Institute santpau
Biomedical Research | Barcelona

2018 Scientific Report

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Presentation

As it was the case with the last 10 Annual Reports that I had the opportunity to introduce, the scientific and institutional performance of the IR-IIB Sant Pau along the year 2018 was once again encouraging.

The analysis of the scientific indicators and the various innovation and dissemination activities developed through 2018 clearly shows a continuity with respect to the sustained growth achieved during the last 10 years. Then, once more I have the pleasure and the pride to congratulate all members of the IR-IIB Sant Pau - researchers, technicians, managers, and the associated institutions- for their work and the outstanding achieved results.

Regarding the 'classic' scientific indicators, along 2018 the IIB community of research published 1168 documents of which 813 were originals articles. The overall impact factor (IF) of these documents reached 5.220 points with a mean IF of 5,19. We have maintained -and for some indicators improved- the achievements of 2017, that was a very good year for the scientific production of the Institute. On the innovation chapter, 22 families of patents were active during 2018 and two new patents requests were made; two new transference agreements were signed; two new spin-offs and two new start-ups were founded; two products were licensed and the Institute earned 130.000 euros for shared ownership agreements with companies. Added to the various dissemination of scientific activities promoted our Research Groups, with workshops, courses, seminars and conferences, the Scientific Seminars of the IIB Sant Pau continued to be lectured by recognised investigators from the national and international research community and have become a traditional and frequent appointment for our research community.

Nevertheless, the most outstanding achievement was the opening of the new Research Building that we inaugurated on the last quarter of 2018. This facility will not only positively change the way our experimental groups work but adds another milestone to the more than 600 hundred years of history of the main partner of the IIB by being the first building of the Hospital de la Santa Creu i Sant Pau Campus devoted entirely to traslational research. The new Research Building, costed a total of 17 million euros and included the cost of the adjoining provisional spaces until the new building was fully functioning. The funding of the project was possible with a 9 million loan to the IR from the Spanish Ministry for Health, through the Carlos III Institute, up to 5 million euros in aids from the European Regional Development Fund, administered by the Secretary's Office of Universities and Research of the Government of Catalonia and loans from the Council of Europe Development Bank (CEB), and a contribution of 12 million euros provided by the Santa Creu i Sant Pau Hospital's Private Foundation for the return of all loans. The new Research Building was designed to have low energetic consumption and their facades also aimed to dialogue with the nearby existing art nouveau constructions of the Recinte Modernista, which are declared UNESCO World Heritage. Erected both as a symbol of the tight link of our investigators to the translational and clinical research and as an original architectonical solution, an elevated tunnel communicates the research building to the medical facilities of Sant Pau Hospital.

Further to the other IIB facilities devoted to clinical research at the Sant Pau Campus, the new Research Building concentrates most of our human and material resources destined

to experimental and translational research, with complementary support services covering the main areas of biomedicine. The modern facilities with work spaces without separations between groups break with the tradition of compartmentalized laboratories and allows for a more cooperative interaction between researchers from different lines and will allow for a rational growth of research groups at Sant Pau. Moreover, the Research Building has allowed us to modernize and expand the facilities for first administrations of drugs (phase I studies) of the Drug Research Center (CIM Sant Pau). New spaces adapted to the special population in the area of cancer and hematological malignancies will extend the international competitive offer of the CIM. The new Research Building is also a management and administration center for the hospital's research resources and a place to transfer research activities to the public health system. This new structure also aims to be a pole of attraction for other partnerships and research groups from around the world with the aim of strengthening interrelations and increasing the added value of Sant Pau's researchers.

Another very important milestone of 2018 was the effective incorporation of the Catalonian Institute for Cardiovascular Research (ICCC) to Sant Pau Research Institute (IR). Besides the ICCC being a scientific partner and founder of the IIB Sant Pau, from January 1st 2018 and with the support of the CERCA Program all the researchers and most of the technicians and managers of the ICCC are fully and satisfactorily incorporated to carrying the legal structure of the IR Sant Pau. I have to thank the heavy efforts of the managers of the IR for this achievement and also to Professor Badimon, the former Director of the ICCC, for her positive view of the integration and her confidence on the future of the Institute.

I want to also acknowledge the contribution of the IIB community on the writing of the IIB Sant Pau 2019-2022 Strategic Plan for Innovation and Research. This third Scientific Plan of the Institute was a model of involvement of the personnel of the IIB in thinking and defining the future of the Institute. Different participative activities allowed researchers, technicians, administrators and scientific managers to deliberate about the present and future situation of the IIB Sant Pau. They identified strengths, weaknesses, opportunities, and threats that served to elaborate the 2019-2022 Strategic Plan that was approved in 2018 by the Governing Council of the IIB Sant Pau. The Plan identified five strategic axes: scientific excellence, internationalization and strategic alliances, innovation and transfer, scientific support services and fundraising and sustainability. Attracting more resources from clinical trials, internationalization and transfer, will contribute to maintain the finances of the Research Institute (the IIB manager) which in the immediate future will have to face economic challenges derived from episodic a diminution on the regular structural support provided to the IR.

Finally, after most than ten years at the forefront of the Institute, I have the sensation of 'work been done' and that the time has arrived for me to take a step aside from the Direction of the IIB. I firmly believe that for institutional health it is judicious not to excessively prolong the same executive position and that a change after two consecutive periods is advisable.

Among other attainments I have had the honor to lead the formation of the IIB Sant Pau, the formation of the scientific support platforms, the refurbishing of the old buildings that formed the Contingency Plan to transitorily allocate platforms and research groups in parallel to the gathering of resources to construct the New Research Building , the accreditation and re-accreditation of the IIB Sant Pau by the Carlos III Institute and the CERCA system, and the conception and execution of two Strategic Plans of the Institute. I have to give full credit for these and other achievements to my collaborators at the IR. This is also the place to acknowledge the support of the researchers, the members of the External and Internal Scientific Advisory Boards, the Governing Council of the IIB Sant Pau and the Board of Trustees of the Research Institute for giving me and my team their confidence in difficult times. At the time of writing this introduction, the process of the selection of a new Director conducted by the Scientific Advisory Board, the CERCA Institution, and the Board of Trustees, is almost finished. I wish the new Director all the success in conducting the mission of the IIB Sant Pau: fostering high quality research and innovation and promoting its translation into regular practice, with the aim of responding to the health problems of the community.

Jaume Kulisevsky
Scientific Director IIB Sant Pau

IIB Sant Pau Entities

Hospital de la Santa Creu i Sant Pau Healthcare Management Foundation

The Hospital de la Santa Creu i Sant Pau Healthcare Management Foundation (HSCSP Healthcare Management Foundation) is a high-technology specialist care hospital performing patient care, teaching and research activities in the clinical, epidemiological and healthcare services fields. It offers accredited specialist and undergraduate health science training courses.

Hospital de la Santa Creu i Sant Pau Research Institute Foundation

The Hospital de la Santa Creu i Sant Pau Research Institute Foundation (HSCSP RI) promotes, manages and communicates biomedical research conducted in the HSCSP. It raises and manages funds and other resources for health science research in the basic, clinical, epidemiological and healthcare service fields.

Hospital de la Santa Creu i Sant Pau Private Foundation

The Hospital de la Santa Creu i Sant Pau Private Foundation (HSCSP Private Foundation), which owns the HSCSP, is responsible for building, improving and maintaining buildings and premises used for medical care and associated and complementary activities.

Autonomous University of Barcelona (UAB) - Ageing Institute

The UAB, a leading university renowned for quality and innovation in research, coordinates an influential scientific and technological centre, called Esfera UAB, responsible for promoting new business projects. The UAB also projects its productive activity in such a way as to disseminate new knowledge in society.

Puigvert Foundation

The Puigvert Foundation has the aim of deepening medical knowledge and perfecting medical techniques in the field of research and treatment of urinary and male reproductive system disorders and diseases. More specifically, it performs urology, nephrology and andrology research, focusing particularly on medical care, teaching, training and studies.

Iberoamerican Cochrane Centre

This independent, not-for-profit organization has as its main aim the promotion of medical practice based on the best available scientific evidence. To this end, it ensures that valid, useful, up-to-date and thoroughly reviewed information is made available for clinical and healthcare decision making.

Barcelona-Sardenya Primary Care Centre

Part of the public healthcare system, this teaching and care centre provides primary care services in its catchment area of Barcelona and has a research unit which performs clinical trials and epidemiology studies.

Public Health Agency of Barcelona

This autonomous body, created by the Barcelona Health Consortium, has as its main mission to analyse and monitor the health of the population of Barcelona with a view to improving health and preventing risk. It is also responsible for epidemiological surveillance and the provision of medical care to substance abusers. It has an excellent track record in the public health and applied research fields.

Blood and Tissue Bank

The Blood and Tissue Bank is a public healthcare body which carries out patient care, teaching and research activities in the blood transfusion and tissue bank fields.

Vertical Areas of Research

Cardiovascular Diseases

The incorporation of new technologies that facilitate molecular profiling and gene regulation has led to innovative research into heart disease. The great diversity of the groups in this area gives research varied perspectives, whether in developing or testing the effectiveness of new biomarkers (as in the investigation of the metabolic and genetic bases of diseases) or improving the range of results and possible applications in short-term therapies.

Genetic, Metabolic and Inflammatory Diseases

Identifying the genes and mutations responsible for genetic diseases is an essential component of knowledge and understanding of the physiological bases of metabolic pathways and also in the development of new forms of treatment for common diseases affecting large proportions of the population, such as diabetes and obesity, known but with a hereditary diseases, infectious diseases (AIDS, tuberculosis, etc) and rare diseases (not well know but with a devastating impact on those affected).

Haematological and Oncological Diseases

A broad range of research is conducted in this area, particularly in head-and-neck, breast, ovary, colorectal and haematological cancers, among others. Research in covers a wide range of fields, with disciplines that include nanomedicine, new anticancer agents and predictive molecular markers. Initiatives of specific relevance include the GAIT (Genetic Analysis of Idiopathic Thrombophilia) project, a world pioneer in the identification of genes influencing the risk of thromboembolic disease, and research into antitumour immunotherapy in animals and humans.

Neurological, Mental Disorders and Ageing

This area covers research in a broad range of disciplines. Besides the study of ageing and the most common neurodegenerative disorders such as Alzheimer and Parkinson, neurological research is also focused on stroke, neuroimmunology and neuromuscular diseases. Research into cognitive, affective, psychotic and personality disorders ranges from identification and evaluation of new therapeutic targets to neurogenesis and the effects of deep-brain stimulation. Research in this field has the support of the Drug Research Centre, which assesses the effectiveness of new drugs and therapies in humans.

Uronephrology and Experimental Surgery

IIB Sant Pau promotes experimental surgery in the knowledge that this area has a promising future both as an independent research line and as a complement to general surgery. This interdisciplinary approach provides valuable new insights and ensures techniques and procedures of great clinical relevance. Current areas of interest include the development of minimally invasive techniques and the application of deep-brain stimulation in different pathologies. In the fields of andrology, urology and nephrology research, the Puigvert Foundation is a leading centre in Spain.

Transversal Areas of Research

Epidemiology, Public Health and Healthcare Services

Research in these fields aims to determine the magnitude and distribution and identify the determinants of public health problems in order to evaluate the effectiveness and efficiency of public interventions and prevention practices. This area also aims to reduce patient risk and make healthcare safer by promoting evidence-based medical practice and ensuring the use of conscious, explicit and rational decision making concerning patient care.

Molecular, Genomic, Cellular and Kinetic-Dynamic Bases for Diseases and their Treatment

This area focuses on the structure of proteins associated with neurodegenerative diseases and inflammatory processes and on factors linked to the innate immune system. Research is also conducted in the area of osteoporosis, ageing-related macular degeneration and coagulation-cascade factors closely linked to cardiovascular disease and haemophilia. Such studies are vital to the understanding of diseases of the heart, blood and nervous systems and to advances in the fields of cancer and epidemiology.

Associated Groups

This area includes HSCSP Research Institute groups that do not form part of IIB Sant Pau because they have not, as yet, been accredited by the External Scientific Committee.

Organization Chart

Steering Committee

Chair

Dr. Alberto Salazar
Hospital de la Santa Creu i Sant Pau Healthcare Management Foundation

Members

Dr. Jordi Bachs
Hospital de la Santa Creu i Sant Pau Private Foundation

Dr. Lluís Tort
Autonomous University of Barcelona

Dr. Helena Isábal
Puigvert Foundation

Dr. Joan Garcia
Blood and Tissue Bank

Dr. Xavier Bonfill
Iberoamerican Cochrane Centre

Dr. Carme Borrell
Public Health Agency of Barcelona

Mr. Jaume Sellarès
Barcelona-Sardenya Primary Care Centre

Dr. Jaume Kulisevsky
Hospital de la Santa Creu i Sant Pau Research Institute

Internal Scientific Committee

Chair

Dr. Jaume Kulisevsky
IIB Sant Pau Manager

Vice-Chair

Dr. Antonio López Pousa
Chair, Clinical Research Ethics Committee

4 members designated by the IIB Sant Pau Manager

Dra. Lina Badimon
Molecular Pathology and Therapeutic of Ischaemic and Atherothrombotic Diseases

Dr. Alex Bayes
Molecular physiology of the synapse

Dr. Sílvia Mateu
Puigvert Foundation

Dr. Carlos Brotons
Barcelona-Sardenya Care Research Centre

2 members each representing IIB Sant Pau thematic areas

Cardiovascular Diseases

Dr. Juan Cinca Cuscullola
Clinical and translational cardiology

Dr. José Martínez
Atherosclerosis and vascular biology

Genetic, Metabolic, Inflammatory and Infectious Diseases

Dr. Cándido Juárez
Inflammatory diseases

Dr. Carlos Guarner
Digestive diseases

Haematological and Oncological Diseases

Dr. Miquel Quer
Ear, nose and throat cancers

Dr. Agustí Barnadas
Clinical oncology

Neurological, Mental Disorders and Ageing

Dr. Alberto Lleó
Neurobiology of dementia

Dra. Maria J. Portella
Clinical psychiatry

Uronephrology and Experimental Surgery

Dr. José Ballarín
Nephrology research

Dr. Manel Trias
General and digestive surgery

Epidemiology, Public Health and Healthcare Services

Dr. Carles Ariza
Evaluation of public health policies and programmes

Dr. Gerard Urrútia
Clinical epidemiology and healthcare services

Molecular, Genomic, Cellular and Kinetic-Dynamic Bases for Diseases and Treatments

Dr. José Manuel Soria
Genomics and bioinformatics for genetically complex disease

Dra. Marta Valle
Pharmacokinetic/pharmacodynamic modelling and simulation

External Scientific Committee

Dr. José López-Barneo
Physiology professor
Institute of Biomedicine of Seville (Spain)

Dr. Ángel María Carracedo
Genomic medicine group researcher
Institute of Legal Medicine
Faculty of Medicine and Dentistry
Santiago de Compostela University (Spain)

Dr. José Palacios
Head of the pathology/anatomy Department
Ramón y Cajal Hospital (Madrid, Spain)

Dr. Agustín Gómez de la Cámara
Clinical epidemiology group researcher
Doce de Octubre Teaching Hospital (Madrid, Spain)

Dr. John Louis McGregor
Director of Research-INSERM Unit 689
Cardiovascular Research Centre–Lariboisière Hospital (Paris, France)

Dr. Jordi Alonso
Health Services Research Unit
Hospital del Mar Municipal Institute for Medical Research (Barcelona, Spain)

Mr. Guillem López Casasnovas
Professor
Faculty of Economics and Business Sciences
Pompeu Fabra University (Barcelona, Spain)

Management Team

Scientific & Management Director
Dr. Jaume Kulisevsky

Financial Director
Esther Zamora

Deputy Director
Miriam Ors

Management Assistant
Eva Sanfeliu

Financial Data

Below, we highlight some economic data. The first graph shows the evolution of the public and private funds collected by IIB Sant Pau during the period between 2013 and 2018, and the 2018 results account.

On the exercise 2018 we were not able to fulfill part of the operational financing planned in the sustainability plan, which would have allowed us to close with positive numbers.

We would like to highlight the integration of the Consorci Institut Català de Ciències Cardiovasculars, that was carried out on January 1st 2018.

Esther Zamora
Financial Director

Public/Private Income Summary 2013-2018

	2013	2014	2015	2016	2017	2018
Public	4,99	5,92	7,42	7,58	8,68	10,43
Private	7,59	7,42	7,94	9,49	8,85	10,98
Total	**12,58**	**13,34**	**15,36**	**17,07**	**17,53**	**21,41**

In millions of euros

Income Statement year ending 31 December 2018

Income from activities	18.914.533,62
Services	6.007.788,02
Collaborations with partners and sponsors	2.821.144,50
Government grants	9.364.950,68
Other grants, donations and legacies	785.520,31
Repayment of grants, donations, etc	-64.869,89
Stocks and supplies	-1.870.273,28
Material and equipment for activities	-1.870.273,28
Grants awarded and other expenses	**17.958,65**
Personnel expenditure	-11.179.588,59
Salaries	-8.562.755,39
Social security	-2.616.833,20
Other operating expenses	-6.599.492,41
External services	-6.142.934,45
Taxes	-71.166,84
Loss, deterioration and variation in provisions for operations	-72.165,83
Other operating expenses	-313.225,29
Depreciation of fixed assets	-947.347,12
Grants, donations and bequests transferred to results	757.320,47
Other gains/losses	80.213,41
OPERATIONAL PROFIT/LOSS	-826.677,43
Financial income	138.691,87
Financial expenditure	-145.282,76
Exchange differences	-144,00
FINANCIAL PROFIT/LOSS	-6.734,89
OVERALL PROFIT/LOSS	-833.411,92

In euros

Publications with an Impact Factor and Quartile

Production status

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Publications	367	461	514	534	664	654	933	804	996	1,167	1.168
Total IF	1,722.76	2,158.53	2,448.88	2,298.44	3,269.47	2,848.27	4,074.22	3,927.43	4,338,839	5,170.871	5,220.1160
Mean IF	4.69	4.68	4.78	4.30	4.92	4.35	4.37	3.98	5	5.07	5.19

Indexed publications by quartile

Research Resources

Centre	Active		Granted	
	2017	2018	2017	2018
AGAUR (Agència de Gestió d'Ajuts Universitaris i Recerca)	24	1	1	28
European Commission	3	3	1	2
American Grants	-	2	1	2
Fundació Infermeria i Societat	3	4	1	-
Fundació Marató TV3	14	17	3	2
Fundación Mútua Madrileña (FMM)	1	2	1	1
Fundació Josep Carreras Internacional	1	1	-	-
ISCIII (Institut de Salut Carles III)	111	117	29	27
Ministerio de Ciencia, Innovación y Universidades	6	8	-	7
SEPAR (Sociedad Española de Neumología y Cirugía Torácica)	2	1	-	1
AECC (Asociación Española Contra el Cáncer)	4	4	-	-
Sociedad Española de Diabetes	-	-	-	1
Fundació Catalana de Pneumologia	1	3	1	-
GILEAD	1	1	-	-
Grupo Español de Investigación en Sarcomas	1	-	-	-
Federación Española de Enfermedades Raras / Fundación Isabel Gemio / Federación Española de Enfermedades Neuromusculares	1	-	-	-
Fundació Privada de l'Hospital de la Santa Creu i Sant Pau	7	-	-	9
Fundación y Sociedad Española de Arteriosclerosis	1	1	-	-
European Society of Cardiology	1	-	-	-
Fundació Víctor Grífols i Lucas	-	1	1	-
Fundació Ramón Pla Armengol	1	1	-	-
Institució Cerca	1	-	-	-
Fundación BBVA	1	1	-	-
BIOCAT	1	1	-	-
Grupo Español de Oncología Genitourinaria	1	-	-	-
Fundació Privada Daniel Bravo-Andreu	1	1	-	-
Fundación Española para el Fomento de la Investigación de la Esclerosis Lateral Amiotrófica	-	1	1	-
Acadèmia de Ciències Mèdiques	-	1	1	-
Departament de Salut (PERIS)	-	8	8	5
Fondation Jérôme Lejeune	-	-	-	2
Organización Nacional de Ciegos Españoles (ONCE)	-	-	-	1
Societat Catalana de Cardiologia	-	-	-	1
Societat Catalana de Medicina Intensiva i Crítica	-	-	-	1
	193	183	49	90

Research Training

Centre	Active		Granted	
	2017	2018	2017	2018
AGAUR (Agència de Gestió d'Ajuts Universitaris i Recerca)	6	7	3	1
Departament de Salut	1	-	-	-
MEC (Ministerio de Educación, Cultura y Deportes)	-	1	1	1
Ministerio de Ciencia, Innovación y Universidades	3	5	3	4
ISCIII (Instituto de Salud Carlos III)	30	34	15	23
American Grants	1	-	-	-
Fundació Privada de l'Hospital de la Santa Creu i Sant Pau	10	-	-	-
SEPAR (Sociedad Española de Neumología y Cirugía Torácica)	1	-	-	1
SOCAP (Societat Catalana de Pneumologia)	1	1	1	-
FUCAP (Fundació Catalana de Pneumologia)	1	-	-	-
FEHH (Fundación Española de Hematología y Hemoterapia)	1	1	-	1
AECC (Asociación Española Contra el Cáncer)	1	2	1	-
Departament de Salut (PERIS)	-	4	5	10
Fundació Francisco Cobos	-	-	-	1
Sociedad Española de Cardiología	-	-	-	1
	56	55	29	43

Innovation Activity

Patents

Title	HSCSP RI author(s)	Terri-tory	Application number	Filling date	Status	Grant number	Grant date
Anticuerpos específicos para ApoJ Glicosilada y usos de los mismos	Lina Badimon Teresa Padró	Europe	EP18382752.6	23/10/2018	Filed	-	-
Therapeutic use of Afatinib in cancer	Jordi Surrallés	Europe	EP18382527.2	16/07/2018	Filed	-	-
Uso de inhibidores para el tratamiento del aneurisma de aorta	Cristina Rodríguez José Martinez Laia Cañes	Spain	ES201830607	21/06/2018	Filed	-	-
DNA damage repair disease therapies	Jordi Surrallés	Europe	EP18382322	11/05/2018	Filed	-	-
Markers of synaptopathy in neurodegenerative disease	Olivia Belbín Albert Lleó Àlex Bayés Juan Fortea Daniel Alcolea	Europe	EP 18382175	16/03/2018	Filed	-	-
Dispositivo ce contención para bebés prematuros (utility model)	Silvia Vicente	Spain	201830301	06/03/2018	Granted	ES 1209916 Y	28/06/2018
Método para la identificación de pacientes con mayor riesgo de desarrollar miocardiopatía dilatada secundaria a mutaciones en el gen Lamina A/C	David de Gonzalo Concepción V. Llorente	-	PCT/ ES2018/070697	25/10/2018	Filed	-	-
Marcadores para la miocardiopatía dilatada	David de Gonzalo Concepción V. Llorente	Spain	ES201700749	25/10/2017	Filed	-	-
Genetic biomarker profiles for endurance sport suitability	José Manuel Soria	-	PCT/ EP2018/082592	26/11/2018	Filed	-	-
Genetic biomarker profiles for endurance sport suitability	José Manuel Soria	Europe	EP17382799.9	27/11/2017	Filed	-	-
Nanostructured proteins and uses thereof	Ugutz Unzueta Ramón Mangues Mª Virtudes Céspedes	-	PCT/ EP2018/061732	07/05/2018	Published	-	-
Nanostructured proteins and uses thereof	Ugutz Unzueta Ramón Mangues Mª Virtudes Céspedes	Europe	EP17169722.0	05/05/2017	Published	-	-
Therapeutic nanoconjugates and uses thereof	Ugutz Unzueta Ramón Mangues Mª Virtudes Céspedes	Europe	EP17382461.6	14/07/2017	Filed	-	-

Title	HSCSP RI author(s)	Terri-tory	Application number	Filling date	Status	Grant number	Grant date
Systems and methods to assess infarcted myocardial tissue by measuring electrical impedance during the cardiac cycle	Juan Maria Cinca Gerard Amorós Esther Jorge	Europe	EP16712341.3	30/10/2018	Filed	-	-
Systems and methods to assess infarcted myocardial tissue by measuring electrical impedance during the cardiac cycle	Juan Maria Cinca Gerard Amorós Esther Jorge	USA	US16/090203	28/09/2018	Filed	-	-
Systems and methods to assess infarcted myocardial tissue by measuring electrical impedance during the cardiac cycle	Juan Maria Cinca Gerard Amorós Esther Jorge	-	PCT/ EP2016/056933	30/03/2016	Published	-	-
Device for simulating an endoscopic operation via natural orifice	Ramon Rovira	USA	US16/061,101	11/07/2018	Published	-	-
Device for simulating an endoscopic operation via natural orifice	Ramon Rovira	Europe	EP16810340.6	11/07/2018	Published	-	-
Dispositivo para simular una operación endoscópica vía orificio natural	Ramon Rovira	-	PCT/ EP2016/080572	12/12/2016	Published	-	-
Methods and kits for the diagnosis and risk stratification of patients with ischemia	Lina Badimon Teresa Padró	China	CN201780029342.8	12/11/2018	Filed	-	-
Methods and kits for the diagnosis and risk stratification of patients with ischemia	Lina Badimon Teresa Padró	Russia	RU2018139780	12/11/2018	Filed	-	-
Methods and kits for the diagnosis and risk stratification of patients with ischemia	Lina Badimon Teresa Padró	South Korea	KR1020187032609	09/11/2018	Filed		-
Methods and kits for the diagnosis and risk stratification of patients with ischemia	Lina Badimon Teresa Padró	Mexico	MX2018/012580	12/10/2018	Filed	-	-
Methods and kits for the diagnosis and risk stratification of patients with ischemia	Lina Badimon Teresa Padró	Australia	AU2017251355	12/10/2018	Filed	-	-
Methods and kits for the diagnosis and risk stratification of patients with ischemia	Lina Badimon Teresa Padró	Brasil	BR112018 070971-9	11/10/2018	Filed	-	-
Methods and kits for the diagnosis and risk stratification of patients with ischemia	Lina Badimon Teresa Padró	Canada	CA3,020,666	11/10/2018	Filed		-
Methods and kits for the diagnosis and risk stratification of patients with ischemia	Lina Badimon Teresa Padró	Japan	JP2018-554391	10/10/2018	Filed	-	-
Methods and kits for the diagnosis and risk stratification of patients with ischemia	Lina Badimon Teresa Padró	USA	US16/092,703	10/10/2018	Filed	-	-
Methods and kits for the diagnosis and risk stratification of patients with ischemia	Lina Badimon Teresa Padró	Europe	EP17717159.2	10/10/2018	Filed	-	-

Title	HSCSP RI author(s)	Terri-tory	Application number	Filling date	Status	Grant number	Grant date
Methods and kits for the diagnosis and risk stratification of patients with ischemia	Lina Badimon Teresa Padró	Israel	IL262245	09/10/2018	Filed	-	-
Methods and kits for the diagnosis and risk stratification of patients with ischemia	Lina Badimon Teresa Padró	Singapur	SG11201808820Q	05/10/2018	Filed	-	-
Methods and kits for the diagnosis and risk stratification of patients with ischemia	Lina Badimon Teresa Padró	-	PCT/ EP2017/058768	12/04/2016	Published	-	-
Prevention and/or treatment of ischemia or ischemia / reperfusion injury	Lina Badimon Gemma Vilahur Teresa Padró	Japan	JP2019-500003	13/09/2018	Filed	-	-
Prevention and/or treatment of ischemia or ischemia / reperfusion injury	Lina Badimon Gemma Vilahur Teresa Padró	Europe	EP17710542.6	10/09/2018	Filed	-	-
Prevention and/or treatment of ischemia or ischemia / reperfusion injury	Lina Badimon Gemma Vilahur Teresa Padró	USA	US16/084521	12/09/2018	Filed	-	-
Prevention and/or treatment of ischemia or ischemia / reperfusion injury	Lina Badimon Gemma Vilahur Teresa Padró	-	PCT/ EP2017/056027	14/03/2017	Published	-	-
Procedimiento y dispositivo para el aprendizaje y entrenamiento de operaciones de cirugía laparoscópica e intervenciones similares	Ramon Rovira	Spain	P201331528	16/10/2013	Granted	ES2534140B1	17/04/2015
Methods and reagents for efficient and targeted delivery of therapeutic molecules to CXCR4 cells	Ramon Mangues Ugutz Unzueta Virtudes Céspedes	Spain	ES2012206533	19/07/2012	Validated	ES2646390 (T3)	09/08/2017
Methods and reagents for efficient and targeted delivery of therapeutic molecules to CXCR4 cells	Ramon Mangues Ugutz Unzueta Virtudes Céspedes	Europe	EP12704711.6	13/01/2012	Granted	EP2663336 B1	09/08/2017
Methods and reagents for efficient and targeted delivery of therapeutic molecules to CXCR4 cells	Ramon Mangues Ugutz Unzueta Virtudes Céspedes	Israel	IL227442	11/07/2013	Filed	-	-
Methods and reagents for efficient and targeted delivery of therapeutic molecules to CXCR4 cells	Ramon Mangues Ugutz Unzueta Virtudes Céspedes	USA	US 13/979560	01/11/2013	Granted	US 9580468B2	28/02/2017
LRP1 as key receptor for the transfer of sterified cholesterol from very-low-density lipoproteins (VLDL) to ischaemic cardiac muscle	Concepción V. Llorente Lina Badimon	Europe	12804028.4	29/06/2011	Granted	EP2728005B1	22/08/2018

Title	HSCSP RI author(s)	Terri-tory	Application number	Filling date	Status	Grant number	Grant date
LRP1 as key receptor for the transfer of sterified cholesterol from very-low-density lipoproteins (VLDL) to ischaemic cardiac muscle	Concepción V. Llorente Lina Badimon	USA	US14129446	29/06/2011	Granted	US 9096671 B2	08/04/2015
Conjugates comprising nanoparticles coated with platinum containing compounds	Òscar Gallego	Japan	JP2011540141	13/06/2011	Granted	P1133JP00	07/01/2016
Conjugates comprising nanoparticles coated with platinum containing compounds	Òscar Gallego	Canada	CA2745972	06/06/2011	Granted	CA2745972	11/04/2016
Conjugates comprising nanoparticles coated with platinum containing compounds	Òscar Gallego	Israel	IL213408	06/06/2011	Granted	IL213408	30/09/2017
Conjugates comprising nanoparticles coated with platinum containing compounds	Òscar Gallego	Turkey	P1133TREP	06/06/2011	Granted	TR 2014 11735 T4	23/02/2016
Conjugates comprising nanoparticles coated with platinum containing compounds	Òscar Gallego	Europe	EP20090768395	15/12/2009	Granted	EP2379114B1	09/07/2014
Conjugates comprising nanoparticles coated with platinum containing compounds	Òscar Gallego	USA	US13140347	15/12/2009	Granted	US9023370 B2	20/12/2015
Conjugates comprising nanoparticles coated with platinum containing compounds	Òscar Gallego	Spain	E09768395	15/12/2009	Granted	ES2505890T3	10/10/2014
Blood-based assay for dysferlinopathies	Isabel Illa Eduard Gallardo	Canada	CA2468431	26/05/2004	Granted	CA2468431C	28/06/2011
Blood-based assay for dysferlinopathies	Isabel Illa Eduard Gallardo	USA	US10/306662	27/11/2002	Granted	US7172858B2	06/02/2007
Blood-based assay for dysferlinopathies	Isabel Illa Eduard Gallardo	Japan	JP2003547654A	27/11/2002	Granted	JP4282483B2	24/06/2009

Spin off

Tax number	Business name	Type	Constitution date	Licensed technology
B-66970088	Nanoligent S.L.	Start-up	13/03/2017	New therapeutic product in the oncology area, especially in the treatment of metastasis.
B-67079186	Glycardial Diagnostics S.L.	Spin-off	15/09/2017	Apo J-Glyc as a novel biomarker for the diagnosis and prognosis of myocardial ischemia
B-66963257	Blumentech S.L.	Spin-off	01/03/2017	Pharmacological therapies for psychiatric and neurological patients
B-66663303	Surgitrainer S.L.	Start-up	15/03/2016	Method and device for learning and training operations laparoscopic surgery and similar procedures

Other IP

Type	Title	Author(s)	Register date
Trademark registration	m-resist	Iluminada Corripio	20/04/2017
Trademark registration	m-HEART	Mª Antonia Mangues Mar Gomis	08/04/2016
Notarial registration	DUO QUEST Clinical Scale	Antonia Campolongo	08/04/2016
Notarial registration	Memory Unit Database	Daniel Alcolea Juan Fortea	30/09/2015
Notarial registration	Parkinson Disease Cognitive Functional Rating Scale (PD-CFRS)	Jaime Kulisevsky Javier Pagonabarraga	17/07/2015
Notarial registration	Parkinson's Disease - Cognitive Rating Scale (PD-CRS)	Jaime Kulisevsky Javier Pagonabarraga	17/07/2015

Technology Transfer Agreements

Year	Title Contract	Collaborator /Client	Research group
2018	EDC4-KO HEK293T and control cell lines licence	Applied Biomedical Materials	Genome Instability and DNA Repair Syndromes
2018	Patent licence agreement	Adx Neuroscience	Neurobiology of dementia
2017	Patent licence agreement	Nanoligent, SL	Oncogenesis and Antitumour Drugs
2017	Platform/App licence	Sociedad de Gestión de Proyectos tecnológicos, SL (Nabelia)	Pharmacy
2016	PD-CRS Scale licence	Sanofi-Aventis	Parkinson Disease and Movement Disorders
2016	DiGestEpiClin Platform licence	Fundació Institut per l'Excel·lència Clínica i Sanitària	Clinical Epidemiology and Healthcare Services
2016	Surgitrainer and Hystrainer licence	Surgitrainer SL	Reproductive Health
2015	PD-CRS Scale Scale licence	Eli Lilly & Co.	Parkinson Disease and Movement Disorders
2015	PD-CFRS Scale licence	Bracket Global LLC	Parkinson Disease and Movement Disorders

2018 Highlights

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Inauguration of the new building of the Sant Pau Research Institute

On 15 November 2018, the President of the Generalitat de Catalunya, Molt Honorable Mr Joaquim Torra, inaugurated the new building of the Sant Pau Research Institute.

At the initiative of the Research Institute, the Fundació Privada de l'Hospital de la Santa Creu i Sant Pau has promoted the construction of this new facility for research, which brings together in a single building the facilities dedicated to this activity.

The total cost of the new research building in the Sant Pau was 17 million euros.

The new construction, financed by the Fundació Privada Hospital de la Santa Creu i Sant Pau with a minimum contribution of 12 million euros, has a subsidy of up to 5 million euros from European FEDER funds, managed by the Secretaria d'Universitats i Recerca del Departament d'Empresa i Coneixement de la Generalitat de Catalunya. The global financing of the project includes from the contingencies of the provisional spaces to the start-up of the new building, and has been possible with two loans, one from the Ministry of Health, through the Carlos III Institute, and another from the Council of Europe Development Bank (CEB), through Caixabank.

(15/11/2018)

New spin-off to develop a nanomedicine for the treatment of cancer

Researchers from the Research Institute of Sant Pau, the Institute of Biotechnology and Biomedicine of the Autonomous University of Barcelona, and the CIBER of Bioengineering, Biomaterials and Nanomedicine have developed a nanomedicine for the treatment of metastasis through selective elimination of tumor stem cells. It is a system based on nanoparticles that transport a chemotherapeutic drug and release it into cancer cells.

The team of researchers, led by Ramon Mangues, of the Oncogenesis and Antitumour Group of the Research Institute of Sant Pau and Esther Vázquez and Antonio Villaverde, of the UAB, has created a prototype of the drug and have carried out in vivo clinical trials in animal models of colorectal cancer, which have shown their efficacy, selective biodistribution and low toxicity. Now, in order to promote the development of the drug towards the clinic, they have created the spin-off Nanoligent, led by Manuel Rodríguez, a professional with experience in the field of investment and the creation and growth of biotech companies.

The technology has been presented at the main international patent offices. The European Patent Office (EPO) and the United States Patent and Trademark Office (USPTO) have granted three patents that protect it and have already been licensed to the Nanoligent company.

(07/06/2018)

Sant Pau and CIBERCV describe a new technique for detecting scars after myocardial infarction by bioimpedance

Researchers from the Centro de Investigación Biomédica en Red de Enfermedades Cardiovascular (CIBERCV) of the Joan Cinca de San Pablo group have recently described a new technique to identify areas of scarring in patients with myocardial infarction by means of endocardium mapping of tissue electrical impedance.

In a preclinical study carried out in a porcine model of chronic myocardial infarction, it is evident that this procedure can allow recognition of the scar of the infarction and, theoretically, is not influenced by changes in the cardiac activation sequence. "Accurate identification of scar areas is essential for electrical ablation of arrhythmias in patients with myocardial infarction to provide optimal results,"says Dr. Cinca.

(28/02/2018)

The project coordinated by Dr. Alex Bayés highlighted in the Newsletter of ERA-NET Neuron

The ERA-NET Neuron Newsletter of June has been published where the groups that were awarded with an ERA-NET grant are presented. Among them, the work coordinated by Dr. Àlex Bayés from IIB Sant Pau is presented. The project title is "Synaptic Dysfunction in Intellectual Disability Caused by SYNGAP1. Translational Research to Develop Human Models and Advance Pharmacological Treatments". This grant will allow an important advance in the research on the dysfunction of the neuronal synapses, in the Intellectual Disability caused by SYNGAP1.

(03/07/2018)

New IIB Sant Pau research group created in pharmacogenomics and neurovascular genetics

The research group in pharmacogenomics and neurovascular genetics, led by Dr. Israel Fernández, has recently joined the Biomedical Research Institute of the Santa Creu i Sant Pau Hospital (IIB Sant Pau), as an Emerging Group. The new group focuses its research mainly on genetic and epigenetic studies of stroke. He also studies the intestinal microbiota to learn about the relationship of these microorganisms with the possibility of suffering a stroke. The group also investigates the evolution of patients after having a stroke.

(23/05/2018)

Our spin-off company GlyCardial Diagnostics has received the SME instrument phase II funding of the H2020 programme

GlyCardial Diagnostics

European Commission

Beneficiary of Horizon 2020 SME Instrument

We are proud to anounce that our spin-off company GlyCardial Diagnostics has received the SME instrument phase II funding of the H2020 programme to advance in the development of our novel test for the early detection of cardiac ischemia in their first trial. It is highly motivating to see that the EU trusts in young and innovative projects.

(17/12/2018)

A blood biomarker allows the early detection of Alzheimer's disease in people with Down syndrome

A study published in The Lancet Neurology magazine, led by Dr. Rafael Blesa, director of the Neurology Service of Sant Pau and with the support of "la Caixa" Welfare Projects, points to a paradigm shift in the diagnosis of Alzheimer's disease in people with Down syndrome, at through the detection of NfL as plasma biomarker and cerebrospinal fluid.

The Lancet Neurology magazine, a reference in Neurology, publishes an article led by Dr. Rafael Blesa, on the advances in the detection of Alzheimer's in people with Down syndrome.

(30/08/2018)

Dr. Kulisevsky leads a clinical trial for a Huntington's disease drug

The essay, led by neurologist Jaume Kulisevsky, scientific director of the Sant Pau Research Institute and director of the Parkinson's and Movement Disorders Unit of the Neurology Service of the Hospital Sant Pau, will be carried out in the Hospital Sant Pau together with three more Catalan centers. The objective of this clinical trial, a phase IIa study, is to determine the efficacy and safety of SOM3355 -a drug that is currently prescribed for hypertension in humans- in 30 patients with Huntington's disease.

(17/07/2018)

Nanoligent in the news: "A nanodrug selectively eliminates metastatic mother cells in animals"

NANOLIGENT

In June 2017, researchers from the IIB-Sant Pau, the Institute of Biotechnology and Biomedicine at the UAB and the CIBER-BBN, created a spin-off, Nanoligent, with the goal of developing the first drug designed to eliminate metastatic cells that could enter the market.

This company, which has more than 10 years of studies behind, is directed by Dr. Manuel Rodríguez Mariscal, a professional with a long experience in the field of investment and the creation of biotechnology companies and aims to obtain founding for the realization of the project.

The research team, led by Dr Ramon Mangues (IIB Sant Pau), Prof Antonio Villaverde (UAB) and Dr Esther Vázquez (UAB), all members of the CIBER-BBN, have demonstrated that the drug acts only on metastasis initiating cells, through the specific interaction between a peptide present in the protein nanoparticle that transports it and the cellular receptor CXCR4 that is overexpressed in tumour cells. This allows targeting only tumour cells, to block their dissemination at early cancer stages, by preventing the appearance of metastasis while avoiding the adverse effects associated with conventional chemotherapy.

(05/12/2018)

The José Carreras Foundation promotes the first clinical trial in Europe of CAR-T immunotherapy for T lymphomas and Hodgkin's lymphoma at the Hospital de Sant Pau

The José Carreras Leukaemia Foundation and the Hospital de Sant Pau presented today at a press conference the campaign "The factory of unstoppable cells", a clinical trial of immunotherapy CAR-T to offer an opportunity to lymphoma patients who no longer have other therapeutic possibilities available due to the resistance of their diseases to the usual treatments. The project, unique in the world for its characteristics, will be developed entirely in the Hospital de la Santa Creu i Sant Pau in Barcelona during 2019.

(12/12/2018)

Clinical Guidelines

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Research Scientific Support and Technical Services

Clinical Trial Documentation Management

Manager:
Rosa M. Antonijoan
rantonijoana@santpau.cat

Coordinator:
Montserrat Ruiz
MRuizB@santpau.cat

Staff:
Elisenda Brunet
M. Àngels Piera

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.

Facilities:

Several areas have been designated to implement these functions:

- Head office and administration area.
- Data processing and management area.
- Clinical trial monitoring meeting rooms.
- Documentation filing area.
- Cold room.
- Archive.

Research Institute Management

Coordinator:
Hilda Herrero
hherrero@santpau.cat

Staff:
Management Control Unit
Lorena Bustamante, Ana Espallargas, Soraya González, Sandra Parera, Laura San Martín

Administrative-Financial Unit
Carles Caparrós, Cristina Garcia, Núria García, Gerard Marimon, Cristina Requena, David Sanfeliu

Human Resources Unit
Rosa M. Garcia, Rafael Fernández

Functions:

- Management of HSCSP Research Institute and IIB Sant Pau finances: manage accounts and fiscal matters; design, administer and control budget-related issues; manage and monitor financial and material resources.
- Management of public body funding requirements: fulfil obligations imposed by government and official regional and state entities; ensure compliance with current fiscal, financial, labour and legal regulations and with HSCSP Research Institute–IIB Sant Pau management policies.
- Administration and management of activities, providing management support for research groups in different areas; project management, human resources, procurement, invoicing, control and monitoring of projects, general administration, management of services (courses, travel and continuing professional development).
- Design, elaboration, development and maintenance of information systems for management area units, both for HSCSP Research Institute–IIB Sant Pau and research groups.

Coordinator:
Fabiola Fernández

Staff:
Eva José
Eva de la Vara
Meritxell Fernández
Amanda García
Marta Lorente

Research Institute Projects Unit

Functions:

> Search of public and private funding, broadcast, assessment and review for the success of the application submission, send applications, register and monitoring until its resolution.

> Registration of granted projects, economic monitoring of both national and international projects and agreements, costs validation (concept/balance), preparing annual and final reports, manage incidences, interlocutor with official entities.

> Activity reports: scientific report, Board, Direction and others.

> Internal and external audits from different financial entities.

> Researchers: meetings for starting and managing projects.

> Interaction with different transversal areas to implement the regulations of the calls.

Coordinator:
Jordi Virgili
jvirgili@santpau.cat

Staff:
Cati Pérez
Montserrat Campmany
Marta Mitjà

Quality and Information Systems Unit

Functions:

> General:
- Support management with strategic projects (accreditation, CERCA evaluation).
- Manage IIB Sant Pau research groups: creation, dissolution and changes in composition.
- Implementation of the functional plan for the new research building, coordination and management to the new research building.
- Support management of the IIB Sant Pau Internal Scientific Committee, External Scientific Committee and Governing Council.
- Implement policies for the dissemination of research among the general public and especially among secondary pupils and health science university students.
- Represent the HSCSP Research Institute before external organizations.

> Quality:
- Implement policies to improve quality under GLP, GCP, GMP, ISO 9001 and UNE 166002 standards.
- Lead the quality assurance programme at CIM Sant Pau and in clinical trials where the HSCSP Research Institute acts as sponsor.
- Oversee auditing for protocols, databases, experimental phases, facilities, processes and final reports for clinical trials.
- Oversee supplier audits.
- Monitor non-conformity in internal and external audits.
- Draw up own SOPs and provide support for SOPs preparation by other units.
- Establish mechanisms to assess quality and good scientific practices in IIB Sant Pau.

> Information systems:
- Design mechanisms and implement tools for the collection and organization of data and information to feed decision making.
- Manage and transform information and data to contribute to the fulfillment of objectives and strategies.
- Respond to external requests for data and information (statistical surveys, SIRECS, etc).
- Implement policies to improve information systems.
- Develop new indicators of use for the institution.
- Update research group staff details on the intranet.

> Biosafety Committee:
- Management of the biosafety committee.

Coordinator:
Rosa M. Antonijoan
rantonijoana@santpau.cat

Staff:
M. Rosa Ballester
Judit Claramunt
Susana Clos
Jimena Coimbra
Sonia Coma
M. Ángeles Funes
Consuelo García
M. Teresa Garrido
Ignasi Gich
Sandra Giménez
Ana Gomis
David Martínez
Joan Martínez
Maribel Martínez
Pura Martínez
Esteve Mercader
Pol Molina
Sara Mora
Montserrat Puntes

Centre for Drug Research (CIM Sant Pau)

Functions:

Perform clinical drug trials and/or clinical research in compliance with methodological, ethical and legal requirements in the context of international GCP guidelines.

Facilities:

Three separate work areas have been designated for the trials:

Healthcare:

- Admission zone.
- 24 beds distributed in 4 units: trials in healthy volunteers and patients.
- 2 individual rooms for CNS studies.
- Ambulatory zone.
- 4 consulting rooms for complementary testing, mainly related to CNS.
- 3 cubicles to evaluate psychomotor performance.
- Clinical trials that are not of therapeutic interest for participants (phase I, special populations, psychopathological research, biomarkers, proof of concept).
- Clinical trials in neuropsychopharmacology.
- Clinical trials in initial developmental phases.

Logistical support:

- Rest area for clinical trial participants with bathrooms and kitchen.
- Areas for the preparation, centrifugation and separation of biological samples.
- Cold room.
- Archives.

Management, administration and data processing:

- Offices.
- Area for monitors.
- IT equipment for clinical trial activities of a non-experimental nature.

Coordinator:
Rosa M. Antonijoan
rantonijoana@santpau.cat

Staff:
Claudia E. Delgado
Inés Ibáñez
Enrique Peña
Edson Cedero Pico

Clinical Research and Clinical Trials Unit (UICEC Sant Pau)

Functions:

It 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.

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 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), Ethics Committee for research with medicinal products (CEIm), Autonomous Communities (CCAA) and other relevant authorities.
  - Advice on project registration in public databases.
  - Identification of spin-off 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 application form and annexes / other application forms / evaluation forms / monitoring reports.
- Support in the processing of initial applications, clarifications and amendments: AEMPS, CEIm, 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.

Animal Experimentation Service

Director of the Animal Facility:
Laura Casaní (Designated Veterinarian, Animal Health and Welfare Advisor)
estabulari@santpau.cat

Manager of the Animal Facility:
Sergi Florit (Animal Welfare Advisor)

Animal Technicians:
Fanny Cevallos
Margarita Domingo
Angel Juncosa

The Animal Experimentation Service is the area dedicated to the house and care of experimental animals, and to work with experimental procedures that use them. The SEA has the ISO 9001: 2015 certification and guarantees compliance with the legal and ethical laws related to the use of animals for experimentation and for other scientific purposes. It is officially registered as a breeding center, supplier and user of experimental animals (B9900067 and REGA ES080190036528), and it also has the authorization to house and work with Genetically Modified Organisms (A / ES / 08/21 and A / ES / 08 / I-14) . The staff of the SEA is also officially trained and accredited: Welfare and Animal Health Specialist, Advisor on Animal Welfare, Technicians and Caregivers.

Translational research needs responsible use of experimental animals and the reproducibility of results. The use of animals of high genetic and health quality and their use, maintenance and well-being in appropriate facilities are accurate to obtain these results. The SEA offers its services to keep the animals in the right conditions and also to advice and give specialized support to the researchers in the realization and design of the experimental procedures and techniques

The SEA consists of 2 separate buildings:

> Conventional Facility, one floor aea of 650m2, designed according to the requirements of Decret 214/1997 and R D 53/2013. It has the necessary facilities to house up to 40 pigs, 114 rabbits, 350 rats and 2500 mice in conventional conditions and 90 ratios and 2200 mice in SPF or Special Pathogen-Free conditions (individually ventilates cages in a possitive pressure room).

The SEA facility has work halls for rodents and rabbits and 4 experimental operating theaters for pigs. It also has advanced medical equipment for small animals: bioluminescence (Hamamatsu), high frequency ultrasound (Vevo2100), intravital microscope, flow measurement equipment and probes, ECG monitor, NIP equipment, mechanical ventilators , equipment of anesthesia with sebu / isoflorane, surgery microscopes... For the large animals the SEA has: multiparameter monitors, defibrillators, anesthesia equipment with sebo / isoflorane, mechanical ventilators, RX (Philips and Siemens) equipment, equipment Trans-echocardiography and transesophageal echocardiography (Philips iE33), intravascular echocardiography (Siemens Acuson), real-time 3D imaging equipment (CartoXP), radiofrequency ablation equipment, 12-lead ECG...

The operating theaters can be used to teach microsurgery courses, experimental surgery, medical equipment presentations...

> The Biomodule-SPF is a barrier area of 30m2 that can house up to 400 immunodeprimed mice. The entrance to the installation is through an air shower for people or a SAS of peroxide for materials. Work with animals is under biosafety hood, it has a preclinicalin vivo image system for fluorescence and / or bioluminescence (IVIS Spectrum) and inhalatory anesthesia equipment.

Transfer and Innovation Unit

innovacio@santpau.cat

Coordinator:
Miriam Ors
mors@santpau.cat

Staff:
Lourdes Gaig
Natalia Ichaso
Beatriz Monsalve

Functions:

> Facilitate collaboration between institute's research groups and industry.

> Support to public and private funding of technology development projects.

> Support the submission of European projects.

> Analysis of the business viability of technological projects.

> Intellectual Property protection.

> Technology Transfer.

> Support the creation of spin-offs and start-ups.

> Legal support to agreements with third parties.

Ethics Committee for research with medicinal products (CEIm)

President:
Antonio López Pousa
alopezp@santpau.cat

Vice-president:
Gerard Urrutia
GUrrutia@santpau.cat

Secretary:
Milagros Alonso
MAlonsoMa@santpau.cat

Members:
Ester Amado
Josep Corbella
Francesc Jané
Xavier León
Dora Mejías
Indalecio Morán
Estela Moreno
Javier Pagonabarraga
Maria Teresa Ricart Basagaña
Olegario Sotelo
Miguel A. Viciana

The Ethics Committee for research with medicinal products (CEIm) of the HSCSP Healthcare Management Foundation is an independent body that, according to the laws that accredit it, has the mission to ensure the protection of rights, safety and welfare of the subjects involved in a research study and provide public assurance of that protection by reviewing the protocol, the suitability of the researchers, facilities, equipment and methods to be used in obtaining and documenting the informed consent of the subjects.

Its specific functions are:

- Evaluate the methodological, ethical and legal aspects of:
  - Clinical trials with medicinal products and medical devices
  - Non interventional studies.
  - Pharmacogenetic and pharmacogenomic studies.
  - Studies evaluating surgical or psychological treatments.
  - Studies involving invasive procedures or the use of health data or biological samples.
- Evaluate the relevant amendments in projects approved by the CEIm.
- Conduct a follow up of clinical trials with medicinal products and medical devices, as well as the other approved research studies.

Technical Secretariat of the CEIm

Head of the technical secretariat:
Milagros Alonso
malonsoma@santpau.cat

Administrative Staff:
Robert Caballero
Marisol Mogollón
Albert Querol

The Technical Secretariat of the CEIm is an independent agency whose mission is to protect the rights, safety and wellbeing of persons participating in HSCSP research projects which may entail physical or psychological harm. The Technical Secretariat of the CEIm evaluates the methodological, ethical and legal aspects as well as any other relevant information regarding all research projects listed in the minutes of the Committee's meetings. It also advises researchers in the HSCSP and the HSCSP Research Institute regarding the preparation and presentation of clinical research projects.

Functions:

- Receive, log and validate documentation for clinical research projects submitted to the Committee for evaluation.
- Arrange and call Committee meetings, inform members of the agenda and provide them with copies of protocol summaries and patient informed consent and information sheets.
- Prepare and submit reports to the Committee containing a methodological, ethical and legal description and analysis (and any other relevant information) of the research projects listed in agendas.
- Act as a reference point in communications with and between researchers, sponsors, medical administrators and managers and healthcare authorities regarding all aspects of the activities of the Committee and of the research projects evaluated by the Committee.
- Prepare and sign the reports of the Committee and communicate its decisions to the corresponding sponsors and researchers.
- Prepare the minutes of meetings and distribute them to Committee members within the established period.
- Manage all documentation associated with the operations and activities of the Committee and with the research projects evaluated by the Committee.
- Manage contracts for all clinical studies to be performed at the HSCSP.
- Certify the actions of the Committee.
- Prepare the annual report of the Committee.
- Ensure compliance with the SOPs of the Committee.

Scientific and Technical Service Platforms

Scientific Director and Coordinator:
Elena Serrano
ESerrano@santpau.cat

Biobank

biobanc@santpau.cat

Technical Staff:
Iris Rodriguez
IRodriguezR@santpau.cat

Iván Samblas
ISamblas@santpau.cat

The Biobank is a core facility for coordinating the collection, processing, store and transfer of human biological samples at the highest standard.

It's comprised of three main sections:

- Blood and fluids: samples of hematological neoplasias, respiratoy, psyquiatric and neurological diseases. The processing is performed in the biobank's BSL-2 laboratory.
- Tumour bank: Tumoral and non-tumoral tissue samples from patients affected by a neoplasia.
- Histopathology laboratory: tissue processing, paraffin and OCT-block preparation, block cutting (microtome and cryostat), automatic immunostaning, histological stainings, special stainings, FISH staining, tissue microarray, high-resolution slide scan.

Equipment:

- BSL-2 II A cabinet, inverted microscope, TC automated cell counter, refrigerated centrifuge, refrigerated microfuge, computer system for managing samples and data, automated molecular extraction (Qiacube, Qiagen), controlled freezing ramp
- Liquid nitrogen tanks, -20ºC freezer, -80ºC freezers with safety systems
- Tissue processor VIP Jr (Sakura), paraffin tissue embedding console system (Sakura), microtome (Microm), cryostat (Leica), Automated Immunostaing System (DAKO AS 48), Semiautomatic tissue arrayer (Galileo), Digital slide scanner Pannoramic Midi (3DHistech), microwave tissue processor (KOS), multiobserver microscope with fluorescent light illumination system (Olympus)

Grants:

- ICO Agreement (Oncology Director Plan for members of the Catalan Network of Tumour Banks) 15,000 €

Citomics Platform

citometria@santpau.cat

Technical Staff:
Marta Soler
msolerC@santpau.cat

FLOW CYTOMETRY LABORATORY

Equipment:

- MACSQuant (Milteny Biotech) conventional flow cytometry.
- FACSCalibur (BD) conventional flow cytometry.
- FACSAria (BD) flow cytometry cell sorter.

Microscopy Platform

microscopia@santpau.cat

Technical Staff:
Joan Repullés
JRepulles@santpau.cat

Equipment:

- Confocal multispectral Leica SP5 AOBS with hig-resolution scanning system and high-speed tandem scanning, FLIM/FCS modules and time-lapse incubation system.
- Zeiss digital time-lapse epifluoresence microscope.

Genomics and Transcriptomics Platform

sequenciacio_ir@santpau.cat
transcriptomica@santpau.cat

Technical Staff:
Sandra Camino
SCamino@santpau.cat

Equipment:

- Affymetrix array platform (upgrade 7G).
- 7900HT Real time quantitative PCR (Applied Biosystems)
- Ion Torrent S5 sequencer, Ion OneTouch ™ System
- 3130xl Genetic Analyzer capillary electrophoresis sequencer
- Bioanalyzer 2100, Nanodrop 2000

Equipment for General Use:

- Precision weighing balances (Sartorius).
- Infinite 200 (Tecan) microplate reader: spectrophotometer, fluorometer, luminometer.

Bioinformatics Platform

Technical Staff:
Elena Serrano
ESerrano@santpau.cat

Equipment:

- Workstation DELL Precision T3610
- Servidor SIE (centOS)
- Servidor Dell Precision T7500 (Ubuntu)

Functions:

- Bioinformatics Platform provides users with services of planning high-throughput genomic and transcriptomic experiments, data processing and analysis.

Clean Room Platform

Technical Staff:
Matilde Parreño
MParreno@santpau.cat

Equipment:

- BSL-2 cabinets, inverted microscope, TC automated cell counter, refrigerated centrifuge, micro-fuge, hypoxia incubators, fridge and -20C combi.

Functions:

- Development of GMP drugs for patient treatment under clinical assays.

Scientific and Technical Service Platforms

Coordinator:
Javier Crespo
jcrespo@santpau.cat

Common Spaces Management

The aim of the common spaces management unit is to regulate the work in the shared places ensuring their proper use under a safe and quality environment.

The objective of this Unit is to offer technical support to research groups. For this purpose, PST provides equipment and facilities to researchers that allow them to perform the most modern and state-of-the-art techniques in different research areas. The organization as a transversal service promotes the cooperation and interaction between the different research groups.

This platform is organized in different units and services that offer solutions to different requirements.

Functions:

- To ensure that the equipment within common areas is in right conditions and cleanliness (calibration/verification/maintenance).
- The regulation of the entry and exit equipment in IR building.
- To authorize the access to shared areas, and ensure compliance with regulations in the common spaces.

Equipment:

- The common areas of the IR are equipped with all types of material and facilities to offer to researchers of the center the best experience at the time of performing their work.

Cell Culture Service

Technical Staff:
Estefania Segales
esegales@santpau.cat

Currently, in vitro cell techniques are a fundamental tool for the research lines developed by a wide array of scientific groups. The IR Cell Culture Service offers a suitable infrastructure for the realization of cell cultures, primary cultures and cell lines at different biosafety levels (BSL2 or BSL3), as well as bacterial cultures in biosafety level I, certified to ISO 9001:2015.

Functions:

In order to ensure proper operation and attention to investigators, the service includes:

- Quarantine for new cultures
- Sterilization of solid and liquid material
- Removal and management of residues
- Detection of mycoplasma in samples
- Control of surface contamination
- Maintenance of water baths and incubators, supervised cleaning procedures and control of personnel access

Facilities:

The service is structured in several experimental areas that are in separate locations, with an approximate extension of 400m2. There are two BSL2 areas and one BSL3 area for eukaryotic cell cultures, where we can find biosafety cabins, cabins for working with cytostatic products, CO2 incubators, hypoxystations, thermostatic baths, inverted microscopes, fluorescence microscopes with image capture systems, a particle counter (Coulter MSIII), automatic pipettors, refrigerators and freezers. In one of the BSL2 areas there is a room with a cabin prepared for working with radioactive sources. A BSL1 room is available for bacterial cultures. There are also rooms for washing and autoclaving material within the same areas or adjacent areas.

Radioactivity Unit

Coordinator:
Montserrat Ribas
mribas@santpau.cat

Supervisor in charge:
Josep Julve
Javi Crespo

Functions:

- The Radioactivity Unit provides groups with specific research laboratories in which to work with radioactive isotopes in liquid form. These areas are fully equipped and adapted for the handling of radioactive material and apply optimum measures for the safety and radioprotection of staff and the environment.
- This area has been authorized by the nuclear safety authority and its staff supervise compliance with the corresponding laws, guidelines and regulations.
- Services include support for:
  - In vitro labelling of proteins, lipoproteins and liposomes.
  - Cellular proliferation and toxicity.
  - Nucleic acid labelling.
  - Immunoassay techniques.
  - Determination of enzymatic activities using radiolabelled substrates.
  - Analysis and separation of labelled molecules.
  - Metabolism in vitro and in vivo.

Facilities:

The Radioactivity Unit has the following facilities:

- 1 room for radioactive material storage.
- 7 equipped laboratories, one of them refrigerated.
- 1 room for gamma- and beta- counters.
- 1 room for radioactive waste storage.
- 1 room for controlled disposal of radioactive waste.
- Radioactive liquid waste containers for controlled radioactive waste disposal.
- Shielding accessories for radiation safety (table top shields, shielded containers, protective equipment, etc)
- Portable radiation and environmental contamination detectors.
- 1 ventilated rack for in vivo studies.
- 2 chemical safety cabinets for gas extraction.
- 1 vertical laminar air flow cabinet for cell cultures.
- 1 CO_2 incubator for cell cultures.

Areas of Research

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Area 1
Cardiovascular Diseases

80

Area 2
Genetic, Metabolic and Inflammatory Diseases

126

Area 3
Haematological and Oncological Diseases

146

Area 4
Neurological, Mental Disorders and Ageing

194

Area 5
Uronephrology and Experimental Surgery

214
Area T1
Epidemiology, Public Health and Healthcare Services

242
Area T2
Molecular, Genomic, Cellular and Kinetic-Dynamic Bases for Diseases and their Treatment

252
Associated Groups

AREA 1

Cardiovascular Dis

44 Clinical and Translational Cardiology

51 Thrombosis and Haemostasis

54 Cardiovascular Biochemistry

57 Molecular Pathology and Therapeutic of Ischaemic and Atherothrombotic Diseases

64 Biomarkers for Cardiovascular Disease

67 Regulation of Cardiac Rhythm and Contraction

69 Lipids and Cardiovascular Pathology

72 Genomics of Complex Diseases

77 Regulatory Mechanisms of Cardiovascular Remodelling

eases

AREA 1 · Cardiovascular Diseases

Clinical and Translational Cardiology

Coordinator
Cinca Cuscullola, Juan
(IR-external)
jcinca@santpau.cat

Members
Alonso Martín, Concepción (FGS)
Álvarez García, Jesús (FGS)
Amorós Figueras, Gerard
(external entity)
Anglí Ferrándiz, Laia (IR)
Arzamendi Aizpurua, Dabit (FGS)
Benabou Zdaou, Ibtissam (IR)
Bos Real, Lydia (CIBERCV)
Carreras Costa, Francesc (FGS)
Casabella Ramón, Sergi (IR)
Fernández Martínez, Ana (IR)
Ferrero Gregori, Andreu
(CIBERCV)
Garcia-Moll Marimon,
Xavier (FGS)
Guerra Ramos, José M. (FGS)
Ibáñez Carne, Yaiza (IR)
Jiménez Sábado, Verónica
(CIBERCV)
Jorge Vizuete, Esther (IR)
Prunell Castañé, Anna (CIBERCV)
Rivas Lasarte, Mercedes (IR)
Roig Minguell, Eulàlia (FGS)
Serra Peñaranda, Antoni (FGS)
Sionis, Alessandro (FGS)
Solé González, Eduard (CIBERCV)
Viñolas Prat, Xavier (FGS)

Main Lines of Research

- Electrophysiology and arrhythmias, clinical and experimental.
- Heart failure.
- Ischemic heart disease.
- Valvular heart disease.
- Cardiac imaging.
- Percutaneous valve repair.
- Bioengineery.

Scientific Challenges

Electrophysiology

- New experimental models of atrial infarction.
- Describe the mechanisms and clinical significance of the electrocardiographic alterations in patients with acute myocardial infarction, using translational research in pig heart models.
- Develop animal models for the study of left bundle branch block.
- Prognosis in patients with left circumflex coronary occlusion.
- Develop clinical applications of myocardial impedance in patients undergoing ablation of arrhythmias.

Heart failure

- Develop new risk scores for ambulatory heart failure patients predicting death and rehospitalizations.
- Research on new biomarkers in patients with heart failure included in the Spanish registry Redinscor II (RIC) (1500 patients). Our group is the national coordinator.
- Develop new markers for early detection of cardiac graft rejection in transplanted patients.
- Develop palliative care programs for patients with advanced heart failure.

Ischaemic heart disease

- Multidisciplinary treatment of cardiac sudden death.
- Treat complex atherosclerotic coronary artery lesions using international techniques.

Valvular heart disease

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

Cardiac imaging

- Implement new imaging software analysis to detect structural abnormalities of the myocardium (fibrosis, necrosis).
- Implement new percutaneous techniques for the treatment of mitral regurgitation in patients with heart failure or myocardial infarction.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Vicenta Llorente-Cortés, CSIC.
- Leif Hove Madsen, CSIC.
- Jordi Ordóñez Llanos, HSCSP - Biochemistry Laboratory.
- Antoni Capdevila, HSCSP - Radiodiagnostics.
- María Poca Sans, HSCSP - Digestive Disorders.
- Rafael Serra, HSCSP - Anaesthesiology.
- Enric Álvarez, HSCSP - Psychiatry.

External Collaborations

Juan M. Cinca Cuscullola - CB16/11/00276 - CIBER Enfermedades Cardiovasculares (CIBERCV), Registro Redinscor III

- Lisardo Bosca. Instituto de Investigaciones Biomédicas Alberto Sols (Madrid)
- Juan Delgado. Hospital 12 de Octubre (Madrid)
- Javier Díez. Centro de Investigación Médica Aplicada de Navarra

- José Ramón González-Juanatey. Hospital Clínico de Santiago de Compostela
- Julián Pérez Villacastín. Hospital Clínico San Carlos (Madrid)
- José Miguel Rivera. Hospital La Fe (Valencia)
- Antoni Bayés Genís. Hospital Germans Trias i Pujol de Badalona
- Pablo García Pavía. Hospital Puerta de Hierro (Madrid)
- Manuel Martínez Sellés. Hospital Gregorio Marañón (Madrid)
- J. Nuñez. Hospital Clínico de Valencia
- Domingo Pascual Figal. Hospital Virgen de la Arrixaca (Murcia)
- Alfredo Bardají Ruiz. Hospital Universitari Joan XXIII (Tarragona)
- Fernando Worner Diz. Hospital Universitari Arnau de Vilanova (Lleida)

Other collaborators

- Xavier Rosell, Departament d'Enginyeria Electrònica, Universitat Politècnica de Catalunya - UPC (Barcelona)
- Borja Ibáñez, Laboratorio Traslacional Imagen y Terapia Cardiovascular, CNIC - ISCIII (Madrid)
- Deborah Gil, Barcelona Supercomputing Center (Centro Nacional de Supercomputación-CVC, UAB Barcelona)
- Ignacio Cruz González. Hospital Universitario de Salamanca
- Reda Ibrahim, Montreal Heart Institute Adult Congenital Heart Center, Montreal (Canada)

Antoni Serra Peñaranda

TEAM

- Eulogio García. Hospital Clínico San Carlos (Madrid)
- Carlos Macaya Miguel. Hospital Clínico San Carlos (Madrid)
- Andrés Iníguez Romo. Complejo Hospitalario de Vigo

Euro CTO Club (chronic total occlusions (CTOs)

- Formed by 60 members, spread among all European countries.

Eulàlia Roig Minguell: Registro Nacional de Trasplante Cardiaco

- Clínica Universitaria de Navarra, Pamplona, Navarra
- Hospital Universitario Puerta de Hierro, Majadahonda, Madrid
- Hospital Universitario Marqués de Valdecilla, Santander, Cantabria
- Hospital Universitario Reina Sofía, Córdoba
- Hospital Universitario y Politécnico La Fe, Valencia
- Hospital General Universitario Gregorio Marañón, Madrid
- Fundación Jiménez Díaz, Madrid
- Hospital Universitario Virgen del Rocío, Sevilla
- Hospital Universitario 12 de Octubre, Madrid
- Hospital Universitario de A Coruña, A Coruña
- Hospital Universitario de Bellvitge, L'Hospitalet de Llobregat, Barcelona
- Hospital Central de Asturias, Oviedo, Asturias
- Hospital Clínic i Provincial, Barcelona
- Hospital Universitario Virgen de la Arrixaca, El Palmar, Murcia
- Hospital Universitario Miguel Servet, Zaragoza
- Hospital Clínico Universitario, Valladolid

Xavier Viñolas Prat: RETAC Group - European Network for the Treatment of Arrhytmias in Cardiology

- Philippe Lagrange. Clinique Saint Pierre (Perpignan)
- Benoît Guy-Moyat. Hospital Universitaire de Limoges (France)
- Franck Halimi. C.M.C. Parly II (Le Chesnay)
- Luc de Roy. Clinique Universitaire de Saint Godinne (Yvoir-Belgium)
- Serge Boveda. Clinique Pasteur (Toulouse)
- Julio Martí. Hospital del Mar (Barcelona)
- Pascal Defaye. Hospital Universitaire de Grenoble
- Antonio Curnis. Spedali Civili (Brescia-Italy)
- Marc Zimmermann. Hôpital de la Tour (Geneve-Switzerland)

Alessandro Sionis: GREAT: Global Research on Acute Conditions Team

- International Network between 308 experts operating in the management of acute clinical conditions in the field of Emergency Medicine.

Active Grants

- Juan María Cinca Cuscullola. A novel myocardial impedance mapping system for ablation of post-infarction ventricular arrhythmias in humans: A translational development. MARATO 20150830. Fundació La Marató de TV3. Duration: 2016-2019. 160,000 €.
- Maria Eulàlia Roig Minguell. Adrenergic Agonist Treatment in Patients with Chronic Heart Failure and Secondary Pulmonary Hypertension: a Randomized Placebo-Controlled Phase 2 Clinical Trial. MARATO 20151732. Fundació La Marató de TV3. Duration: 2016-2019. 119,500 €.
- Juan Maria Cinca Cuscullola. Tractament combinat contra el dany per reperfusió en l'infart de miocardi COMBAT-MI. SLT002/16/478. Departament de Salut. Duration: 2017-2019. 24,645 €.
- Mercedes Rivas Lasarte. Contratos de formación en investigación "Río Hortega" 2017. CM17/00028. Instituto de Salud Carlos III. Duration: 2018-2019. 53,732 €.
- Juan María Cinca Cuscullola. Desarrollo de un modelo preclínico para la caracterización electrofisiológica y estructural del infarto de miocardio auricular. PI17/00069. Instituto de Salud Carlos III. Duration: 2018-2020. 66,000 €.
- José María Guerra Ramos. Caracterización Genética del Síndrome del QT Largo Asociado a Fármacos. PI17/00980. Instituto de Salud Carlos III. Duration: 2018-2020. 122,000 €.
- Juan María Cinca Cuscullola. Centro de Investigación Biomédica en Red de Enfermedades Cardiovasculares (CIBERCV). CB16/11/00276. Ministerio de Economía y Competitividad. Duration: 2017-2020. 211,373.89 €.
- Xavier Viñolas. Arrhythmias monitoring and comprehensive care. H2020-SCI-2016-CNET: RITMOCORE - Horizon 2020. European Commission. Agència de Qualitat i Avaluació Sanitàries (AQuAS) – Hospital Sant Pau. Duration: 2016-2020. 903,875.00 €.
- Xavier Viñolas. Proyecto STOP&GO (Sustainable Technologies for Older People – Get Organised). European Commission. Duration: 2015-2020.
- Juan María Cinca Cuscullola. Biosense Webster (Collaboration Agreement). Duration: 2018-2019. 32,210 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Mercedes Rivas Lasarte. Estancia en la unidad de insuficiencia cardiaca avanzada y trasplante cardiaco del Montefiore Medical Center. MV18/00011. Instituto de Salud Carlos III. Duration: 2019. 14,720 €.
- David Vilades Medel. Correlació de la reserva fraccional de fluxe coronari (FFR) per TC cardíac i per cateterisme cardíac amb guia de pressió. SCC 2018. Societat Catalana de Cardiologia. Duration: 2018-2019. 9,090.91 €.
- Juan Maria Cinca Cuscullola. Grup de Recerca Clínica i Translacional en Cardiologia - RCTCAR. 2017 SGR 984, Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2020. 35,185.92 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Xavier Viñolas. European Silver Economy Awards 2018. 2nd prize: Procurement of comprehensive treatment – Hospital de la Santa Creu i Sant Pau. Brussels, 3rd may 2018.
- Jose Mª Guerra. Gary and Bill Sanders Poster Awards. 26th september 2018 Maastricht
- Paula Awamleh García, Joaquín Jesús Alonso Martín, Catherine Graupner Abad, Rosa María Jiménez Hernández, Alejandro Curcio Ruigómez, Pedro Talavera Calle, Carmen Cristóbal Varela, José Serrano Antolín, Javier Muñiz, Juan José Gómez Doblas y Eulàlia Roig Minguell "Prevalencia de patrones electrocardiográficos asociados a muerte súbita en la población española de 40 años o más. Resultados del estudio OFRECE", Rev Esp Cardiol. 2017;70:801–807. PREMIOS SEC 2018. Sevilla, 26 oct 2018.
  - Premio Sección Electrofisiología y Arritmias al Mejor Artículo Publicado en Revista Española de Cardiología
  - Premio Sección Cardiología Clínica a los Mejores Artículos Publicados en Revista Española de Cardiología
  - 1er Premio Magda Heras al Mejor Trabajo Publicado en Revistas Cardiovasculares Iberoamericanas
  - 1er Premio al Mejor Artículo Publicado en Revista Española de Cardiología

Doctoral Theses

- Gerard Amoros Figueras, Preclinical development of a new technique for the detection and characterization of the myocardial infarct scar based on bioimpedance measurements, Universitat Autònoma de Barcelona (UAB). Director: Juan M. Cinca. Date of defense: 16/04/2018.
- Ana Belén Méndez Fernández, Modelos predictivos de mortaldad y reingreso en pacientes con insuficiencia cardíaca crónica y fracción de eyección preservada, Universitat Autònoma de Barcelona (UAB). Director: Juan Mª Cinca / Eulàlia Roig. Date of defense: 14/12/2018.
- Xavier Millán Álvarez, El tratamiento transcatéter de las fugas paravalvulares, Universitat Autònoma de Barcelona (UAB). Directors: Antoni Serra, Dabit Arzamendi, Juan M. Cinca (tutor). Date of defense: 13/12/2018.

Patents

- Javier Rosell; Juan Cinca; Ramon Bragos; Gerard Amoros; Esther Jorge; Tomas Garcia; Benjamin Sanchez. Systems And Methods To Assess Infarcted Myocardial Tissue By Measuring Electrical Impedance During The Cardiac Cycle, PCT/EP2016/056933, International, 30/10/2018.

Transfer Products

- Collaboration agreement. Universitat Pompeu Fabra (UPF) - Institut de Recerca Hospital Santa Creu i Sant Pau. 5 oct 2017 – 31 des 2018.

Scientific Production

Total Impact Factor: 475.1580 · Mean Impact Factor: 6.5090

Aboal J., Lopez de Sa E., Martin-Asenjo R., Masip J., Sionis A., Selection of the Best of 2017 on Acute Cardiac Care Selección de lo mejor del año 2017 en cuidados críticos cardiológicos (2018) REV ESP CARDIOL, 71 (2), 123-124. **IF: 5.1660**

Acosta J., Fernandez-Armenta J., Borras R., Anguera I., Bisbal F., Marti-Almor J., Tolosana J.M., Penela D., Andreu D., Soto-Iglesias D., Evertz R., Matiello M., Alonso C., Villuendas R., de Caralt T.M., Perea R.J., Ortiz J.T., Bosch X., Serra L., Planes X., Greiser A., Ekinci O., Lasalvia L., Mont L., Berruezo A., Scar Characterization to Predict Life-Threatening Arrhythmic Events and Sudden Cardiac Death in Patients With Cardiac Resynchronization Therapy: The GAUDI-CRT Study (2018) JACC-CARDIOVASC IMAG, 11 (4), 561-572. **IF: 10.2470**

Alegre O., Formiga F., Lopez-Palop R., Marin F., Vidan M.T., Martinez-Selles M., Carol A., Sionis A., Diez-Villanueva P., Aboal J., Palau-Vendrel A., Bueno H., Rivera A.P., Sanchis J., Abu-Assi E., Corbi M., Castillo J.C., Baneras J., Gonzalez-Salvado V., Cequier A., Ariza-Sole A., An Easy Assessment of Frailty at Baseline Independently Predicts Prognosis in Very Elderly Patients With Acute Coronary Syndromes (2018) J AM MED DIR ASSOC, 19 (4), 296-303. **IF: 5.3250**

Almendro-Delia M., Nunez-Gil I.J., Lobo M., Andres M., Vedia O., Sionis A., Martin-Garcia A., Cruz Aguilera M., Pereyra E., Martin de Miguel I., Linares Vicente J.A., Corbi-Pascual M., Bosch X., Fabregat Andres O., Sanchez Grande Flecha A., et al., Short- and Long-Term Prognostic Relevance of Cardiogenic Shock in Takotsubo Syndrome: Results From the RETAKO Registry (2018) JACC-HEART FAIL, 6 (11), 928-936. **IF: 8.2020**

Alonso-Martín C, Rodríguez Font E, Guerra JM, Campos García B, Alcalde Rodríguez O, Viñolas Prat X. Intermittent response to para-Hisian pacing: A more than paradoxical response. J CARDIOVASC ELECTROPHYSIOL. 2018 May;29(5):797-799. **IF: 2.873**

Alonso-Martín C, Rodríguez Font E, Guerra JM, Viñolas Prat X. Identification of the critical isthmus of a reentrant ventricular tachycardia at a glance. J CARDIOVASC ELECTROPHYSIOL. 2018 Sep;29(9):1317-1318. **IF: 2.873**

Amoros-Figueras G., Jorge E., Guerra J.M., Is the rapidly paced pig the optimal model for endocardial cardiac resynchronization therapy - Authors' reply (2018) EUROPACE, 20 (7), 1228-1229. **IF: 5.2310**

Amoros-Figueras G., Jorge E., Alonso-Martin C., Traver D., Ballesta M., Bragos R., Rosell-Ferrer J., Cinca J., Endocardial infarct scar recognition by myocardial electrical impedance is not influenced by changes in cardiac activation sequence (2018) HEART RHYTHM, 15 (4), 589-596. **IF: 4.7430**

Amoros-Figueras G., Jorge E., Raga S., Alonso-Martin C., Rodriguez-Font E., Bazan V., Vinolas X., Cinca J., Guerra J.M., Comparison between endocardial and epicardial cardiac resynchronization in an experimental model of non-ischaemic cardiomyopathy (2018) EUROPACE, 20 (7), 1209-1216. **IF: 5.2310**

Ariza-Sole A., Guerrero C., Formiga F., Aboal J., Abu-Assi E., Marin F., Bueno H., Alegre O., Lopez-Palop R., Vidan M.T., Martinez-Selles M., Diez-Villanueva P., Vilardell P., Sionis A., Vives-Borras M., Sanchis J., Baneras J., Rafecas A., Llibre C., Lopez J., Gonzalez-Salvado V., Cequier A., Global Geriatric Assessment and In-Hospital Bleeding Risk in Elderly Patients with Acute Coronary Syndromes: Insights from the LONGEVO-SCA Registry (2018) THROMB HAEMOSTASIS, 118 (3), 581-590. **IF: 4.9520**

Arzamendi D., Ruiz V., Ramallal R., Alcasena M.S., Beunza M.T., Larman M., Transcatheter Aortic Valve Replacement on an Aortic Mechanical Valve (2018) JACC-CARDIOVASC INTE, 11 (13), e107-e108. **IF: 9.8810**

Awamleh Garcia P., Alonso Martin J.J., Jimenez Hernandez R.M., Graupner Abad C., Talavera Calle P., Serrano Antolin J., Cristobal Varela C., Curcio Ruigomez A., Muniz J., Gomez Doblas J.J., Roig E., Abnormal Electrocardiographic Findings in the Population Older Than 40 Years. Prevalence and Clinical Significance. Results of the OFRECE Study Hallazgos electrocardiográficos anormales en la población mayor de 40 años. Prevalencia y significación clínica. Resultados del estudio OFRECE (2018) REV ESP CARDIOL. **IF: 5.1660**

Ballesteros-Urpi A., Pardo-Hernandez H., Ferrero-Gregori A., Torralbas-Ortega J., Punti-Vidal J., Tapies Olivet P., Izaguirre Eguren J., Verges Balasch P., Lara Lloveras A., Bertomeu S., Peramiquel M., Herreros V., Vidal A., Font E., Romero S., Garcia M., Lazaro L., Morer A., Validation of the Spanish and Catalan versions of the Health of the Nation Outcome Scale for Children and Adolescents (HoNOSCA) (2018) PSYCHIAT RES, 261, 554-559. **IF: 2.2230**

Barge-Caballero E., Almenar-Bonet L., Gonzalez-Vilchez F., Lambert-Rodriguez J.L., Gonzalez-Costello J., Segovia-Cubero J., Castel-Lavilla M.A., Delgado-Jimenez J., Garrido-Bravo I.P., Rangel-Sousa D., Martinez-Selles M., De la Fuente-Galan L., Rabago-Juan-Aracil G., Sanz-Julve M., Hervas-Sotomayor D., Mirabet-Perez S., Muniz J., Crespo-Leiro M.G., Clinical outcomes of temporary mechanical circulatory support as a direct bridge to heart transplantation: a nationwide Spanish registry (2018) EUR J HEART FAIL, 20 (1), 178-186. **IF: 10.6830**

Barge-Caballero E., Gonzalez-Vilchez F., Delgado J.F., Mirabet-Perez S., Gonzalez-Costello J., Perez-Villa F., Martinez-Selles M., Segovia-Cubero J., Hervas-Sotomayor D., Blasco-Peiro T., De la Fuente-Galan L., Lambert-Rodriguez J.L., Rangel-Sousa D., Almenar-Bonet L., Garrido-Bravo I.P., Rabago-Juan-Aracil G., Muniz J., Crespo-Leiro M.G., Use of Intra-aortic Balloon Pump as a Bridge to Heart Transplant in Spain: Results From the ASIS-TC Study Empleo del balón de contrapulsación intraaórtico como puente al trasplante cardiaco en España: resultados del estudio ASIS-TC (2018) REV ESP CARDIOL. **IF: 5.1660**

Bazan V., Alcalde O., Valdivielso S., Response to ECG, July 2018 Respuesta al ECG de julio de 2018 (2018) REV ESP CARDIOL, 71 (8), 672-. **IF: 5.1660**

Bazan V., Alcalde O., Valdivielso S., ECG, July 2018 ECG de julio de 2018 (2018) REV ESP CARDIOL, 71 (7), 578-. **IF: 5.1660**

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Other Publications

- Sawhney JP, Kothiwale VA, Bisne V, Durgaprasad R, Jadhav P, Chopda M, Vanajakshamma V, Meena R, Vijayaraghavan G, Chawla K, Allu J, Pieper KS, John Camm A, Kakkar AK; GARFIELD-AF Investigators. (Viñolas, X) Risk profiles and one-year outcomes of patients with newly diagnosed atrial fibrillation in India: Insights from the GARFIELD-AF Registry. INDIAN HEART J. 2018 Nov - Dec;70(6):828-835.

