj.70759. PMID:40890023. IF:2,500 (Q1/3D).
- Fonseca M, Cañete A, Mandriaza L, Gómez J, Masiá J, Marcelain K, Ibaceta D, Erazo C, Gamez B, Soto C, Valdés C. From cadaveric donation to cryopreserved total skin allografts: Transforming the Chilean skin donation model. *BURNS*. 2025; 51(6):107563. DOI:10.1016/j.burns.2025.107563. PMID:40480064. IF:2,900 (Q1/2D).
- Haas Y, Williams OP, Masia J, Pons G, Taylor EM, Katapodi MC, Staub D, Eisenhardt SU, Visconti G, Longo B, Plock J, Jung F, González E, Kaiser B, Zehnpfennig L, Stoffel J, Halbeisen FS, Appenzeller C, Hilbig L, Stoel Y, Horsch RE, Mani M, Ribi K, Vorstenbosch J, Isaac KV, Qiu SS, Behr B, Hemkens LG, Lindenblatt N, Schaefer DJ, Seidenstuecker K, Harder Y, Hirche CR, Weber WP, Kappos EA. Microsurgical versus complex physical decongestive therapy for chronic breast cancer-related lymphoedema. *The Cochrane database of systematic reviews*. 2025; 2. DOI:10.1002/14651858.CD016019. IF:9,400 (Q1/1D).
- Kappos EA, Haas Y, Schulz A, Peters F, Savanthrapadian S, Stoffel J, Katapodi MC, Mucklow R, Kaiser B, Haumer A, Etter S, Cattaneo M, Staub D, Ribi K, Shaw J, Handschin TM, Eisenhardt S, Visconti G, Franceschini G, Scardina L, Longo B, Vetter M, Zaman K, Plock JA, Scaglioni M, González EG, Quilidrian SD, Felmerer G, Mehrara BJ, Ayala JM, Pons G, Kalbermatten DF, Sacks JM, Halle M, Muntean M, Taylor EM, Mani M, Jung FJ, di PG, Demiri E, Dionyssiou D, Groth AK, Heine N, Vorstenborsch J, Isaac K, Qiu SS, Engels PE, Serre A, Eberhardt AL, Ebner S, Schwenkglenks M, Stoel Y, Leo C, Horsch RE, Blondeel P, Behr B, Kneser U, Prantl L, Boll DT, Granziera C, Hemkens L, Lindenblatt N, Haug M, Schaefer DJ, Hirche C, Pusic AL, Seidenstuecker K, Harder Y, Weber W. The LYMPH trial: comparing microsurgical with conservative treatment for chronic breast cancer-associated lymphoedema - study protocol of a pragmatic randomised international multicentre superiority trial. *BMJ Open*. 2025; 15(2):e090662. DOI:10.1136/bmjopen-2024-090662. PMID:39961719. IF:2,300 (Q2/3D).
- Kueckelhaus M, Nistor A, van T, Gazykan E, Dastagir K, Wieker H, Mani M, Qiu SS, Sorensen JA, Pons G, Vogt P, Masia J, Kneser U, Tos P, Suominen S, Innocenti M, Lindenblatt N. Clinical experience in open robotic-assisted microsurgery: user consensus of the European Federation of Societies for Microsurgery. *Journal of Robotic Surgery*. 2025; 19(1):171. DOI:10.1007/s11701-025-02338-w. PMID:40263142. IF:3,000 (Q1/2D).
- Machado I, Wardelmann E, Zhao M, Song J, Wang YL, Braun SA, Catasús L, Ferré M,

5.1.6 Associated Groups

- Leoveanu I, Westhoff J, Rüdiger T, Bagué S. Primary cutaneous rhabdomyosarcoma with EWSR1/FUS::TFCP2 fusion: four new cases with distinctive morphology, immunophenotypic, and genetic profile. *VIRCHOWS ARCHIV*. 2025; 486(6). DOI:10.1007/s00428-024-04007-z. PMID:39692858. IF:3,100 (Q2/3D).
- Matthews I, Mehra P, Suárez X, Piñol P, Cox D, Justian V, Carrasco A, Laidler Z, Bowey A, Rushton P, López S, Díaz J, Fernández E. Strategy for drug repurposing in fibroadipogenic replacement during muscle wasting: application to Duchenne muscular dystrophy. *Frontiers in Cell and Developmental Biology*. 2025; 13:1505697. DOI:10.3389/fcell. 2025.1505697. PMID:40206397. IF:4,300 (Q1/1D).
 - Pons G, Martínez P, Condrea S, Masia J. Immediate lymphatic reconstruction with targeted lymphatic axillary repair. *Journal of Plastic Reconstructive and Aesthetic Surgery*. 2025; 101. DOI:10.1016/j.bjps.2024.09.088. PMID:39733572. IF:2,400 (Q1/3D).
 - Ríos M, Masia J, Alvarez D, Jimenez JSL, Trujillo JFJ, Solano CC, Devia R. Breast Cancer-related Lymphedema in Valle del Cauca, Colombia: Prevalence, Risk Factors, and Characterisation. *Plastic And Reconstructive Surgery-Global Open*. 2025; 13(4):e6617. DOI:10.1097/GOX.00000000000006617. PMID:40270553.
 - Startseva O, Reshetov I, Masia J, Frolova A, Mershina E, Zhigailova E, Gabriyanchik M. Anatomical CT study of lumbar artery perforator flap in women. *Chinese Journal Of Plastic And Reconstructive Surgery*. 2025; 7(2). DOI:10.1016/j.cjprs.2025.02.001.
 - Sumarroca A, Vega C, López S, Leidinger A, Pedemonte G, León X, Costa JM. Lower lip reconstruction with the Karapandzic flap or the Colmenero flap: Description of results. *Acta Otorrinolaringologica Espanola*. 2025; 76(2). DOI:10.1016/j.otorri.2024.10.001. PMID:39923991.

5.1.6 Associated Groups

Palliative Care

Group leader

Pascual López, Antonio (FGS) (until November 2025)

Collette, Nadia Andree (IR) (from November 2025)

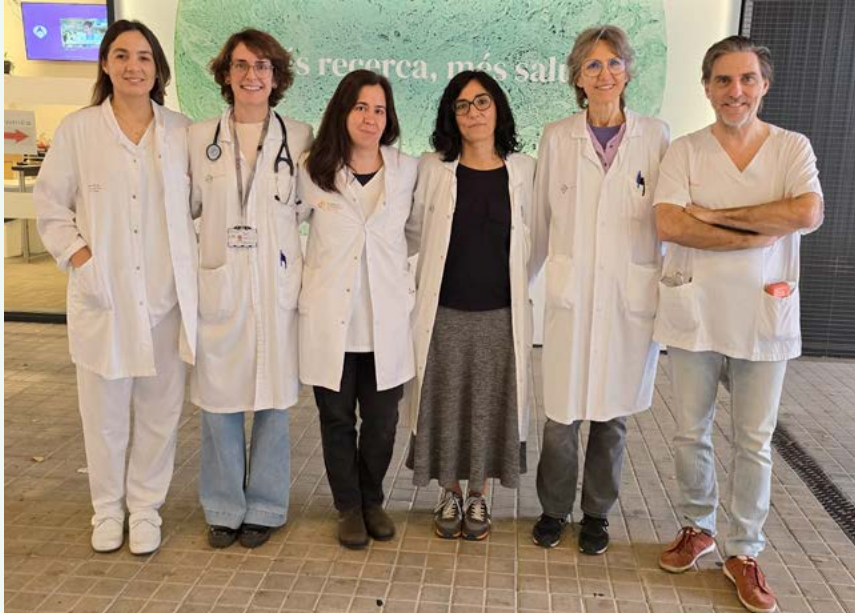
Researchers

Guell Pérez, Ernest (FGS)

Martínez Peralta, Susana (FGS)

Navarri Sese, Laia (FGS)

Prada Jaiimez, María Luisa (FGS)



DESCRIPTION

Clinical research carried out by an interdisciplinary team in an acute palliative care hospital unit.

MAIN LINES OF RESEARCH

Art therapy at the end of life. (Collette, Nadia).

- Prevention and management of professional stress through art therapy. (Collette, Nadia).
- Electronic patient-reported outcome measures (PROMs). (Martínez Peralta, Susana).
- Specialist palliative care and Amyotrophic Lateral Sclerosis. (Forero Vega, Diana)
- Family caregiver burden and complexity factors in palliative care inpatients. (Secanella García, Cristina).

SCIENTIFIC CHALLENGES

- Effectiveness of art therapy in addressing existential needs and resources in the face of suffering among patients at the end of life.
- Benefits of art therapy in promoting self-care and in preventing or managing work-related stress and burnout among healthcare professionals.
- Feasibility of an electronic tool for assessing patient-reported outcome measures (PROMS) in patients with advanced-stage diseases.
- Multidisciplinary coordination and early palliative care interventions to care for the complex needs of Amyotrophic Lateral Sclerosis patients.
- Detection of patient complexity factors in palliative care to prevent family caregiver burden and to optimise the discharge destination matching.

5.1.6 Associated Groups

SCIENTIFIC PRODUCTION – Clinical Practice Guidelines

- Cimerman J, Fernández C, Forero D, Garrillo J, Rodríguez A, Torremorell MD, Martínez Peralta S, Ribot T, Bvestrello P, Cano C, Nitola-Mendoza L, Bleda M, Rojas YL, Salvado N, Teran CM, Antonio M, Duran A, Sendros MJ. ICO-ICS Praxi per a l'atenció al final de la vida, Institut Català d'Oncologia (ICO) Institut Català de la Salut (ICS), 2025, ISBN: 978-84-128170-7-2. <http://hdl.handle.net/11351/14111>

5.1.6 Associated Groups

Andrology

Group leader

Ruiz Castañe, Eduard (F.Puigvert)

Researchers

De Rocco Ponce, Maurizio (F.Puigvert)

González Fernández, Mónica (F.Puigvert)

Krausz, Csilla Gabriella (F.Puigvert)

Maestre Loren, Francesc (F.Puigvert)

Martínez Pasarell, Olga (F.Puigvert)

Sánchez Curbelo, Josvany (F.Puigvert)

Sarquella Geli, Joaquim (F.Puigvert)

Vives Suñe, Álvaro (F.Puigvert)

Research technicians

Abrardo, Chiara (F.Puigvert)

Spinelli, Matilde (F.Puigvert)



DESCRIPTION

The Group focuses on different fields, the most important of which are: a) diagnosis and treatment of male/female sexual dysfunction (erectile dysfunction, premature ejaculation, Peyronie disease, hypoactive sexual desire), b) diagnosis and treatment of male infertility (genetics of male infertility and reproductive genomics, oncofertility), c) sexual transmitted infections, and d) endocrinological impairments related to male infertility and sexual dysfunctions (hypogonadism, hyperprolactinemia, and obesity). This activity is oriented to improve medical and surgical approaches for each issue.

MAIN LINES OF RESEARCH

- Genetics applied to male infertility. (Krausz, Csilla Gabriella).
- Male fertility preservation in oncological patients. (Krausz, Csilla Gabriella/De Rocco Ponce, Maurizio).
- Optimisation of preimplantation genetics diagnosis and in vitro fertilisation techniques. (Martínez Pasarell, Olga).
- New surgical procedures, drugs and medical devices applied to diagnosis, prevention and treatment of andrological diseases and conditions (male sexual dysfunction, hypogonadism, Peyronie disease, premature ejaculation, sexually transmitted diseases). (Ruiz Castañe, Eduard/Sánchez Curbelo, Josvany).
- Sexually transmitted diseases and public health. (Vives Suñe, Álvaro).
- Quality of life and integral sexual approach: gender and psychological aspects. (Maestre Loren, Francesc).

5.1.6 Associated Groups

SCIENTIFIC CHALLENGES

- To improve our knowledge and thereby improve healthcare for patients, we seek to continue active projects, develop new lines of investigation, increase the number of international publications, train professionals and enhance collaboration with hospital and university groups inside and outside the IIB Sant Pau.
- To promote awareness and divulge sexuality as a health topic and as a main aspect of global health and quality of life, inclusive of chronic and ill patients, to professionals who require a broad and multidisciplinary approach to their patients.
- To work up the relationship with patient associations and progressively incorporate them as a work team to develop responsible research with relevant results with social impact.

DOCTORAL THESES DEFENDED

- De Rocco Ponce, Maurizio. Disfunción eréctil: función endotelial e interacción hormonal, efectos sobre la salud vascular –De la fisiopatología molecular a los aspectos clínicos–. 10/11/2025. Universitat Autònoma de Barcelona. Supervisors: Bassas Arnau, Lluís; Corcoy Pla, Rosa. <https://hdl.handle.net/10803/695975>

SCIENTIFIC PRODUCTION – Articles & Reviews

- Ferre A, Castells M, Madurga A, Arbiol A, de Rocco M, Bassas L, Vigués F, Larriba S. Candidate Transcript Panel in Semen Extracellular Vesicles Can Improve Prediction of Aggressiveness of Prostate Cancer. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. 2025; 26(19):9562. DOI:10.3390/ijms26199562. PMID:41096831. IF:4,900 (Q1/3D).
- Krausz C, Abrardo C. The Y chromosome: male reproduction and beyond. FERTILITY AND STERILITY. 2025; 123(6). DOI:10.1016/j.fertnstert.2025.03.006. PMID:40064392. IF:7,000 (Q1/1D).
- Ponce MD, Garretón AS, Iglesias AS, Castro SD, Garcia RC, Caballero LM, Curbelo JRS, Luft DV, Castañé ER, Rajmil O. Patient Satisfaction and Outcomes of Penile Prosthesis Implantation in Psychogenic and Organic Erectile Dysfunction: A Comparative Study. Journal of Clinical Medicine. 2025; 14(14):5032. DOI:10.3390/jcm14145032. PMID:40725731. IF:2,900 (Q1/2D).
- Riera A, Arafa MM, Farnetani G, Xavier MJ, Oud MS, Majzoub AA, Ramos L, Abrardo C, Spinelli M, Moreno D, Defazio G, Ars E, Pybus M, Curbelo JRS, Elbardisi HT, Nawaz S, Syed N, Ruiz E, van der Heijden GW, Fakhro KA, Veltman JA, Krausz C. Genetic determinants of testicular sperm extraction outcomes: insights from a large multicentre study of men with non-obstructive azoospermia. Human Reproduction Open. 2025; 2025(3):hoaf049. DOI:10.1093/hropen/hoaf049. PMID:40896145. IF:11,100 (Q1/1D).
- Territo A, Belmonte M, Cocci A, Ruiz E, Castiglione F, Mantica G, Prudhomme T, Pecoraro A, Piana A, Marco BB, Dönmez MI, Esperto F, Russo GI, Campi R, Breda A, López A, Young Acad Urologists YAU Kidney Transplantation Working GRP. Is it safe to implant a penile prosthesis in a solid organ transplant recipient? A systematic review. INTERNATIONAL JOURNAL OF IMPOTENCE RESEARCH. 2025; 37(1). DOI:10.1038/s41443-024-00939-x. PMID:39026089. IF:2,500 (Q2/4D).

5.1.6 Associated Groups

Urology

Group leader

Palou Redorta, Juan (F. Puigvert)

Researchers

Algaba Arrea, Fernando (F. Puigvert)

Angerri Feu, Oriol (F. Puigvert)

Breda, Alberto (F. Puigvert)

Bujons Tur, Ana (F. Puigvert)

Errando Smet, Carlos (F. P. Puigvert)

Gallioli, Andrea (F. Puigvert)

Gaya Sopena, José María (F. Puigvert)

Kanashiro Azabache, Andrés Koey (F. Puigvert)

Ponce De León Roca, Javier (F. Puigvert)

Rodríguez Faba, Óscar (F. Puigvert)

Sanguedolce, Francesco (F. Puigvert)



DESCRIPTION

The investigation urology group is dedicated to advancing our knowledge of urological diseases and disorders, with a focus on urological malignancies, functional urology, stone disease, pediatric urology, renal transplant, and reconstructive surgery. Our team of expert clinicians work together to conduct innovative studies and clinical trials to improve patient outcomes and develop new treatments. The majority of research topics are clinical, with a special interest in technological advancements, rare urological diseases and biomarkers.

MAIN LINES OF RESEARCH

The Urology Clinical and Basic Research group has been an associated group of IIB Santpau since its very beginning.

The group conducts clinical translational research in the field of urinary tract diseases across urological cancer, functional urology, stone disease, paediatric urology, renal transplant, and reconstructive surgery.

Existing lines of research are:

- In the area of urological cancer, Dr. Breda is leading several projects mainly related to liquid biopsy in urothelial and prostate cancers, focal treatment of prostate cancer, methodology in enhancing lymph nodes in prostate and upper urinary tract disease, intraoperative detection of tumour grade with confocal endomicroscopy in order to facilitate clinical decisions and avoid unnecessary procedures, the role of systemic chemotherapy in upper urinary tract tumours and the role of PET-CT in renal masses and 3D reconstruction in order to facilitate complex renal surgeries.
- In testis cancer, we are evolving to minimally invasive surgery with robotic retroperitoneal dissection in metastatic disease and improving the diagnosis using the sentinel node technique in penile cancer, and also reconstructive surgery after partial penectomy plus laparoscopic lymphadenectomy of the groin.

5.1.6 Associated Groups

- Dr Palou is leading mainly the projects in bladder cancer: there is a collaborative translational research line of predictive biomarkers in NMIBC progression with the Inflammatory Group and Malmö University. He is leading several studies with new drugs (durvalumab, sansalimab, vedotin, enfortumab, etc). Bladder preservation in high-grade tumours is a difficult decision, and the possibility of detecting those who will progress will allow earlier aggressive treatment. Another line of research is the robotic nerve-sparing surgery in cystectomy and neobladder reconstruction in order to preserve sexual function after radical surgery. He is leading robotic retroperitoneal surgery in testicular cancer and reconstructive surgery.
- The group has recently initiated a new research and innovation line focused on telemedicine in uro-oncology.
- In the paediatric urology unit, led by Dra. Bujons, there are several topics under research related to long-term follow-up in reconstructive surgery, sexual function in neurological diseases and fertility in patients after scrotal surgery (varicocele, orchidopexy). This includes the study of the usefulness of botulinum toxin in hyperactive bladder in children, PH urine studies for the risk of infection in urinary tract anomalies, optimisation of irrigation fluids for the prevention of unnoticed perioperative hypothermia in children during RIRS and NLP and the Autologous fat graft with stem cells as a treatment for abdominal wall defects in patients with complex extrophy epispadias.
- In the urolithiasis line chaired by Dr Angerri, clinical and basic research is performed in the following topics: laser energy devices for stone destruction (holmium, thulium, superthulium), comparative outcomes and settings, collaboration with IIBSant Pau General and Digestive Surgery Group for primary hyperparathyroidism, treatment and pH urine research for the management of cystinuria. In cystinuria, there is extensive collaborative research with IDIBELL for genetic studies, and active participation in the National Registry of this Rare Disease. New study to use Artificial Intelligence in the recognition of stone composition during endoscopic surgery, using our stone library of more than 50.000 stones analysed through infrared spectroscopy.
- The functional urology Unit by Dr. Errando is evaluating the clinical results of different surgical techniques and devices in incontinence in both sexes such as paraurethral substance injections, laparoscopic colposacropexy technique, long term functional results of botox in males, functional results of the transcavernous artificial urinary sphincter implantation in high risk patients, usefulness of probiotics in the prevention of recurrent urinary tract infections, acidification of urine pH for women with recurrent UTIs. A quality of life research collaboration with the Centre de Fisioteràpia de Barcelona RAP Barcelona (Abomino-Pelvic Reeducation), associated with the UAB Vall d'Hebron, has recently begun, focusing on clinical evaluation tools for patients with low urinary tract dysfunction.
- The renal Transplantation Unit, led by Dr Breda, is investigating 3D reconstruction models to facilitate renal transplantation and improve kidney preservation. The group is establishing the robotic renal transplant all over Europe and is undergoing analysis of the urogenital tumours in renal transplant patients in order to update and change daily practice.
- BPH surgery is one of the most common in urology, and the group of Dr Ponce de Leon is investigating the way to perform surgery with preservation of anterograde ejaculation with different methodologies (TURP, Rezum). The group also study the use of the Rezum system (intraprostatic vaporisation) in BPH, the quality of life of patients who had undergone urethroplasty due to urethral stenosis, and the use of oral mucosa for urethroplasties. A recent national collaboration for a Urethroplasties Registry has begun. In reconstructive urethral surgery and BPH, Dr Ponce de León is leading an international prospective study on prostate inflammation to validate a clinical nomogram in patients with lower urinary symptoms, and a prospective multicenter study on the effect of buccal mucosa extraction on patients' quality of life.
- Dr Gallioli leads the clinical coordination within the group. Mrs Vanessa Muñoz and the nurse Ana Palomino are the coordinators of individual clinical studies and trials. They are key components for continuing the department's ongoing studies.

5.1.6 Associated Groups

SCIENTIFIC CHALLENGES

- To continue the national and international positions in order to increase the scientific networking of the department.
- Participate and evolve in the elaboration of European Guidelines.
- Continue in basic and clinical research of the different established areas.
- Development of the research and innovation line on digital health and telemedicine in urology
- Continue and improve relations with industry (pharmaceutics, medical devices industries and biotechnology companies) in order to be upfront in the development of new compounds and surgical techniques.

SCIENTIFIC PRODUCTION – Articles & Reviews

- Acosta EA, Pelari L, Luis GC, Balanza CV, Zapatero A, Romero N, Díez PT, Caño J, Guerrero F, Moschini M, Krajewski W, Del Giudice F, Soria F, Laukhtina E, Mertens L, Pichler R, Mori K, D'Andrea D, Mari A, Marcq G, Teoh J, Afferi L, Albisinni S, Pradere B, Gallioli A, Subiela JD, Manso LS, Grupo Trabajo Carcinoma U, Seccion U, Asociacion Europea Urologia EAU Y. The impact of a multidisciplinary approach on treatment decisions and outcomes in urothelial carcinoma: A systematic review. *Actas Urológicas Españolas*. 2025; 49(5):501718. DOI:10.1016/j.acuro.2025.501718. IF:1,200 (Q3/7D).
- Afferi L, Gallioli A, Territo A, Cannoletta D, Mestdagh K, Vangeneugden J, Van C, Desender L, Mercier J, Prudhomme T, Salamone V, Fontana G, Albisinni S, Osswald R, John H, Etcheverry B, Vigués F, Doumerc N, Minervini A, Palou J, Decaestecker K, Breda A. Robotic ileal ureter replacement vs kidney autotransplantation for long ureteric strictures. *BJU INTERNATIONAL*. 2025; 135(6). DOI:10.1111/bju.16704. PMID:40066829. IF:4,400 (Q1/2D).
- Afferi L, Jahn B, Kelkar AH, Dijk SW, Feldman ZM, Ward ZJ, Moschini M, Cathomas R, Bellmunt J, Gallioli A, Breda A, Fankhauser CD, Mattei A, Chang SL, Siebert U. Perioperative cisplatin-based chemotherapy for muscle-invasive bladder cancer: a decision analysis. *WORLD JOURNAL OF UROLOGY*. 2025; 43(1):197. DOI:10.1007/s00345-025-05584-7. PMID:40159560. IF:2,900 (Q2/3D).
- Afferi L, Pradere B, Gallioli A, Moschini M, Cannoletta D, Soria F, Juvet T, Potretzke A, Djaladat H, Kikuchi E, Mari A, Khene Z, Fujita K, Raman JD, Sfakianos JP, Pfail JL, Cacciamani GE, van T, Boormans JL, Antonelli A, Jamil M, Abdollah F, Ploussard G, Heidenreich A, Rieger C, Daneshmand S, Boorjian SA, Sauer A, Wyler S, Mattei A, Rouprêt M, Rink M, Shariat SF, Breda A, Grossmann NC. Oncological outcomes of open versus minimally invasive nephroureterectomy for locally advanced upper tract urothelial carcinoma. *WORLD JOURNAL OF UROLOGY*. 2025; 43(1):452. DOI:10.1007/s00345-025-05815-x. PMID:40699361. IF:2,900 (Q2/3D).
- Afferi L, Territo A, Pecoraro A, Masieri L, Ortved M, Dagnaes JA, Etcheverry B, Gallioli A, Cannoletta D, Vangeneugden J, Mercier J, Prudhomme T, Donnini I, Vazzana A, Rohrsted M, Vignes F, Doumerc N, Decaestecker K, Palou J, Campi R, Serni S, Roder A, Breda A. Robot-assisted vs open kidney transplantation from deceased donors. *BJU INTERNATIONAL*. 2025; 136(3). DOI:10.1111/bju.16799. PMID:40415630. IF:4,400 (Q1/2D).
- Ajami T, Musquera M, Palou J, Guru KA, Hussein AA, Eun D, Hosseini A, Gaya JM, Abaza R, Iqbal U, Lee R, Lee ZH, Lee M, Raventos C, Breda A, Lozano F, Trilla E, Vigués F, Carrión A. A multicenter study of perioperative and functional outcomes of open vs robot-assisted uretero-enteric reimplantation after radical cystectomy. *WORLD JOURNAL OF UROLOGY*. 2025; 43(1):74. DOI:10.1007/s00345-024-05435-x. PMID:39820547. IF:2,900 (Q2/3D).
- Albisinni S, Orecchia L, Mjaess G, Aoun F, Del Giudice F, Antonelli L, Moschini M, Soria F, Mertens LS, Gallioli A, Marcq G, Pradere B, Bochner B, Breda A, Briganti A, Catto J, Decaestecker K, Gontero P, Kamat A, Lambert E, Minervini A, Motttrie A, Roupret M, Shariat S, Wijburg C, Rieken M, Wiklund P, Mari A. Enhanced Recovery After Surgery for patients undergoing radical cystectomy: Surgeons' perspectives and recommendations ten years after its implementation. *EJSO*. 2025; 51(3):109543. DOI:10.1016/j.ejso.2024.109543. PMID:39799856. IF:2,900 (Q1/2D).