Diffusion Activities

Conferences

- EHRA 2018 Congress - European Heart Rhythm Association, Barcelona, 18-20 March 2018:
  - Sudden death during sports: why. Speaker: F. Carreras
  - Improving performance of atrial fibrillation ablation Atrial Fibrillation. Chairperson(s): J. M. Guerra; A. Lubinski
  - Live Session - Lead extraction. Chairperson(s): J.M Guerra; L. Wilkoff
  - The future is intelligent Sponsored by LivaNova. Chairperson(s): M.R. Cowie; J.M. Guerra
- 52nd ESCI Annual Scientific Meeting. Barcelona, 30 May-1 June 2018: Workshop 3 - Session 4b: Cardiology - CIBERCV - Electrophysiology. Innovation in Electrophysiology. Speaker: J. Cinca
- ESC 2018 Congress. Munich, 25-29 August 2018:
  - Coronary artery disease. Session: Take the Challenge! The European Exam on General Cardiology (EEGC). Speaker: A. Sionis
  - Drugs in cardiogenic shock - Which, when, how long?. Session: Management of cardiogenic shock in acute coronary syndromes - The "Shock Team" at work. Speaker: A. Sionis

- Acute Cardiovascular Care 2018 Congress. Milan, 3-5 March 2018:
  - ECMO. Monitoring while on circulatory support. Session: ECMO for circulatory support. Speaker: A. Sionis
  - It's not only the heart: the role and management of organ dysfunction. Session: Acute heart failure: mechanisms and diagnosis Speaker: A. Sionis
- PCR London Valves 2018. London, 9-11 September 2018:
  - Structural Heart Disease interventions – Experiences and challenging cases for debate. Training Workshop. Physician Trainers: D. Arzamendi , R.S. Von Bardeleben
  - Imaging in TAVI: planning and guidance, this is how our Heart Team does it!. Training Workshop. Physician Trainers: D. Arzamendi

Press releases and appearances in the media

- Gaceta Médica (05/03/2018), Herencia Genética y Enfermedad (27/02/2018), Catalunya Vanguardista (27/02/2018), Diario Médico (27/02/18), NCYT ((27/02/18), Biotech-Spain.com (27/02/2018), JANO.es (27/02/2018), Heraldo (27/02/2018), Periodista Digital (27/02/2018), Acta Sanitaria (27/02/2018), DiCYT (27/02/2018), ABC.es (27/02/18), Con Salud (27/02/2018), MedicinaTV.com (27/02/2018), Redacción Médica (27/02/2018), Bartolomé Beltrán (27/02/2018), El Economista.es (27/02/2018), Infosalus (27/02/2018), Cuatro.com (27/02/2018), Informativos Telecinco(27/02/2018), Medicina21 (28/02/2018), Farma News (28/02/2018), CardioNet.es (28/02/2018), SINC (28/02/2018), Sant Pau (28/02/2018): Endocardial infarct scar recognition by myocardial electrical impedance is not influenced by changes in cardiac activation sequence. Amorós-Figueras G, Jorge E, Alonso-Martin C, Traver D, Ballesta M, Bragós R, Rosell-Ferrer J, Cinca J. Heart Rhythm. 2018 Apr;15(4):589-596.
- NCYT (27/09/18), CIBERCV (27/09/18), Diario Salud (30/09/18): Identification of new biophysical markers for pathological ventricular remodelling in tachycardia-induced dilated cardiomyopathy. Benitez-Amaro A, Samouillan V, Jorge E, Dandurand J, Nasarre L, de Gonzalo-Calvo D, Bornachea O, Amoros-Figueras G, Lacabanne C, Vilades D, Leta R, Carreras F, Gallardo A, Lerma E, Cinca J, Guerra JM, Llorente-Cortés V. J Cell Mol Med. 2018 Sep;22(9):4197-4208.
- Interview in Cadena SER 803/08/2018) and press release in relation to the APOCARD drug: SEC (03/08/2018), Catalunya Global (03/08/2018), Infosalus (02/08/2018). José Guerra.

Communications in scientific congresses

- Sole Gonzalez E, Jorge E, Amoros-Figueras G, Vives-Borras M, Millan X, Arzamendi D, Guerra J.M, Cinca J. Time course of the STsegment changes induced by acute coronary artery occlusion in a model of left bundle branch block in pigs. European Heart Journal (2018) 39 (Supplement), 463464. ESC Congress 2018. Munich, 25-29 August 2018.
- Duran-Cambra A, Carreras-Mora J, Sanchez-Vega J, Del Castillo-Vazquez P, Ferrero-Gregori A, Sans-Rosello J, Vila-Perales M, Montero-Aradas S, Sionis A, Cinca J. Impact of triggering event on clinical characteristics, left ventricular contractility pattern, and outcomes in patients with takotsubo syndrome. European Heart Journal (2018) 39 (Supplement), 1151-1152. ESC Congress 2018. Munich, 25-29 August 2018.
- Herraiz-Martinez A, Ferrero-Gregori A, Llach A, Jimenez-Sabado V, Nolla-Colomer C, Benitez R, Rosello E, Cinca J, Hove-Madsen L. Male and female sex are associated with different derangements of the intracellular calcium homeostasis in atrial fibrillation. European Heart Journal (2018) 39 (Supplement), 1099. ESC Congress 2018, Munich, 25-29 August 2018.
- M Rivas Lasarte, A Maestro Benedicto, J Fernandez Martinez, J AlvarezGarcia, E Sole Gonzalez, L, Lopez Lopez, S Mirabet, A Sionis, E Roig Minguell, J Cinca Cuscullola; On behalf LUSHF Investigators. Lung ultrasound may reduce heart failure hospitalizations: preliminary results from the LUSHF. European Journal of Heart Failure (2018) 20 (Suppl. S1), 8. Heart Failure 2018 and the World Congress on Acute Heart Failure. Vienna, Austria, 26-29 May 2018.
- A Duran Cambra, A Alquezar, A Garcia Osuna, M Grau, M Vila Perales, M Vives Borras, A Ferrero Greori, J Cinca, A Sionis, J Ordonez Llanos. A new cardiac troponin I assay with enhanced detection limit improves the rapid ruleout of acute myocardial infarction. European Heart Journal Supplement (2018) 7 (Supplement), S144. Acute Cardiovascular Care 2018. Milan, Italy. 03-05 March 2018.
- V. JimenezSabado, A. HerraizMartinez, C. NollaColomer, C. Tarifa, A. Vallmitjana, J. Montiel, R. Benitez, J. Cinca, L. HoveMadsen. Inhibition of PDE3 but not PDE4 phosphodiesterases stimulate ryanodine receptor phosphorylation at Ser2808. European Heart Journal (2018) 39 (Supplement), 1202. ESC Congress 2018. Munich, 25-29 August 2018.
- A Mendez Fernandez, A Ferrero Gregori, J Ordonez Llanos, MJ Pirla Buxo, A Garcia Osuna, M Grau Agramunt, S Mirabet Perez, J Alvarez Garcia, J Cinca Cuscullola, E Roig Minguell. Predictive models of mortality and readmission in patients with chronic heart failure and preserved ejection fraction. European Journal of Heart Failure (2018) 20 (Suppl. S1), 245. Heart Failure 2018 and the World Congress on Acute Heart Failure. Vienna, Austria, 26-29 May 2018.
- Álvarez-García, Jesús; Alvaro García-Osuna; Andreu Ferrero-Greori; Miquel Vives-Borras; Margarida Grau-Agramunt; Eduard Sole-Gonzalez; Miguel Rivera; Domingo Pascual-Figal; Luis Alonso-Pulpón; Francisco Fernández-Avilés; Juan Delgado; Juan Ramón González-Juanatey; Fernnado Worner; Jordi Ordoñez-Llanos; Juan Cinca. Risk stratification of acute heart failure based on a multi-biomarker analysis at admission and hospital discharge. 52nd ESCI Annual Scientific Meeting. Barcelona, 30th May-1st June 2018.
- M. Rivas-Lasarte; J.F. Martinez; A.M. Benedicto; E.S. Gonzalez; J. Alvarez-Garcia; L.L. Lopez; S.M. Perez; V. Brossa; A. Sionis; E.R. Minguell; J.Cinca Cuscullola. Lung ultrasound may reduce heart failure hospitalizations: preliminary results from the LUS-HF trial. 52nd ESCI Annual Scientific Meeting . Barcelona, 30th May-1st June 2018.

Courses

- Máster en Técnicas Avanzadas de Diagnóstico por Imagen en Cardiología (8a edición). Universitat Autònoma de Barcelona - Hospital de la Santa Creu i Sant Pau. Barcelona, oct 2018 - jun 2019. Coord: Juan Cinca, Francesc Carreras.
- XXXII Jornada de Pruebas de Esfuerzo y Función Cardiorespitaroria. Hospital de la Santa Creu i Sant Pau. Barcelona, 4th May 2018.
- III Jornada Gestión Clínica en Cardiología. El Paciente en el corazón de la gestión. Hospital de la Santa Creu i Sant Pau. Barcelona, 18 May 2018. Coord: Margarita Esteve, Alessandro Sionis.
- 10th FOCUS 2018 on Advanced Cardiac Imaging. International Edition. Hospital de la Santa Creu i Sant Pau, Barcelona, 5-6 Oct 2018. Coord: Guillem Pons, Francesc Carreras, Rubén Leta.

AREA 1 · Cardiovascular Diseases

Thrombosis and Haemostasis

Coordinator
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Stone, William Harold (IR)
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Vallve Fornieles, Cristina (FGS)
Vázquez Santiago, Miguel (IR)
Vilalta Setó, Noelia (FGS)

Main Lines of Research

- Investigation of the genetic basis of venous and arterial thrombosis. GAIT-1 and GAIT-2 projects.
- Investigation of new antithrombotic drugs: thrombin inhibitors, molecules against activated factor X, low molecular weight heparin with oral activity, among others.
- Biomarkers of prothrombotic states in patients under 55 years with venous thromboembolic disease, acute ischaemic stroke, or acute myocardial infarction. VEREMA project.
- Applied clinical development of the self-management model of oral anticoagulant treatment. ORION project. Retrospective analysis of the clinical outcomes from patient self-management of antivitamin-K treatment at the Hospital de Sant Pau. NCT3532724
- Mathematical models of prediction of the individual risk of thromboembolic disease in general population (RETROVE Project) and in cancer patients (MIRTO Project).
- CITA project. Centre for Antithrombotic Therapy Management. Research into a new ambulatory management model for patients receiving any kind of antithrombotic therapy (anti vitamin-K, new oral anticoagulants, low molecular weight heparins, antiplatelets) by incorporating new educational programmes, specialized nursing and new communication technologies.
- CARAVAGGIO Clinical trial. Apixaban for the treatment of venous thromboembolism in patients with cancer: a prospective randomized open blinded end-point (probe) study - the CARAVAGGIO Study. Promotor: Fondazione FADOI (Italian Federation of Hospital Internists). Via F. Grossi Gondi, 49. Rome, Italy. IP Coordinator: Giancarlo Agnelli, University of Perugia. Perugia. Italy N. EudraCT: 2016-003093-40.
- Immunotherapy of solid cancer based on innate immunity (ITACA).

Scientific Challenges

- Study QTL detected in GAIT-1 families in relation to phenotypes of haemostasis with thrombosis risk (resistance to activated protein C, factor VIII, homocysteine, factor XII, body mass index and others).
- Replicate QTL related to thrombosis in GAIT-1 families by means of the linkage analysis using new GAIT-2 families.
- Conduct genome-wide association study (GWAS) of phenotypes involved in GAIT-1.
- GWAS of phenotypes included in GAIT-2.
- Analyse RNA expression in the GAIT-2 families.
- Investigate miRNA associated with thromboembolic disease in GAIT-2 and RETROVE.
- To complete the recruitment of the cohorts included in MIRTO Project (Modelling the Individual Risk of Thrombosis in Oncology), with the goal of establishing an individual risk score for venous thromboembolism (RETROVO sub-project) and for ischaemic stroke (SINO sub-project) in patients with cancer.
- Research plasma proteins associated with the risk of venous thromboembolism by using high affinity proteomics developed at Karolinska Institutet. VEREMA project, joint collaboration between the European case-control studies VEBIOS (Sweden), RETROVE (from our unit) and MARTHA (France).
- Investigation on laboratory management of DOACs.
- Search for new universal laboratory methods for the assessment of any kind of oral anticoagulant (AVK and DOACs).
- Immunotherapy of solid cancer (ITACA Project). Neutrophils as anti-tumorals. Clinical trial on sustained neutrophilia in advanced head and neck cancer (approved trial, waiting for financial support)

Collaborations

Collaborations with other IIB Sant Pau Groups

- Genomics of Complex Diseases (GAIT1, GAIT2, RETROVE, VEREMA and MIRTO Project).
- Stroke Unit (HERO and MIRTO Project).
- Vascular Surgery (GAIT2, genetics of venous insufficiency).
- Medical Oncology (MIRTO Project).
- Clinical Haematology (MIRTO Project).
- Gynecologic and peritoneal oncology group (ITACA Project, on immunotherapy of solid cancer).

External Collaborations

- Karolinska Institutet, Stockholm, Sweden: GAIT2 and VEREMA.
- La Timone Hospital, Marseilles, France: GAIT2 and VEREMA.

- Pierre and Marie Curie University, INSERM, UMR-S 1166, Paris, France: GAIT2 and VEREMA.
- Université de Genève, Switzerland: GAIT2.
- Texas Research Institute (formerly Southwest Foundation for Biomedical Research), San Antonio, USA: GAIT1 and GAIT2.
- Universitat Politècnica de Catalunya, Barcelona, Spain. Centre for Biomedical Engineering Research: RETROVE and MIRTO design.
- Thrombosis Group of the Spanish Medical Oncology Society (SEOM): ONCOTHROMB and MIRTO.
- Institut of Biological Psychiatry, Mental Health Snc. Hans. Roskilde (Denmark).
- Hematology Service of the Hospital Sant Joan de Déu (Clinical modeling for the management of haemophilic patients and patiens under self-management of VKA therapy).

Active Grants

- Joan Carles Souto Andrés. Continuación de la búsqueda de algoritmos aplicables en la clínica para definir el perfil individual de Riesgo de Enfermedad TROmboembólica VEnosa (RETROVE). PI15/00269. Instituto de Salud Carlos III. Duration: 2016-2018. 86,500 €.
- Collaborative agreement with Roche Diagnostics to develop the ORION Project (IIBSP-ORI-2017-45), that included a financial support of 26,450 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Joan Carles Souto Andrés. Implicación de la adhesividad plaquetaria y fenotipos relacionados, y sus determinantes genéticos, en el riesgo de ETV. RETROVE 3. PI18/00434. Instituto de Salud Carlos III, 2019-2021. 82,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 23.034 · Mean Impact Factor: 3.2906

Bru A., Gomez-Castro D., Vila L., Bru I., Souto J.C., Study of tumor growth indicates the existence of an "immunological threshold" separating states of pro- and antitumoral peritumoral inflammation (2018) PLOS ONE, 13 (11). **IF: 2.7660**

Muñoz AJ, Ortega I, Font C, Pachón V, Castellón V, Martínez-Marín V, Salgado M, Martínez E, Calzas J, Rupérez A, Souto JC, Martín M, Salas E, Soria JM. Multivariable clinical-genetic risk model for predicting venous thromboembolism events in patients with cancer. BR J CANCER 2018;118:1056-61. PMID: 29588512. **IF: 6.176**

Olivera P., Gabilondo M., Constans M., Tassies D., Plensa E., Pons V., Las Heras G., Jimenez C., Campoy D., Bustins A., Oliver A., Marzo C., Canals T., Varela A., Sorigue M., Sanchez E., Ene G., Perea G., Vicente L., Lopez M., Cerda M., Johansson E., Aguinaco M.R., Santos N., Mateo J., Reverter J.C., Moya A., Santamaria A., Tromboc@t Working Group recommendations for management in patients receiving direct oral anticoagulants Recomendaciones del Grupo Catalán de Trombosis (Tromboc@t Working Group) para el tratamiento de los pacientes que reciben anticoagulantes orales directos (2018) MED CLIN-BARCELONA, 151 (5), 210.e1-210.e13. **IF: 1.1680**

Pérez-Rodríguez A, Batlle J, Corrales I, Borràs N, Rodríguez-Trillo Á, Lourés E, Cid AR, Bonanad S, Cabrera N, Moret A, Parra R, Mingot-Castellano ME, Navarro N, Altisent C, Pérez-Montes R, Marcellini S, Moreto A, Herrero S, Soto I, Fernández Mosteirín N, Jiménez-Yuste V, Alonso N, de Andrés Jacob A, Fontanes E, Campos R, Paloma MJ, Bermejo N, Berrueco R, Mateo J, Arribalzaga K, Marco P, Palomo Á, Castro Quismondo N, Iñigo B, Nieto MDM, Vidal R, Martínez MP, Aguinaco R, Tenorio M, Ferreiro M, García-Frade J, Rodríguez-Huerta AM, Cuesta J, Rodríguez-González R, García-Candel F, Dobón M, Aguilar C, Batlle F, Vidal F, López-Fernández MF. Role of multimeric analysis of von Willebrand factor (VWF) in von Willebrand disease (VWD) diagnosis: Lessons from the PCM-EVW-ES Spanish project. PLoS One 2018;13:e0197876.PMID: 29924855. **IF: 2.766**

Vazquez-Santiago M., Vilalta N., Cuevas B., Murillo J., Llobet D., Macho R., Pujol-Moix N., Carrasco M., Mateo J., Fontcuberta J., Soria J.M., Souto J.C., Short closure time values in PFA–100® are related to venous thrombotic risk. Results from the RETROVE Study (2018) THROMB RES, 169, 57-63. **IF: 2.7790**

Vivas D., Roldan I., Ferrandis R., Marin F., Roldan V., Tello-Montoliu A., Ruiz-Nodar J.M., Gomez-Doblas J.J., Martin A., Llau J.V., Ramos-Gallo M.J., Munoz R., Arcelus J.I., Leyva F., Alberca F., Oliva R., Gomez A.M., Montero C., et al., Perioperative and Periprocedural Management of Antithrombotic Therapy: Consensus Document of SEC, SEDAR, SEACV, SECTCV, AEC, SECPRE, SEPD, SEGO, SEHH, SETH, SEMERGEN, SEMFYC, SEMG, SEMICYUC, SEMI, SEMES, SEPAR, SENEC, SEO, SEPA, SERVEI, SECOT and AEU Manejo perioperatorio y periprocedimiento del tratamiento antitrombótico: documento de consenso de SEC, SEDAR, SEACV, SECTCV, AEC, SECPRE, SEPD, SEGO, SEHH, SETH, SEMERGEN, SEMFYC, SEMG, SEMICYUC, SEMI, SEMES, SEPAR, SENEC, SEO, SEPA, SERVEI, SECOT y AEU (2018) REV ESP CARDIOL, 71 (7), 553-564. **IF: 5.1660**

Ziyatdinov A., Vazquez-Santiago M., Brunel H., Martinez-Perez A., Aschard H., Soria J.M., lme4qtl: Linear mixed models with flexible covariance structure for genetic studies of related individuals (2018) BMC BIOINFORMATICS, 19 (1). **IF: 2.2130**

Other Publications

- Pachón V, Trujillo –Santos J, Domènech P, Gallardo E, Font C, González-Porras JR, Pérez-Segura P, Maestre A, Mateo J, Muñoz A, Peris ML, Lecumberri R. Cancer-associated thrombosis: beyond clinical practice guidelines – a multidisciplinary (SEMI-SEOM-SETH) expert consensus. TH OPEN 2018;2:e373-e386.
- Vilalta N, Souto JC. Platelet function and venous trombosis risk. THROM HAEMOST RES 2018; 2: 1013.

Diffusion Activities

Communications to national congresses

- Rodríguez-Rius A, López S, Martínez-Pérez A, Sabater-Lleal M, Buil A, Viñuelas A, Brown AA, Panousis NI, Muñoz C, Hamsten A, Dermitzakis ET, Souto JC, Soria JM. Integración de los datos ómicos en la enfermedad tromboembólica venosa. LX Congreso Nacional de la AEHH y XXXIV Congreso Nacional de la SETH. Granada, 11-13 October 2018. Oral communication
- Corrochano M, Jiménez B, Millón J, Gich I, Rambla M, Gil E, Caparrós P, Macho R, Souto JC. Análisis retrospectivo de resultados clínicos del autocontrol del tratamiento con fármacos antivitamina K en el hospital de la Santa Creu i Sant Pau. Estudio ORIÓN. LX Congreso Nacional de la AEHH y XXXIV Congreso Nacional de la SETH. Granada, 11-13 October 2018. Oral communication
- Llobet D, Vallvé C, Tirado I, Romero L, Vilalta N, Oliver A, Millón J, Mateo J, Fontcuberta J, Souto JC. Niveles altos de VAMP8 se asocian al riesgo de trombosis venosa en la población española femenina. LX Congreso Nacional de la AEHH y XXXIV Congreso Nacional de la SETH. Granada, 11-13 October 2018. Oral communication
- Sales-García X, Criado-Casas V, Tello-Santos S, Vilalta N, Fontcuberta J. Aplicación de un algoritmo para corregir el volumen de citrato según el hematocrito. Experiencia en nuestro centro. LX Congreso Nacional de la AEHH y XXXIV Congreso Nacional de la SETH. Granada, 11-13 October 2018.
- Romero L, Tirado I, Vilalta N, Llobet D, Vallvé C, Oliver A, Fontcuberta J. Comparación del método stándar con el método automatizado de generación de trombina. LX Congreso Nacional de la AEHH y XXXIV Congreso Nacional de la SETH. Granada, 11-13 October 2018.
- Guerrero L, Sánchez J, Vilalta N, Carrasco M, Mateo J, Millón J, Fontcuberta J. Comparación de los valores de FVIII coagulativo y FVIII cromogénico según el tratamiento antihemofílico utilizado. LX Congreso Nacional de la AEHH y XXXIV Congreso Nacional de la SETH. Granada, 11-13 October 2018.

Communications to international congresses

- Arús M, Vilalta N, López S, Martínez-Pérez A, Soria JM, Fontcuberta J, Souto JC. Association of neutrophil extracellular traps markers and venous thromboembolism. Results of RETROVE Project. ECTH (II European Congress on Thrombosis and Haemostasis). Marseille, 24-26 October 2018. Oral communication
- Vilalta N, Arús M, Romero L, Tirado I, Llobet D, Vallvé C, Fontcuberta J. Comparison between the standard thrombin generation method and the automated thrombin generation technique. ECTH (II European Congress on Thrombosis and Haemostasis). Marseille, 24-26 October 2018.
- Rodriguez-Rius A, López S, Martínez-Pérez A, Sabater-Lleal M, Muñoz C, Hamsten A, Souto JC, Soria JM. miRNA expression profile in venous thrombosis disease: results from the Genetic Analysisi of Idiopathic Thrombophilia Project. 64th Annual Scientific and Standardization Committe (SSC) of ISTH. Dublin, 18-21 July 2018.

AREA 1 · Cardiovascular Diseases

Cardiovascular Biochemistry

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Members
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Main Lines of Research

Atherosclerosis mechanisms

- Mechanisms leading to lipoprotein aggregation in the arterial wall.
- Use of mimetic peptides derived from apoJ as therapeutic tools.
- Involvement of LDL(-) on lipid accumulation in cardiomyocytes associated to diabetes, obesity and heart failure.
- Inflammatory mechanisms induced by LDL(-) on monocytes from patients with diabetis.
- Analysis of the secretome of the adipose tissue from cardiac surgery patients.
- Alterations of lipoprotein properties in patients with Alzheimer disease and cerebral amyloid angiopathy.

Diagnosis and biomarkers

- Analysis of apolipoprotein J (apoJ) as a marker of CVR.
- Development of algorithms for ruling-out acute coronary disease.
- Assessment of new biomarkers of acute cardiovascular disease: cardiac troponins, natriuretic peptides, ST-2.
- Development of methods for point-of-care biomarker measurement.
- Vulnerability markers in atheromatous plaque: electronegative LDL, LDL size, HDL function, myeloperoxidase, phospholipase.
- Lipoprotein-related biomarkers to assess carotid plaque inflammation in ischemic stroke.
- Lipoprotein alterations as biomarkers of CVR in HIV patients.

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.
- Demonstrate that electronegative LDL is a marker of vulnerable atheromatous plaque.
- Find new markers of cardiovascular risk in diseases such as diabetes, obesity, HIV or cardiac failure.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Metabolic Bases of Cardiovascular Risk (Dr. F. Blanco Vaca). La Marató de TV3. 2016-02.31. Lipotoxicity and microvascular disease: Contribution to myocardial damage in clinical and experimental models of diabetes (IP Josep Julve). CIBERDEM CB07/08/0016
- Endocrinology, Diabetes and Nutrition (Dr A. Pérez). PI16/00471. CIBERDEM CB07/08/0016
- Cerebrovascular Diseases (Dr J. Martí Fàbregas). La Marató de TV3. 158/U/2017. Lipoprotein-related biomarkers to assess carotid plaque inflammation in ischemic stroke (IP Elena Jiménez Xarrié)
- Clinical Psichiatry (Dra. M.J. Portella). Projecte PERIS SLT006/17177
- Image Cardiology Unit (Dr. D. Vilades). PI16/00471
- Angiology, Vascular Biology and Inflammation (Dr. M. Camacho). PI16/00471
- Lipids and Cardiovascular Pathology (Dr. C. Llorente).
- Clinical and Translational Cardiology (Dr J. Cinca).
- Intensive Care Unit. (Dr. A. Betbese).
- Research in Perinatal Health (Dr. E. Llurba).

External Collaborations

Research into atherosclerosis mechanisms

- Dr. Petri Kovanen, Wihuri Research Institute, Helsinki, Finland.
- Dr. Kati Öörni, Wihuri Research Institute, Helsinki, Finland.
- Dr. Olga Gursky, Boston University School of Medicine, Boston, USA.
- Dr. Sandra Villegas Hernández, Biochemistry and Molecular Biology Department, UAB, Barcelona, Spain.
- Dr. Ferdinando Mannello. Department of Biomolecular Sciences, Section of Clinical Biochemistry and Molecular Genetics, University "Carlo Bo", Urbino, Italy.
- Dr. Mar Hernández-Guillamon. Neurovascular Research Laboratory, Vall d'Hebron Research Institute; Universitat Autònoma de Barcelona, Spain.
- Dr. Ana Reis. Facultade de Ciencias da Universidade do Porto, Portugal.

Research into diagnosis

- Dr. Daniel Podzamczer, HIV Unit, Infectious Disease Service, Bellvitge University Hospital, Barcelona, Spain (PATHER, ATADAR, SPIRAL and BICOMBO clinical trials).
- Dr. Joan Sabater-Riera, Critical Care Department, Bellvitge University Hospital, Barcelona, Spain.
- ISCIII FIS PI15-00905. Impact of acute renal failure in postoperatory of cardiac surgery of a membrane with increased adsorption during extracorporeal circulation.
- Dr. Josep Maria Gatell, Dr. Esteban Martínez, Infectious Disease Service, Hospital Clinic, Barcelona, Spain
- Fundació Clínic Recerca/NEAT Study NEAT 22/SSAT 060An open label study examining the efficacy and cardiovascular risk of immediate versus deferred switch from a boosted PI to dolutegravir (DTG) in HIV infected patients with stable virological suppression

Formation and maintenance of a bank of samples within the Cardiovascular Research Network (formerly RIC, currently CIBERCV)

- Dr Francisco Marín, Cardiology, Hospital Virgen de Arrixaca, Murcia, Spain.
- Dr Mariano Valdés, Virgen de Arrixaca University Hospital, Murcia (Spain).
- Dr Laura Dos (D. Garcia-Dorado), Integrated Adult Congenital Heart Disease Unit of Vall d'Hebron University Hospital, Barcelona, Spain (Evedes study).
- Dr Domingo Pascual-Figal, Cardiology Department, Virgen de la Arrixaca University Hospital, Murcia (Spain).
- Dr Rafael Vázquez, Cardiology Service, Puerta del Mar University Hospital, Cadiz, Spain.
- Dr Antoni Bayes-Genís, Cardiology Department, Germans Trias i Pujol University Hospital, Barcelona, Spain.

IFCC Task Force on Clinical Applications of Cardiac Biomarkers (Dr. Jordi Ordóñez-Llanos, member)

- Dr Fred S. Apple, Department of Laboratory Medicine and Pathology, University of Minnesota, USA.
- Dr Paul O. Collinson, Cardiovascular and Laboratory Departments, St. George's Hospital, London, UK.
- Dr Alan S. Jaffe, Mayo Clinic, Cardiovascular Division, Rochester, New York, USA.
- Dr James L. Januzzi, Cardiology Division, Massachusetts General Hospital, Boston, USA.

Active Grants

- José Luis Sánchez Quesada. Relación de la grasa epicárdica, la función lipoproteica y la inflamación con el desarrollo de arteriosclerosis y miocardiopatía diabética. PI16/00471. Instituto de Salud Carlos III. Duration: 2017-2019. 131,500 €.
- Jordi Ordóñez Llanos. Combur 5 HC Lay use study. Roche Diagnostics, S.L. Duration: 2018-2020. 22,000 €.
- Jordi Ordóñez Llanos. Evaluation Agreement Combur Test strips. Roche Diagnostics, S.L. Duration: 2018-2019. 40,000 €.
- Jordi Ordóñez Llanos. ST2 turbidimetric immunoassay Evaluation. Critical Diagnostics. Duration: 2018-2019. 10,000 €.
- Jordi Ordóñez Llanos, Álvaro García Osuna. Clinical and analytical evaluation of the high-sensitive troponin assay on the Clarity instrument. Singulex Inc. Duration: 2016-2020. 120,000 €.
- José Luis Sánchez-Quesada. An open label study examining the efficacy and cardiovascular risk of immediate versus deferred switch from a boosted PI to dolutegravir (DTG) in HIV infected patients with stable virological suppression. NEAT Study NEAT 22/SSAT 060/Fundació Clínic Recerca. Duration: 2018-2019. 21,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Doctoral Theses

- Alvaro García Osuna, Novel biomarkers for the risk stratification in patients with acute myocardial infarction with elevation of the ST-segment. Universitat Autònoma de Barcelona, Director: Jordi Ordóñez Llanos. Date of defense: 19/09/2018.

Scientific Production

Total Impact Factor: 96.139 · Mean Impact Factor: 6.0087

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Diffusion Activities

- A. Ribas-Urbina; A. Rull; J. Ordóñez-Llanos; J.L. Sanchez-Quesada. Apolipoprotein J mimetic peptide D-[113–122]apoJ binds to LDL and retards its spontaneous aggregation. 86th Congress of the European Atherosclerosis Society. Lisbon, Portugal. 2018
- N. Puig; L. Jin; M. Estruch; B. Pascale; J. L. Sanchez-Quesada; S. Benitez. Role of sphingolipids in the inflammatory and apoptotic effects of LDL(-) on monocytes. 86th Congress of the European Atherosclerosis Society. Lisbon, Portugal. 2018
- JC Escola-Gil; L Cedo; N Plana; J Metso; A Garcia-Leon, A; S Sabate; M Heras; D Santos; A Rivas-Urbina; M Lee-Rueckert, M; JL Sanchez-Quesada; PT Kovanen; M Jauhiainen; L Masana; F Blanco-Vaca. Defective HDL remodeling and macrophage colesterol efflux in adult and adolescent familial hypercholesterolemic patients. 86th Congress of the European Atherosclerosis Society. Lisbon, Portugal. 2018
- K Mendez; N Farre; D Santos; JL Sanchez-Quesada; JC Escola-Gil; J Martin-Campos; F Blanco-Vaca; J Julve. Human ApoA-I overexpression ameliorates two main cardioprotective funcions of HDL in db/db mice. 86th Congress of the European Atherosclerosis Society. Lisbon, Portugal. 2018
- A. Ribas-Urbina; A. Rull; J. Ordóñez-Llanos; J.L. Sánchez-Quesada. Apolipoprotein J-derived mimetic peptide D-[113–122]apoJ binds to LDL and retards its spontaneous aggregation. 41st Annual Scientific Meeting. European Lipoprotein Club. Tutzing, Germany. 2018
- M. Saumoy, J.L. Sánchez-Quesada, S. Di Yacovo, E. Ferrer, A. Imaz, B. García, D. Giralt, J. Ordoñez-Llanos, D. Podzamczer. Inflammatory biomarkers related with subclinical atherosclerosis in suppressed HIV-infected patients. International Congress on Drug Therapy in HIV Infection. Glasgow, UK. 2018
- M Saumoy, JL Sánchez-Quesada, L Assoumou, L Acerete, JM Gatell, A González-Cordón, G Guaraldi, P Domingo, A Giacomelli, J Connault, C Katlama, M Masiá, J Ordóñez-Llanos, A Pozniak, E Martínez, D Podzamczer. Favourable phenotype of LDL particles in subjects with high cardiovascular risk switching from a ritonavir-boosted protease inhibitor to dolutegravir. Results of The NEAT 022 study. 20th International Workshop on Co-morbidities and Adverse Drug Reactions in HIV. New York, USA. 2018
- A Reis, M Fonseca, V de Freitas, A Rivas-Urbina, JL Sánchez-Quesada. Distribution of polyphenols across lipoprotein subpopulations in Health and Diabetes Mellitus. 19th Biennal Meeting Society of Free Radical Research. Lisbon, Portugal, 2018
- S Benítez, D Ligi, L Croce, N Puig, A Rivas-Urbina, F Mannello, JL Sanchez-Quesada. Efecto del sulodexido en la inducción de MMP9 y TIMP1 en monocitos por la LDL electronegativa. 31º Congreso de la Sociedad Española de Arteriosclerosis. Girona, Spain
- N Puig, M Estruch, B Pascale, J Ordoñez-Llanos, JL Sanchez-Quesada, S Benítez. Capacidad de degradación de la ceramida por la LDL electronegativa. 31º Congreso de la Sociedad Española de Arteriosclerosis. Girona, Spain

AREA 1 · Cardiovascular Diseases

Molecular Pathology and Therapeutic of Ischaemic and Atherothrombotic Diseases

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Members
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Traver Tejero, Susanna (IR)
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Vilahur Garcia, Gemma (IR)

Main Lines of Research

- Physiopathological role of LRP family proteins in chronic diseases.
- Role of lipids and inflammation in atherosclerosis and ischemic heart disease.
- Vascular impact of ischaemia and angiogenesis in heart disease. Cell therapy.
- Research into new targets to inhibit the transformation of silent atherosclerosis into ischaemic syndromes: tissue-factormediated angiogenic switch.

Scientific Challenges

- Broaden the experimental focus to include transgenic animal models with/without cardiovascular risk factors in order to proceed to in-depth analysis of molecules involved in the modulation of new proteins identified by post-genomic technologies and systems biology approaches.
- Maintain present scientific networks and establish new multidisciplinary collaborations.
- Increase international funding for the extension of new and established platforms in order to implement proposed activities.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Acute and Intensive Cardiac Care Unit (Sionis A, Sans-Roselló J, Sánchez-Martinez M, Vila-Perales M, Duran-Cambra A)
- Epidemiology Department (Ferrero-Gregori A)
- Radiology Unit (Capdevila A, Hidalgo A)
- Cardiology Unit (Carreras F)
- Biomarkers for Cardiovascular Disease (Padró T)
- Pharmacological Research in Humans (Antonijoan RM)

External Collaborations

National Collaborations

- Department of Internal Medicine, Hospital Clínic, Barcelona (Ramón Estruch)
- Department of Cardiology, Thorax Institute, Hospital Clínic, University of Barcelona (Salvatore Brugaletta, Victoria Martín-Yuste, Clarissa Cola, Manel Sabaté)
- Fundación Hipercolesterolemia Familiar. Madrid (Pedro Mata, Rodrigo Alonso, Leopoldo Pérez-Isla)
- Department of Cardiology, Hospital La Paz, Madrid (I. Roldán-Rabadán, R. Peinado)
- Department of Cardiology (A. Cequier-Fillat), Internal Medicine Service (F. Formiga), Hospital de Bellvitge, Barcelona
- Department of Cardiology, Hospital Universitario A Coruña, La Coruña (J. Muñiz-García)
- Department of Cardiology, Hospital Universitario Reina Sofía, Córdoba (M. Anguita-Sánchez, Ruiz-Ortiz M)
- Department of Preventive Medicine and Public Health, University of Valencia, Valencia (D. Corella)
- Human Nutrition Unit, Hospital Universitari Sant Joan, Institut d'Investigacions Sanitàries Pere Virgili, Universitat Rovira i Virgili, Reus (J. Salas-Salvadó)
- Department of Cardiology, University Hospital Araba, Vitoria (F. Arós)
- Department of Epidemiology and Public Health, University of Navarra, Pamplona (M.A. Martínez-González)
- Lipid Clinic, Endocrinology and Nutrition Service, Institut d'Investigacions Biomèdiques August Pi Sunyer (IDIBAPS), Hospital Clinic, University of Barcelona, Barcelona, Spain (E. Ros)
- Institut Hospital del Mar d'Investigacions Mèdiques (IMIM), Barcelona (M. Fitó)
- Servicio de Medicina Interna, Hospital Universitario La Paz, Madrid, (M.A. Quesada, J. Camacho Siles)
- Invasive Cardiology Department Puerta de Hierro Hospital, Majadahonda, Madrid, Spain (J. Goicolea)
- Clinical Laboratory L'Hospitalet, Barcelona, Spain (G. Padrós)
- Department of Cardiology, Hospital Clínico Universitario Virgen de la Arrixaca. Instituto Murciano de Investigación Biosanitaria (IMIB-Arrixaca), Murcia, Spain (M.A. Esteve-Pastor, F. Marín)
- Department of Hematology and Clinical Oncology, Hospital Universitario Morales Meseguer. Instituto Murciano de Investigación Biosanitaria (IMIB-Arrixaca), Murcia, Spain (J.M. Rivera-Caravaca, V. Roldán)

- Department of Cardiology, Hospital Universitario de San Juan, Alicante, Spain (V. Bertomeu-Martínez)
- Service of Endocrinology, University Hospital Dr Peset, Foundation for the Promotion of Health and Biomedical Research in the Valencian Region (FISABIO), 46020 Valencia, Spain (M. Rocha, A. Hernández-Mijares)
- Hospital General Universitario Gregorio Marañón, Instituto de Investigación Sanitaria Gregorio Marañón, Universidad Complutense, Madrid, Spain (F. Fernández-Avilés, AM Climent)
- Centro Nacional de Investigaciones Cardiovasculares Carlos III (CNIC), Madrid, Spain (V. Fuster, B. Ibañez)
- Department of Cardiology, Fundación Jiménez Díaz, Universidad Autónoma and CIBERCV, Avenida Reyes Católicos 2, Madrid, Spain (J. Tuñon)
- Cell Therapy Network (TerCel), RD16/0011
- CIBER Cardiovascular Diseases CB16/11

International Collaborations

- Experimental, Diagnostic and Speciality Medicine, University of Bologna, Bologna, Italy (Raffaele Bugiardini, Edina Cenko).
- School of Healthcare Science, John Dalton Building, Manchester Metropolitan University, UK (Mark Slevin).
- Atherothrombosis Research Unit, Zena and Michael A. Wiener Cardiovascular Institute, Mount Sinai School of Medicine, New York, USA (Juan José Badimon).
- Department of Clinical Biochemistry and Immunohematology, Faculty of Health Sciences, University of Talca, Chile (Ivan Palomo).
- Centre for Clinical Heart Research, Department of Cardiology, Oslo University Hospital Ullevål, Oslo, Norway (Ingebjørg Seljeflot).
- Department of Food and Nutrition, Universidade Federal de Santa Maria, Palmeira das Missões, Brazil; Program of Postgraduate in Gerontology, Universidade Federal de Santa Maria, Santa Maria, Brazil. (Patricia Chagas).
- Department of Pharmacology, Catholic University School of Medicine, Rome, Italy (Carlo Patrono).
- Engineering and Materials Research Centre, Manchester Metropolitan University, Manchester, M1 5GD, United Kingdom (Amir Keshmiri).
- Department of NeuroFarBa, C.I.M.M.B.A., University of Florence, Viale Pieraccini, 6, Florence 50139, Italy (Elisabetta Cerbai).
- Department of Epidemiology and Prevention, IRCCS Istituto Neurologico Mediterraneo Neuromed, 86077 Pozzilli, Italy (Giovanni de Gaetano).
- Cardiology Department, University of Medicine and Pharmacy "Carol Davila" of Bucharest, Emergency Clinical Hospital of Bucharest, 8, Calea Floreasca, Sector 1, 014461 Bucuresti, Romania (Maria Dorobantu).
- Cardiovascular and Metabolic Diseases, Innovative Medicines and Early Development Biotech Unit, AstraZeneca, Mölndal, Sweden (Leif Carlsson).
- Division of Hematology/Oncology, Department of Internal Medicine, University of Cincinnati College of MedicineCincinnati, OH, USA (Vladimir Y Bogdanov).
- Cardiology Unit, Department of Medicine, Solna, Karolinska Institute and Karolinska University Hospital, Stockholm, Sweden (Francesco Cosentino).
- Institute of Cardiovascular Sciences, University of Birmingham, Birmingham, United Kingdom(Gregory Y.H. Lip).
- TACTICS - Transnational Alliance for Regenerative Therapies in Cardiovascular Syndromes (Fernández-Avilés F, Sanz-Ruiz R, Climent AM, Charron D, Fuster V, Janssens S, Kastrup J, Kim HS, Lüscher TF, Martin J, Menasché P, Simari R, Stone GW, Terzic A, Willerson JT, Wu J).

Active Grants

- Lina Badimon Maestro. Validación de un nuevo y original biomarcador, ApoJ-glyc, para el diagnóstico y la estratificación del riesgo en pacientes con isquemia miocárdica. DTS16/00194. Instituto de Salud Carlos III. Duration: 2017-2019. 70,500 €.
- Lina Badimon Maestro. Red de Terapia Celular (TerCel). RD16/0011/0018. Instituto de Salud Carlos III. Duration: 2017-2021. 166,255 €.
- Gemma Vilahur Garcia. L'administracio intravenosa d'un inhibidor modificat de l'HMG-COA-reductosa: una prometedora estratègia cardioprotectora en la malaltia isquèmica del cor, desentranyar beneficis i mecanismes d'acció. MARATÓ 20154310. Fundació La Marató de TV3. Duration: 2016-2019. 154,150 €.
- Maria Montserrat Borrell Pagès. Aterotrombosis y su inhibicion: LRP5/WNT en la respuesta aguda a la lesión vascular. PI16/02014. Instituto de Salud Carlos III. Duration: 2017-2019. 53,500 €.
- Gemma Arderiu Marquès. Enfermedad arterial periférica: potenciar la capacidad angiogénica de las células madre mesenquimales. PI17/01321. Instituto de Salud Carlos III. Duration: 2018-2020. 74,000 €.
- Carmen Lambert Goitia. Associated with the project SAF2013-42962 LB. BES2014-068269. Ministerio de Economía y Competitividad. Duration: 2015-2019. 83,900 €.
- Lina Badimon Maestro. Factor tisular no-coagulante y angiogénesis terapéutica para reparar el tejido isquémico. SAF2016-76819-R. Ministerio de Economía y Competitividad. Duration: 2016-2019. 320,000 €.
- Lina Badimon Maestro. Validation of APO J-GLYC as a biomarker of ischemic damage. 2016 PROD 00043. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019. 99,500 €.
- Gemma Chiva Blanch. Patologia molecular i terapèutica de les malalties aterotrombòtiques i isquèmiques. IJCI-2015-26358. Ministerio de Economía y Competitividad. Duration: 2017-2019. 64,000 €.
- Lina Badimon Maestro. Investigación y desarrollo clínico de una nueva molécula para el control de peso y prevención de la obesidad. RTC-2016-5317-1. Ministerio de Economía y Competitividad. Duration: 2016-2019. 201,669 €.
- Gemma Vilahur Garcia. Remodelado estructural y funcional de las partículas HDL y su implicación en la salud cardiovascular: identificación de moduladores con potencial terapéutico. SAF2015-71653-R. Ministerio de Economía y Competitividad. Duration: 2016-2019. 90,000 €.
- Lina Badimon Maestro. Moderate beer intake effects on the inflammasome pathway and TLR-mediated immunomodulation in humans. EA 1659. European Foundation for Alcohol Research. Duration: 2017-2019. 65,000 €.
- Lina Badimon Maestro. Centro de Investigación Biomédica en Red de Enfermedades Cardiovasculares (CIBERCV). CB16/11/00411. Ministerio de Economía y Competitividad. Duration: 2017-2020. 188,361.25 €.
- Lina Badimon Maestro/Gemma Vilahur Garcia. Administration of APT-102 on top of ticagrelor provides additional cardioprotective benefits to that of ticagrelor alone. AstraZeneca. Duration: 2017-2019. 411,630 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Sonia Huertas Segarra. Participació de la via de senyalització Wnt en l'hemostàsia i la funcionalitat de les plaquetes. SLT006/17/00089. Departament de Salut. Duration: 2018-2020. 65,709.6 €.
- Lina Badimon Maestro. Patologia molecular i terapèutica de les malalties aterotrombòtiques. 2017 SGR 1480. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2020. 61,192 €.
- Alexandre Gallinat O'Callaghan, Factor tisular no-coagulante y angiogénesis terapéutica para reparar el tejido isquémico. BES2017-081378. Ministerio de Economía y Competitividad. Duration: 2018-2022. 88,250 €.
- Lina Badimon Maestro, Apo J-Glyc en la isquemia cardiovascular (AGLIC)., RTC-2017-6710-1, Ministerio de Economía y Competitividad. Duration: 2018-2020. 251,381 €.
- Lina Badimon Maestro, TRANSBIOLINE, 821283 H2020. European Union. Duration: 2019-2024, 146,080 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Chair of the Advocacy Committee and Board Member of the European Society of Cardiology (ESC) (2018-2020) (L. Badimon)
- Vice-Chair of the of the Working Group of Thrombosis of the European Society of Cardiology (2018-2020) (G. Vilahur)
- Board Member of the Council on Basic Cardiovascular Science of the European Society of Cardiology (2018-2020) (G. Vilahur)
- Honorary Member of the Peruvian Society of Cardiology (L. Badimon)
- Member of the Scientific Advisory Board of the Centro Cardiologico Monzino, IRCCS, Milan, Italy (L. Badimon)
- Young Investigator Award at Frontiers in Cardiovascular Biology 2018 (Vienna,Austria). 2nd Price (S. Ben-Aicha)
- Oral presentation Special Award at Sociedad Española de Arteriosclerosis 2018 (Girona, Spain) (S. Ben-Aicha)
- Best Poster Award 2018 at European Society of Clinical Investigation 2018 (Barcelona, Spain) (S. Ben-Aicha)
- Extraordinary Ph.D. Prize for the academic year 2016-17. Barcelona University (R. Escate)

Patents

- Lina Badimon Maestro; Gemma Vilahur García. Prevention or reduction is ischemia-related damage. EP17164137. European Union. 31/03/2017.
- Lina Badimon Maestro; Judit Cubedo Ràfols; Teresa Padró Capmany. Methods and kits for the diagnosis and risk stratification of patients with ischemia. EP16382167.1. European Union. 19/10/2017.
- Lina Badimon Maestro; Judit Cubedo Ràfols; Gemma Vilahur; Teresa Padró Capmany. Prevention and/or treatment of ischemia or ischemia/reperfusion injury. EP16382111.9. International, 14/09/2017.
- Lina Badimon Maestro; Gemma Vilahur García. Prevention and/or treatment of ischemia/reperfusion injury. 14382190.8-1464. European Union. 18/07/2014.
- Concepción Vicenta Llorente-Cortés; Lina Badimon Maestro. LRP1 as key receptor for the transfer of sterified cholestrol from very-low-density lipoproteins (VLDL) to ischaemic cardiac muscle. 12804028. International. 07/05/2014.
- Lina Badimon Maestro; Judit Cubedo Ráfols; Teresa Padró Capmany. Apolipoprotein J isoforms as biomarkers of organ damage. PCT/ES2011/070080. International. 26/08/2011.
- Lina Badimon Maestro; José Martínez González, Procedimiento de identificacion de potenciales compuestos moduladores de la actividad de NOR-1, nueva diana diagnóstica y terapéutica de enfermedades cardiovasculares. 200401841. International. 26/08/2009.
- Lina Badimon Maestro; José Martínez González. Procedimiento de identificacion de NOR-1 y/o NURR1 para el diagnóstico y seguimiento de enfermedades cardiovasculares. 200202901. International. 01/04/2005.
- Nuria Rubio Vidal; Jerónimo Blanco Fernández; Lina Badimon Maestro. Procedimiento de cultivo de células progenitoras humanas para el transplante autólogo. PCT/ES2004/070106. National. 01/01/2004.

Transfer Products

- Co-founder ot the spin-off Glycardial Diagnostics SL. September 2017

Scientific Production

Total Impact Factor: 224.508 · Mean Impact Factor: 7.741

Badimon L., Suades R., Crespo J., Padro T., Chiva-Blanch G., Diet, microparticles and atherothrombosis (2018) FRONT BIOSCI-LANDMRK, 23 (3), 432-457. **IF: 2.3490**

Badimon L., Borrell M., Microvasculature recovery by angiogenesis after myocardial infarction (2018) CURR PHARM DESIGN, 24 (25), 2967-2973. **IF: 2.7570**

Badimon L, Peña E, Arderiu G, Padró T, Slevin M, Vilahur G, Chiva-Blanch G. C-Reactive Protein in Atherothrombosis and Angiogenesis. FRONT IMMUNOL 2018 Mar 2;9:430. doi: 10.3389/fimmu.2018.00430. eCollection 2018. PMID: 29552019. **IF: 5.511**

Badimon L. CETP inhibition and HDL: what is the trial REVEALing? CARDIOVASC RES. 2018 Feb 1;114(2):e15-e16. doi: 10.1093/cvr/cvx240. PMID: 29373723. **IF: 6.290**

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Diffusion Activities

Abstracts

- Ben-aicha Gonzalez S, Camino Lopez S, Padro Capmany T, Casani Arazo L, Mendieta Badimon G, Escate Chavez R, Badimon Maestro L, Vilahur Garcia G. Hyperlipidemia modifies HDL-MIRNA profile and enhances endothelial delivery of HDL- MIR126-3P/-5P through a SRB-1-dependent mechanism. 86th EAS Congress, 2018. Atherosclerosis 08; 275; 2018.
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- Garcia-Arguinzonis MI, Vilahur G, Diaz-Riera E, Badimon L, Padro T. Sistema C3 del complemento en matriz extracellular miocárdica durante el proceso de remodelado cardíaco post-infarto. Congreso de las Enfermedades Cardiovasculares SEC 2018. Revista Española de Cardiología.

- Vilahur G, Casani L, Peña E, Crespo J, Juan-Babot O, Ben-Aicha S, Mendieta G, Béjar MT, Borrell M, Badimon L. Silybum marianum (Cardo mariano) ejerce efectos cardioprotectores y limita el remodelado ventricular adverso post-infarto agudo de miocardio al mitigar el estrés oxidativo y la fibrosis reactiva. Congreso de las Enfermedades Cardiovasculares SEC 2018. Revista Española de Cardiología.

Conferences

- Lecture: Papel de la Investigación Básica en la Práctica Clínica (L. Badimon). Collaboration HUCA – ICCC- Oviedo, Asturias, Spain.
- Lecture: Mecanismos que hacen más precoz la arterioesclerosis en los pacientes con diabetes que en la población general (L. Badimon). Workshop: Deconstruyendo la visión científica de la diabetes del siglo XXI. Madrid, Spain.
- Lecture: Riesgo Cardiovascular en Obesidad y Síndrome Metabólico (L. Badimon). V Curso Avanzado de Obesidad y Síndrome Metabólico, Real Academia Nacional de Farmacia. Madrid, Spain.
- Special Lecture: Precision Medicine in Cardiology: Molecular Phenotyping (L. Badimon). Cardio Athena 2018: Meeting on Cardiovascular Medicine - Athens, Greece.
- Lecture: Cardioprotection: where do we stand in 2018 (G. Vilahur). Seminar at: Department of physiology and genetics, University of Oxford. Oxford, United Kingdom.
- Lecture: Mecanismos y consecuencias clínicas de la calcificación vascular. ¿Podemos prevenirla? (G. Vilahur). XIV Reunión Nacional de Hipertrigliceridemia & V Reunión de las Unidades de Lípidos de la Sociedad Española de Arteriosclerosis. Oviedo, Spain.
- Lecture: Estrategias terapéuticas para aterosclerosis y aterotrombosis (L. Badimon). Fundación Valenciana de Estudios Avanzados. Valencia, Spain.
- Lecture Section: What are the key mechanisms of CV benefit of novel diabetes drugs? Discussion & What are the 3 key messages? (L. Badimon). European Expert MeetingExploring the role of GLP-1 in the management of CVD & T2DM. London, UK.
- Distinguished conference: Future therapeutic strategies for atherothrombosis (L. Badimon). Advanced learning on platelets & Thrombosis International course. ALPIC 2018. Metsovo, Greece.
- Lecture: Novel targets for cardioprotection; system biology approaches (G. Vilahur). Printemps de la Cardiologie, Recherche Foundamentale and Clinique. Montpellier, France.
- Lecture: Efectos del consumo moderado de bebidas fermentadas en la salud cardiovascular y los factores de riesgo asociados (G. Vilahur). VII Jornada sobre Bebidas Fermentadas: Hostelería y Nutrición, Universidad Complutense de Madrid. León, Spain.
- Lecture: The effect of LDL in monocyte-to-macrophage differentiation (L. Badimon). 24th Annual Scandinavian Athrosclerosis Conference SSAR - Humlabæk. Copenhagen, Denmark.
- Lecture: Role of microvessels in plaque formation in diabetes mellitus (L. Badimon). Co-chairman: The role of the innate and the adaptive immune system in cardiovascular pathologies (L. Badimon). Chairman: Keynote Lecture – Linking microbiota to human disease (L. Badimon). Lecture: Dyslipidemia impairs high-density lipoproteins cardioprotective effects leading to larger infarcts (G. Vilahur). Frontiers in Cardiovascular Biology. Vienna, Austria.
- Lecture: Aspectos biológicos diferenciales entre sexos en la fisiopatología de la CI e infarto de miocardio (L. Badimon). Cardiopatía isquémica en la mujer. Curso de la Casa del Corazón. Madrid, Spain.
- Co-chairman: Novel Technologies for Cardiovascular Research (L. Badimon). EAS Congress. Lisbon, Portugal.
- Lecture: Replacement or local activation: paracrine mechanisms of myocardial repair (L. Badimon). 15th International Symposium on Stem Cell Therapy and Cardiovascular Innovations. Madrid, Spain.
- Henry N. Neufeld Memorial Award Lecture: Precision Medicine: Molecular Phenotyping in Cardiovascular Pharmacotherapy (L. Badimon). 23th Annual Scientific Meeting of the International Society Cardiovascular Pharmacotherapy (ISCP). Kyoto, Japan.
- Lecture: PCSK9: efectos más alla del LDL (L. Badimon). Co-chairman: Aspectos y mecanismos que modulan el efecto de la dieta (L. Badimon). 31º Congreso de la Sociedad Española de Arteriosclerosis. Girona, Spain.
- Lecture: Effects of fermented beverages' moderate consumption in cardiovascular disease (L. Badimon). Lecture: Molecular phenotyping (L. Badimon). Co-chairman Opening Lecture: The scientific basis of health through imaging, omics and behavior (L. Badimon). Co-chairman : Targeting Inflammation, Lipids and Immunomodulation (L. Badimon). Lecture: Conditioning the heart (G. Vilahur). Lecture: Closing Ceremony (L. Badimon). 52nd Annual Scientific Meeting of the European Society for Clinical Investigation. Barcelona, Spain.
- Lecture: Enfermedad ateroesclerótica y diabetes (L. Badimon). Evidencias en DM2 Perspectiva cardiovascular y renal de la enfermedad. Madrid, Spain.
- Lecture: Papel de DM2 en la patogénesis de la enfermedad vascular (L. Badimon). DIABETTER 2018: Riñon, Corazón y otros protagonistas en DM2. Sevilla, Spain.
- Lecture: Dislipidemia y enfermedad coronaria. Nuevos objetivos, efectos sobre la ateroesclerosis y redefinición de uso clínico (L. Badimon). Lecture: Fármacos antitrombóticos y protección miocárdica (L. Badimon). Lecture: Medicina de Precisión en Cardiología, futuro o realidad (L. Badimon). XXVIII Congreso Sudamericano de Cardiología Dr. Jorge Rodríguez-Larraín. XIX Curso de Cardiologia para el Consultor CARDIOSUR 2018. Lima, Perú.
- Lecture: Diabetes, ateroesclerosis y epigenética: modulación por a-GLP-1 (L. Badimon). Deconstruyendo la visión científica de la diabetes del siglo XXI. Un nuevo paradigma del tratamiento de la diabetes desde el riesgo cardiovascular: Reflexión científica desde los análogos GLP-1. Valencia, Spain.
- Co-chairman: Women in Cardiology: Bridging the Gap (L. Badimon). Chairman: Session: Aortic stenosis: translating mechanisms and risk factors to treatments (L. Badimon). Co- chairman: ESC William Harvey Lecture on Basic Science (L. Badimon). Lecture: Highlights - Condensed Abstract Basic Science (G. Vilahur). ESC CONGRESS 2018. Munich, Germany.
- Lecture: Diet and Network Medicine in Atherogenesis (L. Badimon). International Conference on Network Medicine and Big Data: The Transformation of Medicine - Rome, Italy.
- Lecture: Gender differences in health and disease (L. Badimon). Women in Science: Recommendations to improve Horizon Europe through a gender perspective. European Parliament. Brussels, Belgium.
- Lecture: Tissue factor signaling: beyond coagulation in the cardiovascular system (L. Badimon). Lecture: Coronary atherothrombosis: from lipids to inflammation (L. Badimon). Co-chairman: Looking beyond coronary damage in ACS: the role of microcirculation (L. Badimon). Lecture: HDL in CAD: a key role beyond atherosclerosis protection (G. Vilahur). Eurothrombosis 2018. Barcelona, Spain.
- Lecture: Platelets and cardioprotection (L. Badimon). Lecture: HDL in cardioprotection: detrimental effects of hypercholesterolemia (G. Vilahur). 3rd Cost Action European Union -Cardioprotection Meeting Kamari - Santorini, Greece
- Lecture: Endothelial dysfunction in the progression to heart failure (L. Badimon). Co-chairman: RSH-ESC WG6 Joint session: Arterial hypertension and coronary microcirculation (L. Badimon). Arterial Hypertension – interferences and connections. 5th Congress of the Romanian Society of Hypertension (RSH) Romanian Society of Hypertension Congress. Bucharest, Romania.
- Lecture: Molecular mechanisms supporting ischemic post-conditioning: Chaperones in cardioprotection (L. Badimon). 39th Panhellenic Congres of Cardiology - Athens, Greece.
- Lecture: Dyslipidemia and Cardiovascular Disease (L. Badimon). Maltese Cardiac Society Conference 2018. Malta.
- Co-chairman: Simposio ATIC. Inteligencia artificial en medicina (L. Badimon). Lecture: Del conocimiento a la empresa: la detección precoz de la isquemia miocárdica y el Proyecto Glycardial (L. Badimon). Co-chairman: Mesa Redonda ATIC. Nuevos fármacos en perspectivas (L. Badimon). Lecture: Metodologías postgenómicas y modelos animals preclínicos: innovando la famacología (G. Vilahur). Congreso de las Enfermedades Cardiovasculares SEC 2018. Sevilla, Spain.

- Lecture: PCSK9 inhibitors: New era of lipid lowering therapy (L. Badimon). The Second International Congress of Coronary Units Association - UKJS2018. Belgrade, Serbia.
- Chairman: Clinical Proteomics in Cardio and Neurological diseases (L. Badimon). Clinical Proteomics: towards personalized medicine and health. Barcelona, Spain
- Lecture: Keynote lecture: Women in medicine (L. Badimon). Masterclass Advances: Gender impact on stroke Prevention. Rome, Italy.
- Lecture: Tissue Factor "jinand jang" in the circulation: from thrombosis to angiogenesis (L. Badimon). Coronary Pathophysiology and Microcirculation in Acute Coronary Syndrome and Heart Failure. Berlin, Germany.
- Lecture: Novel therapeutic diabetes approaches: The cardiovascular benefits beyond glucose control (L. Badimon). Diabetes, Cardiology & Novel Therapeutic Approaches Science, Outcomes and Practice. International Round Table on Familial Hypercholesterolaemia Conference. WCC Congress 2018 - World Heart Federation. Dubai, UAE.
- Lecture: Cardioprotection: the missing target in the resolution of atherothrombotic complications (L. Badimon). Mechanisms Linking Aging and Vascular Disease. IV UIMP-IBIS School of Biomedicine. Sevilla, Spain.

Dissemination

- Round table: Implicaciones en la práctica clínica real (L. Badimon). CardioTV Directo Online (20/11/2018) (odyssey.secardiologia.es).
- Jornada Salud Cardiovascular (L. Badimon). Ministerio de Sanidad, Consumo y Bienestar Social. Madrid, Spain.

AREA 1 · Cardiovascular Diseases

Biomarkers for Cardiovascular Disease

Coordinator
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Members
Baldellou Sebastián, Maria Isabel (IR)
Díaz Riera, Elisa (IR)
García Arguinzonis, Maisa Inés (IR)
Gómez-Pardo Arellano, Montserrat (IR)
Múñoz García, Natalia (IR)
Peña Sendra, Esther (IR)
Vilella Figuerola, Alba (IR)

Main Lines of Research

- Identification and characterization of key molecular and cellular biomarkers of atherothrombosis and ischaemic heart disease with potential use in prevention, disease diagnosis and treatment. In general, the research activities focus on cardiovascular disease, vascular remodelling and atherosclerosis, thrombosis, risk factors, ischemic and heart diseases, covering studies at cellular, pre-clinical and clinical level.

Scientific Challenges

- Advance research aiming to identify and characterize new biomarkers of tissue remodelling, vascular injury, atherothrombotic disease and/or ischaemic, coronary and cerebrovascular syndromes using postgenomic techniques.
- Generate new information on extracellular vesicles (microvesicles/exosomes) due to their specific feature as carriers of RNAs (miRNA, lncRNAs and mRNAs) and proteins derived from the parental cells providing precise bioprints of defined pathophysiological scenarios and consequently being ideal biomarker candidates of disease evolution.
- Identificate cardiovascular-disease associated soluble (serum, plasma, urine) and microvesicles or lipoprotein carried molecular biomarker by proteomic tecnologies based on liquid cromatography/bidimensional electrophoresis and mass spectrometry, lipidomic approaches by mass spectrometry coupled to ultra performance liquid chromatography and transcriptomic (mRNA, miRNA) studies based on array-systems and real-time PCR.
- Validate biomarkers identified in the diagnosis and prognosis of cardiovascular and/or cerebrovascular disease using specific quantitative techniques (confocal microscope, ELISA, multiplex assays, etc).
- Characterize molecular and functional mechanisms for selected biomarkers in cardiovascular pathology and myocardial remodeling (biology of systems).

Collaborations

Collaborations with other IIB Sant Pau Groups

- Molecular Pathology and Therapeutic of Ischemic and Atherothrombotic Diseases (Lina Badimon; Gemma Vilahur)
- Pharmacological Research in Humans (Rosa M Antonijoan)
- Clinical and Translational Cardiology (Juan Cinca; Xavier Garcia-Moll, Alessandro Sionis; Laura Lopez)
- Molecular Basis Cardiovascular Risk (Francisco Blanco Vaca; Joan Carles Escolà)

External Collaborations

National Collaborations

- Fundación Hipercolesterolemia Familiar. Madrid. (Pedro Mata, Rodrigo Alonso, Leopoldo Perez-Isla and other members of SAFEHEART).
- UCERV-UCAMI, Hospital Virgen del Rocío, Sevilla (Ovidio Muñiz).
- Department of Internal Medicine. Hospital Abente y Lago, A Coruña (José Luis Diaz-Diaz).
- Department of Internal Medicine. Hospital Clinic . Barcelona (Ramon Estruch).
- Internal Medicine Department Lipids and Vascular Risk Units, University Hospital of Bellvitge, Hospitalet de Llobregat, Barcelona (Xavier Pinto).
- Internal Medicine Department. University Hospital of Bellvitge, Hospitalet de Llobregat, Barcelona (Francesc Formiga).
- Department of Cardiology, Thorax Institute, Hospital Clínic, University of Barcelona, Spain (Salvatore Brugaletta, Victoria Martín-Yuste, Clarissa Cola, Manel Sabaté).
- Invasive Cardiology Department Puerta de Hierro Hospital. Majadahonda, Madrid (Javier Goicolea).
- Department of Rheumatology, Consorci Sanitari de Terrassa (CST). Terrassa, Bacelona (Carmen Garcia-Gómez).
- Service of Endocrinology, University Hospital Dr Peset, Foundation for the Promotion of Health and Biomedical Research in the Valencian Region (FISABIO).

International Collaborations

- Platelet Research Center, Faculty of Health Sciences, University of Talca, Chile (Ivan Palomo, Eduardo Fuentes).
- School of Healthcare Science, Manchester Metropolitan University, Manchester, United Kingdom (Mark Slevin).
- Department of Pathophysiology, Nicolaus Copernicus University in Toruń (Artur Slomka)
- TransBioLine consortium

Active Grants

- Maria Teresa Padró Capmany. Diagnòstic precoç d'insuficiència renal durant insuficiència cardíaca aguda (EDRIAHF). MARATO 20153110. Fundació La Marató de TV3. Duration: 2016-2019. 155,700 €.
- Maria Teresa Padró Capmany. Remodelado miocárdico post-infarto: regulación por la matriz extracelular y el sistema-c3 del complemento. PI16/01915. Instituto de Salud Carlos III. Duration: 2017-2019. 141,500 €.
- Teresa Padró, Lina Badimon. Investigación y desarrollo clínico de una nueva molécula para el control de peso y prevención de la obesidad. RTC-2016-5317-1. Ministerio de Economía y Competitividad. Duration: 2016-2019. 200,303 €.
- Lina Badimon, Teresa Padró. EU-Commission. IMI-JU (IMI2-2017-13-11). Translational Safety Biomarker Pipeline Project (TRansBioLine). Obtained in 2018 (5-years) (starting February 2019). 182,600 €.
- Esther Peña. Estudio comparativo de cánulas de aplicación de adhesivos de fibrina por microscopia confocal. Grifols. Duration: 2018. 57,393 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Poster Award 2018. 52nd Annual Scientific Meeting of the ESCI: M. Garcia-Arguinzonis (co-authors: T. Padró, E. Diaz).
- Poster Award 2018. 52nd Annual Scientific Meeting of the ESCI: R. Escate (co-authors T. Padró).

Patents

- Lina Badimon, Judit Cubedo, Teresa Padró. Methods and kits for the diagnosis and risk stratification of patients with ischemia. EP16382111.9, Priority: Europe. 12/04/2016.
- Lina Badimon, Judit Cubedo, Gemma Vilahur, Teresa Padró. Prevention and/or treatment of ischemia or ischemia/reperfusion injury. EP16382111.9. Priority: Europe. 12/03/2016.
- Lina Badimon, Judit Cubedo, Teresa Padró. Apolipoprotein J isoforms as biomarkers of organ damage. P201030168. Priority: Spain. 26/08/2011.

Transfer Products

- Co-founder of the spin-off Glycardial Diagnostics SL. September 2017.

Scientific Production

Total Impact Factor: 50.657 · Mean Impact Factor: 3.8967

Badimon L, Peña E, Arderiu G, Padró T, Slevin M, Vilahur G, Chiva-Blanch G. C-Reactive Protein in Atherothrombosis and Angiogenesis. (2018) FRONT IMMUNOL. 2018 Mar 2; 9: 430. doi: 10.3389/fimmu.2018.00430. eCollection 2018. Review. PMID: 29552019. **IF: 6.429**

Badimon L., Suades R., Crespo J., Padro T., Chiva-Blanch G., Diet, microparticles and atherothrombosis (2018) FRONT BIOSCI-LANDMRK, 23 (3), 432-457. **IF: 2.3490**

Escate R., Mata P., Cepeda J.M., Padro T., Badimon L., MiR-505-3p controls chemokine receptor up-regulation in macrophages: Role in familial hypercholesterolemia (2018) FASEB J, 32 (2), 601-612. **IF: 5.5950**

Lambert C., Cubedo J., Padro T., Vilahur G., Lopez-Bernal S., Rocha M., Hernandez-Mijares A., Badimon L., Effects of a carob-pod-derived sweetener on glucose metabolism (2018) NUTRIENTS, 10 (3). **IF: 4.1960**

Padro T., Munoz-Garcia N., Vilahur G., Chagas P., Deya A., Antonijoan R.M., Badimon L., Moderate beer intake and cardiovascular health in overweight individuals (2018) NUTRIENTS, 10 (9). **IF: 4.1960**

Padro T., Vilahur G., Badimon L., Dyslipidemias and microcirculation (2018) CURR PHARM DESIGN, 24 (25), 2921-2926. **IF: 2.7570**

Perez de Isla L., Alonso R., Muniz-Grijalvo O., Diaz-Diaz J.L., Zambon D., Miramontes J.P., Fuentes F., Gomez de Diego J.J., Gonzalez-Estrada A., Mata N., Saltijeral A., Barreiro M., Tomas M., de Andres R., Argueso R., et al., Coronary computed tomographic angiography findings and their therapeutic implications in asymptomatic patients with familial hypercholesterolemia. Lessons from the SAFEHEART study (2018) J CLIN LIPIDOL, 12 (4), 948-957. **IF: 3.5800**

Sanchez Munoz-Torrero J.F., Rivas M.D., Zamorano J., Joya-Vazquez P.P., De Isla L.P., Padro T., Mata P., Multivariate analysis for coronary heart disease in heterozygote familial hypercholesterolemia patients (2018) PERS MED, 15 (2), 87-92. **IF: 1.0320**

Sionis A., Suades R., Sans-Rosello J., Sanchez-Martinez M., Crespo J., Padro T., Cubedo J., Ferrero-Gregori A., Vila-Perales M., Duran-Cambra A., Badimon L., Circulating microparticles are associated with clinical severity of persistent ST-segment elevation myocardial infarction complicated with cardiogenic shock (2018) INT J CARDIOL, 258, 249-256. **IF: 4.0340**

Spronk H.M.H., Padro T., Siland J.E., Prochaska J.H., Winters J., Van Der Wal A.C., Posthuma J.J., Lowe G., D'Alessandro E., Wenzel P., Coenen D.M., Reitsma P.H., Ruf W., Van Gorp R.H., Koenen R.R., Vajen T., Alshaikh N.A., et al., Atherothrombosis and Thromboembolism: Position Paper from the Second Maastricht Consensus Conference on Thrombosis (2018) THROMB HAEMOSTASIS, 118 (2), 229-250. **IF: 4.9520**

Vilahur G., Casani L., Pena E., Crespo J., Juan-Babot O., Ben-Aicha S., Mendieta G., Bejar M.T., Borrell M., Badimon L., Silybum marianum provides cardioprotection and limits adverse remodeling post-myocardial infarction by mitigating oxidative stress and reactive fibrosis (2018) INT J CARDIOL, 270, 28-35. **IF: 4.0340**

Vilahur G, Ben-Aicha S, Diaz E, Badimon L, Padro T. Phytosterols and inflammation. (2018) CURR MED CHEM. 2018 Jun 22. [Epub ahead of print] doi: 10.2174/0929867325666180622151438. PMID: 29932029. **IF: 3.469**

Vilahur G, Casaní L, Peña E, Crespo J, Juan-Babot O, Ben-Aicha S, Mendieta G, Béjar MT, Borrell-Pagès M, Badimon L. Reply to the letter by Dr. Ulas to the manuscript entitled: "Silybum marianum provides cardioprotection and limits adverse remodeling post-myocardial infarction by mitigating oxidative stress and reactive fibrosis". (2018) INT J CARDIOL. 2018 Nov 1; 270: 78. doi: 10.1016/j.ijcard.2018.07.056. PMID: 30031622. **IF: 4.0340**

Books or Chapters with ISBN

- Badimon L, Padro T, Chiva-Blanch G. Riesgo cardiovascular en obesidad y sindrome metabolico. Cardiovascular risk in obesity and metabolic syndrome (Chapter 7). In: Monografía XLVI: IV y V Cursos Avanzados sobre Obesidad y Síndrome Metabólico. Francisco José Sánchez Muniz (ed.). Ed. Real Academia Nacional de Farmacia; pp139-148; 2018. ISBN: 978-84-946424-7-0

Diffusion Activities

Lectures: Congresses / Workshops / Courses

- Padró T. Innate immunity, inflammation and thrombosis. 25th Biennal International Congress on Thrombosis. Venice, May 2018.
- Padró T. Obesity, Metabolic Syndrome and Thrombosis. Congress Open Issues in Thrombosis and Haemostasis. St. Petersburg, October 2018.
- Padró T. Efectos protectores de las bebidas fermentadas en el sistema cardiovascular. XII Congreso Internacional Nutrición, Alimentación, Dietética. Madrid, April 2018.
- Padró T. Regulación de la inmunidad innata en la aterosclerosis prematura de la HF. Workshop on Hipercolesterolemia Familiar. Nuevos avances en la detección y tratamiento. Madrid, February 2018.
- Padró T. Extracelular matrix remodelling and plaque vulnerability. Workshop: Coronary Pathophysiology and Microcirculation in Acute Coronary Syndrome and Heart Failure (A Joint meeting of ESC Working Group on Coronary Pathophysiology and Microcirculation and DZHK, partner site Berlin). Berlin, November 2018.
- Padró T. Laboratorio clínico y experimental en el estudio de las dislipemias raras. Course on Rare Dyslipidaemia and Atherosclerosis (European Atherosclerosis Society). Barcelona, September 2018.
- Diaz-Riera E, López L, Garcia-Arguinzonis M, Badimon L, Garcia-Moll X, Padró T. Disfunción renal precoz en pacientes con insuficiencia cardiaca aguda: Análisis proteómico en orina. Congreso de las Enfermedades Cardiovasculares SEC. Sevilla 2018. Revista Española de Cardiología. (poster-oral presentation)
- Diaz-Riera E, Garcia-Arguinzonis M, López L, Garcia-Moll X, Badimon L, Padró T. Differential urine proteomic signature for early diagnostic of renal insufficiency in patients with acute heart failure (poster). B-Debate. Clinical proteomics. Barcelona 2018.

Communications to Congresses

- Ben-Aicha Gonzalez S, Camino Lopez S, Padro T, Casani Arazo L, Mendieta Badimon G, Escate Chavez R, Badimon Maestro L, Vilahur Garcia G. Hyperlipidemia modifies HDL-MIRNA profile and enhances endothelial delivery of HDL- MIR126-3P/-5P through a SRB-1-dependent mechanism. 86th EAS Congress. Lisboa 2018 (poster). Atherosclerosis 08; 275; 2018
- Ben-Aicha S, Camino S, Escate R, Casani L, Mendieta G, Padro T, Badimon L, Vilahur Garcia G. Hypercholesterolemia changes HDL-miRNA signature and enhances HDL-miR126-3p and -5p delivery to endothelial cells modulating genes involved in vascular health. Frontiers in CardioVascular Biology. Vienna, 2018 (oral presentation). Cardiovasc. Res. 114 (Supplement 1), S8 (#31); 2018.
- Padro T, Garcia-Arguinzonis M, Diaz E, Deya A, Badimon L. Relevance of C3-complement activation in atherosclerotic plaques and in the lipid-loaded smooth muscle cell phenotype. Frontiers in CardioVascular Biology. Vienna, 2018. (poster). Cardiovasc Res 114 (Supplement 1), S138 (#P563); 2018.
- Escate R, Padro T, Badimon L. Epigenetic regulation through miR-139-5p during human monocyte-to macrophage differentiation. 52nd Annual Scientific Meeting of the European Society for Clinical Investigation. Barcelona, 2018 (Poster). European Journal of Clinical Investigation 48 (supp 1): 124 (#P090-T).
- Ben-Aicha S, Camino S, Escate R, Casani L, Mendieta G, Padro T, Badimon L Vilahur G. Impact of dietary-induced hypercholesterolemia on HDL-dilivery of miRNAs to endotelial cells. 52nd Annual Scientific Meeting of the European Society for Clinical Investigation. Barcelona, 2018 (poster). European Journal of Clinical Investigation 48 (supp 1):124 (#P091-T);
- Aledo R, Padro T, Mata P, Muñiz O, Borrell M, Badimon L Orosomucoid 1 in familial hypercholesterolemia. 52nd Annual Scientific Meeting of the European Society for Clinical Investigation. Barcelona, 2018 (poster). European Journal of Clinical Investigation 48 (supp 1): 133 (#P110-T);
- Peña E, Vilahur G, Padro T, Badimon L. Dynamic of thrombus formation and Profilin1: from inflammation to thrombosis. 52nd Annual Scientific Meeting of the European Society for Clinical Investigation. Barcelona, 2018 (oral presentation). European Journal of Clinical Investigation 48 (supp 1): 56 (#W3-02).
- Garcia-Arguinzonis M, Vilahur G, Diaz E, Badimon L, Padro T. Myocardial remodelling post-infarction: extracelular matrix regulation and the Complement C3-system. 52nd Annual Scientific Meeting of the European Society for Clinical Investigation. Barcelona, 2018 (poster). European Journal of Clinical Investigation 48 (supp 1): 138 (#P119-T).
- Chiva-Blanch G. Peña E. Cubedo J. et al. Platelets from diabetic patients show a distinct signature in chaperone proteins: implications in platelet aggregation and thrombosis. 52nd Annual Scientific Meeting of the European Society for Clinical Investigation. Barcelona, 2018 (oral presentation). European Journal of Clinical Investigation 48 (supp 1): W3-O8.
- Borrell M. Crespo J. Peña E. et al. Determinants of thrombosis: activation of canonical Wnt pathway. 52nd Annual Scientific Meeting of the European Society for Clinical Investigation. Barcelona, 2018 (poster). European Journal of Clinical Investigation 48 (supp 1): P096-T.
- Arderiu G. Peña E. Aledo R. et al. MicroRNA-145 regulates the differentiation of adipose stem cells toward endothelial cells by ETS1 expression, and promotes angiogenesis in vivo 52nd Annual Scientific Meeting of the European Society for Clinical Investigation. Barcelona, 2018 (poster). European Journal of Clinical Investigation 48 (supp 1): 134 P111-T.
- Diaz-Riera E, Lopez L, Garcia-Arguinzonis M, Badimon L, Garcia-Moll X, Padro T. Differential urine proteomic signature in early phase of renal insufficiency in patients with acute heart failure. ESC CONGRESS 2018, Munich. Barcelona, 2018 (oral presentation). European Heart Journal 39 (Supplement) (#4938); 2018.
- Garcia-Arguinzonis MI, Diaz-Riera E, Badimon L, Padro T. C3-Complement activation in human advanced atherosclerotic plaques: Relevance of the lipid-loaded smooth muscle cell phenotype. Eurothrombosis 2018. Barcelona, 2018 (poster).
- Diaz-Riera E, Garcia-Arguinzonis M, Lopez L, Garcia-Moll X, Badimon L, Padro T. Antithrombin III is found in high levels in urine of patients with acute heart failure and kidney dysfunction. Eurothrombosis 2018. Barcelona, 2018 (poster).
- Garcia-Arguinzonis MI, Vilahur G, Diaz-Riera E, Badimon L, Padro T. Sistema C3 del complement en matriz extracellular miocárdica durante el proceso de remodelado cardíaco post-infarto. Congreso de las enfermedades cardiovasculares SEC. Madrid, 2018 (oral presentation). Revista Española de Cardiologia.

Scientific Diffusion

- Participation of the members of the group in the Educative Program Heart developed at the Elementary school Escola Octavio Paz during the school year (September 2017-June 2018). Participation in different activities for children (6-12 years).
- Participation (Padro T, Diaz E, Garcia-Arguinzonis MI) on the diffusion program organized by La Marató de TV3 to disseminate information on different granted research project (Institut Recerca - Hospital de la Santa Creu i Sant Pau). June 2018.

AREA 1 · Cardiovascular Diseases

Regulation of Cardiac Rhythm and Contraction

Coordinator
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Members
Colino Lage, Hildegard (CSIC)
Llach Martínez, Ana (IR)
Tarifa Lora, Carmen (CSIC)

Main Lines of Research

- Receptor-mediated changes in intracellular calcium homeostasis in atrial fibrillation.
- Contribution of genetic variants to electrical remodelling and cardiac arrhythmogenesis.
- Effects of development and ageing on calcium handling in cardiac myocytes.
- Mathematical modeling of calcium homeostasis and electrical activity in cardiac myocytes.

Scientific Challenges

The goal is to consolidate the group as a reference in research on calcium handling in atrial fibrillation and to establish it within other lines of research by including emerging technology and fields of research. Specifically we aim to:

- Develop computational tools and models to improve the analysis and understanding of intracellular calcium handling in cardiac myocytes.
- Incorporate emerging technology such as stretching and measurements of force development in single cardiomyocytes.
- Consolidate current national and international collaborations and establish new strategic collaborations within emerging fields of research such as the use of super-resolution fluorescence imaging (STORM, STED-techniques) and the detection and role of Reactive Oxygen Species in diseased cardiomyocytes.
- Achieve international funding for incorporation of scientific expertise and participation in multidisciplinary international research projects.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Clinical and Translational Cardiology (Juan Cinca)
- Lipids and Cardiovascular Pathology (Vicenta Lorente)
- Atherosclerosis and Vascular Biology (José Martínez)

External Collaborations

National Collaborations

- Diego Franco, Amelia Aranega. Departamento de Biología Experimental. Universidad de Jaén.
- Francisco Ciruela, Departament de Patologia i Terapèutica Experimental, Institut d'Investigació Biomèdica de Bellvitge (IDIBELL). Universidad de Barcelona.
- Blas Echebarria. Departament de Física Aplicada, Universitat Politècnica de Catalunya.
- Raul Benítez. Enginyeria de Sistemes, Automàtica i Informàtica Industrial, Universitat Politècnica de Catalunya.
- Vicente Andrés. Fisiopatología Cardiovascular Molecular y Genética, CNIC.
- Leif Hove-Madsen, Research Collaborator at the Spanish National Cardiovascular Research Network CIBERCV.

International Collaborations

- SR Wayne Chen. Department of Physiology and Pharmacology, University of Calgary, Canada.
- Glen F Tibbits. Department of Biomedical Physiology and Kinesiology, Simon Fraser University, Burnaby & Child and Family Research Institute, Vancouver, Canada.
- Edwin Moore. Cardiovascular Research Group, University of British Columbia, Vancouver, Canada.
- Kathleen MacLeod. Faculty of Pharmaceutical Sciences, University of British Columbia, Vancouver, Canada.

Active Grants

- Ana Llach Martínez. Receptors de rianodina com a nova diana per al tractament de la fibril·lació auricular. SLT002/16/00074. Departament de Salut. Duration: 2017-2019. 103,907.80 €.
- Leif Hove-Madsen. Coordinated research project on Adenosine receptors as new targets for the treatment of atrial fibrillation: Biomarker, Risk-Stratification and Therapy. Marató TV3 2015-2030. Duration: 2016-2019. 299,322.78 €.
- Leif Hove-Madsen. Coordinated research project on Filling the translational gap: Single nucleotide polymorphisms as biomarkers and targets for personalized treatment of electrophysiological defects in atrial fibrillation. SAF2017-88019-C3-1-R. Duration: 2018-2020. 121,000 €.
- Leif Hove-Madsen. GRpreC. Pre Consolidated Reserach Group on Analysis and Control of Cardiac Rhythm. SGR-2017-1769. Duration: 2018-2020. 15,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Doctoral Theses

- Carmen Tarifa Lora. Effecto de la fibrilación auricular sobre la distribución y freceincia de eventos de liberación espontánea de calcio en miocitos auriculares humanos, Universitat Autònoma de Barcelona. Director: Leif Hove-Madsen. Date of defense: 30/11/2018.

Scientific Production

Total Impact Factor: 24.474 · Mean Impact Factor: 4.079

Hiess F., Detampel P., Nolla-Colomer C., Vallmitjana A., Ganguly A., Amrein M., ter Keurs H.E.D.J., Benitez R., Hove-Madsen L., Chen S.R.W., Dynamic and Irregular Distribution of RyR2 Clusters in the Periphery of Live Ventricular Myocytes (2018) BIOPHYS J, 114 (2), 343-354. **IF: 3.4950**

Molina CE, Abu-Taha IH, Wang Q, Roselló-Díez E, Kamler M, Nattel S, Ravens U, Wehrens XHT, Hove-Madsen L, Heijman J, Dobrev D. Profibrotic, Electrical, and Calcium-Handling Remodeling of the Atria in Heart Failure Patients With and Without Atrial Fibrillation. Front Physiol. 2018 Oct 9;9:1383. doi: 10.3389/fphys.2018.01383. eCollection 2018. **IF: 3.394**

Molina C.E., Jacquet E., Ponien P., Munoz-Guijosa C., Baczko I., Maier L.S., Donzeau-Gouge P., Dobrev D., Fischmeister R., Garnier A., Identification of optimal reference genes for transcriptomic analyses in normal and diseased human heart (2018) CARDIOVASC RES, 114 (2), 247-258. **IF: 6.2900**

Rayani K., Lin E., Craig C., Lamothe M., Shafaattalab S., Gunawan M., Li A.Y., Hove-Madsen L., Tibbits G.F., Zebrafish as a model of mammalian cardiac function: Optically mapping the interplay of temperature and rate on voltage and calcium dynamics (2018) PROG BIOPHYS MOL BIO, 138, 69-90. **IF: 3.4270**

Sun B, Wei J, Zhong X, Guo W, Yao J, Wang R, Vallmitjana A, Benitez R, Hove-Madsen L, Chen SRW. The cardiac ryanodine receptor, but not sarcoplasmic reticulum Ca2+-ATPase, is a major determinant of Ca2+ alternans in intact mouse hearts. J Biol Chem. 2018 Aug 31;293(35):13650-13661. doi: 10.1074/jbc.RA118.003760. **IF: 4.011**

Zhong X., Vallmitjana A., Sun B., Xiao Z., Guo W., Wei J., Ni M., Chen Y., O'Brien E.R., Gillis A.M., Hoshijima M., Takeshima H., Hove-Madsen L., Benitez R., Belke D., Wayne Chen S.R., Reduced expression of cardiac ryanodine receptor protects against stress-induced ventricular tachyarrhythmia, but increases the susceptibility to cardiac alternans (2018) BIOCHEM J, 475 (1), 169-183. **IF: 3.8570**

Diffusion Activities

- A Herraiz-Martinez, A Ferrero-Gregori, A Llach, V Jimenez-Sabado, C Nolla-Colomer, R Benitez, E Rosello, J Cinca, L Hove-Madsen. Male and female sex are associated with different derangements of the intracellular calcium homeostasis in atrial fibrillation. Best poster. European Society of Cardiology Congress. Munich, 25-29 Agust 2018. European Society of Cardiology Congress, Munich 2018.
- V Jimenez-Sabado, A Herraiz-Martinez, C Nolla-Colomer, C Tarifa, A Vallmitjana, J Montiel, R Benitez, J Cinca, L Hove-Madsen. Inhibition of PDE3 but not PDE4 phosphodiesterases stimulate ryanodine receptor phosphorylation at Ser2808. Poster. European Society of Cardiology Congress. Munich, 25-29 Agust 2018.
- L Hove-Madsen. Calcium homeostasis, SK3 channles and SNP risk variants in atrial fibrillation. Guest conference. Dept. Biomedical Sciences, Copenhagen University. 31 July 2018.

AREA 1 · Cardiovascular Diseases

Lipids and Cardiovascular Pathology

Coordinator
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Members
Benítez Amaro, Aleyda (CSIC)
Bornachea Gómez, Olga (CSIC)
De Gonzalo Calvo, David (CSIC)
Nasarre Miarnau, Laura Rosa (IR)
Vea Badenas, Angela (IR)

Main Lines of Research

- Molecular mechanisms involved in the modulation of LRP1 by cardiovascular risk factors.
- Impact of LRP1 on vascular and myocardial cholesterol accumulation.
- Impact of lipoproteins on LRP1-Intracellular signal pathways under normoxic and hypoxic conditions.
- Alterations in LRP1 expression and LRP1-intracellular signal pathways in hypoxia/ischaemia in in vitro and in vivo models.
- Lipids and diabetic cardiomyopathy.
- Lipids and breast cancer.
- LRP1 and inflammation.
- Circulating non-coding RNAs as biomarkers of cardiovascular disease.
- Role of non-coding RNAs in vascular lipid accumulation.
- Role of non-coding RNAs in myocardial lipid accumulation.

Scientific Challenges

- Integrate genomic and functional in vivo studies to validate LRP1 as a new therapeutical target and potential biomarker in cardiometabolic diseases.
- Identify and validate circulating non-coding RNAs as potential biomarkers in cardiovascular diseases.
- Maintain and amplify relationship with IIB Sant Pau groups regarding translation in cardiometabolism.
- Maintain and strengthen national and international collaborations to set up future applications for European funding.
- Establish collaborations with companies wth the aim of developing new products useful for prognosis, diagnosis and treatment of cardiometabolic diseases.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Cardiovascular Biochemistry (José Luís Sánchez-Quesada)
- Molecular Pathology and Therapeutic of Ischaemic and Atherothrombotic Diseases (Lina Badimon)
- Clinical and Translational Cardiology (Juan Cinca)
- Metabolic Bases of Cardiovascular Risk (Francisco Blanco)
- Molecular Bases of Disease (Pablo Fuentes)
- Clinical Oncology (Agustí Barnadas)
- Enrique Lerma (researcher of Molecular Pathology of Gineacologic Cancer)
- Inflammatory Diseases (Cándido Juarez)

External Collaborations

National Collaborations

- Dr. Bayés-Genís. Grupo ICREC (Insuficiencia Cardiaca y Regeneración Cardiaca). Hospital Germans Trias i Pujol. Badalona.
- Eduardo Iglesias Gutiérrez. Grupo ITS (Intervenciones Traslacionales para la Salud). Universidad de Oviedo.
- Rocío Toro. Departamento de Medicina. Facultad de Medicina, Universidad de Cádiz.
- Antonio Zorzano. IRB Barcelona.
- Dolors Serra. Facultad de Farmacia. Universidad de Barcelona.
- Joan Carles Laguna. Facultad de Farmacia. Universidad de Barcelona.
- Eduard Sabidó. Centro de Regulación Genómica. Barcelona.

International Collaborations

- Colette Lacabanne & Valerie Samouillan. Group Physique des Polymères, Institut Carnot, CIRIMAT, Université Paul Sabatier. Toulouse, France.
- Gustavo Alberto Chiabrando. CIBICI-CONICET/FCQ-Universidad Nacional de Córdoba, Argentina.
- Claudia Huesca Gómez. Departamento de Biomedicina Cardiovascular. Instituto Nacional de Cardiología "Ignacio Chávez". México D.F.
- Laurent Duca. Université de Reims Champagne-Ardenne, Reims, France.

- Muriel Laffargue. Institut National de la Santé et de la Recherche Médicale (INSERM), UMR 1048, Institute of Metabolic and Cardiovascular Diseases, Toulouse, France.
- Yvan Devaux. Cardiovascular Research Unit, Luxembourg Institute of Health, Luxembourg.
- Thomas Thum. Institute of Molecular and Translational Therapeutic Strategies (IMTTS), IFB-Tx, Hannover Medical School, Hannover, Germany.

Other Collaborations

- Teresa Tarragó. Iproteos S.L. Parc Científic. Barcelona. Spain.

Active Grants

- Concepción Vicenta Llorente Cortés. Seguiment de la cohort poblacional de l'estudi REGICOR: tendències en la incidència de malaltia cardiovascular, en la prevalença de factors de risc, identificació de nous mecanisme i biomarcadors predicitus, i avaluació d'estratègies de prevenció. SLT002/16/00088. Departament de Salut. Duration: 2017-2019. 106,212 €.
- Vicenta Llorente Cortés. LRP1 as a source of therapeutic, diagnostic and prognostic tools in cardiovascular disease. Fundació Marató TV3 (201521_10). Duration: 2016-2019. 199,511.25 €.
- Vicenta Llorente Cortés. Development of an innovative therapy for the treatment of atherosclerosis through the inhibition of the vascular accumulation of cholesterol. Ministerio de Economía, Industria y Competitividad (RETOS-COLABORACION: RTC-2016-5078-1). Duration: 2017-2019. 787,372.4 €.
- Rocío Toro. Aplication of transcriptomics on the diagnostic-therapeutic approach of familiar dilated miocardiopathy: Aproximation to the cardiovascular personalized medicine. Subvenciones para la financiación de la I+D+i biomédica y en ciencias de la salud en la provincia de Cádiz. PI-0048-2017. Duration: 2018-2020.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Vicenta Llorente Cortés. The link between myocardial LRP1 and circulating levels of natriuretic peptide ANP as a source of new diagnostic and therapeutic options in type 2 diabetes. Instituto de Salud Carlos III. PI18/01584. Duration: 2019-2022. 168,795 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Vea A, Subirana I, de Gonzalo-Calvo D, Marrugat J, Elosua R, Roman I, Llorente-Cortés V. Análisis del LRP1 soluble como biomarcador de riesgo coronario: Asociación con acontecimientos clínicos y capacidad de predicción. Best Oral Communication. Congreso de la Sociedad Española de Arteriosclerosis (SEA), Girona. (Primary Care – Epidemiology). 01/06/2018.

Patents

- Vicenta Llorente Cortés and Lina Badimon. LRP1 as a crucial receptor for the transfer of cholesteryl esters from VLDL to ischemic myocardium, PCT / ES2012 / 070483, granted in USA and Europe, 04/10/2012.
- Rocio Toro; Vicenta Llorente Cortés; Alipio Mangas; David de Gonzalo Calvo. Marcadores para la cardiomiopatía dilatada. P201700749. Presented in Spain, 31/12/2017.

Scientific Production

Total Impact Factor: 81.259 · Mean Impact Factor: 6.7716

Bornachea O, Vea A, Llorente-Cortes V. Interplay between epicardial adipose tissue, metabolic and cardiovascular diseases. Clin Investig Arterioscler. 2018 Sep - Oct;30(5):230-239. doi: 10.1016/j.arteri.2018.03.003. Epub 2018 Jun 11. Review. English, Spanish. PubMed PMID: 29903689. **IF: –**

Chatterjee S., de Gonzalo-Calvo D., Derda A.A., Schimmel K., Sonnenschein K., Bavendiek U., Bauersachs J., Bar C., Thum T., Leukocyte telomere length correlates with hypertrophic cardiomyopathy severity (2018) SCI REP-UK, 8 (1). **IF: 4.1220**

de Gonzalo-Calvo D., Davalos A., Fernandez-Sanjurjo M., Amado-Rodriguez L., Diaz-Coto S., Tomas-Zapico C., Montero A., Garcia-Gonzalez A., Llorente-Cortes V., Heras M.E., Boraita Perez A., Diaz-Martinez A.E., Ubeda N., Iglesias-Gutierrez E., Circulating microRNAs as emerging cardiac biomarkers responsive to acute exercise (2018) INT J CARDIOL, 264, 130-136. **IF: 4.0340**

de Gonzalo-Calvo D., Cediel G., Bar C., Nunez J., Revuelta-Lopez E., Gavara J., Rios-Navarro C., Llorente-Cortes V., Bodi V., Thum T., Bayes-Genis A., Circulating miR-1254 predicts ventricular remodeling in patients with ST-Segment-Elevation Myocardial Infarction: A cardiovascular magnetic resonance study (2018) SCI REP-UK, 8 (1). **IF: 4.1220**

de Gonzalo-Calvo D.D., Colom C., Vilades D., Rivas-Urbina A., Moustafa A.-H., Perez-Cuellar M., Sanchez-Quesada J.L., Perez A., Llorente-Cortes V., Soluble LRP1 is an independent biomarker of epicardial fat volume in patients with type 1 diabetes mellitus (2018) SCI REP-UK, 8 (1). **IF: 4.1220**

de Gonzalo-Calvo D, Vea A, Bär C, Fiedler J, Couch LS, Brotons C, Llorente-Cortes V, Thum T. Circulating non-coding RNAs in biomarker-guided cardiovascular therapy: a novel tool for personalized medicine? Eur Heart J. 2018 Apr 24. doi: 10.1093/eurheartj/ehy234. [Epub ahead of print] PubMed PMID: 29688487. **IF: 15.064**

de Gonzalo-Calvo D, Thum T. Circulating non-coding RNAs as biomarkers to predict and monitor the response to exercise: chances and hurdles. Eur Heart J. 2018 Oct 7;39(38):3552. doi: 10.1093/eurheartj/ehy457. PubMed PMID: 30060047. **IF: 15.064**

Domínguez F, Cuenca S, Bilińska Z, Toro R, Villard E, Barriales-Villa R, Ochoa JP, Asselbergs F, Sammani A, Franaszczyk M, Akhtar M, Coronado-Albi MJ, Rangel-Sousa D, Rodriguez-Palomares JF, Jiménez-Jáimez J, et al.; European Genetic Cardiomyopathies Initiative Investigators. Dilated Cardiomyopathy Due to BLC2-Associated Athanogene 3 (BAG3) Mutations. J Am Coll Cardiol. 2018 Nov 13;72(20):2471-2481. doi: 10.1016/j.jacc.2018.08.2181. PubMed PMID: 30442290. **IF: 17.759**

Gomes CPC, de Gonzalo-Calvo D, Toro R, Fernandes T, Theisen D, Wang DZ, Devaux Y; Cardiolinc™ network. Non-coding RNAs and exercise: pathophysiological role and clinical application in the cardiovascular system. Clin Sci (Lond). 2018 May 20;132(9):925-942. doi: 10.1042/CS20171463. Print 2018 May 23. Review. PubMed. PMID: 29780023. **IF: 5.016**

Fernandez-Sanjurjo M., De Gonzalo-Calvo D., Fernandez-Garcia B., Diez-Robles S., Martinez-Canal A., Olmedillas H., Davalos A., Iglesias-Gutierrez E., Circulating microRNA as Emerging Biomarkers of Exercise (2018) EXERC SPORT SCI REV, 46 (3), 160-171. **IF: 5.0650**

Toro R., Blasco-Turrion S., Morales-Ponce F.J., Gonzalez P., Martinez-Camblor P., Lopez-Granados A., Brugada R., Campuzano O., Perez-Serra A., Rosa Longobardo F., Mangas A., Llorente-Cortes V., de Gonzalo-Calvo D., Plasma microRNAs as biomarkers for Lamin A/C-related dilated cardiomyopathy (2018) J MOL MED, 96 (8), 845-856. **IF: 4.9380**

Vea A, Llorente-Cortes V, de Gonzalo-Calvo D. Circular RNAs in Blood. Adv Exp Med Biol. 2018;1087:119-130. doi: 10.1007/978-981-13-1426-1_10. Review. PubMed PMID: 30259362. **IF: 1.953**

Other Publications

- Samouillan V, Dandurand J, Lacabanne C, Spina M, Amaro AB, Llorente-Cortes V. (2018) Biophysical methods to characterize cardiovascular tissues. Cardio Case Reports 1: DOI: 10.15761/JCCR.1000103.
- A Vea; V Llorente-Cortes; David de Gonzalo-Calvo. Circular RNA: a novel tool in cardiovascular biomarker development?. Non-coding RNA Investigation (ISSN: 2522-6673). 2-39, pp. 1-12. 2018.

Books or Chapters with ISBN

- A Vea; V Llorente-Cortes; David de Gonzalo-Calvo. Circular RNAs in Blood. Advances in Experimental Medicine and Biology. 1087, pp. 119 - 130. 2018. ISBN 978-981-13-1426-1

Diffusion Activities

Conferences

- Vicenta Llorente Cortés Nous biomarcadors peptídics i ómics per al diagnòstic i tractament de la patología cardiovascular. Sessions de formació continuada en Cardiología. Hospital Germans Trias i Pujol. 1st February 2018
- Vicenta Llorente Cortés. Desarrollo de nuevos biomarcadores para diagnóstico y tratamiento de enfermedad cardiovascular. 19th March 2018. Hallmark: LUNES DE CIENCIA. Por qué investigar en ... Biomedicina. Residència d'Investigadors CSIC (http://www.residencia-investigadors.es/es/actividades/desarrollo-de-nuevos-biomarcadores-para-diagno.html)
- Vicenta Llorente Cortés. Nuevos biomarcadores con potencial diagnóstico y terapéutico en la acumulación vascular y miocárdica de colesterol. 18th April 2018. Hallmark: Seminarios IBV-CSIC. Instituto de Biomedicina de Valencia (IBV)-CSIC (https://twitter.com/ibv_csic/status/988320781187694592?lang=ca)
- David de Gonzalo Calvo. Circulating microRNAs as diagnostic biomarkers. 25th August 2018. Hallmark: European Society of Cardiology Munich 2018

Congresses

- A Vea; I Subirana; David de Gonzalo-Calvo; J Marrugat; R Elosua; I Roman; V Llorente-Cortes. Análisis del LRP1 soluble como biomarcador de riesgo coronario: asociación con acontecimientos clínicos y capacidad de predicción. Oral communication. 31 Congreso Nacional de la Sociedad Española de Arteriosclerosis. Spanish Society of Atherosclerosis (SEA). Girona, Spain, 30 May-1 June 2018.
- O. Bornachea; A. Vea; A. Benítez-Amaro; D. De Gonzalo-Calvo; L. Nasarre; A. Iborra Obiols; J. Castell Conesa; V. Llorente-Cortés. Efecto de los anticuerpos anti-P3 (LRP1) en el desarrollo de aterosclerosis inducida por una dieta hipercolesterolémica. Oral communication. 31 Congreso Nacional de la Sociedad Española de Arteriosclerosis. Spanish Society of Atherosclerosis (SEA). Girona, Spain, 30 May-1 June 2018.
- R Rodríguez; J Girona; M Rodríguez; S Samino; E Barroso; David de Gonzalo-Calvo; S Guatia; M Heras; R van der Meer; H Lamb; O Yanes; X Correig; V Llorente-Cortés; M Vázquez; L Masana. La fatty acid binding protein (FABP4) refleja la esteatosis del miocardio en individuos diabéticos tipo 2. Oral communication. 31 Congreso Nacional de la Sociedad Española de Arteriosclerosis. Spanish Society of Atherosclerosis (SEA). Girona, Spain, 30 May-1 June 2018.
- R Rodríguez-Calvo; J Girona; M Rodríguez; S Samino; E Barroso; David de Gonzalo-Calvo; S Guatia-Esteruelas; M Heras; H Lamb; O Yanes; X Correig; V Llorente-Cortes; M Vazquez-Carrera; L Massana. Fatty acid binding protein 4 (FABP4) contributes to myocardial steatosis and insulin resistance in cardiac cells. Oral communication. 86th Congress of the European Atherosclerosis Society. European Atherosclerosis Society (EAS). Lisbon, Portugal, 5-8 May 2018. "Atherosclerosis (2018) 275, e66".
- D de Gonzalo-Calvo; A Dávalos; M Fernández-Sanjurjo; L Amado-Rodríguez; S Díaz-Coto; C, Tomás-Zapico; A Montero; A García-González; V Llorente-Cortés; AE Díaz-Martínez; N Úbeda; E Iglesias-Gutiérrez. Circulating microRNAs as emerging cardiac biomarkers: response to acute exercise and implications for clinical practice. 86th Congress of the European Atherosclerosis Society. European Atherosclerosis Society (EAS). Lisbon, Portugal, 5-8 May 2018. "Atherosclerosis (2018) 275, e248".

Divulgation CIBER

- News in the Journal of Cellular and Molecular Medicine:
  - https://www.cibercv.es/noticias/identificados-nuevos-biomarcadores-asociados-con-cambios-estructurales-y-metabolicos-en-los-ventriculos-en-casos-de-enfermedad-cardiovascular
- News in the European Heart Journal:
  - https://www.cibercv.es/noticias/los-biomarcadores-abren-nuevas-vias-para-personalizar-los-tratamientos-en-pacientes-cardiovasculares
- News in the MAPOMA-Ejercicio:
  - https://www.cibercv.es/noticias/los-biomarcadores-abren-nuevas-vias-para-personalizar-los-tratamientos-en-pacientes-cardiovasculares
- News in the sLRP1-EAT-Diabetes tipo 1:
  - https://www.cibercv.es/noticias/identificado-un-nuevo-biomarcador-no-invasivo-de-la-grasa-epicardica-en-pacientes-con-diabetes-tipo-1

AREA 1 · Cardiovascular Diseases

Genomics of Complex Diseases

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Main Lines of Research

Complex diseases genomics and epigenomics

Thrombosis and vascular research

- GAIT Project: Genetic Analysis of Idiopathic Thrombophilia.
- RETROVE Project: Risk of Venous Thromboembolic Disease.
- TAGA Project: Genomic basis of Abdominal Aortic Aneurysm.
- Research into pharmacologic targets for NSAIDs of cardiovascular interest.
- Inflammatory mechanisms involved in vascular disorders.

Vascular diseases and cancer

- OncoThromb Project: New biomarkers related with Thrombosis and Cancer.
- AIRTOP and MIRTO Projects: Assesment of the Individual Risk of Thrombosis in Oncology Patients.
- Role of inflammatory mediators in head and neck squamous carcinoma and in the regulation of gene expression in tumour relapse.

Genomic analysis on chronic obstructive pulmonar disease

- GEPOC Project.

Genomics in sports medicine

Performance, effort and recovery to stress conditions

- SUMMIT Project (Health in sport and its limits): Marathons and Ultras.

Exposure to hypoxia in extreme environments

- SHERPA_Everest'2017 Project.
- K2-Xtreme-Genetics. Impacto biológico, genético y clínico (K2-XG).

Bioinformatics

Analysis and managemet of data in complex diseases

- Salambó Project: Bioinformatics Platform.

Scientific Challenges

- Analysis of Omics data (genomics, transcriptomics, epigenomics) in the field of complex diseases with transversal and translational approach in close cooperation with clinical groups.
- Identify new biomarkers (genetic, epigenetic and/or plasmatic) that determine the susceptibility to complex diseases.
- Identify new mechanisms involved in the development and progression of complex diseases.
- Development of predictive algorithms that integrate the genetic, biological and clinical information of the patients (Personalized Medicine).

Collaborations

Collaborations with other IIB Sant Pau Groups

- Thrombosis and Haemostasis, Dr. J.C. Souto: GAIT, MIRTO, RETROVE Projects
- Internal Medicine, Dr. J. Casademont: GAO Project
- Neurology, Dr. J. Marti: MIRTO Project. Elena Jiménez: Biomarcadores lipoproteicos ICTUS
- Clinical Hematology, Dr. J. Sierra: MIRTO Project
- Neumology, Dr. O. Sibila : SUMMIT, SHERPA Projects
- Cancer of Ear Nose and Throat, Dr. M. Quer
- Regulatory Mechanisms of Cardiovascular Remodelling. Dr. C. Rodriguez
- CIBER Enfermedades Cardiovasculares. Dr. J. González
- General and Digestive Surgery. Dr. E. Targarona
- Cardiologia Dep.: Proyecto CELLS-Alba Synchrotron. Dr. R. Barnadas

External Collaborations

- Clinical Oncology Department, Hospital Gregorio Marañón, Madrid. Dr. A. Muñoz: ONCOTHROMB and AIRTOP Projects.
- Centre de Recerca en Enginyeria Biomèdica, Universitat Politècnica de Catalunya, Barcelona. Dr. A. Perera: SUMMIT Project.
- Laboratory Haematolgy, Hospital Timone Marseille, France. Dr. P. Morange: GAIT, VEREMA Projects.
- Department of Genetic, University of Genève, Switzerland. Dr. M. Dermitzakis and Dr. Ana Viñuela: GAIT Project.
- INSERM UMR_S1219 - Bordeaux Public Health Center. Bordeaux, France. Dr. DA. Tregouet: GAIT, VEREMA Projects.
- Haematology Department, Karolinska Hospital, Sweden. Dr. J. Odeberg: Project VEREMA.

- Institute of Biological Psychiatry, Sankt Hans Hospital. Roskilde, Denmark, Dr. A. Buil: Bioinformatics of Complex diseases, GAIT Project.
- Department of Internal Medicine. Clinical Department of Hematology and Hemostasis. University of Wien, Austria. Dra. Ingrid Pabinger. OncoThromb, MIRTO Projects.
- Universidad Autónoma de Madrid. Dra. M. Salaices.
- Centro Nacional de Investigaciones Cardiovasculares (CNIC), Madrid. Dr. JM. Redondo.
- Hospital Joan XIII, Servicio de Otorrinolaringología, Tarragona. Dr. FX Avilés-Jurado.
- GenIncode.Development of Genetic Diagnostics in Thrombosis.
- Leo-Pharma. Prediction of Thrombosis Risk in cancer patients.
- STAGO. Development of New Biomarkers in Thrombosis.
- Boehringer Ingelheim. Modeling the Individual Risk of Thrombosis in Oncology (MIRTO).

Active Grants

- José Manuel Soria Fernández. Identificación de Mecanismos de Regulación de la Expresión Génica (microRNAs) en la Enfermedad Tromboembólica Venosa. PI14/00582. Instituto de Salud Carlos III. Duration: 2015-2018. 111,500 €.
- Alba Rodríguez Rius. Identificación de Mecanismos de Regulación de la Expresión Génica (microRNAS) en la Enfermedad Tromboembólica Venosa. 2017 FI_B 00673. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2020. 60,809.20 €.
- José Manuel Soria Fernández. Exposición a la hipoxia ambiental extrema y su efecto sobre la respuesta inflamatoria y cardiopulmonar: Impacto biológico, genético y clínico. SHERPA EVEREST 2017. Fundació Bancària Caixa d'Estalvis i Pensions. Duration: 2017-2018. 97,000 €.
- José Manuel Soria Fernández. Validación del Proyecto MIRTO (Modeling the Individual Risk of Thrombosis in Oncology). PI17/00059. Instituto de Salud Carlos III. Duration: 2018-2020. 112,000 €.
- Maria Sabater Lleal. Identification of novel biomarkers and genetic pathways involved in Abdominal Aortic Aneurysm. CP17/00142(P). Instituto de Salud Carlos III. Duration: 2018-2020. 99,000 €.
- Maria Sabater Lleal. Contractes d'Investigadors "Miguel Servet tipo I" 2017. CP17/00142. Instituto de Salud Carlos III. Duration: 2018-2023. 202,500 €.
- Maria Sabater Lleal. Population genomic variation, functional biology and the risk of venous thrombosis. HL134894. National Institute of Health (NIH). Duration: 2018-2021. 56,306.10 €.
- José Manuel Soria Fernández. Desenvolupament d'un algoritme de predicció de risc de trombosi en pacients oncològics. NUCLIS RD16-1-0034. Generalitat de Catalunya. Duration: 2018-2019. 50,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Josep Maria Romero Carro, Bases Genéticas de la Insuficiencia Venosa Crónica y su implicación en la Enfermedad Tromboembólica. FMM 2018, Fundación Mutua Madrileña. Duration: 2018-2020. 57,142.86 €.
- María Mercedes Camacho Pérez de Madrid. Laboratorio de Angiología, Biología Vascular e Inflamación. 2017 SGR 01243. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- José Manuel Soria Fernández. Unitat de Genòmica de Malalties Complexes. 2017 SGR 01736. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- Laura Martín. Beca Proyecto de Investigación de la Sociedad Española de Trombosis y Hemostasia (SETH 2017). Identificación de variantes genéticas por Next Generation Sequencing (NGS) asociadas a la formación de Neutrophil Extracellular Traps (NETs) y Enfermedad Tromboembólica Venosa (ETV) en el Proyecto GAIT-2. Duration: 2018-2019. 40,000 €.
- José Manuel Soria Fernández. Validación del Proyecto MIRTO (Modeling the Individual Risk of Thrombosis in Oncology). Convocatoria de Proyectos López Borrasca 2018. Sociedad Española de Trombosis y Hemostasia (SETH). Duration: 2018-2019. 15,000 €.
- Mercedes Camacho Nuevas estrategias terapéuticas en el manejo de la enfermedad arterial periférica y el aneurisma de aorta abdominal. Intituto de Salut Carlos III. FIS PI18/00919. Duration: 2019-2021. 183,920€.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- José Manuel Soria. Validación del Proyecto MIRTO (Modeling Risk of Thrombosis in Oncology). Second Special Prize of the Spanish Foundation for Thrombosis and Hemostasis for basic or clinical research projects related to the area of Thrombosis and Haemostasis. 2018.
- E. Britez, J M Romero, J F Dilmé, G. Muñoz. R Rovira, J R Escudero. Flegmasia cerúlea dolens de extremidad inferior derecha en paciente con proceso neoplásico activo. IV Award for the best clinical cases on Tinzaparin Treatment in cancer patients. VII Foro de Oncología y Trombosis. Barcelona, 23 February 2018.
- E. Tiñena, A. Barros, J Dilmé, J M Romero, L. Sánchez. JR Escudero.Flow redirection as a therapeutic option for remodeling chronic type B aortic dissections. Award for the best presentation. National Congress of the Catalan Society of Angiology, Vascular and Endovascular Surgery. Sitges, 11-12 May 2018.
- A. Gené, J. Fité, T. Puig, JR. Escudero, S. Bellmunt. Estimación individual del diámetro aórtico infrarrenal normal. Prize for the best communication in the field of vascular diagnosis. 64 Congreso de la Sociedad Española de Angiología y Cirugía Vascular. Madrid, 5-8 June 2018.

Doctoral Theses

- Anna Sumarroca Troboul. Capacidad pronóstica de la expresion de la mieloperoxidasa en los pacientes con carcinomas escamosos de cabeza y cuello. Universitat Autònoma de Barcelona. Departament de Cirurgia. Directors: Xavier León i Vintró; Luis Vila Navarro; Mercedes Camacho Pérez de Madrid. Date of defense: 26/10/2018.

Patents

- Alexandre Perera, Maria Maqueda, Emma Roca, José Manuel Soria, Genetic Biomarker profiles for endurance sport suitability. EP17382299.9, UE. 01/09/2017.
- Eduardo Salas, Andrés Muñoz, José Manuel Soria, Cancer-associated venous thromboembolic events, EP17382297.4, UE, 01/10/2017
- José Manuel Soria, Sergio Castillo, Roberto Elosúa, Eduardo Salas. Thromboembolic disease Markers, PCT/EP2012/061185, UE, USA, Canada, Australia. 01/06/2012.

Transfer Products

- ThromboIncode (TiC): kit para determinación de polimorfismos genéticos de riesgo de trombosis. Desarrollo tecnológico en colaboración desde 2008 con la empresa Gendiag y FerrerIncode. Actualmente comercializado por la empresa GenIncode.
- ARN_Genomax Project Innovation Programme The Collider. Mobile World Capital Barcelona Foundation. 2018

Scientific Production

Total Impact Factor: 47.549 · Mean Impact Factor: 3.6576

Avendano M.S., Garcia-Redondo A.B., Zalba G., Gonzalez-Amor M., Aguado A., Martinez-Revelles S., Beltran L.M., Camacho M., Cachofeiro V., Alonso M.J., Salaices M., Briones A.M., MPGES-1 (Microsomal prostaglandin E synthase-1) mediates vascular dysfunction in hypertension through oxidative stress (2018) HYPERTENSION, 72 (2), 492-502. **IF: 6.8230**

Brú A, Gómez-Castro D, Vila L, Brú I, Souto JC. Study of tumor growth indicates the existence of an "immunological threshold" separating states of pro- and antitumoral peritumoral inflammation. PLOS ONE. 2018 Nov 2;13(11):e0202823. doi: 10.1371/journal.pone.0202823. eCollection 2018. PMID: 30388111. **IF: 2.766**

Camacho M., Aguero A., Sumarroca A., Lopez L., Pavon M.-A., Aviles-Jurado F.-X., Garcia J., Quer M., Leon X., Prognostic value of CD45 transcriptional expression in head and neck cancer (2018) EUR ARCH OTO-RHINO-L, 275 (1), 225-232. **IF: 1.5460**

Cantó E, Roca E, Perea L, Rodrigo-Troyano A, Suarez-Cuartin G, Giner J, Feliu A, Soria JM, Nescolarde L, Vidal S, Sibila O. Salivary immunity and respiratory infection in non-elite marathon runners. PLOS ONE. 2018 Nov 21;13(11):e0206059. doi: 10.1371/journal.pone.0206059. eCollection 2018. PMID: 30462646. Q1. **IF: 2.766**.

Gill D., Georgakis M.K., Laffan M., Sabater-Lleal M., Malik R., Tzoulaki I., Veltkamp R., Dehghan A., Genetically determined FXI (Factor XI) levels and risk of stroke (2018) STROKE, 49 (11), 2761-2763. **IF: 6.2390**

Gomez-Jabalera E., Bellmunt Montoya S., Fuentes-Camps E., Escudero Rodriguez J.R., Age-adjusted D-dimer for the diagnosis of deep vein thrombosis (2018) PHLEBOLOGY, 33 (7), 458-463. **IF: 1.5130**

Ligthart S., Vaez A., Vosa U., Stathopoulou M.G., de Vries P.S., Prins B.P., Van der Most P.J., Tanaka T., Naderi E., Rose L.M., Wu Y., Karlsson R., Barbalic M., Lin H., Pool R., Zhu G., Mace A., Sidore C., Trompet S., Mangino M., et al., Genome Analyses of >200,000 Individuals Identify 58 Loci for Chronic Inflammation and Highlight Pathways that Link Inflammation and Complex Disorders (2018) AM J HUM GENET, 103 (5), 691-706. **IF: 8.8550**

Marin-Garcia M., Benseny-Cases N., Camacho M., Perrie Y., Suades J., Barnadas-Rodriguez R., Metallosomes for biomedical applications by mixing molybdenum carbonyl metallosurfactants and phospholipids (2018) DALTON T, 47 (40), 14293-14303. **IF: 4.0990**

Muñoz Martín A, Ortega I, Font C, Pachón V, Castellón V, Martínez-Marín V, Salgado M, Martínez de Castro E, Calzas J, Rupérez A, Souto JC, Martín M, Salas E, Soria JM. Multivariable clinical-genetic risk model for predicting venous thromboembolic events in patients with cancer. BR J CANCER. 2018 Apr;118(8):1056-1061. doi: 10.1038/s41416-018-0027-8. Epub 2018 Mar 28. PMID: 29588512. Q1. **IF: 5.922**.

Soto B., Vila L., Dilme J., Escudero J.-R., Bellmunt S., Camacho M., Finite element analysis in symptomatic and asymptomatic abdominal aortic aneurysms for aortic disease risk stratification (2018) INT ANGIOL, 37 (6), 479-485. **IF: 1.1560**

Subiela J.D., Balla A., Bollo J., Dilme J.F., Soto Carricas B., Targarona E.M., Rodriguez-Faba O., Breda A., Palou J., Endovascular Management of Ureteroarterial Fistula: Single Institution Experience and Systematic Literature Review (2018) VASC ENDOVASC SURG, 52 (4), 275-286. **IF: 0.8720**

Vazquez-Santiago M., Vilalta N., Cuevas B., Murillo J., Llobet D., Macho R., Pujol-Moix N., Carrasco M., Mateo J., Fontcuberta J., Soria J.M., Souto J.C., Short closure time values in PFA–100® are related to venous thrombotic risk. Results from the RETROVE Study (2018) THROMB RES, 169, 57-63. **IF: 2.7790**

Ziyatdinov A., Vazquez-Santiago M., Brunel H., Martinez-Perez A., Aschard H., Soria J.M., lme4qtl: Linear mixed models with flexible covariance structure for genetic studies of related individuals (2018) BMC BIOINFORMATICS, 19 (1). **IF: 2.2130**

Other Publications

- Fité J, Félix Dilmé J, Villalba J, Peypoch O, Til L, Escudero JR, Drobnic F, Girsane MO. Management of a complicated triathlete's bilateral iliac artery endofibrosis. J Anat & Physiol. 2018; 5(3): 186-190.
- Quintana M J, Gich I, Librero J, Bellmunt-Montoya S, Escudero JR, Bonfill X. Variation in the choice of elective surgical procedure for abdominal aortic aneurysm in SpainVascular. Health and Risk Management 2019: 15; 69-79.
- Subiela JD, Balla A, Bollo J, Dilmé JF, Soto Carricas B, Targarona EM, Rodriguez-Faba O, Breda A, Palou Endovascular management of Ureteroarterial Fistula: Single Institution Experience and Systematic Literature Review. J. Vasc Endovascular Surg. 2018 May; 52(4): 275-286.

Diffusion Activities

- JM Soria. Multi-Omic data approach for discovery hypoxia-related processes: The SHERPA _Everest 2017 Project. International Society of Mountain Medicine (ISMM) Congress. Kathmandu, 2018. Invited Conference.
- Rodriguez-Rius A, Lopez S, Martinez-Perez A, Sabater-Lleal M, Buil A, Viñuela A, Brown A, Panousis Nikolaos I Muñoz C, Hamsten A, Dermitzakis E, Souto JC, Soria JM. Omics data integration in the Thromboembolic Venous Disease. Comunicación Oral. XXXIV Congreso de la SETH. Granada, 2018.
- Chen H, Martinez-Perez A, Abuli, M, Sibila, O, Bhandari S, Subedi Y, Pyakurel D, Roca E, Garrido E, Bayés-Genís A, Pujol O, Soria JM. Physiological parameters to predict acute mountain sickness based on Lake Louise questionnaire symptoms: Results from the SHERPA-Everest'2017 Project. Poster. International Society of Mountain Medicine Congress (ISMM). Kathmandu 2018.
- Abuli M, Sibila O, Martínez-Perez A, Bhandari S, Subedi Y, Pyakurel D, Roca E, Garrido E, Bayes-Genis A, Soria JM. SHERPA Everest 2017 Project. Cardiopulmonary changes between Caucasians and Sherpas at Mt. Everest Base Camp (5.364 m). International Society of Mountain Medicine Congress (ISMM). Kathmandu 2018. Poster.
- Pelegrín L, Martinez-Perez A, Abuli M, Sibila O, Bhandari S, Subedi Y, Pyakurel D, Roca E, Garrido E, Bayés-Genís A, Buil JA, Casaroli-Marano R, Soria JM. Choroidal thickness changes induced by hypoxia in high-altitude conditions: Results from the SHERPA-Everest'2017 Project. Oral communication. International Society of Mountain Medicine Congress (ISMM). Kathmandu 2018.
- Rodriguez-Rius A, Lopez S, Martinez-Perez A, Sabater-Lleal M, Muñoz C, Hamsten A, Souto JC, Soria JM. miRNA Expression Profile in Venous Thrombosis Disease: Results from The Genetic Analysis of Idiopathic Thrombophilia Project. Poster. International Society on Thrombosis and Haemostasis (ISTH), 64th Annual Scientific and Standardization Committee (SSC) meeting. Dublin, Ireland on July 18-21, 2018,
- Miquel Vázquez-Santiago, José Maria Romero, Jaume Dilmè, Angel Martinez-Perez, Oriol Sibila, Vicente Plaza, Mercedes Camacho, José Manuel Soria, José-Román Escudero, Maria Sabater-Lleal. The TAGA Study: a new family study for the genetic analysis of aortic abdominal aneurysm. Poster. 6th International Meeting on Aortic Diseases. New insights into an old problem. September 12-14, 2018. Liège, Belgium.
- Teresa Gallastegi, Begoña Soto, José María Romero, María Galán, José Román Escudero and Mercedes Camacho. MCAM/CD146 which is differentially expressed in vascular diseases, is a potential biomarker in abdominal aortic aneurysm. Poster.ESVS 32st Annual Meeting. 25-28 September 2018, Valencia, Spain.
- J.R. Escudero. Organization of the Simposium: Actualización en el diagnóstico y tratamiento de los edemas de causa vascular. Hospital de la Santa Creu i Sant Pau. Barcelona, 3 March, 2018.
- J.R. Escudero. Experiencia con prótesis biosintética omniflow II. Hospital Universitario de Cruces. Bilbao. 20 September 2018.
- Dilmé JF. Coordinator of Workshops of abdominal aortic surgery performed at Hospital de la Santa Creu i Sant Pau during 2018: Implantes Anaconda Terumo Aortic. 23 November 2018.
- J.R. Escudero. Conference. Técnicas de revascularización en el pie diabético. III Gran Reunión de Endocrinología. MSD-Madrid. 9-19 February 2018.
- E. Britez, J M Romero, J F Dilmé, G. Muñoz. R Rovira, J R Escudero. Flegmasia cerúlea dolens de extremidad inferior derecha en paciente con proceso neoplásico activo. IV Award for the best clinical cases on Tinzaparin Treatment in cancer patients. VII Foro de Oncología y Trombosis. Barcelona, 23 February 2018.
- J.R. Escudero. Fisiopatología de los edemas de causa vascular. Actualización en el diagnóstico y tratamiento de los edemas de causa vascular. Hospital de la Santa Creu i Sant Pau. Barcelona. 3 March 2018.
- J.M. Romero. Flow Redirection as a Therapeutic Option for Remodeling Chronic type B Dissection. Oral presentation. Congrés Societat Catalana de Cirurgia Vascular i Endovascular. Sitges, May 2018.
- Miquel Navas, Luis Vila, Joan Fité, José Martínez-González, Cristina Rodriguez, Mercedes Camacho, María Galán. Targeting endoplasmic reticulum stress as a therapy to manage abdominal aortic aneurysm disease. Oral communication. 86th EAS Congress. Lisbon, Portugal. 5-8 May 2018.
- Enric Tiñena Molina, Antonio Barros Membrilla, Jaime F. Dilmé Muñoz, Josep M. Romero Carro, Laia Sánchez García, José R. Escudero Rodríguez. Flow redirection as a therapeutic option for re-modelling chronic type B aortic dissections. National Congress of the Societat Catalana d'Angiologia, Cirurgia Vascular i Endovascular. Sitges, 11-12 May 2018.
- E.D. Brítez Altamirano, J.F. Dilmé Muñoz, J.M. Romero Carro, R. Rovira Safont, L. Sánchez García, J.R. Escudero Rodríguez. Elective endovascular repair of aortoiliac rysms with iliac branch endoprothesis in a single institution. National Congress of the Catalan Society of Angiology, Vascular and Endovascular Surgery. Sitges, 11-12 May 2018.
- R. Rovira, J. Dilmé, J. Villalba; R. Guerrero, E. Britez, J.R. Escudero. EVAR branch thrombectomy using percutaneous wire-guided rotational thrombectomy device Rotarex. National Congress of the Catalan Society of Angiology, Vascular and Endovascular Surgery. Sitges 11-12 May 2018.
- L Sánchez, J Dilmé, E Britez; R Rovira, O Peypoch, JR Escudero. Absence of left common iliac artery in a patient whit abdominal aortic aneurysm. A case report. National Congress of the Catalan Society of Angiology, Vascular and Endovascular Surgery. Sitges 11-12 May 2018.
- Miquel Navas, Cristina Rodriguez, Joan Fité, José Martínez-González, Luis Vila, Mercedes Camacho, María Galán. Contribution of chronic endoplasmic reticulum stress and oxysterols to abdominal aortic aneurysm disease. Poster. European Society for Clinical Investigation 2018. Barcelona 30 May-1 June 2018.
- Miquel Navas, Mercedes Camacho, José Román Escudero, Joan Fité, José Martínez-González, Cristina Rodriguez, María Galán. El estrés del retículo endoplasmático como nueva diana terapéutica en el tratamiento del aneurisma de aorta abdominal. Oral communication. Sociedad Española de Arteriosclerosis 2018. Girona, 30 May-01 June 2018.
- Anna Gené, Joan Fité, Claudia Riera, M. Teresa Puig, J.R. Escudero, Sergi Bellmunt. Estimación individual del diámetro aórtico infrarrenal normal. Salvador Luján Award for the best communication in vascular diagnosis. Oral communication SEACV. Madrid, 5-8 June 2018.
- Miquel Navas, Luis Vila, Joan Fité, José Martínez-González, Cristina Rodríguez, Mercedes Camacho, María Galán. Targeting endoplasmic reticulum stress as a therapy to manage abdominal aortic aneurysm disease. Oral communication. 28th European Meeting on Hypertension and Cardiovascular Protection. Barcelona, 9-11 June 2018.
- Giménez E. Vella V. Espallargues M. Fite J. Bellmunt S. Estimación del coste-efectividad de un proceso de cribado de aneurisma de aorta abdominal para España. 38th Spanish Health Economics Association Conference. Las Palmas de Gran Canaria, 20-22 June 2018.
- J R Escudero. Taller SIMUVASC de by-pass periférico con prótesis biosintérica. Experiencia con Omniflow II. 64 Congreso de la Sociedad Española de Angiología y Cirugía Vascular. Madrid, 5-8 June 2018.
- E Britez, R Rojas, JM Romero. L Trullols, A Peiró, JR Escudero. Leiomiosarcomas de entremidades con afectación vascular. Poster. 64 Congreso de la Sociedad Española de Angiología y Cirugía Vascular. Madrid, 5-8 June 2018.
- A Gené, J Fité, C Riera, M T Puig, J R Escudero, S. Bellmunt. Estimación individual del diámetro aórtico infrarrenal normal. 64 Congreso de la Sociedad Española de Angiología y Cirugía Vascular. Madrid, 5-8 June 2018.
- Sergi Bellmunt-Montoya, Anna Gené, Joan Fité, Clàudia Riera, Teresa Puig, José Román Escudero. Individual estimation of normal abdominal aortic diameter related to gender, anthropometric features and cardiovascular risk factors. Oral communication. ESVS 32nd Annual Meeting. Valencia, 25-28 September 2018.
- Dilmé Muñoz J. Secondary procedures after endovascular stent grafting of the thoracoabdominal aorta. VI International Symposium of Endovascular Surgery. Endovascular surgery chapter. Madrid, 8 November 2018.

News release

- La Vanguardia: 19/3/2018
  - https://www.lavanguardia.com/local/barcelona/20180319/441679677278/desarrollan-una-tecnica-diagnostica-para-prevenir-las-trombosis-en-pacientes-con-cancer.html
- El Periódico: 19/3/2018
  - https://www.elperiodico.com/es/sanidad/20180319/nueva-tecnica-previene-las-trombosis-en-pacientes-con-cancer-6699800
- Agencia SNIC: 19/3/2018
  - https://www.agenciasinc.es/Reportajes/Cerco-a-las-trombosis-en-los-pacientes-con-cancer
- Agencia ANIS
  - http://anisalud.com/actualidad/notas-de-prensa-anis/1163-un-nuevo-test-genetico-ayuda-a-detectar-a-los-pacientes-oncologicos-con-altas-probabilidades-de-sufrir-tromboembolismo-venoso
- Diario ABC: 19/03/2018
  - https://www.abc.es/espana/catalunya/abci-crean-test-genetico-capaz-prevenir-hasta-70-ciento-trombosis-pacientes-cancer-201803191330_noticia.html
- RTVE: 19/03/2018
  - http://www.rtve.es/noticias/20180319/crean-nuevo-test-puede-prevenir-hasta-70-trombosis-pacientes-cancer/1699300.shtml

AREA 1 · Cardiovascular Diseases

Regulatory Mechanisms of Cardiovascular Remodelling

Coordinator
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Navas Madroñal, Miquel (IR)
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Varona Álvarez, Saray (CSIC)

Main Lines of Research

- Extracellular matrix remodeling in cardiovascular diseases.
- Nuclear receptors in atherosclerosis and vascular biology.
- Novel therapeutic targets in hypertensive heart disease.

Scientific Challenges

- Analysis of the molecular basis of abdominal aortic aneurysm: Identification of new therapeutic targets.
- Physiopathological and molecular mechanisms underlying the development of thoracic aortic aneurysm in syndromic patients.
- Identification of new biomarkers and therapeutic targets in peripheral artery disease and vascular dysfunction.
- Analysis of the molecular mechanisms involving nuclear receptors in the control of vascular calcification.
- Identification and validation of novel pharmacological tools in cardiovascular diseases.
- Development of new animal models in cardiovascular diseases.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Dr. Dídac Maurici: Coordinator of the Endocrinology, Diabetes and Nutrition group (IIB Sant Pau)
- Dr. Juan Antonio Arroyo Díaz: Group of Multiorganic Damage (IIB Sant Pau)
- Dra. Mercedes Camacho: Group of Genomics of Complex Diseases (IIB Sant Pau)
- Dr. Leif Hove-Madsen: Coordinator of the Regulation of Cardiac Rhythm and Contraction group (IIBB, CSIC; IIB Sant Pau)

External Collaborations

- Dra. Roxana Carare (University of Southampton).
- Dr. Modar Kassan (University of Iowa, USA).
- Dr. Vicente Andrés (Centro Nacional de Investigaciones Cardiovasculares, CNIC, Madrid).
- Dr. Pablo García de Frutos (Instituto de Investigaciones Biomédicas de Barcelona, CSIC).
- Dr. José Antonio Páramo/Dr. José Antonio Rodríguez (Centro de Investigación Médica Aplicada, CIMA).
- Dr. García Dorado- Dr A Rodríguez-Sinovas (Hospital Vall d'Hebron)
- Dra. Mercedes Salaices-Dra Ana Briones (Universidad Autónoma de Madrid; UAM)
- Dra. Victoria Cachofeiro (Universidad Complutense de Madrid, UCM)
- Dra. Alicia Arroyo (Centro Nacional de Investigaciones Cardiovasculares, CNIC, Madrid).
- Dr. Lisardo Boscà (Director of Instituto de Investigaciones Biomédica Alberto Sols, CSIC, Madrid).
- Dr. Francisco Sánchez Madrid (Director of Instituto de Investigación Sanitaria Hospital Universitario de La Princesa, Madrid).
- Dr. Sánchez-Infantes (Institut de Recerca Germans Tries i Pujol, Badalona).
- Dra. Gema Ruiz Hurtado (Hospital 12 de Octubre, Madrid).
- Dr. Gustavo Egea (Universitat de Barcelona).
- Dr. Francisco Nistal (Hospital Uiversitario Marqués de Valdecilla, Santander).

Active Grants

- María Galán Arroyo. Contratos Miguel Servet I 2015. MS15/00126. Instituto de Salud Carlos III. Duration: 2016-2021. 202,500 €.
- María Galán Arroyo. Novel therapeutic strategies to limit the progression of abdominal aortic aneurysm: targeting endoplasmic reticulum and mitochondrial stress. CP15/00126. Instituto de Salud Carlos III. Duration: 2016-2019. 121,500 €.
- María Galán Arroyo. Nuevas dianas terapéuticas para el tratamiento del AAA y de la cardiopatía hipertensiva: proteínas implicadas en el

estrés del retículo y en la disfunción mitocondrial. PI17/01837. Instituto de Salud Carlos III. Duration: 2018-2020. 102,000 €.

- María Cristina Rodríguez Sinovas. Remodelado de la matriz extracelular en el aneurisma de aorta abdominal y enfermedad arterial periférica. PI15/01016. Instituto de Salud Carlos III. Duration: 2016-2018. 156,500 €.
- María Cristina Rodríguez Sinovas. Remodelado de la matriz extracelular en la angio-arteriogénesis y la función vascular: impacto sobre la fisiopatología y el manejo clínico de la enfermedad arterial periférica. Proyecto de la SEC para investigación básica en cardiología 2017. Duration: 2017-2018. 20,000 €.
- José Martínez González. El receptor nuclear NOR-1 en el remodelado cardiaco y vascular: análisis de mecanismos fisiopatológicos y validación de nuevos modelos animales de utilidad preclínica. MINECO. SAF2015-64767-R. Duration: 2016-2018. 82,201 €.
- José Martínez González. Immunoregulatory molecules and miRNAs as targets in coronary heart disease and acute coronary syndrome. Fundació Marató de TV3. 20152330 31. 150,000 €.
- José Martínez González. CIBER de Enfermedades Cardiovasculares Instituto de Salud Carlos III. CB16/11/00257. Duration: from 2017. 53,257 €.
- José Martínez González. Grups de Recerca Reconeguts i Finançats per la Generalitat de Catalunya. 2017 SGR 00333 (AGAUR). Duration: 2018-2020. 20,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Maria Galán Arroyo. Implicación del estrés del retículo endoplasmático en la respuesta inmunológica que ocurre durante el desarrollo del aneurisma de aorta abdominal (AAA). Instituto de Salud Carlos III. MV18/00013. Duration: 2019. 14,720 €.
- Maria Galán Arroyo. Ajuts de suport als investigadors actius Miguel Servet. IR17-MS6. Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2018. 10,500 €.
- María Cristina Rodríguez Sinovas. Nuevas estrategias terapéuticas en el manejo de la enfermedad arterial periférica y el aneurisma de aorta abdominal. Instituto de Salud Carlos III. PI18/00919. Duration: 2019-2021. 152,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Cristina Rodríguez Sinovas, José Martínez González. Las células nestina positivas dirigen la migración de las células inflamatorias en la arteriosclerosis. Prize of the Royal Academy of Medicine of Seville to Scientific Publications 2018.
- Alonso J, Cañes L, Rodríguez C, Martínez-González J. NOR-1: nuevo factor de transcripción regulador del estado redox de las células musculares lisas arteriales (CMLA) humanas. Special Mention Award 2018 to the Oral Communication presented at the XXXI National Congress of the Spanish Society of Atherosclerosis (SEA).

Doctoral Theses

- Saray Varona Álvarez. Remodelado de la matriz extracelular en patologías cardiovasculares: dependencia de la LOX, Fibulina-5 y mecanismos epigenéticos. Universitat de Barcelona. Directors: Cristina Rodríguez Sinovas, José Martínez González. Date of defense: 15/06/2018.

Patents

- José Martínez González, Cristina Rodríguez, Laia Cañes Esteve, Uso de inhibidores de la tirosina hidroxilasa para el tratamiento del aneurisma de aorta. Consejo Superior de Investigaciones Científicas (CSIC). P201830607. National. 21/06/2018.

Transfer Products

- Nuevo modelo de calcificación vascular: Animales y células transgénicas que sobreexpresan la lisil oxidasa como modelo de calcificación vascular (Jover et al FASEB J 2018;32:4459).
- Nuevo modelo experimental de hipertrofia cardiaca: Ratones transgénicos para el receptor nuclear NOR-1 como modelo de hipertrofia cardiaca (Cañes et al 2018 Eur J Clin Invest 2018;48:121, P083-T)

Scientific Production

Total Impact Factor: 27.3660 · Mean Impact Factor: 6.8415

Alonso J., Canes L., Garcia-Redondo A.B., de Frutos P.G., Rodriguez C., Martinez-Gonzalez J., The nuclear receptor NOR-1 modulates redox homeostasis in human vascular smooth muscle cells (2018) J MOL CELL CARDIOL, 122, 23-33. **IF: 5.2960**

Clemente C., Rius C., Alonso-Herranz L., Martin-Alonso M., Pollan A., Camafeita E., Martinez F., Mota R.A., Nunez V., Rodriguez C., Seiki M., Martinez-Gonzalez J., Andres V., Ricote M., Arroyo A.G., MT4-MMP deficiency increases patrolling monocyte recruitment to early lesions and accelerates atherosclerosis (2018) NAT COMMUN, 9 (1). **IF: 12.3530**

Jover E., Silvente A., Marin F., Martinez-Gonzalez J., Orriols M., Martinez C.M., Puche C.M., Valdes M., Rodriguez C., Hernandez-Romero D., Inhibition of enzymes involved in collagen cross-linking reduces vascular smooth muscle cell calcification (2018) FASEB J, 32 (8), 4459-4469. **IF: 5.5950**

Varona S., Orriols M., Galan M., Guadall A., Canes L., Aguilo S., Sirvent M., Martinez-Gonzalez J., Rodriguez C., Lysyl oxidase (LOX) limits VSMC proliferation and neointimal thickening through its extracellular enzymatic activity (2018) SCI REP-UK, 8 (1). **IF: 4.1220**

Other Publications

- Del Campo L, Hamczyk MR, Andrés V, Martínez-González J, Rodríguez C; en nombre del Grupo de trabajo de Biología Vascular de la Sociedad Española de Arteriosclerosis. Mechanisms of vascular aging: What can we learn from Hutchinson-Gilford progeria syndrome? CLIN INVESTIG ARTERIOSCLER. 2018;30:120-132. doi: 10.1016/j.arteri.2017.12.007.
- Torres-Fonseca M, Galan M, Martinez-Lopez D, Cañes L, Roldan-Montero R, Alonso J, Reyero-Postigo T, Orriols M, Mendez-Barbero N, Sirvent M, Blanco-Colio LM, Martínez J, Martin-Ventura JL, Rodríguez C, en representación del Grupo de trabajo de Biología Vascular de la Sociedad Española de Arteriosclerosis. Pathophysiology of abdominal aortic aneurysm: biomarkers and novel therapeutic targets. CLIN INVESTIG ARTERIOSCLER. 2018 Dec 6. pii: S0214-9168(18)30139-6. doi: 10.1016/j.arteri.2018.10.002.

Diffusion Activities

86th European Atherosclerosis Society Congress. Lisbon, 5-9 May 2018

- S. Varona, M. Orriols, M. Gálan, A. Guadall, L. Cañes, S. Aguiló, J. Mártinez-González, C. Rodríguez. Secreted and enzymatically active lysyl oxidase (LOX) drives LOX-mediated inhibition of neointimal growth. (Commented Poster).
- Navas Madroñal M, Vila L, Fité J, Martínez-González J, Rodríguez C, Camacho M, Galán M. Targeting endoplasmic reticulum stress as a therapy to manage abdominal aortic aneurysm disease. (Commented Poster).

28th European Meeting of Hypertension and Cardiovascular Protection of the European-Society of Hypertension (ESH). Barcelona, 8-11 June 2018

- Navas-Madronal M , Vila L, Fite J, Martinez-Gonzalez J, Rodriguez C, Camacho M, Galan M. Targeting endoplasmic reticulum stress as a therapy to manage abdominal aortic aneurysm disease. (Poster).

52nd Annual Scientific Meeting of the European Society for Clinical Investigation (ESCI). Barcelona 30 May-1 June

- C. Rodríguez; E. Jover; A. Silvente; F. Marín; J. Martínez-González; M. Orriols; C.M. Martínez; C.M. Puche; M. Valdés; D. Hernández-Romero. Inhibition of enzymes involved in collagen cross-linking reduces vascular smooth muscle cell calcification. (Poster).
- L. Cañes; I. Martí-Pàmies; J. Alonso; M. Galan; P. Muniesa; J. Osada; C. Rodríguez; J. Martínez-González. NOR-1 overexpression potentiates cardiac hypertrophy: results from a new transgenic animal model. (Poster).
- L. Valls-Lacalle; M. Pecoraro; S. Varona; J. Martínez-González; C. Rodríguez; A. Rodríguez-Sinovas; D. García-Dorado. Human lysyl oxidase overexpression does not modify infarct size in mice. (Poster).
- H. De La Fuente; K. Tsilingiri; J.M. González; M. Relaño; C. Rodríguez; J. Crespo; F.S. Cabo; A. Dopazo; J.L. Alonso Lebrero; A. Vara; J. Vázquez; J.M. Casasnovas; F. Alfonso; B. Ibañez; V. Fuster; P. Martin; F.Sánchez-Madrid. OxLDL receptor in lymphocytes prevents atherosclerosclerosis. (Oral communication).
- M. Galán; M. Navas-Madroñal; C. Rodriguez; J. Fité; L. Vila; J. Martínez-González; M. Camacho. Contribution of chronic endoplasmic reticulum stress and oxysterols to abdominal aortic aneurysm disease. (Poster).
- G. Marín-Royo; A.L. Pape; R. Jurado-López; E. Martínez-Martínez; C. Rodríguez; J. Martínez-González; V. Cachofeiro The mitochondrial antioxidant MitoQ improves the metabolic consequences associated with obesity. (Poster).

Annual Conference of the British-Cardiovascular-Society on High Performing Teams. Manchester, 2018

- Jover E, Silvente A, Marin F, Puche CM, Valdes M, Hernandez-Romero D, Martinez-Gonzalez J, Orriols M, Martinez CM, Rodriguez C. PLODS and LOX participate in vascular smooth muscle cell calcification. (Oral Communication).

XXXI National Congress of the Spanish Society of Atherosclerosis (SEA). Girona, 30 May-1 June 2018

- S. Varona, M. Orriols, M. Gálan, A. Guadall, L. Cañes, S. Aguiló, J. Mártinez-González, C. Rodríguez. La forma secretada y enzimáticamente activa de la lisil oxidasa limita el remodelado vascular. (Oral communication).
- Alonso J, Cañes L, Rodríguez C, Martínez-González J. NOR-1 nuevo factor de transcripción regulador del estado redox de las células musculares lisas arteriales humanas. (Oral Communication).
- M. Navas-Madroñal; M Camacho, JR Escudero; J. Fité; J. Martínez-González; C Rodríguez, M Galán. El estrés del retículo endoplasmático como nueva diana terapéutica en el tratamiento del aneurisma de aorta abdominal. (Oral communication).
- G. Marín-Royo; A.L. Pape; R. Jurado-López; E. Martínez-Martínez; C. Rodríguez; J. Martínez-González; V. Cachofeiro. Relevancia del estrés oxidativo mitocondrial en el remodelado del tejido adiposo y las consecuencias metabólicas asociadas a la obesidad. (Poster).

Congreso Anual de la Sociedad Española de Cardiología (SEC). Sevilla, October 2018

- Valls-Lacalle L, Negre-Pujol C, Valera-Cañellas A, Varona S, Martínez-González J, Rodríguez C, García-Dorado D, Rodríguez-Sinovas A. La deficiencia extrema de Conexina 43 en ratón se asocia, en condiciones basales, con sobreexpresión de ARNm codificantes para proteínas involucradas en la cicatrización cardiaca. (Poster).

AREA 2

Genetic, Metabolic Inflammatory Dise

82 Genetic Diseases

84 Metabolic Bases of Cardiovascular Risk

86 Inflammatory Diseases

90 Endocrinology, Diabetes and Nutrition

95 Pituitary Gland Disorders

99 Digestive Diseases

c and ases

106 Microbiology and Infectious Diseases

111 Multi-organ Damage

114 Chronic Respiratory Diseases

120 Research Group in HIV and AIDS

123 Genome Instability and DNA Repair Syndromes

AREA 2 · Genetic, Metabolic and Inflammatory Diseases

Genetic Diseases

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Ortiz Losada, Esther (IR)
Rodríguez Fernández, María José (FGS)
Salazar Blanco, Juliana (CIBERER)

Main Lines of Research

- Study of the clinical heterogeneity of genetic autosomal recessive transmission of waist dystrophy and autosomal dominant transmission.
- Spinal atrophy and SMN genes:
  - 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 breast cancer and BRCA mutations:
  - Identification of mutations and genetic variants.
  - Molecular characterization of circulating tumor cells (CTCSS) through expression profiles in patients with breast cancer.
  - Analysis of free circulating tumor DNA (cfDNA) as a predictor of response to the treatment of breast cancer.
- Pharmacogenetics: adverse reactions to medications.
- Congenital coagulopathies: molecular pathology of haemophilias.
- Duchenne and Becker muscular dystrophy: molecular pathology of DMD gene.
- Identification of the molecular alterations responsible for hereditary hearing loss.
- Studies of the molecular pathology causing ataxias.

Scientific Challenges

Pharmacogenetics

- Colorectal and lung cancer treatments.
- Chronic inflammatory disease treatment.
- HIV infection treatment.

Muscular dystrophies

- Post-transcriptional regulation of the dystrophin gene using nonsense-mediated decay analysis in DNA from patients with Duchenne muscular dystrophy.
- Genes associated with new phenotypic forms of limb girdle muscular dystrophy.
- Workflow development for the analysis of DMD gene by NGS techniques.

Hereditary breast/ovarian cancer

- DNA studies to classify DNA variants found in the BRCAs genes as pathogenic or neutral.
- CTCs as prognostic markers in patients with locally advanced and disseminated breast cancer.
- Workflow development for the analysis of BRCA1 and BRCA2 genes by NGS techniques.

Hereditary motor neurone diseases

- Development of neuromuscular junction studies in health and disease.
- Broadening of the spectrum of motor neuron diseases to include bulbar and spinal muscular atrophy, distal muscular atrophies and amyotrophic lateral sclerosis.

Active Grants

- Maria Pia Gallano Petit. Centro de Investigación Biomédica en Red de Enfermedades Raras. CIBERER. CB06/07/0011. Ministerio de Sanidad y Política Social. Duration: 2006-2020. 713,021.73 €.
- Ana Sebio García. Contratos Juan Rodés 2014. JR14/00006. Instituto de Salud Carlos III. Duration: 2015-2018. 135,000 €.
- Lidia González Quereda. Implementación de la secuenciación masiva en el estudio de las Miopatías Congénitas y los Síndromes Miasténicos congénitos: un modelo de investigación traslacional en enfermedades raras. FMM 2015. Fundación Mutua Madrileña. Duration: 2015-2018. 74,200 €.
- Maria Pia Gallano Petit. Implementación de la secuenciación masiva en el estudio de Miopatías Congénitas y Síndromes Miasténicos congénitos: un modelo de investigación traslacional en enfermedades raras. PI15/01898. Instituto de Salud Carlos III. Duration: 2016-2019. 56,500 €.
- Pau Riera Armengol. Marcadors farmacogenètics de resposta/resistència a les teràpies biològiques (anti-EGFR) en càncer colorectal. 2016 FI_B 00368. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2016-2019. 40,806 €.

- Maria Pia Gallano Petit. Implementació de la medicina personalizada basada en la genòmica en malalties minoritàries neurològiques no diagnosticades. SLT002/16/00174. Departament de Salut. Duration: 2017-2019. 13,400 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Maria Pia Gallano Petit. Servei de Genètica. 2017 SGR 00545. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- Juliana Salazar Blanco. Millora del tractament amb fàrmacs antidepressius: desenvolupament i implementació de noves intervencions farmacogenètiques en àmbits hospitalaris. SLT006/17/00148. Departament de Salut. Duration: 2018-2020. 51,901 €.
- Maria Pia Gallano Petit. Análisis del transcriptoma mediante RNA-Seq en pacientes con patología neuromuscular no resuelta tras secuenciación de exoma: optimización del algoritmo diagnóstico. PI18/01585, Instituto de Salud Carlos III. Duration: 2019-2021. 102,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 33.1560 · Mean Impact Factor: 3.6840

Alias L., Crespi J., Gonzalez-Quereda L., Tellez J., Martinez E., Bernal S., Gallano M.P., Next-generation sequencing reveals a new mutation in the LTBP2 gene associated with microspherophakia in a Spanish family (2018) BMC MED GENET, 19 (1). **IF: 1.9130**

Alias L., Bernal S., Calucho M., Martinez E., March F., Gallano P., Fuentes-Prior P., Abuli A., Serra-Juhe C., Tizzano E.F., Utility of two SMN1 variants to improve spinal muscular atrophy carrier diagnosis and genetic counselling (2018) EUR J HUM GENET, 26 (10), 1554-1557. **IF: 3.6360**

Alonso-Jimenez A., Kroon R.H.M.J.M., Alejaldre-Monforte A., Nunez-Peralta C., Horlings C.G.C., Van Engelen B.G.M., Olive M., Gonzalez L., Verges-Gil E., Paradas C., Marquez C., Garibaldi M., Gallano P., et al., Muscle MRI in a large cohort of patients with oculopharyngeal muscular dystrophy (2018) J NEUROL NEUROSUR PS. **IF: 7.1440**

Calucho M., Bernal S., Alias L., March F., Vencesla A., Rodriguez-Alvarez F.J., Aller E., Fernandez R.M., Borrego S., Millan J.M., Hernandez-Chico C., Cusco I., Fuentes-Prior P., Tizzano E.F., Correlation between SMA type and SMN2 copy number revisited: An analysis of 625 unrelated Spanish patients and a compilation of 2834 reported cases (2018) NEUROMUSCULAR DISORD, 28 (3), 208-215. **IF: 2.4870**

Gonzalez-Quereda L., Gallardo E., Topf A., Alonso-Jimenez A., Straub V., Rodriguez M.J., Lleixa C., Illa I., Gallano P., Diaz-Manera J., A new mutation of the SCGA gene is the cause of a late onset mild phenotype limb girdle muscular dystrophy type 2D with axial involvement (2018) NEUROMUSCULAR DISORD, 28 (8), 633-638. **IF: 2.4870**

Riera P., Virgili A.C., Salazar J., Sebio A., Tobena M., Sullivan I., Paez D., Genetic variants in the VEGF pathway as prognostic factors in stages II and III colon cancer (2018) PHARMACOGENOMICS J, 18 (4), 556-564. **IF: 3.8120**

Riera P., Salazar J., Virgili A.C., Tobena M., Sebio A., Gallano P., Barnadas A., Paez D., Relevance of CYP3A4*20, UGT1A1*37 and UGT1A1*28 variants in irinotecan-induced severe toxicity (2018) BRIT J CLIN PHARMACO, 84 (6), 1389-1392. **IF: 3.8380**

Serra-Aracil X., Pericay C., Golda T., Mora L., Targarona E., Delgado S., Reina A., Vallribera F., Enriquez-Navascues J.M., Serra-Pla S., Garcia-Pacheco J.C., Saigi E., Dotor E., Pisa A., Macias I., et al., Non-inferiority multicenter prospective randomized controlled study of rectal cancer T2–T3s (superficial) N0, M0 undergoing neoadjuvant treatment and local excision (TEM) vs total mesorectal excision (TME) (2018) INT J COLORECTAL DIS, 33 (2), 241-249. **IF: 2.5330**

Serrano C., Garcia-del-Muro X., Valverde C., Sebio A., Duran J., Manzano A., Pajares I., Hindi N., Landolfi S., Jimenez L., Rubio-Casadevall J., Estival A., Lavernia J., Safont M.J., Pericay C., Diaz-Beveridge R., Martinez-Marin V., Vicente-Baz D., Vivancos A., Hernandez-Losa J., Arribas J., Carles J., Clinicopathological and Molecular Characterization of Metastatic Gastrointestinal Stromal Tumors with Prolonged Benefit to Frontline Imatinib (2018) ONCOLOGIST. **IF: 5.3060**

AREA 2 · Genetic, Metabolic and Inflammatory Diseases

Metabolic Bases of Cardiovascular Risk

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Pérez Pérez, Antonio (FGS)
Roig Martínez, Rosa (FGS)
Santos Palacios, David (CIBERDEM)
Tondo Colomer, Mireia (FGS)

Main Lines of Research

- HDL and susceptibility to arteriosclerosis and cancer: analysis through the study of metabolic disorders, genetic modification, and dietary or drug intervention.
- Molecular basis of dyslipidaemia: development, validation and application of new clinical laboratory methods.
- Relationship between epicardial fat, lipoprotein function and inflammation in the development of arteriosclerosis and diabetic cardiomyopathy.

Scientific Challenges

- To extend the molecular diagnosis of Familial Hypercholesterolemia, and other genetic dyslipidemias, to prevent premature cardiovascular disease.
- To explore the effect of olive oil in reverse cholesterol transport in vivo and characterize the components responsable of this effect.
- To explore the anti-cancer mechanisms related to colesterol metabolism, specially in breast and thyroid cancer.
- Preliminar identification of lipoprotein- associated active lipid biomarkers informative of heart damage in patients with diabetes mellitus and animal models.
- To evaluate the cardiometabolic effects of vitamin B3 derivatives.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Estudio de las alteraciones del metabolismo intracelular del colesterol en el cáncer de mama y carcinoma epitelial de tiroides: Evaluación de estrategias terapéuticas basadas en la HDL. Instituto de Salud Carlos III (PI16/00139). Collaborators: Dr. Enrique Lerma, Dra. Eugenia Mato.
- Preventing premature coronary heart disease in Catalonia by expanding Familial Hypercholesterolemia Diagnosis. Telemarató de TV3 2015 Enfermedades Cardíacas. Collaborators: Dr. Antonio Pérez, Dra. Gemma Carreras, Dr. Pablo Fuentes Prior.
- Efectos cardiometabólicos del CORM-2 en la neuropatía diabética. Collaborators: Dra. Olga Pol.

External Collaborations

- Dr. Jesús Osada. Universidad de Zaragoza and CIBEROBN. Zaragoza, Spain.
- Drs. Diego Gómez-Coronado and Miguel A. Lasunción. Hospital Ramón y Cajal and CIBEROBN. Madrid, Spain.
- Dr. Alberto Dávalos. IMDEA-Food. Madrid, Spain.
- Dr. Montserrat Fitó. IMIM and CIBEROBN. Barcelona, Spain.
- Dra. Annabel F. Valledor and Dra. Júlia Peinado. Universitat de Barcelona. Barcelona, Spain.
- Dr. Luís Masana. Hospital Sant Joan de Reus and Universitat Rovira i Virgili and CIBERDEM. Reus, Spain.
- Dr. Manuel Vázquez-Carrera. Universitat de Barcelona and CIBERDEM. Barcelona, Spain.
- Dr. Joan Carles Laguna. Universitat de Barcelona. Barcelona, Spain.
- Dr. Jose Luís Martin-Ventura. Fundación Jimenez-Díaz and CIBERCV. Madrid, Spain.
- Dr. Jesús Vazquez. CNIC and CIBERCV. Madrid, Spain.
- Dra. Isabel Moreno and Dr. Francisco Tinahones. Biomedical Research Institute of Málaga (IBIMA). University Hospital of Malaga and CIBEROBN. Málaga, Spain.
- Dr. Antonio Zorzano and Dr. David Sebastian. Institute for Research in Biomedicine (IRB) and CIBERDEM. Barcelona, Spain.
- Dr. Fernando Civeira and Dra. Ana Cenarro. Hospital Clínico Universitario Miguel Servet and CIBERCV. Madrid, Spain.
- Dr. Petri Kovanen. Wihuri Research Institute. Helsinki, Finland.
- Dr. Matti Jauhiainen. National Institute for Health and Welfare. Helsinki, Finland.
- Dr. Srinu Reddy. Department of Medicine, UCLA. CA, USA

Active Grants

- Josep Julve Gil. Contratos Miguel Servet 2013 - Tipo I. MS13/00070. Instituto de Salud Carlos III. Duration: 2014-2019. 202,500 €.
- Francisco Blanco Vaca. Avances en el diagnóstico molecular de pacientes con dislipemias hereditarias, con especial referencia a la base poligénica de algunas de ellas y a la hipercolesterolemia fami-

liar. PI14/01648. Instituto de Salud Carlos III. Duration: 2015-2018. 76.500 €.