5.1.6 Associated Groups

- Amparore D, Piramide F, Verri P, Checcucci E, Piana A, Basile G, Larcher A, Gallioli A, Territo A, Gaya JM, Piazza P, Puliatti S, Grosso AA, Mari A, Campi R, Zuluaga L, Burak U, Ketan B, Serni S, Capitanio U, Montorsi F, Motttrie A, Fiori C, Minervini A, Wiklund P, Breda A, Porpiglia F. Nephrometry Scores Based on Three-dimensional Virtual Models Improve the Accuracy of Predicting Postoperative Complications After Robotic Partial Nephrectomy: Results from a Collaborative ERUS Validation Study. *European Urology Open Science*. 2025; 74. DOI:10.1016/j.euros.2025.02.001. PMID:40066189. IF:4,500 (Q1/2D).
- Baboudjian M, Leni R, Oderda M, Peyrottes A, Kesch C, Al M, Uleri A, Dariane C, Baud H, Olivier J, Rios AR, Sanguedolce F, Benard V, Windisch O, Valerio M, Gandaglia G, Ploussard G. Active Surveillance of Grade Group 2 Prostate Cancer: Oncological Outcomes from a Contemporary European Cohort. *European Urology Oncology*. 2025; 8(5). DOI:10.1016/j.euo.2025.01.009. PMID:39965999. IF:9,300 (Q1/1D).
- Basile G, Fallara G, Bandini M, Cazzaniga W, Negri F, Dieguez L, Montorsi F, Salonia A, Breda A, Fankhauser C, Territo A. Testis and penile cancers in kidney transplant recipients: A systematic review of epidemiology, treatment options and oncological outcomes by the EAU-YAU Penile and Testis Cancer Working Group. *Actas Urológicas Españolas*. 2025; 49(3):501683. DOI:10.1016/j.acuro.2025.501683. PMID:39952563. IF:1,200 (Q3/7D).
- Basile G, Uleri A, Leni R, Cannoletta D, Afferi L, Baboudjian M, Diana P, D'Andrea D, Teoh J, Pradere B, Subiela JD, Laukhtina E, Seisen T, Rouprêt M, Briganti A, Montorsi F, Moschini M, Breda A, Gallioli A, European Assoc Urology Young Acad Urologists EAU YAU U. En Bloc Versus Conventional Transurethral Resection of Bladder Tumours: A Systematic Review and Meta-analysis of Oncological, Histopathological, and Surgical Outcomes. *European Urology Oncology*. 2025; 8(2). DOI:10.1016/j.euo.2024.10.004. PMID:39428278. IF:9,300 (Q1/1D).
- Bertolo R, Antonelli A, Bex A, Anderson C, Autorino R, Barber N, Badani K, Barod R, Bensalah K, Bernhard JC, Breda A, Capitanio U, Challacombe B, Crivellaro S, De Groote R, Derweesh I, Galfano A, Harke N, Kaouk J, Kutikov A, Maes K, Minervini A, Maresma MCM, Montorsi F, Porpiglia F, Porter J, Schiavina R, Siemer S, Simone G, Touijer K, Vaessen C, Volpe A, Wu ZJ, Zondervan P, Russo P, Ribal MJ, Motttrie A. An International Delphi Consensus About Tumour Rupture During Robotic Partial Nephrectomy (Researching UnPredictable tumour Rupture during Robotic Partial Nephrectomy-The RUPTURE Project). *European Urology Open Science*. 2025; 78. DOI:10.1016/j.euros.2025.01.019. PMID:41040668. IF:4,500 (Q1/2D).
- Cannoletta D, Gallioli A, Mazzone E, Sopena JMG, Territo A, Di F, Casadevall M, Mas L, Mancon S, Diana P, Palou J, Breda A. A Global Perspective on the Adoption of Different Robotic Platforms in Uro-Oncological Surgery. *European Urology Focus*. 2025; 11(1). DOI:10.1016/j.euf.2025.03.016. PMID:40158899. IF:5,600 (Q1/1D).
- Chernysheva D, Fanti S, Bjartell A, Afferi L, Breda A, Palou J, Padhani AR, Sanguedolce F. European Registry of Next Generation Imaging in Advanced Prostate Cancer (RING): protocol for an international, prospective registry study. *BMJ Open*. 2025; 15(12):e106022. DOI:10.1136/bmjopen-2025-106022. PMID:41338644. IF:2,300 (Q2/3D).
- Contieri R, Guigui A, Gondran B, Basile G, Zattoni F, Gallioli A, Verri P, Aumatell J, Lechevallier E, Bastide C, Akiki A, Toledano H, Moschini M, Amparore D, Mertens LS, Pradere B, Rajwa P, Teoh JYC, Porpiglia F, Breda A, Montorsi F, Baboudjian M, Uleri A. Key strategies for reducing recurrence in T1 bladder cancer. Evidence from a retrospective multicenter European study. *INTERNATIONAL UROLOGY AND NEPHROLOGY*. 2025; 57(8). DOI:10.1007/s11255-025-04416-2. PMID:39934553. IF:1,900 (Q3/6D).
- Contieri R, Martini A, Beijert IJ, Mertens LS, Hentschel AE, Brundl J, Compérat EM, Plass K, Rodríguez O, Henríquez JDS, Hernández V, de la Pena E, Alemany I, Turturica D, Pisano F, Soria F, Capoun O, Bauerova L, Pesl M, Bruins HM, Runneboom W, Herdegen S, Breyer J, Brisuda A, Calatrava A, Rubio J, Seles M, Mannweiler S, Bosschieter J, Kusuma VRM, Ashabere D, Huebner N, Seisen T, Claps F, Masson A, Liedberg F, Cohen D, Lunelli L, Cussenot O, El Sheikh S, Volanis D, Cote JF, Roupret M, Haitel A, Shariat SF, Mostafid AH, Nieuwenhuijzen JA, Zigeuner

5.1.6 Associated Groups

- R, Dominguez JL, Hacek J, Zlotta AR, Burger M, Evert M, van de Kaa CA, van der Heijden AG, Kiemeny L, Soukup V, Molinaro L, Hurler R, Paciotti M, Moschini M, Pradere B, Perdona S, Gontero P, Llorente C, Algaba F, Palou J, N'Dow J, Ribal MJ, van der Kwast TH, Babjuk M, Sylvester RJ, van BWG. Towards Defining Follow-up Strategies for Patients with Primary Intermediate-risk Non-muscle-invasive Bladder Cancer. *European Urology Oncology*. 2025; 8(4). DOI:10.1016/j.euo.2025.04.010. PMID:40399193. IF:9,300 (Q1/1D).
- Contieri R, Soloway MS, Gontero P, Herr H, Kassouf W, Mertens LS, Moschini M, O'Donnell M, Palou J, Psutka SP, Rouprêt M, Teoh JYC, Kamat AM. Deintensification of Treatment for Low-grade Bladder Tumours: A Collaborative Review by the International Bladder Cancer Group (IBCG). *European Urology Oncology*. 2025; 8(1). DOI:10.1016/j.euo.2024.08.001. PMID:39218742. IF:9,300 (Q1/1D).
 - De Santis M, Redorta JP, Nishiyama H, Krawczynski M, Seyitkuliev A, Novikov A, Guerrero F, Zukov R, Kato M, Kawahara T, Goeman L, Puente J, Hellmis E, Powles T, Radziszewski P, Gust KM, Vasey P, Bigot P, Fradet Y, Hunting J, Armstrong J, Boulos S, Hois S, Shore ND, POTOMAC I. Durvalumab in combination with BCG for BCG-naïve, high-risk, non-muscle-invasive bladder cancer (POTOMAC): final analysis of a randomised, open-label, phase 3 trial. *LANCET*. 2025; 406(10516). DOI:10.1016/S0140-6736(25)01897-5. PMID:41115436. IF:88,500 (Q1/1D).
 - Di F, Bravi CA, De Groote R, Piramide F, Turri F, Wenzel M, Sharma G, Würnschimmel C, Andras I, Lambert E, Dell P, Moschovas MC, Campi R, Grosso AA, Liakos N, Mayr R, Mari A, Joseph DDC, Eraky A, Paciotti M, Sorce G, Tappero S, Montorsi F, Briganti A, Mottrie A, Minervini A, Breda A, Larcher A, ERUS EAU JRGRP. Robot-assisted radical nephroureterectomy for locally advanced upper tract urothelial carcinoma: a multicenter study by the Junior ERUS/YAU Working Group on Robot-assisted Surgery. *EJSO*. 2025; 51(11):110396. DOI:10.1016/j.ejso.2025.110396. PMID:40850212. IF:2,900 (Q1/2D).
 - Downes MR, Lajkosz K, Algaba F, Allory Y, Amin MB, Cheng L, Desai S, Eckstein M, Hartmann A, López A, Mannweiler S, van ML, Oxley J, Paner GP, Samaratunga H, Shen S, Warrick J, Williamson SR, Wobker SE, van der Kwast TH. Interobserver reproducibility of a hybrid three-tier grading system of papillary nonmuscle invasive urothelial carcinoma: an international Urothology study. *HISTOPATHOLOGY*. 2025; 87(5). DOI:10.1111/his.15438. PMID:40058790. IF:4,100 (Q1/1D).
 - Emiliani E, Bravo A, AGUSTIN M, Giron I, Fontanet S, Verri P, Sánchez A, Kanashiro AK, Skolarikos A, Somani B, Traxer O, Sánchez F, Millan F, Angerri O. Radiation exposure using leaded versus regular latex surgical gloves in endourological procedures: a prospective comparative study. *Urolithiasis*. 2025; 53(1):26. DOI:10.1007/s00240-024-01676-y. PMID:39932535. IF:2,200 (Q2/5D).
 - Faba OR, Boissier R, Budde K, Figueiredo A, Hevia V, Garcia EL, Regele H, Zakri RH, Olsburgh J, Bezuidenhout C, Breda A. European Association of Urology Guidelines on Renal Transplantation: Update 2024. *European Urology Focus*. 2025; 11(2). DOI:10.1016/j.euf.2024.10.010. PMID:39489684. IF:5,600 (Q1/1D).
 - Farré A, Huguet J, Basile G, Diéguez L, Izquierdo P, Sánchez R, Gavrilov P, Gallioli A, Faba OR, Gaya JM, Palou J, Breda A. Oncological outcomes for patients with European Association of Urology definitions of BCG failure treated with radical cystectomy. *Actas Urológicas Españolas*. 2025; 49(9):501834. DOI:10.1016/j.acuro.2025.501834. IF:1,200 (Q3/7D).
 - Figaroa O, Schuil H, Kamphuis G, van den Brink L, Hendriks N, Henderickx M, Bins A, van J, Ajayi L, Bus M, Cavadas V, Cracco CM, Andrea DD, Dasgupta R, De Coninck V, Durutovic O, Ebbensgaard I, Ferretti S, Gallioli A, Keller EX, Keeley FXJR, Osther PJS, Popiolek M, Pradere B, Proietti S, Saltirov I, Somani B, Taillly T, Thomas K, Turney B, Ulvik O, van C, van der Heij B, Vasquez JL, Brehmer M, Baard J. Challenges in Follow-up After Kidney-sparing Surgery for Upper Tract Urothelial Carcinoma: Insights from a Delphi Consensus. *European Urology Oncology*. 2025; 8(5). DOI:10.1016/j.euo.2025.07.003. PMID:40816958. IF:9,300 (Q1/1D).
 - Fullana SA, Velasco JC, Puente AL, Pujol LP, Monfort VB, Gárate MM, Subiela JD, Gallioli A, Moschini M, Pichler R, Del Giudice F, Marcq G, Teoh J, Soria F, Mertens L, Krajewski W, Laukhtina E, Moril K, Pradere B, Afferi L, Tully KH, Albisinni S, Abu Y, d'Andrea D, Mari A, Acosta EA, Contieri

5.1.6 Associated Groups

- R, Cimadamore A, Grobet E, Rivas JG, Fernández CH, Representacion Trabajo Carcinoma Urotelial Seccion Jovenes Urologos GRP. Diagnostic accuracy of Bladder EpiCheck for upper tract urothelial carcinoma: A meta-analysis. *Actas Urológicas Españolas*. 2025; 49(4):501720. DOI:10.1016/j.acuro.2025.501720. IF:1,200 (Q3/7D).
- Gallioli A, Basile G, Cannoletta D, Territo A, Afferi L, Izquierdo P, Farré A, Diéguez L, Diana P, Di F, Mancon S, Gavrilov P, Gaya JM, Algaba F, Palou J, Breda A. Systematic biopsies of the upper urinary tract: a tool to improve the diagnostic accuracy of ureteroscopy and characterisation of upper tract urothelial cancer. *WORLD JOURNAL OF UROLOGY*. 2025; 43(1):614. DOI:10.1007/s00345-025-05997-4. PMID:41099868. IF:2,900 (Q2/3D).
 - Gallioli A, Uleri A, Verri P, Tedde A, Mertens LS, Moschini M, Del Giudice F, Soria F, Laukhtina E, Subiela JD, Krajewski W, D'Andrea D, Mari A, Marcq G, Mori K, Teoh J, Afferi L, Albisinni S, Sanguedolce F, Palou J, Breda A, Pradere B, EAU YAU Urothelial Working GRP. Oncologic Outcomes of Endoscopic Management of Upper Tract Urothelial Carcinoma: A Systematic Review and Pooled Analysis from the EAU-YAU Urothelial Working Group. *European Urology Focus*. 2025; 11(3). DOI:10.1016/j.euf.2025.01.009. PMID:39894734. IF:5,600 (Q1/1D).
 - Gaya JM, Berquin C, Basile G, Pecoraro A, Gallioli A, Gómez IS, Izquierdo P, Territo A, Gavrilov P, Palou J, Rosales A, Breda A. Robot-assisted video-endoscopic inguinal lymphadenectomy with the HugoTM RAS System: surgical set-up and initial experience. *Minerva Urology And Nephrology*. 2025; 77(1). DOI:10.23736/S2724-6051.24.06044-0. PMID:40183184. IF:4,200 (Q1/2D).
 - Ghoduoussipour S, Bivalacqua T, Bryan RT, Li RG, Mir MC, Palou J, Psutka SP, Sundi D, Tyson MD, Inman BA. A Systematic Review of Novel Intravesical Approaches for the Treatment of Patients with Non-muscle-invasive Bladder Cancer. *EUROPEAN UROLOGY*. 2025; 88(1). DOI:10.1016/j.eururo.2025.02.010. PMID:40253283. IF:25,200 (Q1/1D).
 - Gnech M, Hoen L, Radmayr C, Burgu B, Bogaert G, O'Kelly F, Castagnetti M, Quaedackers J, Silay MS, Kennedy U, Van A, Skott M, Pakkasjärvi N, Bujons A, Yuan YH, Rawashdeh YF. Congenital Lower Urinary Tract Obstruction: Update and Summary of the European Association of Urology and European Society for Paediatric Urology Guidelines. *European Urology Focus*. 2025; 11(3). DOI:10.1016/j.euf.2025.01.012. PMID:39909817. IF:5,600 (Q1/1D).
 - Gnech M, Hoen L, Skott M, Bogaert G, Castagnetti M, O'Kelly F, Quaedackers J, Rawashdeh YF, Kennedy U, van A, Yuan YH, Capecechi M, Artoni A, Karaöz G, Pakkasjärvi N, Burgu B, Bujons A, Silay MS, Radmayr C. Managing Preoperative Anxiety and Thromboprophylaxis in Children Undergoing Urological Procedures: An Update of the European Association of Urology/European Society for Paediatric Urology Guidelines on Paediatric Urology. *European Urology Open Science*. 2025; 75. DOI:10.1016/j.euros.2025.02.006. PMID:40291787. IF:4,500 (Q1/2D).
 - Gravas S, De Nunzio C, Pinheiro LC, de Leon JP, Skriapas K, Milad Z, Lombardo R, Medeiros M, Makrides P, Samarinas M, Gacci M. Development and validation of a clinical nomogram to predict prostatic inflammation in men with lower urinary tract symptoms. *PROSTATE CANCER AND PROSTATIC DISEASES*. 2025; 28(2). DOI:10.1038/s41391-024-00857-5. PMID:38971935. IF:5,800 (Q1/1D).
 - Grosso AA, Cadenar A, Pillozzi S, Carli G, Lipparini F, Di F, Pichler R, Krajewski W, Albisinni S, Laukhtina E, Mancon S, del Giudice F, Mir MC, Soria F, Moschini M, Shariat SF, Roupret M, Teoh JYC, Antonuzzo L, Breda A, Minervini A, Gallioli A, Mari A, Trabajo Carcinoma Urotelial GRP, Seccion Jovenes Urologos A, Asociacion Europea Urologia EAU Y. Circulating tumour DNA in muscle-invasive bladder cancer: A systematic review. *Actas Urológicas Españolas*. 2025; 49(4):501717. DOI:10.1016/j.acuro.2025.501717. PMID:39952561. IF:1,200 (Q3/7D).
 - Haberal HB, Marco BB, Donmez MI, Pecoraro A, Piana A, Prudhomme T, López A, Breda A, Territo A. A Systematic Review of Outcomes of Redo Ureteroneocystostomy Subsequent to Kidney Transplantation in Pediatric Recipients. *INTERNATIONAL JOURNAL OF UROLOGY*. 2025; 32(10). DOI:10.1111/iju. 70148. PMID:40488818. IF:2,200 (Q2/5D).

5.1.6 Associated Groups

- Izquierdo P, Huguet J, Bravo A, Fontanet S, Farré A, Sánchez R, Gaya JM, Rodríguez O, Palou J, Breda A. Laparoscopic oncological surgery for renal tumours in patients aged 85 years or older. *Actas Urológicas Españolas*. 2025; 49(4):501688. DOI:10.1016/j.acuro.2025.501688. PMID:39955053. IF:1,200 (Q3/7D).
- Krajewski W, Nowak L, Laszkiewicz J, Chorbinska J, Tomczak W, Gurwin A, Moschini M, Pradere B, Gallioli A, Subiela JD, Laukhtina E, Del Giudice F, Marcq G, Afferi L, Krajewska M, Khan MS, Nair R, Malkiewicz B, Szydelko T, Urothelial Carcinoma Working GRP, European Assoc Urology Young Acad U. Impact of Histological Subtypes/ Divergent Differentiation on Clinicopathological and Oncological Outcomes for Patients with Upper Tract Urothelial Carcinoma Treated with Radical Nephroureterectomy: A Comprehensive Updated Systematic Review and Meta-analysis. *European Urology Oncology*. 2025; 8(4). DOI:10.1016/j.euo.2025.03.003. PMID:40221279. IF:9,300 (Q1/1D).
- Laszkiewicz J, del Giudice F, Li S, Krajewski W, Nowak L, Szydelko T, Basran S, De Berardinis E, Carino D, Corvino R, Santerelli V, Ferro M, Rocco B, Sighinolfi MC, Crocetto F, Barone B, Dinacci F, Pichler R, Subiela JD, Pradere B, Moschini M, Mari A, Gallioli A, Mori K, Soria F, Mertens L, Abu Y, Nair R, Khan MS, Chung BI. Novel risk factors for venous thromboembolism following outpatient or inpatient transurethral resection of bladder tumours: Multivariable stepwise and LASSO regression modelling from the US insurance claim database. *Actas Urológicas Españolas*. 2025; 49(4):501738. DOI:10.1016/j.acuro.2025.501738. PMID:40107612. IF:1,200 (Q3/7D).
- Li R, Hensley PJ, Babjuk M, Bukavina L, Psutka SP, Lerner SP, O'Donnell MA, Lotan Y, Bree KK, Redorta JP, McConkey DJ, Lee BH, Maríappan P, Mertens LS, Soloway MS, Svatek RS, Tan WS, Williams SB, Gupta S, Buckley R, Kamat AM. Intermediate-risk Non-muscle-invasive Bladder Cancer: Recommendations for Definitions, Risk Stratification, Management Strategies, and Clinical Trial Design from the International Bladder Cancer Group. *European Urology Oncology*. 2025; 8(6). DOI:10.1016/j.euo.2025.08.003. PMID:41076366. IF:9,300 (Q1/1D).
- Longonia M, Scilipoti P, Soria F, Pradere B, Krajewski W, D'Andrea D, Mari A, Del Giudice F, Pichler R, Subiela JD, Afferik L, Albisinni S, Gallioli A, Mertens LS, Laukhtina E, Morio K, Radziszewskip P, Slusarczykp A, Shariat SF, Necchi A, Xylinas E, Gontero P, Roupert M, Montorsi F, Briganti A, Moschini M, EAU Y, Urothelial Carcinoma Working GRP. Oncological Outcomes in Bacillus Calmette-Guérin-naïve High-risk Non-muscle-invasive Bladder Cancer Patients: A Systematic Review on Current Treatment Strategies and Future Perspectives. *European Urology Oncology*. 2025; 8(5). DOI:10.1016/j.euo.2025.03.007. PMID:40204534. IF:9,300 (Q1/1D).
- Maldonado X, Boladeras A, Gaya JM, Muñoz J, Planas J, Sancho G, Suárez JF. Controversies in the use of next-generation imaging for evaluation and treatment decision-making in patients with prostate cancer after biochemical recurrence: views from a Spanish expert panel. *Clinical & Translational Oncology*. 2025; 27(7)DOI:10.1007/s12094-024-03833-6. PMID:39747804. IF:2,500 (Q3/6D).
- Mancon S, Matsukawa A, Cadenar A, Tsuboi I, Miszczyk M, Parizi MK, Fazekas T, Schulz RJ, Cormio A, Laukhtina E, Gallioli A, Diana P, Contieri R, Soria F, Pradere B, Lughezzani G, Kimura T, Territo A, Breda A, Buffi NM, Hurle R, Shariat SF, D'Andrea D. Impact of opium on bladder cancer incidence: A systematic review and meta-analysis. *Actas Urológicas Españolas*. 2025; 49(5):501749. DOI:10.1016/j.acuro.2025.501749. PMID:40097099. IF:1,200 (Q3/7D).
- Marco BB, Donmez MI, Erkul B, Haberal HB, Pecoraro A, Prudhomme T, Campi R, Piana A, López A, Boissier R, Breda A, Territo A, EAU Young Academic Urologists YAU Kidney Transplant Working GRP. A Systematic Review on the Impact of Pregnancy on Renal Graft Function. *Journal of Clinical Medicine*. 2025; 14(14):5022. DOI:10.3390/jcm14145022. PMID:40725714. IF:2,900 (Q1/2D).
- Marcq G, Kassouf W, Roumiguié M, Pradere B, Mertens LS, Albisinni S, Cimadamore A, Teoh JYC, Moschini M, Laukhtina E, Mari A, Soria F, Gallioli A, del Giudice F, d'Andrea D, Krajewski W, Beauval JB, Xylinas E, Pouessel D, Sargos P, Ploussard G. Oncological outcomes of patients with node positive disease following neoadjuvant chemotherapy and radical cystectomy for muscle-invasive bladder cancer: A multicenter

5.1.6 Associated Groups

- observational study of the EAU Young Academic Urologists (YAU) urothelial carcinoma working group. *Actas Urológicas Españolas*. 2025; 49(2):501701. DOI:10.1016/j.acuro.2025.501701. PMID:39938643. IF:1,200 (Q3/7D).
- Mediavilla BG, Congregado B, Espinos EL, Belenchon IR, Basterretxea L, Sancho G, Lainez N, Buchser D, Leturgez T, Schmitz AA, Pozueta J, Gurruchaga I, Lavin DC, Esteban B, Hernández A, Lashey M, Sanguedolce F, Duran I. Feasibility of Wave Health to monitor electronic patient-reported outcomes (ePROs) in prostate cancer patients. *Esmo Real World Data And Digital Oncology*. 2025; 10:100177. DOI:10.1016/j.esmorw.2025.100177.
 - Moretto S, Piccolini A, Gallioli A, Contieri R, Buffi N, Lughezzani G, Breda A, Baboudjian M, van BW, Roupert M, Uleri A, Pradere B. The role of intravesical chemotherapy following nephroureterectomy in upper tract urothelial carcinoma: A systematic review and meta-analysis. *UROLOGIC ONCOLOGY-SEMINARS AND ORIGINAL INVESTIGATIONS*. 2025; 43(3). DOI:10.1016/j.urolonc.2024.10.035. PMID:39592361. IF:2,300 (Q2/5D).
 - Palou J, Casadevall M, Faba OR, Gaya JM, Breda A. Robot-assisted transmesocolic retroperitoneal lymphadenectomy in testicular non-seminomatous germ cell tumours: A promising approach. *Actas Urológicas Españolas*. 2025; 49(5):501687. DOI:10.1016/j.acuro.2025.501687. PMID:39955056. IF:1,200 (Q3/7D).
 - Patel V, Collins JW, Marescaux J, Dohler M, Saikali S, Dasgupta P, Reddy S, Gamal A, Patel E, Rogers T, Siddiqui A, Breda A, Mottrie A, Hassan A, Hung AD, Secord A, Rocco B, Pugh C, Sundaram C, Sighinolfi MC, Ellison EC, Davila EP, Wilson E, Balkhy H, Kaouk J, Liang C, Kavoussi LR, Roche M, Martínó M, Anvari M, Sylla P, Coelho RF, Thomas R, Clayman R, Leveillee R, Estape R, Goldberg R, Maddar R, Horgan S, Magnuson JS, Nathan S, Ross S, Costello A, Xu Z, Chauhan S, Redan J, Satava R, Miles B, Sachdeva AK, Moschovas MC. International multispecialty consensus statement and expert opinion of best practices in telesurgery. *Journal of Robotic Surgery*. 2025; 19(1):135. DOI:10.1007/s11701-025-02298-1. PMID:40167848. IF:3,000 (Q1/2D).
 - Pecoraro A, Territo A, Gallioli A, Basile G, Vangeneugden J, Etcheverry B, Era MM, Rodríguez BLD, Prudhomme T, Mercier J, Ortved M, Chner PZ, Volpe A, Garcia R, Kocak B, Idu M, Stockle M, Rohrsted M, Canda AE, Roder A, Alcaraz A, Doumerc N, Vignes F, Decaestecker K, Masieri L, Serni S, Breda A, Campi R, European Assoc Urology EAU robotic Urology Section ERUS R. Robot-assisted kidney transplantation using right- vs. left-sided grafts from living donors: a prospective multicenter study from the ERUS-RAKT working group. *Minerva Urology And Nephrology*. 2025; 77(3). DOI:10.23736/S2724-6051.25.06279-2. PMID:40528772. IF:4,200 (Q1/2D).
 - Pérez JI, Etcheverry B, Fiol M, Territo A, Afferi L, Buisan O, Riera L, Suarez JF, Breda A, Vigués F, European Assoc Urology Robotic Urology Sect ERUS Robot A. Robot-assisted Kidney Transplantation in Patients Undergoing Cystectomy with Urinary Diversion: First Cases Reported by the ERUS-RAKT Working Group. *European Urology Open Science*. 2025; 71. DOI:10.1016/j.euros.2024.12.002. PMID:39811104. IF:4,500 (Q1/2D).
 - Piana A, López A, Lanzillotta B, Pecoraro A, Prudhomme T, Haberal HB, Di M, Marco BB, Dönmez MI, Breda A, Territo A, YAU Kidney Transplantat Working GRP. Systematic Review on Upper Urinary Tract Carcinoma in Kidney Transplant Recipients. *Journal of Clinical Medicine*. 2025; 14(11):3927. DOI:10.3390/jcm14113927. PMID:40507690. IF:2,900 (Q1/2D).
 - Pichlera R, van NCH, Subielab JD, Cimadamorec A, Caño J, Tullye KH, Mori K, Contieri R, Afferi L, Marij A, Soriak F, Del Giudice F, D'Eliam C, Mayrn R, Mertensg LS, Pyrgidiso N, Moschinip M, Gallioli A, Asociación Europea de Urología, Jóvenes Urologos Académicos EAU Y, Trabajo Carcinoma Urotelial GRP. Biological and therapeutic implications of FGFR alterations in urothelial cancer: A systematic review from non-muscle-invasive to metastatic disease. *Actas Urológicas Españolas*. 2025; 49(5):501719. DOI:10.1016/j.acuro.2025.501719. PMID:39955055. IF:1,200 (Q3/7D).
 - Prudhomme T, Peri L, Pecoraro A, Territo A, Etcheverry B, Ortved M, Roder A, Mirza I, Vignolini G, Rohrsted M, Rodríguez BLD, Mercier J, Doumerc N, Masieri L, Vignes F, Breda A, Serni S, Alcaraz A, Musquera M, Campi R. Robot-assisted Kidney Transplantation from Deceased