- Francisco Blanco Vaca. Preventing Premature Coronary Heart Disease in Catalonia by Expanding Familial Hypercholesterolemia Diagnosis. MARATÓ 20152431. Fundació La Marató de TV3. Duration: 2016-2019. 119,968 €.
- Josep Julve Gil. Análisis del efecto de la administración de nicotinamida sobre el peso corporal y las propiedades cuantitativas y cualitativas de las lipoproteínas y su relación con el desarrollo de arteriosclerosis en modelos experimentales. BIN 03/15. Fundación y Sociedad Española de Arteriosclerosis. Duration: 2016-2018. 8,181.82 €.
- Josep Julve Gil. Lipotoxicity and microvascular disease: contribution to myocardial damage in clinical and experimental models of diabetes. MARATO 201602.31. Fundació La Marató de TV3. Duration: 2017-2020. 108,000 €.
- Juan Carlos Escolà Gil. Estudio de las alteraciones del metabolismo intracelular del colesterol en el cáncer de mama y carcinoma epitelial de tiroides: Evaluación de estrategias terapéuticas basadas en la HDL. PI16/00139. Instituto de Salud Carlos III. Duration: 2017-2019. 71,500 €.
- Andrea Patricia Rivas Urbina. Ajuts predoctorals de formació en recerca en salud 2017. FI17/00031. Instituto de Salud Carlos III. Duration: 2018-2021. 82,400 €.
- Marta Farràs Mañé. Contractes postdoctorals "Sara Borrell" 2017. CD17/00233. Instituto de Salud Carlos III. Duration: 2018-2020. 80,598 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Francisco Blanco Vaca. Grup de Recerca d'Estructura de Lipoproteïnes, Dislipèmies i Altres Factors de Risc de l'Arteriosclerosi. 2017 SGR 01149. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- Francisco Blanco Vaca. Subprograma Contratos Ramón y Cajal 2017. RYC-2017-22879. Ministerio de Ciencia, Innovación y Universidades. Duration: 2019-2024. 168,600 €.
- Josep Julve Gil. Contribución de especies esfingolipídicas asociadas a HDL sobre la cardiomiopatía diabética en pacientes con diabetes mellitus tipo 2: efecto del control glucémico. IR17-MS7. Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2018. 10,500 €.
- Francisco Blanco Vaca. TMAO y gammaBB y su relación con la disfuncionalidad de HDL y el riesgo de enfermedad coronaria en pacientes con hipercolesterolemia familiar y diabesidad. PI18/00164. Instituto de Salud Carlos III. Duration: 2019-2021. 102,000 €.
- Andrea Patricia Rivas Urbina. Interaction of lipoproteins with proteoglycans and the inhibitory effect of HDL and mimetic peptides derived from apolipoproteins in HDL. MV18/00012. Instituto de Salud Carlos III. Duration: 2019. 7,440 €.
- Josep Julve Gil. Diabetes y obesidad: biomarcadores, fisiopatología y efectos de nuevas terapias. CPII18/00004. Instituto de Salud Carlos III. Duration: 2019-2022. 91,125 €.
- Francisco Blanco Vaca. Proyecto asociado al contrato Ramón y Cajal. RYC-2017-22879(P). Ministerio de Ciencia, Innovación y Universidades. Duration: 2019-2021. 40,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 56.338 · Mean Impact Factor: 5.1216

Blanco-Vaca F., Martin-Campos J.M., Perez A., Fuentes-Prior P., A rare STAP1 mutation incompletely associated with familial hypercholesterolemia (2018) CLIN CHIM ACTA, 487, 270-274. **IF: 2.9260**

Canyelles M., Tondo M., Cedo L., Farras M., Escola-Gil J.C., Blanco-Vaca F., Trimethylamine N-oxide: A link among diet, gut microbiota, gene regulation of liver and intestine cholesterol homeostasis and HDL function (2018) INT J MOL SCI, 19 (10). **IF: 3.6870**

Cedó L, Plana N, Metso J, Lee-Rueckert M, Sanchez-Quesada JL, Kovanen PT, Jauhiainen M, Masana L, Escolà-Gil JC, Blanco-Vaca F. Altered HDL Remodeling and Functionality in Familial Hypercholesterolemia. (2018) J AM COLL CARDIOL. Jan 30;71(4):466-468. PMID: 29389366, DOI: 10.1016/j.jacc.2017.11.035. **IF: 16.83**

Colom C., Vilades D., Perez-Cuellar M., Leta R., Rivas-Urbina A., Carreras G., Ordonez-Llanos J., Perez A., Sanchez-Quesada J.L., Associations between epicardial adipose tissue, subclinical atherosclerosis and high-density lipoprotein composition in type 1 diabetes (2018) CARDIOVASC DIABETOL, 17 (1). **IF: 5.2350**

Gonzalo-Calvo D.D., Colom C., Vilades D., Rivas-Urbina A., Moustafa A.-H., Perez-Cuellar M., Sanchez-Quesada J.L., Perez A., Llorente-Cortes V., Soluble LRP1 is an independent biomarker of epicardial fat volume in patients with type 1 diabetes mellitus (2018) SCI REP-UK, 8 (1). **IF: 4.1220**

Martin-Campos J.M., Plana N., Figueras R., Ibarretxe D., Caixas A., Esteve E., Perez A., Bueno M., Mauri M., Roig R., Martinez S., Pinto X., Masana L., Julve J., Blanco-Vaca F., Autosomal dominant hypercholesterolemia in Catalonia: Correspondence between clinical-biochemical and genetic diagnostics in 967 patients studied in a multicenter clinical setting (2018) J CLIN LIPIDOL, 12 (6), 1452-1462. **IF: 3.5800**

Martinez-Lopez D., Cedo L., Metso J., Burillo E., Garcia-Leon A., Canyelles M., Lindholt J.S., Torres-Fonseca M., Blanco-Colio L.M., Vazquez J., Blanco-Vaca F., Jauhiainen M., Martin-Ventura J.L., Escola-Gil J.C., Impaired HDL (high-density lipoprotein)-mediated macrophage cholesterol efflux in patients with abdominal aortic aneurysm-brief report (2018) ARTERIOSCL THROM VAS, 38 (11), 2750-2754. **IF: 6.0860**

Mendez-Lara K.A., Santos D., Farre N., Ruiz-Nogales S., Leanez S., Sanchez-Quesada J.L., Zapico E., Lerma E., Escola-Gil J.C., Blanco-Vaca F., Marton-Campos J.M., Julve J., Pol O., Administration of CORM-2 inhibits diabetic neuropathy but does not reduce dyslipidemia in diabetic mice (2018) PLOS ONE, 13 (10). **IF: 2.7660**

Ramos A., Rabasa F., Mendoza L., Cardenete J., Gill P., Morilla A., Cardona D., Perez A., Differences in Glycemic Control in Diabetic and Non-diabetic Patients with Parenteral Nutrition Using a Basal plus Correction Insulin Regimen: An Observational, Retrospective Study (2018) DIABETES THER, 9 (3), 1359-1367. **IF: 2.2240**

Riera P., Garrido-Alejos G., Cardenete J., Moliner E., Zapico-Muniz E., Cardona D., Garin N., Physicochemical Stability and Sterility of Standard Parenteral Nutrition Solutions and Simulated Y-Site Admixtures for Neonates (2018) NUTR CLIN PRACT, 33 (5), 694-700. **IF: 2.5910**

Zarei M., Barroso E., Palomer X., Dai J., Rada P., Quesada-Lopez T., Escola-Gil J.C., Cedo L., Zali M.R., Molaei M., Dabiri R., Vazquez S., Pujol E., Valverde A.M., Villarroya F., Liu Y., Wahli W., Vazquez-Carrera M., Hepatic regulation of VLDL receptor by PPARβ/δ and FGF21 modulates non-alcoholic fatty liver disease (2018) MOL METAB, 8, 117-131. **IF: 6.2910**

Diffusion Activities

- F. Blanco Vaca. Moderator session 1. CIBERDEM Anual Meeting. Bellaterra, Barcelona, May 2018.
- F. Blanco Vaca. Papel de las HDL en la regresión de la arteriosclerosis. XXXI Congreso Nacional de la Sociedad Española de Arteriosclerosis. Girona, June 2018.
- F. Blanco Vaca (organiser). Análisis a la cabecera del paciente: ¿en qué punto nos encontramos? Barcelona, September 2018.
- Josep Julve. Speaker Festival Barcelona Ciencia. Institut de Cultura de Barcelona. 10 June 2018.

AREA 2 · Genetic, Metabolic and Inflammatory Diseases

Inflammatory Diseases

Coordinator
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De la Calle Martín, Óscar (FGS)
Galanno Solana, Carla (IR)
Mariscal Rodríguez, Anaís (FGS)
Martínez Carretero, María Ángeles (FGS)
Martínez Martínez, Laura (FGS)
Moga Naranjo, Maria Esther (FGS)
Mulet Gual, Maria (IR)
Ortiz de Juana, Maria Àngels (IR)
Perea Soriano, Lidia (IR)
Rubiales Robles, María Victoria (FGS)
Vidal Alcorisa, Silvia (IR)
Zamora Atenza, Carlos (IR)

Main Lines of Research

- The role of the natural immune system in the development of autoimmune and inflammatory processes.
- Immunological response and clinical course in immunomodulator treatments.
- The role of autoantibodies, components of the adaptive immunity system, in the pathogenesis of autoimmune processes and their use as diagnostic and prognostic markers in these diseases.
- Mechanisms involved in immunodeficiency.

Scientific Challenges

- Role of cells, molecules and autoantibodies of the innate and adaptative immune response in the development and control of inflammatory processes, in the appearance of autoimmune phenomena, immunodeficiencies, infections, cardiovascular diseases and development of tumours.
- Role of TLR and STAT signalling in inflammatory diseases and response to superantigens.
- Study of mechanisms involved in immunodeficiency caused by alterations of molecular components.
- Analysis of the evolution of immunological parameters and their correlation with clinical response to treatment with immunomodulators.
- Composition of complex human biological fluids. Association with clinical parameters.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Dr. C. Guarner and Dr. G. Soriano (Digestive Diseases and CIBER)
- Dra. Isabel Illa (Neurology)
- Dra. Esther Garcia-Planella (Digestive Diseases)
- Dr. Cesar Diaz-Torné (Rheumatology)
- Dr. Plaza i Dr. Sibila (Pneumology)
- Dr. Lluís Puig (Dermatology)
- Dra. Majem and Dr. Barnadas (Clinical Oncology)
- Dr. Maroto (Clinical Oncology)
- Dr. Joaquín López-Contreras (Infectious Diseases. Allergology). Marató 2018-2021. Collaborators: Dra. Silvia Vidal and Dr. Carlos Zamora

External Collaborations

- Dra. Manichanh (Digestive Pathology, Hospital de la Vall d'Hebron)
- Dra. Hernandez (Rheumatology, Hospital Clinic)
- Dr. Albert Selva and Dr. Moises Labrador (Allergology, Hospital Vall d'Hebron)
- Dr. Porcel (Allergology, Hospital Arnau de Vilanova)
- Dr. Fernández (Fundació Puigvert)
- Dra. Semnani and Dr. Nutman del NIAID-NIH (Bethesda, USA)
- Dra. Catalfamo. Georgetown University School of Medicine (Washington DC)

Active Grants

- Silvia Vidal Alcorisa. Caracterización de las plaquetas "educadas" en un entorno inflamatorio crónico para optimizar las terapias immunoreguladoras con plaquetas. PI17/00072. Instituto de Salud Carlos III. Duration: 2018-2020. 47,500 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Silvia Vidal Alcorisa. Grup d'Immunologia. 2017 SGR 00867. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Diaz-Torne C, Ortiz MDA, Moya P, Hernandez MV, Reina D, Castellvi I, De Agustin JJ, Fuente D, Corominas H, Sanmarti R, Zamora C, Cantó E, Vidal S. The combination of IL-6 and its soluble receptor is associated with the response of rheumatoid artritis patients to tocilizumab. XLIV Congreso Nacional de la Sociedad Española de Reumatología. A Coruña, 22 May 2018. SER 2018 Award for the best work in rheumatoid arthritis in 2017

Transfer Products

- Análisis de los mecanismos inmunoreguladores de la Treg inducidos por tocilizumab en artritis reumatoide. IP: Silvia Vidal. Roche Farma, S.A.
- Caracterización de los macrófagos y las células madre del cáncer en pacientes con cáncer de pulmón, mama y ovario. IP: Silvia Vidal. MERCK.
- Fuentes de PD-1 y PD-L1 en el cáncer de pulmón no microcítico. IP: Silvia Vidal /Marga Majem. BMS.
- Análisis del perfil inmunológico de las células tumorales y de los linfocitos en la orina de pacientes con cáncer de vejiga. IP: Pablo Maroto. Roche Farma, S.A.
- Systemic inflammation in patients with gout. IP: César Díaz-Torné. Astra Grunenthal.
- Regulación de la respuesta inmune por la unión de las plaquetas a leucocitos circulantes inducida por eltrombopag. IP: Silvia Vidal. Collaborators: Clinical Hematology Hospital de Sant Pau (Dra. S. Novelli) and 4 hospitals in Barcelona. Novartis 2018-2020.
- Identification of recently acquired tuberculosis infection using QuantiFERON-TB Gold Plus: An exploratory study. (A Study of the ESCMID Study Group for Mycobacterial Infections –ESGMYC-). Code: Retrospective and multicentric study. Coordinator: Departament of Infectious Diseases, Hospital Universitari de Bellvitge – IDIBELL. Nr of investigators: 19. Start: 30/08/2018.

Scientific Production

Total Impact Factor: 51.84 · Mean Impact Factor: 3.9876

Alvarado-Tapias E, Guarner-Argente C, Oblitas E, Sánchez E, Vidal S, Román E, Concepción M, Poca M, Gely C, Pavel O, Nieto JC, Juárez C, Guarner C, Soriano G. Toll-like receptor 4 polymorphisms and bacterial infections in patients with cirrhosis and ascites. WORLD J HEPATOL. 2018 Jan 27;10(1):124-133. **IF: –**

Canto E., Roca E., Perea L., Rodrigo-Troyano A., Suarez-Cuartin G., Giner J., Feliu A., Soria J.M., Nescolarde L., Vidal S., Sibila O., Salivary immunity and lower respiratory tract infections in non-elite marathon runners (2018) PLOS ONE, 13 (11), e0206059-. **IF: 2.7660**

Diaz-Torne C., Ortiz M.D.A., Moya P., Hernandez M.V., Reina D., Castellvi I., De Agustin J.J., Fuente D.D.L., Corominas H., Sanmarti R., Zamora C., Canto E., Vidal S., The combination of IL-6 and its soluble receptor is associated with the response of rheumatoid arthritis patients to tocilizumab (2018) SEMIN ARTHRITIS RHEU, 47 (6), 757-764. **IF: 4.3560**

Illa I., Cortes-Vicente E., Martinez M.A., Gallardo E., Diagnostic utility of cortactin antibodies in myasthenia gravis (2018) ANN NY ACAD SCI, 1412 (1), 90-94. **IF: 4.2770**

Leiding J.W., Okada S., Hagin D., Abinun M., Shcherbina A., Balashov D.N., Kim V.H.D., Ovadia A., Guthery S.L., Pulsipher M., Lilic D., Devlin L.A., Christie S., Depner M., Fuchs S., et al., Hematopoietic stem cell transplantation in patients with gain-of-function signal transducer and activator of transcription 1 mutations (2018) J ALLERGY CLIN IMMUN, 141 (2), 704-717.e5. **IF: 13.2580**

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Other Publications

- Silvia Vidal, César Díaz-Torné, Gloria Candelas, Silvia Sánchez, Clara Moriano, Jose María García. Proyecto InmunoAR. Euromedice, Ediciones Médicas.
- Amalia Tejeda-Velarde, Manuel Hernández, Esther Moga, Luisa M. Villar. Cadenas ligeras libres en suero: estudio del efecto de sus formes poliméricas en la cuantificación de estas proteïnes. Inmunología. 2018, 37 (1):36-38.

Books or Chapters with ISBN

- Cándido Juárez Rubio, M. José Martínez Becerra, M. Ángeles Martínez Carretero. Enfermedad mixta del tejido conectivo, esclerosis sistémica y miopatías inflamatorias. In: Diagnóstico y monitorización de las enfermedades autoinmunes. (chapter 2, pp. 13-23). Fernández Pereira & Plaza López Ed. Elsevier España 2018.
- Cándido Juárez. Activación de la respuesta inmunitaria innata. In: Inmunología Tumoral e inmunoterapia del cáncer. Chapter 2. Antonio Antor Ed. Amazing books 2018.
- Laura Martínez. Diagnóstico de las enfermedades autoinmunes de la piel. In: Manual de Formación Continuada 2018-2019: actualizaciones en el laboratorio clínico. Editor: Asociación Española de Biopatología Médica-Medicina de Laboratorio (AEBM-ML), 2018. Pp. 9-23. ISBN: 978-84-09-05520-3.
- Laura Martínez. Enfermedades de la piel. In: Diagnóstico y Monitorización de Enfermedades Autoinmunes. Editor: Elsevier, 2018 Pp. 101-112. ISBN: 978-84-9113-244-8.

Diffusion Activities

Posters

- Eva Román, Marc Parramón, Montse Flavià, Cristina Gely, Maria Poca, Rosalia Santesmases, Elvira Hernández, Juan Camilo,Nieto, Eulàlia Urgell, Edilmar Alvarado, Silvia Vidal, Víctor Vargas, Carlos Guarner i Germán Soriano. Frailty is a predictive factor of hospitalization and falls in patients with cirrhosis. International Liver Congress. Paris, 14 April 2018.
- Eva Román, Marc Parramón, Montse Flavià, Cristina Gely, Maria Poca, Rosalia Santesmases, Elvira Hernández, Juan Camilo,Nieto, Eulàlia Urgell, Edilmar Alvarado, Silvia Vidal, Víctor Vargas, Carlos Guarner i Germán Soriano. Frailty is a predictive factor of hospitalization and falls in patients with cirrhosis. Congrés de la Societat Catalana de Digestologia, Congreso de Asociación Española para el Estudio del Hígado.
- Lídia Perea, Elisabet Cantó, Ana Rodrigo-Troyano, Alfons Torrego, Jordi Giner, Anna Feliu, Ferran Sanchez-Reus, Silvia Vidal, Oriol Sibila. Characterization of macrophages from bronchoalveolar lavage of COPD patients with and without airway bacterial colonization. Paris, 15 September 2018. ERS
- Maria Mulet; Carlos Zamora; Juan C. Nieto; José M. Porcel; Elisabet Cantó; M. Angels Ortiz; Lidia Perea; Virginia Pajares; Ana Muñoz; Nuria Calvo; Iñigo Espinosa; Mónica Pascual; Silvia Bielsa; Silvia Vidal. PF4 implication in the immunosuppressive microenvironment of Malignant Pleural Effusion. XII Congrés de la Societat Catalana d'Immunologia. 16 November 2018
- Leticia Alserawan de Lamo, M. Victoria Rubiales, M. Cinta Lleixà, M. Carmen Hernández-Lafuente, Elisabeth Moltó-Lacosta, Gemma Boera-Carnicero, Cándido Juárez, Luis Querol, Laura Martinez-Martinez. Detection of antibodies against neurofascin 155 in a patient with chronic demyelinating inflamatory polyradiculoneuropathy. XII Congrés de la Societat Catalana d'Inmunologia. Barcelona, 15-16 November 2018.
- Teresa Franco Leyva, Andrés Baucells de la Peña, Anna Yuste Estevanez, Leticia Soriano Baguet, Rebeca Pérez de Diego, Laura Martínez-Martínez, Óscar de la Calle Martín. A novel CTLA4 mutation in patient with a severe chronic enteropathy. XII Congrés de la Societat Catalana d'Inmunologia. Barcelona, 15-16 November 2018.
- Gemma Boera Carnicero, M. Cinta Lleixà, Manuela Agustí Martí, Luis Querol, Isabel Illa, Cándido Juárez, Oscar de la Calle, Laura Martínez-Martínez. La poliradiculoneuropatía desmielizante inflamatoria crónica con anticuerpos anti-neurofascina 155 se asocia fuertemente con HLA-DRB1*15. XI Jornada Tècnica de la Societat Catalana d'Inmunologia. Barcelona, 15 November 2018. Oral communication.
- B. Magallares López, L. Martínez-Martínez, M.C. Hernández Lafuente, E. Moltó Lacosta, Y. Álvaro Gargallo, H. Park , I. Castellví, C. Díaz-Torné, M. Millán, P. Moya, A. Laiz, J. Casademont, C. Juárez, H. Corominas y E. Carreras. Resultados preliminares del uso de calprotectina sérica (MPR8/MPR14) en la práctica clínica habitual en reumatología pediátrica. Congreso de la Sociedad Española de Reumatología (SER 2018). Reumatol Clin. 2018;14 (Especial Congreso):118. A Coruña, 23-25 May 2018.
- B. Magallares López, L. Martínez-Martínez, M.C. Hernández Lafuente, E. Moltó Lacosta, Y. Álvaro Gargallo, H. Park, I. Castellví, C. Díaz-Torné, M. Millán, P. Moya, A. Laiz, J. Casademont, C. Juárez, H. Corominas y E. Carreras. Evolución de la calprotectina sérica en pacientes con artritis idiopática juvenil en la práctica clínica. XLIV Congreso de la Sociedad Española de Reumatología (SER 2018). Reumatol Clin. 2018;14(Especial Congreso):118. A Coruña, 23-25 May 2018.
- P. Millan, I. Castellví, L. Martinez-Martinez, T. Franquet, O. Sibila, D. Castillo. Diagnostic value of serum KL-6 in Interstitial Lung Disease: preliminary results from an European cohort. European Respiratory Society International Congress. Paris, 15-19 September 2018.
- L. Martinez-Martinez, M. Lleixà, G. Boera-Carnicero, A. Cortese, J. Devaux, A. Siles, Y. Rajabally, A. Martinez-Piñeiro, A. Carvajal, J. Pardo, J. Diaz-Manera, I. Callegari, E. Marchioni, D. Franciotta, L. Benedetti, G. Lauria, C. Juárez, I. Illa, L. Querol, O. de la Calle Martin. Anti-NF155 chronic inflammatory demyelinating polyradiculoneuropathy strongly associates to HLA-DRB15. 5th European Congress of Immunology. Amsterdam, 2-5 September 2018.
- P. Millan, I. Castellví, L. Martinez-Martinez, T. Franquet, O. Sibila, D. Castillo. Diagnostic value of serum KL-6 in Interstitial Lung Disease: preliminary results from an European cohort. International Conference on Sarcoidosis and Interstitial Lung Diseases (World Association for Sarcoidosis and Other Granulomatous Disorders-WASOG). Creta, Greece, 7-9 June 2018.
- B. Magallares López, L. Martínez-Martínez, M.C. Hernandez Lafuente, E. Molto Lacosta, Y. Alvaro Gargallo, H.S. Park, I. Castellví, M. Millán Arciniegas, C. Díaz-Torné, P. Moya, A. Laiz, J. Casademont, H. Corominas, E. Carreras, C. Juarez. Preliminary results of the use of serum calprotectin (MPR8/MPR14) in clinical practice in paediatric rheumatology. EULAR Annual European Congress of Rhematology. Amsterdam, 13-16 June 2018. Ann Rheum Dis, volume 77, supplement Suppl, year 2018, page A1651. DOI: 10.1136/annrheumdis-2018-eular.3529
- B. Magallares López, L. Martínez-Martínez, M.C. Hernández-Lafuente, E. Moltó, Y. Alvaro, H.S. Park, I. Castellví, M. Millán, C. Díaz-Torné, P. Moya, A. Laiz, H. Corominas, J. Casademont, E. Carreras, C. Juarez. EULAR Annual European Congress of Rhematology. Evolution of serum calprotectin in patients with juvenile idiopathic arthritis in clinical practice. Amsterdam, 13-16 June 2018. Ann Rheum Dis, volume 77, supplement Suppl, year 2018, page A482. DOI: 10.1136/annrheumdis-2018-eular.4205
- H.S. Park, L. Martinez Martinez, B. Magallares, M. Fernandez Castro, M.A. Martin, F. Sanchez Alonso, I. Castellví, A. Laiz, C. Diaz-Torne, M. Millan Arciniegas, P. Moya Alvarado, L. Lopez Vilaro, M.C. Hernandez Lafuente, E. Moltó Lacosta, C. Juarez Rubio, H. Corominas. Immunological results of salivary gland biopsy and their relationship with clinical and serological parameters in primary sjögren's syndrome. EULAR Annual European Congress of Rhematology. Amsterdam, 13-16 June 2018. Ann Rheum Dis, volume 77, supplement Suppl, year 2018, page A1442. DOI: 10.1136/annrheumdis-2018-eular.4633.
- Rodriguez Faba O, Cantó E, Zamora C, Carpio J, Ortiz MA, Perea L , Palou J, Maroto P,Vidal S .La composición leucocitaria en la orina de pacientes con tumor vesical musculo invasivo (TSMI) se asocia al tipo de tratamiento realizado y la aparicion de carcinoma in situ. XXXIII Reunión Nacional del Grupo de Urología Oncológica de la AEU. Jaén 6-7 April 2018.
- Ignacio Isola, M. Teresa Sanz, M. Teresa Cibeira, Esther Moga, Ester Lozano, Juan I Aróstegui, Montserrat Elena, Natalia Tovar, Jordi Yagüe, Laura Rosiñol, Joan Blabé, Carlos Fernández de Larrea. Smoldering Multiple Myeloma: Usefulness of sèrum Heavy/Light Chain measurements for the evaluation of evolving patern. 60th ASH (American Society of Hematology) Annual Meeting. San Diego, CA, 1-4 December 2018.
- Alba García Moral, Esther Moga Naranjo, Eva Companys Armengol, Leticia Alserawan de Lamo, Teresa Bigorra Rodríguez, Lorena Soto Reyes. Perfil clínico y molecular de la alergia a ácaros del polvo en Barcelona. Determiancíón de IgE a 7 especies de ácaros y 11 componentes alergénicos. XXXI Congreso Sociedad Española de Alergología e Inmunología Clínica. Valencia, 24-27 October 2018.

Presentations and/or moderation in congresses of scientific societies

- Silvia Vidal. Cuales son las bases de la combinación de la inmunoterapia con la radioterapia. II Edición Revisiones en Oncología Clínica (Sociedad Española de Oncologia Radioterápica). Madrid 8 June 2018.
- Silvia Vidal. El efecto inmunogénico de la radioterapia. Evidencia Básica. XXX Reunion Anual. Sociedad Oncológica de Galicia. Lugo 12 May 2018
- Silvia Vidal. Artritis Reumatoide ¿existen diferentes subtipos? XLVIII Congreso Anual de la Sociedad Gallega de Reumatología (SOGARE). Pontevedra, 30 November 2018.
- Silvia Vidal. Moderator: Neutrophils in atherosclerosis: from physiology to intervention, and Oral Communications Session II: Innate Response. XII Congrés de la Societat Catalana d'Immunologia. 16 November 2018.
- Manuel Hernández and Esther Moga (moderators); Manuel Hernández (speaker). Grupo y taller de Inmunoquímica de la Sociedad Española de Inmunología. Jornada de Talleres de la Sociedad Española de Inmunología. Hospital Clínico San Carlos. Madrid, 1 June 2018.
- Ponents: Dr. Francesc Xavier Bosch, Dra. Cristina Vanrell Barbat, Dr. Jorge Lloberas (speakers). Round table Virus del Papil·loma humà: disseny de la vacuna, implantació i test per a screening. XII Curs d'Avenços en Immunologia. Barcelona, 1 February 2018.

Conferences in meetings, scientific courses and seminars, and organization of congresses

- Silvia Vidal. Center for Cancer Immune Therapy (CCIT), 65Q9, Department of Hematology University Hospital Herlev, Denmark.
- Silvia Vidal. Immunologia de la Hidrosialoadenitis. HS & Immunologia & Malaltia Inflamatoria Intestinal . Barcelona, 01 March 2018.
- Silvia Vidal and Hector Corominas. Papel de la IL-6, vision del inmunólogo y del reumatólogo. Sesión de formación de la red de ventas de Kevzara Sanofi. Barcelona, 10 April 2018
- Silvia Vidal. Chairman. The BD horizon global tour. Barcelona, 24 April 2018.
- Silvia Vidal. IL6: ara sarilumab. Sanofi-Genzyme. Barcelona, 20 September 2018.
- Silvia Vidal. Jaks i les vies intracel·lulars implicades en la resposta inflamatòria de l'artritis reumatoide. Jornada: Consideraciones en el paciente con AR: inmunología, infecciones y aspectos sociales. Barcelona, 19 December 2018.
- Silvia Vidal. Inmunidad Innata y Adaptativa. Jornadas de Inmunología Básica. Servicio de Oncología Médica. Hospital de la Santa Creu i Sant Pau. Barcelona, 29 May 2018.
- XII Congrés de la Societat Catalana d'Immunologia. Noves Perspectives en Malalties Inflamatòries Cròniques. Barcelona, 15 i 16 de Novembre de 2018. Member of the Organizing Committee.
- XII Curs d'Avenços en Immunologia 2018-2019. Societat Catalana d'Immunologia.

AREA 2 · Genetic, Metabolic and Inflammatory Diseases

Endocrinology, Diabetes and Nutrition

Coordinator
Mauricio Puente, Dídac (FGS)
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Members
Blanco Soto, Rosa María (CIBERBBN)
Castilla Manjón, María José (IR)
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Cubero Marcos, José María (FGS)
De Leiva Hidalgo, Alberto (FGS)
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González Blanco, Cintia (FGS)
López Argudo, Alicia (FGS)
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Mendoza Mathison, Lilian Cristina (FGS)
Navarro Cano, Gemma (FGS)
Orellana Casado, Inmaculada (FGS)
Pérez Pérez, Antonio (FGS)
Stantonyonge Sesnic, Nicole (FGS)

Main Lines of Research

- Diabetic complications: atherosclerosis and microvascular disease.
- Diabetic epidemiology: primary care research, and research with large databases.
- Diabetes and endocrine disorders in pregnancy.
- Diabetes and cardiovascular risk factors.
- Nodular disease and thyroid cancer.

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: discovery of genes that influence susceptibility to autoimmune diabetes (classic type 1).
- 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 optimizing care for women with pre-gestational and gestational diabetes at pre-conception, pregnancy, birth and postpartum stages.

Technology, telemedicine and intelligent systems for therapeutic optimization of diabetes mellitus

- Technology in the treatment of diabetes with special focus in 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.

Optimization of the treatment of obesity, hyperlipidaemia, metabolic syndrome and complications

- Optimal treatment and prevention of cardiovascular risk associated with obesity, hyperlipidaemia, metabolic syndrome and diabetes mellitus 2.

Diabetic complications: atherosclerosis and microvascular disease

- Clinical and translational studies that explore research in pathogenesis, biomarkers, and early detection and treatment of microvascular and chronic complications, especially atherosclerosis.

Diabetic epidemiology: primary care research, and 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.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Oncogenesis and Antitumour Drugs (Ramon Mangues).
- Ophthalmology (Fernando Rodríguez Álvarez).
- Cardiovascular Biochemistry (Jorge Ordóñez, José Luis Quesada, Francisco Blanco).
- General and Digestive Surgery (Antonio Moral, Ignacio Pérez).
- Reproductive Health (Juan Adelantado).
- Metabolic Bases of Cardiovascular Risk (Francisco Blanco).
- Regulatory mechanisms of cardiovascular remodeling (Cristina Rodriguez-Sinovas, Maria Galan)

External Collaborations

- Claire Meek, Rosa Corcoy, Helen Murphy. Novel markers of glycemic control in women with Type 1 diabetes in pregnancy. An ancillary study from the CONCEPTt randomised clinical trial. EFSD/Sanofi Research Grant Programme for innovative measurement of diabetes outcomes. Duration: 2017-2018. 60,000 €.
- CIBER-BBN:
  - Bioengineering and Telemedicine Group at the Universidad Politécnica de Madrid, Spain (GBT-UPM). PI: Enrique J. Gómez Aguilera.
  - Biomedical Engineering Research Group at the Universidad de Sevilla, Spain (GIB-US). PI: Laura Roa Romero.
- CELL-NANO-THYROID:
  - Molecular Oncology Group at HVH, PI: S. Schwartz, Jr.
  - Development of New Drugs Group at the Universidad del País Vasco, Spain. PI: J.L. Pedraz.
- CONCEPTT: Women with Type 1 Diabetes in Pregnancy Trial Collaborators.
- Vitamin D and Lifestyle Intervention for Gestational Diabetes Mellitus (GDM) Prevention (DALI) Consortium.
- Action Lada European Consortium.
- Real-world evidence studies (ERICAS). Kamlesh Khunti – University of Leicester.
- Alteraciones del metabolismo lipídico sobre la disfunción miocárdica en pacientes con diabetes mellitus tipo 2. Nuria Alonso, Manel Puig-Domingo (Institut de Recerca Germans Trias i Pujol).
- Circulating short noncoding RNAs as potential markers of atherosclerotic plaque composition in type 1 diabetes. Angelo Avogaro. University of Padova.

Active Grants

- Rosa Corcoy Pla. Centro de Investigación Biomédica en Red en Bioingeniería, Biomateriales y Nanomedicina. CB06/01/0009. Ministerio de Sanidad y Política Social. Duration: 2006-2018. 369,783.96 €.
- Ascensión Lupiáñez Barbero. Validació clínica de la plataforma tecnològica PREDIRCAM en l'etapa primerenca de la diabetis autoimmune tipus LADA. 2016 FI_B 00211. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2016-2019. 60,465.12 €.
- Dídac Mauricio Puente, PI15/00625. Instituto de Salud Carlos III. Duration: 2016-2018. 92,565 €.
- Dídac Mauricio, 2014-EFSD-00914. European Foundation for the Study of Diabetes (EFSD) (Prolonged until August 2018). Duration: 2014-2018. 399,000 €.
- Dídac Mauricio. INTEGRA. IDIAP - Jordi Gol - Sanofi. Duration: 2013-2018. 149,927 €.
- Cintia González. Estudio DeMPower - MSD.
- Cintia González. Evaluación clínica de la app MySugr®. Roche Diabetes Care. Duration: 2019. 7,000 €.
- Eugenia Mato. Nanopartículas contra inhibitores de la tirosina. Menarini. Duration: 2017-2018. 25,000 €.
- Ana Chico. Estudio SED1. Sociedad Española de Diabetes.
- Ana Chico. Estudio Onecare. Sanofi.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Rosa Corcoy Pla. Grup de Recerca en Endocrinologia, Diabetes i Metabolisme. Universitat Autònoma de Barcelona, Hospital de la Santa Creu i Sant Pau (EDUAB-HSP). 2017 SGR 01652. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- Dídac Mauricio Puente. Descubrimiento y validación de marcadores de predicción de diabetes tipo 2: proyecto colaborativo de cohortes. PI18/00328. Instituto de Salud Carlos III. Duration: 2019-2021. 145,750 €.
- Paula Quifer Rada. Risk and benefits of Beer and nonalcoholic beer moderate consumption on cardiovascular system. CD18/00172. Instituto de Salud Carlos III. Duration: 2019-2022. 80,598 €.
- Nicole Stantonyonge Sesnic. Neurofilamento de cadena ligera en sangre como marcador precoz de alteraciones neurocognitivas en pacientes con diabetes mellitus tipo 1 e hipoglicemia inadvertida. SED 2018. Sociedad Española de Diabetes. Duration: 2018-2019, 18,181.82 €.
- Dídac Mauricio Puente. Centro de Investigación Biomédica en Red de Diabetes y Enfermedades Metabolicas Asociadas (CIBERDEM). CB15/08/00071_2. Ministerio de Economía y Competitividad. Duration: 2019-2020. 55,927.28 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Dídac Mauricio Puente. Rodríguez Miñón Award 2018 of the Foundation of the Spanish Diabetes Society (SED) that recognizes the work in Clinical Research in the senior category. Prize awarded at the XXIX National Congress of the SED in Oviedo on 18-20 April 2018.
- Dídac Mauricio Puente. Awards for Professional Excellence 2018 of the College of Doctors of Barcelona. Barcelona, 12 March 2018.

Doctoral Theses

- Marta Hernández García. Caracterización de la diabetes autoinmune latente del adulto en dos centros hospitalarios de Cataluña. Universitat Autònoma de Barcelona. Director: Dídac Mauricio Puente. Date of defense: 05/12/2018.
- Valeria Alcántara Aragón. Intensificación y monitorización telemática personalizada de la modificacion del estilo de vida en el tratamiento de la obesidad y la prevención del riesgo cardiometabólico. Universitat Autònoma de Barcelona Directors: Cintia González; Alberto de Leiva. Date of defense: 21/09/2018.
- José María Cubero Marcos. Capacidad antiaterogénica y antiinflamatoria de las HDL en la hiperlipemia familiar combinada. Efectos del tratamiento hipolipemiante. Universitat Autònoma de Barcelona. Director: Antonio Pérez Pérez. Date of defense: 27/11/2018.

Scientific Production

Total Impact Factor: 129.788 · Mean Impact Factor: 4.3263

Alcantara-Aragon V., Rodrigo-Cano S., Lupianez-Barbero A., Martinez M.J., Martinez C., Tapia J., Iniesta J.M., Tenes S., Urgell E., Navarro G., Hernando M.E., Merino-Torres J.F., De Leiva A., Gonzalez C., Web Support for Weight-Loss Interventions: PREDIRCAM2 Clinical Trial Baseline Characteristics and Preliminary Results (2018) DIABETES TECHNOL THE, 20 (5), 380-385. **IF: 2.9210**

Beato-Vibora P., Chico-Ballesteros A., Gimenez M., Guerrero-Vazquez R., Barrio-Castellanos R., Goni-Iriarte M.J., Diaz-Soto G., Merino-Torres J.F., Moreno-Fernandez J., Martinez-Brocca M.A., A national survey on the efficacy and safety of continuous subcutaneous insulin infusion in patients with type 1 diabetes in Spain (2018) DIABETES RES CLIN PR, 137, 56-63. **IF: 2.5480**

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Diffusion Activities

International courses

- UptoDate en Diabetes. Organization: Dídac Mauricio. Speakers: Dídac Mauricio, Ana Chico, Cintia González. Institut de Recerca Germans Trias i Pujol. Barcelona, 17-18 May 2018..

National courses

- Cintia González. II Jornadas de Innovación en Salud: Diabetes Digital. Hospital Sant Joan de Déu. Barcelona, 28-29 September 2018.
- Ana Chico. Diabetes y Gestación. In: Certified Expert Course Experto en manejo de la diabetes mellitus. Editorial Panamericana and Sociedad Española de Diabetes. Institut de Formació Contínua IL-3, Universitat de Barcelona.
- Ana Chico. Chapters "Tratamiento con bomba de insulina" and "Monitorización Continua de Glucosa" in: Máster en Atención y Educación a las Persones con Diabetes tipo 2. Red Gedaps and Universidad Francisco de Vitoria.
- Ana Chico Objetivo postprandial: hacia un buen control glucémico. Formación Interactiva de Excelencia en Diabetes. NovoNordisk y Lexic. Online course certified by Sociedad Española de Endcorinología y Nutrición.
- Cintia González. Diabetalks 18. Jornadas de Innovacion en diabetes: un abordaje multdiscilplinar a traves de la e-Salud. Esteve. Barcelona, Madrid and Sevilla, 23-24 February 2018.
- Cintia González. Curso de formación continuada en pediatría. Herramientas digitales en la diabetes. Hospital Universitari Josep Trueta. Girona, January 2018.

International congresses

- D Mauricio. PCDE Symposium: Management of type 2 diabetes in the Young and in the elderly. Epidemiology of young type 2 diabetes. 54th Annual Meeting of the European Association for the Study of Diabetes (EASD 2018). Berlin, Germany, 1-5 October 2018.
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National congresses

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- E Castelblanco, A Ramírez-Morros, M Hernández, M Granado, A Betriu, M Puig-Domingo, N Alonso, D Mauricio. Type 1 diabetes is associated with a differential pattern of carotid atherosclerotic plaque types. Poster 20th European Congress of Endocrinology (ECE). Barcelona, 19-22 May 2018.
- Ana Chico. Del autocontrol al páncreas artificial. Conference. XXIX Congreso de la Sociedad Española de Diabetes. Oviedo, Abril 2018
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- Bellido V, Tejera C, Soto A, Jodar E, González N, Lecumberri E, Chico A, de la Torre ML, Bellido D, Grupo de Trabajo de Diabetes de la SEEN. Situación de los pacientes con diabetes mellitus tipo 2 al alta en hospitales españoles: estudio Diabetes Day. Oral communication. 59 Congreso de la Sociedad Española de Endocrinología y Nutrición. Barcelona, 2018.

Other

- Ana Chico. Cas Clínic Interactiu en Diabetis. Conference. Meet the Expert Sociedad Española de Endocrinología y Nutrición.
- Ana Chico. Manejo del paciente con hipoglucèmia inadvertida. Workshop. VII Curso avanzado de diabetes mellitus de la Sociedad Española de Diabetes y de la Sociedad Española de Endocrinología y Nutrición. Madrid, December 2018.
- Las redes sociales en la diabetes. Grupo Tecnologías Aplicadas a Diabetes de la Sociedad Española de Diabetes. Madrid, 26-27 January 2018.
- Transformación digital en atención sanitaria. Hacia un hospital 2.0. UGC Endocrinologia y Nutrición, Hospital Universitario Virgen Macarena. Sevilla, 20 February 2018.
- III Jornadas de bombas de insulina y sistemas de monitorización de glucosa. e-Saludate. Madrid, June 2018.
- 5ª Edición Diabetes Experience Day España: La diabetes en España vs Latinoamérica. Barcelona, 7 April 2018.
- 1ª Edicion Diabetes Experience Day Argentina: La diabetes en las redes sociales. San Luis (Argentina), 10 November 2018
- I Jornada de actualización en avances y tecnologías aplicadas al tratamiento de la diabetes: Actualización en herramientas digitales. Asociación Diabetes Madrid. 9 June 2018.

AREA 2 · Genetic, Metabolic and Inflammatory Diseases

Pituitary Gland Disorders

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Main Lines of Research

- ERCUSYN: European Registry on Cushing syndrome. Initiated with funding from SANCO, EU Public Health Programme.
- Role of myosteatosis in the development and persistence of residual muscular frailty in treated acromegaly and Cushing's syndrome. Study of the mechanisms involved.
- Spanish Molecular Registry of Pituitary Adenomas (REMAH study).
- Morbimortality, low-grade inflammation and cardiovascular risk in patients with acromegaly or Cushing syndrome.
- International consortium collaboration to identify genes and pathogenetic mechanisms involved in the development of craniopharyngiomas and pituitary adenomas.
- Study of bone microarchitecture and resistance and their predictors in patients with Cushing's syndrome and acromegaly in remission. A model to investigate the interaction between bone and body fat.
- The etiology and extent of impaired quality of life, fatigue and cognitive and affective/emotional dysfunction in patients with Cushing's syndrome: Sequelles cognitives du syndrome de Cushing- MEMO-CUSH.

Scientific Challenges

- Evaluate long-term persistent morbidity and mortality in patients who have had Cushing syndrome or acromegaly especially bone quality, muscular dysfunction and quality of life.
- Analyze and update the European database of patients with Cushing syndrome (ERCUSYN), which in 2018 included over 1650 patients, with partners from 63 centers in 29 countries.
- Conduct in vitro molecular analysis of operated pituitary adenomas within the REMAH (Molecular Registry of Pituitary Adenomas) study, sponsored by the Spanish Endocrinology and Nutrition Society, to investigate personalized markers of therapeutic response (mainly in acromegaly, corticotroph adenomas and non-functioning pituitary adenomas).

Collaborations

Collaborations with other IIB Sant Pau Groups

- Collaboration with the Neuromuscular Research Group led by Dr. Isabel Illa, specifically with Dr. Jordi Manero, to evaluate muscle in patients treated for acromegaly and Cushing syndrome. This multidisciplinary group also includes Rehabilitation (Dr. H. Basuñana and Mr Jordi Garcia, and Imaging (Dr. J. Llauger), and a CIBERER working group has been set up by Dr. E Valassi to investigate non-invasive diagnostic tools to early detect impairment of muscle architecture in patients with pituitary rare diseases.
- Collaboration by Alicia Santos with the Psychiatry Research Group (mainly with Dr. Joaquim Soler and Dr. Cristina Carmona) in order to analyze the effects of compassionate therapy in patients with eating disorders and borderline personality disorder. (Efectos de la terapia de compasión en pacientes con trastornos de la conducta alimentaria y trastorno límite de la personalidad)
- Collaboration by Elena Valassi with the Unit of Palliative Care led by doctor Antonio Pascual to investigate the clinical implications of poor glycemic control in patients with advanced chronic diseases".

External Collaborations

- Participation in the project of Personalized Medicine of the ISCIII, number PMP 15/00027 Improved and efficient therapy of acromegaly by implementation of a personalized and predictive algorithm including functional analysis, imaging and genomic information. Global PI: Manel Puig Domingo.
- Participanting PIs:
  - IGTP Group/CIBERER GP: Manel Puig Domingo (PI)
  - Sant Pau Group/CIBERER 747: Susan Webb (PI), E Resmini, E Valassi, A Santos, I Crespo, A Aulinas
  - IDIBAPS/Clínic Group/CIBERER GV: Irene Halperin (PI)
  - Hospital de la Ribera Group (Alzira): Carmiña Fajardo (PI)
  - Hospital de la Princesa Group (Madrid)/CIBERER GP: Mónica Marazuela (PI)
  - Complejo Hospitalario de Santiago de Compostela Group: Ignacio Bernabéu (PI)
  - Hospital Universitario de Alicante/CIBERER GV: Antonio Picó (PI)
  - IMS Health: Montserrat Roset (PI)

- Silent corticotrope adenomas: Are they a subtype of more aggressive non-functioning pituitary adenomas? Project funded by CIBERER in the competitive call on Traslational Medicine, 2015-2016 and is currently being written up for publication. PI : Antonio Picó (Alicante). Participating units: u747-S. Webb (S Pau); U725A-L. Castaño (Bilbao); GCV 13_Picó (Alacant); GCV 11_Halperin (H Clinic Barcelona); GCV 12_Marazuela (Hosp Princesa, Madrid); GCV 14_Puig (Hospital GTiP, Badalona); GCV 15_Soto (HUV Rocío Sevilla)
- Clinical study protocol on recently diagnosed patients with Cushing's syndrome, in collaboration with investigators in Leiden and Goteborg (mainly Drs. Alberto Pereira and Oskar Ragnarsson): The etiology and extent of impaired quality of life, fatigue and cognitive, affective and emotional dysfunction in patients with Cushing's syndrome.
- Collaboration with investigators in Bordeaux (mainly Dr. Antoine Tabarin) on cognitive outcome of patients having suffered Cushing's disease: Sequelles cognitives du syndrome de Cushing-MEMOCUSH.
- Caracterización clínica y molecular de los adenomas hipofisarios en niños y adolescentes. A Santos, SM Webb in collaboration with Dr. Itxaso Rica and Luis Castaño (Hospital Universitario Cruces. Instituto de investigación Sanitaria BioCruces).
- Bilateral collaboration between E. Resmini and Richard Lee of Baltimore University, Departments of Psychiatry and Medicine, the Johns Hopkins University School of Medicine.
- Genetic, molecular and clinical characterisation of craniopharyngioma. St Bartholomew's Hospital and The London Charity Hospital. With Dr. Carles Gaston-Massuet.
- Bilateral collaboration between E. Valassi and Oskar Ragnarsson, University of Gotheborg (Sweden) to investigate the association between polymorphisms of genes involved in the steroidogenesis and the responsiveness to treatment with steroidogenesis inhibitors in Cushing's syndrome.
- Bilateral collaboration between E. Valassi and Brian Keevil, University of Manchester (UK) to investigate the role of salivary cortisone in the residual morbidity of patients with Cushing's syndrome.
- Bilateral collaboration between E. Valassi and Adolfo Díaz, Hospital del Mar, to investigate the role of microRNAs in the pathogenesis of bone alterations in patients with Cushing's syndrome and acromegaly.
- Bilateral collaboration between E. Valassi and Chaysavanh Manichanh, Hospital Vall d'Hebron, to investigate the role of microbiome in the pathogenesis of metabolic alterations in patients with Cushing's syndrome.
- Bilateral collaboration between E. Valassi and María Morán (Hospital 12 de octubre, Madrid), Federico Pallardó and José Luis García (U733 CIBERER; Valencia University) to identify early markers of metabolic impairment in patients with Cushing's syndrome and acromegaly.

Active Grants

- Susana Webb Youdale. Centro de Investigación Biomédica en Red de Enfermedades Raras. CB06/07/0044. Ministerio de Sanidad y Política Social. Duration: 2006-2018. 269,325.41 €.
- Susana Webb Youdale. Estudio de microarquitectura y resistencia óseas y de factores que las determinan en el sd de Cushing o acromegalia en remisión. Modelo para investigar la interacción hueso- grasa corporal. PI14/00194. Instituto de Salud Carlos III. Duration: 2015-2019. 91,500 €.
- Agreement signed between HRA Pharma and the European Society of Endocrinology to support the ERCUSYN database over 5 years (2018-2023), which allows an annual support of ESE to IR for the sustainability of ERCUSYN.

Clinical trials

- Protocolo abierto multicéntrico, de continuación de Pasireotida, para pacientes que hayan completado un estudio de pasireotida previo patrocinado por Novartis y el investigador considere que se beneficiara de la continuacion del tratamiento con pasireotida. SOM230B2412. From 2016 (it is the continuation of CSOM230G2304 Estudio de fase III, multicéntrico, aleatorizado y doble ciego, para evaluar la eficacia y seguridad de pasireotida LAR en pacientes con enfermedad de Cushing". nº Eudract. 2009-011128-70. Duration: 2011-2016.)
- Estudio multicéntrico en fase 3 diseñado para evaluar la eficacia y la seguridad de un producto de hormona humana del crecimiento (hGH) de liberación prolongada (MOD-4023) en sujetos adultos con deficiencia de la hormona del crecimiento. Prolor Biotech Ltd. nº protocolo CP-4-005 nº eudract. 79.745/2013-000830-37. Duration: 2014-2018.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Susana Webb Youdale. Grup de Recerca de Malalties de la Hipòfisi i Grup CIBERER 747 (CIBER de Malalties Rares). 2017 SGR 00750. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- Elena Valassi. Role of myosteatosis in the development and persistence of residual muscular frailty in treated acromegaly and Cushing's syndrome tratados. Study of the mechanisms involved. PostDoctoral CIBERER researcher. PI 17/00749. Duration: 2018-2020)
- Susana Webb (awarded to the European Society of Endocrinology). European Society of Endocrinology audit and multi-country comparison of Adult Growth Hormone Deficiency (AGHD) treatment in clinical practice in Europe, Australia and New Zealand; how closely are protocols and best practice recommendations followed. Pfizer Independent Grants for Learning & Change: Improving the Identification and Management of Adult Growth Hormone Deficiency (AGHD). Duration: 2018-2019. 1500 $.

Note: Total amount granted to PI. It does not include indirect costs.

Doctoral Theses

- Francisco José Tortosa Vallecillos. Adenomas of the pituitary gland: clinico-pathological and inmunohistochemical correlations in a reference center in Portugal. Universitat Autònoma de Barcelona. Director: Susan Webb. Dte of defense: 19/10/2018.

Scientific Production

Total Impact Factor: 26.111 · Mean Impact Factor: 2.6111

Álvarez-Escolá C, Venegas-Moreno EM, García-Arnés JA, Blanco-Carrera C, Marazuela-Azpiroz M, Gálvez-Moreno MÁ, Menéndez-Torre E, Aller-Pardo J, Salinas-Vert I, Resmini E, Torres-Vela EM, Gonzalo-Redondo MÁ, Vílchez-Joya R, de Miguel-Novoa MP, Halperín-Rabinovich I, Páramo-Fernández C, de la Cruz-Sugranyes G, Houchard A, Picó-Alfonso AM; ACROSTART Study Group. ACROSTART: A retrospective study of the time to achieve hormonal control with lanreotide Autogel treatment in Spanish patients with acromegaly. Endocrinol Diabetes Nutr. 2019 Feb 14. pii: S2530-0164(19)30021-7. doi: 10.1016/j.endinu.2018.12.004. [Epub ahead of print] **IF: 1.268**

Badia X., Trainer P., Biermasz N.R., Tiemensma J., Carreno A., Roset M., Forsythe A., Webb S.M., Mapping AcroQoL scores to EQ-5D to obtain utility values for patients with acromegaly (2018) J MED ECON, 21 (4), 382-389. **IF: 2.2640**

Liu S., Adelman D.T., Xu Y., Sisco J., Begelman S.M., Webb S.M., Badia X., Thethi T.K., Fonseca V., Shi L., Patient-centered assessment on disease burden, quality of life, and treatment satisfaction associated with acromegaly (2018) J INVEST MED, 66 (3), 653-660. **IF: 2.0290**

Tortosa F., Webb S.M., Prognostic implications of telomerase expression in pituitary adenomas Implicación pronóstica de la expresión de telomerasa en adenomas hipofisarios (2018) REV CLIN ESP, 218 (3), 128-132. **IF: 1.1840**

Trainer P.J., Newell-Price J.D.C., Ayuk J., Aylwin S.J.B., Rees A., Drake W., Chanson P., Brue T., Webb S.M., Fajardo C., Aller J., McCormack A.I., Torpy D.J., Tachas G., Atley L., Ryder D., Bidlingmaier M., A randomised, open-label, parallel group phase 2 study of antisense oligonucleotide therapy in acromegaly (2018) EUR J ENDOCRINOL, 179 (2), 97-108. **IF: 4.3330**

Valassi E., Franz H., Brue T., Feelders R.A., Netea-Maier R., Tsagarakis S., Webb S.M., Yaneva M., Reincke M., Droste M., Komerdus I., Maiter D., Kastelan D., Chanson P., Pfeifer M., et al., Preoperative medical treatment in Cushing's syndrome: Frequency of use and its impact on postoperative assessment: Data from ERCUSYN (2018) EUR J ENDOCRINOL, 178 (4), 399-409. **IF: 4.3330**

Valassi E., Feelders R., Maiter D., Chanson P., Yaneva M., Reincke M., Krsek M., Toth M., Webb S.M., Santos A., Paiva I., Komerdus I., Droste M., Tabarin A., Strasburger C.J., Franz H., Trainer P.J., Newell-Price J., Wass J.A., Papakokkinou E., Ragnarsson O., Worse Health-Related Quality of Life at long-term follow-up in patients with Cushing's disease than patients with cortisol producing adenoma. Data from the ERCUSYN (2018) CLIN ENDOCRINOL, 88 (6), 787-798. **IF: 3.0770**

Webb S.M., Santos A., Resmini E., Martinez-Momblan M.-A., Martel L., Valassi E., Quality of Life in Cushing's disease: A long term issue? La qualité de vie dans la maladie de Cushing : une affaire à long terme ? (2018) ANN ENDOCRINOL-PARIS, 79 (3), 132-137. **IF: 1.4440**

Webb S.M., Valassi E., Morbidity of Cushing's Syndrome and Impact of Treatment (2018) ENDOCRIN METAB CLIN, 47 (2), 299-311. **IF: 3.0000**

Webb S.M., Clinical outcomes of childhood craniopharyngioma: can we do better? (2018) ENDOCRINE, 62 (1), 1-2. **IF: 3.1790**

Other Publications

- Alicia Santos, Elena Valassi and Susan M Webb. Quality of life: Its importance when treating our patients. European Society of Endocrinology (ESE news) Newsletter Autumn 2018.
- Martel, L. M.; Webb. S.M. Consequences of chronic exposure to glucocorticoids. Are they reversible? Endocrinología Molecular. Journal of the Spanish Society of Biochemistry and Molecular Biology. Dossier: Well-matched organs: the power of hormones. December 2018. Available at: https://www.sebbm.es/revista/articulo.php?id=526&url=consecuencias-de-la-exposicion-cronica-a-los-glucocorticoides-una-espada-de-doble-filo
- Valassi E, Fabbi M, Pascual A Manejo de la hiperglucemia en pacientes con enfermedad oncológica avanzada. Medicina Paliativa 2018 25(1) 42-49.
- Webb SM, Resmini E, Martínez-Momblán MA, Valassi E, Santos A. Quality of life in patients with pituitary tumors. Current Opinion in Endocrine and Metabolic Research 2018 [Epub ahead of print]

Diffusion Activities

Courses

- IV course Update in Neuroendocrinology. Catalan Society of Endocrinology & Nutrition. Barcelona, 16th April-4th June 2018:
  - SM Webb (Co-organiser)
  - Alicia Santos (invited speaker): The impact of chronic rare diseases in patients.
  - Elena Valassi (invited speaker): Management of patients with Cushing's syndrome after remission.
- Collaboration in the campaign "Look at your photos" ("Mira tus fotos"), organised by the patient Association of those Affected by Acromegaly, an exhibition in the hall of the Hospital Sant Pau in the summer of 2018, to promote earlier diagnosis of acromegaly (see link http://tengoacromegalia.es/todos-tenemos-algo-que-nos-hace-grandes/)

Presentations at congresses

- Elena Valassi, Richard Feelders, Dominique Maiter, Philippe Chanson, Maria Yaneva, Martin Reincke, Michal Krsek, Miklós Tóth, Susan M. Webb, Alicia Santos et al. Neuroendocrinology Guided Poster "Patients with Cushing's disease have worse Health-Related Quality of Life at long-term follow-up than patients with cortisol producing adrenal adenoma, despite similar scoring at baseline. Data from the European Registry on Cushing's Syndrome (ERCUSYN)". Endocrine Society Meeting (ENDO 2018). Chicago (USA), 23-26 March 2018.
- Elena Valassi, Antoine Tabarin, Thierry Brue, Richard A Feelders, Martin Reincke, Romana Neteia-Maier, Miklós Tóth, Maria Yaneva, Susan M Webb, Stylianos Tsagarakis, Philippe Chanson, Marija Pfeifer, Michael Droste, Irina Komerdus, Darko Kastelan, Dominique Maiter, Olivier Chabre, Holger Franz, Alicia Santos, et al. Diabetes mellitus and muscle weakness are independently associated with mortality in patients with Cushing's syndrome. Data from ERCUSYN". 11th CIBERER Meeting. Castelldefells (Spain), 12-15 March 2018.
- Elena Valassi (invited speaker). Symposium Glucose management in insulin-treated GH deficiency or acromegaly patients. Nurses Pre-congress, 20th European Congress of Endocrinology. Barcelona, 19-22 May 2018.
- Elena Valassi, Antoine Tabarin, Thierry Brue, Richard A Feelders, Martin Reincke, Romana Neteia-Maier, Miklós Tóth, Maria Yaneva, Susan M Webb, Stylianos Tsagarakis, Philippe Chanson, Marija Pfeifer, Michael Droste, Irina Komerdus, Darko Kastelan, Dominique Maiter, Olivier Chabre, Holger Franz, Alicia Santos, et al. Diabetes mellitus and muscle weakness are independently associated with mortality in patients with Cushing's syndrome. Data from ERCUSYN. Oral Communication. 20th European Congress of Endocrinology. Barcelona, 19-22 May 2018.
- Elena Valassi (invited speaker). Symposium Nelson's syndrome in the ERCUSYN database. Expert Consensus on Nelson's Syndrome. Munich (Germany), 28 October 2018.
- Elena Valassi (invited speaker). Symposium Quality of life in Cushing's syndrome: what is new? IMPROCUSH 2018. Munich (Germany), 29-30 October 2018.
- Susan Webb (invited speaker). Symposium Impact of acromegaly on the thyroid. 8th Annual European Meeting on the Treatment of Acromegaly. Milan, 8-10 February 2018.

- Susan Webb (invited speaker). Quality of life in Cushing's disease: a long term issue?21mme Journées Internationales d'Endocrinologie Clinique HENRI-PIERRE KLOTZ. Paris, 21-22 June 2018.
- Susan Webb (invited speaker). Deployment of the care and management model of Rare Disease in Catalonia (Desplegament del model d'atenció a les Malalties Minoritàries a Catalunya). Dia de les Malalties Minoritàries. Barcelona, 28 February 2018.
- Susan Webb (invited speaker). What happens with the bones in acromegaly? VI National Meeting of Patients with Acromegaly. Madrid, 15 September 2018.
- Susan Webb (invited speaker). Endobridge Sessions: European Projects Presentation. SEEN Meeting at ECE 2018. Barcelona, 18-19 May 2018.

International Advisory Boards

- Elena Valassi. International Advisory Board member organised by HRA Pharma on medical therapy in Cushing's syndrome. Paris (France), 6 July 2018.
- Susan Webb. ACROSTUDY Scientific Committee member meeting, organized by Pfizer, on the development of the new app for the control of acromegaly. London, 8 June 2018.

AREA 2 · Genetic, Metabolic and Inflammatory Diseases

Digestive Diseases

Coordinator
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Members
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Garcia Planella, Esther (FGS)
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González Juan, Dolores (FGS)
Gordillo Ábalos, Jorge (FGS)
Guarner Argente, Carlos (FGS)
Murzo Pulgar, Marianette C. (FGS)
Oblitas Susanibar, Elida (FGS)
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Sánchez Ardid, Elisabet (CIBEREHD)
Soriano Pastor, German (FGS)
Torras Colell, Javier (FGS)
Villanueva Sánchez, Càndid (FGS)

Main Lines of Research

Experimental research

- Experimental rat model of cirrhosis and ascites.
- Mechanisms and prevention of bacterial translocation in rats with cirrhosis.
- Experimental model of spontaneous and induced bacterial peritonitis: physiopathology and treatment.
- MiRNAs expression profile in inflammatory bowel disease after stimulation with toll-like receptor ligands.

Clinical investigation

- Physiopathology, diagnosis, treatment and prevention of bacterial infections, ascites and hepatorenal syndrome in cirrhosis.
- Diagnosis and treatment of hepatic encephalopathy in cirrhosis.
- Cognitive impairment, falls and quality of life in patients with cirrhosis.
- Physiopathology, diagnosis, treatment and prevention of digestive haemorrhage due to portal hypertension of non-varicose origin.
- Diagnosis and treatment of chronic hepatitis B and C.
- Diagnosis and treatment of hepatocarcinoma.
- Physiopathology, diagnosis and treatment of intestinal inflammatory disease (inflammatory bowel disease).
- Diagnosis and treatment in advanced gastrointestinal endoscopy.
- Diagnosis and treatment of acute pancreatitis.
- Prevention of acute post-ERCP pancreatitis.
- Chronic pancreatitis and pancreatic neoplasms: molecular studies, early detection and treatment.

Scientific Challenges

- Consolidate the CIBEREHD, CIBER, Instituto de Salud Carlos III research group by studying complications in cirrhosis.
- Grup de Recerca de Complicacions de la Cirrosis Hepàtica. Universitat Autònoma de Barcelona.
- Consolidated Research Group (SGR) of the AGAUR, Generalitat de Catalunya.
- Expand the hepatology research lab and develop new research.
- Consolidate the portal of hypertension of the 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.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Genetic, Metabolic and Inflammatory Diseases research area:
  - Dr. Cándido Juarez (Infamatory Diseases)
  - Dr. Pere Coll (Microbiology and Infectious Diseases)
  - Dra. Pia Gallano and Dr. Jordi Surrallés (Genetic Research)
  - Dr. Dídac Mauricio (Endocrinology, Diabetes and Nutrition)
- Neurological, Mental Disorders and Ageing research area:
  - Dra. Beatriz Gómez Ansón (Neuradiology)
- Molecular, Genomic, Cellular and Kinetic-Dynamic Bases for Diseases and their Treatment research area
  - Dr. Juan Garcia (Banc de Sang i Teixits, Generation of Advanced Therapy Medicines)
- Associated Groups:
  - D. Lluís Puig (Dermatology)
- Fundació de Gestió Sanitària Hospital de la Santa Creu i Sant Pau
  - Physical Medicine and Rehabilitation

External Collaborations

National collaborations

- CIBER Groups: CIBEREHD (Dr. Albillos. Dr. Frances, Dr. Bosch, Dr. Bruix, Dr. Cabré, Dr. Forns, Dr. Genesca, Dr. Andrade, Dr. Romero Gomez, Dr. Bañares, among others...); CIBERSAM (Dr. Gish); CIBERER (Dr. Pia Gallano).
- Instituto de Productos Lácteos (IPLA) Asturias.
- Danone Nutricia Research, Barcelona.
- Gastrointestinal Oncology Group of the Spanish Gastroenterological Association.
- Spanish Collaborative Group for the Study of the Use of Hepatitis C Direct-Acting Drugs.
- Spanish DILI registry.
- SportDiet Collaborative Group.
- BLEPS Study Group.Spanish Collaborative Group for the Study of the Use of Hepatitis C Direct-Acting Drugs.
- Variceal Bleeding Study Group.
- Spanish Working Group on Crohn's Disease and Ulcerative Colitis (GETECCU).
- ENEIDA project.
- Spanish Microscopic Colitis Group (SMCG).
- EndoCAR group of the Spanish Gastroenterological Association and Spanish Digestive Endoscopy Society.
- AEGastrum
- Infogastrum
- Upper GI Tract Study Group from the Spanish Gastroenterology
- Grupo Español de Resección Endoscópica de la S. Clinical guidelines for endoscopic mucosal resection of non-pedunculated colorectal lesions
- Asociación Española de Gastroenterología
- Sociedad Española de Endoscopia Digestiva
- Societat Catalana de Pàncreas
- Registro ColHai
- Programa Pacient Expert Catalunya
- Quecomiicat
- InTeam Consortium Study Investigators6
- COHORTE HEPA-C
- ESTUDIO EPIBarrett

International collaborations

- Cleveland Abu Dhabi
- University of Bologna, Italia
- EF Clif European Foundation for the study of chronic liver failure
- CANONIC study investigators of the EASL-CLIF Consortium and the European Foundation for the Study of Chronic Liver Failure (EF-CLIF)
- Danone Nutricia Research
- EPICOLON Consortium, Lynch Syndrome prediction model validation study group
- BLEPS study group
- Variceal Bleeding Study Group
- European Study Group on Cystic Tumors of the Pancreas
- Gilead
- Shionogui Group
- Actial
- Mendes
- Quintiles
- Tobira
- Boehringer Ingelheim
- American Society for Gastrointestinal Endoscopy

Active Grants

- Carlos Guarner Aguilar. Centro de Investigación Biomédica en Red de Enfermedades Hepáticas y Digestivas. CB06/04/0030. Ministerio de Sanidad y Política Social. Duration: 2006-2018. 300,709.45 €.
- Carlos Guarner Argente. Ensayo clínico multicéntrico, aleatorizado y doble ciego sobre el uso de antibiótico profiláctico en la punción por ecoendoscopia de lesiones quísticas del páncreas. PI13/00609. Instituto de Salud Carlos III. Duration: 2014-2018. 33,750 €.
- Carlos Guarner Aguilar. Estudio de las alteraciones de la barrera intestinal en la cirrosis hepática. PI14/00680. Instituto de Salud Carlos III. Duration: 2015-2019. 81,500 €.
- Càndid Villanueva Sanchez. Evolución de la circulación colateral portosistémica y la hiperdinamia asociadas a hipertensión portal con el tratamiento etiológico de la cirrosis. Influencia en el desarrollo de complicaciones. PI16/01992. Instituto de Salud Carlos III. Duration: 2017-2019. 101,500 €.
- Edilmar Auxiliadora Alvarado Tapias. Ajuts per a contractes de formació "Río Hortega" 2016. CM16/00133. Instituto de Salud Carlos III. Duration: 2017-2019. 53,732 €.
- Eva Roman. Papel de la deficiencia de la vitamina D en los eventos clave de la cirrosis hepática e impacto de su suplementación. PI16/00920. Fondo de Investigación Sanitaria (Instituto de Salud Carlos III)

Competitive and non-competitive competition studies are developed with the industry under commercial secrecy.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Carlos Guarner Aguilar. Grup de Recerca: Complicacions de la Cirrosi Hepàtica. 2017 SGR 956. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.

Note: Total amount granted to PI. It does not include indirect costs.

Doctoral Theses

- Edilmar Auxiliadora Alvarado. Estadio Compensado y Descompensado de la cirrosis: Implicaciones pronósticas y factores relacionados con la progresión de la enfermedad. Universitat Autònoma de Barcelona. Director: Cándido Villanueva. Date of defense: 28/09/2018.
- Alba Santiago Bádenas. Study of the alterations in the intestinal and extra-intestinal microbiome in rats and humans throughout the progression of cirrhosis. Universitat Autònoma de Barcelona. Director: Germán Soriano Pastor. Date of defense: 03/10/2018.

Scientific Production

Total Impact Factor: 241.401 · Mean Impact Factor: 7.3152

Albeniz E., Pellise M., Gimeno-Garcia A.Z., Lucendo A.J., Alonso-Aguirre P.A., Herreros-de-Tejada A., Alvarez M.A., Fraile M., Herraiz-Bayod M., Lopez-Roses L., Martinez-Ares D., Ono A., Parra-Blanco A., et al., Clinical guidelines for endoscopic mucosal resection of non-pedunculated colorectal lesions Guía clínica para la resección mucosa endoscópica de lesiones colorrectales no pediculadas (2018) REV ESP ENFERM DIG, 110 (3), 179-194. **IF: 1.6320**

Albéniz E, Pellisé M, Gimeno García AZ, Lucendo AJ, Alonso Aguirre PA, Herreros de Tejada A, Álvarez MA, Fraile M, Herráiz Bayod M, López Rosés L, et al.; en nombre del Grupo Español de Resección Endoscópica de la Sociedad Española de Endoscopia Digestiva. Clinical guidelines for endoscopic mucosal resection of non-pedunculated colorectal lesions. Gastroenterol Hepatol. 2018 Mar;41(3):175-190. Epub 2018 Feb 12. PMID:29449039 doi: 10.1016/j.gastrohep.2017.08.013. **IF: 1.078**

Alvarado E, Garcia-Guix M, Mirabet S, Villanueva C.The relationship of hyperdynamic circulation and cardiodynamic states in cirrhosis. J Hepatol. 2018 Sep;69(3):746-747. Epub 2018 May 18. PMID: 29784565, DOI: 10.1016/j.jhep.2018.04.026. **IF: 14.9110**

Alvarado-Tapias E, Guarner-Argente C, Oblitas E, Sánchez E, Vidal S, Román E, Concepción M, Poca M, Gely C, Pavel O, Nieto JC, Juárez C, Guarner C, Soriano G. Toll-like receptor 4 polymorphisms and bacterial infections in patients with cirrhosis and ascites. World J Hepatol. 2018 Jan 27;10(1):124-133. PMID: 29399286. DOI: 10.4254/wjh.v10.i1.124. **IF: –**

Angeli P., Bernardi M., Villanueva C., Francoz C., Mookerjee R.P., Trebicka J., Krag A., Laleman W., Gines P., EASL Clinical Practice Guidelines for the management of patients with decompensated cirrhosis (2018) J HEPATOL, 69 (2), 406-460. **IF: 14.9110**

Angeli P, Bernardi M, Villanueva C, Francoz C, Mookerjee RP, Trebicka J, Krag A, Laleman W, Gines P. Erratum for EASL Clinical Practice Guidelines for the management of patients with decompensated cirrhosis. [J Hepatol. 2018] Corrigendum to "EASL Clinical Practice Guidelines for the management of patients with decompensated cirrhosis" [J Hepatol 69 (2018) 406-460]. European Association for the Study of the Liver European Association for the Study of the Liver.J Hepatol. 2018 Nov;69(5):1207. doi: 10.1016/j.jhep.2018.08.009. Epub 2018 Aug 29. PMID: 30172388 DOI: 10.1016/j.jhep.2018.08.009. **IF: 14.9110**

Ardevol A., Ibanez-Sanz G., Profitos J., Aracil C., Castellvi J.M., Alvarado E., Cachero A., Horta D., Minana J., Gomez-Pastrana B., Pavel O., Duenas E., Casas M., Planella M., Castellote J., Villanueva C., Survival of patients with cirrhosis and acute peptic ulcer bleeding compared with variceal bleeding using current first-line therapies (2018) HEPATOLOGY, 67 (4), 1458-1471. **IF: 14.0790**

Bermejo F, Aguas M, Chaparro M, Domènech E, Echarri A, García-Planella E, Guerra I, Gisbert JP, López-Sanromán A; en representación de GETECCU. Recommendations of the Spanish Working Group on Crohn's Disease and Ulcerative Colitis (GETECCU) on the use of thiopurines in inflammatory bowel disease. Gastroenterol Hepatol. 2018 Mar;41(3):205-221. Epub 2018 Jan 19. Review. PMID: 29357999 DOI: 10.1016/j.gastrohep.2018.05.029. **IF: 1.078**

Bollo J., Ferrara F., Pernas J.C., Rodriguez-Luppi C., Targarona E.M., Trias M., Imaging-Guided Preoperative Localization of Intra-Abdominal Local Recurrences of Colorectal Cancer Using the Harpoon Technique (2018) SCAND J SURG, 107 (2), 120-123. **IF: 1.9250**

Carballal S., Maisterra S., Lopez-Serrano A., Gimeno-Garcia A.Z., Vera M.I., Marin-Garbriel J.C., Diaz-Tasende J., Marquez L., alvarez M.A., Hernandez L., Castro L.D., Gordillo J., Puig I., Vega P., et al., Real-life chromoendoscopy for neoplasia detection and characterisation in long-standing IBD (2018) GUT, 67 (1), 70-78. **IF: 17.0160**

Chaparro M., Garre A., Ricart E., Iborra M., Mesonero F., Vera I., Riestra S., Garcia-Sanchez V., Luisa De Castro M., Martin-Cardona A., Aldeguer X., Minguez M., de-Acosta M.B., Rivero M., Munoz F., et al., Short and long-term effectiveness and safety of vedolizumab in inflammatory bowel disease: results from the ENEIDA registry (2018) ALIMENT PHARM THER, 48 (8), 839-851. **IF: 7.3570**

Domenech E., Panes J., Hinojosa J., Annese V., Magro F., Sturniolo G.C., Bossa F., Fernandez F., Gonzalez-Conde B., Garcia-Sanchez V., Dignass A., Herrera J.M., Cabriada J.L., Guardiola J., Vecchi M., et al., Addition of granulocyte/monocyte apheresis to oral prednisone for steroid-dependent ulcerative colitis: A Randomized multicentre clinical trial (2018) J CROHNS COLITIS, 12 (6), 687-694. **IF: 6.6370**

Garay M., Balague C., Rodriguez-Otero C., Gonzalo B., Domenech A., Pernas J.C., Gich I.J., Minambres I., Fernandez-Ananin S., Targarona E.M., Influence of antrum size on gastric emptying and weight-loss outcomes after laparoscopic sleeve gastrectomy (preliminary analysis of a randomized trial) (2018) SURG ENDOSC, 32 (6), 2739-2745. **IF: 3.1170**

Garcia-Planella E., Manosa M., Chaparro M., Beltran B., Barreiro-de-Acosta M., Gordillo J., Ricart E., Bermejo F., Garcia-Sanchez V., Piqueras M., Llao J., Gisbert J.P., Cabre E., Domenech E., Serial semi-quantitative measurement of fecal calprotectin in patients with ulcerative colitis in remission (2018) SCAND J GASTROENTERO, 53 (2), 152-157. **IF: 2.6290**

Gonzalez-Colominas E., Londono M.-C., Morillas R.M., Torras X., Mojal S., Lens S., Lopez D., Gallego A., Marino Z., Ardevol M., Pages N., Sola R., Carrion J.A., Potential drug–drug interactions of OMBITASVIR, PARITAPREVIR/ritonavir ± DASABUVIR ± ribavirin in clinical practice (2018) J GASTROEN HEPATOL, 33 (5), 1100-1107. **IF: 3.4830**

González-Suárez B, Rodriguez S, Ricart E, Ordás I, Rimola J, Díaz-González Á, Romero C, de Miguel CR, Jáuregui A, Araujo IK, Ramirez A, Gallego M, Fernández-Esparrach G, Ginés Á, Sendino O, Llach J, Panés J. Comparison of Capsule Endoscopy and Magnetic Resonance Enterography for the Assessment of Small Bowel Lesions in Crohn's Disease. Inflamm Bowel Dis. 2018 Mar 19;24(4):775-780. PMID: 29506048 DOI: 10.1093/ibd/izx107. **IF: 4.347**

Gordillo JM, Rodríguez-Rodríguez J. Comment on "Revision of Bubble Bursting: Universal Scaling Laws of Top Jet Drop Size and Speed". Phys Rev Lett. 2018 Dec 28;121(26):269401. doi: 10.1103/PhysRevLett.121.269401. PMID: 30636122. **IF: 8.839**

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Diffusion Activities

Organization of courses

- Carlos Guarner Aguilar, Sergio Sainz, Germán Soriano, Xavier Torras, Cándido Villanueva. 101 Curso de la Escuela de Patología Digestiva. Hospital de la Santa Creu i Sant Pau. Barcelona, 21-23 November 2018.
- Cristina Gómez, Carlos Guarner Argente. Programa de capacitación en sedación profunda de la Sociedad Española de Endoscopia Digestiva (SEED).
- Sergio Sainz, Cristina Gómez, Carlos Guarner Argente. LXV Curso de sedación profunda en endoscopia. Hospital de la Santa Creu i Sant Pau. Barcelona, 9-11 May 2018.

Symposiums and conferences in courses and congresses

- Master Atención Paliativa Integral a Personas con Enfermedades Avanzadas (Director: Dr. Antonio Pascual). Universitat Autònoma de Barcelona. Classes: "Endoscopia digestiva" and "Insuficiencia hepática".
- Máster en Investigación Clínica en Enfermedades Hepáticas. Hospital Clínic-Universitat de Barcelona. Class: "Encefalopatia hepática"
- Carlos Guarner Argente. Colangitis esclerosant primària i colangiocarcinoma. Simposi de programa GE Healthcare: Àcids biliars i Carcinogènesi. Congrés de la Societat Catalana de Digestologia, 25-27 January 2018.
- Conference in LXV Curso de sedación profunda en endoscopia, 9-11 May 2018:
  - Maria Poca. Farmacología y propiedades del propofol
  - Cristina Gómez. Resumen de la bibliografía sobre sedación. Guías de práctica clínica referentes a la sedación por no anestesistas
  - Mar Concepción. Complicaciones de la sedación
  - Carlos Guarner-Argente. Sedación en Geriatría
- Conference in 101 curso de la escuela de patología digestive. Barcelona, 21-23 November 2018:
  - Sergio Sainz. Los pólipos de colon, ¿hay que extraerlos todos?
  - Carlos Guarner-Argente. Manejo de la lesión quística incidental del páncreas
  - Cristina Gómez. Mejorando el tratamiento endoscópico de la litiasis coledocal
  - Jordi Gordillo. Adenomas en la enfermedad inflamatoria intestinal de colon
  - Adolfo Gallego. Hepatocarcinoma. Nuevos aspectos terapéuticos, actualización de guías terapéuticas
  - Maria Poca. La cirrosis más allá de la erradicación del virus de la hepatitis C. Cirrosis por alcohol

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- https://www.aegastro.es/publicaciones/noticias-y-otros-documentos-de-interes/101o-curso-de-la-escuela-de-patologia-digestiva-avances-en-patologia-digestiva
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AREA 2 · Genetic, Metabolic and Inflammatory Diseases

Microbiology and Infectious Diseases

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Main Lines of Research

Clinical microbiology

- Study of resistance mechanisms.
- Tuberculosis, epidemiology and antituberculosis resistance mechanisms.
- Molecular biology applications in infectious disease detection, taxonomy and epidemiology.
- Medical care projects.

Kidney transplantation

- Biomarkers for BKV in urine samples.
- T CD8+ immunity from CMV in renal transplant patients treated with Thymoglobulin.

Infectious pathologies

- Restricted-use policies for antibiotic and antimicrobial agents and suitable use of antimicrobial agents.
- Study of infections associated with foreign bodies (joint prostheses, catheters, cardiac prostheses and pacemakers).
- Study of infections due to multiresistant microorganisms or requiring isolation.
- Tuberculosis.

Scientific Challenges

Clinical microbiology

- Detection and characterization of Leishmanis from clinical samples.
- Study of molecular epidemiology (population and clonality studies in bacteria, mycobacteria, fungi and viruses).
- Molecular bases of bacterial resistance to antibiotics, vectors that convey resistance genes (plasmids, transposons, integrons, phages).
- The use of molecular techniques in diagnosis of infectious diseases.
- Research related to bacteraemia and endocarditis, nosocomial infections, prosthetic joint infections, central nervous system infections, and tuberculosis.

Tuberculosis, epidemiology and resistance mechanisms

- Prospective monitoring of primary and acquired Mycobacterium tuberculosis resistance to first-second-line drugs.
- Molecular detection of resistance using a molecular antibiogram.
- Study of the epidemiology and spread of resistant strains and assessment of the impact of immigration and the contribution of new Mycobacterium tuberculosis families (Beijing, EAI, CAS).

Molecular biology applications to infectious disease detection, taxonomy and epidemiology

- Study of the usefulness of the 16S RNA gene for microbiological diagnosis and molecular identification.
- Genotype characterization of Cryptosporidium spp. oocysts from stool samples collected by the HSCSP Microbiology Unit.

Medical care

- Government health department agreement (ongoing) regarding the development of epidemiological surveillance support functions for nosocomial infections and flaccid paralysis.
- Study of mycoses in depth, especially invasive fusariosis and aspergillosis and respiratory tract viral infections in patients with onco-haematological diseases.
- Multicentre studies of HIV (ongoing).
- Monitoring of congenital infection in prenant women with Chagas disease.

Kidney surgery

- Biomarkers for BKV in urine sample: Determination of a diagnostic and prognostic biomarker in urine by proteomics of nephropathy by BK virus in renal transplant receptors, sponsored by the Infectious Diseases Department, Vall d'Hebron University Hospital, Barcelona, Spain.
- Study of the kinetic of the immunity T CD8+ from CMV in renal transplants in treatment with Thymoglobulin. Financed by Grants from the Fundación, Proyecto y Salud de la Junta de Andalucía.
- Suspension of the prophylaxis treatment with valganciclovir in renal transplants CMV- seropositive that maintain the immunity T CD8+ CMV-specific after treatment with Thymoglobulin. Financed by ISCIII Grant Fis (PI15/00402).