5.1.6 Associated Groups

- Donor: The European Experience. *European Urology Open Science*. 2025; 79. DOI:10.1016/j.euro.2025.06.013. PMID:40823003. IF:4,500 (Q1/2D).
- Rubio J, Borque A, Escaño L, Wong A, Cascales AG, Gómez EG, Fabra JMG, Sanguedolce F, Gómez F, González P, Bello AP, García NR, Semper MM, Novo JFS, Hajianfar R, Ciutat LLF, Alfaro AG, Ojeda JMD, Ariño AB, Dorado CQ, Iriarte AL, Fadrique GG, Bachs JMG, Barreras SG, Costa YP, Cabo AV, Aliaga MR, Pérez FC, Servián P, Bortoló JMC, Delgado MS, de Ledesma JMR, Rodríguez CS, Abal VC, Martínez Y, Imbroda BH, Dolezal P, Frau JG, Llorente PM, Jiménez JM, Uribe JSS, Ruiz CBC, Reyes A, Aparicio TF, Rodríguez JG, Sole MC, Seguí AG, Bru JJP, de Castro JM, Moreno AM, Suárez JLM. Real World Evidence of Active Surveillance for Prostate Cancer in Spain; Midterm Results. *Cancer Medicine*. 2025; 14(17):e71173. DOI:10.1002/cam4.71173. PMID:40926355. IF:3,100 (Q2/5D).
 - Ruiz CB, Campos F, Martín IP, Biosca SM, Cardesa OG, Guevara J, Formoso NG, Pascual EF, Salamanca J, Pérez SM, Dorrego J, González ER, Talegón SS, Suarez A, Pascual EM, García M, Polo JM, Clotet LV, Morton A, Gil JA, Cambras LS, Vázquez LI, Gutiérrez JH, Castro E, Roca JPD, León LT, Lorenzo LMP. Efficacy and safety of Optilume® paclitaxel-coated urethral dilatation balloon in real-life: experience in a Spanish multicenter study. *Actas Urológicas Españolas*. 2025; 49(1). DOI:10.1016/j.acuroe.2024.10.003. PMID:39486795. IF:1,200 (Q3/7D).
 - Sandberg M, Russell G, Feldman D, Hayes M, Ben R, Miller J, Patel K, Aljabi B, Byun SS, Faba OR, Cannoletta D, Letowski T, Villoldo G, Marchinena PG, Mourao T, Ciancio G, Peyton CC, Zannotti R, Chang SV, Spiess PE, Mehrazin R, Abreu D, Zequi SD, Rodríguez A. Impact of Systemic Therapy for Renal Cell Carcinoma With a Tumour Thrombus: Results From the Intercontinental Collaboration on Renal Cell Carcinoma Database. *Clinical Genitourinary Cancer*. 2025; 23(6):102442. DOI:10.1016/j.clgc.2025.102442. PMID:41125506. IF:2,700 (Q2/3D).
 - Sandberg M, Russell G, Krol P, Hayes M, Bisette R, Ben R, Patel K, Aljabi B, Byun SS, Faba OR, Marchinena PG, Mourao T, Ciancio G, Peyton CC, Zannotti R, Spiess PE, Mehrazin R, Rais S, Abreu D, Zequi SD, Rodríguez AR. Comparing Cytoreductive Nephrectomy with Tumour Thrombectomy Between Open, Laparoscopic, and Robotic Approaches. *Cancers*. 2025; 17(21):3490. DOI:10.3390/cancers17213490. PMID:41228283. IF:4,400 (Q2/3D).
 - Sandberg M, Russell G, Malakismail J, Hayes M, David RB, Miller J, Patel K, Aljabi B, Byun SS, Faba OR, Cannoletta D, Letowski T, Villoldo G, Marchinena PG, Mourao T, Ciancio G, Peyton CC, Zannotti R, Spiess PE, Mehrazin R, Abreu D, Zequi SD, Rodríguez A. A comparison of open, laparoscopic, and robotic radical nephrectomy with tumour thrombectomy from the International Collaboration on renal cell carcinoma. *Journal of Robotic Surgery*. 2025; 19(1):269. DOI:10.1007/s11701-025-02424-z. PMID:40467927. IF:3,000 (Q1/2D).
 - Sanguedolce F, Lauwers CNG, Tedde A, Basile G, Chernysheva D, Uleri A, Baboudjian M, Giannarini G, Panebianco V, Madonia M, Roupret M, Budaus L, Palou J, Breda A, Schoots I, Padhani AR, Collaboration EAU Sect Urological Imaging E. Regional Versus Systematic Biopsy in Addition to Targeted Biopsy: Results from a Systematic Review and Meta-analysis. *European Urology Oncology*. 2025; 8(2). DOI:10.1016/j.euo.2024.10.006. PMID:39455339. IF:9,300 (Q1/1D).
 - Sanguedolce F, Tedde A, Basile G, Di F, Baboudjian M, Uleri A, Mancon S, Chernysheva D, Figuls MR, Gallioli A, Territo A, Rouprêt M, Palou J, Breda A. Prostate Cancer Outcomes in Immunocompromised Patients: A Systematic Review and Meta-analysis. *European Urology Oncology*. 2025; 8(4). DOI:10.1016/j.euo.2025.05.021. PMID:40533295. IF:9,300 (Q1/1D).
 - Schwartzmann I, Hernández P, Alejo AF, González PI, Grillo LM, Montlleó M, Castro EM, Diana P, Breda A, Palou J, Roca JPD. Is New Always Better? Comparing the Piranha® and Multicut® Morcellators During Endoscopic Enucleation of the Prostate: A Prospective Randomised Trial. *JOURNAL OF ENDOUROLOGY*. 2025; 39(3). DOI:10.1089/end.2024.0581. PMID:39932730. IF:2,800 (Q2/3D).
 - Schwartzmann I, Secco S, Farré A, García S, Fernández E, D'Anna M, Cindolo L, Parejo V, Tornero JI, Ferrari G, Varvello F, de León JP, Povo I. Injection density in Rezum®: Less

5.1.6 Associated Groups

- might not be more. A multicentric international study. *Actas Urológicas Españolas*. 2025; 49(7):501824. DOI:10.1016/j.acuro.2025.501824. PMID:40752731. IF:1,200 (Q3/7D).
- Scilipoti P, Longoni M, de Angelis M, Zaurito P, Slusarczyk A, Soria F, Pradere B, Krajewski W, D'Andrea D, Mari A, Del Giudice F, Pichler R, Subiela JD, Marcq G, Gallioli A, Afferi L, Mastroianni R, Simone G, Albisinni S, Mertens LS, Laukhtina E, Oberneder K, Elena JLR, Aranda J, Puentedura AL, Velasco JC, Contieri R, Hurle R, Mori K, Radziszewski P, Shariat SF, Gontero P, Necchi A, Rouprêt M, Montorsi F, Salonia A, Briganti A, Moschini M, EAU Y, Urothelial Carcinoma Working GRP. Outcomes of BCG vs upfront radical cystectomy for high-risk non-muscle-invasive bladder cancer. *BJU INTERNATIONAL*. 2025; 136(1). DOI:10.1111/bju.16675. PMID:39967051. IF:4,400 (Q1/2D).
 - Scilipoti P, Moschini M, Zaurito P, Longoni M, De Angelis M, Afferi L, Lonati C, Tremolada G, Viti A, Santangelo A, Pichler R, Necchi A, Montorsi F, Briganti A, Mari A, Krajewski W, Laukhtina E, Pradere B, Del Giudice F, Mertens L, Gallioli A, Soria F, Gontero P, Albisinni S, Shariat SF, Carando R, European Association of Urology Young Academic Urologists EAU Y, Urothelial Carcinoma Working GRP. Prognostic Implications of Patients With Clinically Node-Positive Bladder Cancer Undergoing Radical Cystectomy. *Clinical Genitourinary Cancer*. 2025; 23(4):102377. DOI:10.1016/j.clgc.2025.102377. PMID:40514269. IF:2,700 (Q2/3D).
 - Shore ND, Powles TB, Bedke J, Galsky MD, Redorta JP, Ku JH, Kretkowski M, Xylinas E, Alekseev B, Ye DW, Guerrero F, Briganti A, Kulkarni GS, Brinkmann J, Calella AM, Cesari R, Eccleston A, Michelon E, Vermette J, Wei CM, Steinberg GD. Sasanlimab plus BCG in BCG-naïve, high-risk non-muscle invasive bladder cancer: the randomised phase 3 CREST trial. *NATURE MEDICINE*. 2025; 31(8). DOI:10.1038/s41591-025-03738-z. PMID:40450141. IF:50,000 (Q1/1D).
 - Sighinolfi MC, Assumma S, Wiklund P, Gaston R, Minervini A, Mottried A, Mehrazin R, Canda AE, Panio E, Gavia F, Sarchi L, Calcagnile T, Turri F, Di F, Lambertini L, Jhon H, Coelho R, Hosseini A, Maes K, Kumar A, Rawal SK, Yuvaraja TB, Cacciamani GE, Celia A, Leonardo C, Greco F, Falabella R, Annino F, Galfano A, Porreca A, Crestani A, Umari P, Bertolo R, Antonelli A, Papalia R, Falagario U, Schiavina R, Sfakianos J, Tillub N, Wijburg C, Tondolo V, Alfieri S, Breda A, Gaia G, Terzoni S, Moschovas MC, Patel V, Rocco B. Strategies and Techniques for Ileourethral Approximation During Robotic Intracorporeal Neobladder Reconstruction: An International Survey and Video Collection, in Collaboration with the European Association of Urology Robotic Urology Section Scientific Working Group. *European Urology Open Science*. 2025; 76. DOI:10.1016/j.euro.2025.03.018. PMID:40476271. IF:4,500 (Q1/2D).
 - Skotta M, Kennedy U, Gnech M, van A, Bujons A, Hoenf L', Rawashdeh YF, Silayg MS, O'Kellyh F, Quaedackers J, Pakkasjarvij N, Yuan YH, Burgu B, Castagnetti M, Bogaertp G, Radmayrq C. European Association of Urology-European Society of Paediatric Urology Guidelines on Paediatric Urology: Summary of 2024 Updates. Part II. *EUROPEAN UROLOGY*. 2025; 88(2). DOI:10.1016/j.eururo.2025.02.022. PMID:40118740. IF:25,200 (Q1/1D).
 - Slusarczyk A, Scilipoti P, Contieri R, Longoni M, de Angelis M, Miszczyk M, Krajewski W, Laukhtina E, Del Giudice F, Gallioli A, Rajwa P, Pradere B, Shah PR, Boorjian SA, Moschini M, Radziszewski P. Comparative Assessment of Chemotherapy Followed by Consolidative Radical Cystectomy Versus Chemoradiation for Clinically Node-Positive Urothelial Carcinoma of the Bladder. *Clinical Genitourinary Cancer*. 2025; 23(5):102399. DOI:10.1016/j.clgc.2025.102399. PMID:40737768. IF:2,700 (Q2/3D).
 - Slusarczyk A, Scilipoti P, Marcq G, Pradere B, Contieri R, Krajewski W, Laukhtina E, Del Giudice F, Longoni M, Gallioli A, Abu Y, Khan MS, Soria F, Albisinni S, Rouprêt M, Radziszewski P, Montorsi F, Briganti A, Moschini M, European Assoc Urology E, Urothelial Carcinoma Working GRP. Comparison of extended and standard lymph node dissection in radical cystectomy for urothelial bladder cancer: a systematic review and meta-analysis. *WORLD JOURNAL OF UROLOGY*. 2025; 43(1):181. DOI:10.1007/s00345-025-05549-w. PMID:40111501. IF:2,900 (Q2/3D).
 - Sorce G, Paciotti M, Würnschimmel C, Wenzel M, Bravi CA, De Groote R, Dell'Oglio P, Di F, Tappero S, Moschovas MC, Piramide F, Turri F, Andras I, Joseph DDC, Eraky A, Liakos N, Gallagher A,

5.1.6 Associated Groups

- Veneziano D, Brouwers T, Liatzikos E, Russo GI, Breda A, Larcher A, European U. Assessment of face and content validity of performance metrics for basic robotic surgery skills PBP curriculum: a J-ERUS/YAU consensus on dry-lab training models. *Journal of Robotic Surgery*. 2025; 19(1):325. DOI:10.1007/s11701-025-02413-2. PMID:40560455. IF:3,000 (Q1/2D).
- Subiela JD, Guerrero F, Rodríguez O, Aumatell J, Gajate P, López F, Sevillano E, Hernández M, García E, Medina AA, Sáenz D, Gómez C, Romero J, Couñago F. New insights and emerging approaches in bladder-sparing treatment for muscle-invasive bladder cancer. *Actas Urológicas Españolas*. 2025; 49(7):501758. DOI:10.1016/j.acuro.2025.501758. PMID:40258413. IF:1,200 (Q3/7D).
 - T Hoen LA, Van A, Bussmann M, Bezuidenhout C, Ribal M, Canfield S, Yuan Y, Omar MI, Castagnetti M, Burgu B, O'Kelly F, Quaedackers J, Rawashdeh Y, Silay S, Bujons A, Bogaert G, Pakkasjarvi N, Skott M, Kennedy U, Gnech M, Radmayr C. Annual updates of the European Association of Urology - European Society for Pediatric Urology (EAU-ESPU) paediatric urology guidelines: Are large-language models (LLM) better than the usual structured methodology?. *Journal of Pediatric Urology*. 2025; 21(6). DOI:10.1016/j.jpuro.2025.05.030. PMID:40514273. IF:1,900 (Q2/5D).
 - Talyshinskii A, Khairley G, Tur AB, Gauhar V, Skolarikos A, Tursunkulov A, Ventimiglia E, Dragos L, De Coninck V, Somani BK. Role of pediatric ureteroscopy for large renal stones: a systematic review and meta-analysis from EAU endourology. *WORLD JOURNAL OF UROLOGY*. 2025; 43(1):663. DOI:10.1007/s00345-025-06053-x. PMID:41176750. IF:2,900 (Q2/3D).
 - Territo A, Afferi L, Musquera M, Sopena JMG, Pecoraro A, Campi R, Gallioli A, Etcheverry B, Prudhomme T, Vangeneugden J, Ortvad M, Roder A, Zeuschner P, Volpe A, Garcia R, Kocak B, Mirza I, Stockle M, Canda E, Fornara P, Rohrsted M, Doumerc N, Decaestecker K, Serni S, Vigues F, Alcaraz A, Breda A. Robot-assisted Kidney Transplantation: The 8-year European Experience. *EUROPEAN UROLOGY*. 2025; 87(4). DOI:10.1016/j.eururo.2024.12.005. PMID:39794184. IF:25,200 (Q1/1D).
 - Territo A, Belmonte M, Cocci A, Ruiz E, Castiglione F, Mantica G, Prudhomme T, Pecoraro A, Piana A, Marco BB, Dönmez MI, Esperto F, Russo GI, Campi R, Breda A, López A, Young Acad Urologists YAU Kidney Transplantation Working GRP. Is it safe to implant a penile prosthesis in a solid organ transplant recipient? A systematic review. *INTERNATIONAL JOURNAL OF IMPOTENCE RESEARCH*. 2025; 37(1). DOI:10.1038/s41443-024-00939-x. PMID:39026089. IF:2,500 (Q2/4D).
 - Territo A, Cannoletta D, Donnini I, Corsini C, Afferi L, Gallioli A, Casadevall M, Diana P, Mancon S, Di F, Vazzana A, Sopena JM, Palou J, Breda A. Exploring the role of thulium fibre laser in conservative treatment of UTUC: oncological and surgical outcomes. *Minerva Urology And Nephrology*. 2025; 77(5). DOI:10.23736/S2724-6051.25.06421-3. PMID:41128037. IF:4,200 (Q1/2D).
 - Tozsın A, Ahmed K, Soytürk S, Pradere B, Dasgupta P, Sönmez MG, Keller EX, Omar MI, Mallet R, Aydın A, Gadzhiev N, Çakır ÖO, Vasquez JL, Akgül B, Arslan E, Silay SM, Sanguedolce F, Roupret M, Musquera M, Ralph D, Colecchia M, Agro EF, Bettocchi C, Traxer O, Tunç L, Rassweiler J, Herrmann TRW, Knoll T, Güven S. Achieving sustainability in urology: a consensus study by the European association of urology (EAU) section office. *WORLD JOURNAL OF UROLOGY*. 2025; 43(1):697. DOI:10.1007/s00345-025-06084-4. PMID:41240108. IF:2,900 (Q2/3D).
 - Tresh AS, Del Giudice F, Li SF, Basran S, De Berardinis E, Carino D, Santarelli V, Rocco B, Shighinolfi MC, Mayr R, Ferro M, Autorino R, Bignante G, Crocetto F, Barone B, Pichler R, Subiela JD, Velasco JC, Moschini M, Mari A, Gallioli A, Soria F, Albisinni S, Krajewski W, Laszkiewicz J, Nowak L, Szydelko T, Challacombe B, Nair R, Chung BI. The impact of preoperative venous thromboembolism on patients undergoing TURBT: Perioperative outcomes and healthcare costs from US insurance claims data. *Bjui Compass*. 2025; 6(1). DOI:10.1002/bco2.481. PMID:39877570.
 - Vangeneugden J, Lavagno F, Berquin C, Desender L, Van S, Oderda M, Allasia M, Breda A, Van C, Decaestecker K, Gontero P. Robot-assisted Management of Complex Ureteral Stenosis in Kidney Transplant Patients: Multicenter Case Series and Description of Surgical

5.1.6 Associated Groups

- Techniques. *European Urology Open Science*. 2025; 77. DOI:10.1016/j.euros.2025.05.007. PMID:40524689. IF:4,500 (Q1/2D).
- Von M, Furrer M, Bianchi A, Pichler R, Maas M, Tully KH, Longoni M, Mertens LS, Taylor J, del Giudice F, Li R, Gallioli A, Albisinni S, Crocetto F, Velev M, Afferi L, Mari A, Laukhtina E, Klemm J, Singla N, Fisch M, Spiess PE, Lotan Y, Moschini M, Black PC, Antonelli A, Kiss B, Shariat SF, Pradere B, CLIPOLY study collaborators GRP. Impact of timing of computed tomography staging and patient factors on the detection of 'true' cN plus bladder cancer. *BJU INTERNATIONAL*. 2025; 136(5). DOI:10.1111/bju.16851. PMID:40631580. IF:4,400 (Q1/2D).
 - Wenzel M, Nathan A, Moschovas MC, Wagner C, Callaris G, Di F, Rivas JG, Bravi CA, De Groote R, Piramide F, Turri F, Kowalczyk K, Würnshimmel C, Sharma G, Andras I, Lambert E, Liakos N, Darlington D, Paciotti M, Sorce G, Mandel P, Galfano A, Nathan S, Marra G, Dell'Oglio P, Motttrie A, Chun FKH, Patel V, Breda A, Larcher A. Oncological Outcomes After Robotic Salvage Radical Prostatectomy in Patients Primarily Treated With Focal Versus Radiation Therapy: A Junior ERUS/YAU Collaborative Study. *PROSTATE*. 2025; 85(14). DOI:10.1002/pros.70020. PMID:40702693. IF:2,500 (Q2/4D).
 - Wuernschimmel C, Wenzel M, Moschovas MC, Dell'Oglio P, Paciotti M, Bravi CA, De Groote R, Di F, Piramide F, Turri F, Andras I, Sorce G, Liakos N, Breda A, Larcher A. Current training landscape for novice robotic surgeons: an international investigative survey by the Junior-ERUS/Young academic urologists (YAU) robotics in urology working group. *WORLD JOURNAL OF UROLOGY*. 2025; 43(1):467. DOI:10.1007/s00345-025-05845-5. PMID:40748464. IF:2,900 (Q2/3D).
 - Würnshimmel C, Paciotti M, Wenzel M, Bravi CA, De Groote R, Dell'Oglio P, Di F, Moschovas MC, Piramide F, Turri F, Andras I, Sorce G, Liakos N, Gallagher A, Veneziano D, Brouwers T, Liatsikos E, Breda A, Larcher A. Patient-side performance metrics in robotic surgery: international Delphi-based consensus from the Junior European Association of Urology Robotic Section/Young Academic Urologists. *BJU INTERNATIONAL*. 2025; 135(3). DOI:10.1111/bju.16638. PMID:39807761. IF:4,400 (Q1/2D).
 - Yan S, Longoni M, Basile G, D FC, Di N, Sánchez R, Gaya JM, Elst L, de Vries HM, Verdijk R, Ayres B, Watkin N, Glombik D, Breda A, Albersen M, Salonia A, Brouwer O, Bandini M, EAU GRP. Current practices and variability in dynamic sentinel node biopsy for penile cancer: A survey of European Referral Centres. *UROLOGIC ONCOLOGY-SEMINARS AND ORIGINAL INVESTIGATIONS*. 2025; 43(11). DOI:10.1016/j.urolonc.2025.06.022. PMID:40769833. IF:2,300 (Q2/5D).
 - Yanagisawa T, Mori K, Matsukawa A, Kawada T, Katayama S, Laukhtina E, Rajwa P, Quhal F, Pradere B, Fukukokaya W, Iwatani K, Afferi L, Marcq G, Mertens LS, Gallioli A, Tully KH, Caño J, Subiela JD, Abu Y, Grobet E, Del Giudice F, Pichler R, Teoh JYC, Moschini M, Krajewski W, Miki J, Shariat SF, Kimura T, European Assoc Urology Young Acad Urologists Urothelial Carcinoma W. Adjuvant Immune Checkpoint Inhibitors for Muscle-Invasive Urothelial Carcinoma: An Updated Systematic Review, Meta-analysis, and Network Meta-analysis. *Targeted Oncology*. 2025; 20(1). DOI:10.1007/s11523-024-01114-4. PMID:39535690. IF:4,000 (Q2/3D).
 - Zamboglou C, De Doncker W, Christoforou AT, Arcangeli S, Berlin A, Blanchard P, Bauman G, Campi R, Castro E, Choudhury A, Pra AD, Draulans C, Desai N, Ferentinos K, Francolini G, Gillissen S, Grosu AL, Rivas JG, Hoelscher T, Hruby G, Jereczek BA, Kamran S, Kasivisvanathan V, Kishan AU, Kounnis V, Loblaw A, Martín J, Mastroleo F, Merseburger AS, Miszczyk M, Mohamad O, Ost P, Papatsoris A, Peeken JC, Sanguedolce F, Sargos P, Schmidt N, Seibert TM, Shelan M, Siva S, Soeterik TFW, Spratt DE, Stenzl A, Strouthos I, Sutera P, Supiot S, Tilki D, Tran PT, Tree AC, Tward J, Urun Y, Vapiwala N, Waddle MR, Wegener E, Zilli T, Murthy V, Thieme AH, Spohn S. oDigital pathology biomarkers for guiding radiotherapy-based treatment concepts in prostate cancer - a systematic review and expert consensus. *RADIOTHERAPY AND ONCOLOGY*. 2025; 210:111039. DOI:10.1016/j.radonc.2025.111039. PMID:40645505. IF:5,300 (Q1/2D).
 - Zamora LG, Madarriaga YQ, Tur AB, Puy A, Duffo DS, González J. Urethral stricture in a 46,XX male with congenital adrenal hyperplasia (CAH) due to 21-hydroxylase deficiency: A literature review and case report. *Urology Case Reports*. 2025; 63:103182. DOI:10.1016/j.eucr.2025.103182. PMID:40989259.

5.1.6 Associated Groups

- Zamora V, Bosch G, Becerra V, Garin O, Ávila M, Gutiérrez C, Suárez JF, Goñi A, Macías V, Mariño A, Hervás A, Herruzo I, Cabrera P, de León JP, Sancho G, Pont A, Rubio M, Alonso J, Cots F, Guedea F, Castells M, Ferrer M, Multicentric Spanish Clinically Localized Prostate Cancer GRP. Economic Evaluation of Traditional Treatments for Localised Prostate Cancer: A 10-Year Cohort Study. *EUROPEAN JOURNAL OF CANCER CARE*. 2025; 2025(1):3563061. DOI:10.1155/ecc/3563061. IF:1,900 (Q2/4D).
- Zamora V, Garin O, Suárez JF, Guedea F, Pont A, Pardo Y, Goñi A, Mariño A, Hervás A, Herruzo I, Cabrera P, Sancho G, León JPD, Macías V, Gutiérrez C, Castells M, Ferrer M, Multictr Spanish Clin Localized Prostate Canc GRP. Twenty-year Patient-reported Outcomes After Surgery, Radiotherapy, or Brachytherapy for Localised Prostate Cancer. *European Urology Open Science*. 2025; 82. DOI:10.1016/j.euros.2025.10.007. PMID:41311640. IF:4,500 (Q1/2D).

SCIENTIFIC PRODUCTION – Clinical Practice Guidelines

- Albisinni S, Orecchia L, Mjaess G, Aoun F, Del Giudice F, Antonelli L, Moschini M, Soria F, Mertens LS, Gallioli A, Marcq G, Pradere B, Bochner B, Breda A, Briganti A, Catto J, Decaestecker K, Gontero P, Kamat A, Lambert E, Minervini A, Mottrie A, Roupert M, Shariat S, Wijburg C, Rieken M, Wiklund P, Mari A; EAU-YAU Urothelial Carcinoma working group and ERUS society. Enhanced Recovery After Surgery for patients undergoing radical cystectomy: Surgeons' perspectives and recommendations ten years after its implementation. *Eur J Surg Oncol*. 2025 Mar;51(3):109543. doi: 10.1016/j.ejso.2024.109543. Epub 2024 Dec 19. PMID: 39799856.
- Faba OR, Boissier R, Budde K, Figueiredo A, Hevia V, García EL, Regele H, Zakri RH, Olsburgh J, Bezuidenhout C, Breda A. European Association of Urology Guidelines on Renal Transplantation: Update 2024. *Eur Urol Focus*. 2025 Mar;11(2):365-373. doi: 10.1016/j.euf.2024.10.010. Epub 2024 Nov 2. PMID: 39489684.
- Gnech M, 't Hoen L, Radmayr C, Burgu B, Bogaert G, O'Kelly F, Castagnetti M, Quaedackers J, SilayMS, Kennedy U, van Uitert A, Skott M, Pakkasjärvi N, Bujons A, Yuan Y, Rawashdeh YF. Congenital Lower Urinary Tract Obstruction: Update and Summary of the European Association of Urology and European Society for Paediatric Urology Guidelines. *Eur Urol Focus*. 2025 May;11(3):519-527. doi: 10.1016/j.euf.2025.01.012. Epub 2025 Feb 4. PMID: 39909817.
- Gnech M, 't Hoen L, Skott M, Bogaert G, Castagnetti M, O'Kelly F, Quaedackers J, Rawashdeh YF, Kennedy U, van Uitert A, Yuan Y, Capecci M, Artoni A, Karaöz-Bulut G, Pakkasjärvi N, Burgu B, Bujons A, Silay MS, Radmayr C. Managing Preoperative Anxiety and Thromboprophylaxis in Children Undergoing Urological Procedures: An Update of the European Association of Urology/European Society for Paediatric Urology Guidelines on Paediatric Urology. *Eur Urol OpenSci*. 2025 Apr 15;75:133-140. doi: 10.1016/j.euros.2025.02.006. PMID: 40291787; PMCID: PMC12032177.
- Li R, Hensley PJ, Babjuk M, Bukavina L, Psutka SP, Lerner SP, O'Donnell MA, Lotan Y, Bree KK, Redorta JP, McConkey DJ, Lee BH, Mariappan P, Mertens LS, Soloway MS, Svatek RS, Tan WS, Williams SB, Gupta S, Buckley R, Kamat AM. Intermediate-risk Non-muscle-invasive Bladder Cancer: Recommendations for Definitions, Risk Stratification, Management Strategies, and Clinical Trial Design from the International Bladder Cancer Group. *Eur Urol Oncol*. 2025 Dec;8(6):1685-1695. doi: 10.1016/j.euo.2025.08.003. Epub 2025 Oct 10. PMID: 41076366.
- Skott M, Kennedy U, Gnech M, van Uitert A, Bujons A, Hoen L, Rawashdeh YF, Silay MS, O'Kelly F, Quaedackers J, Pakkasjärvi N, Yuan Y, Burgu B, Castagnetti M, Bogaert G, Radmayr C. European Association of Urology-European Society of Paediatric Urology Guidelines on Paediatric Urology: Summary of 2024 Updates. Part II. *Eur Urol*. 2025 Aug;88(2):190-203. doi:10.1016/j.eururo.2025.02.022. Epub 2025 Mar 20. PMID: 40118740.