Infectious pathologies

Restricted-use antibiotic and antimicrobial policies

- To minimize resistance, reduce cost and improve compliance with surgical prophylaxis (at the time of administration) through suitable use of antimicrobial agents.

Epidemic cutbreaks and infections caused by multiresistant microorganisms and microorganisms requiring isolation

- To study epidemiology for our hospital.
- To reduce incidence.
- To prevent/contain epidemic outbreaks and work with the Microbiology Unit in epidemiology and molecular studies.

Infections associated with foreign bodies (joint prostheses, catheters, cardiac prostheses, pacemakers)

- To reduce incidence.
- To develop effective conservative treatment regimes.

Infections in Transplant Patients (Heart, Haemopoietic Progenitors)

- To study current epidemiology.
- To assess the efficacy of prophylaxis and other preventive measures.

Tuberculosis

- To cooperate with studies of resistance and with new treatment regimes for tuberculosis.

Other projects

- To continue with the government health department agreement regarding the development of support functions as follows:
  - Epidemiological surveillance of nosocomial infections (VINCat).
  - Tuberculosis control: Barcelona-Dreta Tuberculosis Operations Committee (coordinator: Dr Sambeat).
  - New influenza control: Barcelona-Dreta Epidemiological Surveillance Operations Committee (coordinator: Dr López-Contreras).
  - Database for monitoring CMV infections after renal transplantation.
  - Database for monitoring BK virus infections after renal transplantation.
- Observational and multicentre case-controlled (1:2) study to compare the evolution of renal transplantation in patients with HIV infection (Dr Canal, Dr Facundo and Dr Serra), sponsored by the Andalusian Organ and Tissue Transplantation Society.
- A phase 3, multicenter, randomized, open-label, active-controlled study to assess the efficacy and safety of maribavir treatment compared to Investigator-assigned treatment in transplant recipients with cytomegalovirus (CMV) infections that are refractory or resistant to treatment with ganciclovir, valganciclovir, foscarnet, or cidofovir, sponsored by Shire.

Collaborations

External Collaborations

- Collaboration with Fundación Investigación Biomédica de Córdoba (CIBICO): Ensayo clínico de suspensión de la profilaxis con valganciclovir en trasplantados renales CMV-seropositivo que mantienen la inmunidad celular CD8+ CMV-especifica tras recibir timoglobulina. Financiación: Convocatoria de Ayudas Proyectos de Investigación de Salud del ISC III. FIS (PI15/00402).
- Montserrat Gállego Culleré Sección de Parasitologia, Dep. de Biologia, Sanitat i Medi Ambient, Facultat de Farmàcia. Universitat de Barcelona. Topic: Chagas and leishmaniasis.
- Alejandro Gabriel Schijman Laboratorio de Biología molecular de la enfermedad de Chagas (LabMECh). Instituto de Investigaciones en Ingeniería Genética y Biol.ogía Molecular (INGEBICONICET). Buenos Aires, Argentina. Topic: Chagas
- Renaud Piarroux Université Aix-Marseille, INSERM-IRD-AMU UMR 912, Marseille, France. Topic: Leishmaniasis. Characterization.
- Patrick Bastien, Laurence Lachaud. Département de Parasitologie-Mycologie, Centre National de Référence des Leishmanioses, Centre Hospitalier Universitaire de Montpellier, France. Topic: Leishmaniasis. Characterization.
- Francisco Bolás Fernández. Departamento de Parasitologia. Universidad Complutense de Madrid (UCM). Topic: Leishmaniasis.
- Marcia Dalastra Laurenti. Universidade de São Paulo (USP). Brasil. Topic: Tegumentary leishmaniasis.
- Mary Cruz Torrico de Solano. Parasitology laboratory –Medicin Faculty. Universidad Mayor de San Simón and Laboratorio de Investigación-Fundación CEADES de Cochabamba, Bolivia. Topic: Leishmaniasis in Bolivia.
- Dr. Kathryn Harris. Great Ormond Street Hospital (Camelia Botnar Laboratories). Londres, UK. Topic: Epidemiology of Mycobacterium abscessus complex using whole genome sequencing. Interhuman transmission?
- Aurora Garcia Fernández. Instituto Superiore di Sanità. Department of Infectiuos Diseases. Rome, Italy. Topic: Epidemiology of enteropathogenic bacteria.
- Alessandra Carattoli. Instituto Superiore di Sanità. Department of Infectiuos Diseases. Rome, Italy. Topic: Characterization of plasmids.
- Maite Muniesa. Departament de Genètica, Microbiologia i Estadística, Universitat de Barcelona. Topic: Presence of phages in clinical samples.
- Carlos Balsalobre and Cristina Madrid. Departament de Genètica, Microbiologia i Estadística, Universitat de Barcelona. Topic: Campilobacteriosis.
- Alex Friedrik and Silvia Garcia-Cobos. University Medical Center (UMCG) Groningen, The Nederlands. Topic: Whole genome sequence in carbapenemase-producing Enterobacteriaceae.

Active Grants

- Pedro Coll Figa. Conveni Departament de Salut - Dr. Coll (IR). Desenvolupar conjuntament funcions de vigilància epidemiològica de les infeccions nosocomials i la poliomielilis (Vigilància de les paralisis flaccides). Departament de Salut. Duration: 2011-2019. 104,670.49 €.
- Paula Andrea Espinal Marín. Contratos Sara Borrell 2015. CD15/00017. Instituto de Salud Carlos III. Duration: 2016-2019. 80,598 €.
- María Natividad de Benito Hernández. Optimización de la profilaxis quirúrgica antimicrobiana en los pacientes a los que se implanta una prótesis articular electiva en España. PI15/01026. Instituto de Salud Carlos III. Duration: 2016-2019. 59,000 €.
- Ferran Navarro Risueño. Presencia de bacteriofagos en muestras clínicas esteriles e interferencia de los mismos en el diagnóstico microbiológico de las infecciones. PI16/00158. Instituto de Salud Carlos III. Duration: 2017-2019. 66,000 €.
- María Natividad de Benito Hernández. Factors de risc i prevenció de les infeccions del peu diabètic: paper del control glicèmic i el micro-

bioma de l'úlcera. SLT002/16/00089. Departament de Salut. Duration: 2017-2019. 58,714.20 €.

- Paula Andrea Espinal Marín. Movilidad AES-Instituto Superiore di Sanita, Departament of Infectious Diseases, Rome, Italy. MV17/00046. Instituto de Salud Carlos III. Duration: 2018. 11,895 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Pedro Coll Figa. Grup de Recerca en Patologia Infecciosa i Microbiologia Clínica. 2017 SGR 01096. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- Joaquín López-Contreras González. Neutrophil Extracellular Traps in Sepsis: Discovering prognostic and diagnosis markers and therapy targets., MARATO 20182310, Fundació La Marató de TV3. Duration: 2019-2022. 125,500 €.

Note: Total amount granted to PI. It does not include indirect costs.

Doctoral Theses

- Alba Abras Feliu. Utilidad de diferentes técnicas serológicas y moleculares en el diagnóstico y seguimiento de la enfermedad de Chagas y en la caracterización de Trypanosoma cruzi. Departament de Biologia, Salut i Medi Ambient de la Facultat de Farmàcia i Ciències de la Alimentació. Universitat de Barcelona. Directors: Carme Muñoz, M. Gállego. Date of defense: 21/09/2018.
- Yaidelys Iglesias Torrens. Estructura poblacional y mecanismos de resistencia a antibióticos en Campylobacter jejuni aislados en humanos y aves. Departament de Genètica i Microbiologia. Universitat Autònoma de Barcelona. Directors: Elisenda Miró, Ferran Navarro. Date of defense: 22/06/2018.

Scientific Production

Total Impact Factor: 210.618 · Mean Impact Factor: 6.7941

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Clotet S., Matas L., Pomar V., Casademont J., Acute mediastinitis as a rare complication of an infectious mononucleosis Mediastinitis aguda como complicación atípica de una mononucleosis infecciosa (2018) ENFERM INFEC MICR CL, 36 (9), 601-602. **IF: 1.7070**

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Escola-Verge L., Rodriguez-Pardo D., Lora-Tamayo J., Morata L., Murillo O., Vilchez H., Sorli L., Carrion L.G., Barbero J.M., Palomino-Nicas J., Bahamonde A., Jover-Saenz A., Benito N., Escudero R., Sampedro M.F., Vidal R.P., Gomez L., Corona P.S., Almirante B., Ariza J., Pigrau C., Candida periprosthetic joint infection: A rare and difficult-to-treat infection (2018) J INFECTION, 77 (2), 151-157. **IF: 4.6030**

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Diffusion Activities

Courses, seminars, conferences, communications to congresses

- Z. Palacios Baena, M. Delgado-Valverde, A. Valiente Mendez, B. Almirante, S. Gómez-Zorrilla, N. Borrell, J. Corzo, M. Gurguí,C. De La Calle, L. Garcia Alvarez, G. Bou Arevalo,L. Martinez-Martinez, A. Shan, J. Molina,M. Causse Del Rio, A. Pascual Hernandez, J. Rodríguez-Baño. Development and validation of a scoring system for 30-day mortality in patients with bacteraemia due to Enterobacteriaceae: results from the BACTERIEMIA MIC cohort 28th European Congress of Clinical Microbiology and Infectious Diseases, Madrid.
- I. Mur M. Jordan, A. Rivera,V. Pomar, L. Velasco, A. Sanchez Morillo,J. López-Contreras, X. Crusi, P. Coll, M. Gurguí,N. Benito Functional outcome in patients with prosthetic joint infection (PJI): case-control study . 28th European Congress of Clinical Microbiology and Infectious Diseases, Madrid.
- M. Delgado-Valverde, A. Valiente Mendez, L. Serrano-Rocha, B. Almirante, S. Gómez- Zorrilla, N. Borrell, A. Aller, M. Gurguí, C. De La Calle, J. Azcona-Gutierrez, G. Bou Arevalo, L. Martinez- Martinez, R. Canton Moreno, J. Lepe, M. Causse Del Rio, A. Pascual Hernandez, J. Rodríguez-Baño Susceptibility to amoxicillin-clavulanate using 2 or 4mg/Lfixed concentrations of clavunate: concordance and clinical implications from the Bacteraemia-MIC cohort. 28th European Congress of Clinical Microbiology and Infectious Diseases, Madrid.
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- Rivera, A., A. Sanchez-Morillo, S. Luque, I. Mur, L. Martinez, L. Sorli, X. Crusi, P. Puig, J. Gonzalez, S. Rodriguez, A. Gonzalez, J. Horcajada, P. Coll and N. Benito (2018). Intraoperative bacterial contamination and activity of different antimicrobial prophylaxis regimens in knee and hip arthroplasty. 28th European Congress of Clinical Microbiology and Infectious Diseases, Madrid.
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- Benito, N., I. Mur, L. Srli, A. Gonzalez, A. Ruiz, J. Gonzalez, X. Crusi, S. Luque, A. Rivera, J. Horcajada, M. Moreno, A. Font and L. Puig (2018). Is there a risk of acute kidney injury (AKI) with gentamicin as a surgical antimicrobial prophylaxis (SAP) in orthopaedic patients? 28th European Congress of Clinical Microbiology and Infectious Diseases, Madrid.
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- Berengua, C., Y. González, P. Berenguer, J. Llabería, B. Mirelis, F. Navarro, F. Sánchez and P. Coll (2018). Análisis microbiológico de las muestras de orina obtenidas por sondas de un solo uso y sondas transitorias para el diagnóstico de la infección urinaria. XXII Congreso de la Sociedad Española de Enfermedades Infecciosas y Microbiología Clínica (SEIMC), Bilbao.
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- Vilchez Rueda HH, Campins Rossello A, Cobo Reinoso J, Escudero Sánchez R, Fernández-Sampedro M, Murillo O, Laporte Amargos J, Pfang BG, Auñon Rubio A, Esteban-Moreno J, Dolors Rodríguez-Pardo, Carles Pigrau, Pablo Corona, Afredo Jóver-Sainz7, Maria Dolores del Toro, Alicia Rico, Lluís Falgueras, Oriol Gasch, Julia Praena, Lola Navarro, Laura Guio, José Antonio Iribarren Loyarte, Miguel Angel Goenaga Sanchez, Jaime Lora-Tamayo, Benito N, Alex Soriano16, Laura Morata, Riera M. Prosthetic shoulder joint infection by Propionibacterium acnes. 28th ECCMID. Madrid, Spain, April 21-24, 2018: O0691.
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- Benito, N. Tratamiento antibiótico empírico de las infecciones nosocomiales más frecuentes. Organiza: Hospital del Mar. Curso Intensivo de Antibioticoterapia Dr. L. Drobnic. Edición nº 47. Barcelona, 29 January-2 February 2018.
- Benito, N. "Etiologia i resistències antimicrobianes a les infeccions per pròtesis articulars". Societat Catalana de Malalties Infeccioses i Microbiologia Clinica. Barcelona, 15 March 2018.
- Benito, N. "Infección de prótesis articular: un problema creciente en personas mayores". XVI curso de actualización en enfermedades infecciosas: "El envejecimiento y las enfermedades infecciosas". Hospital Universitario Fundación de Alcorcón. Madrid, 10-11 April 2018.
- Benito, N. "Avances recientes en el diagnóstico de las infecciones de prótesis articulares". XXII Congreso de la SEIMC. Bilbao, 24-26 May 2018. Co-director of "Barcelona Bone Infection Meeting". Organized by Aula Clínic. Barcelona, 21-22 June 2018.
- Benito, N. "Infecciones de implantes ortopédicos por bacilos gram-negativos multirresistentes, ¿podemos prevenirlas?" Barcelona Bone Infection Meeting. Organized by Aula Clínic. Barcelona, 21-22 June 2018.
- Benito, N. "Aproximación al diagnóstico de laboratorio en la infección protésica tardía. Papel de la α-defensina y de la esterasa leucocitaria en líquido articular". II Reunión multidisciplinar en infecciones sobre prótesis articulares. Hospital Universitario Ramón y Cajal. Madrid, 18 October 2018.
- Benito, N. "Avenços en patologia infecciosa: Infeccions osteoarticulars". XXVI Jornadas de la Societat Catalana de Malalties Infeccioses i Microbiologia Clinica (SCMIMC). Girona, 19-20 October 2018
- Benito, N. XI Curso de infección relacionada con la asistencia sanitaria. Grupo de Estudio de la Infección relacionada con la Atención Sanitaria (GEIRAS) y Sociedad Española de Enfermedades Infecciosas y Microbiología Clínica. Seva, Barcelona, 26-28 de Octubre de 2018. Classes/workshops:
  - Conceptos básicos de epidemiología y estadística aplicada
  - Coordination of the practical workshop: Vigilancia y control de la infección asociada a catéteres vasculares
  - Coordination of the practical workshop: Medidas de precaución de la transmisión de microorganismos multirresistentes. Colocación equipos de protección
- Benito, N. Actualitzacions en el diagnòstic i l'epidemiologia de les malalties infeccioses. Centre de Recerca en Patologia Infecciosa i Microbiologia Clínica (CRePIMC). Institut de Recerca, Hospital de la Santa Creu i Sant Pau. "Avanços recents en el diagnòstic de les infeccions de pròtesis articulars." Barcelona, 12 December 2018.
- Benito, N. Curso de Experto Universitario AMS-PROA excelencia: desde la práctica clínica hasta la certificación del hospital. Convocatoria 2017-2018. UNED. Coautor : PROA y diagnóstico microbiológico", correspondiente al Módulo II (Certificación con nivel excelente del PROA del hospital).

AREA 2 · Genetic, Metabolic and Inflammatory Diseases

Multi-organ Damage

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Matas Pericas, Laia (FGS)
Millán Arciniegas, Ana Milena (IR)
Moya Alvarado, Patricia (FGS)
Ponte Márquez, Paola Helena (IR)
Rodríguez Díez, Basilio (IR)
Torres Bonafonte, Olga Herminia (FGS)

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).
- Analysis of the influence of an intervention (physical exercise) on changes in the muscle compartment of patients with cirrhosis measured by DXA and HRQCT (in collaboration with the Gastroenterology Department).
- 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.
- Potentially inappropriate prescribing to older patients admitted to hospital.
- Central sensitization syndromes.

Rheumatology and rheumatoid arthritis

- Immunomodulation due to anti-CD20 (rituximab) treatment and study of polymorphisms.
- Evaluation of the clinical and ultrasonographic criteria of remission in 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.
- Validation of the effect of bariticinib in patients with moderately to severe active rheumatoid arthritis who have had an inadequate response to methotrexate or antiTNF therapy.
- Role of tofacitinib in patients with moderate to severely active rheumatoid arthritis with inadequate response to biologic DMARD.
- JAK-STAT pathway in autoimmune processes, mainly focused in rheumatoid arthritis.

Systemic sclerosis

- Capillaroscopy patterns and correlation with auto-antibodies and pulmonary function tests.
- Evidence-based detection of pulmonary arterial hypertension in systemic sclerosis: the DETECT study.
- Use of endothelin receptor antagonism to prevent pulmonary arterial hypertension (in collaboration with Vall d'Hebron University Hospital, Barcelona, Spain).
- Genetic studies in systemic sclerosis and collaboration with DUO Registry and LAUDES study.
- Study of capillaroscopy patterns in diffuse connective tissue diseases: QuantiCAP study.

Gout

- Epidemiology of hyperuricaemia and gout.
- Association of Parkinson and clinical gout and arthritis.

Sjögren Syndrome, SLE and others

- Role of Association of Platelet Binding to Lymphocytes with B Cell Abnormalities and Clinical Manifestations in Systemic Lupus Erythematosus.
- Clinical and epidemiological findings in Spanish patients with primary Sjögren syndrome (in collaboration with Spanish Society of Rheumatology).
- Evaluation of the effect of Apremilast in the Healing process of Mucocutaneous Lesions in Behçet Disease.
- Study of the patern of intersticial lung disease in primary Sjögren´s syndrome
- Musculoskeletal involvement and ultrasonography update in systemic lupus erythematosus: New insights and review. ESSDAI activity index of the SJÖGRENSER cohort: analysis and comparison with other European cohorts.
- SER recommendations on the use of biological drugs in primary Sjögren's syndrome.
- Studies of Adult-Onset Autoinflammatory Syndromes.

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.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Digestive Diseases (Dr Germán Soriano), Study by densitometry and ergospirometry of the effects of an exercise programme in overweight patients with liver cirrhosis.
- Orthopaedic Surgery and Traumatology Service (Dr José Carlos González Rodríguez), Randomized, double-blind, placebo-controlled clinical trial of parallel groups assessing the efficacy of subcutaneous denosumab for periprosthetic resorption decrease in patients with total knee prosthesis, IIBSP-DEN-2012-24, Eudra No: 2012-001285-15.
- Cardiovascular Risk Group (Dr. Laiz Matas). Longitudinal epidemiological study for the assessment of arterial stiffness in patients with renal insufficiency and treatment with vitamin D3 and vitamin D analogues, IIBSP- VIT-2013-138.

External Collaborations

- Dr. Luis del Rio, Standardized measures of different tissues using dual-energy X-ray absorptiometry, CETIR Medical Group, Barcelona, Spain.
- Internal Medicine Pneumonia Study (ENEMI), coordinated by the Hospital General Universitario Gregorio Marañón, Madrid, Spain.
- Collaboration with Vall d'Hebron Hospital: FIS 2018 (Expediente Nº PI17/00019). Biomarcadores de actividad en la artritis reumatoide. Estudio transversal y prospectivo basado en la immunosecuenciación de anticuerpos y receptores TCR. Co-investigator: Héctor Corominas.

Active Grants

- Jordi Casademont Pou. Estudio GAO: de los fenotipos intermediarios al análisis global del genoma. PI14/01036. Instituto de Salud Carlos III. Duration: 2015-2018. 76,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Olga Herminia Torres Bonafonte. Identificación de un inmunofenotipo de riesgo de mal pronóstico en ancianos que han sido ingresados por neumonía. PI18/00684. Instituto de Salud Carlos III. Duration: 2019-2021. 66,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 107.332 · Mean Impact Factor: 3.8333

Antón Vázquez V, Corominas H, García Muñoz N, Hebe Petiti G. [Cutaneous lymphoma associated with methotrexate in a patient with rheumatoid arthritis]. FARM HOSP. 2018 Jan 1;42(1):35-36. doi: 10.7399/fh.10898. Spanish. **IF: –**

Badlissi F, Pihan GA, Corominas H. Rosai-Dorfman disease: Ultrasonography and histopathology study of a soft tissue mass in the forearm. REUMATOL CLIN. 2018 Mar 29. pii: S1699-258X(18)30054-8. doi: 10.1016/j.reuma.2018.02.013. **IF: –**

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Cebolla A., Galiana L., Campos D., Oliver A., Soler J., Demarzo M., Banos R.M., Feliu-Soler A., Garcia-Campayo J., How Does Mindfulness Work? Exploring a Theoretical Model Using Samples of Meditators and Non-meditators (2018) MINDFULNESS, 9 (3), 860-870. **IF: 3.0240**

Clotet S., Matas L., Pomar V., Casademont J., Acute mediastinitis as a rare complication of an infectious mononucleosis Mediastinitis aguda como complicación atípica de una mononucleosis infecciosa (2018) ENFERM INFEC MICR CL, 36 (9), 601-602. **IF: 1.7070**

Contreras Muruaga M.M., Reig G., Vivancos J., Gonzalez A., Cardona P., Ramirez-Moreno J.M., Marti-Fabregas J., Suarez Fernandez C., Pose A., Diaz J.A., Rodriguez M., Pena M., Arias S., Larrosa D., Gonzalez A., et al., Factors associated with poor anticoagulation control with vitamin K antagonists among outpatients attended in Internal Medicine and Neurology. The ALADIN study Factores asociados al mal control de la anticoagulación con antivitamina K en pacientes con fibrilación auricular no valvular atendidos en consultas de Medicina Interna y Neurología. Estudio ALADIN (2018) REV CLIN ESP, 218 (7), 327-335. **IF: 1.1840**

Corominas H, Espadaler L, Gómez A, Ros I, Urruticoechea A, Sarmiento M, Sanmartí R. Assessing Treatment Tolerability for Rheumatoid Arthritis. Validation and Practical Applications of the 'TOL-AR-18 Questionnaire'. REUMATOL CLIN. 2018 Sep 5. pii: S1699-258X(18)30123-2. doi: 10.1016/j.reuma.2018.06.005. **IF: –**

Corominas H, Badlissi F, Shmerling RH. Crystal-induced oligoarthritis triggered by pembrolizumab, an immune checkpoint inhibitor. Joint Bone Spine. 2018 Oct;85(5):647-648. doi: 10.1016/j.jbspin.2018.01.009. **IF: 2.946**

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Feliu-Soler A., Cebolla A., McCracken L.M., D'Amico F., Knapp M., Lopez-Montoyo A., Garcia-Campayo J., Soler J., Banos R.M., Perez-Aranda A., Andres-Rodriguez L., Rubio-Valera M., Luciano J.V., Economic Impact of Third-Wave Cognitive Behavioral Therapies: A Systematic Review and Quality Assessment of Economic Evaluations in Randomized Controlled Trials (2018) BEHAV THER, 49 (1), 124-147. **IF: 3.2280**

Gorlova O.Y., Li Y., Gorlov I., Ying J., Chen W.V., Assassi S., Reveille J.D., Arnett F.C., Zhou X., Bossini-Castillo L., Lopez-Isac E., Acosta-Herrera M., Gregersen P.K., Lee A.T., Steen V.D., Fessler B.J., Khanna D., et al., Gene-level association analysis of systemic sclerosis: A comparison of African-Americans and White populations (2018) PLOS ONE, 13 (1). **IF: 2.7660**

Kendler D.L., Marin F., Zerbini C.A.F., Russo L.A., Greenspan S.L., Zikan V., Bagur A., Malouf-Sierra J., Lakatos P., Fahrleitner-Pammer A., Lespessailles E., Minisola S., Body J.J., Geusens P., Moricke R., Lopez-Romero P., Effects of teriparatide and risedronate on new fractures in post-menopausal women with severe osteoporosis (VERO): a multicentre, double-blind, double-dummy, randomised controlled trial (2018) LANCET, 391 (10117), 230-240. **IF: 53.2540**

Márquez A, Kerick M, Zhernakova A, Gutierrez-Achury J, Chen WM, Onengut-Gumuscu S, González-Álvaro I, Rodriguez-Rodriguez L, Rios-Fernández R, González-Gay MA; Coeliac Disease Immunochip Consortium; Rheumatoid Arthritis Consortium International for Immunochip (RACI); International Scleroderma Group; Type 1 Diabetes Genetics Consortium, Mayes MD, Raychaudhuri S, Rich SS, Wijmenga C, Martín J. Meta-analysis of Immunochip data of four autoimmune diseases reveals novel single-disease and cross-phenotype associations. GENOME MED. 2018 Dec 20;10(1):97. doi: 10.1186/s13073-018-0604-8. **IF: 5.846**

Mendez-Ulrich J.L., Sanz A., Feliu-Soler A., Alvarez M., Borras X., Could White Coat Ocular Hypertension Affect to the Accuracy of the Diagnosis of Glaucoma? Relationships Between Anxiety and Intraocular Pressure in a Simulated Clinical Setting (2018) APPL PSYCHOPHYS BIOF, 43 (1), 49-56. **IF: 1.3470**

Moya Alvarado P., Roe Crespo E., Munoz-Garza F.Z., Lopez-Ferrer A., Laiz Alonso A., Vilarrassa Rull E., Casademont i Pou J., Puig Sanz L., Subclinical enthesopathy of extensor digitorum tendon is highly prevalent and associated with clinical and ultrasound alterations of the adjacent fingernails in patients with psoriatic disease (2018) J EUR ACAD DERMATOL, 32 (10), 1728-1736. **IF: 4.2870**

Narváez J, Borrell H, Sánchez-Alonso F, Rúa-Figueroa I, López-Longo FJ, Galindo-Izquierdo M, Calvo-Alén J, Fernández-Nebro A, Olivé A, Andreu JL, Martínez-Taboada V, Nolla JM, Pego-Reigosa JM; RELESSER Study Group. Primary respiratory disease in patients with systemic lupus erythematosus: data from the Spanish rheumatology society lupus registry (RELESSER) cohort. ARTHRITIS RES THER. 2018 Dec 19;20(1):280. doi: 10.1186/s13075-018-1776-8. **IF: 3.979**

Navarro-Valverde C., Caballero-Villarraso J., Mata-Granados J.M., Casado-Diaz A., Sosa-Henriquez M., Malouf-Sierra J., Nogues-Solan X., Rodriguez-Manas L., Cortes-Gil X., Delgadillo-Duarte J., Quesada-Gomez J.M., High Serum Retinol as a Relevant Contributor to Low Bone Mineral Density in Postmenopausal Osteoporotic Women (2018) CALCIFIED TISSUE INT, 102 (6), 651-656. **IF: 3.2930**

Perez Ruiz F, Sanchez-Piedra CA, Sanchez-Costa JT, Andrés M, Diaz-Torne C, Jimenez-Palop M, De Miguel E, Moragues C, Sivera F. Improvement in Diagnosis and Treat-to-Target Management of Hyperuricemia in Gout: Results from the GEMA-2 Transversal Study on Practice. RHEUMATOL THER. 2018 Jun;5(1):243-253. doi: 10.1007/s40744-017-0091-1. **IF: –**

Reina D, Corominas H. Visceral Leishmaniasis in the Mediterranean area. EUR J RHEUMATOL. 2018 Mar;5(1):79-80. doi: 10.5152/eurjrheum.2017.17104. **IF: –**

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Soriano J.B., Rojas-Rueda D., Alonso J., Anto J.M., Cardona P.-J., Fernandez E., Garcia-Basteiro A.L., Benavides F.G., Glenn S.D., Krish V., Lazarus J.V., Martinez-Raga J., Masana M.F., Nieuwenhuijsen M.J., Ortiz A., et al., The burden of disease in Spain: Results from the Global Burden of Disease 2016 La carga de enfermedad en España: resultados del Estudio de la Carga Global de las Enfermedades 2016 (2018) MED CLIN-BARCELONA, 151 (5), 171-190. **IF: 1.1680**

Tornero Molina J, Balsa Criado A, Blanco García F, Blanco Alonso R, Bustabad S, Calvo Alen J, Corominas H, Fernández Nebro A, Román Ivorra JA, Sanmartí R. Expert Recommendations on the Interleukin 6 Blockade in Patients with Rheumatoid Arthritis. REUMATOL CLIN. 2018 Aug 8. pii: S1699-258X(18)30136-0. doi: 10.1016/j.reuma.2018.07.004. **IF: –**

Torrente-Segarra V, Monte TCS, Corominas H. Musculoskeletal involvement and ultrasonography update in systemic lupus erythematosus: New insights and review. EUR J RHEUMATOL. 2018 Jul;5(2):127-130. doi: 10.5152/eurjrheum.2017.17198. Review. **IF: –**

Trujols J., de Diego-Adelino J., Feliu-Soler A., Iraurgi I., Puigdemont D., Alvarez E., Perez V., Portella M.J., Looking into the effect of multi-item symptom domains on psychometric characteristics of the Quick Inventory of Depressive Symptomatology-Self Report (QIDS-SR 16) (2018) PSYCHIAT RES, 267, 126-130. **IF: 2.2230**

Other Publications

- Casademont J. Fisiopatología y semiología clínica. ¿Dónde estamos y hacia dónde deberíamos dirigirnos? Educ Med. 2018;19(1):48-50.

Diffusion Activities

- Reviewer of the following clinical journals: Reumatología Clínica, Clinical Rheumatology, Journal of Clinical Rheumatology, European Journal of Rheumatology, Medicina Clinica, Annals of the Rheumatic Disesase, Clinical Therapeutics (Hector Corominas)
- Associate editor of the European Journal of Rheumatology (Hector Corominas)
- Héctor Corominas. Co-Director of the course "Musculoskeletal Ultrasound Introduction Course for fellows and faculty. August 10-11, 2017. Rheumatology Division. Beth Israel Deaconess Medical Center, Harvard Medical School. Boston.

AREA 2 · Genetic, Metabolic and Inflammatory Diseases

Chronic Respiratory Diseases

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Castillo Villegas, Diego (FGS)
Cisneros Anto, Josep Lluís (FGS)
Crespo Lessmann, Astrid del Carmen (FGS)
Curto Sánchez, Elena (IR)
Feliu Ropero, Anna (IR)
Fortuna Gutiérrez, Ana María (FGS)
García Moral, Alba (FGS)
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Giner Donaire, Jordi (FGS)
Granel Tena, Carme (FGS)
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Mateus Medina, Eder Fredy (IR)
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Morante Vélez, Fátima (FGS)
Osuna Gómez, Rubén (IR)
Pajares Ruiz, Virginia (FGS)
Paz del Río, Luis Daniel (FGS)
Peiró Fàbregas, Meritxell (FGS)
Peñacoba Toribio, Patricia (IR)
Perea Soriano, Lidia (IR)
Puy Rion, Maria Carme (FGS)
Ramos Barbón, David (FGS)
Rodrigo Troyano, Ana María (IR)
Segura Medina, Macarena (FGS)
Sibila Vidal, Oriol (FGS)
Solanes Garcia, Íngrid (FGS)
Soto Retes, Lorena Concepción (FGS)
Torrego Fernández, Alfonso (FGS)
Torrejón Lázaro, Montserrat (FGS)

Main Lines of Research

Asthma

- Asthma exacerbations.
- Severe asthma.
- Good clinical practice guidelines for asthma.
- Bronchial inflammation.
- Experimental asthma and pathogenic mechanisms.
- Multicentre biobank specializing in bronchial biopsies for research into asthma.
- Bronchial thermoplasty.
- Clinical trials.

COPD and Respiratory Failure

- Non-invasive mechanical ventilation.
- Respiratory rehabilitation.
- Pathophysiology.
- Exacerbation.

Obstructive Sleep Apnoea (OSA)

- Physiology and clinical, diagnostic and treatment consequences of sleep disorders.
- Obesity-hypoventilation syndrome.
- Analysis of airway inflammation in patients with OSA.

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.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Ear, Nose and Throat Cancers (collaboration of Dr. V. Plaza in the EPONA study).
- Genetics and Vascular Surgery Departments (collaboration of Dr. V. Plaza in the TAGA study).

External Collaborations

- Dr. V. Plaza, Emergent Asthma Group, SEPAR.
- Dr. V. Plaza, INASMA Group.
- Drs. V. Plaza and D. Ramos Barbón, Integrated Research Programme (PII) for Asthma, SEPAR.
- Drs. V. Plaza and D. Ramos Barbón, group associated with CIBER-Respiratory.
- Drs. V. Plaza and D. Ramos Barbón, Severe Heterogenous Asthma Research collaboration, Patient-centered (SHARP) of the European Respiratory Society
- Dr. D. Castillo Villegas, National Institute for Rare Diseases, Insituto de Salud Carlos III, Madrid, Spain.
- Dr. D. Castillo Villegas, International Working Group on Langerhans Cell Histiocytosis and EUROHISTIONET.

- Dr. D. Ramos Barbón (PI), Multicentre Biobank of Bronchial Biopsies for Asthma Research, with collaborators as follows:
  - Dr. Carlos Martínez Rivera from Hospital Universitari Germans Trias i Pujol, Badalona, Spain.
  - Dr. Antolín López Viña from Hospital Universitario Puerta de Hierro, Madrid, Spain.
  - Dr. Francisco Javier González Barcala from Complejo Hospitalario de Pontevedra, Spain.
  - Dr. Teresa Bazús González from Hospital Universitario Central de Asturias, Oviedo, Spain.
  - Dr. Luis Pérez de Llano from Hospital Lucus Augusti, Lugo, Spain (pending approval).
  - Dr. Patrick Berger from Université Bordeaux 2, Bordeaux, France.
  - Dr. James G Martin from McGill University, Montreal, Canada.

Active Grants

- Mercedes Mayos Pérez. Proyecto PASHOS: Plataforma Avanzada para el estudio del Síndrome de Apnea Hipopnea del Sueño (SAHS): Estudio de validación de un modelo de criba del SAHS en Atención Primaria. PI14/01985. Instituto de Salud Carlos III. Duration: 2015-2018. 19,400 €.
- David Ramos Barbón. Mecanismos patogénicos versus terapéuticos de las células madre mesenquimales sobre la remodelación bronquial en asma: prueba de concepto para subsiguiente desarrollo farmacéutico. PI14/00257. Instituto de Salud Carlos III. Duration: 2015-2019. 121,500 €.
- Oriol Sibila Vidal. El microbioma respiratorio en la EPOC; relación con la respuesta inmune pulmonar y sistémica. PI15/02042. Instituto de Salud Carlos III. Duration: 2016-2019. 72,000 €.
- Alfonso Torrego Fernández. Estudi dels mecanismes fisiopatològics i resultats de l'aplicació de termoplàstia bronquial en asma greu. BECA VIFOR - FUCAP 2015. Fundació Catalana de Pneumologia. Duration: 2015-2018. 10,363.65 €.
- Oriol Sibila Vidal. Respiratory Microbiome and COPD exacerbations. Ramon Pla Armengol 2015. Fundació Ramon Pla Armengol. Duration: 2015-2019. 63,636.36 €.
- David Ramos Barbón. Desarrollo clínico y validación de biomarcadores de un nuevo tratamiento oral para el asma a través de un ensayo de fase II. RTC-2016-4698-1. Ministerio de Economía y Competitividad. Duration: 2016-2019. 178,150 €.
- Oriol Sibila Vidal. Impacto del tabaquismo sobre los mecanismos de defensa pulmonar y la infección bronquial en pacientes con EPOC y agudizaciones frecuentes. FUCAP 2015 (LA CAIXA). Fundació Catalana de Pneumologia. Duration: 2015-2018. 13,300 €.
- Vicente Plaza Moral. Asma Neutrofílica y/o No Eosinofílica. Proyecto ANNE. PI17/01950. Instituto de Salud Carlos III. Duration: 2018-2020. 87,000 €.
- Ana María Rodrigo Troyano. El microbioma respiratorio en la EPOC; relación con la respuesta inmune pulmonar y sistémica. BECA BECARI SOCAP 2017. Societat Catalana de Pneumologia. Duration: 2017-2018. 14,400 €.
- Astrid del Carmen Crespo Lessmann. Validación de la medición de la IgE total e IgE específica en el esputo inducido de pacientes con asma alérgica y no alérgica. BECA LETI 2016. Fundació Catalana de Pneumologia. Duration: 2016-2019. 10,909.08 €.
- Lorena Concepción Soto Retes. Papel del sistema nervioso autónomo en el asma no controlada y en el fenotipo paucigranulocítico. SEPAR 2016. Fundació RESPIRA. Duration: 2018-2019. 23,750 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Oriol Sibila Vidal. ¿Infecció bronquial en les malalties respiratòries cròniques; estudi del microbioma pulmonar, de la resposta immune associada i de la utilitat d¿un nas electrònic pel seu diagnòstic?, SLT006/17/00120, Departament de Salut. Duration: 2018-2019. 76,759.89 €.
- Jordi Giner Donaire. Utilitat del nas electrònic en l'estudi del Microbioma Respiratori en la malaltia pulmonar obstructiva crònica, relació amb la resposta immune pulmonar i sistèmica. SLT006/17/00162. Departament de Salut. Duration: 2018. 14,400 €.
- Meritxell Peiró Fàbregas. Impacte del tabaquisme en el pacient amb Malaltia Pulmonar Obstructiva Crònica (MPOC) reingressador. SLT006/17/00165. Departament de Salut. Duration: 2018. 9,600 €.
- Oriol Sibila Vidal. El proyecto PRINCE; Predictores Inmunológicos de Infección Bronquial en Enfermedades Respiratorias Crónicas. PI18/00311. Instituto de Salud Carlos III. Duration: 2019-2021. 97,000 €.
- David Ramos Barbón. Cercamiento de subproductos de células madre mesenquimales mediadores de anti-remodelación de músculo liso bronquial y prueba farmacológica preclínica en asma experimental., PI18/01102, Instituto de Salud Carlos III. Duration: 2019-2021. 122,000 €.
- Astrid del Carmen Crespo Lessmann, Asma Neutrofílica No Eosinofilica (ANNE)., ASTRAZENECA 2018, Fundació AstraZeneca. Duration: 2018-2019. 18,181.82 €.
- Vicente Plaza Moral, Asma neutrofílica y/o no eosinofílica (Proyecto ANNE). SEPAR 2017. Sociedad Española de Pneumología y Cirugía Torácica. Duration: 2018-2020, 10,363.64 €.
- Ana María Rodrigo Troyano, El microbioma respiratorio en la EPOC; relación con la respuesta inmune pulmonar y sistémica. BECARIO SEPAR 2017. Sociedad Española de Pneumología y Cirugía Torácica. Duration: 2018-2019, 17,100 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Cristina Ujaldón Miró, Eder Fredy Mateus Medina, Rubén Osuna Gómez, Ingrid Solanes García, Laura Sebastián Victoria, Vicente Plaza Moral, David Ramos Barbón. El microambiente pulmonar de los pacientes con EPOC modifica la función de los neutrófilos. Communication. 51º Congreso de la Sociedad Española de Neumología y Cirugía Torácica (SEPAR), Palma de Mallorca, June 2018. Premio SEPAR-AstraZeneca ("SEPAR Oro") EPOC 2018.
- Eder F. Mateus Medina, Rubén Osuna Gómez, Cristina Ujaldón Miró, Astrid Crespo Lesman, Alba García Moral, Elena Curto Sánchez, Lorena Soto Retes, Vicente Plaza Moral, David Ramos Barbón. Identification of a distinct eosinophil subpopulation in induced sputum from atopic asthmatics 28th International Congress of the European Respiratory Society. Paris, France, 15-19 September 2018. ERS (European Respiratory Society) Grant for Best Abstract in Airway Diseases. Sponsored by GSK.
- Ástrid Crespo Lessmann. Extraordinary Doctorate Award granted by the Universitat Autònoma de Barcelona (best doctoral thesis-Medicine course 2015/2016).16 February 2018.
- Ástrid Crespo Lessmann. Asma neutrofílica no eosinofílica Premio Astrazeneca, "IV convocatoria de Jóvenes investigadores en el área de Asma y EPOC". 20,000 €.

Scientific Production

Total Impact Factor: 176.7040 · Mean Impact Factor: 5.1972

Almendros I., Martinez-Garcia M., Campos-Rodriguez F., Riveiro-Falkenbach E., Rodriguez-Peralto J.L., Nagore E., Martorell-Calatayud A., Blasco L.H., Roca J.B., Vives E.C., Sanchez-de-la-Torre A., Abad-Capa J., et al., Intermittent hypoxia is associated with high hypoxia inducible factor-1α but not high vascular endothelial growth factor cell expression in tumors of cutaneous melanoma patients (2018) FRONT NEUROL, 9 (APR). **IF: 3.5080**

Barril S., Alonso A., Rodriguez-Portal J.A., Viladot M., Giner J., Aparicio F., Romero-Ortiz A., Acosta O., Castillo D., Palliative Care in Diffuse Interstitial Lund Disease: Results of a Spanish Survey Cuidados paliativos en la enfermedad pulmonar intersticial difusa: resultados de una encuesta de ámbito nacional (2018) ARCH BRONCONEUMOL, 54 (3), 123-127. **IF: 2.6330**

Barril S., Alonso A., Rodriguez-Portal J.A., Viladot M., Giner J., Aparicio F., Romero-Ortiz A., Acosta O., Castillo D., Palliative Care in Diffuse Interstitial Lund Disease: Results of a Spanish Survey Cuidados paliativos en la enfermedad pulmonar intersticial difusa: resultados de una encuesta de ámbito nacional (2018) ARCH BRONCONEUMOL, 54 (3), 123-127. **IF: 2.6330**

Boaventura R., Sibila O., Agusti A., Chalmers J.D., Treatable traits in bronchiectasis (2018) EUR RESPIR J, 52 (3). **IF: 12.2420**

Canto E., Roca E., Perea L., Rodrigo-Troyano A., Suarez-Cuartin G., Giner J., Feliu A., Soria J.M., Nescolarde L., Vidal S., Sibila O., Salivary immunity and lower respiratory tract infections in non-elite marathon runners (2018) PLOS ONE, 13 (11), e0206059-. **IF: 2.7660**

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Diffusion Activities

Conferences and courses

- Vicente Plaza Moral. "Fenotipos y biomarcadores del asma. La selección del paciente". Congreso ADEN STRONG. México, CDMX, January 2108.
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- Vicente Plaza Moral. Organization of Congreso Asma Meeting Point-2018. Hospital de La Paz, Madrid. May 2018.
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- David Ramos Barbón. Invited lecture. Lo último sobre eosinófilos en el asma. Academia del Eosinófilo (AstraZeneca). 1ª Reunión Nacional, Madrid. 29 September 2018.
- David Ramos Barbón. Invited lecture. Airway Inflammation and Remodelling. Barcelona Respiratory Network (BRN) Seminars. Stem Cells and Cell Therapies in Lung Biology and Diseases. Parc Sanitari Pere Virgili, Barcelona. 27 September 2018.
- David Ramos Barbón. Invited lecture. Nuevas dianas y tratamientos futuros con monoclonales. Reunión de Áreas de la Sociedad Española de Neumología y Cirugía Torácica (SEPAR), Salamanca. 2 February 2018.
- David Ramos Barbón. Organization of the course Utilidad de biomarcadores en asma. Curso pre-congreso Área Asma. 51º Congreso de la Sociedad Española de Neumología y Cirugía Torácica (SEPAR). Palma de Mallorca, 31 May 2018.
- David Ramos Barbón. Lo último sobre el eosinófilo. Internal training of personnel of the Medical Department of AstraZeneca-Spain. Sede de AstraZeneca, Madrid. Curso, 14/11/2018.

- David Ramos Barbón. Session 1. Mecanismos de respuesta inflamatoria relacionados con la EPOC. Células, mecanismos inmunológicos y mediadores de respuesta celular implicados en el desarrollo y progresión de la enfermedad. Session 2. Vías inmunológicas en la patogenia de la EPOC. Diferencias entre respuesta inflamatoria aguda y crónica en la mucosa bronqial de la EPOC. Official Master's Degree. Experto course in COPD. Universidad de Granada. 5 October 2018.
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- David Ramos Barbón. Models animals de malaltia de via aèria. Curs Societat Catalana de Pneumologia (SOCAP), Col·legi Oficial de Metges de Barcelona, Barcelona. 13 March2018.
- David Ramos Barbón. Guided visit to the basic science laboratory of the Unitat de Pneumologia Experimental. Programa DUMA de formación para médicos especialistas. IIB Sant Pau, 12 January 2018.
- David Ramos Barbón. Moderator. Posicionamiento de los tratamientos biológicos en el asma grave. Actualización Diagnóstica y Terapéutica en Neumología. Jornada de Neumología en Sant Pau, XLIX edición, 9 November 2018.
- Alfons Torrego Fernández. Coordinator and teacher. Primer Curso Nacional de Criobiopsias Pulmonares. Barcelona. February 2018.
- Alfons Torrego Fernández. Director and teacher. I Curso Práctico de Criobiopsias y su aplicabilidad en al EPID. Institut de Recerca Biomèdica de Lleida. 28 September 2018.
- Alfons Torrego Fernández. Asma en situaciones especiales. Conferencia Congreso Nacional Separ. Palma de Mallorca, June 2018.
- Alfons Torrego Fernández. Teacher. Curso de Actualización Unificado en Neumología. Societat Catalana de Pneumologia. Barcelona. April 2018.
- Alfons Torrego Fernández. Futuro de las técnicas endoscópicas. Presente y Futuro de la Neumologia. Zaragoza, February 2018.
- Alfons Torrego Fernández. Termoplastia para el tratamiento de asma grave. Asma Meeting Point. Madrid. May 2018.
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- Lorena Soto Retes. Member of the Scientific Committee of the Congreso Anual XXXI de la Sociedad Española de Alergia e Inmunología Clínica (SEAIC). 24-27 October 2018.
- Lorena Soto Retes. Moderator of the poster section. Congreso Anual XXXI SEAIC. 24-27 October 2018.
- Ástrid Crespo Lessmann. Speaker. Recuento de células inflamatorias en el esputo inducido. Curso teórico-práctico de Inflamometria en Asma. Proyecto DUMA (Desarrollo de Unidades Monograficas de Asma). SEPAR. 12 January 18.
- Ástrid Crespo Lessmann. Jornada Nacional de Asma a Debate. Laboratorios Merck Sharp and Dohme de España. 4-5 April 2018. Barcelona.
- Ástrid Crespo Lessmann. Moderator of clinical cases "Desayunos en Asma Grave" SOCAP 2018. Palacio de Congresos de Lleida. XXXVI Diada pneumològica. 14 April 2018.
- Ástrid Crespo Lessmann. Moderator. Asma grave. 23 Reunión de Invierno conjunta de las áreas de la SEPAR. Salamanca. 2-3 February 2018.
- Ástrid Crespo Lessmann. Organizer. 49 Curso de Actualización en Neumología. Hospital de Sant Pau. 9 November 2018.
- Ástrid Crespo Lessmann. Speaker. Bloc RECERCA (Recompte de cèl·lules infamatòries a l'esput induït) and BLOC 3 (Asma Grave. Proceso diagnóstico, Comorbilidades, "Tipos" de Asma Grave, tenemos biomarcadores). Curs de la via aèria 2018. SOCAP. 13-19 March 18.
- Ástrid Crespo Lessmann. Medició de l'inflamació. Curs de Funció Pulmonar SOCAP. 23 April 2018.
- Ástrid Crespo Lessmann. Conferencer for patients ¿Qué es la EPOC?. 27 November 2018.
- Ástrid Crespo Lessmann. Actualización en asma y EPOC. Servicio de Urgencias y Medicina Interna. Hospital de la Santa Creu i Sant Pau. 13 September 2018.
- Ástrid Crespo Lessmann. Construyendo desde la Evidencia Científica en EPOC. Lecture for primary care physicians and pulmonologists in training. Novartis. 13 December 2018.
- Lorena Soto Retes, Alba García Moral, Patricia Peñacoba, Astrid Crespo, Montserrat Torrejón, Alicia Belda, Teresa Bigorra, Vicente Plaza. Parla amb l'experta. Matí Al·lergològic 2018. Tarragona, January 2018.

Communications in congresses

- A Pallares Sanmartin, A Sogo Sagardia, M V González Gutiérrez, A Crespo Lessman, N Marina Malanda, R Andújar Espinosa, M Ferrer Galván, A Boldova Loscertales, S Herrera Lara, L Vigil Gimenez, J Serrano Pariente, C Cisneros Serrano, A López Viñas, C Picado Vallés, V Plaza Moral. Quality of sleep in asthmatic patients. Congress ERS. Paris, September 2018.
- E Curto Sánchez, A Crespo Lessmann, E Mateus Medina, L Soto Retes, A García Moral, M Torrejón Lázaro, A Belda Soler, J Giner Donaire, D Ramos Barbón, V Plaza Moral. Total IgE and Der p 1 (D1) specific IgE in induced sputum (IS) in patients with allergic and non-allergic asthma. Congress ERS. Paris, September 2018.
- E F Mateus Medina, R Osuna Gomez, C Ujaldón Miró, A Crespo Lessman, A García Moral, E Curto Sánchez, L Soto Retes, V Plaza Moral, D Ramos Barbón. Identification of a distinct eosinophil subpopulation in induced sputum from atopic asthmatics. Congress ERS. Paris, September 2018.
- R Osuna Gomez, E Fredy Mateus, C Ujaldón Miró, V Plaza Moral, D Ramos Barbón. Supressive effect of mesenchymal stem cells on airway remodeling in vitro. Congress ERS. Paris, September 2018.
- J A Castillo Vizuete, C Picado, V Plaza, G Rodrigo, B Juliá, C Fernandez, J Mullol. Loss of smell: a clinical marker of severe asthma. Congress ERS. Paris, September 2018.
- A M Rodrigo Troyano, J Giner, D Sousa, J L Merino, A Alonso, A Feliu, V Plaza, B Garcia-Cosio, A Agustí, O Sibila. Predicting hospital readmissions in severe COPD patients using an electronic-nose. Congress ERS. Paris, September 2018.
- E Martinez Moragon, L A Perez De Llano, B Garcia-Cosio, V Plaza. Spanish study on unmet clinical needs in patients with uncontrolled severe asthma. Congress ERS. Paris, September 2018.
- N Roche, V Plaza, V Backer, J Van Der Palen, I Cerveri, C Gonzalez, G Safioti, I Scheepstra, O Patino, D Singh. Asthma control and COPD symptom burden: results from a multi-country observational study (SPRINT) in patients using fixed dose combination (FDC) inhalers. Congress ERS. Paris, September 2018.
- J van der Palen, I Cerveri, N Roche, D Singh, V Plaza, C Gonzalez, O Patino, I Scheepstra, G Safioti, V Backer. DuoResp® Spiromax® adherence, satisfaction and ease of use: findings from a multi-country observational study in patients with asthma and COPD (SPRINT). Congress ERS. Paris, September 2018.
- P Peñacoba, M A Llauger, R M Miralda, L Domínguez, A M Fortuna, A M Pedro, P Valverde, J I Aoiz, J Bayó, N Argemí, C Medrano, M Puig, J Juvanteny, M Reverté, X Flor, M Á Santos, M D M Fraga, C Santiveri, G Sampol, P Lloberes, N Grau, V Plaza, M Mayos. Comparison of three clinical screening questionnaires for Sleep Apnea Syndrome (SAS) in Primary Care (PC). Congress ERS. Paris, September 2018.
- A Torrego. Bronchial thermoplasty global registry. European Respiratory Society. Paris. September 2018.
- A Torrego, J Dominguez, J Molina, JA Trigueros. Estudio observacional sobre las características de los pacientes asmáticos en tratamiento de mantenimiento y rescate según práctica clínica habitual. Estudio MARTE. European Respiratory Society (Paris. September 2018) and SEPAR 2018 (Palma de Mallorca).
- L Tilea, A Torrego, V Pajares. Multimodal treatment in pathologically confirmed single-station resectable IIIA-N2 non-small cell lung cancer: a single center experience. World Lung Cancer Conference. Tokio 2018.
- Serra C, Torrego A, Pajares V, Castillo D. Utilidad del lavado alveolar en la EPID diagnosticada con criobiopsia. European Respiratory Society (Paris. September 2018) and SEPAR 2018 (Palma de Mallorca).
- Lorena Soto Retes et al. Poster. "Papel del sistema nervioso autónomo en el asma grave." XXXI Congreso de la Sociedad Española de Alergología e Inmunología Clínica, 2018.

- Lorena Soto Retes et al. Comunicación oral. Perfil clínico y molecular de la alergia a ácaros del polvo en Barcelona. XXXI Congreso de la Sociedad Española de Alergología e Inmunología Clínica, 2018.
- Jordi Giner Donaire; Carlos Colas Sanz; Luis Manuel Entrenas Costa; Fernando Gómez Ruiz; Jesús Molina París; Javier Palacio; Santiago Quirce Gancedo; Ana Viejo Casas; Antonio Fernández Sanchez; Vicente Plaza Moral; Astrid Crespo Lessmann. Desenvolupament d'una eina per integrar l'opinió del pacient en l'elecció del dispositiu inhalador. Recomanacions Re-Visad. SOCAP XXXVI Diada Pneumològica. 13-14 April 2018.
- A. Crespo Lessmann; J.G. Soto Campos; P. Campo Mozo; N. Mejía; I.J. Dávila González.Identificació dels perfils de pacients responedors a la teràpia amb Omalizumab: Resultats de l'estudi FENOMA. SOCAP XXXVI Diada Pneumològica. 13-14 April 2018.
- Lorena Soto, Alba García, Patricia Peñacoba, Astrid Crespo, et al. "Parla amb l'experta". Matí Al·lergològic 2018. Secció d'Al·lergologia de l'Hospital Universitari Joan XXIII de Tarragona. 27 January 2018.
- Ana Sogo Sagardía, Astrid Crespo Lessmann, Abel Pallarés Sanmartín, Maria Victoria González Gutiérrez, Nuria Marina Malanda, et al. Validación del Sleep Jenkins Questionaire (SJQ) al castellano. Evaluación de la calidad de sueño en pacientes con asma. SEPAR, Palma de Mallorca. 31 May-3 June 2018.
- Eder F. Mateus Medina, Rubén Osuna Gómez, Cristina Ujaldón Miró, Astrid Crespo Lessmann, Alba García Moral, et al. Identificación de una subpoblación de eosinófilos en muestras de esputo inducido de pacientes con asma atópica. SEPAR, Palma de Mallorca. 31 May-3 June 2018.
- Marina Arilla Soriano, Anna Pelegrí Pedret, Ingrid Solanes García, Astrid Crespo Lessmann, Meritxell Peiró Fábregas. 30 años del hospital de dia de respiratorio. Un reto de futuro. SEPAR, Palma de Mallorca. 31 May-3 June 2018.
- Elena Curto Sánchez, Astrid Crespo Lessmann Eder Fredy Mateus Medina, Lorena Soto Retes, Alba García Moral, Montserrat Torrejón Lázaro, et al. Presencia de IgE total e IgE específica A Der P 1 (D1) en el esputo inducido en pacientes con asma alérgica y no alérgica. 51 SEPAR, Palma de Mallorca. 31 May-3 June 2018.; SOCAP XXXVI Diada Pneumologica. 13-14 April 2018, and ERS International Congress 2018. Paris 15-19 September 2018.

AREA 2 · Genetic, Metabolic and Inflammatory Diseases

Research Group in HIV and AIDS

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Millán Revilla, Lucía (IR)
Muñoz Rodríguez, Jessica (IR)
Mur Arizon, Isabel (FGS)
Villarroya Terrade, Joan (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.

Scientific Challenges

Medical care projects

- Continuing with, expanding and, as appropriate, consolidating the care team for HIV-1 infected patients, consisting currently of 3 staff physicians, 4 grantaided research assistants (including a Río Hortega-funded research assistant) and 2 nurses.
- Continuing with participation in multicentre projects (especially the AIDS network, Gesida, VACH, EuroSIDA and ART collaboration).
- Exploration of possible participation in clinical trials of new antiretroviral drugs.
- Increasing the number of HIV-1 infected patients attended to in our hospital (given current mortality rates, an estimated annual increase of 50 patients is required).
- Continuing with current clinical research and mixed basic reserch-clinical research lines.

Pathogenic mechanisms altering body fat distribution

- Study of metabolism in pyrimidines and derivatives in the genesis of lipodystrophy associated with HIV-1 and antiretroviral treatment.
- Development of an animal (mouse) model of lipodystrophy.
- Development of in vitro models (adipocyte cultures) to study the adipose toxicity of antiretroviral drugs.
- Study of new manifestations of the lipodystrophy syndrome.
- Development of measurements for antiretroviral drug concentrations in adipose tissue.
- Exploration of the role of inflammation in the pathogenesis of lipodystrophy associated with HIV-1 and antiretroviral treatment.
- Metabolism of uridine and its role in the pathogenesis of lipodystrophy.

Metabolic disorders associated with antiretroviral treatment

- In vivo assessment of metabolic toxicity associated with antiretroviral treatment.
- Development of in vitro models (adipocyte cultures) to study the adipose toxicity of antiretroviral drugs.
- Study of factors contributing to hepatic steatosis in patients receiving antiretroviral treatment.
- Study of the pathogenic role of FGF21 in insulin resistance in HIV-1-infected patients.
- Study of role of FABP4 in metabolic disorders associated with antiretroviral treatment.

Body composition

- Definition of normal fat distribution in the general population.
- Establishment of abnormal fat distribution patterns.
- Development of a definition of lipodystrophy associated with HIV-1 and antiretroviral treatment.

New antiretroviral drugs

- Clinical trials of new antiretroviral drugs (phases 2 and 3).
- Ritonavir and non-ritonavir pharmacokinetic potentiation of antiretroviral drugs.

Cardiovascular risk associated with antiretroviral treatment

- Establishment of a multicentre cardiovascular risk cohort.
- Study of antiretroviral treatmentdependent and non-treatmentdependent factors in multicentre cohorts.
- Development of in vitro models (adipose cultures) to study adipose toxicity for antiretroviral drugs.

Comorbid conditions associated with HIV-1 infection

- Study of ageing in different tissues associated with HIV-1 infection and antiretroviral treatment.
- Study of fragility in patients with HIV-1 infection and the role of HAART.
- Evaluation of the neurocognitive function in patients with HIV-1 infection with and without antiretroviral treatment.
- Participation in multicentre cohort studies to determine the incidence of specific comorbidities (cancer, HCV, cardiovascular disease, osteogenesis/osteoporosis): EuroSIDA, ART Collaboration, Gesida, VACH, etc.
- Treatment of HCV in patients with HIV-1 and its prognostic significance.

Pharmacogenetics (toxicogenetics)

- Role of enzyme polymorphism of the pyrimidine pathways in the pathogenesis of lipodystrophy.
- Role of enzyme polymorphism of the pyrimidine pathways in the pathogenesis of clinical toxicity (neuropathy, pancreatitis).
- Role of IL28B polymorphism in spontaneous HCV clearance in the response to antiviral treatment based on interferon and ribavirin.

Bacterial meningitis

- Identification of prognostic factors in adult bacterial meningitis.
- Continuation with a cohort study of adult bacterial meningitis.
- Identification of host-intrinsic factors in the in the pathogenesis and prognosis of adult bacterial meningitis and meningococcal disease.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Microbiology and Infectious Diseases (Dr. Pere Coll)

Active Grants

- Joan Villarroya Terrade. Estudio de las alteraciones metabólicas y óseas en pacientes VIH bajo tratamiento antirretrovial. IJCI-2014-19681. Ministerio de Economía y Competitividad. Duration: 2016-2018. 64,000 €.
- Pere Domingo Pedrol. Prevalencia y progresión de la ateromatosis subclínica en pacientes con infección por VIH: correlación con marcadores de señalización inter-orgánica, disbiosis intestinal y estrés oxidativol. PI17/00498. Instituto de Salud Carlos III. Duration: 2018-2020. 90,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Isabel Mur Arizon. Formación integral en VIH, evaluación de las comorbilidades y de las infecciones de transmisión sexual. CM18/00233, Instituto de Salud Carlos III. Duration: 2019-2021. 53,732 €.
- Joan Villarroya Terrade. EDUARDO GALLEGO 2018, Fundación Francisco Cobos. Duration: 2018-2019. 24,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 102.5510 · Mean Impact Factor: 6.0324

Berenguer J., Jarrin I., Perez-Latorre L., Hontanon V., Vivancos M.J., Navarro J., Tellez M.J., Guardiola J.M., Iribarren J.A., Rivero-Juarez A., Marquez M., Artero A., Morano L., Santos I., Moreno J., Farinas M.C., Galindo M.J., et al., Human immunodeficiency virus/hepatits C virus coinfection in Spain: Elimination is feasible, but the burden of residual cirrhosis will be significant (2018) OPEN FORUM INFECT DI, 5 (1). **IF: 3.2400**

Cereijo R., Gavalda-Navarro A., Cairo M., Quesada-Lopez T., Villarroya J., Moron-Ros S., Sanchez-Infantes D., Peyrou M., Iglesias R., Mampel T., Turatsinze J.-V., Eizirik D.L., Giralt M., Villarroya F., CXCL14, a Brown Adipokine that Mediates Brown-Fat-to-Macrophage Communication in Thermogenic Adaptation (2018) CELL METAB, 28 (5), 750-763.e6. **IF: 20.5650**

Domingo P., Fernandez I., Gallego-Escuredo J.M., Torres F., Gutierrez M.D.M., Mateo M.G., Villarroya J., Giralt M., Vidal F., Villarroya F., Domingo J.C., Effects of docosahexanoic acid on metabolic and fat parameters in HIV-infected patients on cART: A randomized, double-blind, placebo-controlled study (2018) CLIN NUTR, 37 (4), 1340-1347. IF: 5.4960

Domingo P., Gallego-Escuredo J.M., Fernandez I., Villarroya J., Torres F., del Mar Gutierrez M., Mateo M.G., Villarroya F., Vidal F., Giralt M., Domingo J.C., Effects of docosahexanoic acid supplementation on inflammatory and subcutaneous adipose tissue gene expression in HIV-infected patients on combination antiretroviral therapy (cART). A sub-study of a randomized, double-blind, placebo-controlled study (2018) CYTOKINE, 105, 73-79. **IF: 3.5140**

Domingo P., Mateo M.G., Gutierrez M.D.M., Vidal F., Tolerability of current antiretroviral single-tablet regimens (2018) AIDS REV, 20 (3), 141-149. **IF: 2.7750**

Knobel H., Domingo P., Suarez-Lozano I., Gutierrez F., Estrada V., Palacios R., Antela A., Blanco J.-R., Fulladosa X., Refollo E., Rate of cardiovascular, renal and bone disease and their major risks factors in HIV-infected individuals on antiretroviral therapy in Spain Prevalencia de enfermedad cardiovascular, renal y ósea, y sus principales factores de riesgo en personas infectadas por el VIH que reciben tratamiento antirretroviral en España (2018) ENFERM INFEC MICR CL. **IF: 1.7070**

Llibre J.M., de Lazzari E., Molina J.-M., Gallien S., Gonzalez-Garcia J., Imaz A., Podzamczer D., Clotet B., Domingo P., Gatell J.M., Cost–effectiveness of initial antiretroviral treatment administered as single vs. multiple tablet regimens with the same or different components Coste-efectividad del tratamiento inicial antirretroviral de comprimido único vs. tratamiento con regímenes de múltiples comprimidos con los mismos o diferentes componentes (2018) ENFERM INFEC MICR CL, 36 (1), 16-20. **IF: 1.7070**

Moure R., Domingo P., Villarroya J., Gasa L., Gallego-Escuredo J.M., Quesada-Lopez T., Moron-Ros S., Maroto A.F., Mateo G.M., Domingo J.C., Villarroya F., Giralta M., Reciprocal effects of antiretroviral drugs used to treat HIV infection on the fibroblast growth factor 21/-klotho system (2018) ANTIMICROB AGENTS CH, 62 (6). **IF: 4.2550**

Ndumbi P., Del Romero J., Pulido F., Velasco Arribas M., Dronda F., Blanco Ramos J.R., Garcia De Olalla P., Ocana I., Belda-Ibanez J., Del Amo J., Alvarez-Del Arco D., Gennotte A.-F., Barthelemy C.L.M., Wengenroth C., et al., Barriers to health care services for migrants living with HIV in Spain (2018) EUR J PUBLIC HEALTH, 28 (3), 451-457. **IF: 2.7820**

Ocampo A., Domingo P., Fernandez P., Diz J., Barbera J.R., Sepulveda M.A., Salgado X., Rodriguez M., Santos J., Yzusqui M., Mayorga M.I., Lorenzo J.F., Bahamonde A., Bachiller P., Martinez E., Rozas N., Torres C., Munoz A., Casado A., Podzamczer D., Lipid changes and tolerability in a cohort of adult HIV-infected patients who switched to rilpivirine/emtricitabine/tenofovir due to intolerance to previous combination ART: The PRO-STR study (2018) J ANTIMICROB CHEMOTH, 73 (8), 2171-2176. **IF: 5.2170**

Rodriguez-Gallego E., Gomez J., Pacheco Y.M., Peraire J., Vilades C., Beltran-Debon R., Mallol R., Lopez-Dupla M., Veloso S., Alba V., Blanco J., Canellas N., Rull A., Leal M., Correig X., Domingo P., Vidal F., A baseline metabolomic signature is associated with immunological CD4 + T-cell recovery after 36 months of antiretroviral therapy in HIV-infected patients (2018) AIDS, 32 (5), 565-573. **IF: 4.9140**

Rodriguez-Gallego E., Gomez J., Domingo P., Ferrando-Martinez S., Peraire J., Vilades C., Veloso S., Lopez-Dupla M., Beltran-Debon R., Alba V., Vargas M., Castellano A.J., Leal M., Pacheco Y.M., Ruiz-Mateos E., Gutierrez F., Vidal F., Rull A., Circulating metabolomic profile can predict dyslipidemia in HIV patients undergoing antiretroviral therapy (2018) ATHEROSCLEROSIS, 273, 28-36. **IF: 4.4670**

Ruperez C., Lerin C., Ferrer-Curriu G., Cairo M., Mas-Stachurska A., Sitges M., Villarroya J., Giralt M., Villarroya F., Planavila A., Autophagic control of cardiac steatosis through FGF21 in obesity-associated cardiomyopathy (2018) INT J CARDIOL, 260, 163-170. **IF: 4.0340**

Santos J.R., Cozzi-Lepri A., Phillips A., De Wit S., Pedersen C., Reiss P., Blaxhult A., Lazzarin A., Sluzhynska M., Orkin C., Duvivier C., Bogner J., Gargalianos-Kakolyris P., Schmid P., Hassoun G., Khromova I., Beniowski M., et al., Long-term effectiveness of recommended boosted protease inhibitor-based antiretroviral therapy in Europe (2018) HIV MED, 19 (5), 324-338. **IF: 2.9320**

Villarroya F., Cereijo R., Villarroya J., Gavalda-Navarro A., Giralt M., Toward an Understanding of How Immune Cells Control Brown and Beige Adipobiology (2018) CELL METAB, 27 (5), 954-961. **IF: 20.5650**

Villarroya F., Cereijo R., Gavalda-Navarro A., Villarroya J., Giralt M., Inflammation of brown/beige adipose tissues in obesity and metabolic disease (2018) J INTERN MED, 284 (5), 492-504. **IF: 6.7540**

Villarroya J., Gallego-Escuredo J.M., Delgado-Angles A., Cairo M., Moure R., Gracia Mateo M., Domingo J.C., Domingo P., Giralt M., Villarroya F., Aging is associated with increased FGF21 levels but unaltered FGF21 responsiveness in adipose tissue (2018) AGING CELL, 17 (5). **IF: 7.6270**

AREA 2 · Genetic, Metabolic and Inflammatory Diseases

Genome Instability and DNA Repair Syndromes

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Molina Romero, Ana (UAB)
Peiró Navarro, Montserrat (UAB)
Pujol Calvet, Roser (CIBERER)
Ramírez de Haro, María José (CIBERER)
Riera Armengol, Pau (IR)
Rodríguez Santiago, Benjamín (FGS)
Steigerwald, Daniela (UAB)
Tejero Laguna, Eudald (IR)

Main Lines of Research

- Genetics and molecular biology of cancer-prone genetic syndromes with a focus in familiar breast cancer and Fanconi anemia. Genetic characterization of Fanconi patients and identification of new genes involved in the disease and into hereditary breast cancer syndrome and its functions.
- Development of new diagnostic and therapeutic tools in Fanconi anemia, including gene therapy, regenerative medicine and drug repurposing.
- Mechanism of genomic instability and predisposition to cancer. Study of DNA repair and biological and clinical consequences of DNA repair failure.
- Fanconi/BRCA pathway in cancer. Implications of Fanconi genes in cancer and their use as therapeutic target against cancer.

Scientific Challenges

- Our research interests are cancer-prone genetic syndromes with defective DNA repair with special focus in Fanconi anemia and familiar cancer syndromes. We perform genetic, molecular biology and therapeutic research including gene discovery, mechanisms of DNA repair, gene and cell therapy approaches and cell-based drug screening platforms. A long term goal is to understand the mechanisms that maintain genome stability and protect us from disease, cancer, and ageing to improve the diagnostics and find novel therapeutic strategies.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Dr. Isabel Badell, Director, Unit of Hematology, Oncology y Hematopoietic Stem Cell Transplant, Pediatrics Service, Hospital de la Santa Creu i Sant Pau
- Dr. Csilla Krausz' team, Andrology Department, Fundació Puigvert, Universitat Autònoma de Barcelona, Institut d'Investigació Biomèdica Sant Pau (IIB-Sant Pau)
- Dr. Pia Gallano's team, Genetics Department, Hospital de la Santa Creu i Sant Pau

External Collaborations

International collaborations

- Detlev Schindler, University of Wursburg, Germany
- Paolo Radice, Istituto Nazionale dei Tumori, Milan, Italy
- Paolo Peterlongo, Istituto Nazionale dei Tumori, Milan, Italy
- Jean Soulier, Sant Lous Hospital de Paris, France
- Fergus Couch, Clinica Mayo, USA
- Minoru Takata, Kyoto University, Japan
- Toomo Ogi, Nagasaki University, Japan
- Publications with more than 100 international co-authors

National collaborations

- Juan A. Bueren, CIEMAT, Madrid
- Luis A. Pérez Jurado, UPF, Barcelona
- Joaquín Dopazo, CIPF, València
- Miquel Àngel Pujana, ICO, Hospitalet
- Csilla Krautz, Fundació Puigvert, Barcelona
- Cristina Díaz de Heredia, Hospital Vall d'Hebron, Barcelona
- Albert Català, H. Sant Joan de Déu, Barcelona
- Judith Balmaña, Hospital Vall d'Hebron, Barcelona
- Xose Puente, Universidad de Oviedo, Oviedo
- Javier Benítez, CNIO, Madrid

External institutions collaborating with the research group

- Hereditary Cancer Programme, Catalan Institute of Oncology (ICO), Bellvitge Institute for Biomedical Research (IDIBELL), L'Hospitalet del Llobregat, Barcelona.
- Breast Cancer and Systems Biology Laboratory, Program Against Cancer Therapeutic Resistance (ProCURE), ICO, IDIBELL, L'Hospitalet del Llobregat, Barcelona.
- Centro Andaluz de Biología Molecular y Medicina Regenerativa (CABIMER) and Departamento de Genética, Universidad de Sevilla, Sevilla.

- Hereditary Cancer Programme, ICO, Girona Biomedical Research Institute (IDIBGI), Girona.
- Oncogenetics Group, Hospital Universitari de la Vall d´Hebron; Vall-d´Hebron Institute of Oncology (VHIO); Vall d´Hebron Institute of Research (VHIR); Universitat Autònoma de Barcelona.
- Human Cancer Genetics Program, Spanish National Cancer Research Centre (CNIO), Madrid.
- Unit of Molecular Bases of Genetic Risk and Genetic Testing, Department of Preventive and Predictive Medicine, Fondazione IRCCS (Istituto Di Ricovero e Cura a Carattere Scientifico) Istituto Nazionale dei Tumori (INT), Milan, Italy.
- IFOM, Fondazione Istituto FIRC di Oncologia Molecolare and Unit of Molecular Bases of Genetic.

Active Grants

- Pau Riera Armengol. Marcadores farmacogenéticos de respuesta/resistencia a las terapias biológicas (anti-EGFR) en cáncer colorrectal. FPU16/04968. Ministerio de Educación, Cultura y Deporte. Duration: 2017-2018. 51,327 €.
- Research Agreement with Rocket Pharmaceuticals, USA. Mar. 2018. 45,000 €.
- Jordi Surrallés. EUROFANCOLEN. Phase I/II Gene therapy trial of Fanconi anemia patients with a new Orphan Drug consisting of a lentiviral vector carrying the FANCA gene: A Coordinated International Action. European Commission. Duration: 2012-2017 (extended to 2018). Ref. HEALTH-F5-2012-305421. 260,424 euros.
- Jordi Surrallés. Drug screening and repurposing in Fanconi anemia therapeutics. Fanconi Anemia Research Fundation (FARF). 2016-2018. 144,275 €.
- Jordi Surrallés, Laia Roca. COFUND Project for a Postdoctoral Fellowship under the European Union's Horizon H2020 research and innovation program under the Marie Skłodowska-Curie grant agreement No 665919 between UAB and the European Commission. Acronym: P-SPHERE. 2017-2019. Research line of the host laboratory: Targeting DNA repair in cancer and rare disease therapy.
- Jordi Surrallés Reparación del DNA y anemia de Fanconi: Investigación genética y aplicaciones terapéuticas (REPAIR-FANC). SAF2015-64152-R. Convocatoria Ayudas a proyectos I+D+I, Ministerio de Economía y Competitividad. Duration: 2016-2018. 278,300 €.
- Investigación terapéutica en tumores escamosos. CIBERER Acciones Cooperativas y Complementarias Intramurales (ACCI). Duration: 2017-2018. 36,500 €.
- Nuevo ensayo basado en letalidad sintética para el análisis funcional de variantes de significado incierto en genes implicados en cáncer de mama/ovario familiar. CIBERER Acciones Cooperativas y Complementarias Intramurales (ACCI). Duration: 2018-2019. 30,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Jordi Surrallés Calonge. Grup de Síndromes d'Inestabilitat Genòmica i Reparació del DNA. 2017 SGR 01191. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- Eudald Tejero Laguna. Desarrollo y diseño de herramientas bioinformáticas para el tratamiento de datos de secuenciación masiva en el ámbito biomédico. FPU17/04141 Ministerio de Educación, Cultura y Deporte. Duration: 2018-2024, 123,184.80 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- ICREA Academia Award 2018, (2019-2023). 200,000 euros.

Doctoral Theses

- María Marín. Genetic and proteomic study of ERCC4/XPF in DNA repair and human diseases. Universitat Autònoma de Barcelona. Director: Jordi Surrallés. Date of defense: 19/03/2018.

Patents

- María José Ramírez de Haro; Helena Montanuy Escribano; Jordi Minguillón Pedreño; Jordi Surrallés Calonge, DNA damage repair disease therapies. 18382322.8-1109, European, 12/05/2018.
- Jordi Surrallés, Jordi Minguillón, Helena Montanuy. Therapeutic use of afatinib in cancer. 18382527.2-1112, European, 16/07/2018.
- Surrallés J, Minguillón J., orphan drug designation by the European Medicines Agency (EMA). Gefitinib for the treatment of Fanconi anemia head and neck cancer. EMA/OD/090/18, 15/05/2018.
- Jordi Surrallés, Event for: Reprofiling fàrmacs citostàtics per tractament càncer en pacients d'anèmia Fanconi (P-2018/030) / Event for T: Reprofiling fàrmacs citostàtics per tractament càncer en pacients d'anèmia Fanconi (T-2017/032) Warning date: 17/07/2018 / Due date: 23/07/2018. P-2018/030. 23/07/2018
- Jordi Minguillón and Jordi Surralles, Orphan drug designation by the European Medicines Agency (EMA): Afatinib for the treatment of Fanconi anemia head and neck cancer. EMA//OD/141/18. 11/07/2018.

Transfer Products

- Consulting agreement with Deerfield Management Company, L.P. January-December 2018.
- Research Agreement with Rocket Pharmaceuticals, USA. March 2018.
- Agreement with Boston Children's Hospital (Data and Material Use Agreement). USA. April 2018
- Licence Agreement with Applied Biological Materials, Inc. 2018
- Agreement with Mind The Byte SL. Oct. 2018
- The group hosts the Laboratory of Diagnosis of Chromosome Fragility of the Universitat Autònoma de Barcelona. http://safcro.uab.es. We performe service under invoice or signed agreement to more that 100 Spanish and European public and private hospitals and diagnostic and pharma companies.

Scientific Production

Total Impact Factor: 47.8400 · Mean Impact Factor: 6.8343

Balajee A.S., Palitti F., Surralles J., Hande M.P., In Memory of Professor Adayapalam T Natarajan (2018) MUTAT RES-GEN TOX EN, 836, 1-2. **IF: 1.9960**

Bogliolo M., Bluteau D., Lespinasse J., Pujol R., Vasquez N., D'Enghien C.D., Stoppa-Lyonnet D., Leblanc T., Soulier J., Surralles J., Biallelic truncating FANCM mutations cause early-onset cancer but not Fanconi anemia (2018) GENET MED, 20 (4), 458-463. **IF: 9.9370**

Catucci I., Osorio A., Arver B., Neidhardt G., Bogliolo M., Zanardi F., Riboni M., Minardi S., Pujol R., Azzollini J., Peissel B., Manoukian S., De Vecchi G., Casola S., Hauke J., Richters L., Rhiem K., et al., Individuals with FANCM biallelic mutations do not develop Fanconi anemia, but show risk for breast cancer, chemotherapy toxicity and may display chromosome fragility (2018) GENET MED, 20 (4), 452-457. **IF: 9.9370**

Hernandez G., Ramirez M.J., Minguillon J., Quiles P., Ruiz De Garibay G., Aza-Carmona M., Bogliolo M., Pujol R., Prados-Carvajal R., Fernandez J., Garcia N., Lopez A., Gutierrez-Enriquez S., Diez O., et al., Decapping protein EDC4 regulates DNA repair and phenocopies BRCA1 (2018) NAT COMMUN, 9 (1). **IF: 12.3530**

Martin C.-A., Sarlos K., Logan C.V., Thakur R.S., Parry D.A., Bizard A.H., Leitch A., Cleal L., Ali N.S., Al-Owain M.A., Allen W., Altmuller J., Aza-Carmona M., Barakat B.A.Y., Barraza-Garcia J., Begtrup A., et al., Mutations in TOP3A Cause a Bloom Syndrome-like Disorder (2018) AM J HUM GENET, 103 (2), 221-231. **IF: 8.8550**

Minguillon J., Surralles J., Therapeutic research in the crystal chromosome disease Fanconi anemia (2018) MUTAT RES-GEN TOX EN, 836, 104-108. **IF: 1.9960**

Toptan T., Brusadelli M.G., Turpin B., Witte D.P., Surralles J., Velleuer E., Schramm M., Dietrich R., Brakenhoff R.H., Moore P.S., Chang Y., Wells S.I., Limited detection of human polyomaviruses in Fanconi anemia related squamous cell carcinoma (2018) PLOS ONE, 13 (12). **IF: 2.7660**

Diffusion Activities

Guest lectures

- Surrallés J. Discovery of novel Fanconi anemia and DNA repair genes: fundamental research and clinical implications. 42nd Annual Meeting of Environmental MutagenSociety of India (EMSI). Mumbai (India). 25-27 January 2018.
- Surrallés J. Fanconi anemia and cancer predisposition: new genes, new therapies. Conferencia invitada. 18th All India Congress of Cytology and Genetics & International Symposium on Translating Genes and Genomes. Kolkata (India). 29-31 January 2018.
- Surrallés J. Paneles y exomas: pros, contras y consideraciones bioéticas. RITMO 18. Sevilla. 7-9 March 2018.
- Surrallés J. Embaràs, gestació i genètica. Cicle de conferències 2017-2018 La medicina al teu Abast. Hospital Sant Pau, Barcelona. March 2018.
- Surrallés J. Drug repurposing in Fanconi anemia therapeutics. 1st Meeting in Translational Pharmacology. Sociedad Española de Farmacología. Santiago de Compostela, June 2018.
- Surrallés J. Repurposing anticancer drugs for head and neck cancer in Fanconi anemia patients. International Fanconi Anemia Research Symposium, New Port Beach, California, USA.