5.1.6 Associated Groups

- Somani BK, Rassweiler J, Liatsikos E, Mottrie A, Knoll T, Bedke J, Bianchi G, Sarica K, Briganti A, Brouwers T, Breda A. European Association of Urology Policy on Telesurgery. Eur Urol. 2025 Oct;88(4):318-324. doi: 10.1016/j.eururo.2025.06.018. Epub 2025 Jul 19. PMID: 40685283.
- T Hoen LA, van Uitert A, Bussmann M, Bezuidenhout C, Ribal M, Canfield S, Yuan Y, Omar MI, Castagnetti M, Burgu B, O'Kelly F, Quaedackers J, Rawashdeh Y, Silay S, Bujons A, Bogaert G, Pakkasjarvi N, Skott M, Kennedy U, Gnech M, Radmayr C. Annual updates of the European Association of Urology - European Society for Pediatric Urology (EAU-ESPU) paediatric urology guidelines: Are large-language models (LLM) better than the usual structured methodology? JPediatr Urol. 2025 Dec;21(6):1643-1649. doi: 10.1016/j.jpuro.2025.05.030. Epub 2025 Jun 2. PMID: 40514273.

5.1.6 Associated Groups

Reproductive Health (until July 2025)

Group leader

Calaf Alsina, Joaquim (UAB)

Researchers

Estadella Tarriel, Josep Ramon (FGS)

Guinot Gasull, Misericordia (FGS)

Mayordomo Bofill, Isabet (FGS)

Miarons Ferre, Bruna (FGS)

Perello Capo, Josep (FGS)



DESCRIPTION

Gender health is determined by hormonal regulation of the reproductive system, affecting any organ with hormonal receptors.

Thus, its disturbances, either by excess, defect or dysregulation, also have systemic effects. The group aims to identify the consequences of these abnormalities and the best treatment alternatives.

Moreover, menstruating persons periodically face a bleeding event that is not always healthy and friendly. Consequently, measures to modify its profile to reduce its impact on quality of life are welcome.

Our purpose is also to develop tools to identify abnormal patterns and to offer alternatives to surgery to minimise its impact on health.

MAIN LINES OF RESEARCH

- Identification of menstrual abnormalities in the population.
- Effects of environment on menstrual characteristics.
- The medical approach to organic causes of heavy menstrual bleeding
- Menstrual pattern with the different contraceptive alternatives
- Premature ovarian insufficiency: its effects and prevention
- Validate and disseminate a simple, sensitive and reproducible test to identify heavy menstrual bleeding and its response to treatment.
- Test efficient evidence-based approaches to minimise the effect of adnexectomy in BRCA mutation carriers.
- Identify the best contraceptive alternatives for sufferers of chronic menstrual disturbances.

5.1.6 Associated Groups

SCIENTIFIC PRODUCTION – Articles & Reviews

- Arbat A, Canals I, Coimbra J, Molina P, Llorens M, Torres R, Perello J, Moral M, Antonijuan RM, Calaf J. Safety, Tolerability and Pharmacokinetics of Sodium Tungstate (OXO-001) in Healthy Female Volunteers of Childbearing Age: A Randomised, Double-Blind, Dose-Finding, and Placebo-Controlled Phase I Study. *International Journal of Fertility & Sterility*. 2025; 19(2). DOI:10.22074/ijfs.2024.2013704.1554. PMID:40200776. IF:0,471 (Q4/10D).
- Perelló J, Estadella J, Gich I, Llorba E, Calaf J. Usefulness of the Heavy Menstrual Bleeding Diagnostic Tools SAMANTA Questionnaire and Heavy Menstrual Bleeding-Visual Analogue Scale Tool for Iron Deficiency Screening: An Exploratory Analysis from the COLIBRI Study. *WOMEN'S HEALTH REPORTS*. 2025; 6(1). DOI:10.1177/26884844251382731. PMID:41142484. IF:1,800 (Q3/D6).
- Perelló J, López G, Lahoz MI, López AI, Marcos M, Andeyro M, Cristóbal I, Rius J. Understanding Discontinuation Rates and Acceptance of the Low-Dose Levonorgestrel Intrauterine System in Spain: A Comprehensive Analysis of Bleeding Patterns and Influencing Factors. *WOMEN'S HEALTH REPORTS*. 2025; 6(1). DOI:10.1089/whr.2024.0113. PMID:40130030. IF:1,800 (Q3/D6).
- Perelló J, Molina AB, Santos JT, Arqueros MLM, de la Viuda E, García BO, Jaraíz DP, Otero L. Anamnesis Checklist for Informed Oral Contraceptive Choices: A Spanish Perspective. *WOMEN'S HEALTH REPORTS*. 2025; 6(1). DOI:10.1089/whr.2024.0073. PMID:39882137. IF:1,800 (Q3/D6).
- Tarriel JE, Capó JP, González MS, Queiruga MB, Gatus JR, Gomis M, Marre D, Olivé EL. Effectiveness of Virtual Reality in Reducing Pain and Stress During Office Hysteroscopy: A Randomised Controlled Trial. *Healthcare*. 2025; 13(2):131. DOI:10.3390/healthcare13020131. PMID:39857158. IF:2,700 (Q2/3D).
- Vela D, Bernardez F, Braxs C, Calaf J, Calle E, Carpintero P, Castañeda J, Carmona F. Ferritin before haemoglobin: The impact of abnormal uterine bleeding on quality of life. *Clínica E Investigación En Ginecología Y Obstetricia*. 2025; 52(2):101015. DOI:10.1016/j.gine.2024.101015. IF: 0,100 (Q4/10D).

5.1.6 Associated Groups

Radiation Oncology

Group leader

Sancho Pardo, Gemma (FGS)

Researchers

Balart Serra, Josep (FGS)

Farré Bernado, Núria (FGS)

Isern Verdúm, Josep (FGS)

Julia Sanahuja, Joan Carles (FGS)

Majercakova, Katarina (FGS)

Mera Errasti, María Arantzazu (FGS)

Montezuma Niño, Laura Constanza (FGS)

Rojas Cordero, Jady Vivian (FGS)

Soto Cambres, Ana María (FGS)

Vila Capel, Antoni (FGS)

Research technicians

Cifuentes Antolinez, Patricia (IR)

Pelaez Bonilla, Saudy Patricia (IR)



DESCRIPTION

Our clinical research focuses on optimising radiotherapy through improved fractionation schedules, advanced respiratory motion management, molecular imaging-based planning, and combinations with novel systemic therapies for primary and oligometastatic disease. We collaborate internationally to identify predictors of response and toxicity, including those related to immunotherapy. Within the ERA-PerMed program, we develop Digital Human Avatars integrating clinical, genomic, and imaging data for lung cancer prediction. Our work also includes radiotherapy clinical audit methodologies, a project on TBI-VMAT models in rats, and gold nanoparticle-cisplatin nanosystems as radiosensitizers in head and neck tumour models.

MAIN LINES OF RESEARCH

- European project for the development of a predictive model for lung cancer patients, using omics-based variables that integrate established clinical factors with others derived from big data analysis and advanced imaging features, to create digital human avatars. (Farré Bernado, Núria).
- Clinical Audits in Radiotherapy: Training for Auditors and Auditees. (Sancho Pardo, Gemma).
- Gold nanoparticles to enhance the synergy of radiotherapy and chemotherapy. (Balart Serra, Josep).
- SBRT (stereotactic body RT) in primary tumours (lung, pancreas, prostate) and ablative treatment of metastases in oligometastatic patients, with planning based on metabolic imaging, applying techniques for respiratory motion control such as image-guided RT (IGRT) or surface-guided RT (SGRT). (Sancho Pardo, Gemma; Farré Bernado, Núria; Balart Serra, Josep; Isern Verdúm, Josep).
- VMAT-TBI as part of conditioning in haematopoietic progenitor transplantation. (Sancho Pardo, Gemma; Vila Capel, Antoni).

5.1.6 Associated Groups

- Predictive factors of response to radiotherapy in head and neck tumours. (Montezuma Niño, Laura Constanza).
- Irradiation of large-volume sarcomas with the Lattice technique. (Majercakova, Katarina; Isern Verdúm, Josep).
- SBRT (stereotactic body RT) in primary tumours (lung, pancreas, prostate) and ablative treatment of metastases in oligometastatic patients, with planning based on metabolic imaging, applying techniques for respiratory motion control such as image-guided RT (IGRT) or surface-guided RT (SGRT). (Sancho Pardo, Gemma; Farré Bernado, Núria; Balart Serra, Josep; Isern Verdúm, Josep).
- Surface-guided radiotherapy with respiratory motion control techniques in SBRT. (Balart Serra, Josep; Farré Bernado, Núria).
- Development and training of an auto-segmentation system for the definition of organs at risk and irradiation volumes. (Julia Sanahuja, Joan Carles).
- Impact on clinical outcomes of peer-review sessions incorporated into clinical practice. (Rojas Cordero, Jady Vivian; Sancho Pardo, Gemma).
- Adaptation of radiotherapy schedules in oncogeriatric oncology. (Soto Cambres, Ana María; Mera Errasti, María Arantzazu; Sancho Pardo, Gemma).
- Total Body Irradiation and SBRT in rats using modern Medical devices. (Balart Serra, Josep; Sancho Pardo, Gemma).

SCIENTIFIC CHALLENGES

- Clinical impact of ablative radiotherapy of oligometastases.
- Use of AI to identify predictors of response and toxicity to radiotherapy in lung and prostate cancer.
- Incorporate Deep-learning autosegmentation in clinical practice.
- Changes in radiotherapy dose and fractionation in elderly patients
- Expansion of the use of the SGRT with respiratory motion control techniques in SBRT and for the intrafraction movement control during VMAT-TBI.
- Use of clinical devices to perform experimental irradiation in rats.
- Use of nanoparticles to enhance the efficacy of radiation therapy.

ACTIVE & AWARDED GRANTS

- Balart Serra, Josep. Nanopartículas de oro 2 en 1 para un aumento sinérgico de la radioterapia y la quimioterapia. PRYES246954FRAN. Asociación Española Contra el Cáncer. Duration: 2024-2027. 45.500,00 €
- Farré Bernado, Núria. Cancer multi-omics avatars for integrated precision medicine. SLD099/22/000003. EraPerMed Farre. Unión Europea (GenCat FUNDING - Acciones complementarias). Duration: 2023-2026. 198.202,00 €.

SCIENTIFIC PRODUCTION – Article & Reviews

- Fumagalli C, Orellana R, Bagué S, Ferré M, González A, Catasus L, Llauger J, Peiró A, Alarcón PZ, Majercakova K, Terés R, Karanian M, Tirode F, Antonescu CR. YAP1::KMT2A-Rearranged Sarcoma: Report of a New Case With Unusual Morphology and Immunohistochemical Features. GENES CHROMOSOMES & CANCER. 2025; 64(7):e70059. DOI:10.1002/gcc. 70059. PMID:40879254. IF:2,800 (Q2/5D).
- Gomis E, Maldonado A, Gaztañaga M, Vera V, Ajulia O, Sancho G, Siva S, López F, Couñago F. Impact of PSMA-PET/CT on Radiotherapy Decisions: Is There a Clinical Benefit?. Cancers. 2025; 17(8):1350. DOI:10.3390/cancers17081350. PMID:40282526. IF:4,400 (Q2/3D).
- Lozano A, Jordi O, Marruecos J, Farré N, Planas I, Toledo MD, Mesia R, Navarro A. Impact of clinical and dosimetric factors on severe oral mucositis

5.1.6 Associated Groups

- in head and neck cancer: insights from a phase II clinical trial. *Frontiers in Oncology*. 2025; 15:1679589. DOI:10.3389/fonc.2025.1679589. PMID:41333216. IF:3,300 (Q2/4D).
- Majercakova K, Aguilar NT, Verdúm JI, Bargallo HV, Capel AV, Soto MM, Melcon GGD, Cordero JVR, González JA, Rosell SB, Jover DH, Mitre SR, Ibanez AP, Sebio A, Sancho G. Role of Spatially Fractionated Radiotherapy (LATTICE) Treatment in Inoperable Bulky Soft-Tissue Sarcomas. *Cancers*. 2025; 17(4):624. DOI:10.3390/cancers17040624. PMID:40002219. IF:4,400 (Q2/3D).
 - Maldonado X, Boladeras A, Gaya JM, Muñoz J, Planas J, Sancho G, Suárez JF. Controversies in the use of next-generation imaging for evaluation and treatment decision-making in patients with prostate cancer after biochemical recurrence: views from a Spanish expert panel. *Clinical & Translational Oncology*. 2025; 27(7). DOI:10.1007/s12094-024-03833-6. PMID:39747804. IF:2,500 (Q3/6D).
 - Mediavilla BG, Congregado B, Espinos EL, Belenchon IR, Basterretxea L, Sancho G, Lainez N, Buchser D, Leturgez T, Schmitz AA, Pozueta J, Gurruchaga I, Lavin DC, Esteban B, Hernández A, Lashey M, Sanguedolce F, Duran I. Feasibility of Wave Health to monitor electronic patient-reported outcomes (ePROs) in prostate cancer patients. *Esmo Real World Data And Digital Oncology*. 2025; 10:100177. DOI:10.1016/j.esmorw.2025.100177.
 - Najjari D, Roviroso A, Gimeno M, Majercakova K, Sánchez M, García S, Guevara D, Muñoz T, de la Fuente C, Micó S, Stefanovic M, Matute R, Córdoba S. Reirradiation Practice in Gynaecological Cancer: Insights from a National Survey in Spain. *Clinical & Translational Oncology*. 2025; 27(6). DOI:10.1007/s12094-024-03804-x. PMID:39636497. IF:2,500 (Q3/6D).
 - Otero E, Raspall MJF, Franco PG, Martínez JF, Saladich IG, Sala NJ, Gisbert ML, Cordero JR, Verdúm JI, Sancho G. Mapping clinical and imaging factors that might predict cardiac events in breast cancer patients. *Frontiers in Oncology*. 2025; 15:1552908. DOI:10.3389/fonc.2025.1552908. PMID:40134591. IF:3,300 (Q2/4D).
 - Pérez H, Lozano A, de Blas R, Hernández J, Mera A, Guedea F, Navarro A. Patterns of failure after stereotactic body radiotherapy to non-spine bone metastases. *Clinical & Translational Oncology*. 2025; 27(8). DOI:10.1007/s12094-025-03878-1. PMID:40009131. IF:2,500 (Q3/6D).
 - Segundo CGS, López F, Iturriaga AG, Santos M, Ocanto A, Montezuma L, Boladeras AM, Glaria L, Guardado S, Rodríguez A, Henríquez I, Olivera J, Duque V, Garre J, Moreno S, Valero J, Conde AJ, Doval A, Sancho G, Nieto PM, Cantos AC, García N, Alonso SF, García RG, Gavela AD, Buchser D, Maldonado X, Mases J, Requejo OH, Sanmamed N, Salamanca J, Couñago F. Duration of androgen deprivation therapy with salvage radiotherapy in patients with prostate cancer and biochemical recurrence after surgery: Initial recruitment data in the phase III URONCOR 06-24 trial. *Actas Urológicas Españolas*. 2025; 49(7):501823. DOI:10.1016/j.acuro.2025.501823. IF:1,200 (Q3/7D).
 - Sicre JE, Ivars M, Heinz OH, Ludwig PW, Verdún JI, Torres EB. Use of Postoperative Radiotherapy and Multiple Adjuvant Treatments After Surgical Removal of a Giant Retroauricular Keloid in a Pediatric Patient. *PEDIATRIC DERMATOLOGY*. 2025; 42(3). DOI:10.1111/pde.15787. PMID:39491479. IF:1,200 (Q3/7D).
 - Sosa P, Martín M, Luna J, López JL, Gomis E, López M, Valtueña G, Santos M, Alvarez AM, Potdevin G, Martín P, Kannemann A, Farré N, González E, Manso A, Rodríguez M, González MA, Wals A, Linares NA, Garduño S, Barrionuevo P, Moreno B, Martos M, Simon P, Peña MT, Blanco ML, Vera V, Ocanto A, Mateos M, Vallejo C, Hernanz R, Castro JE, Peña M, Duque V, Zapatero J, García C, Valencia P, Diezhandino P, Eito C, Olarte A, Guerrero LL, Sánchez S, Bobo A, Sotoca A, Vázquez B, Cameselle G, Flamarique S, Rico M, Guijarro M, Montijano M, Guzmán L, Bezares AB, Cigarral C, Moreno P, Serrano J, Murcia M, Pagola M, Casas F, Almendros P, Pedraza S, González JA, Alcántara P, Couñago F. Stage III NSCLC Treatment Patterns in Spain: A Population-Based Study of the GOECP-SEOR. *Cancers*. 2025; 17(23):3807. DOI:10.3390/cancers17233807. PMID:41375008. IF:4,400 (Q2/3D).
 - Soto AM, Farré N. Is SBRT the optimal first-line treatment for operable early-stage NSCLC in elderly patients?. *Clinical & Translational Oncology*. 2025; 27(9). DOI:10.1007/s12094-025-03914-0. PMID:40221951. IF:2,500 (Q3/6D).

5.1.6 Associated Groups

- Zamora V, Bosch G, Becerra V, Garin O, Ávila M, Gutiérrez C, Suárez JF, Goñi A, Macías V, Mariño A, Hervás A, Herruzo I, Cabrera P, de León JP, Sancho G, Pont A, Rubio M, Alonso J, Cots F, Guedea F, Castells M, Ferrer M, Multicentric Spanish Clinically Localized Prostate Cancer GRP. Economic Evaluation of Traditional Treatments for Localised Prostate Cancer: A 10-Year Cohort Study. EUROPEAN JOURNAL OF CANCER CARE. 2025; 2025(1):3563061. DOI:10.1155/ecc/3563061. IF:1,900 (Q2/4D).
- Zamora V, Garin O, Suárez JF, Guedea F, Pont A, Pardo Y, Goñi A, Mariño A, Hervás A, Herruzo I, Cabrera P, Sancho G, León JPD, Macías V, Gutiérrez C, Castells M, Ferrer M, Multictr Spanish Clin Localized Prostate Canc GRP. Twenty-year Patient-reported Outcomes After Surgery, Radiotherapy, or Brachytherapy for Localised Prostate Cancer. European Urology Open Science. 2025; 82. DOI:10.1016/j.euros.2025.10.007. PMID:41311640. IF:4,500 (Q1/2D).

5.1.6 Associated Groups

Locomotor System

Group leader

Lamas Gomez, Claudia Maríana (FGS)

Researchers

Aguilera Roig, Xavier (FGS)
 Almenara Fernández, Marta (FGS)
 Bascuñana Ambros, Helena (FGS)
 Carrera Fernández, Ion (FGS)
 Crusi Sererols, Xavier (FGS)
 Cuartero Archs, Jordi (FGS)
 De Caso Rodríguez, Julio (FGS)
 Fa Binefa, Manuel (FGS)
 Gelber Ghertner, Pablo Eduard (FGS)
 González Osuna, Aranzazu (FGS)
 González Rodríguez, Jose Carlos (FGS)
 Gracia Alegria, Isidre (FGS)
 López Capdevila, Laia (FGS)
 Millan Billi, Angelica (FGS)
 Moya Gomez, Esther (FGS)
 Nadal Castells, María Josefa (FGS)
 Peiró Ibáñez, Ana (FGS)
 Pérez Romera, Ana Belen (FGS)
 Ramírez Bermejo, Eduard (FGS)
 Sarasquete Reiriz, Juan (FGS)
 Toro Aguilera, Álvaro (FGS)
 Trullols Tarrago, Laura (FGS)
 Valera Pertegas, Marius (FGS)
 Velázquez Fragoso, Juan José (FGS)
 Wahab Zuriaraim, Sara (FGS)



DESCRIPTION

The group's main lines of research focus on the pathophysiology, anatomy, and aetiology of the different pathologies associated with skeletal diseases. It focuses on the evaluation and analysis of risk factors for cartilage loss, joint instability, and early osteoarthritis. It also presents lines of research on drugs that reduce post-surgical bleeding in prosthetic surgery, and on prognostic factors and the evolution of sarcomas.

MAIN LINES OF RESEARCH

- Hand Surgery and Upper Limb. Anatomy and immunohistochemical study of the thumb carpometacarpal joint. Role of nerve endings, Golgi corpuscles and biomarkers in the proprioception, joint stability and development of early osteoarthritis. Analysis of biomarkers in inflammatory musculoskeletal diseases of the wrist and hand. Kienböck's disease. Malunion of the distal radius. Factors associated with the development of lunate necrosis, scaphoid non-union and ulnar diaphyseal nonunion. Reliable and precise techniques assisted by guides and 3D models for surgical planning. Risk factors of heterotopic ossification in the elbow after radial head prosthesis. (Lamas Gómez, Claudia)
- Oncological orthopaedics. The adverse effects of metal ion release on oncological patients after megaprosthesis salvage surgery. Chondrosarcomas. Chondroblastomas in children and young adults: Review of 55 cases. Joint work with the SJD Barcelona Children's Hospital. How to create a Custom Mega Hip Cement Spacer for a 2-Stage Mega Hip Prosthesis Revision Surgery After Oncological Limb Salvage Surgery. Primary iliac sarcoma in elderly patients vs anaplastic T lymphoma with bone involvement. Validation of International functional scales in Spanish (MSTS-EMSOS scale study). Pathologic fractures in osteosarcoma. Treatment of aneurysmal bone cyst by percutaneous injection of demineralised bone matrix and pelvic medullary blood growth factors. Study of clear cell sarcomas in conjunction with pathological anatomy. Identifying Skills That Define Physical Function for Lower-Extremity Amputations. (Gracia Alegria, Isidre).

5.1.6 Associated Groups

- Hip. Coxarthrosis in young adults: etiological study and biomechanical factors. Influence of hip anatomy in early development of coxarthrosis. (Valera Pertegas, Marius; Moya Gómez, Esther).
- Knee, ankle and foot. Effect of high-pressure washing versus manual washing on cement penetration in total knee prosthesis - randomised clinical trial. Regeneration of cartilage defects using tissue engineering and a matrix seeded with characterised allogeneic chondrocytes. Fresh osteochondral allograft transplantation. CT, MRI and clinical outcome. Prospective randomised clinical trial for the surgical treatment of Achilles tendon ruptures: repair with mini-invasive technique versus open tenorrhaphy. Morton's neuroma. Floating toe. (Ramírez Bermejo, Eduard; Fa-Binefa, Manel; López Capdevila, Laia).
- Reduction of risk of bleeding and complications after orthopaedic prosthetic surgery. Blood loss control using tranexamic acid in primary prosthetic surgery and knee revision surgery. Use of tranexamic acid in non-cardiac surgery and risk of major bleeding. (González Osuna, Aranzazu; González Rodríguez, José Carlos)
- Trauma. Periprosthetic fractures of the femur and tibia. Tibial plateau fracture. Polytrauma. Biomechanical factors. (Carrera Fernández, Ion; De Caso Rodríguez, Julio).
- Pediatric Orthopaedics. Skeletal dysplasias. Lower limb malformations. Percutaneous bone surgery and knee instability (Knorr Giménez, Gorka).
- Spinal Surgery. Cervical and thoracolumbar spine tumours. Traumatic and degenerative spinal pathology. Spinal deformities-thoracolumbar scoliosis and kyphosis (Gracia Alegria, Isidre; Pérez Romera Bélen; Velázquez Frago Juan Jose; Narvaez Saldivia Jesús David).

SCIENTIFIC CHALLENGES

- Maintain present scientific networks and establish new multidisciplinary and interuniversity collaborations.
- Determine the epidemiological and risk factors associated with bone necrosis, bone nonunion and tumours in the musculoskeletal system.
- Determine the anatomical structures and the role that they play in the development of joint instability and early osteoarthritis.
- Analyse biomarkers in inflammatory musculoskeletal diseases with prognostic value.

SCIENTIFIC PRODUCTION – Articles & Reviews

- Calva CD, Angulo M, González P, Peiró A, Machado P, Cebrián JL, García R, Valcárcel A, Puertas P, Valero G, Pablos O, Maireles M, Fontalva ML, Chaves I, Orce A, Coll L, Pérez I, González F, Sanz MD, Gracia I, DENO GRP. A Multicenter Study by the DENO Research Group on the Use of Denosumab in Giant-Cell Tumours of the Bone. *Journal of Clinical Medicine*. 2025; 14(9):3242. DOI:10.3390/jcm14093242. PMID:40364272. IF:2,900 (Q1/2D).
- de la Calva C, DENO GRP, Angulo M, González P, Peiró A, Machado P, Cebrián JL, García R, Valcárcel A, Puertas P, Valero G, Pablos O, Maireles M, Fontalva ML, Chaves I, Orce A, Coll L, Pérez I, González F, Sanz MD, Gracia I. Do Unresectable Giant Cell Tumors of Bone Treated With Denosumab Progress After Discontinuation of Treatment?. *Cancer Reports*. 2025; 8(1):e70117. DOI:10.1002/cnr2.70117. PMID:39797695.
- Fa M, Clara A, Lamas C, Elosua R. Mediterranean Diet and Risk of Hip Fracture: A Systematic Review and Dose-Response Meta-Analysis. *NUTRITION REVIEWS*. 2025; 83(6). DOI:10.1093/nutrit/nuae141. PMID:39441714. IF:4,900 (Q1/2D).
- Fa M, Grau A, Moya E, Gich I, Valera M. Reproducibility of the Barrack and Gruen Grading Systems in Assessing Cement Mantle Quality in Hip Arthroplasty. *Indian Journal of Orthopaedics*. 2025; 59(8). DOI:10.1007/s43465-025-01394-6. PMID:40852559. IF:1,100 (Q3/7D).
- Fa M, Serra J, Moya E, Crusi X, Gich I, Valera M. Hydroxyapatite-coated total primary hip replacement: 28-year follow-up survivorship. *Hip International*. 2025; 35(2). DOI:10.1177/11207000241306004. PMID:39757970. IF:1,100 (Q3/7D).