Posters

- Roser Pujol, Massimo Bogliolo, Csilla Krausz, Antoni Riera-Escamilla, Chiara Chianese, Daniel Moreno-Mendoza, Osvaldo Rajmil, Ignacio Blanco, Ines Rodríguez, Elisabet Ars, Eduard Ruiz-Castañé, Jordi Surrallés. From whole exome analysis in idiopathic azoospermia to the identification of a high risk subgroup for occult Fanconi Anemia. XI Reunión Annual CIBER de Enfermedades Raras. Castelldefels (Barcelona), 12-14 March 2018.
- Juan P. Trujillo-Quintero, Paula Rio, Susana Navarro, Roser Pujol, Isabel Badell, Cristina Díaz de Heredia, Julian Sevilla, Albert Catala, Juan Bueren, Jordi Surrallés C. Terapia Génica Natural en Anemia de Fanconi: Evolución hematológica a largo plazo de pacientes mosaicos. XX Congreso Colombiano del Cáncer. Colombia, 15-17 March 2018.
- Neda Stjepanovic, Estela Carrasco, Jordi Surralles, Cristina Diaz de Heredia, Judith Balmaña. Programa de prevención y detección precoz de cáncer de cabeza y cuello en pacientes con anemia de fanconi. XI Congreso Nacional de la Sociedad Española de Hematología y Oncología Pediatricas (SEHOP). Alicante, 31 May-2 Jun 2018.
- Bogliolo M, Aza-Carmona M, Muñoz Subirana N, Pujol R, Benjamín Rodríguez-Santiago B, Casado JA, García F, Paprotka T, Bauser C, Dopazo J, Bueren J, Surralles J. Optimized molecular genetic diagnostics of Fanconi anemia by whole exome sequencing and functional studies. 30th Annual Fanconi Anemia Research Fund Scientific Symposium (FARF). California (EEUU), 27-30 September 2018.
- Jordi Minguillón, Helena Montanuy, Cristina Camps, Jordi Carreras, Thomas Helleday, Jordi Surrallés. High content screening to restore Fanconi anemia in a FANCA-deficient cell based System. 30th Annual Fanconi Anemia Research Fund Scientific Symposium (FARF). California (EEUU), 27-30 September 2018.
- Jordi Minguillón, Helena Montanuy, Maria José Ramirez, Paula Río, José Antonio Casado, Juan Bueren, Jordi Surrallés. Repurposing drugs from phenotypic screening prevent long term aging and mortality in FANCA-deficient mice. 30th Annual Fanconi Anemia Research Fund Scientific Symposium (FARF). California (EEUU), 27-30 September 2018.
- Roser Pujol, Massimo Bogliolo, Csilla Krausz, Antoni Riera-Escamilla, Chiara Chianese, Daniel Moreno-Mendoza, Osvaldo Rajmil, Ignacio Blanco, Ines Rodríguez, Elisabet Ars, Eduard Ruiz-Castañé, Jordi Surrallés. From whole exome analysis in idiopathic azoospermia to the identification of a high risk subgroup for occult Fanconi Anemia. 30th Annual Fanconi Anemia Research Fund Scientific Symposium (FARF). California (EEUU), 27-30 September 2018.

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AREA 3 · Haematological and Oncological Diseases

Clinical Oncology

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Main Lines of Research

Clinical Research

- Development of new therapeutic strategies.
- Studies to improve tumour staging.
- Studies to detect residual disease.

Translational Research

- Personalized anticancer therapy.
- Studies of predictive and prognostic molecular markers.

Scientific Challenges

- Consolidate clinical research into cancer.
- Foster translational research into cancer in cooperation with other internal and external research groups.
- Consolidate the bank of tumours, DNA and serum for patients with cancer diagnosed and treated in our hospital.
- Develop new early-stage drugs (phase 0/1 studies).

Collaborations

Collaborations with other IIB Sant Pau Groups

- Oncogenesis and Antitumour Drugs (Dr. Ramon Mangues).
- Molecular Pathology of Urologic Cancer (Dr. F. Algaba).
- Genetic Diseases (Dr. J. Surralles).
- Breast Cancer (Dr. E. Lerma).

External Collaborations

- Tumoural progression modelling group at the Biomedical Research Institute (IRB) (Dr. A. Nebreda).
- Methylation and resistance to chemotherapy in ovarian cancer (Dr. M. Esteller).
- CIBERONC Member of the Breast Cancer Program.

Active Grants

- Daniel Escuin Borràs. Perfil de expresión de miRNAs en tumor primario de mama y sus ganglios linfáticos centinela: implicaciones en los mecanismos de invasión y su valor como marcadores metastásicos. PI13/00110. Instituto de Salud Carlos III. Duration: 2014-2018. 76,000 €.
- David Paez López-Bravo. La familia de los receptores tirosina kinasa ERBB y sus mecanismos reguladores: Identificación mediante NGS de variantes genéticas asociadas a las respuestas excepcionales a las terapias biológicas en cáncer colorrectal. AECC 2015-1. Asociación Española Contra el Cáncer. Duration: 2016-2018. 20,000 €.
- Ana Sebio García. Evaluación de las alteraciones de la distrofina y proteínas afines como factores pronósticos en pacientes afectos de leiomiosarcoma. PI17/00143. Instituto de Salud Carlos III. Duration: 2018-2020. 61,500 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Agustí Barnadas Molins. Grup de recerca clínica en oncologia. 2017 SGR 01084. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- Antonio López Pousa. Desarrollo clínico nuevo sistema de liberación local de fármacos. RTC-2017-6347-1. Ministerio de Economía y Competitividad. Duration: 2018-2020. 132,112 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 278.0870 · Mean Impact Factor: 7.3181

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Diffusion Activities

Meeting Organization

- Simposium: "Actualización en el tratamiento de cáncer de mama" Organised by Dr. Barnadas within the Third Barcelona Breast Cancer Meeting. Barcelona, 18 May, 2018.

Communications

- Borrell M, Moltó C, Volkinger K, Hwang T, Ocana A ,Templeton AJ, Seruga B, Gich I , Barnadas A, Amir E, Tibau A. Magnitude of Clinical Benefit in Trials Supporting US Food and Drug Administration (FDA) Accelerated Aproval and European Medicines Agency (EMA) Conditional Marketing Authorisation and Subsequent Trials Supporting Conversion to Full Approval. (Poster communication) ESMO Congress. Munich, September 2018.
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AREA 3 · Haematological and Oncological Diseases

Oncogenesis and Antitumour Drugs

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Main Lines of Research

- Development of novel animal models of disseminated disease in solid tumours and haematological neoplasms for the mechanistic study of metastases and preclinical drug development.
- Identification of prognostic biomarkers in head and neck squamous cell carcinoma and their functional validation in vivo.
- Development of nanoconjugates for targeted delivery of antitumour drugs or toxins to metastasis stem cells.

Scientific Challenges

- Obtain funding to ensure stable employment of senior researchers, attract postdoctoral fellows and reinforce current collaborations with clinicians.
- Develop molecular markers for therapeutic decision-making in head and neck carcinomas.
- Achieve antimetastatic effects by targeting antitumour drugs to metastasis stem cells in solid tumors and haematological neoplasies.
- Enhance international collaboration and participation in EU networks and industrial projects.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Collaboration of Dra. Isolda Casanova and Aïda Falgàs in the project: Terapia dirigida de Auristatina E o Ara-C a células de leucemia mieloide aguda que expresan CXCR4, receptor implicado en adhesión al estroma y quimiorresistencia. PI14/00450. IP: Jordi Sierra Gil. Instituto de Salud Carlos III. Duration: 2015-2018. 172,000 €.
- Collaboration of Dra. Irene Arroyo with the research group of the Otorhinolaryngology Service led by Drs. Miquel Quer and Xavier Léon in the study of prognostic factors in head and neck cancer.
- Collaboration of Drs. María Virtudes Céspedes and Patricia Álamo and Rita Sala with the research groups of the Pharmacy Service, led by Dra. María Antònia Mangues, of the Pathological Anatomy Service, led by Drs. Enrique Lerma and Alberto Gallardo, and the Surgery Service, headed by Dr. Manuel Trias, and the Medical Oncology Service, led by Drs. Agustí Barnadas and Antonio López-Pousa, and the groups of Àlex Bayés and Marta Valle of IIB-Sant Pau, in the project "Targeted nanocongugates for the selective elimination of stem cells in disseminated cancer". PIE15/00028. IP: Ramon Mangues. Instituto de Salud Carlos III. Duration: 2016-2018. 423,912 €.

External Collaborations

National Collaborations

- Eduard Batlle, Biomedical Research Institute (IRB) and Barcelona Scientific Park (PCB).
- Antonio Villaverde, Department of Applied Microbiology, Universitat Autònoma de Barcelona (UAB)
- OncoCat. Member of the Catalonian Cancer Research Network. Xarxa ConnectEU, Biocat, Generalitat de Catalunya.
- NanoBioMed. Member of the Catalonian Network on Nanobiotechnology, Xarxa Connect-EU. Biocat.

International Collaborations

- Achilea Bittencourt. Visiting Researcher, International Cooperation with Brasil, MCT/CNPq 046/2010.
- Paolo Micheli, Institute for Cancer Resaerch and Treatment, Candiol, Turin (Italy).
- Arne Östman, Cancer Center Karolinska, Karolinska Institutet, Stockholm (Sweden).
- Alberto Bardelli, University of Torino, Medical School, Turin (Italy).
- Ramon Mangues: Member of the Scientific Evaluation Committee of the Translational Cancer Research Programme (PRT-K), French Institut National du Cancer (INCa), Ministry of Health (DGOS). Since 2016.
- Ramon Mangues: Member of the Working Group on Advanced Therapies and Biologicals of ATMP (Advanced Therapy Medicinal Products), EATRIS (European Insfrastructure for Translational Medicine) Network (ATMP-EATRIS, European Union).
- Ramon Mangues: Member of the European Technology Platform on Nanomedicine (ETP Nanomedicine, European Union).
- Ramon Mangues: Member of the Tumor Microenvironment Working Group, American Association for Cancer Research (AACR) (TME-AACR).

Active Grants

- Ramon Mangues Bafalluy. Centro de Investigación Biomédica en Red en Bioingeniería, Biomateriales y Nanomedicina. CB06/01/1031. Ministerio de Sanidad y Política Social. Duration: 2006-2018. 432,263.05 €.
- Ugutz Unzueta Elorza. Contractes "Sara Borrell" 2014. CD14/00055. Instituto de Salud Carlos III. Duration: 2015-2018. 86,598 €.
- Ramon Mangues Bafalluy. Terapia dirigida de Auristatina E o Ara-C a células de leucemia mieloide aguda que expresan CXCR4, receptor implicado en adhesión al estroma y quimiorresistencia. PI14/00450. Instituto de Salud Carlos III. Duration: 2015-2018. 172,000 €.
- Ramon Mangues Bafalluy. Prevención de metástasis en cáncer colorrectal mediante terapia dirigida a células madre metastáticas y estromales. PI15/00378. Instituto de Salud Carlos III. Duration: 2016-2019. 172,000 €.
- María Virtudes Céspedes Navarro. Contratos Miguel Servet I 2015. MS15/00163. Instituto de Salud Carlos III. Duration: 2016-2021. 202,500 €.
- María Virtudes Céspedes Navarro. Nanoconjugates for targeted therapy against CXCR4+ cancer stem cells in pancreatic cancer. CP15/00163. Instituto de Salud Carlos III. Duration: 2016-2019. 121,500 €.
- Ramon Mangues Bafalluy. Targeted nanocongugates for the selective elimination of stem cells in disseminated cancer. PIE15/00028. Instituto de Salud Carlos III. Duration: 2016-2019. 423,912 €.
- Rita Sala Faig. Contractes predoctorals de formació en investigació en salut 2016. FI16/00017. Instituto de Salud Carlos III. Duration: 2017-2020. 82,400 €.
- Aïda Falgàs Comamala. Avaluació de l'activitat antitumoral de nous nanoconjugats dirigits al receptor CXCR4 en Limfoma Difús de Cèl·lules Grans B (LDCGB). 2017 FI_B 00680. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2020. 60,809.20 €.
- María Virtudes Céspedes Navarro. Terapia dirigida para la eliminación selectiva de células madre metastáticas CXCR4+ en cáncer de endometrio. FMM 2017. Fundación Mutua Madrileña. Duration: 2017-2020. 133,333.33 €.
- María Virtudes Céspedes Navarro. Nanoterapia dirigida y radioterapia SBRT combinada para la eliminación selectiva de células madre tumorales en cáncer de páncreas. PI17/00150. Instituto de Salud Carlos III. Duration: 2018-2020. 123,000 €.
- Ramon Mangues Bafalluy. Émbolos tumorales circulantes hCXCR4/SerpinE1 en el pronóstico del cáncer de cabeza y cuello. PI17/00584. Instituto de Salud Carlos III. Duration: 2018-2020. 90,000 €.
- Ramon Mangues Bafalluy. Implicación de la vía CXCR4/CXCL12/CXCR7 en la resistencia, recidiva y fenotipo de célula madre de la leucemia mieloide aguda. PI17/01246. Instituto de Salud Carlos III. Duration: 2018-2020. 108,000 €.
- Carmen Cabrera Rodríguez. Ayudas para personal técnico de apoyo a infraestructuras. Convocatoria 2013. Plataforma de Nanotoxicologia. Centro de Investigación en Red en Bioingeniería, Biomateriales y Nanomedicina (CIBER-BBN). MINECO. PTA2013-8426-I. Duration: 2015-2017. 36,000 €.
- Ramon Mangues Bafalluy. Humanized antitumoral nanodrug for the treatment of CXCR4-positive cancers (CIBER-BBN Technology Transfer Program (coordinated project). Group PI and coordinator: Antonio Villaverde (NBT-Universitat Autònoma de Barcelona). Nanotrac. BBN-TRF17. Industrial Partner: Nanoligent SL. Finance Agencies: CIBER-BBN and Nanoligent SL. Duration: 2017-2018. 35,000 €.
- Ramon Mangues Bafalluy. Centro de Investigación Biomédica en Red de Bioingenieria, Biomateriales y Nanomedicina (CIBER-BBN). Instituto de Salud Carlos III. CB06/01/1031. Duration: 2008-2018. 129,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Olivia Cano Garrido. Subprograma Juan de la Cierva-Formación 2016. FJCI-2016-31206. Ministerio de Economía y Competitividad. Duration: 2018-2020. 50,000 €.
- Ramon Mangues Bafalluy. Grup d'Oncogènesi i Antitumorals (GOA). 2017 SGR 865. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2020. 35,200 €.
- Ugutz Unzueta Elorza. Millora de la teràpia del càncer colorectal a través de nanopartícules funcionals dirigides al receptor CXCR4 amb alliberament citosòlic augmentat. SLT006/17/00093. Departament de Salut. Duration: 2018-2020. 109,399.06 €.
- Ramon Mangues Bafalluy, NANOTRAC. Desarrollo de un nuevo medicamento selectivo con potente actividad antimetastática. RTC-2017-6125-1. Ministerio de Economía y Competitividad. Duration: 2018-2020. 211,238 €.
- María Virtudes Céspedes Navarro. Nanoterapia dirigida y radioterapia SBRT combinada para la eliminación selectiva de células madre tumorales en cáncer de páncreas., IR17-MS1. Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2018-2018. 10,500 €.
- Ramon Mangues Bafalluy. Nanopartículas Dirigidas en Combinación para la Eliminación Selectiva de Células Madre Mestatáticas y Fibroblastos Asociados a Metástasis en Cáncer Colorectal. PI18/00650. Instituto de Salud Carlos III. Duration: 2019-2021. 225,750 €.
- Pau Riera Armengol. Identificación de marcadores farmacogenéticos de respuesta/resistencia a las terapias biológicas (anti-EGFR) en cáncer colorrectal. CM18/00207 (Río Hortega). Instituto de Salud Carlos III. Duration: 2019-2020. 53,732 €.
- Rita Sala Faig. Conjugación de la nanopartícula T22-GFP-H6 a isótopos radioactivos y su biodistribución mediante PET. MV18/00008. Instituto de Salud Carlos III. Duration: 2019-2019. 14,480 €.
- Elisa Rioja Blanco. Papel de CXCR4 en la diseminación metastásica del carcinoma escamoso de cabeza y cuello. 2018 FI_B 00320, Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2018-2021. 41,150.08 €.
- María Virtudes Céspedes Navarro. Neuroinmunomodulación en cáncer de pancreas metastático? Implicaciones terapéuticas. MV18/00027. Instituto de Salud Carlos III. Duration: 2019-2019. 14,640 €.

Note: Total amount granted to PI. It does not include indirect costs.

Patents

- Antonio Villaverde, Esther Váquez, Ugutz Unzueta, Ramon Mangues, María Virtudes Céspedes, Isolda Casanova. Therapeutic Nanoconjugates And Uses Thereof. PCT/EP2018/069303. European Patent. 16/07/2018.
- Antonio Villaverde Esther Vázquez, Naroa Serna, Laura Sánchez García, Ugutz Unzueta, Ramon Mangues, María Virtudes Céspedes Isolda Casanova. Nanostructured Proteins And Uses Thereof. EP17169722.0-1401. European Patent. 08/08/2018.

Transfer Products

- M. Rodríguez-Mariscal, Ramón Mangues, Antonio Villaverde, Esther Vázquez. Spin-off of the Biomedical Research Institute Sant Pau: NANOLIGENT, SLU. (B-66970088). 13.03.2017.
- License agreement between the Autonomous University of Barcelona, the Research Institute Foundation of the Santa Creu and Sant Pau Hospital and the Center for Biomedical Research in Network with the company Nanoligent SL. 5.08.2018.

Scientific Production

Total Impact Factor: 98.3460 · Mean Impact Factor: 5.7851

Camacho M., Aguero A., Sumarroca A., Lopez L., Pavon M.-A., Aviles-Jurado F.-X., Garcia J., Quer M., Leon X., Prognostic value of CD45 transcriptional expression in head and neck cancer (2018) EUR ARCH OTO-RHINO-L, 275 (1), 225-232. **IF: 1.5460**

Cespedes M.V., Unzueta U., Avino A., Gallardo A., Alamo P., Sala R., Sanchez-Chardi A., Casanova I., Mangues M.A., Lopez-Pousa A., Eritja R., Villaverde A., Vazquez E., Mangues R., Selective depletion of metastatic stem cells as therapy for human colorectal cancer (2018) EMBO MOL MED, 10 (10). **IF: 10.2930**

De Pinho Favaro M.T., Sanchez-Garcia L., Sanchez-Chardi A., Roldan M., Unzueta U., Serna N., Cano-Garrido O., Azzoni A.R., Ferrer-Miralles N., Villaverde A., Vazquez E., Protein nanoparticles are nontoxic, tuneable cell stressors (2018) NANOMEDICINE-UK, 13 (3), 255-268. **IF: 5.0050**

Diaz R., Pallares V., Cano-Garrido O., Serna N., Sanchez-Garcia L., Falgas A., Pesarrodona M., Unzueta U., Sanchez-Chardi A., Sanchez J.M., Casanova I., Vazquez E., Mangues R., Villaverde A., Selective CXCR4+ Cancer Cell Targeting and Potent Antineoplastic Effect by a Nanostructured Version of Recombinant Ricin (2018) SMALL, 14 (26). **IF: 9.5980**

Favaro M.T.D.P., Unzueta U., de Cabo M., Villaverde A., Ferrer-Miralles N., Azzoni A.R., Intracellular trafficking of a dynein-based nanoparticle designed for gene delivery (2018) EUR J PHARM SCI, 112, 71-78. **IF: 3.4660**

Favaro M.T.D.P., Serna N., Sanchez-Garcia L., Cubarsi R., Roldan M., Sanchez-Chardi A., Unzueta U., Mangues R., Ferrer-Miralles N., Azzoni A.R., Vazquez E., Villaverde A., Switching cell penetrating and CXCR4-binding activities of nanoscale-organized arginine-rich peptides (2018) NANOMED-NANOTECHNOL, 14 (6), 1777-1786. **IF: 6.5000**

Martinez-Lopez D., Cedo L., Metso J., Burillo E., Garcia-Leon A., Canyelles M., Lindholt J.S., Torres-Fonseca M., Blanco-Colio L.M., Vazquez J., Blanco-Vaca F., Jauhiainen M., Martin-Ventura J.L., Escola-Gil J.C., Impaired HDL (high-density lipoprotein)-mediated macrophage cholesterol efflux in patients with abdominal aortic aneurysm-brief report (2018) ARTERIOSCL THROM VAS, 38 (11), 2750-2754. **IF: 6.0860**

Mena M., Taberna M., Tous S., Marquez S., Clavero O., Quiros B., Lloveras B., Alejo M., Leon X., Quer M., Bague S., Mesia R., Nogues J., Goma M., Aguila A., Bonfill T., et al., Double positivity for HPV-DNA/p16ink4a is the biomarker with strongest diagnostic accuracy and prognostic value for human papillomavirus related oropharyngeal cancer patients (2018) ORAL ONCOL, 78, 137-144. **IF: 4.6360**

Moreno M.J., Gallardo A., Novelli S., Mozos A., Arago M., Pavon M.A., Cespedes M.V., Pallares V., Falgas A., Alcoceba M., Blanco O., Gonzalez-Diaz M., Sierra J., Mangues R., Casanova I., CXCR7 expression in diffuse large B-cell lymphoma identifies a subgroup of CXCR4+ patients with good prognosis (2018) PLOS ONE, 13 (6). **IF: 2.7660**

Motllo C., Ribera J.-M., Morgades M., Granada I., Montesinos P., Mercadal S., Gonzalez-Campos J., Moreno M.-J., Barba P., Cervera M., Barrios M., Novo A., et al., Frequency and prognostic significance of additional cytogenetic abnormalities to the Philadelphia chromosome in young and older adults with acute lymphoblastic leukemia (2018) LEUKEMIA LYMPHOMA, 59 (1), 146-154. **IF: 2.6440**

Pallares V., Hoyos M., Chillon M.C., Barragan E., Conde M.I.P., Llop M., Falgas A., Cespedes M.V., Montesinos P., Nomdedeu J.F., Brunet S., Sanz M.A., Gonzalez-Diaz M., Sierra J., Mangues R., Casanova I., Focal adhesion genes refine the intermediate-risk cytogenetic classification of acute myeloid leukemia (2018) CANCERS, 10 (11). **IF: 5.3260**

Ribera J.-M., Morgades M., Montesinos P., Martino R., Barba P., Soria B., Bermudez A., Moreno M.-J., Gonzalez-Campos J., Vives S., Gil C., Abella E., Guardia R., et al., Efficacy and safety of native versus pegylated Escherichia coli asparaginase for treatment of adults with high-risk, Philadelphia chromosome-negative acute lymphoblastic leukemia (2018) LEUKEMIA LYMPHOMA, 59 (7), 1634-1643. **IF: 2.6440**

Sanchez J.M., Sanchez-Garcia L., Pesarrodona M., Serna N., Sanchez-Chardi A., Unzueta U., Mangues R., Vazquez E., Villaverde A., Conformational Conversion during Controlled Oligomerization into Nonamylogenic Protein Nanoparticles (2018) BIOMACROMOLECULES, 19 (9), 3788-3797. **IF: 5.7380**

Sanchez-Garcia L., Serna N., Alamo P., Sala R., Cespedes M.V., Roldan M., Sanchez-Chardi A., Unzueta U., Casanova I., Mangues R., Vazquez E., Villaverde A., Self-assembling toxin-based nanoparticles as self-delivered antitumoral drugs (2018) J CONTROL RELEASE, 274, 81-92. **IF: 7.8770**

Serna N., Sanchez-Garcia L., Unzueta U., Diaz R., Vazquez E., Mangues R., Villaverde A., Protein-Based Therapeutic Killing for Cancer Therapies (2018) TRENDS BIOTECHNOL, 36 (3), 318-335. **IF: 13.5780**

Taberna M., Mena M., Tous S., Pavon M.A., Oliva M., Leon X., Garcia J., Guix M., Hijano R., Bonfill T., Aguila A., Alemany L., Mesia R., HPV-relatedness definitions for classifying HPV-related oropharyngeal cancer patient do impact on TNM classification and patients' survival (2018) PLOS ONE, 13 (4). **IF: 2.7660**

Unzueta U., Cespedes M.V., Sala R., Alamo P., Sanchez-Chardi A., Pesarrodona M., Sanchez-Garcia L., Cano-Garrido O., Villaverde A., Vazquez E., Mangues R., Seras-Franzoso J., Release of targeted protein nanoparticles from functional bacterial amyloids: A death star-like approach (2018) J CONTROL RELEASE, 279, 29-39. **IF: 7.8770**

Diffusion Activities

Press

- La UAB crea una empresa para desarrollar una nanomedicina contra el cáncer: https://www.lavanguardia.com/vida/20180606/444154400336/la-uab-crea-una-empresa-para-desarrollar-una-nanomedicina-contra-el-cancer.html
- Creada una nueva spin-off de la UAB para desarrollar una nanomedicina para el tratamiento del cáncer: http://www.eleconomista.es/ecoaula/noticias/9188545/06/18/Creada-una-nueva-spinoff-de-la-UAB-para-desarrollar-una-nanomedicina-para-el-tratamiento-del-cancer.html
- Ensayan con éxito el primer fármaco del mundo que bloquea la diseminación metastásica del cáncer: https://www.lasexta.com/noticias/ciencia-tecnologia/ensayan-exito-primer-farmaco-mundo-que-bloquea-diseminacion-metastasica-cancer_201809075b92222c0cf220c8011c08c8.html
- Tres españoles crean un fármaco para frenar la metástasis en el cáncer de colon: https://www.telecinco.es/informativos/espanoles-farmaco-frenar-metastasis-cancer_0_2625000051.html
- Descubren un nuevo fármaco para el cáncer de mama con metástasis: https://www.antena3.com/noticias/salud/descubren-nuevo-farmaco-cancer-mama-metastasis_201806155b236b7f0cf2e3c4f2567c6e.html
- Conoce el nanofármaco que funciona como dron y previene la metástasis: https://mundo.sputniknews.com/radio_big_bang/201809191082085553-nanofarmaco-preventor-de-metastasis/
- Un nanofármaco, ensayado con éxito en animales para tratar las metástasis: https://www.lavanguardia.com/vida/20180906/451678567996/un-nanofarmaco-ensayado-con-exito-en-animales-para-tratar-las-metastasis.html
- Nanomedicina para luchar contra la propagación del cáncer: http://www.elmundo.es/economia/innovadores/2018/07/13/5b43778c268e3e2e428b45ad.html
- Desarrollan el primer fármaco del mundo que bloquea la metástasis: https://www.abc.es/salud/abci-investigadores-espanoles-desarrollan-primer-farmaco-mundo-bloquea-metastasis-201809081035_noticia.html

Invited Speaker

- Ramon Mangues: Drug nanoconjugates for targeted drug delivery in metastatic colorectal cancer. IPMT-Integrated Precision Medicine Technologies Center of Excelence". Fraunhofer-Institut für Biomedizinische Technik (IBMT) & Cyprus University, IMB-CNM. Campus UAB, Bellaterra, Barcelona, 22 March 2018.

Comunications to Meetings

- Mireia Pesarrodona, Eva Crosas, Raul Cubarsi, Alejandro Sánchez-Chardi, Paolo Saccardo, Ugurtz Unzueta, Fabian Rueda, Laura Sanchez-García, Naroa Serna, Ramón Mangues, Neus Ferrer-Miralles, Esther Vázquez , Antonio Villaverde. Protein only nanoparticles: A versatile platform for targeted therapies in nanomedicine. Poster 93. Enable Conference. The 2nd European PhD & PostDoc Symposim: The Promise of Future Medicine. Copenhagen (Denmark), 7-9 November 2018.
- Guerra-Castellano A, Gumí-Audenis B, Ortiz S, Casas-Ferrer L, Díaz-Moreno I, De la Rosa MA, Casanova I, Mangues R, Samitier J, Gorostiza P, Giannotti MI, Lagunas A. Nanoconductance of Electron Transfer Proteins of the Respiratory Chain. Direct Measurement at the Single Molecular Level and Therapeutic Regulation in Cancer Stem Cells (nanoET-leukemia). Engineering solutions for health. Instiitute of Bioengineering of Catalonia (IBEC). Barcelona, 2018.
- Sánchez-García L, Serna N, Álamo P, Sala R, Céspedes MV, Roldan M, Sánchez-Chardi A, Unzueta U, Casanova I, Mangues R, Vázquez E, Villaverde A. "Therapeutic protein-only nanoparticles as targeted antitumoral drugs". 17th Annual Congress on Pharmaceutics & Drug Delivery Systems. Prague (Czech Republic), 20-22 September 2018; Pharmaceutica Analytica Acta Sept. 2018, volumen 9 ISSN:2153-2435
- Favaro M, Serna N, Sanchez-Garcia L, Curbasi R, Roldan M, Unzuata U, Mangues R, Ferrer-Miralles N, Adriano Azzoni A, Vázquez E, Villaverde A. Arginine-rich self-assembling nanoparticles switch between receptor-dependent and -independent entry International Conference on Nanomedicine and Nanobiotechnology. 26-28 September 2018.
- Falgàs A, Pallares V, Aragó M, García A, Serna N, sanchez-Garcia L, Cespedes MV, Arroyo I, Gallardo A, Ugutz Unzueta U, Vázquez E, Villaverde A, Mangues R, Casanova I. Polypeptidic nanoparticle for the selective delivery of Diphtheria toxin domains (T22-DITOX) to CXCR4+ DLBCL cells leading to their elimination and potent antineoplastic effect. 4th Annual International Conference on New Concepts in Lymphoid Malignancies: Focus on Aggressive Lymphomas. Saggart (Dublin), Ireland, 28-30 September 2018.
- Seras-Franzoso J, Unzueta U, Céspedes MV, Cano-Garrido O, Sánchez-García L, Pallarès V, Sánchez-Chardi A, Serna N, Sala R, Álamo P, Díaz R, Roldán M, Falgàs A, Casanova I, Mangues R, Villaverde A, Vázquez E. Bacterial amyloids as implantable depots for the remote administration of cell-targeted protein drugs.15th International Conference on Nanosciences & Nanotechnologies (NN18). Thessaloniki (Greece), 3-6 July 2018.
- Sánchez-García L, Álamo P, Díaz R, Pallarés V, Serna N, Sala R, Cano-Garrido O, Falgàs A, Unzueta U, Sánchez-Chardi A, Roldán M, Casanova I, Céspedes MV, Vázquez E, Mangues R, Villaverde A. Self-structured, self-delivered nanoscale protein drugs for medical oncology. 15th International Conference on Nanosciences & Nanotechnologies (NN18). Thessaloniki (Greece), 3-6 July 2018.
- Ugutz Unzueta, Naroa Serna, Laura Sánchez-García, Mónica Roldán, Alejandro Sánchez -Chardí, Ramón Mangues, Antonio Villaverde and Esther Vázquez. Designing multi-functional and multi-paratopic vehicles through the generation of self-assembling hibrid nanoparticles. (Excellent Poster Presentation Award. Sponsored by PROTEOMASS Scientific Society) III International Symposium on Nanoparticles/Nanomaterials and Applications. Caparica (Portugal), 22-25 January 2018.
- Sánchez-Garcia L, Pallarès V, Díaz R, Álamo P, Serna N, Céspedes MV, Cano-Garrido O, Falgàs A, Sala R, Pesarrodona M, Unzueta U, Sánchez-Chardi A, Roldan M, Sánchez JM, Casanova I, Vázquez E, Mangues R, Villaverde A. Engineering protein toxins as self-assembling, self-delivered antitumoral drugs. 25th Meeting on Toxicology. Societé Française pour l'etude des toxins. Institut Pasteur, Paris (France), 28-29 November 2018.
- Sánchez-García L, Álamo P, Díaz R, Pallarés V, Serna N, Sala R, Cano-Garrido O, Falgàs A, Unzueta U, Sánchez-Chardi A, Casanova I, Céspedes MV, Vázquez E, Mangues R, Villaverde A. Self-structured, self-delivered nanoscale protein drugs for medical oncology. 15th International Conference on Nanosciences & Nanotechnologies (NN18). Thessaloniki (Greece), 3-6 July 2018.

AREA 3 · Haematological and Oncological Diseases

Haematological Diagnosis

Coordinator
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Members
Blanco, Maria Laura (FGS)
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Carricondo Morcillo, Maite (FGS)
Cisa Wieczorek, Sabina (IR)
Espadaler Pare, Montserrat (FGS)
Estivill Riezu, Maria Camino (FGS)
Fernández Rosales, María Nieves (FGS)
Fuentes Hernández, Francisca (FGS)
Hernández Campos, Carmen (FGS)
Martínez Sánchez, Elisabeth(FGS)
Martínez Valverde, Clara Maria (FGS)
Ortín Quílez, Rosa (FGS)
Payán Pernía, Salvador (FGS)
Pratcorona Canela, Marta (FGS)
Remacha Sevilla, Ángel Francisco (FGS)
Sardà Vidal, Maria Pilar (FGS)
Serra Ferrer, Marta (FGS)
Úbeda Ródenas, Jose (FGS)

Main Lines of Research

- Hematologic malignacies: diagnostics (morphology, cytogenetics, flow cytometry, molecular diagnostics).
- Next generation sequencing, genomic (microarrays) and proteomic platforms for diagnosis.
- Patient's derived xenografts.
- Noncancerous haemopathologies.
- Diagnosis and characterization of thrombocytopenias, thrombocytopathies and other platelet pathologies, especially complex pathologies (of genetic, mixed or unknown origin) and including unusual presentations of common diseases.
- In the framework of the GAIT-2 (genetic analysis of idiopathic thrombophilia, phase 2) project, to seek new phenotypes that favour the development of thrombosis, specifically related to the structure and function of platelets and other blood cells.

Scientific Challenges

- Consolidate characterization of haematological tumours and complex, rare and genetic noncancerous haematopathologies.
- Sampling management: isolation of neoplastic and non-neoplastic cells.
- Include the results of mass-analysis genomic and proteomic platforms in diagnostic algorithms and establish prognostic factors for haematological disorders, preferably complex or genetic neoplasms and noncancerous pathologies.
- Set up animal models in hematologic malignancies.
- Consolidate cooperation with the GAIT-2 project, especially regarding platelet and other blood cell participation in thrombosis generation.
- Promote interaction and stable links with internal groups (clinical hematology, pathology, gastrointestinal, hemostasis and thrombosis, complex disease genomics areas) and with other groups in Spain and abroad, especially those with complementary technologies.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Dr. Matilde Parreño.
- Oncology / Haematology and Transplantation (PI: Jordi Sierra).
- Molecular Bases of Disease (PI: Pablo Fuentes).
- Dr. Ramon Mangues/Isolda Casanova.

External Collaborations

- Dr. G. Saglio. Torino University.
- Dr. G. Gaidano. Novara University.
- Dr. Anna Bigas, IMIM (Hospital del Mar).
- Dr. Luciano di Croce. CRG. Barcelona.
- Dr. Pablo Menéndez, Josep Carreras Foundation (Hospital Clínic).
- Dr. Alberto Villanueva, Bellvitge Biomedical Research Institute (IDIBELL).
- Dr. G. Vassiliou. Sanger Center. Cambridge (UK)

Active Grants

- Josep Francesc Nomdedéu Guinot. Heterogeneidad clonal en leucemia mieloide aguda: caracterización inmunofenotípica, genotípica y mediante generación de xenografts. PI16/00940. Instituto de Salud Carlos III. Duration: 2017-2019. 66,500 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Josep Francesc Nomdedéu Guinot. Grup de Diagnòstic Hematològic. 2017 SGR 00999. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 33.0580 · Mean Impact Factor: 4.1323

Genesca E., Lazarenkov A., Morgades M., Berbis G., Ruiz-Xiville N., Gomez-Marzo P., Ribera J., Junca J., Gonzalez-Perez A., Mercadal S., Guardia R., Artola M.T., Moreno M.J., et al., Frequency and clinical impact of CDKN2A/ARF/CDKN2B gene deletions as assessed by in-depth genetic analyses in adult T cell acute lymphoblastic leukemia (2018) J HEMATOL ONCOL, 11 (1). **IF: 7.3330**

Guillem V., Calabuig M., Brunet S., Esteve J., Escoda L., Gallardo D., Ribera J.-M., Queipo de Llano M.P., Arnan M., Pedro C., Amigo M.L., Marti-Tutusaus J.M., Garcia-Guinon A., et al., Bone marrow VEGFC expression is associated with multilineage dysplasia and several prognostic markers in adult acute myeloid leukemia, but not with survival (2018) LEUKEMIA LYMPHOMA, 59 (10), 2383-2393. **IF: 2.6440**

Martinez-Pedrero F., Tajuelo J., Sanchez-Puga P., Chulia-Jordan R., Ortega F., Rubio M.A., Rubio R.G., Linear shear rheological of aging β-casein films adsorbing at the air/water interface (2018) J COLLOID INTERF SCI, 511, 12-20. **IF: 5.0910**

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AREA 3 · Haematological and Oncological Diseases

Molecular Pathology of Gynaecologic Cancer

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Main Lines of Research

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

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.

Active Grants

- Iñigo Espinosa Mariscal. Papel de los neutrófilos en la invasión miometrial del carcinoma endometrioide de endometrio. PI16/00902. Instituto de Salud Carlos III. Duration: 2017-2019. 71,500 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 93.6290 · Mean Impact Factor: 6.6878

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Del Carpio Huerta L., Virgili Manrique A.C., Szafranska J., Martin-Richard M., Paez Lopez-Bravo D., Sebio Garcia A., Espinosa Mariscal I., Gomila Pons P., Andres Granyo M., Barba Joaquin A., Barnadas Molins A., Tobena Puyal M., Brain metastases in colorectal cancer: prognostic factors and survival analysis (2018) INT J COLORECTAL DIS, 33 (11), 1517-1523. **IF: 2.5330**

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Espinosa I., De Leo A., D'Angelo E., Rosa-Rosa J.M., Corominas M., Gonzalez A., Palacios J., Prat J., Dedifferentiated endometrial carcinomas with neuroendocrine features: a clinicopathologic, immunohistochemical, and molecular genetic study (2018) HUM PATHOL, 72, 100-106. **IF: 3.1250**

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Gordillo J., Zabana Y., Garcia-Planella E., Manosa M., Llao J., Gich I., Marin L., Szafranska J., Sainz S., Bessa X., Cabre E., Domenech E., Prevalence and risk factors for colorectal adenomas in patients with ulcerative colitis (2018) UNITED EUR GASTROENT, 6 (2), 322-330. **IF: 3.4770**

Karube K., Enjuanes A., Dlouhy I., Jares P., Martin-Garcia D., Nadeu F., Ordonez G.R., Rovira J., Clot G., Royo C., Navarro A., Gonzalez-Farre B., Vaghefi A., Castellano G., Rubio-Perez C., et al., Integrating genomic alterations in diffuse large B-cell lymphoma identifies new relevant pathways and potential therapeutic targets (2018) LEUKEMIA, 32 (3), 675-684. **IF: 10.0230**

Martin-Broto J., Hindi N., Cruz J., Martinez-Trufero J., Valverde C., De Sande L.M., Sala A., Bellido L., De Juan A., Rubio-Casadevall J., Diaz-Beveridge R., Cubedo R., Tendero O., Salinas D., Gracia I., Ramos R., Bague S., Gutierrez A., Duran-Moreno J., Lopez-Pousa A., Relevance of Reference

Centers in Sarcoma Care and Quality Item Evaluation: Results from the Prospective Registry of the Spanish Group for Research in Sarcoma (GEIS) (2018) ONCOLOGIST. **IF: 5.3060**

Mena M., Taberna M., Tous S., Marquez S., Clavero O., Quiros B., Lloveras B., Alejo M., Leon X., Quer M., Bague S., Mesia R., Nogues J., Goma M., Aguila A., Bonfill T., Blazquez C., et al., Double positivity for HPV-DNA/p16ink4a is the biomarker with strongest diagnostic accuracy and prognostic value for human papillomavirus related oropharyngeal cancer patients (2018) ORAL ONCOL, 78, 137-144. **IF: 4.6360**

Mendez-Lara K.A., Santos D., Farre N., Ruiz-Nogales S., Leanez S., Sanchez-Quesada J.L., Zapico E., Lerma E., Escola-Gil J.C., Blanco-Vaca F., Marton-Campos J.M., Julve J., Pol O., Administration of CORM-2 inhibits diabetic neuropathy but does not reduce dyslipidemia in diabetic mice (2018) PLOS ONE, 13 (10). **IF: 2.7660**

Moreno M.J., Gallardo A., Novelli S., Mozos A., Arago M., Pavon M.A., Cespedes M.V., Pallares V., Falgas A., Alcoceba M., Blanco O., Gonzalez-Diaz M., Sierra J., Mangues R., Casanova I., CXCR7 expression in diffuse large B-cell lymphoma identifies a subgroup of CXCR4+ patients with good prognosis (2018) PLOS ONE, 13 (6). **IF: 2.7660**

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AREA 3 · Haematological and Oncological Diseases

Ear, Nose and Throat Cancers

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Orús Dotú, Cèsar (FGS)
Pujol Olmo, Albert (FGS)
Venegas Pizarro, María del Prado (FGS)

Main Lines of Research

- Genetic and molecular predictors of response to head and neck cancer (with the Oncogenesis and Antitumour Drugs group).
- Molecular mechanisms of inflammation in head and neck cancer (with the Inflammation Laboratory).
- Nasosinal endoscopic surgery: innovations in skull base techniques.
- Internal ear: aspects related to severe deafness, cochlear implants and otoneurological surgery of tumours.

Scientific Challenges

- Promote clinical and translational research into head and neck cancer with a very large database of head and neck cancers.
- Study relevant clinical issues in depth (second- third neoplasms, staging concerns, prognostic factors, etc) and investigate translational aspects such as genetic and molecular predictors.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Angiology, Vascular Biology and Inflammation (Dr. Lluís Vila).
- Oncogenesis and Antitumour Drugs (Dr. Ramon Mangues).
- Translational Molecular Oncology (Dr. Matilde Parreño).

External Collaborations

- Catalan Institute of Oncology: Epidemiology (Dr. X. Bosch).
- Catalan Institute of Oncology: Oncology (Dr. Ricard Mesia).
- Hospital Joan XXIII: Head and Neck Cancer (Dr. F.J. Avilés).
- Hospital Central de Asturias: Head and Neck Cancer (Dr. C. Suárez).

Active Grants

- Xavier León Vintró. Herramienta de predicción de respuesta a la radioterapia basada en la expresión de genes relacionados con la transición epitelial-mesenquimal en cáncer de cabeza y cuello. PI14/01918. Instituto de Salud Carlos III. Duration: 2015-2018. 71,500 €.
- Miquel Quer Agustí. Émbolos tumorales circulantes hCXCR4/SerpinE1 en el pronóstico del cáncer de cabeza y cuello. PI17/00584. Instituto de Salud Carlos III. Duration: 2018-2020. 2,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Valero C, Pardo L, López M, García J, Cmacho M, Quer M, León X. Pretreatment count of Peripherals neutrophils, monocytes and lymphocytes as independent prognostic factor in patients with head and neck cancer. Prize to the best publication of the Catalan Society of ORL and PCF of 2017. Barcelona, February 2018.

Doctoral Theses

- Albert Pujol Olmo. Proposta de classificació de les parotidectomies parcials per lesions benignes de paròtide: estudi clínic i bases anatòmiques. Universitat Autònoma de Barcelona. Directors: Miquel Quer Agustí, José Ramón Sañudo Tejero. Date of defense: 06/02/2018.
- Cristina Valero Mayor. Capacidad pronóstica de los parámetros hematológicos en sangre periférica pre-tratamiento en los carcinomas escamosos de cabeza y cuello. Universitat Autònoma de Barcelona. Directors: Xavier León Vintró, Miquel Quer Agustí, Montserrat López Vilas. Date of defense: 08/06/2018.
- Anna Sumarroca Trouboul. Capacidad pronóstica de la expresión de la mieloperoxidasa en los pacientes con carcinomas escamosos de cabeza y cuello. Universitat Autònoma de Barcelona. Directors: Xavier León Vintró, Luis Vila Navarro, Mercedes Camacho Pérez de Madrid. Date of defense: 28/09/2018.
- Joan Lop Gros, Análisis de la supervivencia competitiva en pacientes con carcinoma escamoso de cabeza y cuello. Universitat Autònoma de Barcelona. Directors: Xavier León Vintró, Jacinto García, Mercedes Camacho Pérez de Madrid. Date of defense: 30/11/2018.

Scientific Production

Total Impact Factor: 45.7970 · Mean Impact Factor: 2.8623

Camacho M., Aguero A., Sumarroca A., Lopez L., Pavon M.-A., Aviles-Jurado F.-X., Garcia J., Quer M., Leon X., Prognostic value of CD45 transcriptional expression in head and neck cancer (2018) EUR ARCH OTO-RHINO-L, 275 (1), 225-232. **IF: 1.5460**

Coca-Pelaz A., Takes R.P., Hutcheson K., Saba N.F., Haigentz M., Bradford C.R., de Bree R., Strojan P., Lund V.J., Mendenhall W.M., Nixon I.J., Quer M., Rinaldo A., Ferlito A., Head and Neck Cancer: A Review of the Impact of Treatment Delay on Outcome (2018) ADV THER, 35 (2), 153-160. **IF: 3.0850**

de Bree R., Senft A., Coca-Pelaz A., Kowalski L., Lopez F., Mendenhall W., Quer M., Rinaldo A., Shaha A.R., Strojan P., Takes R.P., Silver C.E., Leemans C.R., Ferlito A., Detection of Distant Metastases in Head and Neck Cancer: Changing Landscape (2018) ADV THER, 35 (2), 161-172. **IF: 3.0850**

Guntinas-Lichius O., Silver C.E., Thielker J., Bernal-Sprekelsen M., Bradford C.R., De Bree R., Kowalski L.P., Olsen K.D., Quer M., Rinaldo A., Rodrigo J.R., Sanabria A., Shaha A.R., Takes R.P., Vander Poorten V., Zbaren P., Ferlito A., Management of the facial nerve in parotid cancer: preservation or resection and reconstruction (2018) EUR ARCH OTO-RHINO-L, 275 (11), 2615-2626. **IF: 1.5460**

Leon X., Pardo L., Sansa A., Fernandez A., Camacho V., Garcia J., Lopez M., Quer M., Prognostic role of extracapsular spread in planned neck dissection after chemoradiotherapy (2018) HEAD NECK-J SCI SPEC, 40 (11), 2514-2520. **IF: 2.4710**

Lop J., Garcia J., Lopez M., Taberna M., Mena M., Alemany L., Quer M., Leon X., Competing mortality in oropharyngeal carcinoma according to human papillomavirus status (2018) HEAD NECK-J SCI SPEC. **IF: 2.4710**

Majercakova K., Valero C., Lopez M., Garcia J., Farre N., Quer M., Leon X., Postoperative staging of the neck dissection using extracapsular spread and lymph node ratio as prognostic factors in HPV-negative head and neck squamous cell carcinoma patients (2018) ORAL ONCOL, 77, 37-42. **IF: 4.6360**

Mena M., Taberna M., Tous S., Marquez S., Clavero O., Quiros B., Lloveras B., Alejo M., Leon X., Quer M., Bague S., Mesia R., Nogues J., Goma M., Aguila A., Bonfill T., Blazquez C., Guix M., et al., Double positivity for HPV-DNA/p16ink4a is the biomarker with strongest diagnostic accuracy and prognostic value for human papillomavirus related oropharyngeal cancer patients (2018) ORAL ONCOL, 78, 137-144. **IF: 4.6360**

Pedemonte G., Esteller E., Villatoro J.-C., Costa J.-M., Valero C., Quer M., Leon X., Elective neck dissection during salvage surgery after radiotherapy in patients with head and neck squamous cell carcinoma Svuotamento linfonodale cervicale elettivo nella chirurgia di salvataggio dopo radioterapia in pazienti con carcinoma a cellule squamose del distretto testa-collo (2018) ACTA OTORHINOLARYNGO, 38 (2), 86-93. **IF: 1.1960**

Rodrigo J.P., Grilli G., Shah J.P., Medina J.E., Robbins K.T., Takes R.P., Hamoir M., Kowalski L.P., Suarez C., Lopez F., Quer M., Boedeker C.C., de Bree R., Coskun H., Rinaldo A., Silver C.E., Ferlito A., Selective neck dissection in surgically treated head and neck squamous cell carcinoma patients with a clinically positive neck: Systematic review (2018) EJSO-EUR J SURG ONC, 44 (4), 395-403. **IF: 3.6880**

Suarez C., Fernandez-Alvarez V., Hamoir M., Mendenhall W.M., Strojan P., Quer M., Silver C.E., Rodrigo J.P., Rinaldo A., Ferlito A., Carotid blowout syndrome: Modern trends in management (2018) CANCER MANAG RES, 10, 5617-5628. **IF: 3.7020**

Sumarroca A., Rodriguez-Bauza E., Lop-Gros J., Garcia J., Lopez M., Quer M., Leon X., Repair of post-laryngectomy pharyngocutaneous fistulas using a pectoralis major flap Reparo de fístulas faringocutâneas pós-laringectomia utilizando retalho do músculo peitoral maior (2018) BRAZ J OTORHINOLAR. **IF: 1.4120**

Taberna M., Mena M., Tous S., Pavon M.A., Oliva M., Leon X., Garcia J., Guix M., Hijano R., Bonfill T., Aguila A., Alemany L., Mesia R., HPV-relatedness definitions for classifying HPV-related oropharyngeal cancer patient do impact on TNM classification and patients' survival (2018) PLOS ONE, 13 (4). **IF: 2.7660**

Valero A., Navarro A.M., Del Cuvillo A., Alobid I., Benito J.R., Colas C., De Los Santos G., Fernandez Liesa R., Garcia-Lliberos A., Gonzalez-Perez R., Izquierdo-Dominguez A., Jurado-Ramos A., et al., Position paper on nasal obstruction: Evaluation and treatment (2018) J INVEST ALLERG CLIN, 28 (2), 67-90. **IF: 3.4570**

Vander Poorten V., Triantafyllou A., Skalova A., Stenman G., Bishop J.A., Hauben E., Hunt J.L., Hellquist H., Feys S., de Bree R., Makitie A.A., Quer M., Strojan P., Guntinas-Lichius O., Rinaldo A., Ferlito A., Polymorphous adenocarcinoma of the salivary glands: reappraisal and update (2018) EUR ARCH OTO-RHINO-L, 275 (7), 1681-1695. **IF: 1.5460**

Villaronga M.A., Hermida-Prado F., Granda-Diaz R., Menendez S.T., Alvarez-Teijeiro S., Quer M., Vilaseca I., Allonca E., Garzon-Arango M., Sanz-Moreno V., Astudillo A., Rodrigo J.P., Garcia-Pedrero J.M., Immunohistochemical expression of cortactin and focal adhesion kinase predicts recurrence risk and laryngeal cancer risk beyond histologic grading (2018) CANCER EPIDEM BIOMAR, 27 (7), 805-813. **IF: 4.5540**

Diffusion Activities

- Miquel Quer (guest speaker). Prevention of complications.. 8th Congress of the European Head and Neck Oncology. Rome (Italy), 11-14 April 2018. International.
- Dr. Quer (director, professor and dissection monitor), Dra. Mirapeix (director). Hands-On Training Course in Surgical Anatomy of the Neck, Larynx and Parotid Gland. Unit of Anatomy and Embryology of the UAB and ORL Service of Hospital de la Santa Creu i Sant Pau. Barcelona-Bellaterra, 7-9 February 2018.
- Miquel Quer (speaker). 31th Advanced International Sialendoscopy Course (led by Prof. Francis Marchal). Geneve (Switzerland), 5-7 September 2018.
- Miquel Quer (guest speaker). Transoral approaches for Head-Neck tumours. An update. Meet the Experts. Barcelona, 28 September 2018.

AREA 3 · Haematological and Oncological Diseases

Oncology/Haematology and Transplantation

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Rosal Muntadas-Prim, Maria Josefa (IR)
Saavedra Gerosa, Silvana Daniela (FGS)

Main Lines of Research

- Study of the molecular and cellular pathophysiology of haematological cancers.
- Study of the prognostic value of clinical and biological parameters in haematological malignancies.
- Design of new modalities of chemotherapy, biotherapy and drug treatment targeting molecular mechanisms.
- Design of new modalities of haematopoietic stem-cell transplantation and cell therapy.
- Psychological intervention and quality of life in patients with haematological malignancies.

Scientific Challenges

- Identify new prognostic parameters for risk and therapeutic stratification.
- Evaluate targeted therapy in cell lines and animal models (with the Oncogenesis and Antitumour Drugs group).
- Reduce toxicity and increase availability of allogeneic transplants.
- Molecularly characterize acute myeloid leukaemia and determine the prognostic value of known genes and other genes of uncertain significance (with the Haematology Laboratory).
- Model leukaemia and lymphoma in animals to better understand cell physiopathology and test new drugs (with the Oncogenesis and Antitumour Drugs group).
- Molecularly characterize and determine the prognostic significance of cell physiopathology and immunotherapy for lymphoproliferative diseases and evaluate antitumour immunotherapy in animals and humans.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Oncogenesis and Antitumour Drugs (Dr. Ramon Mangues).
- Haematological Diagnosis (Dr. Josep Nomdedéu).
- Microbiology and Infectious Diseases (Dr. Pere Coll).

External Collaborations

- European Research Initiative on Chronic Lymphocytic Leukemia (ERIC): C. Moreno, coordinator.
- Spanish lymphoma transplantation groups (GELTAMO): J. Briones, S. Novelli
- Spanish haematologic malignancies consortium (PETHEMA): J. Sierra, M. Granell, S. Brunet
- Spanish CETLAM acute myeloid leukaemia and myelodysplasia group hospitals: S. Brunet (coordinator).
- EureCart Consortium (H2020): Universities of Milan, Wurzburg, Hospital Bambino Gessú, Rome.
- Ulm University and German Austrian AML Study Group.
- Erasmus University Totterdam and HOVON Cooperative Group.
- European Haematology Association (EHA). J. Sierra, membre of the Nomination and Scientific Working Groups Committee.
- European Blood and Marrow Transplantation Group.

Active Grants

- Jordi Sierra Gil. Terapia dirigida de Auristatina E o Ara-C a células de leucemia mieloide aguda que expresan CXCR4, receptor implicado en adhesión al estroma y quimiorresistencia. PI14/00450. Instituto de Salud Carlos III. Duration: 2015-2018. 19,500 €.
- Alba Mora Raya. Caracterització immunofenotípica i molecular de la malaltia residual en leucèmia limfàtica crònica. 2015 FI_B 00295. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2015-2018. 58,965 €.

- Javier Briones Meijide. Terapia génica 2.0: nueva generación de vectores virales episomales de alta bioseguridad y su desarrollo pre-industrial. RTC-2015-3393-1. Ministerio de Economía y Competitividad. Duration: 2015-2019. 112,138.60 €.
- Javier Briones Meijide. Advancecat: acceleradora pel desenvolupament de teràpies avançades a Catalunya. COMRDI15-1-0013. BIOCAT. Duration: 2016-2019. 39,927.96 €.
- Javier Briones Meijide. Celulas T de memoria "STEM" transducidas con un receptor quimerico antigeno-especifico (CAR) dirigido al antigeno BCMA en linfoma de Hodgkin. PI15/01383. Instituto de Salud Carlos III. Duration: 2016-2019. 51,500 €.
- Carolina Moreno Atanasio. Long-term survivors in Chronic Lymphocytic Leukemia. AECC 2015-2. Associació Espanyola Contra el Càncer. Duration: 2016-2018. 20,000 €.
- Javier Briones Meijide. Memory stem T cells with optimized chimeric antigen receptors targeting CD30 for the treatment of peripheral T cells lymphomas. DJCLS 10R/2016. Fundació Josep Carreras Internacional. Duration: 2017-2020. 135,000 €.
- Carolina Moreno Atanasio. Anàlisi de l'expressió i funció del FcyRIIb en cèl·lules B normals i en leucèmia limfàtica crònica. Conveni CELLEX-2. Fundació CELLEX. Duration: 2015-2019. 118,181.82 €.
- Javier Briones Meijide. Inmunoterapia mediante células T de memoria "stem" modificadas con receptores quiméricos antígeno-específicos (CARs) para tratamiento de pacientes con neoplasias linfoides. Conveni CELLEX-3. Fundació CELLEX. Duration: 2015-2018. 190,000 €.
- Jordi Sierra Gil. Red de Terapia Celular (TerCel). RD16/0011/0028. Instituto de Salud Carlos III. Duration: 2017-2021. 3,945 €.
- Carolina Moreno Atanasio. Geriatric assessment in elderly patients with chronic lymphocytic leukemia. GLD16/00153. Gilead Sciencies, S.L.U. Duration: 2016-2018. 32,000 €.
- Manuel Víctor Pallarés López. Nanoconjugados para la terapia dirigida a células de leucemia mieloide aguda que expresan CXCR4, re-ceptor implicado en adhesión al estroma y quimiorresistencia. FEHH 2016. Fundación Española de Hematología y Hemoterapia. Duration: 2017-2019. 72,000 €.
- Jordi Sierra Gil. EURE-CART EURopean Endeavour for Chimeric Antigen Receptor Therapies. H2020-SC1-PM09-EURE-CART. European Union. Duration: 2017-2020. 195,552 €.
- Jordi Sierra Gil. Estudio post-autorización prospectivo de terapia adaptada al riesgo en la leucemia mieloide aguda y síndromes mielodisplásicos de alto riesgo: importancia del perfil genómico y de la enfermedad residual mínima en la asignación del tratamiento. SLT002/16/00433. Departament de Salut. Duration: 2017-2019. 222,472.60 €.
- Carmen Alvarez Fernandez. Inmunoterapia mediante linfocitos T de memoria STEM con receptores antígeno-específicos (CARs) en linforma de Hodgkin. AIO 2017. Associación Española Contra el Cáncer. Duration: 2017-2019. 85,000 €.
- Jordi Sierra Gil. Implicación de la vía CXCR4/CXCL12/CXCR7 en la resistencia, recidiva y fenotipo de célula madre de la leucemia mieloide aguda. PI17/01246. Instituto de Salud Carlos III. Duration: 2018-2020. 73,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Jordi Sierra Gil. Grup de Diagnòstic i Tractament de les Neoplàsies Hematològiques. 2017 SGR 1395. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2020. 35,200 €.
- Javier Briones Meijide. Modulación farmacológica y diseño de CARs duales inmunoestimuladores para inmunoterapia con células T de memoria stem con alta eficacia antitumoral. PI18/01023. Instituto de Salud Carlos III. Duration: 2019-2021. 92,000 €.
- Yaiza Núñez Amela. Desarrollo de nanopartículas para la entrega dirigida de fármacos a células madre leucémicas CXCR4+. FI18/00268, Instituto de Salud Carlos III. Duration: 2019-2023. 82,400 €.
- Nela Klein González. Células T CAR modificadas genéticamente con receptores quiméricos coestimuladores para incrementar su eficacia antitumoral. FEHH 2018. Fundación Española de Hematología y Hemoterapia. Duration: 2019. 36,000 €.
- Javier Briones Meijide. Avaluació clínica dels MTA tipus CAR-TCELL. Convenio BST 2018, Banc de Sang i Teixits. Duration: 2018-2019, 50,175.68 €.
- Javier Briones Meijide. Generació de limfòcits T memòria "STEM" modificats amb receptors quimèrics antigen-específic (CARs) per immunoteràpia adoptiva en limfoma. LA CAIXA 2018. Fundació La Caixa. Duration: 2019-2021. 1,818,181.84 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 228.274 · Mean Impact Factor: 4.8569

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Diffusion Activities

Organization of scientific activities

- Sierra J (Chair and guest speaker). Update in acute myeloid leukemia therapy: Therapy of young AML patients. 44th Annual Meeting of the European Society for Blood and Marrow Transplantation. Lisbon (Portugal), 18-21 March 2018.
- Sierra J (Co-chair). Clinical Updates on Acute Leukemias. European School of Hematology (ESH) Symposium. Budapest (Hungary), 4-6 May 2018.
- Sierra J (Co-chair). Joint Meeting: Spanish Society of Hematology and Hemotherapy & Moffit Cancer Center. Granada (Spain), 10 October 2018.
- Sierra J. (Coordinator). International symposium "Advances in CARTS". Madrid, 7-8 November 2018.
- Sierra J (Co-chair). II Meeting on Oncohematogeriatrics. Spanish Society of Geriatrics and Gerontology. Madrid (Spain), 14 November 2018.

Conferences by invitation

- Sierra J. Midostaurin: the first targeted therapy approved for the treatment of FLT3+ AML. XXI Congreso Chileno de Hematología y XI Congreso de Medicina Transfusional. Puerto Varas (Chile), 8-11 August 2018.
- Briones J. CAR T-cells in hematologic diseases. Conclusions of the 59th Annual Meeting of the American Society of Hematology (Post-ASH Meeting). Valencia (Spain), 26-27 January 2018.
- Briones J. CAR T-cells in Lymphoma. Cell Therapy from the Bench to the Bedside and Return. Universidad Internacional del Mar. Murcia (Spain), 2-6 July 2018.
- Irene García Cadenas. CAR T-cells. Basic principles and clinical Pharmacology. Cell Therapy from the Bench to the Bedside and Return. Universidad Internacional del Mar. Murcia (Spain), 2-6 July 2018.

Comunications to meetings

- Oñate G, Garrido A, Esteve J, Coll R, Arnan M, Vives S, Sampol A, Tormo M, Escoda L, Queipo De Llano MP, Garcia-Guiñon A, Bargay J, Salamero O, Aljarilla A, Brunet S, Sierra J, Nomdedeu J and Pratcorona M. Prognostic Impact of the Interaction between DNMT3A mutation and Internal Tandem Duplication of the FLT3 Gene (FLT3-ITD) in Patients with De Novo Mutated NPM1 (NPM1mut) acute Myeloid Leukemia. BLOOD 2018 132:1492. 60th American Society of Hematology (ASH) Annual Meeting. San Diego, CA (USA), 1-4 December 2018.
- Bataller A , Diaz-Beyá M, Garrido A, Vives S, Tormo S, Arnan M, Salamero O, Sampol A, Coll R, Lopez-Guerra M, Pratcorona M, Zamora L, Villamón E, Roue G, Blanco A, Oliver-Caldes A, Nomdedeu JF, Colomer D, Brunet S, Sierra J and Esteve J. Favorable Outcome in Patients with Acute Myeloblastic Leukemia (AML) with NPM1 Mutation Who Present an Inadequate Clearance or Relapse of Minimal/Measurable Residual Disease (MRD): Results of a Preemptive Intervention Policy (CETLAM-2012 Protocol). Blood 2018 132:1385. 60th American Society of Hematology (ASH) Annual Meeting. San Diego, CA (USA), 1-4 December 2018.
- M. Hoyos Colell, A. Dolnik, T.J. Blätte, S. Skambraks, S. Lux, Z. Xia, V.I. Gaidzik, P. Paschka, D. Weber, M. Wattad, G. Held, H.A. Horst, F. Thol, M. Heuser, A. Ganser, V. Teleanu, J. Sierra, H. Döhner, K. Döhner, L. Bullinger. Molecular profiles in AML patients older than 70 years of age. PF213. 23rd Congress of the European Hematology Association. Stockholm (Sweden), 14-17 June 2018.
- G. Bautista Carrascosa, C. Canals, M. Kwon, I. Sanchez-Ortega, C. Regidor, P. Balsalobre, A. Bermúdez, M. Rovira, J.L. Díez-Martin, A. de Laiglesia, J.A. Pérez-Simón, L. Yañez, C. Ferrá, J. Sierra, J.L. Bello, I. Herrera-Arroyo, C. Solano, M.J. Pascual, T. Zudaire, L. López-Corral, A. Figuera, I. Heras, A. Sureda, R. Cabrera, R.F. Duarte. Single cord blood unit plus third party donor cells (Haplo-Cord) transplantation compared to adult unrelated donors in patients with acute leukemia: a retrospective case-control study. PF719. 23rd Congress of the European Hematology Association. Stockholm (Sweden), 14-17 June 2018.
- G. Oñate, A. Garrido, A. Aljarilla, J. Esteve, M. Arnan, R. Guardia, M. Tormo, S. Vives, O. Salamero, L. Escoda, A. Sampol, J. Bargay, M.P. Queipo de Llano, A. Garcia, S. Brunet, J. Sierra, J. Nomdedeu, M. Pratcorona. Prognostic impact of DNMT3A mutations in patients with acute myeloid leukemia (AML) with NPM1 mutation depending on FLT3 mutational status. PB1697. Stockholm (Sweden), 14-17 June 2018.
- A. Mora, R. Bosch, C. Cuéllar, R. Martino, J. Sierra, J. Nomdedeu, C. Moreno. Defining a technical workflow for gene expression profiling in MRD+ chronic lymphocytic leukemia. PB1857. 23rd Congress of the European Hematology Association. Stockholm (Sweden), 14-17 June 2018.
- M. Corrochano, M.E. Moreno, I. Garcia-Cadenas, A. Barata, A. Feliu, A. Esquirol, E. Rodriguez, R. Martino, J. Sierra. NEPA (Netupitant plus Palonosetron) for the prevention of chemotherapy induced nausea and vomiting in patients receiving stem cell transplantation. PB2377. 23rd Congress of the European Hematology Association. Stockholm (Sweden), 14-17 June 2018.

AREA 4

Neurological, Ment and Ageing

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tal Disorders

172 Neurobiology of Dementia

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191 Stroke Pharmacogenomics and Genetics

AREA 4 · Neurological, Mental Disorders and Ageing

Cerebrovascular Diseases

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Guisado Alonso, Daniel (IR)
Jiménez Xarrie, Elena (IR)
Marín Bueno, Rebeca (IR)
Martínez Domeño, Alejandro (FGS)
Prats Sánchez, Luis Antonio (IR)

Main Lines of Research

- Brain neurorepair after stroke.
- Role of statins in ischemic and haemorrhagic stroke.
- Prevention of cerebral haemorrhage with anticoagulants.
- Endothelial progenitor cells in stroke.
- Aetiological classification of brain haemorrhage.
- Pathophysiology of hematoma growth in acute cerebral haemorrhage.
- Benefits and risks of intravenous thrombolysis.
- Non-invasive monitoring of cerebral flow with applied optic methods.
- Participation in clinical trials.
- Cancer and stroke.
- Vulnerability of the atherosclerotic plaque.
- Predictors of atrial fibrillation.

Scientific Challenges

- Enhance cooperation with other groups in the framework of Spanish stroke research.
- Network (RETICS/INVICTUS) and also intra-hospital and extra-hospital cooperation.
- To obtain funding from FIS, regional authorities and private companies.
- Increase the number of contracted and grant-aided researchers and professionally develop existing researchers.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Neuroradiology.
- Thrombosis and Haemostasis.
- Cardiovascular Biochemistry.
- Neurobiology of Dementia.
- Molecular Pathology and Therapeutic of Ischaemic and Atherothrombotic Diseases.
- Stroke Pharmacogenomics and Genetics.
- Genomics of Complex Disease Unit.
- Clinical Epidemiology and Healthcare Services.
- Inflammation and Vascular Remodelling.
- Nuclear Medicine.

External Collaborations

- Dr. García-Verdugo, Universidad de Valencia, Spain.
- Dr. Carles Arús, Facultat de Ciències, Universitat Autònoma de Barcelona, Spain.
- Dr. Turgut Durduran, Institut de Ciències Fotòniques, Castelldefels, Barcelona, Spain.
- Dr. Tomás Sobrino, Hospital General Universitario, Santiago de Compostela, Spain.
- Dr. Exuperio Díez-Tejedor, Hospital La Paz, Madrid, Spain.
- Dr. Blanca Fuentes, Hospital La Paz, Madrid, Spain.
- Dr. Ángel Chamorro, Hospital Clínic de Barcelona, Spain.
- Dr. Antonio Dávalos, Hospital Germans Trias i Pujol, Badalona, Spain.
- Dr. Jaume Roquer, Hospital del Mar, Barcelona, Spain.
- Dr. Francesc Purroy, Hospital Arnau de Vilanova, Lleida, Spain.
- RETICS (cooperative health research network) / INVICTUS (ictus research).

Clinical trials

- ASSENT
- SWITCH
- ENCHANTED
- RESPECT-ESUS
- AVIGATE-ESUS
- CONVINCE
- Dra. Jennifer Linn (SUSPECT study), University of Rochester, New York.
- Dr. David Werring (HERO and CROMIS-2 study, Microbleeds consortium), National Hospital for Neurology and Neurosurgery, London.
- Dr. Peter Kelly (BIOVASC study, CONVINCE study), Mater University Hospital, Dublin.

Active Grants

- Joan Martí Fàbregas. Estudio de la progresión y la vulnerabilidad de la aterosclerosis carotídea: influencia del recuento de Células Endoteliales Progenitoras y del control de factores de riesgo vascular. PI15/00884. Instituto de Salud Carlos III. Duration: 2016-2019. 106,500 €.
- Joan Martí Fàbregas. REgenerative Stem cell therapy for STroke in Europe - RESSTORE. PHC-15-2015. European Union. Duration: 2015-2020. 389.58 €.
- Joan Martí Fàbregas. Red de Enfermedades Vasculares Cerebrales. INVICTUS PLUS. RD16/0019/0010. Instituto de Salud Carlos III. Duration: 2017-2021. 125,020 €.
- Raquel Delgado Mederos. Cerebral blood flow-guided early rehabilitation intervention after stroke: a pilot randomized trial. MARATO 20170930. Fundació La Marató de TV3. Duration: 2018-2021. 114,900 €.
- Elena Jiménez Xarrie. Biomarcadors lipoproteics per determinar la inflamació de la placa carotídia en l'ictus isquèmic. MARATO 20171610. Fundació La Marató de TV3. Duration: 2018-2021. 158,060 €.
- Joan Martí Fàbregas. Multicentric Project: Beca de La Marató de TV3 (IP: Dr. Angel Chamorro, Hospital Clínic).

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Joan Martí Fàbregas. Malalties Vasculars Cerebrals. 2017 SGR 00665. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- Israel Fernández Cadenas, Proyecto MAESTRO: Análisis del interactoma: asociación de la metagenómica, genómica y epigenómica con la evolución neurológica y la discapacidad después de un ictus isquémico. PI18/01338, Instituto de Salud Carlos III. Duration: 2019-2021. 81,200 €.
- Daniel Guisado Alonso. Evaluación multidisciplinar del pronóstico neurológico tras una muerte súbita cardiaca. CM18/00065. Instituto de Salud Carlos III. Duration: 2019-2020. 53,732 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 279.285 · Mean Impact Factor: 16.4285

Al-Shahi Salman R., Frantzias J., Lee R.J., Lyden P.D., Battey T.W.K., Ayres A.M., Goldstein J.N., Mayer S.A., Steiner T., Wang X., Arima H., Hasegawa H., Oishi M., Godoy D.A., Masotti L., et al., Absolute risk and predictors of the growth of acute spontaneous intracerebral haemorrhage: a systematic review and meta-analysis of individual patient data (2018) LANCET NEUROL, 17 (10), 885-894. **IF: 27.1380**

Campbell BCV, van Zwam WH, Goyal M, Menon BK, Dippel DWJ, Demchuk AM, Bracard S, White P, Dávalos A, Majoie CBLM, van der Lugt A, Ford GA, de la Ossa NP, Kelly M, et al.; HERMES collaborators. Effect of general anaesthesia on functional outcome in patients with anterior circulation ischaemic stroke having endovascular thrombectomy versus standard care: a meta-analysis of individual patient data. LANCET NEUROL. 2018 Jan;17(1):47-53. doi: 10.1016/S1474-4422(17)30407-6. Epub 2017 Dec 16. PubMed PMID: 29263006. **IF: 23.468**

Campbell BCV, Majoie CBLM, Albers GW, Menon BK, Yassi N, Sharma G, van Zwam WH, van Oostenbrugge RJ, Demchuk AM, Guillemin F, White P, Dávalos A, van der Lugt A, et al.; HERMES collaborators. Penumbral imaging and functional outcome in patients with anterior circulation ischaemic stroke treated with endovascular thrombectomy versus medical therapy: a meta-analysis of individual patient-level data. LANCET NEUROL. 2018 Nov 6. pii: S1474-4422(18)30314-4. doi: 10.1016/S1474-4422(18)30314-4. [Epub ahead of print] PubMed PMID: 30413385. **IF: 23.468**

Carrera D., Gorchs M., Querol M., Abilleira S., Ribo M., Millan M., Ramos A., Cardona P., Urra X., Rodriguez-Campello A., Prats-Sanchez L., Purroy F., Serena J., Canovas D., Zaragoza-Brunet J., et al., Revalidation of the RACE scale after its regional implementation in Catalonia: A triage tool for large vessel occlusion (2018) J NEUROINTERV SURG. **IF: 3.5240**

Contreras Muruaga M.M., Reig G., Vivancos J., Gonzalez A., Cardona P., Ramirez-Moreno J.M., Marti-Fabregas J., Suarez Fernandez C., Pose A., Diaz J.A., Rodriguez M., Pena M., Arias S., et al., Factors associated with poor anticoagulation control with vitamin K antagonists among outpatients attended in Internal Medicine and Neurology. The ALADIN study Factores asociados al mal control de la anticoagulación con antivitamina K en pacientes con fibrilación auricular no valvular atendidos en consultas de Medicina Interna y Neurología. Estudio ALADIN (2018) REV CLIN ESP, 218 (7), 327-335. **IF: 1.1840**

Delgado-Mederos R., Gregori-Pla C., Zirak P., Blanco I., Dinia L., Marin R., Durduran T., Marti-Fabregas J., Transcranial diffuse optical assessment of the microvascular reperfusion after thrombolysis for acute ischemic stroke (2018) BIOMED OPT EXPRESS, 9 (3), 1262-1271. **IF: 3.4820**

Hart RG, Sharma M, Mundl H, Kasner SE, Bangdiwala SI, Berkowitz SD, Swaminathan B, Lavados P, Wang Y, Wang Y, Davalos A, Shamalov N, Mikulik R, Cunha L, Lindgren A, et al.; NAVIGATE ESUS Investigators. Rivaroxaban for Stroke Prevention after Embolic Stroke of Undetermined Source. N Engl J Med. 2018 Jun 7;378(23):2191-2201. doi: 10.1056/NEJMoa1802686. Epub 2018 May 16. PubMed PMID: 29766772. **IF: 59.558**

Jimenez-Xarrie E., Perez B., Dantas A.P., Puertas-Umbert L., Marti-Fabregas J., Chamorro A., Planas A.M., Vila E., Jimenez-Altayo F., Uric Acid Treatment After Stroke Prevents Long-Term Middle Cerebral Artery Remodelling and Attenuates Brain Damage in Spontaneously Hypertensive Rats (2018) TRANSL STROKE RES. **IF: 8.2660**

Johnston SC, Easton JD, Farrant M, Barsan W, Conwit RA, Elm JJ, Kim AS, Lindblad AS, Palesch YY; Clinical Research Collaboration, Neurological Emergencies Treatment Trials Network, and the POINT Investigators. Clopidogrel and Aspirin in Acute Ischemic Stroke and High-Risk TIA. N ENGL J MED. 2018 Jul 19;379(3):215-225. doi: 10.1056/NEJMoa1800410. Epub 2018 May 16. PubMed PMID: 29766750. **IF: 59.558**

Kasner SE, Swaminathan B, Lavados P, Sharma M, Muir K, Veltkamp R, Ameriso SF, Endres M, Lutsep H, Messé SR, Spence JD, Nedeltechev K, Perera K, Santo G, Olavarria V, Lindgren A, Bangdiwala S, Shoamanesh A, Berkowitz SD, Mundl H, Connolly SJ, Hart RG; NAVIGATE ESUS Investigators. Rivaroxaban or aspirin for patent foramen ovale and embolic stroke of undetermined source: a prespecified subgroup analysis from the NAVIGATE ESUS trial. LANCET NEUROL. 2018 Sep 28. pii: S1474-4422(18)30319-3. doi: 10.1016/S1474-4422(18)30319-3. [Epub ahead of print] PubMed PMID: 30274772. **IF: 23.468**

Marrero-González P, Pascual-Sedano B, Martínez-Domeño A, Díaz-Polo LE, Granell E, Rodriguez R, Gironell A, Guisado-Alonso D. Isolated propriospinal myoclonus as a presentation of cervical myelopathy. Tremor other hyperkinet Mov 2018 Nov 26;8:598. **IF: –**

Marti-Carvajal A.J., Valli C., Sola I., Marti-Fabregas J., Bonfill Cosp X., Citicoline for treating people with acute ischemic stroke (2018) COCHRANE DB SYST REV, 2018 (7). **IF: 6.7540**

Marti-Fabregas J., Medrano-Martorell S., Merino E., Prats-Sanchez L., Marin R., Delgado-Mederos R., Camps-Renom P., Martinez-Domeno A., Gomez-Choco M., Lara L., Casado-Naranjo I., et al., Statins do not increase Markers of Cerebral Angiopathies in patients with Cardioembolic Stroke (2018) SCI REP-UK, 8 (1). **IF: 4.1220**

Marti-Fabregas J., Prats-Sanchez L., Guisado-Alonso D., Martinez-Domeno A., Delgado-Mederos R., Camps-Renom P., SMASH-U versus H-ATOMIC: A Head-to-Head Comparison for the Etiologic Classification of Intracerebral Hemorrhage (2018) J STROKE CEREBROVASC, 27 (9), 2375-2380. **IF: 1.5980**

Prats-Sanchez L., Guisado-Alonso D., Painous C., Fayos F., Pascual-Goni E., Delgado-Mederos R., Martinez-Domeno A., Camps-Renom P., Marti-Fabregas J., Insular damage, new-onset atrial fibrillation and outcome

after acute intracerebral hemorrhage (2018) EUR J NEUROL, 25 (3), 491-496. **IF: 4.6210**

Roman L.S., Menon B.K., Blasco J., Hernandez-Perez M., Davalos A., Majoie C.B.L.M., Campbell B.C.V., Guillemin F., Lingsma H., Anxionnat R., Epstein J., Saver J.L., Marquering H., Wong J.H., et al., Imaging features and safety and efficacy of endovascular stroke treatment: a meta-analysis of individual patient-level data (2018) LANCET NEUROL, 17 (10), 895-904. **IF: 27.1380**

Zapata-Wainberg G., Quintas S., Ximenez-Carrillo Rico A., Benavente Fernandez L., Masjuan Vallejo J., Gallego Cullere J., Freijo Guerrero M.D.M., Egido J., Gomez Sanchez J.C., Martinez Domeno A., Purroy F., Vives Pastor B., Rodriguez Yanez M., Vivancos J., Prognostic factors and analysis of mortality due to brain haemorrhages associated with vitamin K antagonist oral anticoagulants. Results from the TAC registry Factores pronósticos y análisis de la mortalidad de las hemorragias cerebrales asociadas a anticoagulantes orales antagonistas de la vitamina K. Resultados del Estudio TAC Registry (2018) NEUROLOGIA, 33 (7), 419-426. **IF: 1.9380**

Other Publications

- Perera K, Swaminathan B, Veltkamp R, Arauz A, Ameriso S, Marti-Fabregas J, Arnold M, Hankey GJ, Lutsep H, Hart RG. Frequency and Features of Embolic Stroke of Undetermined Source (ESUS) in Young Adults. EUROPEAN STROKE JOURNAL 2018;3:110–116.