5.1.6 Associated Groups

- Fernández CM, Sebio A, Rincón JO, Broto JM, Benlloch AM, Plaza DM, Pousa AL, Alegría IG, Giuppi M, Ballesteros EC, Bernabéu D, de Alava E, Morales CV. Clinical practice guidelines for the treatment of Ewing sarcoma (Spanish Sarcoma Research Group-GEIS). *Clinical & Translational Oncology*. 2025; 27(3). DOI:10.1007/s12094-024-03602-5. PMID:39158802. IF:2,500 (Q3/6D).
- Fumagalli C, Orellana R, Bagué S, Ferré M, González A, Catusus L, Llauger J, Peiró A, Alarcón PZ, Majercakova K, Terés R, Karanian M, Tirode F, Antonescu CR. YAP1::KMT2A-Rearranged Sarcoma: Report of a New Case With Unusual Morphology and Immunohistochemical Features. *GENES CHROMOSOMES & CANCER*. 2025; 64(7):e70059. DOI:10.1002/gcc. 70059. PMID:40879254. IF:2,800 (Q2/5D).
- Gelber PE, Ramírez E, Castellà A, González A, Fariñas O. No significant differences in postoperative clinical outcomes evolution after fresh osteochondral allograft transplantation of the knee between patients with pathological and non-pathological scores regarding anxiety, depression, kinesiophobia and catastrophizing factors. *Journal Of Experimental Orthopaedics*. 2025; 12(1):e70210. DOI:10.1002/jeo2.70210. PMID:40059956.
- Inga JP, Sánchez AF, Fragoso JJV, Fa M, Molinas IM. Platelet-rich plasma injections improve functional outcomes compared with pulsed radiofrequency in ganglion impar treatments for coccydynia. *Revista Española De Anestesiología Y Reanimación*. 2025; 72(10):501929. DOI:10.1016/j.redar.2025.501929.
- León M, Martínez EC, Pérez YA, Pou MA, García AL, Bas AS, Rodríguez S, Espinoza C, Roca P, Osuna AG, Valverde DF, Nanco BM, Medina M, Perestelo L, Alonso P. Family physicians' attitudes and practice on screening and prevention of fragility fractures, and shared decision-making with postmenopausal women: a qualitative study in Spain. *BMC Primary Care*. 2025; 26(1):260. DOI:10.1186/s12875-025-02966-z. PMID:40835900. IF:2,600 (Q1/1D).
- Majercakova K, Aguilar NT, Verdúm JI, Bargallo HV, Capel AV, Soto MM, Melcon GGD, Cordero JVR, González JA, Rosell SB, Jover DH, Mitre SR, Ibanez AP, Sebio A, Sancho G. Role of Spatially Fractionated Radiotherapy (LATTICE) Treatment in Inoperable Bulky Soft-Tissue Sarcomas. *Cancers*. 2025; 17(4):624. DOI:10.3390/cancers17040624. PMID:40002219. IF:4,400 (Q2/3D).
- Martel L, Bascuñana H, Corredor VP, González O, Ribé JV, Pons TC, Webb SM, Valassi E. Benefits of a 12-week individually tailored physical activity program in patients with Cushing's disease in remission and controlled acromegaly. *ENDOCRINE*. 2025; 90(1). DOI:10.1007/s12020-025-04331-7. PMID:40637819. IF:2,900 (Q3/6D).
- Martel L, Bascuñana H, Cuartero J, Webb SM, Valassi E. Muscle dysfunction is associated with poor quality of life in long-term controlled patients with acromegaly. *Pituitary*. 2025; 28(3):68. DOI:10.1007/s11102-025-01539-8. PMID:40442526. IF:3,400 (Q2/4D).
- Muñoz IP, Lizán FG, Pascual MDS, Granados PM, Peiró A, Sánchez MA, Ceinos CD, Rojo PG, Mentxaka LA, Arteagoitia I, González NH, Pérez JM, Zarzuela VM, García PP, Cifuentes GV, Díaz AV, Montijano AG, Serrano FF, Acha JG, Esnaloa P, Dorta IC, Mesa LC, Figueroa CB, Garma AA, Orce A, Parra JLC, Maroto RG, González OP, Pérez MM, Guerrero MLF, Zarzalejo CG, de León L, Alegria IG. Spanish Multicenter Megaprosthesis Study (MEGAPROT) on 816 Tumour Prostheses: Main Results. *Prosthesis*. 2025; 7(1):2. DOI:10.3390/prosthesis7010002.
- Perrot JC, Segura M, Flotats G, Closa C, Gich I, Garcia C, Alba A, Nadal MJ, Pintor A, Terra J, Ramirez E, Beranuy M, Bascunana H, Plaza V, Gueell MR. Long COVID-19: Impact of a personalised rehabilitation program. *Rehabilitacion*. 2025; 59(2):100903. DOI:10.1016/j.rh.2025.100903. PMID:40156968.
- Ramírez E, Fa M, Pilco J, Jordán M, Aguilera X, González JC. Effect of high-pressure pulsatile lavage versus manual rinsing on bone cement penetration in total knee arthroplasty: a randomised clinical trial. *Knee Surgery & Related Research*. 2025; 37(1):47. DOI:10.1186/s43019-025-00298-x. PMID:41188974.
- Vaz MA, Valverde C, Álvarez R, Asencio JM, Collado E, de Alava E, Beveridge RD, Gómez MC, Alegria IG, Marquina G, Broto JM, Martínez J, Narváez JA, Redondo A, Sebio A, Verges R, Viñals JM, del Muro XG. Diagnosis and Therapy of Soft Tissue Sarcomas: Spanish Group for Research in Sarcomas (GEIS) Guidelines. *Cancers*. 2025; 17(19):3158. DOI:10.3390/cancers17193158. PMID:41097686. IF:4,400 (Q2/3D).

5.1.6 Associated Groups

SCIENTIFIC PRODUCTION – Clinical Practice Guidelines

- Mata Fernández C, Sebío A, Orcajo Rincón J, Martín Broto J, Martín Benlloch A, Marcilla Plaza D, López Pousa A, Gracia Alegría I, Giuppi M, Collado Ballesteros E, Bernabeu D, de Alava E, Valverde Morales C. Clinical practice guidelines for the treatment of Ewing sarcoma (Spanish Sarcoma Research Group-GEIS). Clin Transl Oncol. 2025 Mar;27(3):824-836. doi:10.1007/s12094-024-03602-5. Epub 2024 Aug 19. PMID: 39158802; PMCID: PMC11914306.
- Vaz-Salgado MA, Valverde-Morales C, Álvarez R, Asencio JM, Collado E, de Alava E, Díaz-Beveridge R, Gómez-Mateo MC, Gracia Alegría I, Marquina G, Martín Broto J, Martínez-Trufero J, Narváez JA, Redondo A, Sebío A, Verges R, Viñals JM, García del Muro X. Diagnosis and Therapy of Soft Tissue Sarcomas: Spanish Group for Research in Sarcomas (GEIS) Guidelines. Cancers(Basel). 2025 Sep 29;17(19):3158. doi: 10.3390/cancers17193158. PMID: 41097686; PMCID:PMC12523295.

5.1.6 Associated Groups

Pain and Neurosciences

Group leader

Genove Cortada, María Merce (FGS)

Researchers

Cruz Carrasco, Susana (FGS)

Díaz Jover, Rubén (FGS)

Ferrandiz Mach, Marta (FGS)

Heredia Carques, Cristina (FGS)

Melo Cruz, Martha Cristina (FGS)

Muñoz Hernández, Isabel (FGS)

Piñeiro Reboló, María Ángeles (FGS)

Revuelta Rizo, Miren Eli (FGS)

Rodríguez Vergara, Alex (FGS)

Roses Álvarez, Laia (FGS)

Santeularia Verges, María Teresa (FGS)

Sarmiento Luque, Teresa Eugenia (FGS)



DESCRIPTION

Our field of research is fundamentally clinical and primarily focused on potential therapies, both pharmacological and interventional, aimed at improving pain.

In recent years, there has been an increase in the implantation of neurostimulation systems and intrathecal infusion devices. Efforts are underway to improve the safety and clinical efficacy of these analgesic therapies.

We work on the multidimensional nature of pain, exploring how sex and gender, as well as various medical and psychological comorbidities, influence pain perception.

MAIN LINES OF RESEARCH

- Neuromodulation in Catalonia. Creation of a database of patients undergoing neurostimulation and intrathecal drug infusion. (Revuelta Rizo, Miren Eli; Genove Cortada, María Merce; Ferrandiz Mach, Marta; Díaz Jover, Ruben; Sarmiento Luque, Teresa Eugenia; Muñoz Hernández, Isabel; Roses Álvarez, Laia).
- Identify the best profile of patients (their psychopathological characteristics) before the implementation of neuromodulation techniques. (Sarmiento Luque, Teresa Eugenia; Revuelta Rizo, Miren Eli; Ferrandiz Mach, Marta; Genove Cortada, María Merce; Díaz Jover, Ruben).
- The effect of pulsed radiofrequency on chronic omalgia pain. (Díaz Jover, Ruben).
- The effect (analgesic and side effects) of spinal Ziconotide in patients with refractory chronic pain. (Ferrandiz Mach, Marta; Genové Cortada, María Mercé).
- Factors that can influence postoperative pain. (Santeularia Verges, María Teresa; Heredia Carques, Cristina; Muñoz Hernández, Isabel).
- Treatment Guidelines for Acute Intrahospital Pain. (Santeularia Verges, María Teresa; Ferrándiz Mach, Marta; Heredia Carques, Cristina; Genove Cortada, María Merce; Muñoz Hernández, Isabel).

5.1.6 Associated Groups

- Characterising the profile according to gender when patients reach our pain clinic. (Santeularia Verges, María Teresa; Melo Cruz, Martha Cristina; Ferrandiz Mach, Marta).
- Development of a new comorbidity index associated with chronic pain. (Santeularia Verges, María Teresa).
- Prevention and treatment of infection in neuromodulation devices (Díaz Jover, Rubén)
- Quality of care in pain clinics using the iso 9001 – 2015 methodology (International Organisation for Standardisation). The audit is carried out every year. (Ferrandiz Mach, Marta).
- Interventional treatments for hypopressive and trigeminal-autonomic headaches. (Melo Cruz, Martha Cristina, Revuelta Rizo, Miren Eli).

SCIENTIFIC CHALLENGES

- Establish the possible differences in brain area involvement between acute and chronic pain.
- Improve the efficacy and safety of neuromodulation techniques (both electrical and chemical)
- Enhance neuromodulation (electrical and chemical) at the hospital level to be a regional reference centre.
- The National Health System has designated the neurosurgery unit at Hospital de Sant Pau as a reference centre/unit (CSUR) for brain and spinal cord neuromodulation of refractory neuropathic pain. Participation in this project by the pain and neuroscience team
- Determine the extent of chronic pain according to the involvement of different brain areas and whether these alterations can improve with the relief of pain.
- Unify and make our databases compatible to create profiles and clusters of patients with chronic pain.
- Improve hospital prescription of postoperative pain analgesic guidelines to preserve patient safety.
- Determine whether the intensity of chronic neuropathic pain assessed by the patient is correlated with the patient's psychopathology, essentially anxiety, depression and catastrophizing.
- Determine the profile of patients who would benefit from treatment with major systemic opioids in relation to night rest and establish the recommended opioid.
- Establish the recommended opioid dose to start a treatment and how to remove them.
- Determine how chronic pain interferes with sleep (Ferrándiz, Marta).

SCIENTIFIC PRODUCTION – Articles & Reviews

- Giménez GM, Cruz MCM, Mach MF, Tenas SS. Intrathecal catheter after accidental dural puncture in obstetric patients: Safety and effectiveness in reducing post-dural puncture headache. *Revista Española De Anestesiología Y Reanimación*. 2025; 72(4):501671. DOI:10.1016/j.redar.2024.501671.
- Mayoral V, Gálvez R, Ferrándiz M, Vázquez XM, Cordero C, Montero AA, Pérez C, Pérez M. Pregabalin vs gabapentin in the treatment of neuropathic pain: a comprehensive systematic review and meta-analysis of effectiveness and safety. *Frontiers In Pain Research*. 2025; 5:1513597. DOI:10.3389/fpain. 2024.1513597. PMID:39839199.
- Ramírez CE, Amatria GR, Obiols PC, Martínez D, Raynard M, Draper BV, Masgoret P, Cosmen CR, Giménez LS, García MM, Mestres G, Melo M, Galindo AN, Gaig NM, Sánchez V, Royo DV, Comino NLP, Pérez IB, Farré CS, Salillas LT, Gelabert AA, Homs M, Ribas P, Teixell C, Moral A, Tena B, Castiñeira AF, Gay MA, Pelai BF, Bartoló CG, Iniesta CM, Font AP, Esteller PG, Clave JL, Pera SG, Batalla A, Raidi VV. Assessing the Experience and Management of Acute Post-Operative Pain from Caesarean Delivery: A Multi-Centre Cohort Study. *Journal of Clinical Medicine*. 2025; 14(13):4638. DOI:10.3390/jcm14134638. PMID:40649012. IF:2,900 (Q1/2D).

5.1.6 Associated Groups

Nursing Care

Group leader

Mas Dalmau, Gemma (FGS)

Researchers

Alonso Rodríguez, Lara (FGS)
 Aloy Orozco, Angels (FGS)
 Arias Barroso, Pietat (F. Puigvert)
 Armora Verdú, Miriam (FGS)
 Balaguer Sancho, Judith (FGS)
 Berga Congost, Gemma (FGS)
 Buil Manzanares, Neus (FGS)
 Calpe Damians, Neus (FGS)
 Campillo Zaragoza, Beatriz (FGS)
 Cordoba Sánchez, David (FGS)
 De Andrés Muñoz, Sandra (FGS)
 De Francisco Profumo, Seyla (FGS)
 De la Hera Herrero, Sergio (FGS)
 Díez García, Cecilia (FGS)
 Fernández Cano, Miriam (FGS)
 Fernández Sánchez, Susana Pasión (FGS)
 Franquet Barnils, Esther (F. Puigvert)
 García Barrachina, Marina (FGS)
 Hernández Martínez-Esparza, Elvira (FGS)
 Iserte Rodríguez, Judith (FGS)
 Jiménez Valenzuela, Ana (FGS)
 Marín Martínez, Ana María (FGS)
 Márquez López, Adrián (F. Puigvert)
 Navarro Colom, Marta (FGS)
 Ortiz Escoda, Núria (FGS)
 Palomeque Artuñedo, Amaya (FGS)
 Parrilla Ríos, Ismael (FGS)
 Pérez Bernardo, Carla (FGS)
 Pérez Dueñas, Javier (FGS)
 Plans Marcobal, Mireia (F. Puigvert)
 Pujol Serra, María Teresa (FGS)
 Ramírez López, Lucía (FGS)
 Ramos Fernández, Adelaida (FGS)
 Ricart Basagaña, María Teresa (FGS)
 Rius Bonet, Ernest (FGS)
 Roca Sarsanedas, Jaume (FGS)
 Romero Pastor, Monica (FGS)
 Samon Ros, Arnau (FGS)
 Sastre Rus, Meritxell (FGS)
 Sist Viaplana, Xenia (FGS)
 Torralbas Ortega, Jordi (FGS)
 Torres Quintana, Antonio (FGS)
 Urpi Fernández, Ana María (FGS)
 Valverde Bernal, Jonatan (FGS)
 Vega Castosa, María Del Mar (FGS)
 Vicente Pérez, Sílvia (FGS)
 Villalobos Abello, Alba (FGS)

Research technicians

Marin Carrion, Jessica (FGS)



DESCRIPTION

Nursing Care Research focuses on advancing healthcare practices through evidence-based research. We conduct studies to explore various aspects of patient care and health outcomes. By analysing data, we aim to improve nursing practices, enhance patient safety, and contribute to the overall quality of care in the healthcare system. Our work often involves implementing new interventions in clinical settings to benefit patients and their families, as well as the nursing profession.

MAIN LINES OF RESEARCH

- Quality of care improvement.
- Pain management.
- Mental Health and Well-being.
- Nursing education and training.
- Critical care research.
- Health Technology.
- Evidence-Based Care.
- Patient safety.

SCIENTIFIC CHALLENGES

- Strengthen implemented research lines and disseminate the results of active projects.
- Explore the impact of nursing care for patients, strategies for care improvement and the application of results in care models.
- Improve the development and understanding of qualitative research in the context of the health sciences and disseminate qualitative methods and analyses of text and discourse as tools in health science research.
- Create the synergies necessary to consolidate the group's activities.

5.1.6 Associated Groups

ACTIVE & AWARDED GRANTS

- Calpe Damians, Neus. Dispositius adhesius enfront dispositius elàstics per a la subjecció de la sonda urinària en el pacient crític. Estudi experimental aleatoritzat. SLT035/24/000015. Departament de Salut Generalitat Catalunya. Duration: 2024-2026. 61.500,00 €
- Calvo Verges, Núria. PRISMA II. Breast Cancer risk stratification for tailored preventive interventions: performance of polygenic scores and breast density in women with germline pathogenic variants; prospective validation of CanRisk; and yield of whole-genome sequencing for SNP analysis. PI23/01047. Instituto de Salud Carlos III (ISCIII). Duration: 2026-2028. 14.500,00 €
- De la Hera Herrero, Sergio. Proceso de Configuración del Ideario Suicida: Estudio de Teoría Fundamentada en Cataluña, España. IIBSP-PCS-2025-176. Consejo General de Enfermería (CGE). Duration: 2026-2028. 10.000€

DOCTORAL THESES DEFENDED

- Berga Congost, Gemma. Early treatment in the diagnosis of acute myocardial infarction: impact of an educational and organisational intervention. 2018-2023. Universitat de Barcelona. Supervisors: Martínez Momblán, M.^a Antonia; Brugaletta, Salvatore.
- De Francisco Prófumo, Seyla. Inteligencia Emocional y Diagnóstico Emocional en el Tratamiento de las Adicciones: Evaluación Comparativa de Intervenciones en un Hospital de Día. Data de defensa: 03/10/2025. Universidad de Barcelona. Supervisors: Francisco José Eiroa Orosa i Joan Trujols Albet.

SCIENTIFIC PRODUCTION – Articles & Reviews

- Arias L, Barragán N, Elizondo U, Boldu A, Rocha CA, Niño E, Santandreu FM, Quesada F, Ricci I, Gorrotxategi PJ, de la Poza M, Mas G, Gibert A, González J, Alonso P. Development and assessment of an online communication skills course to optimise antibiotic prescribing for children in primary care. BMC Primary Care. 2025; 26(1):247. DOI:10.1186/s12875-025-02919-6. PMID:40775754. IF:2,600 (Q1/1D).
- Balaguer J, Puig M, Lluch MT, Tinoco J, Agüera Z, Moreno C. Validation by Expert Groups of the Conceptual and Structural Dimensions in the AcompdogSMP+ Nursing Program: A Dog-Assisted Therapy to Promote Positive Mental Health. PERSPECTIVES IN PSYCHIATRIC CARE. 2025; 2025(1):1649780. DOI:10.1155/ppc/1649780. IF:1,900 (Q2/4D).
- Canet O, Naves SG, Roca J, Torné A, Torralbas J, Sanromà M. Bachelor Thesis in nursing: A qualitative study of the teaching-learning process from the experience of the students, academic tutors and nurses. NURSE EDUCATION TODAY. 2025; 147:106567. DOI:10.1016/j.nedt.2025.106567. PMID:39827789. IF:4,200 (Q1/1D).
- Congost GB, Brugaletta S, Cerezo PG, Bernal JV, Comalat MB, Mejías SM, Millán LM, Evangelista SR, Gabalda JR, Ortega JT, García J, Jimenez M, Aizpurua DA, Campmany MP, Momblán M. Effectiveness of a nurse training intervention in the emergency department to improve the diagnosis and treatment of STEMI patients: EDUCAMI study. HEART & LUNG. 2025; 70. DOI:10.1016/j.hrtlng.2025.01.006. PMID:39813828. IF:2,600 (Q1/2D).
- Díaz R, Poca M, Román E, Cuyàs B, Bañares I, Morales A, Martínez EH, Panadero R, Velasco C, Rapado M, Bretón I, Bañares R, Soriano G, García R. Treatment of Vitamin D Deficiency in Decompensated Patients with Cirrhosis Is Associated with Improvement in Frailty. MEDICAL SCIENCES. 2025; 13(1):30. DOI:10.3390/medsci13010030. PMID:40137450.

5.1.6 Associated Groups

- Magallares B, Malouf J, Codes H, Park HS, Betancourt J, Fraga G, Quesada E, López M, Torrent M, Marin A, Herrera S, Gich I, Boronat S, Casademont J, Corominas H, Cerdá D. Pediatric densitometry: is the Z score adjustment necessary in all cases?. *Frontiers in Endocrinology*. 2025; 16:1587382. DOI:10.3389/fendo.2025.1587382. PMID:40270717. IF:4,600 (Q1/3D).
- Roldán J, Jiménez MF, Font I, Bazo L, Hurtado B, Campillo B, Biurrun A. Moral sensitivity of nursing students: Adaptation and validation of Campillo's tool. *Nurse Education in Practice*. 2025; 82:104225. DOI:10.1016/j.nepr.2024.104225. PMID:39693947. IF:4,000 (Q1/1D).
- Romero M, Ricart MT, Mariné A, Lomero MD, Romaní O, Rubio ML. Uncertainty experienced by the critical patient upon discharge to the general ward: Care proposals from the perspective of Mishel's theory. *Nursing in Critical Care*. 2025; 30(5). DOI:10.1111/nicc. 13217. PMID:39822112. IF:2,600 (Q1/2D).
- Santesmases R, Hernández E, Campillo B, Lapena C, López EM, Checa C, Puig EG, Paz LGD. Translation and psychometric evaluation of the Spanish version of the Heart Failure-Specific Health Literacy. *PATIENT EDUCATION AND COUNSELING*. 2025; 135:108732. DOI:10.1016/j.pec.2025.108732. PMID:40081156. IF:3,100 (Q1/1D).
- Santos CS, Tandaipan JL, Castillo D, Codes H, Martínez L, Magallares B, Moya P, Mariscal A, Park HS, Díaz C, Fernández SP, Bernardez J, Corominas H, Alvarez ED, Castellví I. Nailfold videocapillaroscopy findings correlate with lung outcomes in idiopathic inflammatory myopathies-related interstitial lung disease. *RHEUMATOLOGY*. 2025; 64(SI). DOI:10.1093/rheumatology/keae669. PMID:39658251. IF:4,400 (Q1/1D).
- Serra J, Pujol C, Martínez S, Joaquín AB, Melià MR, Sullivan I, Torralbas J, Lladó G, Majem M, Martínez MA. Clinical and economic impact of the advanced practice nurse in lung cancer patients receiving immunotherapy-based treatments: A quantitative study. *European Journal of Oncology Nursing*. 2025; 74:102809. DOI:10.1016/j.ejon.2025.102809. PMID:39892201. IF:2,700 (Q1/2D).
- Torralbas J, Valls V, Roca J, Campoy C, Sastre M, García J. Sexual Affectivity in Autism Spectrum Disorder: Bibliometric Profile of Scientific Production. *ARCHIVES OF SEXUAL BEHAVIOR*. 2025; 54(2). DOI:10.1007/s10508-024-02996-1. PMID:39269514. IF:2,900 (Q1/1D).
- Zabaleta E, Rey C, Marchal A, Sauch G, Calvet G, Planas C, Barnes I, Urpi AM, Zamora JJ, Artigas M, Gimeno I, Diaz MA, Rios A, Brunet N, Rene A. Structural Validity and Reliability of an Adapted Practice Environment Scale-Nursing Work Index for Primary Health Care Nurses. *RESEARCH IN NURSING & HEALTH*. 2025; 48(5). DOI:10.1002/nur.22474. PMID:40464625. IF:2,400 (Q1/3D).
- Zafra JA, Pérez TD, Lima M, Vargas AM, Soler E, Torralbas J, Cillero IH. Availability, perceived need and satisfaction for school nurses in Spain: a cross-sectional study involving the school community. *BMC NURSING*. 2025; 24(1):1364. DOI:10.1186/s12912-025-03970-5. PMID:41188937. IF:3,900 (Q1/1D).

5.1.6 Associated Groups

Cardiac Surgery

Group leader

Ginel Iglesias, Antonino (FGS)

Researchers

Casellas Casanovas, Sandra (FGS)

Irabien Ortiz, Angela (FGS)

Montiel Serrano, José (FGS)

Roselló Díez, Elena (FGS)

Tauron Ferrer, Manel (FGS)



MAIN LINES OF RESEARCH

- Off-pump coronary artery bypass grafting surgery.
- Mitral repair surgery.
- Aorta pathology: aortic root surgery, aortic arch surgery (hybrid techniques).
- Follow-up of sutureless aortic valve prosthesis: Perceval S.
- Follow-up on surgical checklist implementation.
- Risk scores.
- Cardiac protection: Del Nido cardioplegia.
- Mini-invasive techniques: mini-sternotomy, mini-thoracotomy, MIDCABG surgery.
- Total arterial graft revascularisation.
- New valvular transcatheter prosthesis: TAVI transaxillary approach (Portico), TAVI transapical approach (Accurate).
- Aortic valve repair.

SCIENTIFIC CHALLENGES

- Consolidation as a research group in different cardiac surgery-related fields, specific sutureless valve prosthesis, radial artery in myocardial revascularisation, Different TAVI approaches...
- Participation in the assessment and validation of new products employed in cardiac surgery: haemostatics, sutures...
- Collaboration with different national and international research teams involved in our lines of study: epicardic fat study (Endocrinology), calcium channels in auricular myocytes (ICCV).

5.1.6 Associated Groups

SCIENTIFIC PRODUCTION – Articles & Reviews

- Molina M, Roselló E, Tauron M, Tabilo JF, Fernández C, Gotsens C, Pueblas E, Montiel J, Casellas S, Irabien A, Corominas L, López L, Mirabet S, Ginel A. Short and long-term results after heart transplant in patients with congenital heart disease. *Cirugía Cardiovascular*. 2025; 32(1). DOI:10.1016/j.circv.2024.08.001.
- Moliner C, Calvo M, Solé E, Martín AB, Brugués PF, Vega JS, Jubany JV, Vallverdú MF, Ferrer MT, Castillo P, Mancera JCD, Rigau PV, Olives RV, López CD, Bayés A, Aizpurua DA, González IF, Pérez SM. Guideline-directed medical therapy after revascularisation and outcomes in ischaemic cardiomyopathy. *ESC Heart Failure*. 2025; 12(6). DOI:10.1002/ehf2.70014. PMID:41243815. IF:3,700 (Q1/3D).
- Moliner C, Calvo M, Solé E, Martín AB, Fluvà P, Sánchez J, Vime J, Vallverdú MF, Ferrer MT, Tobias PE, Mancera JCD, Vilardell P, Vila R, Díez C, Bayés A, Aizpurua DA, Ferreira I, Pérez SM. Revascularisation and outcomes in ischaemic left ventricular dysfunction after heart failure admission: The RevascHeart study. *EUROPEAN JOURNAL OF HEART FAILURE*. 2025; 27(3). DOI:10.1002/ehj.3463. PMID:39359034. IF:10,800 (Q1/1D).
- Tauron M, Roselló E, Muñoz C, Fernández C, Montiel J, Casellas S, Irabien A, Corominas L, Piedra C, Julià I, Fernández C, Cegarra V, Guadalupe N, Molina M, Tabilo JF, Gotsens C, Gómez V, Berastegui E, Ginel AJ. Buckberg versus Del Nido in isolated aortic valve replacement: a prospective, two-centre, randomised trial. *Interdisciplinary Cardiovascular And Thoracic Surgery*. 2025; 40(3):ivaf054. DOI:10.1093/icvts/ivaf054. PMID:40065513. IF:1,300 (Q3/7D).
- Zarbock A, Strauss C, Laflamme M, Myjavec A, Böhm J, Burkert J, Mazer CD, de Varennes B, Ginel A, Matschke K, Larsson TE, Reusch M, POINTER GRP. POINTER: study protocol for a phase 2b, randomised, placebo-controlled, double-blind, parallel group dose-finding clinical study to evaluate the efficacy of RMC-035 on renal function and safety, in participants at high risk for kidney injury, following open-chest cardiac surgery. *Trials*. 2025; 26(1):449. DOI:10.1186/s13063-025-09124-x. PMID:41152991. IF:2,000 (Q3/7D).

5.1.6 Associated Groups

HIV and AIDS

Group leader

Domingo Pedrol, Pere (FGS)

Research technicians

Herrera Bachs, Sílvia (IR)

Millan Revilla, Lucía (IR)

Muñoz Rodríguez, Jessica (IR)



MAIN LINES OF RESEARCH

- Medical care projects.
- Study of pathogenic mechanisms altering body fat distribution.
- Study of metabolic disorders associated with antiretroviral treatment.
- Body composition changes.
- New antiretroviral drugs.
- Cardiovascular risk associated with antiretroviral treatment.
- Comorbid conditions associated with HIV-1 infection.
- Pharmacogenetics (toxicokinetics).
- Bacterial meningitis.
- Coronavirus infectious disease-19 and complications thereof.

SCIENTIFIC PRODUCTION – Articles & Review

- Bailón L, Moltó J, Curran A, Cadiñanos J, de Quirós JCLB, de los Santos I, Ambrosioni J, Imaz A, Benet S, Suanzes P, Navarro J, González J, Busca C, Pérez L, Berenguer J, García LJ, Mejía G, Miró JM, Scévola S, Moreno S, Domingo P, Tian Y, Frankot M, Lim D, Cai YH, Vendrame E, Guo S, Wallin JJ, Geleziunas R, Sengupta D, Alarcón Y, Leal I, Aranguen A, Garcia M, McGowan I, Brander C, Arribas JR, Mothe B, AELIX GRP. Safety, immunogenicity and effect on viral rebound of HTI vaccines combined with a TLR7 agonist in early-treated HIV-1 infection: a randomised, placebo-controlled phase 2a trial. *Nature Communications*. 2025; 16(1):2146. DOI:10.1038/s41467-025-57284-w. PMID:40038256. IF:15,700 (Q1/1D).
- Bruguera A, Nomah DK, Moreno S, Martínez E, Negredo E, Tiraboschi J, Navarro J, Domingo P, Fanjul F, Villoslada A, Peraire J, Jaén A, Miró JM, Casabona J, Reyes J, PISCIS GRP. Epidemiological, clinical and mortality trends in people with HIV over 60 years in the PISCIS population-based cohort from Catalonia and the Balearic Islands. *AIDS*. 2025; 39(1). DOI:10.1097/QAD.0000000000004018. PMID:39639721. IF:3,100 (Q2/4D).

5.1.6 Associated Groups

- Camps A, Teira R, Subirana I, Dégano IR, Domingo P, Curran A, Montero M, Romero A, Marrugat J, Galindo MJ. Age-standardised comparison of coronary artery disease, stroke incidence, and all-cause mortality between people living with HIV and the general population in Spain. *INTERNATIONAL JOURNAL OF INFECTIOUS DISEASES*. 2025; 160:108061. DOI:10.1016/j.ijid.2025.108061. PMID:40953693. IF:4,300 (Q1/2D).
- De Lazzari E, Di S, Rojas J, Curran A, Domingo P, Negro E, Tiraboschi J, González A, Torres B, Sempere A, Inciarte A, Gatell JM, Blanco JL, Martínez E, DOLAM GRP. 48 Week body composition changes in persons with HIV switching to dolutegravir plus lamivudine: a planned subanalysis of the DOLAM randomised clinical trial. *JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY*. 2025; 80(8). DOI:10.1093/jac/dkaf192. PMID:40556520. IF:3,600 (Q2/3D).
- Domingo P, Prieto P, Pons L. A plague like no other: beyond the buboes in Thucydides' account of the Plague of Athens. *CLINICAL MICROBIOLOGY AND INFECTION*. 2025; 31(10). DOI:10.1016/j.cmi.2025.05.001. IF:8,500 (Q1/1D).
- Franquet T, Brenes JM, Radike M, Giménez A, Domingo P. Imaging of Immunodeficiency-Associated Lymphoproliferative Disorders. *SEMINARS IN ULTRASOUND CT AND MRI*. 2025; 46(4). DOI:10.1053/j.sult.2025.06.001. PMID:40543829. IF:1,900 (Q3/6D).
- Franquet T, Raoof S, Lee KS, Han JH, Gimenez A, Brenes JM, Asmar J, Domingo P. Lung Nodules and Masses in Patients Who Are Not HIV Immunocompromised: A Clinical Imaging Algorithmic Approach. *CHEST*. 2025; 167(4). DOI:10.1016/j.chest.2024.10.054. PMID:39571725. IF:8,600 (Q1/1D).
- Giralt M, Domingo P, Quesada T, Cereijo R, Villarroya F. Lipodystrophy in HIV: Evolving Challenges and Unresolved Questions. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2025; 26(14):6546. DOI:10.3390/ijms26146546. PMID:40724797. IF:4,900 (Q1/3D).
- Magallares B, Malouf J, Codes H, Park HS, Betancourt J, Fraga G, Quesada E, López M, Torrent M, Marin A, Herrera S, Gich I, Boronat S, Casademont J, Corominas H, Cerdá D. Pediatric densitometry: is the Z score adjustment necessary in all cases?. *Frontiers in Endocrinology*. 2025; 16:1587382. DOI:10.3389/fendo.2025.1587382. PMID:40270717. IF:4,600 (Q1/3D).
- Quesada T, Mestres A, Domingo P, Prieto P, Mur I, Pérez J, Guimaraes MP, Villarroya J, Gutiérrez MD, Mateo MG, Domingo JC, Planavila A, Villarroya F, Giralt M, Cereijo R. Reduced circulating levels of CXCL14 are associated with cardiovascular damage in people living with HIV. *EUROPEAN JOURNAL OF PHARMACOLOGY*. 2025; 1003:177996. DOI:10.1016/j.ejphar.2025.177996. PMID:40714072. IF:4,700 (Q1/2D).
- Ryan P, Blanco JL, Masia M, Garcia L, Crusells MJ, Domingo P, Curran A, Guerri R, Bernal E, Bravo J, Revollo B, Macias J, Tiraboschi JM, Montejano R, Amador C, Torralba M, Merino D, Diaz V, Galindo MJ, Ferra S, Villoslada A, Losa JE, Fanjul FJ, Pérez X, Peraire J, Portilla J, de la Fuente S, Dueñas C, Vazquez MJ, Di S, Esteban H, Gil P, de Miguel M, Alejos B, Martínez E, PASO G. Maintenance therapy with dolutegravir and lamivudine versus bictegravir, emtricitabine, and tenofovir alafenamide in people with HIV (PASO-DOBLE): 48-week results from a randomised, multicentre, open-label, non-inferiority trial. *Lancet HIV*. 2025; 12(7). DOI:10.1016/S2352-3018(25)00105-5. PMID:40489982. IF:13,000 (Q1/1D).
- Suades R, Greco MF, Padró T, de Santisteban V, Domingo P, Benincasa G, Napoli C, Greco S, Madè A, Ranucci M, Devaux Y, Martelli F, Badimon L. Blood CD45+/CD3+ lymphocyte-released extracellular vesicles and mortality in hospitalised patients with coronavirus disease 2019. *EUROPEAN JOURNAL OF CLINICAL INVESTIGATION*. 2025; 55(2). DOI:10.1111/eci.14354. PMID:39548690. IF:3,600 (Q1/2D).
- Timiryasova A, Greenberg L, Domingo P, Tarr PE, Egle A, Martín C, Mussini C, Wit F, Cingolani A, Lehmann C, Castagna A, Petoumenos K, Sabin CA, Bonnet F, Lundgren J, Bottanelli M, Hosein S, Carlander C, Amstutz A, Grabmeier K, Garges H, Marongiu A, Young LA, Peters L, Ryom L, DAD RESPOND Study &GRPS. Mortality and Non-Fatal Clinical Outcomes After the Most Common Cancers in People with HIV: A Multicohort Collaboration. *Cancers*. 2025; 17(24):4000. DOI:10.3390/cancers17244000. PMID:41463249. IF:4,400 (Q2/3D).

5.1.6 Associated Groups

General and Digestive Surgery

Group leader

Moral Duarte, Antonio (FGS)

Researchers

Ballester Vázquez, Eulalia (FGS)
 Cambeiro Cabre, Lorena (FGS)
 Clos Enríquez, Montserrat (FGS)
 D'Ambrosio, Gian Mario (FGS)
 Espina Pérez, Beatriz (FGS)
 Fernández Ananin, Sonia (FGS)
 García Romera, Angel (FGS)
 González López, Jose Antonio (FGS)
 Guarnier Piquet, Pol (FGS)
 Julia Verdaguer, Elisabet (FGS)
 Larrañaga Blanc, Itziar (FGS)
 Martín Arnau, Ana Belen (FGS)
 Martínez Sánchez, María Del Carmen (FGS)
 Medrano Caviedes, Rodrigo Gustavo (FGS)
 Molera Espelt, Antoni (FGS)
 Molina Santos, Victor (FGS)
 Norte García, Andrea (FGS)
 Pasalodos Barcelo, Ana (FGS)
 Pastor González, Raquel (FGS)
 Pérez García, José Ignacio (FGS)
 Pino Pérez, Oriol (FGS)
 Rofin Serra, Sílvia (FGS)
 Sala Vilaplana, Laia (FGS)
 Sánchez Cabus, Santiago (FGS)
 Sánchez López, Anna (FGS)
 Santanach Soler, Clara (FGS)
 Solans Solerdelcoll, Mireia (FGS)

Research technicians

Toledo Mendoza, Clara Catalina (IR)



DESCRIPTION

Our group addresses different aspects of vascular biology, thrombosis and myocardial pathophysiology aimed at studying the mechanisms underlying the onset, progression and complications of cardiovascular diseases (CVDs) with high morbidity and mortality, such as atherosclerosis, aortic aneurysms, cardiac hypertrophy and myocardial infarction. Our ultimate goal is to develop tools for early diagnosis and new therapeutic strategies for these diseases.

MAIN LINES OF RESEARCH

General Surgery Unit

- Surgery of the thyroid gland. Research on thyroid cancer.
- Advanced surgery on parathyroid glands (primary and secondary hyperparathyroidism).
- Adrenal surgery.
- Surgery for sarcomas: participation in the development and results of surgery for retroperitoneal tumours.
- Surgery for sarcomas: participation in GIST research through the Spanish Sarcoma Research Group (GEIS) and other entities.
- Surgery of advanced gynaecological tumours.
- Advanced surgery of the abdominal wall. New techniques for ventral hernia repair.
- Dr. José A. González and Dra. Mireia Solans: lines of research in surgical techniques and new technologies for the application of local chemotherapy in the retroperitoneum.
- Dr. José A. González Dra. Mireia Solans: Research and dissemination of incisional hernia prevention techniques.

5.1.6 Associated Groups

Hepatobiliopancreatic Surgery Unit

- Pancreatic cancer: Dr. Sánchez Cabús, Dr. García Romera
- Liver cancer: Dr. Víctor Molina, Dr. Sánchez Cabús
- Biliary pathology: Dr. Belén Martín, Dr. Sánchez Cabús

Gastrointestinal Surgery Unit

- Surgical reinterventions after failed hiatal hernia repair or antireflux surgery (IP: Sónia Fernández Ananín)
- Obesity in the elderly population (IP: Sónia Fernández Ananín)
- Consequences of sarcopenia after bariatric surgery (IP: Noelia Pérez)
- Analysis of cruroplasty closure in paraesophageal hernias (IP: Sónia Fernández Ananín)
- Laparoscopic approach to gastric non-epithelial tumours: do size and location matter? (IP: Sónia Fernández Ananín)
- Analysis of the diagnostic process and the treatment of early gastric cancer precocious gastric (IP: Noelia Pérez)
- Implementation of an App for the control of anterior resection syndrome (IP: Carmen Martínez).
- Quality of life and functional alterations in rectal cancer (IP: Carmen Martínez).
- Diagnosis and treatment of anal dysplasia in the immunodeprived patient (IP: Carmen Martínez).

Emergency and Critical Care Surgery Unit

- Safe practices for polytraumatized patients.
- Safe practices for polytraumatized patients in a Multicentric collaborative database through the Catalan Trauma Database - TraumaCAT.
- Clinical safety for fragile and elderly patients in emergency surgery and care through an accredited Geriatric Emergency department by the American College of Physicians at our Hospital.
- Emergency surgical Treatment for aorta-enteric fistulae in collaboration with the Vascular Surgery Department.
- Ambulatory treatment of non-complicated Diverticulitis.
- Open Abdomen and Damage Control Surgery in Non-traumatic Patients.
- Good practices in emergency surgery for the prevention of burst abdomen and acquired abdominal hernia after surgery.
- Good practices in emergency surgery for small bowel occlusion syndrome.

SCIENTIFIC CHALLENGES

- Breast Surgery
- Technological innovations in surgery.
- Possible role of genetic studies in diagnosis and follow-up.
- Endocrine and Cervical Surgery
- Technical innovations in surgery.
- Hepatobiliopancreatic Surgery Unit
- To contribute to the improvement of survival and quality of life of patients affected by pathologies related to the liver, pancreas and biliary system.

Promote research and development in diseases in the area, and focus on their surgical treatment, especially through a minimally invasive approach.

- Histotripsy in patients with pancreatic cancer (GANNON trial)
- Gastrointestinal Surgery Unit
- Programa de cirugía experimental y colaboración con un grupo de trabajo del IR.

5.1.6 Associated Groups

DOCTORAL THESES DEFENDED

- Ballester Vázquez, Eulàlia. Influencia del tamaño del antro gástrico remanente y del diámetro de la sonda en la incidencia de reflujo gastroesofágico tras gastrectomía vertical laparoscópica: Estudio prospectivo randomizado. 27/11/2025. Universitat Autònoma de Barcelona. Supervisors: Balagué Ponz, M.^a Carmen; Fernández Ananín, Sonia; Moral Duarte, Antonio. <https://hdl.handle.net/10803/696393>
- Calderón Canseco, Iván Josué. Análisis comparativo de la gastrectomía laparoscópica versus la gastrectomía laparoscópica asistida. 08/04/2025. Universitat Autònoma de Barcelona. Supervisors: Balagué Ponz, María Carmen; Targarona Soler, Eduardo María; Serra Aracil, Javier. <https://hdl.handle.net/10803/694334>

SCIENTIFIC PRODUCTION – Articles & Reviews

- Balla A, Saraceno F, Rullo M, Morales S, Soler E, Di S, Guerrieri M, Lepiane P, Di N, Adamina M, Alarcon I, Arezzo A, Rodríguez JB, Boni L, Biondo S, Carrano FM, Chand M, Jenkins JT, Davies J, Rivilla SD, Delrio P, Elmore U, Espin E, Fichera A, Lorente BF, Francis N, Ruiz MG, Hahnloser D, Licardie E, Martínez C, Ortenzi M, Panis Y, Idoate CP, Paganini AM, Pera M, Perinotti R, Popowich DA, Rockall T, Rosati R, Sartori A, Scoglio D, Shalaby M, Fernández VS, Smart NJ, Spinelli A, Sylla P, Tanis PJ, Hernández JV, Wexner SD, Sileri P, PICARR GRP. Protective ileostomy creation after anterior resection of the rectum (PICARR): a decision-making exploring international survey. *Updates in Surgery*. 2025; 77(3). DOI:10.1007/s13304-025-02111-6. PMID:40121358. IF:2,200 (Q2/4D).
- Dorcaratto D, Garcés M, Palomares S, Sánchez S, Suárez G, Jorba R, Blanco G, Cugat E, Ausania F, Fondevila C, Ramia JM, Sánchez JM, Serrablo A, Martín E, De la Hoz A, Muñoz E, Mora I, Rodríguez M, Cepeda C, Memba R, López D, García MI, Landi F, Sánchez P, Losa N, Rodríguez G, Paterna S, Serradilla M, Ielpo B, García A, Padillo J, Sabater L. Blumgart Anastomosis Versus Invaginating Pancreatogastrostomy for Reconstruction after Pancreatoduodenectomy. *ANNALS OF SURGERY*. 2025; 282(5). DOI:10.1097/SLA.00000000000006873. PMID:40747945. IF:6,400 (Q1/1D).
- Garsot E, Sentí S, Salvador H, Eizaguirre E, Estremiana F, Castro S, Miranda C, Reka L, Leturio S, Codony C, Momblán D, Gobbini Y, Luna A, Fernández S, Sendiño P, Clavell A, Olona C, Aldeano A, Rodríguez J, Hermoso J, Güell M, Sánchez JJ, Pulido L, García A, Dal M, Gimeno M, Pallarès N, Grande L, Pera M, Spanish EURECCA Esophagogastr Canc GRP. Outcomes of Minimally Invasive Versus Open Gastrectomy for Gastric Cancer Surgery With Curative Intent: A Population-based Cohort Study. *ANNALS OF SURGERY*. 2025; 282(5). DOI:10.1097/SLA.00000000000006890. PMID:40772642. IF:6,400 (Q1/1D).
- Gener C, Piñas JCF, Garcia A, Rivera DSM, Casalots A, Nonell A, Espina B, Caro A, Serra X. Interobserver agreement of the Taulí-pT1 classification in rectal pT1 adenocarcinoma. *INTERNATIONAL JOURNAL OF COLORECTAL DISEASE*. 2025; 40(1):201. DOI:10.1007/s00384-025-04996-6. PMID:40957973. IF:2,300 (Q2/3D).
- Hernández B, Ramia JM, Busquets J, Secanella L, Peláez N, Alkorta M, Hervas ID, Achalandabaso MM, Toledo E, Rotellar F, Martí P, Gómez MA, Suárezi G, Garces M, Sabater L, Plaza GG, Alcalá FJ, Asensio E, Pacheco D, Cugat E, Espin F, Galofre M, Sánchez B, Santoyo J, Calvo J, Loinaz C, Garcia M, Sánchez S, Martín B, Blanco G, Jaen I, Domingo C, Payá C, González C, Etxebarria E, López R, Ballester C, Vico AB, Zambudio N, Estevez S, Nogueira M, Miota JI, Conde B, Suárez MA, de la Rua JR, Blanco A, González M, González PE, Reyes B, Ben SL, Tio B, Minguez J, Lasa I, Miyar A, Solar L, Burdio F, Ielpo B, Carabias A, Paloma M, Escartin A, Vela F, Marques E, Pérez A, Palomares G, Calvo A, Castell JT, Castro MJ, Manzanares MC, Artigues E, Blas JL, Díez L, Calero A, Quiñones JE, Rodríguez M, Serradilla M, Alcazar C. Surgical approach and postoperative outcomes after left pancreatectomy (SPANDISPAN prospective project). *CIRUGÍA ESPAÑOLA*. 2025; 103(9):800197. DOI:10.1016/j.ciresp.2025.800197. PMID:40780556. IF:1,300 (Q3/7D).

5.1.6 Associated Groups

- Majercakova K, Aguilar NT, Verdúm JI, Bargallo HV, Capel AV, Soto MM, Melcon GGD, Cordero JVR, González JA, Rosell SB, Jover DH, Mitre SR, Ibanez AP, Sebio A, Sancho G. Role of Spatially Fractionated Radiotherapy (LATTICE) Treatment in Inoperable Bulky Soft-Tissue Sarcomas. *Cancers*. 2025; 17(4):624. DOI:10.3390/cancers17040624. PMID:40002219. IF:4,400 (Q2/3D).
- Mor E, Apte S, Mitchell C, Nessim C, Almond M, Vincenzi B, López J, Cranmer L, Wagner MJ, Nissan A, Abreu MH, Albertsmeier M, Knoblauch M, Barlow A, Keung EZ, Grignani G, Hornick JL, Gronchi A, Gyorki DE. Natural History of Primary Retroperitoneal Extra-Visceral Perivascular Epithelioid Cell Tumours (PEC): A Study from Transatlantic and Australasian Retroperitoneal Sarcoma Working Group (TARPSWG). *ANNALS OF SURGICAL ONCOLOGY*. 2025; 32(10). DOI:10.1245/s10434-025-17787-8. PMID:40659896. IF:3,500 (Q1/2D).
- Rangelova E, Stoop TF, van T, Ali M, van EA, Javed AA, Hashimoto D, Steyerberg E, Banerjee A, Jain A, Sauvanet A, Serrablo A, Giani A, Giardino A, Zerbi A, Arshad A, Wijma AG, Coratti A, Zironda A, Socratous A, Rojas A, Halimi A, Ejaz A, Oba A, Patel BY, Björnsson B, Reames BN, Tingstedt B, Goh BKP, Payá C, Del Pozo CD, González C, Medin C, van CHJ, de Ponthaud C, Takishita C, Schwabl C, Månsson C, Ricci C, Thiels CA, Douchi D, Hughes DL, Kilburn D, Flanking D, Kleive D, Silva DS, Edil BH, Pando E, Moltzer E, Kauffman EF, Warren E, Bozkurt E, Sparrelid E, Thoma E, Verkolf E, Ausania F, Giannone F, Hüttner FJ, Burdío F, Souche FR, Berrevoet F, Daams F, Motoi F, Saliba G, Kazemier G, Roeyen G, Nappo G, Butturini G, Ferrari G, Fusai GK, Honda G, Sergeant G, Karteszi H, Takami H, Suto H, Matsumoto I, Mora I, Frigerio I, Fabre JM, Chen J, Sham JG, Davide J, Urdzik J, de Martino J, Nielsen K, Okano K, Kamei K, Okada K, Tanaka K, Labori KJ, Goodsell KE, Alberici L, Webber L, Kirkov L, de Franco L, Miyashita M, Maglione M, Gramellini M, Ramera M, Amaral MJ, Ramaekers M, Truty MJ, van MA, Stommel MWJ, Petrikowski M, Imamura M, Hayashi M, D'Hondt M, Brunner M, Hogg ME, Zhang C, Suárez MA, Luyer MD, Unno M, Mizuma M, Janot M, Sahakyan MA, Jamieson NB, Busch OR, Bilge O, Belyaev O, Franklin O, Sánchez P, Pessaux P, Holka PS, Ghorbani P, Casadei R, Sartoris R, Schulick RD, Grützmänn R, Sutcliffe R, Mata R, Patel RB, Takahashi R, Franco SR, Cabús SS, Hirano S, Gaujoux S, Festen S, Kozono S, Maithel SK, Chai SM, Yamaki S, van S, Mieog JSD, Murakami T, Codjia T, Sumiyoshi T, Karsten TM, Nakamura T, Sugawara T, Boggi U, Hartman V, de Meijer VE, Bartholomä W, Kwon W, Koh YX, Cho Y, Takeyama Y, Inoue Y, Nagakawa Y, Kawamoto Y, Ome Y, Soonawalla Z, Uemura K, Wolfgang CL, Jang JY, Padbury R, Satoi S, Messersmith W, Wilmink JW, Abu M, Besselink MG, Del Chiaro M, European Consortium Minimally Invasive Pancreatic Surg MIPS E, Int Consortium Adv Pancreatic S. The impact of neoadjuvant therapy in patients with left-sided resectable pancreatic cancer: an international multicenter study. *ANNALS OF ONCOLOGY*. 2025; 36(5). DOI:10.1016/j.annonc.2024.12.015. PMID:39814200. IF:65,400 (Q1/1D).
- Siriwardena AK, Serrablo A, Novotny A, Know A, Kourdouli A, Belli A, Laurenzi A, Valdivieso A, Hann A, Rodríguez AD, Oona AN, Pascher A, Frena A, Varona A, Ivanecz A, Heumann A, Alvarado AA, Kaldarov A, Bracke B, Hendriks B, Struecker B, Björnsson B, Dasari BVM, Cutolo C, Frola C, Payá C, Domingo C, Teh C, Stöss C, Stureson C, Ricci C, Verhoef C, Dopazo C, Galun D, Hartmann D, Martín D, da DGV, Dorcaratto D, Raptis D, Magouliotis D, Moris D, Symeonidis D, Zacharoulis D, Bugra D, López D, Jonas E, Muttillio EM, Saladino E, Francisco E, Hutten E, De Raffele E, Felli E, Balik E, Bozkurt E, Felekouras E, Sobutay E, Sparrelid E, Hatano E, Romano F, Coimbra FJF, Guido F, Primavesi F, Izzo F, Berrevoet F, Piccolo G, Joliat GR, Middleton G, Makridis G, Sotiropoulos GC, Garcea G, Booney G, Han HS, Ozata IH, Cho JY, Pudil J, Hammond J, Torres JB, Ramia J, Lim J, Pollok JM, Ammar K, Kopchak K, Taura K, Serin K, Menon K, Zieniewicz K, Pérez L, Lundgren L, Wullaert L, Alderghetti L, De Carvalho LA, Tschöegl MM, Marino M, Aranzazu M, Ammann M, Giuffrida M, Garancini M, Scotti MA, Barabino M, Bernon M, Cescon M, Di M, Maestri M, Massani M, Forcen M, Fernández MC, Zivanovic M, Gutiérrez M, Buyuk M, Vailas M, Lesurtel M, Sharma M, D'Silva M, Protic M, Fard MH, Kumar N, Marques N, Tomara N, Mowbray NG, DeMartínes N, Machairas N, Ben O, Kvasivka O, Krsmanovic O, Bilge O, Sancho P, Line PD, Tinguelym P, Pessaux P, Sandstrom P, Lodge P, Valle RD, Homs R,

5.1.6 Associated Groups

Sutcliffe R, Lob S, Sánchez S, Katou S, Okumura S, Turk S, Farkas S, Patauner S, Stättner S, Lööb S, Truant S, Kapis S, Gallagher T, Kocisova T, Gruenberger T, Stecca T, Chapelle T, Abadía T, Molina V, Sumarokova V, Meyer Y, Bilobar Liver Metastases Res CRC. Recurrence patterns and post-recurrence survival of patients with bilobar colorectal liver metastases: international multicentre retrospective study. *BJS-BRITISH JOURNAL OF SURGERY*. 2025; 112(3):znaf003. DOI:10.1093/bjs/znaf003. PMID:40037797. IF:8,800 (Q1/1D).

5.1.6 Associated Groups

Digital Health

Group leader

Gomis Pastor, Mar (FGS)

Researchers

Berdun Peñato, Jesús (FGS)

Borràs Santos, Alicia (FGS)

Fernández-Montells Rama, Beatriz (FGS)

García Moya, Alba (FGS)

Ontiveros Rodríguez, Gerardo Diego (FGS)

Real Gatus, Jordi (FGS)



DESCRIPTION

The constant evolution of the healthcare sector clearly demonstrates that integrating digital technologies into the medical field is essential to improving the efficiency and quality of healthcare services. Digital technologies—including mobile devices, applications, and telemedicine—have radically transformed how healthcare professionals interact with patients and manage their clinical practices.

The Digital Health research group works to establish a solid scientific foundation for implementing these technologies and to build a collaborative innovation ecosystem. In doing so, the impact of innovations on daily clinical practice will be maximised, contributing significantly to the digital transformation of the healthcare system.

MAIN LINES OF RESEARCH

- Validacions de tecnologies digitals en l'àmbit de la salut
- Redefinició de processos i rutes assistencials, en clau digital
- Anàlisi d'eines digitals implementades en la pràctica clínica ("Real World Evidence")
- Salut Digital basada en el Valor
- Interseccionalitat en la salut digital
- Ideació, disseny i/o creació de tecnologies mitjançant mètodes qualitius).

DOCTORAL THESES DEFENDED

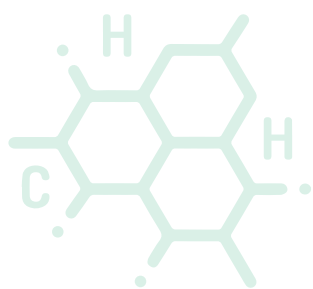
- Ramírez Morros, Anna María. Divergències en l'abordatge terapèutic dels factors de risc cardiovascular en la població amb diabetis tipus 2 en funció del gènere. 25/03/2025. Universitat de Barcelona. Supervisors: Real Gatus, Jordi; Mauricio Puente, Didac; Franch Nadal, Josep. <https://hdl.handle.net/10803/694613>

5.1.6 Associated Groups

SCIENTIFIC PRODUCTION – Articles & Reviews

- Barrot J, Caylà JA, Mata M, Real J, Vlachó B, Franch J, Mauricio D, COVID Working Primary Care 19GRPHLTH. Machine learning models for predicting COVID-19 prognosis in the primary health care setting. BMC Primary Care. 2025; 26(1):310. DOI:10.1186/s12875-025-02960-5. PMID:41087937. IF:2,600 (Q1/1D).
- Tarriel JE, Capó JP, González MS, Queiruga MB, Gatus JR, Gomis M, Marre D, Olivé EL. Effectiveness of Virtual Reality in Reducing Pain and Stress During Office Hysteroscopy: A Randomised Controlled Trial. Healthcare. 2025; 13(2):131. DOI:10.3390/healthcare13020131. PMID:39857158. IF:2,700 (Q2/3D).
- Vila M, Sisó A, Ocaña A, Agustí A, Faner R, Borràs A, González L. Prevalence, diagnostic accuracy, and healthcare utilisation patterns in patients with COPD in primary healthcare: a population-based study. npj Primary Care Respiratory Medicine. 2025; 35(1):17. DOI:10.1038/s41533-025-00419-9. PMID:40118910. IF:4,700 (Q1/1D).
- Vlachó B, Julve J, Genua I, Fernández B, Real J, Franch J, Mauricio D, Ortega E. Hypertriglyceridemia and its relationship with all-cause mortality and pancreatitis: Results from a large retrospective clinical registry. Journal of Clinical Lipidology. 2025; 19(4). DOI:10.1016/j.jacl.2025.04.195. PMID:40467441. IF:4,600 (Q1/2D).