Diffusion Activities

Communications to congresses

- Clara Gregori Pla, Stella Avtzi, Gianluca Cotta, Giacomo Giacalone, Federica Maruccia, Pol Camps-Renom, Joan Martí-Fàbregas, Raquel Delgado-Mederos, Mercedes Mayos, and Turgut Durduran. Microvascular Cerebral Blood Flow Fluctuations Due to Periodic Apneas in Acute Ischemic Stroke. Clinical and Translational Biophotonics 2018. Hollywood (Florida, United States), 3-6 April 2018.
- C. Carrera Vasconez , N. Cullell, N. Torres-Aguila, E. Muiño, E. Lopez-Cancio, A. Dávalos, B. Alejandro, M. Ribo, C. Vives-Bauza, V. Obach, T. Segura, J. Martí-Fabregas, L. Heitsch, L. Ibanez, J. Jimenez-Conde, J. Roquer, C. Cruchaga, J. Montaner, J.M. Lee and I. Fernández-Cadenas. A genome-wide association study identified a candidate locus associated with RTPA-induced hemorrhagic transformation C. 4th European Stroke Organization Conference. Gotteborg, May 2018. EUR J STROKE 2018.
- J. Martí-Fàbregas, R. Delgado-Mederos, A. Martínez-Domeño, P. Camps-Renom, E. Merino, S. Medrano-Martorell, B. Zandio, A. Boix, M. Zedde, M. Gómez-Choco, L. Lara, A. Calleja, Y. Bravo, D. Cánovas, L. Llull, I. Casado-Naranjo, A.M. De Arce-Borda, M. Hernández-Pérez, M. Freijo, L. Prats-Sánchez. Clinical relevance of microbleeds in patients with cardiembolic stroke who start long-term oral anticoagulation: follow-up of patients from the hero study. 4th European Stroke Organization Conference. Gotteborg, May 2018. EUR J STROKE 2018.
- P. Camps-Renom, A. Fernández-León, L. Prats-Sánchez, J.M. González de Echávarri, P. Marrero-González, R. Delgado-Mederos, A. Martínez-Domeño, E. Jiménez-Xarrié, D. Guisado-Alonso, J. Martí-Fàbregas. Carotid plaque inflammation measured with 18-fluorodeoxyglucose positron emission tomography predicts early stroke recurrence in patients with atherothrombotic stroke. 4th European Stroke Organization Conference. Gotteborg, May 2018. EUR J STROKE 2018.
- L. Prats-Sánchez, J. Martí-Fàbregas, R. Marin-Bueno, P. Camps-Renom, D. Guisado-Alonso, R. Delgado-Mederos, A. Martínez-Domeño, S. Miqueleiz, G. Anguera, J.A. Millón, J.C. Souto-Andrez. Increased risk of simultaneous acute ischemic stroke and deep vein thrombosis in patients with active cancer. 4th European Stroke Organization Conference. Gotteborg, May 2018. EUR J STROKE 2018.
- D. Guisado-Alonso, L. Prats-Sánchez, R. Delgado-Mederos, P. Camps-Renom, S. Medrano-Martorell, E. Merino, J. Sanahuja, D. Cocho, A. Lago, J. Krupinski, A. De Felipe, B. Fuentes, M. Garcés, A. Rodríguez-Campello, E. Palomeras, F. Moniche, M. Serrano, I. Díaz-Maroto, M. Rodríguez-Yáñez, J. Martí-Fàbregas. Cortical superficial siderosis in patients with cardioembolic stroke and long-term oral anticoagulation: frequency, associated variables and risk of intracranial hemorrhage during follow-up. 4th European Stroke Organization Conference. Gotteborg, May 2018. EUR J STROKE 2018.
- L. Prats-Sánchez, J. Roquer, M. Guasch, E. Pascual-Goñi, N. Flores, P. Camps-Renom, D. Guisado-Alonso, A. Martínez-Domeño, R. Delgado-Mederos, A. Rodríguez-Campello, A. Ois, J. Jiménez-Conde, E. Cuadrado-Godia, E. Giralt-Steinhauer, R.M. Vivanco-Hidalgo, J. Martí-Fàbregas. Influence of time to admission on the outcome in patients with acute intracerebral hemorrhage. 4th European Stroke Organization Conference. Gotteborg, May 2018. EUR J STROKE 2018.
- E. Pascual-Goñi, L. Prats-Sánchez, S. Bonilla, P. Camps-Renom, D. Guisado-Alonso, R. Martínez, A. Martínez-Domeño, J. Martí-Fàbregas. Non-contrast computed tomography markers of intracerebral hemorrhage growth to predict functional outcome. 4th European Stroke Organization Conference. Gotteborg, May 2018. EUR J STROKE 2018.
- P. Camps-Renom, M. Soler, E. Jimenez-Xarrié, R. Marin-Bueno, N. Teixidor-Mikkola, L. Montolio-Núñez, C. Torres-Querol, J.M. González de Echávarri, P. Marrero-González, L. Prats-Sánchez, D. Guisado-Alonso, R. Delgado-Mederos, A. Martínez-Domeño, J. Martí-Fàbregas. Prognostic value of early endothelial progenitor cells mobilization after an acute atherothrombotic stroke. 4th European Stroke Organization Conference. Gotteborg, May 2018. EUR J STROKE 2018.
- F. Purroy Garcia, I. Benabdelhak, S. Abilleira, L. Colàs-Campàs3, P. Cardona, F.X. Jiménez-Fàbrega, J. Martí-Fàbregas, G. Mauri-Capdevila, J. Pagola, M. Portero-Otın, A. Rodríguez-Campello, A. Rovira, M. Rué. Remote ischemic perconditioning among acute ischemic stroke patients in catalonia: remote-cat project. 4th European Stroke Organization Conference. Gotteborg, May 2018. EUR J STROKE 2018.
- J. Molina-Seguin, A. Vena, I. Benabdelhak, J. Serena, A.M. de Arce, M. Millán, B. Fuentes, J.F. Arenillas, J. Krupinski, J.J. Mengual, E. Palomeras, J. Martí-Fàbregas, X. Ustrell, J. Tejada, J. Masjuan, M. Garcé, F. Purroy. Embolic strokes of undetermined source in the renisen stroke registry: comparison of patient features and evolution during admission. 4th European Stroke Organization Conference. Gotteborg, May 2018. EUR J STROKE 2018.
- D. Vázquez, S. Joaquin, I. Benabdelhak, A. Vena, A.M. de Arce, G. Mauri-Capdevila, J. Sanahuja, B. Fuentes, M. Millan, J.F. Arenillas, L. Cano, E. Palomeras, J. Martí-Fàbregas, M. Rodríguez-Yáñez, X. Ustrell, J. Tejada, J. Masjuan, M. Garcés, F. Purroy Garcia. Age and sex specific risk profiles and in-hospital outcome in 2,476 subjects from a multicentre cohort. 4th European Stroke Organization Conference. Gotteborg, May 2018. EUR J STROKE 2018.
- F. Purroy Garcia, L. Colàs-Campàs, G. Mauri-Capdevila, J. Molina, J. Sanahuja, N. Aymerich, A. Ois, S. Tur, D. Canovas, J. Martí-Fàbregas, A. García-Pastor, J. Masjuan, B. Fuentes, T. Segura, I. Benabdelhak. Recent transient ischemia before ischemic stroke induces ischemic tolerance in clinical practice. data from the multicentre study estoica. 4th European Stroke Organization Conference. Gotteborg, May 2018. EUR J STROKE 2018.
- L. Colàs-Campàs, M. Ferrer, I. Benabdelhak, J. Molina-Segun, G. Mauri-Capdevila, J. Martí-Fàbregas, J. Gállego, N. Aymerich, J. Masjuan, S. Tur, J. Roquer, A. Ois, E. Díez-Tejedor, M. Baez, A. García-Pastor, D. Cánovas, M.D.C. Garcia-Carreira, T. Segura, F. Purroy. Ischemic tolerance biomarkers: from discovery to validation. 4th European Stroke Organization Conference. Gotteborg, May 2018. EUR J STROKE 2018.
- A. Dávalos, M. Gomis, F. Purroy, P. Cardona, A. Rodriguez-Campello, J. Martí-Fàbregas, J. Pagola, L. Pardo, L. Muñoz-Narbona, I. Benabdelhak, B. Lara, E. Cuadrado-Godia, A. Martínez-Domeño, J.M. Juega, J. Sere-

na, J. Alvarez-Ballano, A. Paipa, J. Roquer, R. Neeter, C. Molina. Stroke risk analysis. a novel automatic system with a high detection rate of paroxysmal atrial fibrillation in the acute phase of stroke. 4th European Stroke Organization Conference. Gotteborg, May 2018. EUR J STROKE 2018.

- F.A. Wollenweber, C. Opherk, M. Zedde, C. Catak, R. Malik, M. Duering, M. Konieczny, R. Pascarella, R. Samoes, M. Correia, J. Martí-Fàbregas, J. Linn, M. Dichgans. Prognostic relevance of cortical superficial siderosis in cerebral amyloid angiopathy. 4th European Stroke Organization Conference. Gotteborg, May 2018. EUR J STROKE 2018.
- Clara Gregori-Pla; Rickson C. Mesquita; Christopher Favilla; David R. Busch; Igor Blanco; Stella Avtzi; Pol Camps-Renom; Joan Marti-Fabregas; Luis Prats-Sanchez; Alejandro Martinez-Domeno; Raquel Delgado-Mederos; John A. Detre; Arjun G. Yodh; and Turgut Durduran. A mild orthostatic challenge shows cerebral autoregulation impairment on the ipsilesional side of ischemic stroke patients? Society for fNIRS. Tokyo, October 2018.
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- Caty Carrera, Laura Heitsch, Laura Ibañez, Natalia Cullell, Nuria Torres-Águila, Elena Muiño, Jara Cárcel, Jonathan González, Alejandro Bustamante, Marc Ribó, Tomás Sobrino, et al. Proyecto GENISIS: Estudio de genoma completo revela loci asociados a la evolución neurológica temprana post-ictus. II Annual Congress INVICTUS+. Santiago de Compostela, 19-20 April 2018.
- Á Chamorro; S. Amaro; P. Cardona; A. Dávalos; J. Macho; J. Martí-Fábregas; C. Molina; L. Oleaga; J. Roquer; F. Torres; X. Urra, en representación Investigadores CHOICE. CHemical Optimization of Cerebral Embolectomy (CHOICE) Trial. II Annual Congress INVICTUS+. Santiago de Compostela, 19-20 April 2018.
- Francisco Purroy, Ikram Benabdelhak, Laura Colàs-Campàs, Ana Rodríguez-Campello, Jorge Pagola, Joan Martí–Fàbregas. Efecto del Condicionamiento Isquémico Remoto en un modelo de oclusión de la arteria cerebral media. II Annual Congress INVICTUS+. Santiago de Compostela, 19-20 April 2018.
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- Pol Camps-Renom; Alejandro Fernández-León; Luís Prats-Sánchez; José M. González-deEchávarri; Paula Marrero-González; Raquel Delgado-Mederos; Alejandro Martínez-Domeño; Elena Jiménez-Xarrié; Daniel Guisado-Alonso; Joan Martí-Fàbregas. La inflamación de las placas carotideas aterosclerótica predice la recurrencia precoz en pacientes con ictus isquémico aterotrombótico. II Annual Congress INVICTUS+. Santiago de Compostela, 19-20 April 2018.
- Jessica Molina-Seguin. Ana Vena, Ikram Benabdelhak, Joaquin Serena, Ana María de Arce, Mònica Millán, Blanca Fuentes, Juan Francisco Arenillas, Jerzy Krupinski, Juan José Mengual, Ernest Palomeras, Joan Martí-Fábregas, Manuel Rodríguez Yáñez, Xavier Ustrell, Javier Tejada, Jaime Masjuan, Moisés Garcés, Francesc Purroy. Ictus isquémic indeterminat de mecanisme embólic en registre RENISEN: Comparació de les característiques clíniques i evolució durant l'ingrés. XXII Meeting of the Catalan Society of Neurology. Barcelona, May 2018.
- Marta Caballero M, Izquierdo A, Juanola E, Martí-Fàbregas J, Prats-Sánchez L. Ictus de repetició per pseudoaneurisma trombosat associat a kinking carotidi: Tractament endovascular com a alternativa terapèutica. XXII Meeting of the Catalan Society of Neurology. Barcelona, May 2018.
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- Coral Torres Querol, Elena Jiménez Xarrié, Neus Morell Servera, Nora Teixido Mikkola, Joan Martí Fàbregas, Luis Prats Sánchez, Alejandro Martínez Domeño, Raquel Delgado Mederos, Daniel Guisado Alonso, Pol Camps Renom. És possible detectar la neovascularització in vivo de les plaques d'ateroma carotídies mitjançant dúplex amb contrast? Estudi pilot comparatiu amb l'anàlisi histopatològica. XXII Meeting of the Catalan Society of Neurology. Barcelona, May 2018.
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- Pol Camps-Renom; Alejandro Fernández-León; Luís Prats-Sánchez; José M. González-de-Echávarri; Paula Marrero-González; Raquel Delgado-Mederos; Alejandro Martínez-Domeño; Elena Jiménez-Xarrié; Daniel Guisado-Alonso; Joan Martí-Fàbregas. Carotid plaque inflammation measured with 18-Fluorodeoxyglucose positron-emission tomography predicts early stroke recurrence in patients with atherothrombotic stroke. XXII Meeting of the Catalan Society of Neurology. Barcelona, May 2018.
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- Tomàs Xuclà, Joan Martí-Fàbregas, Rebeca Marín-Bueno, Pol Camps-Renom, Daniel Guisado-Alonso, Raquel Delgado-Mederos, Alejandro Martínez-Domeño, Luis Prats-Sánchez Simultaneous Acute Ischemic Stroke and Deep Vein Thrombosis: Increased Risk in Patients with Active Cancer. XXII Meeting of the Catalan Society of Neurology. Barcelona, May 2018.
- Prats Sánchez, L.A.; Camps Renom, P.; Martínez Domeño, A.; Delgado Mederos, R.; Martí Fàbregas, J. Factores de riesgo de lesiones isquémicas agudas silentes en la hemorragia cerebral. Confirmación en la identificación de biomarcadores relacionados con el desarrollo de Precondicionamiento isquémico en pacientes con ictus isquémico. LXX Annual Meeting of the Spanish Society of Neurology. Sevilla, November 2018.
- Torres Querol, C.; Jové Font, M.; Colàs-Campàs, L.; Mauri Capdevila, G.; Molina Seguín, J.; Sanahuja Montesinos, J.; Aymerich Soler, N.; Ois Santiago, A.; Tur Campos, S et al. Datos del estudio ESTOICA. LXX Annual Meeting of the Spanish Society of Neurology. Sevilla, November 2018.
- Gómez-Choco Cuesta, M.J.; de Arce Borda, A.M.; Paré Curell, M.; Purroy García, F.; Arenillas, J.; Palomeras, E.; Serena, J.; Diez Tejedor, E.; Ustrell, X.; Tembl, P.; et al. La presencia de lesiones microvasculares crónicas influye en la recuperación precoz en los pacientes con ictus lacunar. LXX Annual Meeting of the Spanish Society of Neurology. Sevilla, November 2018.
- Colàs Campàs, L.; Torres-querol, C.; Benabdelhak, I.; Molina Seguín, J.; Mauri-Capdevila, G.; Martí Fabregas, J.; Gállego Culleré, J.; Aymerich, N.; Masjuan, J.; Tur, S.; Roquer, J.; Ois Santiago, A.J.; Díez-Tejedor, E.; Fuentes, b.; García-Pastor, A.; Cánovas Verge, D.; García Carreira, M.D.C.; Segura, T.; Purroy García, F. Biomarcadores de Tolerancia Isquémica: del descubrimiento a la validación. LXX Annual Meeting of the Spanish Society of Neurology. Sevilla, November 2018.
- Molina Seguin, J.; Vena, A.; benabdelhak, I.; Serena, J.; de Arce, A.M.; Millán, M.; Fuentes, B.; Arenillas, J.F.; Krupisnki, J.; Mengual, J.J.; Palomeras, E.; Martí Fábregas, J.; Rodríguez yáñez, M.; Ustrell, X.; Tejada, J.; Masjuan, J.; Garcés, M.; Purroy García, F. Ictus isquémico indeterminado de mecanismo embólico en el registro RENISEN: comparación de las características clínicas y evolución durante el ingreso. LXX Annual Meeting of the Spanish Society of Neurology. Sevilla, November 2018.
- Purroy García, F.; Benabdelhak, I.; Abilleira, S.; Colàs Campàs, L.; Cardona Portela, P.; Jiménez Fàbrega, X.; Martí Fàbregas, J.; Mauri Capdevila, G.; Pagola, J.; Portero, M.; Rodríguez Campello, A.; Rovira, À.; Rué, M. Percondicionamiento isquémico remoto en pacientes con ictus is-

quémico agudo en Catalunya (REMOTE-CAT). LXX Annual Meeting of the Spanish Society of Neurology. Sevilla, November 2018.

- Bertran Recasens, B.; Figueras Aguirre, G.; Cascales Lahoz, D.; Fernández Pérez, I.; Avellaneda Gómez, C.; Rodriguez Campello, A.; Prats Sánchez, L.; Martínez Domeño, A.; et al. Los microsangrados lobulares también son un marcador de angiopatia amiloidea cerebral en la hemorragia cerebelosa. LXX Annual Meeting of the Spanish Society of Neurology. Sevilla, November 2018.
- Requena Ruiz, M.; Pérez de la Ossa, N.; Abilleira, S.; Cardona, P.; Urra, X.; Martí Fabregas, J.; Rodríguez Campello, A.; Boned Riera, S.; Rubiera del Fueyo, M.; Tomasello Weitz, A.; Molina Cateriano, C.A.; Ribó Jacobi, M. Predictores de tratamiento endovascular en código ictus con menos de 6 horas de evolución. LXX Annual Meeting of the Spanish Society of Neurology. Sevilla, November 2018.
- Martínez Sánchez, P.; Dahl Cruz, F.; Lago Martín, A.; García Pastor, A.; Martínez Zabaleta, M.T.; Alonso de Leciñana Cases, M.; González Mingot, C.; et al. Características de la migraña que se asocian a trombofilia: datos de un estudio prospectivo multicéntrico. LXX Annual Meeting of the Spanish Society of Neurology. Sevilla, November 2018.

Other diffusion activities

- Joan Martí Fàbregas. II Meeting of the Group of Critical Neurology of the Spanish Society of Neurology. Tratamiento de la hemorragia cerebral aguda. Controversias en anticoagulación. Barcelona, 2 June 2018.
- Joan Martí Fàbregas. ¿Debemos anticoagular al paciente con antecedentes de hemorragia intracraneal o con microsangrados? Reunión de formación y prevención de ictus. Madrid, 21-22 September 2018.
- Joan Martí Fàbregas. Member of the Organizing Committee and the Scientific Committee of the WICH (7th World Intracranial Hemorrhage Conference). Granada, 19-21 May 2019.
- Joan Martí Fàbregas. Hemorragia cerebral. XXV Curso de enfermedades cerebrovasculares para médicos residentes en Neurología. San Sebastián, 26 October 2018.
- Joan Martí Fàbregas. Taller 2: Anticoagulación como prevención secundaria en pacientes que han presentado un ictus. II Jornadas Cápsulas en anticoagulación. Barcelona 8 November 2018.
- Joan Martí Fàbregas. Thrombectomy. Karolinska Stroke Update. Stockholm, 12-14 November 2018.

AREA 4 · Neurological, Mental Disorders and Ageing

Neuromuscular Diseases

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Main Lines of Research

Autoimmune neuromuscular diseases

- Characterization of new target antigens in Myasthenia Gravis (MG), and immune neuropathies (CIDP, GBS, MMN). Their use as diagnostic and therapeutic biomarkers.
- Pathogenesis of newly recognized antigens both in MG and in CIDP.
- Analysis of the innate immunity in inflammatory myopathies.
- Analysis of the impact of new immunomodulating therapies on IgG4 mediated Neuromuscular Diseases (NMD).
- Functional aspects of immune system cells (response to ligands, production of antibodies, etc).
- Phase 2 clinical trials in autoimmune neuromuscular diseases.
- IGOS data base for Guillain Barre syndrome.
- NMD-ES Spanish registry for neuromuscular diseases.

Muscular dystrophy, dysferlinopathy and distal myopathies

- Muscle MRI analysis as a biomarker of different muscular dystrophies.
- Role of PDGF in muscular dystrophies fibrosis. Study of nintedanib as an antifibrotic drug in muscular dystrophies.
- Natural history of Dysferlinopathies. The international COS-study Jain Foundation.
- Study of proteasome and autophagy inhibitors in dysferlin myopathy. Development of cell models of NMD diseases using CRISPRCas9 technology.
- Clinical trials in muscular dystrophies and metabolic muscle diseases.

Amyotrophic lateral sclerosis

- Epidemiology of ALS in Catalonia.
- Gene profile of ALS patients in Spain.
- Biomarkers (miRNAs...) profile in different phenotypes of ALS.

Scientific Challenges

- Advance in the knowledge of the immunological mechanisms involved in the pathogenesis of autoimmune neuromuscular diseases (MG, CIDP, MMN).
- Develop 2D and 3D cell based assays to understand the effect of autoantibodies in Myasthenia gravis.
- Advance in the knowledge of the pathogenetic mechanisms of inflammatory myopathies (DM).
- Search for new antigens and develop diagnostic tests with new biomarkers in immune-mediated neuropathies and Myasthenia Gravis.
- Implement new diagnostic and disease follow-up methods for muscular dystrophies resulting from dysferlinopathy and other myopathies research (biomarkers (miRNA, secretome), MRI, etc).
- Advance in the knowledge of the pathogenetic mechanisms involved in dysferlin deficiency and other muscular dystrophies.
- Search for new genes and biomarkers in the different phenotypes of ALS.
- Use of the NMD.ES registry to perform research in different NMD.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Genetic Diseases.
- Inflammatory Diseases.

External Collaborations

- Jerome Devaux. CNRS (Institut de Neurosciences de Montpellier, U1051R1), France.
- Silvere van der Maarel. Leiden, The Netherlands.
- Xavier Navarro. Departament de Medicina, Institut de Neurociències. Universitat Autònoma de Barcelona, Spain.
- R. Martí, Elena Garcia Arumí. Vall d'Hebron Research Institute. CIBERER CB 06/07/015. Barcelona, Spain.
- Vilchez JJ. Hospital La Fe Valencia. Unitat CIBERER CB 06/05/ 091
- Al Chalabi A. King's College. London, UK.
- Benveniste. O. Hopital Salpetriere, Paris, France.
- Nagaraju, K, Jaiswal, J. Children's Hospital. Washington D.C., USA.
- Mouly, V. Institut de Myologie. Paris, France.
- Pinal I. National Institutes of Health. Bethesda, MD, USA.
- Lundberg I. Karolinska Institute. Stockholm, Sweden.
- Puri P.L. IRCCS Fondazione Santa Lucia Rome, 00143. Rome, Italy

Active Grants

- Maria Isabel Illa Sendra. Centro de Investigación Biomédica en Red de Enfermedades Neurodegenerativas. CB06/05/0030. Ministerio de Sanidad y Política Social. Duration: 2006-2018. 429,510.89 €.
- Ricardo Rojas García. Biomarkers profile in different phenotypes of Motor Neuron Disease. MARATO 20143710. Fundació La Marató de TV3. Duration: 2015-2018. 120,500 €.
- Jorge Alberto Díaz Manera. PDGF como nuevo biomarcador y diana terapéutica en pacientes con distrofia muscular. PI15/01822. Instituto de Salud Carlos III. Duration: 2016-2018. 76,500 €.
- Eduard Gallardo Vigo. Influencia de factores inmunológicos y no inmunológicos en la patogenia de las miopatías inflamatorias. PI15/01597. Instituto de Salud Carlos III. Duration: 2016-2019. 91,500 €.
- Ricardo Rojas García. Identificación de biomarcadores diagnósticos en pacientes con Esclerosis Lateral Amiotrófica. PI15/01618. Instituto de Salud Carlos III. Duration: 2016-2019. 91,500 €.
- Luis Antonio Querol Gutiérrez. Identificación de autoanticuerpos en neuropatías inflamatorias y caracterización del fenotipo celular implicado en su desarrollo. PI16/00627. Instituto de Salud Carlos III. Duration: 2017-2019. 76,500 €.
- Maria Isabel Illa Sendra. Estudios moleculares y celulares en Miastenia Gravis: Correlaciones clínicas y terapéuticas. PI16/01440. Instituto de Salud Carlos III. Duration: 2017-2019. 111,500 €.
- Elena Cortés Vicente. Ajuts per a contractes de formació "Río Hortega" 2016. CM16/00096. Instituto de Salud Carlos III. Duration: 2017-2018. 53,732 €.
- Maria Isabel Illa Sendra. Aproximaciones terápeuticas en distrofias musculares mediante modelos celulares y animales. GEMIO 2016. Fundació Isabel Gemio. Duration: 2016-2019. 160,908.99 €.
- Elena Cortés Vicente. Antigen-specific regulatory networks to treat Myasthenia Gravis. MV17/00012. Instituto de Salud Carlos III. Duration: 2018-2018. 11,960 €.
- Noemí de Luna Salva. Activación de la inmunidad innata en células deficientes en disferlina: nuevas dianas terapéuticas. F. RAMÓN ARECES 2016. Fundació Ramón Areces. Duration: 2017-2019.
- Eduard Gallardo Vigo. Search of biomakers in Pompe's Disease. GZ-2015-11342. SANOFI/GENZYME. Duration: 2017-2020. 134,920 €.
- Luis Antonio Querol Gutiérrez. Molecular biomarkers of IVIg response in chronic inflammatory demyelinating polyradiculoneuropathy. Instituto Grifols, S.A. Duration: 2019-2021. 95,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Eduard Gallardo Vigo. Recerca en Malalties Neuromusculars. 2017 SGR 01727. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- Luis Antonio Querol Gutiérrez ¿Identificació d'autoanticossos en neuropaties inflamatòries i caracterització del fenotip cel·lular implicat en el seu desenvolupament? SLT006/17/00131. Departament de Salut. Duration: 2018-2019. 82,200.33 €.
- Rodrigo Alvarez Velasco. Contractes Río Hortega 2018. CM18/00063. Instituto de Salud Carlos III. Duration: 2019-2020. 53,732 €.
- Jorge Alberto Diaz Manera. Avances en técnicas de imagen y terapia en distrofias musculares: evaluación y tratamiento de la fibrosis. PI18/01525, Instituto de Salud Carlos III. Duration: 2019-2021. 107,000 €.
- Xavier Suarez Calvet, Nuevos aspectos fisiopatogénicos en la dermatomiositis. CD18/00195, Instituto de Salud Carlos III. Duration: 2019-2022. 80,598 €.
- Luis Antonio Querol Gutierrez, Disease-Specific biomarkers in inflammatory neuropathies. GBS 2018, GBS CIDP Foundation International. Duration: 2018-2019. 25,000 €.
- Luis Antonio Querol Gutiérrez. Conferencias informativas para pacientes de esclerosis múltiple. Novartis Spain. Duration: 2018-. 18,000 €.
- Luis Antonio Querol Gutiérrez. Proyecto de digitalización Unidad de Esclerosis Múltiple del Hospital de la Santa Creu i Sant Pau. SANOFI GENZYME. Duration: 2018. 15,730€

Note: Total amount granted to PI. It does not include indirect costs.

Doctoral Theses

- Ana M. Siles Gómez. Cribado sistemático de autoanticuerpos en neuropatías inmunomediadas. Universitat Autònoma de Barcelona. Directors: Luis Querol, Eduard Gallardo. Date of defense: 24/05/2018.
- Elena Cortés Vicente. Nuevos biomarcadores de enfermedad y pronóstico en miastenia gravis. Universitat Autònoma de Barcelona. Director: Isabel Illa. Date of defense: 30/05/2018.

Scientific Production

Total Impact Factor: 207.683 · Mean Impact Factor: 5.1921

Alessandro L., Pastor Rueda J.M., Wilken M., Querol L., Marrodan M., Acosta J.N., Rivero A., Barroso F., Farez M.F., Differences between acute-onset chronic inflammatory demyelinating polyneuropathy and acute inflammatory demyelinating polyneuropathy in adult patients (2018) J PERIPHER NERV SYST, 23 (3), 154-158. **IF: 2.5500**

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Alonso-Jimenez A., Kroon R.H.M.J.M., Alejaldre-Monforte A., Nunez-Peralta C., Horlings C.G.C., Van Engelen B.G.M., Olive M., Gonzalez L., Verges-Gil E., Paradas C., Marquez C., Garibaldi M., et al., Muscle MRI in a large cohort of patients with oculopharyngeal muscular dystrophy (2018) J NEUROL NEUROSUR PS. **IF: 7.1440**

Alonso-Jiménez A, Ramón C, Dols-Icardo O, Roig C, Gallardo E, Clarimón J, Núñez-Peralta C, Díaz-Manera J. Corpus callosum agenesis, myopathy and pinpoint pupils: consider Stormorken syndrome. (2018) EUR J NEUROL. 25 2 e25-e26 10.1111/ene.13545. **IF: 4.621**

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Borrego-Ecija S., Cortes-Vicente E., Cervera-Carles L., Clarimon J., Gamez J., Batlle J., Ricken G., Molina-Porcel L., Aldecoa I., Sanchez-Valle R., Rojas-Garcia R., Gelpi E., Does ALS-FUS without FUS mutation represent ALS-FET? Report of three cases (2018) NEUROPATH APPL NEURO. **IF: 6.0590**

Cabrera-Serrano M, Mavillard F, Biancalana V, Rivas E, Morar B, Hernández-Laín A, Olive M, Muelas N, Khan E, Carvajal A, Quiroga P, Diaz-Manera J, Davis M, Ávila R, Domínguez C, Romero NB, Vílchez JJ, Comas D, Laing NG, Laporte J, Kalaydjieva L, Paradas C. A Roma founder BIN1 mutation causes a novel phenotype of centronuclear myopathy with rigid spine. (2018) NEUROLOGY 91 4 e339-e348 10.1212/WNL.0000000000005862 **IF: 8.055**

Cantero D., Hernandez-Lain A., Martinez J.F.G., Perez M.R., Ruano Y., Lleixa C., Gallardo E., Dominguez-Gonzalez C., Milder forms of α-sarcoglicanopathies diagnosed in adulthood by NGS analysis (2018) J NEUROL SCI, 394, 63-67. **IF: 2.4480**

Cortes-Vicente E., Rojas-Garcia R., Diaz-Manera J., Querol L., Casasnovas C., Guerrero-Sola A., Munoz-Blanco J.L., Barcena-Llona J.E., Marquez-Infante C., Pardo J., Martinez-Fernandez E.M., Uson M., Oliva-Nacarino P., Sevilla T., Illa I., The impact of rituximab infusion protocol on the long-term outcome in anti-MuSK myasthenia gravis (2018) ANN CLIN TRANSL NEUR, 5 (6), 710-716. **IF: 4.6490**

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De Luna N., Suarez-Calvet X., Garicano M., Fernandez-Simon E., Rojas-Garc R., Diaz-Manera J., Querol L., Illa I., Gallardo E., Effect of MAPK inhibition on the differentiation of a rhabdomyosarcoma cell line combined with CRISPR/Cas9 technology: An in vitro model of human muscle diseases (2018) J NEUROPATH EXP NEUR, 77 (10), 964-972. **IF: 3.4900**

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Diaz-Manera J., Sotoca-Fernandez J., Alonso-Jimenez A., Marzo M.E., Gallardo E., Segovia-Simon S., Siles A.M., Illa I., Pagonabarraga J., Mcleod syndrome is a new cause of axial muscle weakness (2018) MUSCLE NERVE, 58 (1), E5-E8. **IF: 2.4960**

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Diffusion Activities

- Organization of VII Curso de Formación en Enfermedades Neuromusculares. Unitat de Malalties Neuromusculars. Hospital de Sant Pau, Institut de Recerca Sant Pau. May 2018.
- Maria Isabel Illa. Myasthenia Gravis autoimmune. Teaching course. 15th ICNMD meeting in Vienna. July 2018.
- Maria Isabel Illa. Enfermedades neuromusculares inmunomediadas. Avances en Neuroinmunologia. Servicio de Neurología, CHN. Pamplona 19 October 2018.
- Maria Isabel Illa. Myasthenia Gravis: Subgroup classification. Fourth International Joint Meeting on Thoracic Surgery. Barcelona 29 November 2018.
- Maria Isabel Illa. Capítulo I. "Miopatias: Peculiaridades de la historia clínica y la exploración neurológica". II Curso online Miopatias. Sociedad Española de Neurología. Genzyme. 2018-2019.
- Maria Isabel Illa. Pacientes: Web neuromuscularbcn.org. Miastenia Gravis: Diagnóstico y tratamiento.
- Xavier Suárez. Futuras perspectivas de nintedanib en distrofias musculares. III Workshop sobre la transferencia de conocimiento científico en la distrofia muscular de duchenne DPPE. 7 September 2018.
- Xavier Suárez. I Congreso Nacional sobre la distrofia muscular de duchenne y Becker Nintedanib: reposicionamiento para la DMD. 26 May 2018.
- Ricardo Rojas. Debilidad muscular aguda. II Curso Nacional de Neurología Crítica Barcelona, 1-2 June 2018.
- Xavier Suárez. Jornada sobre diagnóstico electromiográfico de enfermedades neuromusculares - parte II. Grup d'Estudi de Malalties Neuromusculars. Societat Catalana de Neurologia. 23 October 2018.
- Xavier Suárez. Abordaje electrofisiológico de las neuropatías adquiridas. Discusión de casos prácticos" Symposiun Neuroinmunologia, Hospital Universitario La Paz, Universidad Autónoma de Madrid. Encefalitis autoinmunes: espectro anti-gangliósidos. 24 October 2018.
- Xavier Suárez. Master en Electrodiagnóstico Neurológico, Universidad de Barcelona, 2018-2019.
- Xavier Suárez. Electrodiagnóstico en Patología Neuromuscular, Presentaciones clínicas en la Miastenia Gravis.
- Jorge Díaz. Tratamiento de la enfermedad de Pompe. Simposio Rareview. Madrid.
- Jorge Díaz. Tratamiento de las enfermedades lisosomales. Simposio Rareview. Madrid.
- Jorge Díaz. Nuevas terapias en distrofia FSH. I Congreso de la Asociación de Pacientes comn FSH. Burgos.
- Jorge Díaz. Unravelling Patterns of muscle change in myopathies using MRI". International Congress of Neuromuscular Disorders (ICNMD). Viena.
- Jorge Díaz. Seminario: Utilidad de RM muscular en diagnóstico de distrofias musculares. VII Curso de Enfermedades Neuromusculares. Barcelona.
- Jorge Díaz. Clinical aspects of limb-girdle muscle dystrophy. Mediterranean Society of Myology. Turkey.
- Jorge Díaz. Nuevas herramientas para el seguimiento de los pacientes con enfermedad de Pompe". Congreso de la Asociación Española de Enfermos de Glucogenosis. Málaga.
- Jorge Díaz. Muscle MRI on Congenital Myasthenic Syndromes. European Reference Network meeting. Praga.
- Jorge Díaz. ¿Qué hemos aprendido en enfermedades neuromusculares? Simposio Neurología al día. Barcelona.
- Jorge Díaz. ¿Qué hemos aprendido en enfermedades neuromusculares? Simposio Neurología al día. Madrid.
- Jorge Díaz. Enfermedad de Pompe: Presente y futuro. III Reunión de Neuromuscular de la Comunidad Valenciana. Denia.
- Jorge Díaz. Actualización en enfermedad de Pompe. Jornada Neuro-POmpe. Madrid.
- Jorge Díaz. Use of muscle MRI as an outcome measure for Pompe disease. Steps Forward in Pompe disease. Copenhaguen.
- Jorge Díaz. Terapia génica en enfermedad de Duchenne. Máster de Neurociencias. Universidad de Oviedo.
- Jorge Díaz. New challenges in the treatment of hereditary myopathies. Congreso nacional de CIBERBBN. Valladolid.
- Jorge Díaz. Utilidad de la RM muscular en el diagnóstico de las miopatías. Sociedad Valenciana de Reumatología. Alicante.
- Jorge Díaz. Utilidad de la RM muscular en el diagnóstico y seguimiento de las enfermedades neuromusculares" Curso nacional de enfermedades neuromusculares. Hospital Sant Joan de Deu. Barcelona.
- Luis Querol. Antibodies to the node of Ranvier in CIDP: a new clue to therapy. ICNMD, Viena, Julio 2018.
- Luis Querol. Outcomes biológicos en Enfermedades Neuromusculares. Reunión de Primavera de la SEN, Barcelona, Febrero 2018.
- Luis Querol. CIDP: del paranodo a la clínica. Reunión Anual de la Sociedad Española de Neurologia. Sevilla, Noviembre 2018.
- Luis Querol. CIDP: From the phenotype to the paranode and back. British Peripheral Nerve Society. Londres. Noviembre 2018.
- Luis Querol. Antibodies in Inflammatory Neuropathies. European Academy of Neurology. Lisboa. Junio 2018.
- Luis Querol. CIDP: From the paranode to the lab and back. Neuropathy Update 2. Belgrado. Serbia. Mayo 2018.
- Luis Querol. Node of Ranvier - New target in immune mediated neuropathies. NERVECON III. Hyderabad, India. August 2018.
- Luis Querol. Antiglycolipid profiles in acute and chronic neuropathies. NERVECON III. Hyderabad, India. August 2018.
- Luis Querol. Antibodies in CIDP - Will it predict or change treatment response in CIDP? NERVECON III. Hyderabad, India. August 2018.
- Luis Querol. Paraproteinemic neuropathies: When and How to Treat. NERVECON III. Hyderabad, India. August 2018.
- Luis Querol. Panelist in the discussion: Comparing and Contrasting Treatment Strategies in immune mediated neuropathies around the world. NERVECON III. Hyderabad, India. August 2018.

AREA 4 · Neurological, Mental Disorders and Ageing

Parkinson Disease and Movement Disorders

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Main Lines of Research

Cognitive Impairment, Behavioural Dysfunctions and other non-motor symptoms in Parkinson Disease (PD)

- Study of the neural correlates of cognitive performance, mild cognitive impairment, dementia and behavioral alterations (apathy,visual hallucinations and impulse control disorders) in PD using neurophysiological techniques (event-related brain potentials), structural, functional and molecular neuroimaging.
- Characterization of the neurodegenerative process underlying cognitive impairment in PD through the study of cortical atrophy patterns related to genetic and biomarker indicators.
- Development and validation of PD-specific tools for cognitive and functional assessment to detect subtle changes in cognitive performance and treatment response.
- Prospective follow-up study of cognition and mood in PD patients with deep-brain stimulation of the subthalamic nucleus.
- Identification of blood-based, cognitive and neurophysiological biomarkers of cognitive deterioration in PD.
- Identification of genetic and neurophysiological biomarkers of apathy and impulse control disorders in PD.
- Data science applied to large PD databases such as PPMI.
- Surgery and treatments of continuous infusion of intraduodenal levodopa.
- Study of the effects of continuous infusion of intraduodenal levodopa on cognition and mood.
- Follow-up and etiologic study of weight loss in patients treated with continuous infusion of intraduodenal levodopa.

Huntington's Disease

- Characterization of the natural course HD in large and international cohort and studies (Enroll-HD).
- Study of the neural correlates of clinical progression, cognitive performance, mild cognitive impairment, dementia and behavioural alterations in HD using neurophysiological techniques (event-related brain potentials), structural, functional and molecular neuroimaging.
- Identification of potential neuroimaging, blood-based, muscular tissue, CSF and clinical biomarkers of disease progression in premanifest and manifest HD.
- Study of the prevalence and neural substrates of behavioral alterations in premanifest and manifest HD.
- Development and validation of HD-specific tools for cognitive and functional assessment to detect subtle changes in cognitive performance and treatment response.
- Study of the effect of intermediate alleles and homozygosis on the clinical presentation of HD.
- Data science applied to large HD databases such as Enroll-HD and Registry.
- Identification of different cognitive phenotypes in HD.

Progressive Supranuclear Palsy (PSP)

- Develompent of a PSP-specific cognitive rating scale.
- Development of a standarized eye movement evaluation.
- Study of the neural correlates of clinical progression, cognitive performance and behavioral alterations in PSP using structural and functional neuroimaging.

Essential Tremor

- Molecular neuroimaging in essential tremor.
- Clinical, neurophysiological and neuroimaging assessment of patients with FXTAS (fragile X-associated tremor/ataxia syndrome).

Scientific Challenges

Parkinson's Disease

- COPPADIS: COhort of Patients with PArkinson's DIsease in Spain (national collaborative study).
- FIS PI14 / 02058: Blood and neurophysiological markers of progression of cognitive impairment.
- DuoCog: randomized, double blind and crossed study (immediate levodopa vs. intraduodenal in cognition and mood).
- Ciberned intramural project: randomized, double-blind, placebo-controlled trial of efficacy and safety of candesartan in mild cognitive impairment.
- Diagnostic accuracy and neuronal correlates of the Buschke memory test in mild cognitive impairment.
- Study of perception of colors and visuospatial functions in PD.
- Collaboration in the study of Normative data of the PD-CRS in Brazilian population, with Pedro Brandao, University of Brazilia.

- Marató TV3 (nº 477, 2013): Prediction of impulse control disorders (TCI) and apathy.
- FIS (PI15 / 00962): Anatomical-functional correlates of TCI and apathy.
- Minor hallucinations: analysis of functional correlates (rEEG) and neuroimaging (structural MR, fMRI).
- Prospective study on the efficacy of music therapy in apathy and depression of PD.
- Analysis of nutritional status in patients with intraduodenal levodopa.
- Prospective cognitive, behavioral, sleep and quality of life study in patients with deep brain stimulation and intraduodenal levodopa.
- Prospective study of patient satisfaction after functional surgery.

Huntington's Disease (HD)

- Coordination of the "Cognitive Phenotype Working Group" (European Huntington's Disease Network).
- Spanish coordination of Enroll-HD: A Prospective Registry Study in a Global Huntington's Disease Cohort (PI in Spain: J. Kulisevsky).
- Validation of HD-specific cognitive (HD-CRS) and functionality scales (HD-CFRS).
- Project FIS PI17/01885. Longitudinal study of clinical and neuroradiological correlates associated with levels of huntington and other biomarkers in CSF and plasma in HD (BCN-HD project) (PI: Jesús Pérez).
- Collaboration in: a) FIS PI14 / 00834: Longitudinal changes of functional and structural connectivity in pre-symptomatic patients; b) FIS PI15 / 02227: Phenotype and haplotypes associated with intermediate alleles of the EH gene; c) Overcoming Depression in HD: Cdk5 as a potential biomarker and pharmacological target (HD's disease Society of America); d) The nuclear lamina in HD: physiopathology and therapeutic applications (Ramón Areces Foundation).
- Oxytocin study, plasma levels and modifications in its receptor, and association with apathy and impairment of social cognition in HD (Financing: Regional Health Management and Ministry of Health, Junta de Castilla y León).
- Identification of molecular signatures in exosomes associated with HD.

Tremor

- Development of a hardware-software system for a portable neurophysiological study. Collaborative project (SEIDOR company and University of Vic).
- Development of diagnostic system through mobile App and software. Collaborative project with Mediktor company.
- Perampanel in primary orthostatic tremor (pilot study) Collaboration with Association of Patients TOP (Paris, France).

Other neurodegenerative diseases

- Neuronal correlates of hypofrontality in subtypes of progressive supranuclear palsy (PSP).
- Neuropsychiatric and behavioral symptoms in subtypes of PSP.
- Multicenter study to validate the diagnosis of neurodegenerative diseases through OSCANN oculographic registry (Alzheimer's, PD and frontotemporal dementia vs. controls).
- Lewy Bodies Dementia: participation in an international multi-center study integrated in the Joint Program for Neurodegenerative Diseases (European Commission).
- MSA: Collaborative project within the Catalan MSA Registry (CMSAR).
- FXTAS: Collaborative research with Genetics Hospital Clinic (Barcelona) and Associació Catalana X Fràgil (ACXF).
- Collaboration with GEMT-CAT (Group of Movement Disorders of the Catalan Society Neurology): Document Consensus on genetics in movement disorders.

Neuroimaging and data engineering

- Functional and structural cerebral correlates in HD: cognitive deterioration, apathy, depression and irritability.
- Neuronal correlates of the classification of cognitive impairment of PD according to the MDS.
- Dynamic connectivity models in cognitive impairment of PD (collaboration with Center for Brain and Cognition, Pompeu Fabra University).
- Effects of dopaminergic treatment of PE on neurocognitive networks.
- Analysis of public databases ("big-data"): ENROLL (HD) and PPMI (PD).

Collaborations

Collaborations with other IIB Sant Pau Groups

- Active collaboration with the research groups of Neuroradiology, Nuclear Medicine and Psychiatry.

External Collaborations

- Active collaboration with the Cognition and Brain Plasticity Group at the Bellvitge Health Science Campus at the University of Barcelona adscribed to the Department of Basic Psychology, Faculty of Psychology - University of Barcelona and the IDIBELL (Institut d'Investigació Biomèdica de Bellvitge).
- Centro de Investigación Biomédica en Red de Enfermedades Neurodegenerativas (CIBERNED), Instituto de Salud Carlos III.
- International Movement Disorders Society (MDS). Task Force for Developing Rating Scales in Parkinson's Disease (Subcomitee for Cognitive Evaluation).
- MDS Task Force for Mild Cognitive Impairment in Parkinson's Disease.
- MDS Task Force for Evidence Based Medicine in Huntington's Disease.
- Spanish Coordinator of the European Huntington Disease Network and the ENROLL Study (Cure for Huntington's Disease International - CHDI).
- Coordination of the Cognitive Phenotype Working Group of the European Huntington's Disease Network (EHDN).

Active Grants

- Jaime Kulisevsky Bojarski. Huntington's Disease Network. EHDN. Duration: 2010-2021. 172,860 €.
- Jaime Kulisevsky Bojarski. Prediction of apathy and impulse control disorders in Parkinson's disease based on Feedback related negativity. . MARATO 20142410. Fundació La Marató de TV3. Duration: 2015-2018. 159,686 €.
- Javier Pagonabarraga Mora. Blood-based and neurophysiological markers of cognitive deterioration and dementia in Parkinson's disease. MARATO 20142910. Fundació La Marató de TV3. Duration: 2015-2018. 159,589 €.
- Javier Pagonabarraga Mora. Marcadores en sangre y neurofisiológicos de la progresión del deterioro cognitivo en la enfermedad de Parkinson. PI14/02058. Instituto de Salud Carlos III. Duration: 2015-2019. 54,500 €.
- Juan Marín Lahoz. Contratos Río Hortega 2015. CM15/00071. Instituto de Salud Carlos III. Duration: 2016-2018. 53,732 €.

- Jaime Kulisevsky Bojarski. Correlatos anatómico-funcionales de los trastornos del control de impulsos y apatía en la enfermedad de Parkinson. PI15/00962. Instituto de Salud Carlos III. Duration: 2016-2020. 61,500 €.
- Jesús Pérez Pérez. Contratos Juan Rodés 2016. JR16/00034. Instituto de Salud Carlos III. Duration: 2017-2020. 135,000 €.
- Ignacio Aracil Bolaños. Búsqueda de biomarcadores prodrómicos en la demencia asociada a la enfermedad de Parkinson (EP) y enfermedad por cuerpos de Lewy (ECL). IR16-R5. Fundació Privada Hospital de la Santa Creu i Sant Pau. Duration: 2017-2018. 30,477.44 €.
- Jesús Pérez Pérez. Estudio longitudinal de los correlatos clínicos y neuroradiológicos asociados a los niveles de huntingtina y otros biomarcadores en LCR y plasma en la enfermedad de Huntington. PI17/01885. Instituto de Salud Carlos III. Duration: 2018-2020. 97,000 €.
- Helena Bejr-Kasem Marco. Contractes de formació en recerca "Río Hortega" 2017. CM17/00209. Instituto de Salud Carlos III. Duration: 2018-2019. 53,732 €.
- Jaime Kulisevsky Bojarski. Centro de Investigación Biomédica en Red de Enfermedades Neurodegenerativas. CIBERNED. CB06/05/0047. Ministeri de Sanitat i Política Social. Duration: 2006-2020. 902,569.93 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Jaime Kulisevsky Bojarski. Grup de Trastornos del Moviment de l'Hospital de la Santa Creu i Sant Pau. 2017 SGR 00935. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- Jaime Kulisevsky Bojarski. Desarrollo de un medicamento para el tratamiento de los movimientos coreicos asociados a la enfermedad de Huntington. RTC-2017-6354-1. Ministerio de Economía y Competitividad. Duration: 2018-2020. 96,672 €.
- Jaime Kulisevsky Bojarski. Historia natural y correlatos neuronales de los síntomas psicóticos en pacientes con enfermedad de Parkinson. PI18/01717. Instituto de Salud Carlos III. Duration: 2019-2021. 77,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 126.279 · Mean Impact Factor: 5.4903

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Sampedro F., Marin-Lahoz J., Martinez-Horta S., Pagonabarraga J., Kulisevsky J., Cortical Thinning Associated with Age and CSF Biomarkers in Early Parkinson's Disease Is Modified by the SNCA rs356181 Polymorphism (2018) NEURODEGENER DIS, 233-238. **IF: 2.7850**

Vicent-Gil M., Keymer-Gausset A., Serra-Blasco M., Carceller-Sindreu M., de Diego-Adelino J., Trujols J., Mur M., Perez V., Alvarez E., Cardoner N., Portella M.J., Cognitive predictors of illness course at 12 months after first-episode of depression (2018) EUR NEUROPSYCHOPHARM, 28 (4), 529-537. **IF: 4.1290**

Diffusion Activities

Lectures

- Dr. Kulisevsky: Movement Disorders Developing World Educational Program (MDS-DWEP) Course, 21-22/09/2018, Irkutsk (Russia) showing the advances of Parkinson Disease to Russian Neurologists.
- Dr. Kulisevsky: Coordinator of the Neurology up to Date Congress (editions 2015, 2016, 2017 and 2018) showing the advances of Parkinson Disease to Spanish Neurologists.
- Dr. Kulisevsky: Participation at the Sant Pau Open Door's Day (editions 2016, 2017 and 2018) explaning the symptons and advances in Research of the Parkinson Disease to Parkinson patients and relatives.
- Dr. Kulisevsky: Dia Mundial del Parkinson (years 2015, 2016, 2017 and 2018 editions) in Barcelona explaning the symptons and advances in Research of the Parkinson Disease to Parkinson patients and relatives.
- Dr. Pagonabarraga. Keynote speaker. Neuroimaging and Visual Hallucinations: A Window Into Their Mechanism, International Congress of Parkinson's disease and Movement Disorders, 06/10/2018, Hong Kong (China).
- Dr. Kulisevsky. Keynote speaker PD: Staging and Protection: With the use of atypical neuroleptics, tardive syndromes have practically disappeared, The 12th World Congress on Controversies in Neurology (CONy), 22-25/03/2018-Varsovia (Poland)
- Dr. Kulisevsky. Demencias subcorticales: Cuerpos de Lewy, XIII Congreso Colombiano de Neurologia, 15-18/03/2018 Barranquilla (Colombia)
- Dr. Kulisevsky. Demencias subcorticales: Demencia Parkinson, XIII Congreso Colombiano de Neurologia, 15-18/03/2018 Barranquilla (Colombia).
- Dr. Kulisevsky: The utility of cognitive and behavioral assessments in PD, World Congress on Parkinson's Disease and Related Disorders, 19-22/08/2018 - International Associacion of Parkinsonism and Related Disorders.
- Dr. Kulisevsky: Staging and Protection: With the use of atypical neuroleptics, tardive syndromes have practically disappeared, The 12th World Congress on Controversies in Neurology (CONy) -Varsovia, Polonia – 22-25 March 2018
- Dr. Kulisevsky: Demencias subcorticales: Cuerpos de Lewy / Demencia Parkinson, XIII Congreso Colombiano de Neurologia, Barranquilla, Colombia, 15-18 March 2018
- Dr. Kulisevsky: Demencias subcorticales: Demencia Parkinson Curso: Neuropsyquiatric problems in PD. Curso What does cognitive imparment in PD means?. Movement Disorders Developing World Educational Program (MDS-DWEP) Irkutsk, Rusia, 21-22 September 2018
- Dr. Kulisevsky: Curso Demencia de Cuerpos de Lewy. Simposio Internacional Actualización Demencias Neurodegenerativas. Santiago de Chile, Chile 8-9 June 2018
- Dr. Kulisevsky: Enfermedad de Parkinson deterioro cognitivo y trastornos conductual , Simposio Internacional Actualización Demencias Neurodegenerativas. Santiago de Chile, Chile 8-9 June 2018
- Dr. Kulisevsky: Evaluación y manejo de síntomas psicológicos y conductuales en la Enfermedad de Huntington - Simposio Internacional Actualización Demencias Neurodegenerativas. Santiago de Chile, Chile 8-9 June 2018
- Dr. Kulisevsky: Neural correlates of hallucinations in P. 7th Movement Disorders Teaching Course. Brasov, Rumanía 26-28 April 2018
- Dr. Kulisevsky: Moderator Session: Avances en Cirugía, Dia Mundial del Parkinson 2018 , Barcelona, Cataluña, España. 10 April 2018.
- Dr. Kulisevsky. Acknowledging the Giant Elephant: The utility of cognitive and behavioral assessmentsin PD, World Congress on Parkinson's Disease and Related Disorders, 19-22/08/2018-Lion (France)
- Dra. Bejr-kasem. Early cortical signature for the development of visual hallucinations in 'de novo' Parkinson's disease. 22th International Congress of Parkinson's Disease and Movement Disorders. October 2018. Hong Kong (China).
- Dr. Aracil-Bolaños. Cognitive networks in Parkinsons disease mild cognitive impairment: salience network impairment without gray matter loss. 22th International Congress of Parkinson's Disease and Movement Disorders. October 2018. Hong Kong (China).
- Dr. Pagonabarraga. Role of non-dopaminergic pathways in Parkinson's disease. 4th Congress of the European Academy of Neurology. 14-16/06/2018. Lisbon (Portugal).
- Dr. Pagonabarraga. Safinamida, más Allá de lo que conocemos. Congresso Anual da Sociedade Portuguesa das Doenças do Movimento. 3/03/2018. Curia (Portugal).

Poster communications

- Aracil Bolaños, I.; Lage, C.; Kazimierczak, M.;Hernández, E.; Gómez Martin, S.; Lozano, P.;Destarac, M.A.; Acebrón, R.; Gómez Andrés, D.; Pulido Valdeoliva, I.; Sánchez Juan, P.; PagonabarragaMora, J.; García Cena, C.E.; Kulisevsky Bojarski, J.Análisis de movimiento ocular en la Enfermedad de Parkinson: Parámetros para el diagnóstico y Fenotipado clínico, LXX Reunión Anual de la Sociedad Española De Neurología, 20-24/11/2018-Sevilla (Spain)-Poster
- Bejr-kasem Marco, H.; Pagonabarraga Mora, J.;Martínez Horta, S.; Sampedro Santaló, F.; MarínLahoz, J.; Horta barba, A.; Aracil Bolaños, I.; PérezPérez, J.; Pascual Sedano, B.; Kulisevsky Bojarski, J. Cambios corticales predictores del desarrollo de alucinaciones visuales en pacientes con enfermedad de Parkinson 'de novo', LXX Reunión Anual de la Sociedad Española de Neurología, 20-24/11/2018-Sevilla (Spain)-Poster
- Horta Barba, A.; Pagonabarraga, J.; Martínez-Horta, S.;Sampedro Santaló, F.; Aracíl Bolaños, I.; Perez-Perez, J.;Marín-Lahoz, J.; Pascual Sedano, b.; bejr-Kassem Marco, H.; botí González, M.Á.; Campolongo Perillo, A.;Izquierdo barrionuevo, C.; Kulisevsky, J. Correlatos neuronales de la apatía en la Parálisis Supranuclear Progresiva (PSP) tipo Richardson's Syndrome (PSP-RS), LXX Reunión Anual de la Sociedad Española de Neurología, 20-24/11/2018-Sevilla (Spain)-Poster
- García Sánchez, C.; Pascual Sedano, B.;Gironell Carreró, A.; Rodríguez Rodríguez, R.; Álvarez Holzapfel, M.J.; Pagonabarraga Mora, J.; Marín Lahoz, J.; Pérez Pérez, J.; Aracil Bolanos, I.;Campolongo Perillo, A.; Martínez Horta, S.;botí González, M.A.; Kulisevsky Borjaski, J. Parkinson's disease cognitive scale rating scale (PD-CRS) y la estimulación cerebral profunda subtalámica (ECP-NST). Comparación con la escala cognitiva de la Mattis (MDRS) y Minimental (MMSE), LXX Reunión Anual de la Sociedad Española de Neurología, 20-24/11/2018-Sevilla (Spain)-Poster
- Aracil Bolaños, I.; Sampedro, F.; Marín Lahoz, J.; Pérez Pérez, J.; bejr-Kasem Marco, H.; Martínez-Horta, S.; Horta barba, A.; boti González, M.A.; Pagonabarraga Mora, J.; Kulisevsky bojarski, J. Redes neurocognitivas en la Enfermedad de Parkinson: diferencias en la afectación funcional y estructural en el deterioro cognitivo leve, LXX Reunión Anual de la Sociedad Española de Neurología, 20-24/11/2018-Sevilla (Spain)-Poster
- Borrue Fernández, C.; Santos García, D.; Pagonabarraga, J.; Mata, M.; Pascual Sedano, b.; Kulisevsky, J.; De Deus Fonticoba, T.; Seijo, M.; Ruíz Martínez, J.; bergareche, A.; Valero, C.; Kurtis, M.; Pérez Sánchez, J.; de Fábregues-boixar, O.; González Ardura, J.; Prieto, C.; Aguilar, M.; Martínez Martín, P.; Mir, P.; Study Group, C. Test de resolución de un puzle como prueba cognitiva en pacientes con enfermedad de Parkinson, LXX Reunión Anual de la Sociedad Española de Neurología, 20-24/11/2018-Sevilla (Spain)-Poster

AREA 4 · Neurological, Mental Disorders and Ageing

Molecular Neuropharmacology

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Main Lines of Research

Our main objective is to investigate new strategies for the treatment of arthritic and neuropathic pain as well as of the emotional disorders associated with chronic pain by using pharmacological, molecular and genetic methodologies.

- New approaches for the treatment of chronic pain. Identify new drugs suited to alleviate arthritic, inflammatory and/or neuropathic pain, and investigate their mechanism of action in the peripheral and central nervous system by using preclinical models of pain.
- New therapeutic targets for the emotional disorders associated with chronic pain. Investigate new treatments capable of inhibiting the comorbidities associated with the suffering of an inflammatory, neuropathic or osteoarthritic pain, such as the anxiety, depression, cognitive deficits...
- Neuropharmacology of opioids and cannabinoids. Establish new strategies to improve the analgesic effects of opioids and cannabinoids during chronic pain to avoid the development of side effects resulting from the administration of high and/or continued doses of these drugs.
- New strategies for the treatment of diabetic neuropathy. Identify new compounds capable of inhibiting diabetic neuropathy and oxidative stress, two important complications associated with diabetes, using different preclinical models of type 1 and 2 diabetes.

Scientific Challenges

- Identify new pharmacological compounds that effectively abolish chronic pain without side effects and which use can be transferred to clinical practice and/or be patentable. Evaluate the analgesic effects of new gaseous releasing compounds and their action on the comorbidities associated with the suffering of an osteoarthritic or neuropathic pain. Study the mechanism of action of these treatments in different regions of the central and peripheral nervous system.
- Study new strategies to potentiate the analgesic action of opioids and cannabinoids during inflammatory and neuropathic pain. Evaluate the antinociceptive, anxiolytic and antidepressant effects of new delta opioid receptor agonists in acute and chronic pain. Advance in the knowledge of the molecular mechanisms involved in the analgesic effects of opioids and cannabinoids.
- Develop new approaches for the effective treatment of diabetic neuropathy and oxidative stress associated with diabetes. Evaluate the role of carbon monoxide-liberating compounds in the hyperglycemia and dyslipidemia accompanying type 1 diabetes. Study the emotional disorders associated with diabetes and its treatment.
- Evaluate the antioxidant and neurotrophic mechanisms implicated in the modulation of inflammatory pain in the central nervous system of animals. Study the interaction between gaseous neurotransmitters and opioid receptors in the aversion to pain.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Metabolic Bases of Cardiovascular Risk (PI: Francisco Blanco)

External Collaborations

- Prof. Christie Ramos Andrade Leite-Panissi. University of São Paulo, Brazil.
- Prof. Luiz Guilherme de Siqueira Branco. University of São Paulo, Brazil.
- Prof. Roberto Motterlini. INSERM U955, University Paris-Est, France.
- Prof. Lydia Giménez-LLort. Universitat Autònoma de Barcelona, Spain.
- Prof. Gianfranco Balboni. University of Calgari, Italy.
- Prof. Carles Sindreu. Universitat de Barcelona, Spain.

Active Grants

- Olga Pol Rigau. Nuevas estrategias en el tratamiento de la neuropatía diabética. PI14/00927. Instituto de Salud Carlos III. Duration: 2015-2019. 71,500 €.
- Olga Pol Rigau. Possible interaction CO-NO in the emotional and nociception modulation: role of locus coeruleus. PVE 2014. Ciencia sin Fronteras. Duration: 2015-2018 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Olga Pol Rigau. Nuevos enfoques para el tratamiento del dolor crónico y comorbilidades asociadas. PI18/00645. Instituto de Salud Carlos III. Duration: 2019-2021. 97,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Doctoral Theses

- Sara Polo Roda. Treatment with UFP-512 alleviates chronic inflammatory and neuropathic pain and the depressive-like behavior associated: mechanisms implicated. Universitat Autònoma de Barcelona. Olga Pol Rigau.
- Andrés Felipe Díaz Eljaiek. Molecular mechanisms involved in the anti-allodynic, anti-hyperalgesic and antidepressant-like effects of oltipraz in the central nervous system of mice with neuropathic pain. Universitat Autònoma de Barcelona. Olga Pol Rigau.

Scientific Production

Total Impact Factor: 14.005 · Mean Impact Factor: 3.5013

Cazuza R.A., Pol O., Leite-Panissi C.R.A., Enhanced expression of heme oxygenase-1 in the locus coeruleus can be associated with anxiolytic-like effects (2018) BEHAV BRAIN RES, 336, 204-210. **IF: 3.1730**

Ferreira-Chamorro P., Redondo A., Riego G., Leanez S., Pol O., Sulforaphane inhibited the nociceptive responses, anxiety - And depressive-like behaviors associated with neuropathic pain and improved the anti-allodynic effects of morphine in mice (2018) FRONT PHARMACOL, 9 (NOV). **IF: 3.8310**

Mendez-Lara K.A., Santos D., Farre N., Ruiz-Nogales S., Leanez S., Sanchez-Quesada J.L., Zapico E., Lerma E., Escola-Gil J.C., Blanco-Vaca F., Marton-Campos J.M., Julve J., Pol O., Administration of CORM-2 inhibits diabetic neuropathy but does not reduce dyslipidemia in diabetic mice (2018) PLOS ONE, 13 (10). **IF: 2.7660**

Riego G., Redondo A., Leanez S., Pol O., Mechanism implicated in the anti-allodynic and anti-hyperalgesic effects induced by the activation of heme oxygenase 1/carbon monoxide signaling pathway in the central nervous system of mice with neuropathic pain (2018) BIOCHEM PHARMACOL, 148, 52-63. **IF: 4.2350**

Diffusion Activities

Seminars, Conferences, communications to congresses

- Pol O. Potenciando la síntesis de neurotransmisores: del grupo hemo al monóxido de carbono. XV Congreso de la Sociedad Española del Dolor. Palma de Mallorca, Spain, 2018
- Ferreira P, Redondo A, Riego G, Pol O. Efectos de la activación del factor de transcripción Nrf2 sobre las respuestas nociceptivas y los trastornos emocionales asociados al dolor neuropático en ratón. XV Congreso de la Sociedad Española del Dolor. Palma de Mallorca, Spain, 2018
- Pol O. Effects of cobalt protoporphyrin IX and tricarbonyldichlororuthenium (II) dimer treatments and its interaction with nitric oxide in the locus coeruleus of mice with peripheral inflammation. University of São Paulo. Brazil, 2018
- Arantes AL, Cazuza RA, Pol O, Leite-Panissi CRA. The effects of HO-1 on inflammatory pain aversiveness. XXXIII FeSBE Anual Meeting. Campos do Jordão, Brazil, 2018
- Cazuza RA, Arantes AL, Pol O, Leite-Panissi CRA. Different effect between HO-1 and iNOS inhibition of inflammatory pain aversiveness. XXXIII FeSBE Anual Meeting Campos do Jordão, Brazil, 2018
- Arantes AL, Cazuza RA, Pol O, Leite-Panissi CRA. Effect of HO-1 on inflammatory pain aversiveness. 11th Anual INEc Meeting. Ribeirão Preto, Brazil, 2018

Stays in public research centers

- Olga Pol Rigau. Faculty of Philosophy, Science and Letters of Ribeirão Preto. University of São Paulo. Ribeirão Preto, Brazil.

AREA 4 · Neurological, Mental Disorders and Ageing

Pharmacological Research in Humans

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Martínez Martínez, Maria Isabel (IR)
Mercader Seguí, Esteve (IR)
Molina Perelló, Pol (IR)
Mora Amargós, Sara (IR)
Puntes Rodríguez, Montserrat (IR)

Main Lines of Research

Clinical Trials with no Therapeutic Benefits to Volunteer Participants

- Phase I clinical trials (healthy volunteers) whose main objectives include: first in human, safety and tolerability (local, systemic/dermatological, ophthalmological, vaginal), pharmacokinetics, bioavailability and bioequivalence (generic drugs), pharmacodynamics, interactions (drug-drug/drug-food), evaluation and characterization of biomarkers, proofs of concept, acceptability and preference studies.
- Follow-up studies in populations with the same or different characteristics (elderly, obese, postmenopausal, with liver or kidney failure).
- Collaboration with clinical services to conduct phase II/III studies.

Neuro-Physio-Pharmacology of Sleep/Wake States

- Investigate human brain activity in sleep and wakefulness, mechanisms involved in these states, problems derived from sleep disturbances and possible interventions.
- Approach the phenomenon as a continuum: appropriate interpretation of the impact of a certain intervention, whether pharmacological or not, should take into account the complementarity of evaluations performed during sleep and during wakefulness.
- Develop psychomotor performance tests, subjective evaluation scales and pupillometric tests.

Scientific Challenges

- Consolidate and strengthen leadership in this field in Spain, consolidate 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 along the lines of the neuro-physio-pharmacology of sleep/wake states, focusing on pharmacotherapeutic objectives and also on physiopathologic objectives in related fields, such as dreams.
- Develop neurophysiologic recording performance in ambulatory conditions, simplifying participation of volunteers but not lowering the quality of data obtained (non-negotiable element of their application as a research variable).
- Promote dissemination of our activity with a dual objective: to return knowledge generated to society and demystify research in humans, bringing it closer to the community so as to foster participation in clinical trials (particularly in specific sectors of the populations, such as the elderly).
- Set up educational activities related to our two main research lines: the application of good clinical practices in clinical research into sleep medicine and its medical (pathology, and treatment) and social (quality of life, prevention of accident risk) consequences.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Parkinson Disease and Movement Disorders
- Sant Pau Memory Unit
- Neurobiology of Dementia
- Clinical Psychiatry
- Chronic Respiratory Diseases
- Pituitary Gland Disorders
- Oncology/Haematology and Transplantation
- Ageing Institute

External Collaborations

- Phase I-II clinical trials for national and international pharmaceutical companies.
- Scientific advisement and study designs about clinical trials for national and international pharmaceutical companies.
- Collaborations with pharmaceutical departments of Universities.

Active Grants

- Rosa Maria Antonijoan Arbós. Desarrollo de una combinación de sensibilizantes de la acción de la insulina y antiandrógenos para el tratamiento del síndrome de ovario poliquístico en adolescentes y mujeres jóvenes. RTC-2016-5671-1. Ministerio de Economía y Competitividad. Duration: 2016-2019. 100,796 €.
- Rosa Maria Antonijoan Arbós. Investigación y desarrollo fase I de nuevos inhibidores de quinasas como medicamentos para enfermedades que cursan en el eje de inflamación, fibrosis y cáncer. RTC-2018-6403-1. 260,107.50 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 49,3320 · Mean Impact Factor: 5,4813

Gimenez S., Videla L., Romero S., Benejam B., Clos S., Fernandez S., Martinez M., Carmona-Iragui M., Antonijoan R.M., Mayos M., Fortuna A., Penacoba P., Plaza V., Osorio R.S., Sharma R.A., Bardes I., Rebillat A.-S., Lleo A., Blesa R., Videla S., Fortea J., Prevalence of sleep disorders in adults with down syndrome: A comparative study of self-reported, actigraphic, and polysomnographic findings (2018) J CLIN SLEEP MED, 14 (10), 1725-1733. **IF: 3.3960**

Gordillo J., Zabana Y., Garcia-Planella E., Manosa M., Llao J., Gich I., Marin L., Szafranska J., Sainz S., Bessa X., Cabre E., Domenech E., Prevalence and risk factors for colorectal adenomas in patients with ulcerative colitis (2018) UNITED EUR GASTROENT, 6 (2), 322-330. **IF: 3.4770**

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Punthakee Z., Iglesias P.P., Alonso-Coello P., Gich I., India I., Malaga G., Jover R.D., Gerstein H.C., Devereaux P.J., Association of preoperative glucose concentration with myocardial injury and death after non-cardiac surgery (GlucoVISION): a prospective cohort study (2018) LANCET DIABETES ENDO, 6 (10), 790-797. **IF: 19.3130**

Rabella M., Grasa E., Trujols J., Gich I., Torrubia R., Corripio I., Perez V., Riba J., Validation of a Spanish version of The Schizotypal Personality Questionnaire (SPQ): Psychometric characteristics and underlying factor structure derived from a healthy university student sample (2018) ACTAS ESP PSIQUIATRI, 46 (5), 159-173. **IF: 0.8780**

Ripolles P., Ferreri L., Mas-Herrero E., Alicart H., Gomez-Andres A., Marco-Pallares J., Antonijoan R.M., Noesselt T., Valle M., Riba J., Rodriguez-Fornells A., Intrinsically regulated learning is modulated by synaptic dopamine signaling (2018) ELIFE, 7. **IF: 7.6160**

Valera M., Ibanez N., Sancho R., Llauger J., Gich I., Acetabular overcoverage in the horizontal plane: an underdiagnosed trigger of early hip arthritis. A CT scan study in young adults (2018) ARCH ORTHOP TRAUM SU, 138 (1), 73-82. **IF: 1.9670**

Diffusion Activities

- XXX Congreso de la Sociedad Española de Farmacología Clínica (October 2018):
  - Jimena Coimbra Hurtado, Pol Molina Perelló, Montserrat Puntes Rodriguez,Maria Rosa Ballester Verneda, Consuelo García-Gea, David Martínez Bonifacio, María Angeles Funes Ungría, Rosa Maria Antonijoan Arbós, Joan Martínez Colomer. Serious adverse events in healthy volunteers identified during clinical trials. (Poster)
  - Rosa Maria Antonijoan Arbós, Joan Martínez Colomer. Safety, tolerability and pharmacokinetics of single and multiple doses of ORY-2001, an epigenetic drug targeting LSD1 and MAO-B. (Communication)

AREA 4 · Neurological, Mental Disorders and Ageing

Clinical Psychiatry

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De Diego Adeliño, Francisco Javier (FGS)
Díaz Pérez, Anna Maria (FGS)
Domínguez Clavé, Elisabet (IR)
Fernández Vidal, Aina (FGS)
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Martín Blanco, Ana (FGS)
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Pérez Blanco, Josefina (FGS)
Pousa, Ester (FGS)
Puigdemont Campos, Maria Dolors (FGS)
Soler Ribaudi, Joaquín (FGS)
Soriano Pacheco, José Antonio (FGS)
Tiana Sastre, Thais (FGS)
Vicent Gil, Muriel (IR)

Main Lines of Research

- Psychotic disorders (first episodes and persistent hallucinations).
- Affective disorders (major depression and validation of scales).
- Borderline personality disorder.

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 quality of life of patients with mental disorders.

Research into Psychotic Disorders

- Neuroimaging studies in first psychotic episodes.
- Study of environmental, biological and genetic factors in psychosis.
- Efficacy and effectiveness studies of antipsychotic drugs.
- Efficacy and effectiveness study of psychotherapy for hallucinations.
- Study of treatment resistance in schizophrenia.

Research into Affective Disorders

- Identification and evaluation of new therapeutic targets in depression.
- Neuroimaging studies in first psychotic episodes.
- Biological and genetic markers in affective disorders.
- Implementation of new therapeutic programmes, depression evaluation and social aspects of depression.

Research into Personality Disorders

- Clinical trials regarding the usefulness of mixed treatment in patients with borderline personality disorder and validation of diagnostic instruments.
- Genetic-neuroimaging studies of borderline personality disorder (BPD).
- Efficacy and effectiveness studies of psychotherapy for treating borderline personality disorder.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Addictive Behaviours.
- Neuroradiology.
- Neurosurgery.
- Hypophysis Diseases.
- CIM – Sant Pau.
- Pain Clinic Sant Pau.
- Genetics.
- Internal Medicine.

External Collaborations

- Hospital Clínic de Barcelona, Psychiatry Department.
- Hospital Parc Taulí, Sabadell, Psychiatry Department.
- Universidad Complutense de Madrid, Medicine-Pharmacology Department.
- Hospital Universitario de la Princesa, Madrid, Psychiatry Department.
- Universidad de Valencia, Medicine-Psychiatry Department.
- Leipzig University, Medicine-Psychiatry Department.
- Universidad de Cádiz, Medicine-Pharmacology Department.
- Hospital Benito Menni – FIDMAG, Barcelona, Psychiatry Department.
- University of Oxford, Medicine-Psychiatry Department.

Active Grants

- Maria Jesús Portella Moll. Estudio longitudinal de cambios cerebrales en pacientes con un primer episodio de depresión mayor. PI13/01057. Instituto de Salud Carlos III. Duration: 2014-2018. 56,300 €.
- Juan Carlos Pascual Mateos. Estudio Epigenómico en el Trastorno Límite de la Personalidad: estudio del patrón de metilación (EWAS-Epigenome-wide association study) y su relación con antecedentes traumáticos. PI14/00214. Instituto de Salud Carlos III. Duration: 2015-2018. 81,500 €.
- Maria del Mar Carceller Sindreu. Contractes predoctorals de formació en investigació en salut 2014. FI14/00201. Instituto de Salud Carlos III. Duration: 2015-2019. 82,400 €.
- Francisco Javier de Diego Adeliño. Contratos Juan Rodés 2014. JR14/00011. Instituto de Salud Carlos III. Duration: 2015-2018. 135,000 €.
- Lorena Chanes Puiggros. Contractes postdoctorals "Sara Borrell" 2016. CD16/00059. Instituto de Salud Carlos III. Duration: 2017-2019. 80,598 €.
- Francisco Javier de Diego Adeliño. Estudio longitudinal de predicción precoz de la respuesta en depresión con la combinación multimodal de biomarcadores epigenéticos, neurocognitivos y clínicos. PI16/00302. Instituto de Salud Carlos III. Duration: 2017-2019. 86,500 €.
- Enric Álvarez Martínez. Efectos de un análogo de la Ayahuasca sobre el reprocesamiento emocional en pacientes con Trastorno Límite de la Personalidad. PI16/00078. Instituto de Salud Carlos III. Duration: 2017-2019. 46,500 €.
- Maria Jesús Portella Moll. Contractes "Miguel Servet II" 2016. CPII16/00020. Instituto de Salud Carlos III. Duration: 2017-2020. 101,250 €.
- Maria Jesús Portella Moll. RIDEM: Rehabilitación Integral para Depresión Mayor. Estudio de eficacia de un programa de rehabilitación integral. PI17/00056. Instituto de Salud Carlos III. Duration: 2018-2020. 47,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Maria Jesús Portella Moll. Grup de Recerca en Trastorns Psiquiàtrics de Sant Pau. 2017 SGR 1343. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2020. 16,250 €.
- Maria Jesús Portella Moll. Marcadors transdiagnòstics dels símptomes cognitius en els trastorns afectius. SLT006/17/00177. Departament de Salut. Duration: 2018-2020. 63,213.33 €.
- Maria Jesús Portella Moll. Ajuts de suport als investigadors actius Miguel Servet. IR17-MS2, Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2018-2018. Duration: 10,500 €.
- Maria Jesús Portella Moll. Marcadors transdiagnòstics dels símptomes cognitius en els trastorns afectius. SLT006/17/00177-01. Departament de Salut. Duration: 2018-2020. 27,203.17 €.
- Juan Carlos Pascual Mateos. Autolesió no suïcida en adolescents i adults joves a Catalunya: prevalença, característiques i implicacions clíniques. SLT006/17/00159. Departament de Salut. Duration: 2018-2020. 750 €.
- Eva Maria Grasa Bello. Cognició social i biaixos cognitius en persones amb primers episodis psicòtics en comparació amb esquizofrènia crònica i controls sans. SLT006/17/00231. Departament de Salut. Duration: 2018-2020. 1,550 €.
- Iluminada Corripio. Programa de intervención y tipificación neurobiológica de la Esquizofrenia Resistente– AMA DABLAM. Duration: 2018-2022. 308,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Dolors Puidemont, category A - Clinical Program (procedures). Uso compasivo de DBS en Depresión Resistente. Award for Clinical Innovation, category A - Clinical Program (procedures), 2018. Spanish Society of Psychiatry.
- Ana Martín Blanco, category C - Clinical Unit (management in defined space). Unidad de Hospitalización Parcial a Domicilio del Área Integral de Salud Barcelona Dreta. Clinical Innovation Award, category C - Clinical Unit (management in defined space), 2018. Spanish Society of Psychiatry.
- Josep Marcet Bartra, Aina Ávila Parcet, Josefina Pérez-Blanco. Playmobil (juego y movimiento). Award in Presentation Methodology and Quality. XIX Clinical Case Contest for Residents, 2018. Spanish Society of Psychiatry.