5.2 Transversal programmes



5.2.1 ADVANCED THERAPIES

Immunotherapy, gene and cell therapy, target drug delivery with nanoparticles, synthetic lethality or drug repurposing are examples of research on advanced therapies that can be applied to several oncological, cardiovascular, or neurological diseases among others. Research shows this programme will lead to new treatments and therapeutic strategies to improve patients' lives.



5.2.2 GENOMIC MEDICINE AND RARE DISEASES

Technological and bioinformatics advances in the field of genomics led to a strong impact not only on the diagnosis of rare genetic diseases but also on determining risk factors, prognosis, and treatment of a growing number of highly prevalent pathologies. In this program we face the era of personalized precision medicine and address the challenge of diagnosing genetic disorders sooner and better.



5.2.3 BIOMARKERS, PROGNOSTIC, AND DIAGNOSTIC

Research on disease biomarkers is essential in high-complexity medical care as it allows for adjusting the diagnosis and predicting the prognosis and drug response. Biomarkers are also essential for the proper follow-up of clinical trials with new drugs. The research done in this program will help define what is the best journey for our patients, from diagnosis and clinical follow-up to treatment.



5.2.4 BETTER HEALTH CARE

We are an Institute with healthcare professionals linked to all medical specialties and nursing. The translational research of this program aims to respond to the clinical challenges of patients in the form of healthcare improvements. This is evident in improvements in diagnosis, medical, or surgical procedures or care circuits always focused on the benefit of the patients.



5.2.5 WOMEN'S HEALTH AND GENDER

Biomedical research has demonstrated the importance of sex, gender, and intersectionality in health, well-being and disease progression to the extent that it is now difficult to justify healthcare and research without a gender perspective. In this program we support the integration of a sex/gender perspective into research content to fill existing knowledge gaps, increase the reproducibility of studies by making them bias-free, contribute to minimizing delays in diagnosis and unexpected adverse effects, and increase equity and social justice. In addition, we promote research on women's health and women's diseases to contribute to the impact of our research on personalized medicine.

Core Facilities and Scientific Services





Javier Crespo
Coordinator

Functions

Facilitates access to advanced techniques and technologies that may not be readily available to individual research groups:

- The scientific and technical platforms provide researchers with access to advanced technologies and specialised techniques that may otherwise be inaccessible due to resource or infrastructure limitations. This framework promotes collaboration and innovation, enabling research teams to utilise state-of-the-art equipment and methodologies to enhance the quality, robustness, and scope of their work.
- Provides cost-effective services while optimising human and material resources:
- Through centralising services and sharing equipment, operational costs are reduced, thereby increasing access to advanced technologies across research groups. In parallel, human and material resources are optimised, minimising redundancies and ensuring the efficient allocation and use of available assets.
- Supports researchers through optimised workflows and methodologies:
- Researchers are supported in the design and implementation of efficient workflows tailored to their specific scientific needs. This includes optimising experimental processes, adopting standardised protocols, and providing guidance on selecting the most appropriate research methodologies, thereby enhancing productivity and scientific output.

Provides technical and methodological guidance and support:

Researchers receive specialised technical assistance in implementing their projects, along with methodological guidance to ensure that procedures and techniques align with their research objectives. This support may include specialised training, troubleshooting, and assistance in data analysis and interpretation.

Support researchers with optimised workflows and methods:

Researchers are supported in designing more efficient workflows tailored to their specific needs. This includes improving experimental processes, implementing standardised protocols, and advising on the selection of the most suitable research methods, resulting in higher productivity and more accurate outcomes.

Offer technical and methodological guidance and support:

Researchers receive technical assistance in implementing their projects, as well as methodological guidance to ensure that the procedures and techniques used are the most appropriate for their research goals. This support can include specialised training, troubleshooting advice, and assistance with interpreting results.



6.1 Genomics and Transcriptomics

Sandra Camino

Coordinator

Staff

Sónia Alcolea

The **Genomics and Transcriptomics platform** is a core facility focused on providing guidance, offering specialised services in genomics and transcriptomics, and making specialised equipment available to researchers and the scientific community.

The unit offers a quality service, guaranteed by ISO 9001:2015 certification.

Services

- Quantitation and quality control of nucleic acid samples.
- Sample processing for Single-Cell Analysis (Gene expression, Immune profiling, ATAC-seq, Multiome).
- Sample processing for Microarrays studies (Gene expression and miRNA profiles, Cytogenetics).
- Real-time PCR projects (Gene expression, miRNA detection, allelic discrimination, CNV, absolute quantification).
- Digital PCR (rare or low target detection, mosaicism detection, CNV, allelic discrimination, Absolute quantification).
- Next-Generation Sequencing: RNA, DNA, scRNA libraries construction (sequencing is carried out by an external provider).
- Sanger Sequencing: DNA sequencing, mutation and polymorphism analysis, DNA methylation studies, microorganism identification...
- Fragment analysis: STR profiles (cell line authentication,...), copy number (MLPA), LOH, genotyping studies, microsatellite instability, DNA repeat expansion studies, etc.
- Omics Data analysis.

Equipment

- Chromium X (10x Genomics). Single-Cell Analysis.
- QuantStudio Absolute Q dPCR System (Thermo Fisher Sci.).
- SeqStudio 8 Flex Genetic Analyser (Thermo Fisher Sci).
- GeneChip 3000 7G System (Affymetrix/Thermo Fisher Sci)
- 7900HT SDS Real-Time PCR (Thermo Fisher Sci)
- Bioanalyzer 2100 (Agilent Technologies)
- Nanodrop 2000 (Thermo Fisher Sci)
- Qubit 3.0 (Thermo Fisher Scientific).



6.2 Flow Cytometry

Marta Soler

Coordinator

Staff

Lia Ros

The **Flow Cytometry Platform** provides users with state-of-the-art equipment for cytometry analysis and cell population sorting.

Services

- Characterisation of cell populations through multicolour immunophenotyping.
- Cell and bacterial viability and proliferation assays.
- Cell cycle and apoptosis assays.
- Gene expression analysis (fluorescent protein detection) and quantification of transfection efficiency.
- Magnetic column-based sample enrichment for the detection of rare populations.
- Isolation of up to 4 subpopulations simultaneously with conventional cell sorting (in a biosafety cabinet).
- Automated magnetic separation of cell populations (in a biosafety cabinet).
- Automated tissue and cell dissociation for single-cell and molecular applications.
- Analysis of up to 50 analytes with Luminex technology.

Equipment

- MACSQuant 16 (Miltenyi Biotec). Specialised in nanocytometry.
- MACSQuant10 and MACSQuant VYB.
- FACS ARIA in biosafety cabin. Up to 4 population separations.
- AutoMACS Pro (Miltenyi Biotec) in a biosafety cabinet. Automated magnetic separation.
- GentleMACS Octo Dissociator with heaters and coolers
- MAGPIX (Luminex). Analysis of up to 50 analytes per plaque.



6.3 Confocal Microscopy

Esther Peña

Coordinator

Staff

Josep Oriol Juan, Mónica Pescador

The **Confocal Microscopy Platform** is a support platform for biomedical research. Its main function is to provide users with both the appropriate tools and guidance for experimental design.

Services

- Guidance on the preparation and/or approach of studies
- Training in the use of instruments
- Image analysis
- Conventional fluorescence or brightfield microscopy of live cells, fixed cells, and tissues. Conventional (Nikon, Olympus) and inverted (Zeiss) microscopes
- Image acquisition with filters for: brightfield, phase contrast, polarized light, and differential interference contrast
- Image acquisition using fluorescent markers: DAPI, GFP, YFP, Texas Red, and far-red
- Time-lapse fluorescence microscopy with an incubation chamber controlling temperature, CO₂, and humidity for cell culture experiments (Zeiss)
- High-resolution fluorescence microscopy using confocal microscopy across the visible spectrum (excitation λ : 405, 458, 488, 514, 561, and 633 nm) with a motorized stage. Time-lapse imaging with an incubation chamber controlling temperature, CO₂, and humidity for cell culture experiments
- Histopathological studies of various tissues stained by conventional immunohistochemistry (frozen or paraffin-embedded), including image quantification
- Organoid studies using fluorescence microscopy
- Sample preparation of both live and fixed cells, as well as cryopreserved or paraffin-embedded tissues
- Supply of reagents and consumables

Equipment

- Confocal multispectral Leica SP5 AOBS con sistema de alta resolución de escaneo y digitalización tandem de alta velocidad, módulos FLIM/FCS y sistema de incubación time-lapse.
- Confocal multispectral Leica SP2 AOBS con sistema de alta resolución de escaneo y digitalización tandem de alta velocidad, y sistema de incubación time-lapse.
- Microscopio de fluorescencia invertido Zeiss AXIOVERT 200M con control de Tª y CO₂, con cabina de incubación que permite trabajar con células vivas tanto en fluorescencia como en campo claro. Equipado con los filtros de fluorescencia: DAPI, FITC, Rodamina. Equipado con polarizadores que permiten la captación de imágenes de luz polarizada con todos los objetivos
- Microscopio Olympus BX51 de fluorescència con doble cabezal. Equipado con los filtros de fluorescència: DAPI, FITC, TRITC, TXRED.
- Microscopio Nikon Eclipse 80i . Equipado con los filtros de fluorescencia: FITC, G-1B (546), FITC-CY3.
- Estativo para fotografías macros con iluminación
- Estereomicroscopi LEICA MZ 9.5
- Microscopio estereoscópico de fluorescència Leica M205 FA Equipado con los filtros de fluorescencia: DAPI, GFP3, DsRED. Zoom motorizado, cambiador de filtros, y gestor de la intensidad de fluorescencia



6.4 Biobank

Alba Torija

Coordinator

Staff

Adriana Ibañez, Miquel Lledós, Noemí

Veiret, Noa Vilaseca

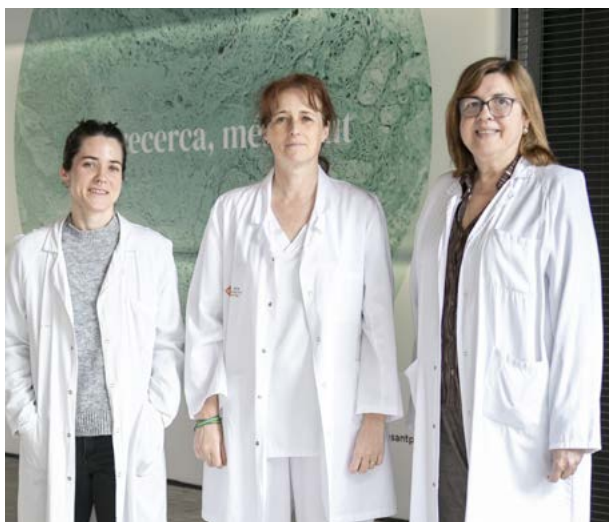
The IR Sant Pau **Biobank** is a research support platform dedicated to the management, processing and storage of human biological samples and associated data. Its core mission is to offer well-characterised human biological samples to the scientific community, ensuring full compliance with current ethical, legal, and quality standards and providing comprehensive scientific, technical, and ethical-legal guidance throughout the entire process. The Biobank's service quality is certified under ISO 9001:2015.

Services

- Management of requests for biological material for research purposes.
- Ethical-legal advice on the creation of new biological sample collections.
- Scientific and technical support for the processing and handling of biological samples.
- Processing of human biological samples, including peripheral blood, bone marrow, urine, frozen tissue, and others.
- Cryopreservation of viable cells
- Conservation and custody of human biological samples, ensuring safe and secure long-term storage.
- Management of sample collections and associated data, ensuring proper organisation and traceability.
- Nucleic acid extraction from different types of biological samples
- Development of customised protocols for the processing of biological samples upon request.

Equipment

- 15 Ultralow freezers -80°C NUAIRE NU-9668E with double-emergency system alarm. 24h monitoring
- Liquid nitrogen tank CHART MVE 1211 with automatic filling
- Vapour nitrogen tank CBS V-5000 EHAB with automatic filling
- Automated Nucleic Acid Extractor QIACUBE.
- Biological Safety Cabinet IIA NUAIRE.



6.5 Immunohistochemistry

Esther Peña

Coordinator

Staff

Iris Rodríguez, M^a Angeles Velasco

The **Immunohistochemistry Platform** is a support service for biomedical research that processes biological samples, both human and animal models, for analysis using histological techniques. Services range from sample processing, sectioning, and staining to slide digitisation, histological analysis, and results reporting.

Services

- Membrane detection techniques such as Western Blot, Southern Blot, and Northern Blot; quantitative immunofluorescence; and histological sectioning
- Tissue preparation, including decalcification, processing for paraffin and O.C.T. embedding, sectioning of both paraffin/O.C.T. blocks and fresh tissue, and antigen retrieval
- Automated immunostaining (single and double)
- Routine and special staining protocols: hematoxylin-eosin, Giemsa, Oil Red, trichrome, PAS, Wright's stain, Alcian blue, Safranin, Sirius Red, etc.
- Tissue microarray (TMA) preparation
- Fluorescent in situ hybridisation (FISH) on tissue samples
- Slide digitisation under brightfield, fluorescence, and FISH conditions
- Optimisation of primary antibodies for conventional immunohistochemistry and fluorescence staining
- Histopathological and morphometric analysis of stained sections using histological and histochemical methods
- Consulting for research projects, theses, and scientific studies

Equipment

- Tissue processors: SAKURA TISSUE TEK VIP 5 JR and KOS microwave processor
- Embedding systems: SAKURA TISSUE TEK TEC5 with LEICA ARCADIA C cold plate, LEICA EG1150H and EG1150C (operator-assisted and self-service)
- Sectioning instruments: MICROM HM355S rotary microtome, LEICA JUNG RM2055 microtome, LEICA CM1950 and JUNG CM3050S cryostats, LEICA VT 1000S vibratome; flotation baths
- ODYSSEY M imaging system
- (SELECTA TERMOFIN, LEICA HI1210); MEMMERT BE 300 oven
- Automated stainers: AGILENT Autostainer AS48 and SAKURA TISSUE TEK PRISMA
- TMA system: GALILEO CK3500 semi-automatic array
- Digital pathology: Panoramic Scan II and MIDI BF scanners; analysis workstation
- Safety and ventilation: NUAIRE NU-S813-400E and LABORSYSTEM fume extraction cabinets



6.6 Proteomics

Maísa García

Coordinator

The **Proteomic Unit** will work as a link between IR's researchers and the specialised facilities in other institutions, such as the CRG Proteomic Unit.

Services

- Give support in the experimental design. (help in the development of experimental design in project applications; definition of comparison groups required according to the type of proteomic analysis to be performed; advice in protein isolation)
- Do the sample preparation in-house prior to LC-MS/ MS analysis, adapted to the researchers' needs. (Tryptic digestion in solution, in-gel, from FFPE samples, depletion of albumin on demand, possibility to use specific kits for protein digestion).
- Perform analysis and interpretation of the data obtained by LC-MS/MS (MaxQuant, Perseus, Amica, Skyline)
- In silico analysis for result confirmation (Cytoscape, String, Reactome, Webgestalt, etc.)

Equipment

- Thermo Fisher Scientific Orbitrap Eclipse Tribrid Mass Spectrometer, acquired in collaboration with other institutions through a FEDER agreement (for IU16-015644 project) and located in the CRG's Proteomics Unit.



6.7 Radioactivity Unit

Javier Crespo

Coordinator

The **Radioactivity Unit** provides research groups with specialised, certified laboratories designed for the handling of unsealed radioactive isotopes in liquid form. These facilities are fully equipped and strictly regulated for the manipulation of radioactive materials, incorporating advanced safety protocols and radioprotection measures to ensure the well-being of personnel and environmental integrity.

Services

- In vitro labelling of proteins, lipoproteins, and liposomes with radioactive isotopes:
- Radioactive isotopes are incorporated into biomolecules to facilitate high-sensitivity tracking and analysis in biological studies. This enables the precise characterisation of molecular dynamics and interactions across various experimental models.
- Cellular proliferation and cytotoxicity assays using radiolabelling:
- Implementation of radiolabelling techniques to assess cell proliferation kinetics and the toxicological profiles of diverse compounds. These assays provide gold-standard precision in determining cell viability and the metabolic impact of exogenous agents.
- Nucleic acid labelling with radioactive isotopes:
- This service involves incorporating radioisotopes into DNA or RNA sequences for high-resolution tracking in molecular biology. It is an essential tool for studying gene expression patterns and the intracellular localisation of nucleic acids.
- Radioimmunoassay (RIA) and radioactive labelling techniques:
- Utilisation of specific antibodies labelled with radioisotopes to detect and quantify proteins or antigens in biological samples. The unit supports advanced methodologies, including radioimmunoassays (RIA) and radioactive immunofluorescence assays.
- Determination of enzymatic activity using radiolabelled substrates:
- Measurement of enzymatic turnover using labelled substrates allows a detailed study of kinetic properties and the underlying mechanisms of enzymes involved in critical biochemical pathways.
- Analysis and separation of radiolabelled molecules:
- Application of advanced analytical techniques, such as chromatography and electrophoresis, to isolate and characterise radiolabelled molecules, facilitating the study of molecular interactions and biological process dynamics.
- Cellular cholesterol efflux studies via radiolabelling:
- Quantification of cellular cholesterol transport and elimination using radioactive tracers. These studies are pivotal for analysing lipid metabolism and its role in metabolic and cardiovascular diseases.
- In vivo metabolism studies using radioactive labelling.
- Study of the metabolism of substances in living organisms using radioactive labelling. It helps understand how compounds are distributed, metabolised, and excreted by the body.

Equipment

Portable radiation and surface contamination monitors:

- High-sensitivity instruments designed for the detection of ionising radiation and radioactive surface contamination. These devices are critical for ensuring compliance with radiological safety protocols and for environmental monitoring, both within the laboratory and during specialised fieldwork.

Fume hood:

- A certified exhaust system provides a controlled atmosphere for the manipulation of volatile and hazardous chemicals. It ensures the efficient removal of radioactive gases, safeguarding personnel and preventing environmental release.

Vertical laminar flow cabinet (Class II Biosafety):

- A sterile cabinet used for working with cell cultures, ensuring a contaminant-free environment and optimal conditions for cell growth in studies involving radioactive labelling.



6.8 Cell Culture

Estefania Segalés

Coordinator

Staff

Margarita Domingo

Currently, in vitro cell techniques are a fundamental tool for research lines developed by a wide array of scientific groups. The **IR Cell Culture Service** offers suitable infrastructure for the establishment of primary cultures and cell lines at different biosafety levels (BSL1 or BSL2), genetically modified organisms (GMOs), and bacterial cultures in BSL1, all certified to ISO 9001:2015.

Services

- Sterilisation of solid and liquid material
- Removal and management of waste
- Periodic detection of Mycoplasma in samples
- Periodic control of surface contamination
- Periodic cleaning and decontamination procedures
- Authorisation of personnel. Access control.
- User's training in biocontainment and the use of biosafety cabinets.

Equipment

- Several experimental areas across different locations
- Total area of approximately 400 m²
- BSL1 laboratory
- Dedicated to bacterial cultures
- Equipment: 2 laminar flow cabinets, ovens, spectrophotometer, centrifuge, shakers,...
- BSL2 laboratories
- For eukaryotic cell cultures: Cell lines, primary cell cultures, GMOs
- Equipment: 22 biosafety cabinets, 27 CO₂ incubators. Microscopes, thermostatic baths, centrifuges, minicentrifuges, refrigerators, freezers
- Additional facilities included:
 - One room with cabinet for radioactive procedures
 - One room for handling cytostatic products
 - One room for nanoparticle procedures
 - In this laboratory, we can find:
 - General equipment includes Biosafety cabinets, CO₂ incubators, and centrifuges in autoservice mode.
 - Inverted and fluorescence microscopes with image capture Systems
 - Binocular microscopes with a camera
 - Automated cell counters
 - XCelligence MP for cellular impedance studies
 - Hypoxystations



6.9 Animal Research Facilities (ARF)

Laura Casaní

Coordinator

Staff

Fanny Cevallos,

Angel Juncosa,

Lorena Masiá,

Eleonor Masiá

Sergi Florit

Manager of Animal
Research Facilities

The **Animal Research Facilities (ARF)** is the area dedicated to care and maintenance of laboratory animals, execution of experimental procedures and sample processing. The AES holds ISO 9001:2015 certification, ensuring compliance with legal and ethical standards governing on the use of animals in experimentation and other scientific purposes. It is officially registered as breeding, supplying, and user centre for laboratory animals (B9900067 and REGA ES080190036528). It is also authorised to house and work with Genetically Modified Organisms (A/ES/08/21 and A/ES/08/I-14)

Services

- Care and maintenance of laboratory animals (rats, mice, rabbits, sheep, and pigs).
- Maintenance of genetically defined colonies (rats and mice) on request: breeding, weaning, and sexing.
- Daily health and welfare monitoring of housed animals.
- Management of animal health, as well as sanitary conditions of facilities and equipment.
- Daily manual and automated recording and monitoring of environmental conditions in the facilities.
- Management of biological waste.
- Rodent housing under conventional, SPF, and barrier conditions; conventional housing for rabbits, pigs and sheep.
- Workrooms for rodents and rabbits, laboratories, and four fully equipped operating rooms for large animals.
- Specialised advice and support for researchers in designing, writing, and performing experimental procedures and techniques involving animals.
- Support and execution of imaging techniques using available equipment for laboratory animals (rodents, rabbits, pigs, and sheep): in vivo bioluminescence and fluorescence (IVIS/IVIS CT), ultrasound (transthoracic and transesophageal echocardiography – Philips Affiniti), ultra-high-frequency ultrasound (VevoF2), surgical X-ray C-arms (GE OEC Elite / Philips BV Endura), 3D cardiac mapping (Carto 3D).
- Organisation of practical training courses and events on surgical skills using animal models: microsurgery, implantable device surgery, endoscopic surgical techniques (Covidien).
- Training courses and events on surgical skills using animal and anatomic models.

Equipment Core Facilities and Scientific Services

- For large animals, the Animal Research Facilities offers its facilities to house up to 33 pigs and 16 sheep. There are 4 operating theatres fully equipped with: multiparameter monitors, defibrillators, inhalation anesthesia systems with sevo/ isoflurane (General Electrics, Mindray), mechanical ventilators, C-arm RX equipment (Philips and Siemens), trans-toracic and trans esophageal echocardiography (Philips iE33), intravascular echocardiography (Siemens Acuson), real-time 3D cardiac imaging equipment (CartoXP), Ensite Precision Cardiac Mapping System (Abbot), radiofrequency ablation equipment, 12-lead ECG, 4K Laparoscopic towers and extra monitors (Covidien).
- For small animals, there are 6 experiment rooms equipped with: In vivo imaging systems (bioluminescence and fluorescence (IVIS CT)), ultra-high frequency ultrasound (VevoF2), intravital microscope (Nikon), surgical microscopes (Zeiss, Optomic and RWD), flow measurement equipment and probes (Transonic), ECG monitors, PNI equipment, mechanical ventilators, anesthesia equipment with sevoflurane/isoflurane and Low-flow electronic vaporisers (Somnoflo), equipment for behavior studies.



6.10 Advanced Therapies Unit

Luciano Rodríguez

Qualified Person

Marta Mitjà

Quality Assurance

Paola Jara

Manufacturing

Laura Escribà

Agostina Robledo

Quality Control

The **Advanced Therapies Unit (UTA)** at IR Sant Pau is a specialised facility for the development, scale-up, and manufacture of Advanced Therapy Medicinal Products (ATMPs) for clinical use. ATMPs, regarded as highly innovative pharmaceuticals, are derived from genes, cells, or tissues and constitute novel therapeutic modalities for the treatment of diseases and conditions with no alternative treatment options, either because they are underdeveloped or have low incidence, rendering them uninteresting to the large industry.

The UTA team possesses considerable expertise in the manufacture of ATMPs and has personnel and facilities that are compliant with Good Manufacturing Practices (GMP). These classified facilities, located at IR Sant Pau, represent a strategic resource for the Hospital Sant Pau campus by enabling the development and manufacture of personalised biological medicines within the hospital for the treatment of its patients.

The main objective of the UTA is the clinical and regulatory development of new drugs with therapeutic impact that can benefit society and the public health system.

Functions

- Manufacture of Advanced Therapy Medicinal Products for clinical use in compliance with Good Manufacturing Practices (EudraLex Volume 4. Part IV).
- Escalation and validation of the manufacturing process of the clinically relevant investigational products authorisation application (from bed to bedside).
- Development and editing of module 3 of the CTD for new products with full regulatory preclinical regulatory approval.
- Contract manufacturing of Advanced Therapy Medicinal Products for authorised clinical trials.
- Production of viral vectors dedicated to Advanced Therapy Medicinal Products manufacturing.

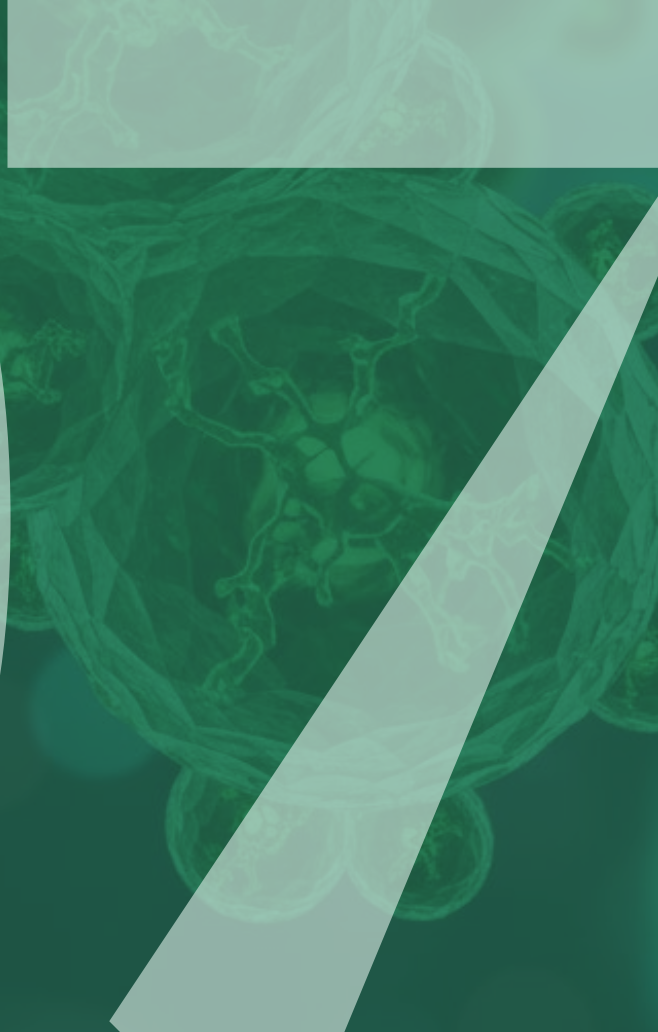
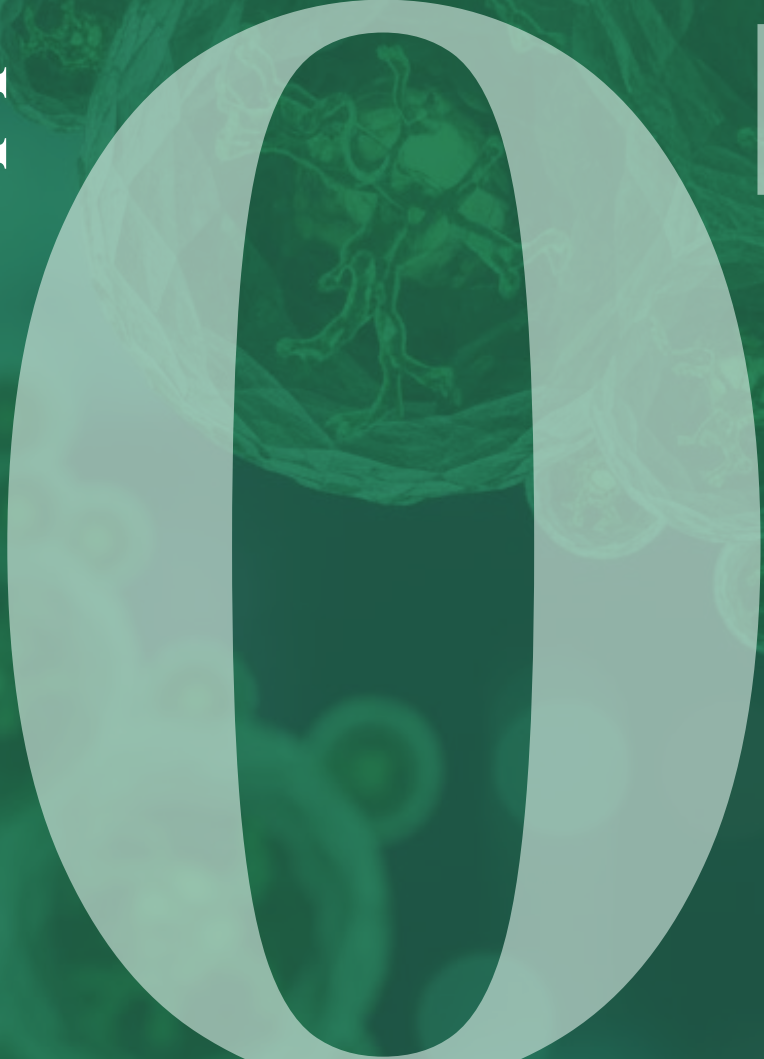
Equipment

- 2x GMP compliant Facility (Grade D and C areas and Grade B area for a specialised viral vector production)
- 1x Restricted Access Barrier System (RABS)
- 4x Bio II/A laminar flow hood
- 4x Airborne Particles Counter
- 2x CliniMACS Prodigy
- 5x Microbial Air Sampler
- 2x Tube welder
- 2x Cell Counter
- 1x MACSQuant Analyser 10 flow cytometer
- 2x Refrigerated Centrifuge

Core Facilities and Scientific Services

- 4x Inverted Microscope
- 4x CO2 Incubators
- 1x Ultracentrifuge
- 1x ThermoMixer C
- 1x MACSQuant Analyzer 10 flow cytometer.
- 1x Refrigerated Centrifuge.
- 1x Inverted Microscope.

Research Support and Management



7.1 Clinical Research Area



7.1 Clinical Research Unit

Rosa M. Antonijoan
Coordinator



7.1.1 Centre for Drug Research (CIM)

Research Staff

Pol Molina, Caridad Pontes, Juan Pedro Della Croce, María Carolina Isaza Lopez

Data Management

M^a Ángeles Funes, Ana Gomis, Esteve Mercader

Nursing Staff

Maite Garrido, David Martínez, Maribel Martínez, Marta Castillo, Isabel Sánchez, Mireia González

Administrative Support

Pura Martínez

Study Coordinator

Marc Alegre, Angela Fraga

Financial Support

David Cuadro Bertolin

The Centre for Drug Research (CIM) began its activities in 1983, in collaboration with the Clinical Pharmacology Department of the HSCSP and the Pharmacology and Therapeutics Department of the Autonomous University of Barcelona (UAB).

7.1 Clinical Research Area

Functions

- The CIM conducts clinical trials with drugs and clinical research in two areas:
- Research as a business unit
- Phase I clinical trials (of no therapeutic interest for participants) in special populations and healthy volunteers (bioequivalence, tolerability, pharmacokinetics and pharmacodynamics, first administration in humans).
- Collaboration with HSCSP researchers in conducting phase II, III, and IV clinical trials.
- Research in neuropsychopharmacology
- Evaluation of the effects of psychotropic drugs and other substances active in the central nervous system on the sleep-wake cycle: Studies of effects during wakefulness (behavioural safety).
- Studies of effects during wakefulness (behavioural safety).
- Studies of effects on sleep quality and architecture.
- Facilities.
- To carry out these functions, two different areas are distinguished:
- Care area (4 sections):
- Admissions, with 24 beds (in four modules) that allow 100% continuous visual control and two beds for polysomnography studies.
- Outpatient area, with four single rooms equipped for medical, physical, and neuropsychological and psychomotor performance testing.
- Rest and services area: showers, toilets, kitchen, dining room, leisure room.
- Restricted area for drug storage and the processing and storage of biological samples.
- Data management and processing area:
- Five computerised offices to carry out non-experimental clinical trial activities.
- Monitors' area (1 room).
- Temporary documentation archive (1 room).

7.1 Clinical Research Area



7.1.2 AGDAC

Enrique Peña García Manager

Cintia Abril García Coordinator

Staff

Elisenda Brunet, Sara Mora

Functions

- Manage and supervise all documentation associated with active clinical trials in the experimental phase and destruction of documentation for terminated clinical trials located in the external archive.
- Store the supplies until the end of the studies, when they are destroyed or recycled.
- Oversee and manage documentation of completed trials for the Centre for Drug Research (CIM).
- Maintain and update the clinical workstation database and manage clinical studies.
- Manage restricted access by clinical trial monitors to the clinical workstation.
- Supervise data processing and management.
- Coordinate researchers and monitors; draw up agendas for meetings and study monitoring.
- Provide logistical support to the cold area and the clinical materials store associated with clinical trials in the experimental phase.
- Ship biological samples to central laboratory services.

h2>7.1 Clinical Research Area



h3>7.1.3 Clinical Research and Clinical Trials Unit (UICEC)

Rosa M^a Antonijoan
Responsible

Staff
Yaira Mathison, Laura Serra, María Andrea Socarras Arredondo, Tanit Rossinyol Arderoi, Irina Parvanyan, M^a Victoria Peretti

h4>Functions

The Central Clinical Research and Clinical Trials Unit (UICEC Sant Pau) provides comprehensive support to researchers in the development of independent research projects (not sponsored by the pharmaceutical industry) on the methodological, regulatory, administrative, economic, and practical aspects, subject to compliance with the ethical, good clinical practice and legislation.

UICEC Sant Pau is part of the Spanish Clinical Research Network (SCReN), a functional organization network to support the conduction of multi-center clinical trials and participates in the SCReN Platform (Spanish Clinical Research Network ISCIII).

h4>Knowledge management

- One-stop information for independent research group projects.
- Comprehensive assessment and project coordination.
- Point of communication between researchers and technical units.
- Pharmacovigilance activities for trials including drugs or medical devices.
- Knowledge management:
 - Study of dimensionality and feasibility of projects.
 - Identification of each project's needs.
 - Advice on the preparation of documentation: protocol, annexes, monitoring report, final report.
 - Advice on the submission of documentation to Spanish Agency for Medicines and Medical Devices (AEMPS), Clinical Research Ethics Committee (CEIC), Autonomous Communities (CCAA) and other relevant authorities.

7.1 Clinical Research Area

- Advice on project registration in public databases.
- Identification of spinoff projects.
- Advice on the presentation of research results.

Methodological and statistical support unit

- Advice on study design.
- Data entry.
- Data processing.
- Development of statistical reports.
- Electronic CRFs validation and management.
- Documentation and reports.

Documentation, archiving, monitoring, and follow-up unit

- Support in document creation: EudraCT form and annexes / application forms / evaluation forms follow form.
- Support in the processing of initial applications, clarifications and amendments: AEMPS, CEIC, other health authorities regarding clinical trials, and other post-authorization studies.
- Comprehensive monitoring of clinical trials and observational studies.
- Management of initial, follow-up and final reports.
- Development and file custody promoter (Master File), file preparation investigator.
- Other communications to CEIC, autonomous communities and competent authorities.

Unit of management and financial management

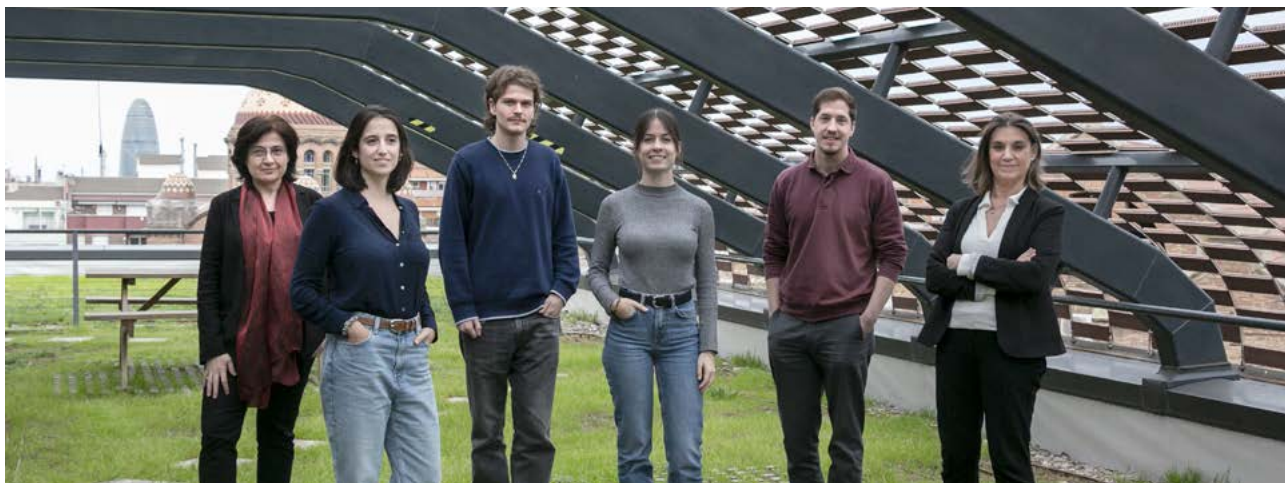
- Management of clinical trials contracts with participating centers.
- Management of collaboration agreements with laboratories / companies for funding.
- Management of clinical trial-related contracts (CRO's, E-CRDs, statistics, etc.). Management of clinical trial-related client and supplier invoices.
- Management of clinical trial insurance policies.
- Preparation of financial reports for the submission of studies to ethics committees.
- Management of payment of fees to the competent authorities.

7.2 Research and Innovation Management Area



7.2 Research and Innovation Management Area

Míriam Ors
Coordinator



7.2.1 Technology Transfer and Innovation Unit (UTI)

Míriam Ors
Coordinator

Staff
**Jana Iscla, Natalia Ichaso, Alba Arroyes,
Eric Armenteros, Pablo Valiente**

Functions

- It aims to create and foster an innovative ecosystem at IR Sant Pau, promoting the development and implementation of novel ideas. One of the key initiatives in this endeavour is the establishment of the INNOPAU incubator, together with the creation of the i-Lens programme to identify innovation opportunities and solutions to health challenges.
- It identifies opportunities, evaluates their potential, and enhances their value to ensure their effective transfer to market or implementation within the National Health System. The unit provides support in defining and managing the IP and market strategy, while considering essential factors such as regulatory compliance and stakeholder engagement.
- Offers support in the creation of spin-offs and fosters entrepreneurship.
- Supports funding searches for technology development projects and encourages public-private collaboration.
- Promotes the visibility of the IR Sant Pau within the national and international R&D&I ecosystems.



7.2.2 National Projects Unit

Fabiola Fernández
Coordinator

Staff

Eva José, Eva de la Vara, Amanda García, Marta Lorente, Eva Garcia, Elizabeth Sánchez, Cristina Manjón (since October 2025), Olga Díez (since October 2025)

Functions

Pre-Award

Research and dissemination of calls for proposals.

- Advise and support researchers for the submission of applications (review of IP, equipment and budget).
- Registration of applications submitted.
- Follow-up of applications submitted up to the resolutions.
- Reports indicators of the activity of the Unit.

Post-Award

- Activation of the aid granted from the moment it is granted until its completion in the management application.
- Economic follow-up (economic-scientific reports, validation spent and advice to the researcher).
- Negotiations with funding agencies: registration and cancellation of equipment, copies of contracts, starting canvassing, and requests for extensions.
- Response to requests from funding agencies.
- Internal and external audits of projects.
- Meetings for project creation and management.
- Interaction with different cross-cutting areas to implement the provisions of the calls for proposal.

7.2 Research and Innovation Management Area



7.2.3 International Projects Unit

Noemí Carranza

Coordinator

Staff

Martín Gebhardt

Neus Bota

Daisy Guamán

Functions

- The International Grants Unit supports researchers at IR Sant Pau in securing and managing competitive international research funding. The Unit provides guidance throughout the full lifecycle of international grants, from identifying funding opportunities and developing proposals to supporting the implementation of funded projects.
- Funding Opportunities: Identifying and disseminating relevant international funding programs, including European programmes and other international funding schemes.
- Proposal Development: Assisting with the preparation of competitive proposals and applications, including administrative, financial, and strategic guidance, as well as proposal review and submission.
- International Partnerships: Supporting the development of international collaborations and facilitating participation in European and global research networks and consortia.
- Training and Guidance: Delivering workshops, training sessions, and tailored advice to support researchers in identifying funding opportunities and developing competitive, high-quality proposals.
- Project Implementation (Post-Award): Managing the administrative and financial aspects of funded projects, including grant agreements, project management, reporting, and compliance.

7.2 Research and Innovation Management Area



7.2.4 Knowledge Management Unit

Montse Campmany
Coordinator

Staff
Cati Pérez
Almu Borrego

Functions

- Manage the R+D+i staff database, especially the research groups of the IR Sant Pau, keep it updated in the internal management system and on the website and report relevant changes to the organisations that require it.
- Keep the Current Research Information System (CRIS) up to date, especially scientific production, and give it visibility through the website and the Portal de la Recerca de Catalunya.
- Actively participate in the preparation of the annual scientific report, collecting and reviewing scientific information in collaboration with the research groups.
- Prepare files and calculate indicators on institutional scientific activity (personnel, funds raised, clinical trials, innovation and transfer) and send them to the official bodies that require them.
- Providing support in the periodic institutional accreditation and assessment processes.
- Advise research staff on any aspect related to authorship, institutional affiliation regulations, or the scientific journals in which they wish to publish.
- Provide tools and support to research staff in developing research data management plans, promoting open access to scientific publications, and depositing datasets resulting from research, following the FAIR principles.
- Promote open science and participate in policy writing and institutional strategy design

7.2 Research and Innovation Management Area



7.2.5 Quality Assurance Unit (QA)

Marta Mitjà
Coordinator

Staff
Javier Ferrando, María Guadalupe

Functions

- Establish mechanisms to assess Quality and Best Scientific Practices, promoting continuous improvement and excellence goals.
- Assessment for designing and implementing new Quality standards.
- Establishment and monitoring of the Quality Assurance Program.
- Follow-up of the Integrated Quality Management System, including the establishment of improvement policies under the following standards:
 - Good Manufacturing Practices of Advanced Therapy Medicinal Products
 - Good Clinical Practices
 - ISO 9001 Quality Management System
 - ISO 56001 Innovation Management System.
- Perform internal audits (advanced therapy medicinal production process / phase I clinical trials / Scientific and Technical Services / suppliers).
- Coordinate, oversee and follow up on external Inspections (Public Administration, Clinical Trial Promoters, Certification Entities).
- Coordinate the ISO 9001 Quality Committee.



7.2.6 Responsible Research and Innovation Unit (RRI)

Maria Rosa Ballester

Coordinator

Functions

- Incorporate RRI principles into the governance of the institution and foster RRI at all stages of any research project.
- Promote and encourage integrity in research by means of the creation of CIR (Integrity Committee for Research).
- Support to researchers in how to integrate the gender perspective in teams and in all phases of the project content.
- Promote, design or implement specific tools, activities, and methodologies (round table and cocreation sessions) to help researchers improve their research proposals involving the society.
- To develop the institution's impact strategy and promote the culture of impact by supporting researchers in the definition of impact narratives in their field of research and contributing to maximising the social impact of the health research carried out at the institution.
- To lead the competitive XWHIN (2025 XARDI 00009) Women's Health Innovation Network as well as its team



7.2.7 Scientific Secretariat

Mª José Bartolomé

Coordinator

Functions

- The Scientific Secretariat provides key support to the Scientific Director and serves as a link between the Directorate and the scientific community. It responds proactively to institutional needs and advises researchers on internal procedures and policies. In addition, it supports the Scientific Director in the coordination and organisation of a wide range of activities, including:
- Coordinating the Internal Scientific Committee.
- Supporting the Directors of the Strategic Scientific Areas.
- Providing administrative support for strategic institutional projects, such as the Joint Scientific Project and the Integration Project.
- Participating in accreditation processes and coordinating evaluation processes for research staff and research groups.
- Planning and organising meetings, conferences, and other initiatives that promote scientific exchange, foster excellence, and strengthen collaboration among research groups, as well as supporting any other actions led by the Scientific Directorate.

7.3 Administration Management Area



7.3 Administration Management Area

David González (from December 2025)
Managing Director

Jaume Bacardit (until September 2025)



7.3.1 Finance Unit

Laura San Martín
Coordinator

Purchases

Grace Careaga, Lorena Bustamante, Sara García

Accounting, Treasury, and Invoicing
Alfred Sanchez (until October), **Ana Badenes, Anna Espallargas, Ester Andrés, Esther Monferrer, Héctor Sánchez, Meritxell Criado, Núria García, Núria Vanaclocha, Sandra Parera, Soraya Gonzalez, Jessica Mejía**

Management Control

Laura Pino

Functions

- Carrying out financial and accounting management for the HSCiSP Research Institute: account management, treasury, and tax matters.
- Designing, administering, and controlling budget-related issues.

7.3 Administration Management Area

- Managing and controlling financial and material resources.
- Complying with obligations imposed by official bodies and ensuring compliance with current tax and financial regulations, along with the management policies of the HSCiSP Research Institute.
- • Providing support to researchers and research groups in various areas: invoicing, purchasing, project monitoring and control, and general administration.

7.3 Administration Management Area



7.3.2 Legal Advice and Public Procurement Unit

Sílvia Ribas

Coordinator

Staff

Uxue Moreno, María Rull, Andrea Vargas

Functions

The Legal Unit of IR Sant Pau is a key area within the Institute, responsible for:

- Ensuring regulatory compliance.
- Providing preventive legal advice across all branches of law.
- Managing public procurement and data protection procedures.
- Offering comprehensive support to all areas of the Institute to ensure activities align with the applicable legal framework and best practices in governance and transparency.

To achieve this, the Legal Unit is structured into three main areas:

- Public Procurement, responsible for:
- Managing and overseeing public procurement procedures.
- Ensuring that all awards for construction works, supplies, and services comply with the principles of legality, transparency, and free competition.
- Ensuring compliance with the provisions of the Public Sector Contracts Act.

Private Contracting (including commercial law and public-private partnerships), responsible for:

- Managing agreements and contracts with private entities and public-private partnerships.
- Overseeing commercial relationships involving the Institute.
- Protecting the intellectual and industrial property rights of both researchers and the Institute arising from research activities.
- Providing legal advice on the creation of spin-offs and the protection of trademarks, patents, clinical scales, and other intellectual and industrial property rights.

7.3 Administration Management Area

Regulatory Compliance and Data Protection

- Criminal Compliance
- Coordinating the functions of the Criminal Compliance Committee to ensure the Institute adheres to applicable laws, regulations, and ethical standards.
- Implementing and overseeing internal policies and procedures to prevent illegal, fraudulent, or unethical activities.
- Promoting a culture of integrity and accountability among staff regarding the regulatory framework.

Data Protection

- Managing data protection in accordance with regulations, ensuring proper handling of personal information (e.g., in sample transfer agreements or impact assessments).
- Ensuring compliance with specific regulations on biomedical research and data protection.
- Supervising the functions of the Data Protection Officer and addressing inquiries and audits related to privacy and information security.



7.3.3 Human Resources Unit

Ruth Acosta

Coordinator

Staff

Gisèle Domenech, Mireia Ventura,
Sandra Mansilla, Laura Vera, Mónica
Velasco, Lorena Marín, Inés Pérez

Functions

- **Recruitment Area:** This area is responsible for managing the Institution's recruitment processes to attract candidates with the most suitable profiles for existing vacancies.
- **Personnel Administration Area:** This area is responsible for the people's working environment and for ensuring compliance with current labour legislation.
- **Training Area:** This area is responsible for managing the training and development of the staff employed by the institution:
- **Teaching area:** This area is responsible for managing the legal and financial aspects of the teaching activities organised by the medical staff (congresses, courses, workshops, etc.).
- **Health & Safety and Biosecurity Area:** This area is responsible for the management of the Institute's preventive activities; it is in charge of risk assessment and the implementation of measures to guarantee the safety, health and well-being of staff, as well as protection against biological risks, complying with legal requirements regarding biological risks and genetically modified organisms.
- **Labour Relations Area:** This area is responsible for mediating relations between employees and the Institution.



7.3.4 Executive Secretariat

Eva Sanfeliu

Coordinator

Staff

Carina Massuto

Functions

- Provide support to the management team and to the Institute's administrative and research staff.
- Maintain internal and external interaction with governing bodies, Institute staff, other institutions (national and international), and public or private organisations within the research and healthcare ecosystem (Catalan, Spanish, and international).
- Centralise travel management for in-house and associated IR staff, as well as for external experts when needed.
- Offer technical secretarial support specialised in transfers and/or accommodation.
- Provide advice to ensure compliance with the legal framework and requirements associated with national and international competitive funding.
- Ensure compliance with internal regulations.
- Coordinate with users and travel agencies linked to the Central Results Centre of the Generalitat de Catalunya to guarantee comprehensive relocation and accommodation services.
- Manage the procedures required for hosting national and international students (bachelor's, master's, doctoral, etc.).
- Provide information and documentation to researchers and educational institutions.
- Interact with university platforms to manage and process training offers and internships.
- Handle all documentation necessary for student hosting.



h3>7.3.5 Information Systems Unit

Adrià Aceituno

Coordinator

Staff

David Sanfeliu, David Sánchez

h4>Functions

- Manage and maintain the organisation's technology infrastructure (servers, networks, hardware, and other key components).
- Ensure the availability, reliability, and performance of the IT infrastructure to support business operations.
- Provide end-user support by addressing technical issues and troubleshooting problems.
- Assist users with software applications and hardware.
- Maintain a help desk or support team to promptly respond to inquiries and resolve issues.
- Implement security measures to protect data from cyber threats.
- Manage access controls and ensure proper data backups and recovery processes.
- Stay up to date on security trends and apply best practices to reduce risks.
- Align technology initiatives with the organisation's overall business strategy.
- Conduct strategic planning to identify technology needs.
- Evaluate and adopt new technologies to improve efficiency.
- Ensure the IT infrastructure supports the long-term goals of the organisation.



7.3.6 Services and Infrastructures Coordination Unit

Javier Crespo
Coordinator

Functions

- The Services and Infrastructures Coordination Unit is responsible for coordinating the activities of the various sub-units it comprises.
- These sub-units include:
 - Scientific and technical service platforms
 - General services
 - Infrastructure management
- This coordination ensures a more effective response to the needs of the scientists and staff at the centre's structural facilities.



7.3.6.1 Infrastructure Unit

Staff
Rosa García

Functions

- Organising, selecting, and allocating spaces among the various departments and research groups.
- Coordinating with the institutions within the Sant Pau Campus to organise shared spaces.
- Responsible for designing and creating new workspaces to enhance the working conditions of different teams.



7.3.6.2 General Service Unit

Staff

Pau Escartín, Cristina García, Laura Ríos, Josép Moreno, Rosa García, Matilde Parreño, Rosa Antón, Javier Crespo

Functions

- **Building Management:** Overall supervision of the facilities to ensure proper functioning and maintenance of the building. This includes coordinating general services, addressing structural issues, and monitoring the proper use of spaces by staff and visitors.
- **General Laboratory Service:** The purpose of this service is to provide and maintain essential equipment and to ensure the availability of appropriately adapted laboratory spaces for the internal use of researchers and their teams. It encompasses approximately 600 square metres and includes around 300 pieces of equipment, which are available to users upon request or reservation.
- **Maintenance of the building and equipment:** Responsible for ensuring that both the building infrastructure and the technical and operational equipment is in optimal condition. This includes regular inspections, repairs, and coordination with external service providers when needed.
- **Security:** Management and supervision of building protection measures, access control, and general surveillance to ensure a safe environment for all staff, visitors, and institute property.
- **Warehouse:** Management and organisation of the storage areas for materials, equipment, and supplies. This includes receiving, recording, distributing, and tracking inventory needed for the institute's daily operations.
- **Booking of meeting rooms:** Management of availability and allocation of rooms for meetings, internal events, or institutional visits. This includes scheduling, coordinating technical requirements, and ensuring proper use of the spaces.
- **Overseeing cleaning services and waste treatment:** Coordination and supervision of cleaning services to maintain hygiene and order throughout the building. Also includes the management of proper treatment and disposal of waste, particularly waste generated by scientific activities.
- **Transfers:** Organisation and management of the movement of materials, equipment, or personnel, both within the building and to external locations. This includes logistical coordination and monitoring to ensure transfers are carried out safely and efficiently.



7.3.7 Communication Unit

Laura Díaz-Roig

Communications Director

Staff

Media Relations and content creator

Miguel Ramudo

Project Manager and Fundraising

Clara Rabat

Sant Pau's Membership Program

Elisabet Ruiz (from September 2025)

Public Engagement

Jorge Clusa

Internal Communications

David Torrente

Functions

- Increase the reputation and visibility of the Institute, and strengthen and create new relationships with key stakeholders.
- Define and develop the corporate image, manage media relations, foster citizen participation, promote scientific education, coordinate internal communication, and support fundraising efforts.
- Communicate and disseminate the Institute's innovative and pioneering research at both national and international levels.
- Engage citizens and other stakeholders through activities and projects to foster public commitment and raise awareness of biomedical research.
- Organise and distribute all internal communications within the Institute, including the production of newsletters and other materials.
- Act as an accredited Unit of Scientific Culture and Innovation (UCC+i) by the Spanish Foundation for Science and Technology (FECYT).
- Be a member of the Scientific Culture and Innovation Units Network, which includes the main science and innovation dissemination agents in Spain.



SANT PAU
Campus Salut
Barcelona



**Institut
de Recerca
Sant Pau**

Sant Pau Research Institute (IR Sant Pau) 2025
Fundació Institut de Recerca Hospital Sant Pau



@IRSantPau



hospital_santpau



IRSantPau



@hospitalsantpau