Doctoral Theses

- Mireia Rabella Figueras. La vulnerabilitat a desenvolupar psicosi a través del trastorn esquizotípic de la personalitat: Estudi del contínuum entre salut i esquizofrènia. Universitat Autònoma de Barcelona. Directors: Iluminada Corripio, Jordi Riba Serrano, Date of defense: 11/10/2018.
- Carles Garcia-Ribera Comdor. Discinèsia en pacients amb un primer episodi de l'especte esquizogrènic tractats amb antipsicòtics de segona generació. Associació amb l'evolució del trastorn psiquiàtric. Universitat Autònoma de Barcelona. Directors: Enric Álvarez Martínez, Maria J. Portella. Date of defense: 22/11/2018

Scientific Production

Total Impact Factor: 155.5650 · Mean Impact Factor: 3.4570

Aguilar E.J., Corripio I., Garcia-Marti G., Grasa E., Marti-Bonmati L., Gomez-Anson B., Sanjuan J., Nunez-Marin F., Lorente-Rovira E., Escarti M.J., Brabban A., Turkington D., Emotional fMR auditory paradigm demonstrates normalization of limbic hyperactivity after cognitive behavior therapy for auditory hallucinations (2018) SCHIZOPHR RES, 193, 304-312. **IF: 3.9580**

Aguilar-Ortiz S., Salgado-Pineda P., Marco-Pallares J., Pascual J.C., Vega D., Soler J., Brunel C., Martin-Blanco A., Soto A., Ribas J., Maristany T., Sarro S., Salvador R., Rodriguez-Fornells A., Pomarol-Clotet E., McKenna P.J., Abnormalities in gray matter volume in patients with borderline personality disorder and their relation to lifetime depression: A VBM study (2018) PLOS ONE, 13 (2). **IF: 2.7660**

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Alcaraz S., Viladrich C., Trujols J., Sinol N., de los Cobos J.P., Heroin-dependent patient satisfaction with methadone as a medication influences satisfaction with basic interventions delivered by staff to implement methadone maintenance treatment (2018) PATIENT PREFER ADHER, 12, 1203-1211. **IF: 1.7330**

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Ballesteros A., Sanchez-Torres A.M., Lopez-Ilundain J.M., Cabrera B., Lobo A., Gonzalez-Pinto A.M., Diaz-Caneja C., Corripio I., Vieta E., de la Serna E., Bobes J., Usall J., Contreras F., Lorente-Omenaca R., Mezquida G., Bernardo M., Cuesta M.J., Is cognitive impairment associated with antipsychotic dose and anticholinergic equivalent loads in first-episode psychosis? (2018) PSYCHOL MED, 48 (13), 2247-2256. **IF: 5.4750**

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Cebolla A., Galiana L., Campos D., Oliver A., Soler J., Demarzo M., Banos R.M., Feliu-Soler A., Garcia-Campayo J., How Does Mindfulness Work? Exploring a Theoretical Model Using Samples of Meditators and Non-meditators (2018) MINDFULNESS, 9 (3), 860-870. **IF: 3.0240**

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Forero C.G., Olariu E., Alvarez P., Castro-Rodriguez J.-I., Blasco M.J., Vilagut G., Perez V., Alonso J., Alonso J., Forero C.G., Vilagut G., Alvarez P., Castro-Rodriguez J.-I., et al., Change in functioning outcomes as a predictor of the course of depression: a 12-month longitudinal study (2018) QUAL LIFE RES, 27 (8), 2045-2056. **IF: 2.3920**

Franquesa A., Sainz-Cort A., Gandy S., Soler J., Alcazar-Corcoles M., Bouso J.C., Psychological variables implied in the therapeutic effect of ayahuasca: A contextual approach (2018) PSYCHIAT RES, 264, 334-339. **IF: 2.2230**

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Gasso P., Mas S., Bioque M., Cabrera B., Lobo A., Gonzalez-Pinto A., Diaz-Caneja C.M., Corripio I., Vieta E., Castro-Fornieles J., Sarro S., Mane A., Sanjuan J., Llerena A., Lafuente A., Saiz-Ruiz J., Bernardo M., Impact of NTRK2, DRD2 and ACE polymorphisms on prolactin levels in antipsychotic-treated patients with first-episode psychosis (2018) J PSYCHOPHARMACOL, 32 (6), 702-710. **IF: 4.7380**

Gault J.M., Davis R., Cascella N.G., Saks E.R., Corripio-Collado I., Anderson W.S., Olincy A., Thompson J.A., Pomarol-Clotet E., Sawa A., Daskalakis Z.J., Lipsman N., Abosch A., Approaches to neuromodulation for schizophrenia (2018) J NEUROL NEUROSUR PS, 89 (7), 777-787. **IF: 7.1440**

Gonzalez L.E., Lopez-Carrilero R., Barrigon M.L., Grasa E., Barajas A., Pousa E., Gonzalez-Higueras F., Ruiz-Delgado I., Cid J., Lorente-Rovira E., Pelaez T., Ochoa S., Neuropsychological functioning and jumping to conclusions in recent onset psychosis patients (2018) SCHIZOPHR RES, 195, 366-371. **IF: 3.9580**

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Keymer-Gausset A., Alonso-Solis A., Corripio I., Sauras-Quetcuti R.B., Pomarol-Clotet E., Canales-Rodriguez E.J., Grasa-Bello E., Alvarez E., Portella M.J., Gray and white matter changes and their relation to illness trajectory in first episode psychosis (2018) EUR NEUROPSYCHOPHARM, 28 (3), 392-400. **IF: 4.1290**

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Lascorz D., Serrats E., Ruiz B., Ximenos A.R., Vegue J., Perez V., Descriptive study of evolution experienced by users of mental health residence, after 10 years of operation Estudio descriptivo de la evolución experimentada por los usuarios de una residencia de salud mental, tras 10 años de funcionamiento (2018) ACTAS ESP PSIQUIATRI, 46 (1), 12-20. **IF: 0.8780**

Lascorz D., Lopez V., Pinedo C., Trujols J., Vegue J., Perez V., Psychometric study of the Required Care Levels for People with Severe Mental Disorder Assessment Scale (ENAR-TMG) Estudio psicométrico de la Escala de valoración de los Niveles de Atención Requerida para personas con Trastorno Mental Grave (ENAR-TMG) (2018) REV PSIQUIATR SALUD, 11 (3), 156-168. **IF: 2.2330**

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Sanchez-Gutierrez T., Garcia-Portilla M.P., Parellada M., Bobes J., Calvo A., Moreno-Izco L., Gonzalez-Pinto A., Lobo A., de la Serna E., Cabrera B., Torrent C., Roldan L., et al., Smoking does not impact social and non-social cognition in patients with first episode psychosis (2018) SCHIZOPHR RES, 199, 64-74. **IF: 3.9580**

Sanchez-Torres A.M., Moreno-Izco L., Lorente-Omenaca R., Cabrera B., Lobo A., Gonzalez-Pinto A.M., Merchan-Naranjo J., Corripio I., Vieta E., de la Serna E., Butjosa A., et al., Individual trajectories of cognitive performance in first episode psychosis: a 2-year follow-up study (2018) EUR ARCH PSY CLIN N, 268 (7), 699-711. **IF: 3.6170**

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Tomioka Y., Jimenez E., Salagre E., Arias B., Mitjans M., Ruiz V., Saiz P., Garcia-Portilla M.P., de la Fuente L., Gomes-da-Costa S.P., Bobes J., Vieta E., Benabarre A., Grande I., Association between genetic variation in the myo-inositol monophosphatase 2 (IMPA2) gene and age at onset of bipolar disorder (2018) J AFFECT DISORDERS, 232, 229-236. **IF: 3.7860**

Torrent C., Reinares M., Martinez-Aran A., Cabrera B., Amoretti S., Corripio I., Contreras F., Sarro S., Gonzalez-Pinto A., Lobo A., Cuesta M.J., Sanchez-Torres A., Berge D., Castro-Fornieles J., Moreno C., Bernardo M., Vieta E., Affective versus first-episode non-affective first-episode psychoses: A longitudinal study (2018) J AFFECT DISORDERS, 238, 297-304. **IF: 3.7860**

Tortella-Feliu M., Soler J., Burns L., Cebolla A., Elices M., Pascual J.C., Lopez del Hoyo Y., Banos R., Garcia-Campayo J., Relationship between effortful control and facets of mindfulness in meditators, non-meditators and individuals with borderline personality disorder (2018) PERSONAL MENT HEALTH, 12 (3), 265-278. **IF: 1.1820**

Trujols J., de Diego-Adelino J., Feliu-Soler A., Iraurgi I., Puigdemont D., Alvarez E., Perez V., Portella M.J., Looking into the effect of multi-item symptom domains on psychometric characteristics of the Quick Inventory of Depressive Symptomatology-Self Report (QIDS-SR 16) (2018) PSYCHIAT RES, 267, 126-130. **IF: 2.2230**

Vega D., Ripolles P., Soto A., Torrubia R., Ribas J., Monreal J.A., Pascual J.C., Salvador R., Pomarol-Clotet E., Rodriguez-Fornells A., Marco-Pallares J., Orbitofrontal overactivation in reward processing in borderline personality disorder: the role of non-suicidal self-injury (2018) BRAIN IMAGING BEHAV, 12 (1), 217-228. **IF: 3.7190**

Vicent-Gil M., Keymer-Gausset A., Serra-Blasco M., Carceller-Sindreu M., de Diego-Adelino J., Trujols J., Mur M., Perez V., Alvarez E., Cardoner N., Portella M.J., Cognitive predictors of illness course at 12 months after first-episode of depression (2018) EUR NEUROPSYCHOPHARM, 28 (4), 529-537. **IF: 4.1290**

Other Publications

- Elices M, Soler J, Feliu-Soler A, Carmona C, Tiana T, Pascual JC, García-Palacios A, Álvarez E. Combining emotion regulation and mindfulness skills for preventing depression relapse: a randomized-controlled study. Borderline Personal Disord Emot Dysregul. 2017 Jul 5;4:13. doi: 10.1186/s40479-017-0064-6. eCollection 2017.

Books or Chapters with ISBN

- Maria J. Portella Moll. Mundos invisibles: el espectro autista explicado por una madre neurocientífica. S.A. Tibidabo Edicions, 2018. ISBN 9788491177548.

Diffusion Activities

- Máster Oficial en Iniciació a la Recerca en Salut Mental. Universitat Autònoma de Barcelona, Universidad de Cantabria, Universitat de Barcelona, Universidad Complutense de Madrid, Universidad de Cádiz, CIBERSAM.

AREA 4 · Neurological, Mental Disorders and Ageing

Genetics in Neurodegenerative Diseases

Coordinator
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Members
Cervera Carles, Laura (IR)
Dols Icardo, Oriol (IR)
Muñoz Llahuna, Laia (CIBERNED)

Main Lines of Research

- Use of state-of the-art genomic strategies to study the genetic architecture of complex diseases caused by neurodegenerative processes, including Alzheimer disease and other dementias, Parkinson disease, and amyotrophic lateral sclerosis (ALS), among others.
- Cloning and evaluation of novel genes associated with neurodegenerative disorders through genomic analyses on families with Mendelian pattern of inheritance.
- Study of the relationship between biomarkers and endophenotypes at the individual genetic background.
- Evaluation of the effect of novel genes related to neurodegenerative disorders in the Spanish population through multicentre collaborative studies.

Scientific Challenges

- Assemble a research team of excellence in the international field of genetics of neurodegenerative disorders.
- Increase our capacity of funding through EU support.
- Develop a comprehensive genomic database from well-characterized Spanish patients of European origin suffering from neurodegenerative disorders.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Neurobiology of Dementia.
- Parkinson Disease and Movement Disorders.
- Neuromuscular Diseases.

External Collaborations

National and international consortiums

- European Early-Onset Dementia Consortium (EU-EOD).
- European Alzheimer Disease Initiative (EADI).
- International Genomics of Alzheimer Project (IGAP).
- International Parkinson's Disease Genetic Consortium (IPDGC).
- International Frontotemporal Dementia Genomics Consortium (IFGC).
- Dementia Genetics Spanish Consortium (DEGESCO).
- CIBER-Neurodegenerative Diseases (CIBERNED).

international centers

- Dr. John Hardy, University College of London, UK.
- Dr. Andrew Singleton, National Institutes of Health, USA.
- Dr. Jean-Charles Lambert, Directeur de recherche Inserm chez INSERM. Lille, France.
- Dr. Alfredo Ramírez, University of Bonn. Germany.
- Dr. Ekaterina Rogaeva, University of Toronto, Canada.
- Dr. Mikko Hiltunen, Kuopio University, Finland.
- Dr. Martin Ingelsson, Uppsala University, Sweden.
- Dr. Liana Fidani, Aristotle University of Thessaloniki, Greece.
- Dr. Christine Van Broekhoven, University of Antwerp, Belgium.
- Dra. Rita Guerreiro, Van Andel Research Institute, Michigan, USA.
- Dra. Iris Jansen, VU Medical Center Amsterdam, Netherlands.

Active Grants

- Jordi Clarimon Echavarria. Estudio del perfil de expresión de microRNA exosomal en biofluídos para la identificación de biomarcadores de uso diagnóstico en la demencia frontotemporal. PI15/00026. Instituto de Salud Carlos III. Duration: 2016-2018. 101,500 €.
- Oriol Dols Icardo. Estudi del paper de les variants genètiques rares en l'arquitectura genètica de la malaltia d'Alzheimer. SLT002/16/00040. Departament de Salut. Duration: 2017-2019. 88,376.57 €.
- Jordi Clarimon Echavarria. Estudio del splicing alternativo en ARN de muestras con diagnóstico neuropatológico de ELA asociada a TDP-43. FUNDELA 2017. Fundación Española para el Fomento de la Investigación de la Esclerosis Lateral Amiotrófica. Duration: 2017-2018. 26,087 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Jordi Clarimon Echavarria. Grup de Recerca en Demències: Sant Pau. 2017 SGR 547, Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2020. 35,200 €.
- Jordi Clarimon Echavarria. Estudio transcriptómico de la demencia frontotemporal para la comprensión de sus bases moleculares e identificación de biomarcadores que reflejen su sustrato neuropatológico in vivo. PI18/00326. Instituto de Salud Carlos III. Duration: 2019-2021. 112,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 162.962 · Mean Impact Factor: 9.586

Alonso-Jiménez A., Ramón C., Dols-Icardo O., Roig C., Gallardo E., Clarimón J., Núñez-Peralta C., Díaz-Manera J., Corpus Callosum Agenesis, myopathy and pinpoint pupils: consider Stormorken Syndrome (2018) EUR J NEUROL, 25 (2), e25-e26. 2018. PMID: 29356264. **IF: 3.988**

Baradaran-Heravi Y., Dillen L., Nguyen H.P., Van Mossevelde S., Baets J., De Jonghe P., Engelborghs S., De Deyn P.P., Vandenbulcke M., Vandenberghe R., Van Damme P., Cras P., et al., No supportive evidence for TIA1 gene mutations in a European cohort of ALS-FTD spectrum patients (2018) NEUROBIOL AGING, 69, 293.e9-293.e11. **IF: 4.4540**

Bonham L.W., Karch C.M., Fan C.C., Tan C., Geier E.G., Wang Y., Wen N., Broce I.J., Li Y., Barkovich M.J., Ferrari R., Hardy J., Momeni P., Hoglinger G., Muller U., Hess C.P., et al., CXCR4 involvement in neurodegenerative diseases (2018) TRANSL PSYCHIAT, 8 (1). **IF: 4.6910**

Borrego-Ecija S., Cortes-Vicente E., Cervera-Carles L., Clarimon J., Gamez J., Batlle J., Ricken G., Molina-Porcel L., Aldecoa I., Sanchez-Valle R., Rojas-Garcia R., Gelpi E., Does ALS-FUS without FUS mutation represent ALS-FET? Report of three cases (2018) NEUROPATH APPL NEURO. **IF: 6.0590**

Cortes-Vicente E., Turon-Sans J., Gelpi E., Clarimon J., Borrego-Ecija S., Dols-Icardo O., Illan-Gala I., Lleo A., Illa I., Blesa R., Al-Chalabi A., Rojas-Garcia R., Distinct clinical features and outcomes in motor neuron disease associated with behavioural variant frontotemporal dementia (2018) DEMENT GERIATR COGN, 45 (3-4), 220-231. **IF: 2.8860**

Dols-Icardo O., Garcia-Redondo A., Rojas-Garcia R., Borrego-Hernandez D., Illan-Gala I., Munoz-Blanco J.L., Rabano A., Cervera-Carles L., Juarez-Rufian A., Spataro N., De Luna N., Galan L., Cortes-Vicente E., Fortea J., Blesa R., Grau-Rivera O., Lleo A., Esteban-Perez J., Gelpi E., Clarimon J., Analysis of known amyotrophic lateral sclerosis and frontotemporal dementia genes reveals a substantial genetic burden in patients manifesting both diseases not carrying the C9orf72 expansion mutation (2018) J NEUROL NEUROSUR PS, 89 (2), 162-168. **IF: 7.1440**

Fissolo N., Cervera-Carles L., Villar Guimerans L.M., Lleo A., Clarimon J., Drulovic J., Dujmovic I., Voortman M., Khalil M., Gil E., Navarro L., Alvarez-Cermeno J.C., Montalban X., Comabella M., Cerebrospinal fluid mitochondrial DNA levels in patients with multiple sclerosis (2018) MULT SCLER J. **IF: 5.2800**

Fortea J., Carmona-Iragui M., Benejam B., Fernandez S., Videla L., Barroeta I., Alcolea D., Pegueroles J., Munoz L., Belbin O., de Leon M.J., Maceski A.M., Hirtz C., Clarimon J., Videla S., Delaby C., Lehmann S., Blesa R., Lleo A., Plasma and CSF biomarkers for the diagnosis of Alzheimer's disease in adults with Down syndrome: a cross-sectional study (2018) LANCET NEUROL, 17 (10), 860-869. **IF: 27.1380**

Guerreiro R., Ross O.A., Kun-Rodrigues C., Hernandez D.G., Orme T., Eicher J.D., Shepherd C.E., Parkkinen L., Darwent L., Heckman M.G., Scholz S.W., Troncoso J.C., et al., Investigating the genetic architecture of dementia with Lewy bodies: a two-stage genome-wide association study (2018) LANCET NEUROL, 17 (1), 64-74. **IF: 27.1380**

Guerreiro R, Orme T, Neto JL, Bras J; International DLB Genetics Consortium. LRP10 in α-synucleinopathies (2018) LANCET NEUROL, 17 (12), 1032-1033. PMID: 30507384. **IF: 27.1380**

Illán-Gala I., Alcolea D., Montal V., Dols-Icardo O., Muñoz L., de Luna N., Turón-Sans J., Cortés-Vicente E., Sánchez-Saudinós MB., Subirana A., Sala I., Blesa R., Clarimón J., Fortea J., Rojas-García R., Lleó A., CSF sAPPβ, YKL-40, and NfL along the ALS-FTD spectrum (2018) NEUROLOGY 91 (17), e1619-e1628. PMID: 30291183. **IF: 7.592**

Montal V., Vilaplana E., Alcolea D., Pegueroles J., Pasternak O., Gonzalez-Ortiz S., Clarimon J., Carmona-Iragui M., Illan-Gala I., Morenas-Rodriguez E., Ribosa-Nogue R., et al., Cortical microstructural changes along the Alzheimer's disease continuum (2018) ALZHEIMERS DEMENT, 14 (3), 340-351. **IF: 12.7400**

Philtjens S., Van Mossevelde S., van der Zee J., Wauters E., Dillen L., Vandenbulcke M., Vandenberghe R., Ivanoiu A., Sieben A., Willems C., Benussi L., Ghidoni R., Binetti G., et al., Rare nonsynonymous variants in SORT1 are associated with increased risk for frontotemporal dementia (2018) NEUROBIOL AGING, 66, 181.e3-181.e10. **IF: 4.4540**

Ramos De Matos M., Ferreira C., Herukka S.-K., Soininen H., Janeiro A., Santana I., Baldeiras I., Almeida M.R., Lleo A., Dols-Icardo O., Alcolea D., Benussi L., Binetti G., et al., Quantitative genetics validates previous genetic variants and identifies novel genetic players influencing Alzheimer's disease cerebrospinal fluid biomarkers (2018) J ALZHEIMERS DIS, 66 (2), 639-652. **IF: 3.4760**

Ramos-Campoy O., Avila-Polo R., Grau-Rivera O., Antonell A., Clarimon J., Rojas-Garcia R., Charif S., Santiago-Valera V., Hernandez I., Aguilar M., Almenar C., Lopez-Villegas D., Bajo L., Pastor P., Van Der Zee J., Llado A., Sanchez-Valle R., Gelpi E., Systematic screening of ubiquitin/p62 aggregates in cerebellar cortex expands the neuropathological phenotype of the C9orf72 Expansion Mutation (2018) J NEUROPATH EXP NEUR, 77 (8), 703-709. **IF: 3.4900**

Verheijen J., van der Zee J., Gijselinck I., Van den Bossche T., Dillen L., Heeman B., Gomez-Tortosa E., Llado A., Sanchez-Valle R., Graff C., Pastor P., Pastor M.A., Benussi L., et al., Common and rare TBK1 variants in early-onset Alzheimer disease in a European cohort (2018) NEUROBIOL AGING, 62, 245.e1-245.e7. **IF: 4.4540**

Zhang M., Ferrari R., Tartaglia M.C., Keith J., Surace E.I., Wolf U., Sato C., Grinberg M., Liang Y., Xi Z., Dupont K., McGoldrick P., Weichert A., McKeever P.M., Schneider R., et al., A C6orf10/LOC101929163 locus is associated with age of onset in C9orf72 carriers (2018) BRAIN, 141 (10), 2895-2907. **IF: 10.8400**

Diffusion Activities

Scientific Dissemination to Society

- J Clarimon. "La malaltia d'Alzheimer: què és i com l'estudiem". Setmana mundial del cervell. Institut d'Educació de l'Ajuntament de Barcelona. Centre Salvador Seguí. Informative talk on high school. Barcelona, 13 March.
- J Clarimon. "La malaltia d'Alzheimer: què és i com l'estudiem". Setmana mundial del cervell. Institut d'Educació de l'Ajuntament de Barcelona. Institut SUTCOM. Informative talk on high school. Barcelona, 14 March 2018.
- J Clarimon. "Genética en las enfermedades neurodegenerativas: El ejemplo del Alzheimer". Hospital de Sant Pau. Escola C.E. Sant Miquel. Informative talk for ESO, Baccalaureate and Formative Courses ESCOLAB.Barcelona, 5 October 2018.

Specialized Courses

- J Clarimon. "Genètica de les malalties neurodegeneratives". V Training Course in Clinical Neurology. Societat Catalana de Neurologia. "Practical applications of genetics in neurology". Barcelona 12 April 2018.

Communications in International Meetings

- L. Cervera-Carles, I. Illán-Gala, D. Alcolea, I. Sala, L. Muñoz-Llahuna, O. Dols-Icardo, O. Belbin, M.B. Sánchez-Saudinós, M. Carmona-Iragui, Y.

Compta, M.J. Martí, A. Gámez-Valero, K. Beyer, R. Blesa, J. Fortea, A. Lleó, J. Clarimón. Altered extracellular vesicle-derived microRNAs from CSF as potential biomarkers for 4R-tauopathies. PSP & CBD 1st International Research Symposium. London, UK. 25-26 October 2018. Poster presentation.

- L. Cervera-Carles, I. Illán-Gala, D. Alcolea, I. Sala, M.B. Sánchez-Saudinós, O. Belbin, E. Morenas-Rodríguez, M. Carmona-Iragui, O. Dols-Icardo, L. Muñoz-Llahuna, A. Gámez-Valero, K. Beyer, R. Blesa, J. Fortea, A. Lleó, J. Clarimón. Identification of microRNAs from extracellular vesicles as potential biomarkers for frontotemporal dementia. Alzheimer's Association International Conference 2018. Chicago, USA. July 22-26, 2018. Poster presentation.
- L. Martin-Aguilar, L. Duchateau, A. Cortese, O. Dols-Icardó, L. Cervera-Calres, E. Pascual-Goñi, J. Diaz-Manera, I. Calegari, D. Franciotta, R. Rojas-Garcia, I. Illa, J. Clarimón, L. Querol. Absence of pathogenic mutations in CD59 in chronic inflammatory demyelinating polyradiculoneuropathy. The Peripheral Nerve Society Annual Meeting. Baltimore, Maryland (USA). 22-25 July 2018. Poster presentation.
- M. Menéndez-González, V. Álvarez, J. Clarimón, E. Suárez-San Martín, C. García-Fernández, M. Blázquez, A. Lleó, I. Illán, O. Dols-Icardo, C. Martínez. Frequency of huntingtin gene intermediate alleles in neurodegenerative diseases. The 4th Congress of the European Academy of Neurology (EAN). Lisbon, Portugal. 16-19 June 2018. Poster presentation.
- L. Cervera-Carles, I. Illán-Gala, D. Alcolea, I. Sala, B. Sánchez-Saudinós, O. Belbin, E. Morenas-Rodríguez, M. Carmona-Iragui, O. Dols-Icardo, L. Muñoz-Llahuna, A. Gámez-Valero, K. Beyer, R. Blesa, J. Fortea, A. Lleó, J. Clarimón. Identification of microRNAs from extracellular vesicles as potential biomarkers for frontotemporal dementia. The International Society for Extracellular Vesicles - ISEV 2018- Annual Meeting. Barcelona, Spain. 2-6 May 2018. Oral presentation.

Communications in National Meetings

- M. Aguilar, L. Duchateau, C. Lleixà, A. Cortese, O. Dols Icardo, L. Cervera-Carles, E. Pascual, J. Díaz-Manera, I Calegari, D. Franciotta, R. Rojas-García, I Illa, J. Clarimón, L. Querol. Ausencia de mutaciones patogénicas en CD59 en polirradiculopatía inflamatoria desmielinizante crónica. LXX Reunión Anual de la Sociedad Española de Neurología. Sevilla, Spain. 20-24 November 2018. Oral Presentation.
- V. Álvarez Martinez, C. Martínez, J. Clarimón, I. Rosas, M. Blázquez, E. Suárez, C. García, A. Lleo, O. Dols-Icardo, I. Illan-Gala, G. Morís de la Tassa, M. Menéndez. Alelos intermedios del gen ATXN2 en neurodegeneración: un papel como factor riesgo a desarrollar deterioro cognitivo. LXX Reunión Anual de la Sociedad Española de Neurología. Sevilla, Spain. 20-24 November 2018. Oral Presentation.

Training

- During the course of 2018 we have supervised two Final Degree Projects (TFG), from Vic University and the UAB. We have also directed one Master's Degree Project (TFM) from the UAB. The Unit also hosted two students from the "La Guineueta" Institute (Barcelona), who performed their laboratory practices as lab technicians.

Press Media

- Interview at "la Clau Digital" J Clarimon
  - https://laclau.cat/article/jordi-clarimon-cap-de-la-unitat-genetica-en-malalties-neurodegeneratives-de-liib-sant-pau/
- Interview at "Onda Cero" J Clarimon
  - https://www.ondacero.es/emisoras/catalunya/audios-podcast/ciutat/la-ciutat-1300h-11042018_201804115acdfa730cf2f4b9d43a2d42.html
- Interview at "VilaWeb"
  - https://www.vilaweb.cat/noticies/jordi-clarimon-tot-el-que-protegeix-de-les-malalties-cardiovasculars-protegeix-de-lalzheimer/
- News at "La Vanguardia Digital" J Clarimon
  - https://www.lavanguardia.com/vida/20180409/442373685741/mas-de-40-expertos-europeos-se-reunen-en-barcelona-para-debatir-alzheimer.html

AREA 4 · Neurological, Mental Disorders and Ageing

Neurobiology of Dementia

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Pegueroles Monllau, Jordi (IR)
Querol Vilaseca, Marta (IR)
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Sala Matavera, Isabel (FGS)
Salinas Ayala, Marta (IR)
Sánchez Saudinos, Maria Belen (IR)
Sirisi Dolcet, Sonia (IR)
Subirana Castillo, Andrea (IR)
Torres Alcalá, Soraya (IR)
Valldeneu Castells, Silvia (IR)
Videla Toro, Laura (IR)
Vilaplana Martínez, Eduard (CIBERNED)

Main Lines of Research

Biomarkers in Alzheimer disease and other neurodegenerative dementias:

- CSF biomarkers in Alzheimer disease, dementia with Lewy bodies and frontotemporal dementia.
- Amyloid and tau imaging in neurodegenerative dementias.
- Novel MRI markers in preclinical Alzheimer disease and frontotemporal dementia.
- Biomarkers of Alzheimer disease in Down syndrome.
- Molecular basis of neurodegenerative diseases.
- Clinical trials in Alzheimer disease and dementia with Lewy bodies.

Scientific Challenges

- Maintain and increase scientific production and funding in the next 5 years.
- Develop a training plan for researchers entering the group while maintaining its translational nature.
- Establish new cooperation agreements to increase number of applications for European and international projects.
- Establish links with technological innovation groups and companies to foster additional patent applications and contracts.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Genetics in Neurodegenerative Diseases (PI: Jordi Clarimon).
- Molecular Physiology of the Synapse (PI: Alex Bayés).
- Cerebrovascular Diseases (PI: Joan Martí-Fàbregas).
- Neuromuscular Diseases (PI: Isabel Illa, Ricard Rojas).
- Parkinson Disease and Movement Disorders (PI: Jaime Kulisevsky).
- Nuclear Medicine (PI: Ignasi Carrió, Valle Camacho).
- Multidisciplinary Sleep Unit (PI: Sandra Giménez)

External Collaborations

International collaborations

- Laboratory of Prof. Ana María Cuervo, Department of Developmental & Molecular Biology, Albert Einstein College of Medicine. New York, US. Student mobility fellowship Albert Einstein College of Medicine – Institut de Neurociències (UAB). Collaboration, stay.
- Baradaran-Heravi Y, Van Broeckhoven C (IP). Neurodegenerative Brain Diseases Group, VIB-UAntwerp Center for Molecular Neurology, Antwerp, Belgium; Laboratory of Neurogenetics, Institute Born-Bunge, University of Antwerp, Antwerp, Belgium. Estudio mutaciones gen TIA1 en una cohorte europea con pacientes de espectro ELA-DFT. Collaboration, article.
- Bergeron D. Interdisciplinary Clinic of Memory of the Child Jesus, Laval University, Quebec City, Quebec, Canada.
- Ossenkoppele R (IP). Alzheimer center Amsterdam, Amsterdam UMC, Amsterdam Neuroscience, VU University, Amsterdam, the Netherlands. Clinical Memory Research Unit, Department of Clinical Sciences, Lund University, Lund, Sweden. Estudio sobre la prevalencia de b-amiloide en las distintas variantes de APP. Collaboration, article.
- Bonham LW. Department of Neurology, Memory and Aging Center, University of California, San Francisco, San Francisco, CA, USA.
- Desikan RS (IP). Department of Radiology and Biomedical Imaging, Neuroradiology Section, University of California, San Francisco, San Francisco, CA, USA. Estudio sobre la implicación de CXCR4 en enfermedades neurodegenerativas. Collaboration, article.
- Bos I, Visser PJ (IP). Department of Psychiatry and Neuropsychology, Alzheimer Center Limburg, School for Mental Health and Neuroscience Maastricht University, Maastricht, Netherlands. Alzheimer Center and Department of Neurology, Neuroscience Campus Amsterdam, VU University Medical Center VU University Amsterdam, Amsterdam, Netherlands. Estudio sobre biomarkadores de b-amiloide, tau y cognición en sujetos cognitivamente sanos. Collaboration, articles (2).
- Broce I, Sugrue LP (IP). Neuroradiology Section, Department of Radiology and Biomedical Imaging, University of California, San Francisco, San Francisco, California, United States of America. Estudio

sobre el anàlisis de genoma en demencia frontotemporal. Collaboration, article.

- Dekker AD, De Deyn PP (IP). Department of Neurology and Alzheimer Research Center, University of Groningen, University Medical Center Groningen, Groningen, The Netherlands. Laboratory of Neurochemistry and Behaviour, Institute Born-Bunge, University of Antwerp, Wilrijk, Belgium. Department of Neurology and Memory Clinic, Hospital Network Antwerp (ZNA) Middelheim and Hoge Beuken, Antwerp, Belgium. Estudio sobre los sintomas psicológicos y comportamentales en la demencia en el síndrome de Down. Collaboration, article.
- De Leon MJ. Department of Psychiatry, Center for Brain Health, NYU Medical Center, New York, New York, United States of America.
- Blennow K. Sahlgrenska University Hospital, University of Gothenburg, Mölndal, Sweden. Institute of Neuroscience and Physiology, Department of Psychiatry and Neurochemistry, the Sahlgrenska Academy at the University of Gothenburg, Mölndal, Sweden. Estudio sobre la relación entre AB42 y tau en EA preclínica. Collaboration, article.
- Guerreiro R, Bras J (IP). UK Dementia Research Institute, University College London, London, UK; Department of Molecular Neuroscience, UCL Institute of Neurology, University College London, London, UK; Department of Medical Sciences and Institute of Biomedicine, iBiMED, University of Aveiro, Aveiro, Portugal. Estudio sobre la arquitectura genética de la demencia por cuerpos de Lewy. Collaboration, articles (2).
- Jansen WJ. Department of Psychiatry and Neuropsychology, School for Mental Health and Neuroscience, Alzheimer Center Limburg, Maastricht University, Maastricht, the Netherlands.
- Zetterberg H. Institute of Neuroscience and Physiology, Sahlgrenska Academy at University of Gothenburg, Mölndal, Sweden. Clinical Neurochemistry Laboratory, Sahlgrenska University Hospital, Mölndal, Sweden. UCL Institute of Neurology, Queen Square, London, United Kingdom. Estudio sobre la asociación de la b-amiloide cerebral con el funcionamiento cognitivo en personas sin demencia. Collaboration, article.
- Lewczuk P, Kornhuber J. Department of Psychiatry and Psychotherapy, Universitätsklinikum Erlangen, and Friedrich-Alexander Universität Erlangen-Nürnberg, Erlangen, Germany. Department of Neurodegeneration Diagnostics, Medical University of Białystok, and Department of Biochemical Diagnostics, University Hospital of Białystok, Białystok, Poland. Estudio sobre biomarcadores LCR y plasma para demencias neurodegenerativas. Collaboration, article.
- Mandelli ML, Gorno-Tempini ML. Department of Neurology, Memory and Aging Center, University of California San Francisco, CA, USA. Estudio sobre la topologia de la red de producción del habla funcional en APP fluente/agramática. Collaboration, article.
- Mattsson N. Clinical Memory Research Unit, Clinical Sciences Malmö, Lund University, Lund, Sweden.
- Ossenkoppele R (IP). Clinical Memory Research Unit, Clinical Sciences Malmö, Lund University, Lund, Sweden; Department of Neurology and Alzheimer Center, VU University Medical Center, Neuroscience Campus Amsterdam, Amsterdam, the Netherlands; Department of Radiology and Nuclear Medicine, VU University Medical Center, Neuroscience Campus Amsterdam, Amsterdam, the Netherlands. Estudio sobre la prevalencia del alelo apolipoproteina E ε4 en sujetos b-amiloide positivos a lo largo del espectro de la EA. Collaboration, article.
- McCarron M. Faculty of Health Sciences, Trinity College Dublin , Dublin, Ireland.
- Stemp S. Reena Foundation , Toronto, Ontario, Canada. Estudio sobre la atención de calidad a personas con discapacidad intelectual. Collaboration, article.
- Oliveira F, Castelo-Branco M. CiBIT, ICNAS, Institute for Biomedical Imaging in Life Sciences (IBILI), Faculty of Medicine, University of Coimbra, Portugal. Estudio sobre la clasificación diagnóstica basada en datos en la EA en diferentes regiones de referencia para la normalización de imágenes PET PiB. Collaboration, article.
- Ramos de Matos M, Martins M. Instituto de Medicina Molecular João Lobo Antunes, Faculdade de Medicina, Universidade de Lisboa, Lisboa, Portugal. Estudio sobre genetica cuantitativa en biomarcadors de LCR en EA. Collaboration, article.
- Schönecker S, Levin J. Department of Neurology, Ludwig Maximilians Universität München, Munich, Germany. German Center for Neurodegenerative Diseases (DZNE), Munich, Germany. Estudio sobre la atrofia del tálamo y el cromosoma C9orf72 en pacientes ELA. Collaboration, article.
- Strydom A. Department of Forensic and Neurodevelopmental Sciences, Institute of Psychiatry, Psychology & Neuroscience, Kings College London, London, UK. Division of Psychiatry, University Collee London, London, UK. The London Down Syndrome Consortium (LonDownS), UK. South London and Maudsley NHS Foundation Trust, London, UK.
- Zetterberg H. Department of Molecular Neuroscience, UCL Institute of Neurology, London, UK.UK Dementia Research Institute at UCL, London, UK. Institute of Neuroscience and Physiology, Department of Psychiatry and Neurochemistry, the Sahlgrenska Academy at the University of Gothenburg, Mölndal, Sweden. Clinical Neurochemistry Laboratory, Sahlgrenska University Hospital, Mölndal, Sweden. Estudio sobre EA en síndrome de Down. Collaboration, article.
- - Swarup V. Program in Neurogenetics, Department of Neurology, David Geffen School of Medicine, University of California, Los Angeles, Los Angeles, CA, USA.
- Geschwind DH. Program in Neurogenetics, Department of Neurology, David Geffen School of Medicine, University of California, Los Angeles, Los Angeles, CA, USA. Department of Human Genetics, David Geffen School of Medicine, University of California, Los Angeles, Los Angeles, CA, USA. Institute of Precision Health, University of California, Los Angeles, Los Angeles, CA, USA. Estudio sobre la identificación de redes genéticas conservades evolutivamente en la mediación de la demencia neurodegenerativa. Collaboration, article.
- Takada LT, Cognitive and Behavioral Neurology Unit, Department of Neurology, University of São Paulo, São Paulo, Brazil.
- Geschwind MD. Memory and Aging Center, Department of Neurology, University of California, San Francisco, CA, United States. Estudio sobre enfermedad por priones. Colaboración, handbook.
- Teunissen CE, Neurochemistry Lab and Biobank, Department of Clinical Chemistry, Amsterdam Neuroscience, VU University Medical Center Amsterdam, Amsterdam, The Netherlands.
- Blennow K. Clinical Neurochemistry Laboratory, Sahlgrenska University Hospital, Mölndal, Sweden. Department of Psychiatry and Neurochemistry, Institute of Neuroscience and Physiology, the Sahlgrenska Academy at the University of Gothenburg, Mölndal, Sweden. Estudio sobre el anàlisis del LCR y la neuroquímica clínica. Collaboration, article.
- Verheijen J, Sleegers K. Neurodegenerative Brain Diseases group, VIB Center for Molecular Neurology, University of Antwerp, Antwerp, Belgium; Institute Born-Bunge, University of Antwerp, Antwerp, Belgium. Estudio sobre los variantes de TBK1 en EA de inicio temprano en una cohorte europea. Collaboration, article.
- Westwood S, Lovestone S. Department of Psychiatry, University of Oxford, Oxford, United Kingdom. Estudio sobre biomarcadores de proteinas en plasma para la predicción de amiloide y tau en LCR y PET-Flutemetamol. Collaboration, article.
- Zhang M, Shanghai First Rehabilitation Hospital, School of Medicine, Tongji University, Shanghai, China. Institute for Advanced Study, Tongji University, Shanghai, China. Tanz Centre for Research in Neurodegenerative Diseases, University of Toronto, Toronto, ON, Canada.
- Rogaeva E. Tanz Centre for Research in Neurodegenerative Diseases, University of Toronto, Toronto, ON, Canada. Department of Medicine, Division of Neurology, University of Toronto, Toronto, ON, Canada. Estudio sobre la asociación entre un locus C6orf10/LOC101929163 y la edad de inicio en los portadoresC9orf72. Collaboration, study.

National collaborations

- Fissolo N, Comabella M (IP). Servei de Neurologia-Neuroimmunologia, Centre d'Esclerosi Múltiple de Catalunya (Cemcat), Institut de Recerca Vall d'Hebron (VHIR), Hospital Universitari Vall d'Hebron, Universitat Autònoma de Barcelona, Barcelona, Spain. Estudio sobre los niveles de LCR DNA mitocondrial en pacientes con EM. Collaboration, article.

- Borrego-Écija S. Neurology Department, Hospital Clínic-IDIBAPS, Barcelona, Spain. Neurological Tissue Bank of the Biobanc-Hospital Clínic-IDIBAPS, Barcelona, Spain.
- Gelpi E. Neurological Tissue Bank of the Biobanc-Hospital Clínic-IDIBAPS, Barcelona, Spain. Institute of Neurology, Medical University of Vienna, Vienna, Austria. Estudio sobre ELA-FUS sin mutación FUS en la representación ELA-FET.
- Collaboration, article and PERIS project (Pla Estratègic en Recerca i Innovació en Salut) SLT002/16/00408: Estudio de biomarcadores y desarrollo de nuevas estrategias terapéuticas en una cohorte multicéntrica de Demencia Frontotemporal.
- Cantero JL. Laboratory of Functional Neuroscience, Pablo de Olavide University, Seville, Spain; CIBERNED, Network Center for Biomedical Research in Neurodegenerative Diseases, Spain. Estudio sobre los cambios cerebrales y la interrupción de redes de sustancia gris cortical en adultos asintomáticos con riesgo de EA. Collaboration, article.
- López-Font I, Sáez-Valero J. Instituto de Neurociencias de Alicante, Universidad Miguel Hernández-CSIC, Sant Joan d'Alacant, Spain; Centro de Investigación Biomédica en Red sobre Enfermedades Neurodegenerativas (CIBERNED), Spain. Estudio sobre la disminución de los fragmentos ectodérmicos circulantes ErbB4 como lectura de la señalización en ELA. Collaboration, article.
- Menéndez-González M, Department of Neurology, Hospital Universitario Central de Asturias, Oviedo, Spain; Instituto de Investigación Sanitaria del Principado de Asturias (ISPA), Oviedo, Spain.
- Martínez C. Instituto de Investigación Sanitaria del Principado de Asturias (ISPA), Oviedo, Spain; Department of Neurology, Hospital Universitario de Cabueñes, Gijón, Spain. Estudio sobre los alelos intermedios del gen HTT en la neurodegeneración. Collaboration, article.
- Perea JR, Bolós M, Avila J. Department of Molecular Neuropathology, Centro de Biología Molecular Severo Ochoa, Consejo Superior de Investigaciones Científicas, Madrid, Spain. Network Center for Biomedical Research on Neurodegenerative Diseases, Madrid, Spain. Estudio sobre la disminución de los niveles de CX3CL1 en LCR en pacientes con EA. Collaboration, article.
- Jimenez, A. Endocrinology and Diabetes Department, Obesity Unit, Hospital Clínic de Barcelona, Barcelona, Spain. Institut d'Investigacions Biomèdiques August Pi Sunyer, Barcelona, Spain. FIS PI17/00279: Inflamación hipotalámica en obesidad. Papel de la dieta y efectos de la cirugía bariàtrica. Collaboration.

Active Grants

- Rafael Blesa González. Enfermedad de Alzheimer y síndrome de Down. Estudios multimodales de líquido cefalorraquídeo, resonancia magnética y PET de amiloide. PI13/01532. Instituto de Salud Carlos III. Duration: 2014-2018. 107,500 €.
- Alberto Lleó Bisa. Synaptic markers in preclinical Alzheimer's disease. MARATÓ 20142610. Fundació La Marató de TV3. Duration: 2015-2018. 159,903 €.
- Juan Fortea Ormaechea. Alzheimer's disease in Down's syndrome. CSF, MRI, EEG and PET multimodal studies. MARATO 20141210. Fundació La Marató de TV3. Duration: 2015-2018. 159,200 €.
- Juan Fortea Ormaechea. La estructura cerebral y el metabolismo en la enfermedad de Alzheimer preclínica. Interacciones entre nuevos y viejos" biomarcadores. PI14/01126. Instituto de Salud Carlos III. Duration: 2015-2019. 101,500 €.
- Alberto Lleó Bisa. Marcadores sinápticos en la enfermedad de Alzheimer. PI14/01561. Instituto de Salud Carlos III. Duration: 2015-2019. 111,500 €.
- Olivia Belbin. Valoración y caracterización de biomarcadores del estadio preclínico de la enfermedad de Alzheimer. PI15/00058. Instituto de Salud Carlos III. Duration: 2016-2019. 56,500 €.
- Rafael Blesa González. Pre-clinical Alzheimer's disease and Type 2 diabetes and obesity. Effects of bariatric surgery: a multimodal study. MARATO 201614.31. Fundació La Marató de TV3. Duration: 2017-2020. 142,700 €.
- Rafael Blesa González. Estudio del trazador de tomografía por emisión de positrones (PET) para Tau [18F]THK-5351 en pacientes con diferentes Taupatías. PI16/01825. Instituto de Salud Carlos III. Duration: 2017-2019. 101,500 €.
- Alberto Lleó Bisa. Study with the tau Positron Emission Tomography radiotracer (18F)THK-5351 in patients with different Tauopathies (TAUDEM). BBVA 2016. Fundación BBVA. Duration: 2016-2019. 107,900 €.
- Raul Núñez Llaves. Valoración y caracterización de proteínas sinápticas como biomarcadores del daño sináptico relacionado con la enfermedad Alzheimer. SLT002/16/00099. Departament de Salut. Duration: 2017-2019. 60,783.66 €.
- Alberto Lleó Bisa. Estudio de biomarcadores y desarrollo de nuevas estrategias terapéuticas en una cohorte multicéntrica de Demencia Frontotemporal. SLT002/16/00408. Departament de Salut. Duration: 2017-2019. 123,280.20 €.
- Sonia Sirisi Dolcet. Contractes postdoctorals "Sara Borrell" 2017. CD17/00055. Instituto de Salud Carlos III. Duration: 2018-2020. 80,598 €.
- Ignacio Illan Gala. Contractes de formació en recerca "Río Hortega" 2017. CM17/00074. Instituto de Salud Carlos III. Duration: 2018-2019. 53,732 €.
- Alberto Lleó Bisa. Estudio de biomarcadores y desarrollo de nuevas estrategias terapéuticas en una cohorte multicéntrica de Demencia Frontotemporal. SLT002/16/00408-01. Departament de Salut. Duration: 2017-2019. 251,426.53 €.
- Rafael Blesa González. Down Alzheimer Barcelona Neuroimaging Initiative (DABNI). La Caixa - Down Alzheimer. Fundació La Caixa. Duration: 2017-2020. 783,000 €.
- Alberto Lleó Bisa. Aplicación de Tomografía de Array (AT) para el estudio sistemático a gran escala del daño sináptico en las demencias neurodegenerativas. PI17/01896. Instituto de Salud Carlos III. Duration: 2018-2020. 77,000 €.
- Juan Fortea Ormaechea. Estudios longitudinales de RM magnética, de difusión y funcional en la enfermedad de Alzheimer preclínica esporádica y asociada al síndrome de Down. PI17/01019. Instituto de Salud Carlos III. Duration: 2018-2020. 127,000 €.
- Estrella Morenas Rodríguez. Estudio de biomarcadores de neuroinflamación en demencia con cuerpos de Lewy y demencia frontotemporal. MV17/00026. Instituto de Salud Carlos III. Duration: 2017-2018. 11,960 €.
- Maria Carmona Iragui. Domiciliary Alzheimer Visiting in Down syndrome. GBHI_ALZ-18-543740. ALTUM. Duration: 2017-2019. 18,433.61 €.
- Olivia Belbin. Contratos Miguel Servet 2013 - Tipo I. MS13/00091. Instituto de Salud Carlos III. Duration: 2014-2019. 202,500 €.
- Estrella Morenas Rodríguez. Estudi multimodal de biomarcadors en pacients amb demència amb cossos de Lewy. 2015 FI_B 00336. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2015-2018. 57,465 €.
- Estrella Morenas Rodríguez. Ajuts per a contractes de formació "Río Hortega" 2016. CM16/00054. Instituto de Salud Carlos III. Duration: 2017-2019. 53,732 €.
- Alberto Lleó. Evaluación del impacto de la imagen PET de Amiloide-beta en el diagnostico y control clínico de los pacientes con deterioro cognitivo evaluados por sospecha de enfermedades de Alzheimer (EA). DTS15/00141. Instituto de Salud Carlos III. Duration: 2016-2018. 59,139.30 €.
- Juan Fortea. Biological Correlates of Alzheimer in Down Syndrome. 1 R21 AG056974-01 (National Institute of Health). Duration: 2017-2019. 500,000 € (total 2,643,150.49 €).

- Alberto Lleó. A biomarker platform for AD biomarkers. EMIF-AD (Innovative Medicine Iniciative). Duration: 2013-2018. 15,000 €.
- Juan Fortea. Large-scale pooling/genotyping of individuals with Down syndrome for insight into predictive pathways for Alzheimer's disease. EU-JG1 (Jerôme Lejeune Foundation). Duration: 2017-2018. 40,000 €.
- Alberto Lleó. Development of prototype immunoassays on the SimoA Technology for quantification in biological samples of oligomeric forms of α-Synuclein using new antibody combinations (Acronym: SynOligo). MJ-Fox-Synoligo-20180516-1 (MJ FOX PROJECT). Duration: 2018-2019.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Juan Fortea Ormaechea. The Role of Inflammation and NGF Dysfunction in the Evolution of Alzheimer Disease Pathology in Down syndrome. 2018-3570. National Institute of Health (NIH). Duration: 2018-2022. 428,518.83 €.
- Eduard Vilaplana Martinez. Estudios multimodales de resonancia magnética, tomografía de emisión de positrones y líquido cefalorraquídeo en la enfermedad de Alzheimer en el síndrome de Down. SLT006/17/00095. Departament de Salut. Duration: 2018-2020, 93,137.03 €.
- Daniel Andrés Alcolea Rodríguez. Variabilitat dels nivells d'Aß42 i Tau en líquid cefaloraquidi: Comparació de plataformes automatitzades i estudi de la producció de ß-amiloide mitjançant marcadors subrogats. SLT006/17/00125. Departament de Salut. Duration: 2018-2019. 86,342.79 €.
- Juan Fortea Ormaechea. Estudios longitudinales de RM magnética estructural, de difusión y funcional en la enfermedad de Alzheimer preclínica esporádica y asociada al síndrome de Down. SLT006/17/00119. Departament de Salut. Duration: 2018-2019. 93,661.15 €.
- Alexandre Pierre Armand Bejanin. Neuroimagen multimodal para estudiar los mecanismos fisiopatológicos de la enfermedad de Alzheimer y otras enfermedades neurodegenerativas. IJCI-2017-32609. Ministerio de Economía y Competitividad. Duration: 2019-2021. 64,000 €.
- Olivia Belbin. Characterization of the human synaptic microRNA for the study of synapse dysregulation in neurological and psychiatric diseases: A frontotemporal dementia pilot study. IR17-MS4. Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2018-2018. 10,500 €.
- Maria Florencia Iulita. Discovery of novel biomarkers signalling NGF metabollic dysfunction and early AD-dementia in Down sdydrome. JEROME LEJEUNE 2018-2. Jérôme Lejeune Fondation. Duration: 2019-2021. 130.000 €.
- Daniel Andrés Alcolea Rodríguez. Utilidad diagnóstica de Aβ42 y Aβ42/40 en LCR y plasma para detectar amiloidosis cerebral y correlación con marcadores subrogados de producción de β-amiloide en enf. de Alzheimer. PI18/00435. Instituto de Salud Carlos III. Duration: 2019-2021. 122,000 €.
- Olivia Belbin. Estudio multimodal de nuevos biomarcadores sinápticos en cohortes de la enfermedad de Alzheimer y la demencia frontotemporal. PI18/00327. Instituto de Salud Carlos III. Duration: 2019-2021. 102,000 €.
- Maria Carmona Iragui. Estudio de biomarcadores bioquímicos y de imagen de angiopatía amiloide cerebral en el continuum de la enfermedad de Alzheimer esporádica y asociada al síndrome de Down. PI18/00335. Instituto de Salud Carlos III. Duration: 2019-2021. 57,000 €.
- Víctor Montal Blancafort. Cambios longitudinales en la estructura y la función cerebral en el contínuum de la enfermedad de Alzheimer y Síndrome de Down. FI18/00275. Instituto de Salud Carlos III. Duration: 2019-2022, 82,400 €.
- Juan Fortea Ormaechea. Contratos Juan Rodés 2018. JR18/00018. Instituto de Salud Carlos III. Duration: 2019-2021. 135,000 €.
- Juan Fortea Ormaechea. Borses d'Ampliació d'Estudis 2018., BA18/00057, Instituto de Salud Carlos III. Duration: 2019. 23,360 €.
- Olivia Belbin. Estudio multimodal de nuevos biomarcadores sinápticos en cohortes de la enfermedad de Alzheimer y la demencia frontotemporal. CPII18/00011. Instituto de Salud Carlos III. Duration: 2019-2022. 91,125 €.
- Juan Fortea Ormaechea. Horizon 21-Clinical and trial outcome measures for dementia in individuals with Down syndrome - the DS-1000 cognitive test study group. JEROME LEJEUNE 2018-1. Jérôme Lejeune Fondation. Duration: 2018-2019. 30,250 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Illán I. CSF levels of sAPPB and YKL-40 are related to frontotemporal neurodegeneration and survival in the Amyotrophic Lateral Sclerosis-Frontotemporal Dementia spectrum. XX Reunió Anual de la Societat Catalana de Neurologia. Barcelona 22-23 May 2018. Award to the best oral communication.
- Carmona-Iragui M. Extraordinary doctoral prize in neurosciences. Universitat Autònoma de Barcelona.
- Carmona-Iragui et al. "Cerebral amyloid angiopathy in Down syndrome and sporadic and autosomal-dominant Alzheimer's disease". Alzheimers Dement. 2017. Agustí Codina Puigrós Award ex aequo. Prize for the best article on Neurology Catalan to the World published in 2017.

Patents

- Olivia Belbin, Alberto Lleó, Álex Bayés, Juan Fortea, Daniel Alcolea. Markers of Synaptopathy in Neurodegenerative Disease. EP18382175.0. 16/03/2018

Transfer Products

- FUJIREBIO EUROPE N.V. DDS-417-AD Determinación de valores de referencia de biomarcadores de Alzheimer con Lumipulse en personas con cognición intacta.
- FUJIREBIO EUROPE N.V. DDS-419-AD. Determinación de puntos de corte de biomarcadores de Alzheimer con Lumipulse con validación para PET amiloide.

Scientific Production

Total Impact Factor: 334.253 · Mean Impact Factor: 7.1118

Alonso-Jiménez A, Ramón C, Dols-Icardo O, Roig C, Gallardo E, Clarimón J, Núñez-Peralta C, Díaz-Manera J. Corpus callosum agenesis, myopathy and pinpoint pupils: consider Stormorken syndrome. Eur J Neurol. 02/2018; 25(2): e25-e26. Doi: 10.1111/ene.13545. **IF: 4.621**

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Blesa R., Toriyama K., Ueda K., Knox S., Grossberg G., Strategies for continued successful treatment in patients with Alzheimer's disease: An overview of switching between pharmacological agents (2018) CURR ALZHEIMER RES, 15 (10), 964-974. **IF: 3.2890**

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Borrego-Écija S, Cortés-Vicente E, Cervera-Carles L, Clarimón J, Gámez J, Batlle J, Ricken G, Molina-Porcel L, Aldecoa I, Sánchez-Valle R, Rojas-García R, Gelpi E. Does ALS-FUS without FUS mutation represent ALS-FET? Report of three cases. Neuropathol Appl Neurobiol. 10/2018. doi: 10.1111/nan.12527.[Epub ahead of print] **IF: 6.059**

Bos I., Vos S., Vandenberghe R., Scheltens P., Engelborghs S., Frisoni G., Molinuevo J.L., Wallin A., Lleo A., Popp J., Martinez-Lage P., Baird A., Dobson R., Legido-Quigley C., Sleegers K., Van Broeckhoven C., Bertram L., Ten Kate M., Barkhof F., Zetterberg H., Lovestone S., Streffer J., Visser P.J., The EMIF-AD Multimodal Biomarker Discovery study: Design, methods and cohort characteristics (2018) ALZHEIMERS RES THER, 10 (1). **IF: 5.0150**

Bos I, Vos SJB, Jansen WJ, Vandenberghe R, Gabel S, Estanga A, Ecay-Torres M, Tomassen J, den Braber A, Lleó A, Sala I, Wallin A, Kettunen P, Molinuevo JL, Rami L, Chetelat G, de la Sayette V, Tsolaki M, Freund-Levi Y, Johannsen P; Alzheimer's Disease Neuroimaging Initiative, Novak GP, Ramakers I, Verhey FR, Visser PJ. Amyloid-β, Tau, and Cognition in Cognitively Normal Older Individuals: Examining the Necessity to Adjust for Biomarker Status in Normative Data. Front Aging Neurosci. 2018;10:193. Doi: 10.3389/fnagi.2018.00193. **IF: 3.582**

Broce I, Karch CM, Wen N, Fan CC, Wang Y, Tan CH, Kouri N, Ross OA, Höglinger GU, Muller U, Hardy J; International FTD-Genomics Consortium, Momeni P, Hess CP, Dillon WP, et al. Immune-related genetic enrichment in frontotemporal dementia: An analysis of genome-wide association studies. PLoS Med. 2018; 15(1) :e1002487. Doi: 10.1371/journal.pmed.1002487. **IF: 11.675**

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de Leon M.J., Pirraglia E., Osorio R.S., Glodzik L., Saint-Louis L., Kim H.-J., Fortea J., Fossati S., Laska E., Siegel C., Butler T., Li Y., Rusinek H., Zetterberg H., Blennow K., The nonlinear relationship between cerebrospinal fluid Aβ42 and tau in preclinical Alzheimer's disease (2018) PLOS ONE, 13 (2). **IF: 2.7660**

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Fissolo N., Cervera-Carles L., Villar Guimerans L.M., Lleo A., Clarimon J., Drulovic J., Dujmovic I., Voortman M., Khalil M., Gil E., Navarro L., Alvarez-Cermeno J.C., Montalban X., Comabella M., Cerebrospinal fluid mitochondrial DNA levels in patients with multiple sclerosis (2018) MULT SCLER J. **IF: 5.2800**

Fortea J., Carmona-Iragui M., Benejam B., Fernandez S., Videla L., Barroeta I., Alcolea D., Pegueroles J., Munoz L., Belbin O., de Leon M.J., Maceski A.M., Hirtz C., Clarimon J., Videla S., Delaby C., Lehmann S., Blesa R., Lleo A., Plasma and CSF biomarkers for the diagnosis of Alzheimer's disease in adults with Down syndrome: a cross-sectional study (2018) LANCET NEUROL, 17 (10), 860-869. **IF: 27.1380**

Gimenez S., Videla L., Romero S., Benejam B., Clos S., Fernandez S., Martinez M., Carmona-Iragui M., Antonijoan R.M., Mayos M., Fortuna A., Penacoba P., Plaza V., Osorio R.S., Sharma R.A., Bardes I., Rebillat A.-S., Lleo A., Blesa R., Videla S., Fortea J., Prevalence of sleep disorders in adults with down syndrome: A comparative study of self-reported, actigraphic, and polysomnographic findings (2018) J CLIN SLEEP MED, 14 (10), 1725-1733. **IF: 3.3960**

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Other Publications

- Fortea J. (Co-editor) Guía oficial de práctica clínica en demencias. Sociedad Española de Neurología. November 2018.
- Fortea J. (Coordinator) Enfermedad de Alzheimer. Guía clínica de práctica clínica de los trastornos cognitivos y conductuales. Sociedad Española de Neurología. November 2018.
- Illán-Gala, I. Epidemiología de la enfermedad de Alzheimer. In: Guía oficial de pràctica clínica en demencias. Sociedad Española de Neurología. November 2018.
- Illán-Gala, I. (Editor) Enfermedad de Alzheimer. Enfermedad de Alzheimer y discapacidad intelectual. In: Guía oficial de pràctica clínica en demencias. November 2018.
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Diffusion Activities

Divulgative talks

- Sònia Sirisi. Informative talk on 2nd grade students in the cycle "Women and science", within the framework of the celebration of the day of the woman and the girl in science. Escola Pérez-Iborra, Barcelona. February 2018.
- Daniel Alcolea. Informative talk on Alzheimer's, within the cycle II Cycle of Dissemination Talks Sant Pau, organized by the Memory Unit of the Hospital Sant Pau. Title: "Advances in the search for Alzheimer's Disease", Daniel Alcolea. Hospital Sant Pau, Barcelona. April 2018.

- Roser Ribosa. Informative talk on Alzheimer's, within the cycle II Cycle of Speeches Dissemination Sant Pau, organized by the Memory Unit of the Hospital Sant Pau. Title: "I can participate in clinical trials if I have Alzheimer's". Hospital Sant Pau, Barcelona. June 2018.
- Ignacio Illán. Talk in the international week of frontotemporal dementia, organized by the Memory Unit of the Hospital Sant Pau. Title: "Advances in the investigation of frontotemporal dementia", Hospital Sant Pau, Barcelona. September 2018.
- Montserrat Darder. Informative talk on Alzheimer's, within the II Cycle of Speeches Dissemination Sant Pau, organized by the Memory Unit of the Hospital Sant Pau. Title: "Social resources for people with Alzheimer's". Hospital Sant Pau, Barcelona. September 2018.
- Ignacio Illán. Informative talk on Alzheimer's, within the II Cycle of Dissemination Talks Sant Pau, organized by the Memory Unit of the Hospital Sant Pau. Title: "Advances to frontotemporal dementia". Hospital Sant Pau, Barcelona. November 2018.
- Lidia Garcia, Roser Ribosa, Concepción Escola. Dissertation talk for volunteers at the Hospital Sant Pau. Title: "How to confront the support of patients with memory illnesses". Hospital Sant Pau, Barcelona. December 2018.

Courses

- Eduard Vilaplana. Image course for the diagnosis. Institut FP Sanitària Roger de Llúria. Barcelona. 2018.
- Ignán Illán. "Structural Image Markers: Structural RM". Continuing education course of structural neuroimaging of SEN. Title: Annual Congress of the Spanish Society of Neurology. Sevilla, November 2018.

Workshops

- Maria Belén Sánchez. "Neuropsychology of the ELA" Workshop Update on evaluation in neurodegenerative diseases of the SCN. Catalan Society of Neurology. Barcelona, June 2018.

Oral communications

- Aguilar M, Duchateau L, Lleixà C, Cortese A, Dols Icardo O, Cervera-Carles L, Pascual E, Díaz-Manera J, Calegari I, Franciotta D, Rojas-García R, Illa I, Clarimón J, Querol L. Ausencia de mutaciones patogénicas en CD59 en polirradiculopatía inflamatoria desmielinizante crónica. LXX Reunión Anual de la Sociedad Española de Neurología. Sevilla, November 2018.
- Álvarez Martínez V, Martínez C, Clarimón J, Rosas I, Blázquez M, Suárez E, García C, Lleo A, Dols-Icardo O, Illan-Gala I, Morís de la Tassa G, Menéndez M. Alelos intermedios del gen ATXN2 en neurodegeneración: un papel como factor riesgo a desarrollar deterioro cognitivo. LXX Reunión Anual de la Sociedad Española de Neurología. Sevilla, November 2018.
- Barroeta I, Carmona M, Benejam B, Fernández S, Videla L, Alcolea D, Pegueroles J, Muñoz L, Belbin O, Clarimón J, John de Leon M, Videla S, Maleska A, Hirtz C, Delaby C, Lehmann S, Blesa R, Lleó A, Fortea J. Biomarcadores en plasma y LCR para el diagnóstico de la Enfermedad de Alzheimer en adultos con Síndrome de Down. Estudio transversal. XX Reunión Anual Sociedad Española de Neurología. Sevilla, November 2018.
- Cervera-Carles L, Illán-Gala I, Alcolea D, Sala I, Sánchez-Saudinós B, Belbin O, Morenas-Rodríguez E, Carmona-Iragui M, Dols-Icardo O, Muñoz-Llahuna L, Gámez-Valero A, Beyer K, Blesa R, Fortea J, Lleó A, Clarimón J. Identification of microRNAs from extracellular vesicles as potential biomarkers for frontotemporal dementia. A: 7th Annual Meeting of the International Society for Extracellular Vesicles, ISEV. Barcelona 3-6 May 2018.
- Estellés MT, Pegueroles J, Camacho V, Fernández A, López D, Illán I, Fortea J, Lleó A, Alcolea D. Análisis visual y cuantitativo del PET-FDG en el continuum de la enfermedad de Alzheimer. LXX Reunión Anual Sociedad Española de Neurología. Sevilla, November 2018.
- Illán I. CSF levels of sAPPB and YKL-40 are related to frontotemporal neurodegeneration and survival in the Amyotrophic Lateral Sclerosis-Frontotemporal Dementia spectrum. En:XX Reunió Anual de la Societat Catalana de Neurologia. Barcelona 22-23 May 2018. Prize for best oral communication.
- Illán I, Alcolea D, Montal V, Dols O, Muñoz L, de Luna N, Turón J, Cortés E, Sánchez MB, Subirana A, Sala I, Blesa R, Clarimón J, Fortea J, Rojas R, Lleó A. Los niveles en el LCR de sAPPb e YKL-40 se asocian con la neurodegeneración frontotemporal y la supervivencia en el continuo ELA-DFT. LXX Reunión Anual Sociedad Española de Neurología. Sevilla, November 2018.
- Montal V, Illán I, Vilaplana E, Pegueroles J, Alcolea D, Carmona M, Subirana A, Sánchez MB, Muñoz L, Turón J, Borrego S, Lladó A, Blesa R, Clarimón J, Rojas R, Sánchez R, Lleó A, Fortea J. Cambios microestructurales en la variante conductual de la demencia frontotemporal: un nuevo biomarcador de imagen. LXX Reunión Anual Sociedad Española de Neurología. Sevilla, November 2018.
- Pozueta A, Cano Á, García M, Lage C, Kazimierczak M, Martinez F, Bravo M, De Arcocha M, Jimenez J, Banzo I, Pegueroles J, Fortea J, Rodriguez E, Sánchez P. Patrones de hipometabolismo cerebral asociados a síntomas neuropsicológicos y neuropsiquiátricos en pacientes con Demencia Semántica. A: LXX Reunión Anual Sociedad Española de Neurología. Sevilla, November 2018.
- Vilaplana E, Montal V, Fortea J. Inflamación temprana y cambios microestructurales en enfermedad de Alzheimer familiar. LXX Reunión Anual Sociedad Española de Neurología. Sevilla, November 2018.
- Vilaplana E, Rodriguez-Vieitez E, Ferreira D, Montal V, Almkvist O, Wall A, et al. Early inflammation and microstructural cortical changes in familial autosomal-dominant Alzheimer's disease. In: Alzheimer's Association International Conference (AAIC 2018), 22-26 July 2018. (Alzheimers. Dement. 2018; 14: Supplement P1639-P1639.)

Posters

- Alcolea D, Muñoz L, Le Bastard N, Nadal A, Camacho MV, Pegueroles J, Montal V, Blesa R, Fortea J, Lleó A. Correlation between INNOTEST® and the fully automated LUMIPULSE® G platform for the analysis of β-amyloid 1-42 and total Tau. A: The Alzheimer's Association International Conference 2018 (AAIC). Chicago, EUA 21-26 July 2018.
- Alcolea D, Muñoz L, Le Bastard N, Nadal A, Camacho MV, Pegueroles J, Montal V, Blesa R, Fortea J, Lleó A. Clinical versus amyloid PET-based cut-offs for β-amyloid 1-42 and the ratio β-amyloid 1-42/tTau in the fully automated LUMIPULSE® G platform. A: 2nd Meeting of the Society for CSF analysis and clinical neurochemistry, CSF Society. Amsterdam, Holanda 7-8 June 2018.
- Cervera-Carles L, Illán-Gala I, Alcolea D, Sala I, Muñoz-Llahuna L, Dols-Icardo O, Belbin O, Sánchez-Saudinós B, Morenas-Rodríguez E, Carmona-Iragui M, Compta Y, Martí MJ, Gámez-Valero A, Beyer K, Blesa R, Fortea J, Lleó A, Clarimón J. Identification of microRNAs from extracellular vesicles as potential biomarkers for frontotemporal dementia. A: The Alzheimer's Association International Conference 2018 (AAIC). Chicago, EUA 21-26 July 2018.
- Cervera-Carles L, Illán-Gala I, Alcolea D, Sala I, Muñoz-Llahuna L, Dols-Icardo O, Belbin O, Sánchez-Saudinós MB, Carmona-Iragui M, Compta Y, Martí MJ, Gámez-Valero A, Beyer K, Blesa R, Fortea J, Lleó A, Clarimón J. Altered extracellular vesicle-derived microRNAs from CSF as potential biomarkers for 4R-tauopathies. A: PSP & CBD 1st International Research Symposium. Londres, 25-26 October 2018.
- Cervera-Carles L, Illán-Gala I, Alcolea D, Sala I, Muñoz-Llahuna L, Dols-Icardo O, Belbin O, Sánchez-Saudinós B, Morenas-Rodríguez E, Carmona-Iragui M, Compta Y, Martí MJ,Gámez-Valero A, Beyer K, Blesa R, Fortea J, Lleó A, Clarimón J. Identification of exosomal microRNAs as potential biomarkers for frontotemporal dementia. A: VI Congreso Internacional de Investigación e Innovación en Enfermedades Neurodegenerativas (CiiiEN). Santiago de Compostela, September 2018.
- Martin-Aguilar L, Duchateau L, Cortese A, Dols-Icardo O, Cervera-Carles L, Pascual-Goñi E, Diaz-Manera J, Calegari I, Franciotta D, Rojas-Garcia R, Illa I, Clarimón J, Querol L. Absence of pathogenic mutations in CD59 in chronic inflammatory demyelinating polyradiculoneuropathy. A: The Peripheral Nerve Society Annual Meeting. Baltimore, Maryland (USA). 22-25 July 2018.
- Menéndez González M, Álvarez V, Clarimón J, Suárez-San Martín E, García-Fernández C, Blázquez M, Lleó A, Illán I, Dols-Icardo O, Martínez C. Frequency of huntingtin gene intermediate alleles in neurodegenerative diseases. A: The 4th Congress of the European Academy of Neurology (EAN). Lisboa, Portugal 16-19 June 2018.

- Morenas E, Alcolea D, Suárez M, Muñoz L, Sala I, Subirana A, Carmona M, Illán I, Ribosa R, Blesa R, Haass C, Fortea J, Lleó A. Biomarcadores de activación glial en líquido cefalorraquídeo en demencia con cuerpos de Lewy. LXX Reunión Anual Sociedad Española de Neurología. Sevilla, November 2018.
- Pegueroles J, Pané A, Montal V, Dols O, Vilaplana E, Clarimón J, Lleó A, Jimenez A, Fortea J. El impacto de la obesidad sobre el metabolismo cerebral está modificado por el sexo en controles sanos. LXX Reunión Anual Sociedad Española de Neurología. Sevilla, November 2018.
- Subirana A, Sala I, Morenas E, Sánchez MB, Alcolea D, Illán I, Carmona M, Ribosa R, Videla L, Blesa R, Fortea J, Lleó A. Evaluación de las fluctuaciones cognitivas en la demencia con cuerpos de Lewy. LXX Reunión Anual Sociedad Española de Neurología. Sevilla, November 2018.
- Videla L, Benejam B, Carmona M, Fernández S, Barroeta I, Videla S, Lleó A, Blesa R, Fortea J. Aplicabilidad de la batería neuropsicológica de la Prueba de Exploración de Cambridge (CAMCOG-DS) para la detección de deterioro cognitivo en personas con síndrome de Down. LXX Reunión Anual Sociedad Española de Neurología. Sevilla, November 2018.

Invited speakers

- Juan Fortea. "A new era for Alzheimer´s biomarkers in Down Syndrome: perspectives from Londowns Consortium and the DABNI Initiative". LuMind Research Down Syndrome Foundation. Boston, March 2018.
- Juan Fortea. "Cortical microstructural changes in neurodegenerative dementias using DTI". MGH/HST Martinos Center for Biomedical Imaging. Boston, March 2018.
- Bessy Benejam. "Como afrontamos el envejecimiento de nuestros familiares". Fundación Finestrelles. Barcelona, March de 2018.
- Sònia Sirisi. "Astroglial activation in AD and other tauopathies". HeatNet Meeting Lüebeck. Alemania, April 2018.
- Juan Fortea. "Cortical microstructural changes in neurodegenerative dementias using DTI". Fundación Fleni. Buenos Aires, April 2018.
- Alberto Lleó. "La sinápsis como diana terapéutica". Barcelona, 3 May 2018.
- Alberto Lleó. "Manejo del deterioro cognitivo leve y nuevos tratamientos en la enfermedad de Alzheimer". Zaragoza, 10 May 2018.
- Bessy Benejam. "Demencia y síndrome de Down". 23 Jornades d'Actualització en Psicogeriatria. Barcelona, 18-19 May 2018.
- Alberto Lleó. "Ethical challenges in research studies using CSF biomarkers". XI Biennal Conference Barcelona-Pittsburg. Barcelona, 23 May 2018.
- Alberto Lleó. "Synaptic abnormalities in Alzheimer's disease and other neurodegenerative diseases". Instituto Cajal, 24 May 2018.
- Juan Fortea. "Investigación en Alzheimer: Perspectivas de la Down Alzheimer Neuroimaging Initiative (DABNI)". Congreso Internacional de la Universidad Católica de Chile. Santiago de Chile, May 2018.
- Juan Fortea. "Detección precoz y aspectos clínicos de la enfermedad de Alzheimer en el Síndrome de Down". Congreso internacional de la Universidad Católica de Chile. Santiago de Chile, Mayo 2018.
- Juan Fortea. "5 cosas que hay que saber sobre demencias". XXII Societat Catalana de Neurologia. Barcelona, May 2018.
- Alberto Lleó. "Glial biomarkers YKL-40, sTREM2 and others". 2nd Meeting of the CSF Society. Amsterdam, 6-7 June 2018.
- Juan Fortea. "Down Alzheimer Barcelona Neuroimaging Initiative: DABNI". Universitat de Denver. Denver, EUA June 2018.
- Ignacio Illán. "Síntomas neuropsiquiátricos en enfermedades neurodegenerativas". Patrocinada per KERN Pharma. Barcelona, June 2018.
- Alberto Lleó. "Avances en el diagnóstico del deterioro cognitivo". Barcelona, 9 October 2018.

Press

- "Logran detectar precozmente el Alzheimer en personas con síndrome de Down". Agencia EFE. 30/08/18.
- "Biomarcador en sangre detecta el Alzheimer en personas con Down". MSP (Medicina y Salud Pública). 30/08/18.
- "Un biomarcador en sangre permite detectar la enfermedad de Alzheimer en personas con Síndrome de Down". Saludiario.es. 30/05/18.
- "Un avance en la lucha contra el Alzheimer en personas con Down". Laverdad.es. 30/08/18.
- "Nou avenç per la detecció precoç de l'Alzheimer en persones amb síndrome de Down". NacióDigital. 30/08/18.
- "Un biomarcador en sangre detecta el Alzheimer en personas con síndrome de Down". Europapress. 30/08/18.
- "Nou avenç en la detecció precoç de l'Alzheimer".El Punt Avui. 30/08/18.
- "Logran detectar precozmente el Alzheimer en personas con síndrome de Down".Diari de Terrassa. 30/08/18.
- "Un biomarcador en sangre detecta el Alzheimer en personas con síndrome de Down. Canal Down21. 30/08/18.
- "Un anàlisis en sangre detecta el Alzheimer de forma precoz". ABC. 30/08/18.
- "Avances en la detección del Alzheimer en personas con Síndrome de Down". El Periódico. 30/08/18.
- "Un biomarcador permite la detección precoz del Alzheimer en personas con síndrome de Down". RTVE. 30/08/18.
- "Detectar l'alzheimer en persones Down fins a 10 anys abans amb una anàlisi de sang". CCA. 30/08/18.
- "Un biomarcador en sang permet la detecció precoç de l'alzheimer en persones amb síndrome de Down". Ara.cat. 30/08/18.
- "Logran detectar precozmente el Alzheimer en personas con síndrome de Down". El Mundo. 30/08/18.
- "Adelantarse al Alzheimer". El Periódico. 30/08/18.
- "Un analisis detecta Alzheimer precoz en los Down". La Vanguardia. 30/08/18.
- "Una analítica permet detectar l'Alzheimer precoç en els Down". Cadena SER. 30/08/18.
- "Nova anàlisi per diagnosticar l'Alzheimer". TV3. 30/08/18.
- "Logran detectar precozmente el Alzheimer en personas con Síndrome de Down". Telemadrid. 30/08/18.
- "Un biomarcador en sang permet la detecció precoç de l'Alzheimer en persones amb síndrome de Down". RTVE. 30/08/18.
- "Nou mètode per detectar precoçment l'Alzheimer en personas amb Síndrome de Down". CatalunyaDiari. 31/08/18.
- "Avanza la detección del Alzheimer en personas con síndrome de Down. La Razón. 31/08/18.
- "Un biomarcador en sangre detecta el Alzheimer en personas con síndrome de Down". Geriatricarea.com. 06/09/2018.
- "El Hospital de Sant Pau de Barcelona inicia un estudio en Fase I que aplica técnicas de Medicina Nuclear para la detección de la proteína tau en el cerebro de personas que padecen Alzheimer y demencia frontotemporal por primera vez en España". Press release Hospital de la Santa Creu i Sant Pau. 18/07/18.

AREA 4 · Neurological, Mental Disorders and Ageing

Neuroradiology

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Méndez Escalante, Jorge E. (FGS)

Main Lines of Research

- Ours is a multidisciplinary research group, which has the added value of combining neuroimaging skills of the members of the Neuroradiology Clinical Unit at Hospital de la Santa Creu i Sant Pau with technological knowledge from PIC/IFAE investigators at the Universitat Autònoma de Barcelona (Spain) and University College London (UCL, UK).
- Our focus are: 1) Neuroimaging biomarkers in diseases involving the central nervous system, including neurodegenerative and neuropsychiatric conditions; 2) Automatic procedures and software tools, especially those of Deep Learning/Artificial Intelligence, in neuroradiology.

Scientific Challenges

- To achieve visibility of our research group and of neuroradiology –often considered by clinicians more a technical tool rather than a discipline in itself– as a defined field of knowledge.
- To add knowledge in clinical Neuroradiology to the development and implementation of artificial intelligence in diagnostic imaging.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Pituitary Gland Disorders, Digestive Diseases, Parkinson Disease and Movement Disorders, Cerebrovascular Diseases.
- Neuro-Oncology, Maternal Care/Obstetrics, Clinical Psychiatry, Head and Neck Tumours/Otorrinolaringology.

External Collaborations

- University College London (UCL), London, UK (B. Gómez-Ansón is Hon Associate Lecturer).
- Translational Imaging Group, UCL (C Sudre), and National Hospital for Neurology and Neurosurgery (R Jäger), London, UK.
- PIC (Information Science Port) / IFAE (Institute for High Energy Physics), Universitat Autònoma de Barcelona, Spain.

Active Grants

- Beatriz Gómez Ansón. Estudio longitudinal de los correlatos clínicos y neuroradiológicos asociados a los niveles de huntingtina y otros biomarcadores en LCR y plasma en la enfermedad de Huntington. FIS PI 17/01885. Duration: 2018-2020. 97,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Transfer Products

- C Sudre, B Gomez-Anson, Prof. R Jäger, MJ Cardoso, et al. "The role of conventional radiological approach in machine learning". http://cmictig.cs.ucl.ac.uk/the-role-of-conventional-radiological-approach-in-machine-learning

Scientific Production

Total Impact Factor: 27.4130 · Mean Impact Factor: 4.5688

Aguilar E.J., Corripio I., Garcia-Marti G., Grasa E., Marti-Bonmati L., Gomez-Anson B., Sanjuan J., Nunez-Marin F., Lorente-Rovira E., Escarti M.J., Brabban A., Turkington D., Emotional fMR auditory paradigm demonstrates normalization of limbic hyperactivity after cognitive behavior therapy for auditory hallucinations (2018) SCHIZOPHR RES, 193, 304-312. **IF: 3.9580**

Fallatah SM, Pizzini FB, Gomez-Anson B, Magerkurth J, De Vita E, Bisdas S, Jäger HR, Mutsaerts HJMM, Golay X. A visual quality control scale for clinical arterial spin labeling images. Eur Radiol Exp. 2018 Dec 19;2(1):45. doi: 10.1186/s41747-018-0073-2. **IF: –**

Lopez-Mora D.A., Camacho V., Fernandez A., Granell E., Carrio I., Striking lack of visualization of striatum on 18F-FDG brain PET in chorea-acanthocytosis (2018) EUR J NUCL MED MOL I, 45 (3), 511-512. **IF: 7.7040**

Martinez-Horta S., Perez-Perez J., Sampedro F., Pagonabarraga J., Horta-Barba A., Carceller-Sindreu M., Gomez-Anson B., Lozano-Martinez G.A., Lopez-Mora D.A., Camacho V., Fernandez-Leon A., Carrio I., Kulisevsky J., Structural and metabolic brain correlates of apathy in Huntington's disease (2018) MOVEMENT DISORD, 33 (7), 1151-1159. **IF: 8.3240**

Martinez-Horta S., Moreu A., Perez-Perez J., Sampedro F., Horta-Barba A., Pagonabarraga J., Gomez-Anson B., Lozano-Martinez G.A., Lopez-Mora D.A., Camacho V., Fernandez-Leon A., Carrio I., Kulisevsky J., The impact of bilingualism on brain structure and function in Huntington's disease (2018) PARKINSONISM RELAT D. **IF: 4.7210**

Sudre C.H., Gomez Anson B., Davagnanam I., Schmitt A., Mendelson A.F., Prados F., Smith L., Atkinson D., Hughes A.D., Chaturvedi N., Cardoso M.J., Barkhof F., Jaeger H.R., Ourselin S., Bullseye's representation of cerebral white matter hyperintensities (2018) J NEURORADIOLOGY, 45 (2), 114-122. **IF: 2.7060**

Diffusion Activities

Teaching activities

- Undergraduate Level: aggregate professor UAB (Dra. Gómez Ansón).
- Postgraduate Level:
  - Master in Neuropsychology UAB (Dra. Gómez Ansón)
  - Master en Dolor, Universidad de Valencia (Dra. Gómez Ansón)
  - European Course in Neuroradiology, Diagnostic and Interventional. 14th Cycle Antwerp (Belgium). (Dra. Gómez Ansón)
- Dra. Gómez Ansón. Conference at: Clinical & Basic Science for the Management of the Chronic Pain Patient: Neurostimulation-Course XIV. Barcelona, Spain. November 30th- December 1st, 2018.
- Antoni Moline, Jospe Ris, Beatriz Gómez Ansón, Pol Camps, Mary Arjones, Mireia Puig. Workshop on Multidisciplinary Care. Professional experiences - 19/01/2018 Circle of Health, Catalan Society for Health Management. "The Model for Improvement & The Plan-Do-Study-Act (PDSA) cycle" in the improvement of urgent processes. Multidisciplinary Monitoring Commission for Acute Cerebrovascular Disease.

Other activities

- Dra. Gómez Ansón. Appraiser Research Grants ANEP.
- Dra. Gómez Ansón. Reviewer Brain Research.
- Dra. Gómez Ansón. Brain Sciences.

AREA 4 · Neurological, Mental Disorders and Ageing

Ageing Institute

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Main Lines of Research

Health promotion and prevention in older people

- Healthy ageing. Promotion of intrinsic capacities.
- Healthy habits: Physical activity, sedentary behaviour, healthy diet, cognition stimulation.
- Epidemiological studies.
- ICT applications to promote healthy ageing.

Geriatric syndromes and health problems of older people

- Frailty and sarcopenia.
- Falls.
- Functional loss.
- Alzheimer Disease and other dementias.
- Malnutrition.

Long term care

- Health and social services for older people.
- Personal Centered Care.
- Caregivers of older adults.
- ICT applications to health, social services.
- Functional assessment.

Scientific Challenges

Health promotion and prevention in older people

- Area mainly focused on health promotion and disability prevention to improve quality of life among older people. How we improve intrinsic capacities and functional capacity with age.
- Clinical and epidemiological research undertaken includes both observational and intervention studies, with the main lines of research referring to mobility, nutrition and cognition.
- ICT Solutions for promoting healthy ageing.

Geriatric syndromes and health problems of older people

- Screening, diagnosis and intervention in geriatric syndromes.
- Screening of frailty and sarcopenia. How to apply in in clinical practice.
- Identifying risk of falls and falls prevention in the community and nursing homes.

Long term care

- How to apply Personal Centered Care in social centres is a key element to promote quality of social services.
- New models of services for older people with long term care needs.

Collaborations

Collaborations with other IIB Sant Pau Groups

- FRAPEM: FIS Fragilitat. EAP Sardenya.
- FIS Memory Workshops. Public Health Agency of Barcelona and EAP Sardenya.

External Collaborations

- The group participates usually in CE-funded projects.
- The Group belongs to the Global Research Network of the International Association of Geriatrics and Gerontology.

Active Grants

- AEQUALIS. Promovent l'autocura, l'alfabetització per a la salut i el capital social en persones grans de zones urbanes desafavorides socioeconòmicament. http://salut-nvelliment.uab.cat/aequalis/. Recercaixa. IP. Sergi Blancafortl. 78,111.55 €
- SITLESS. Exercise Referral Schemes enhanced by Self-Management Strategies to battle sedentary behavior. H2020. (Coordinator Centre). IP: Antoni Salvà: 789,684 €. http://sitless.eu
- NESTORE. Novel Empowering Solutions and Technologies for Older people to Retain Everyday life activities. H2020. IP: Giuseppe Andreoni. Local IP: Laura Fernández. 299,500.71 €. https://nestore.ro/home
- APTITUDE. Actuar per a la prevenció Transpirinenca de la dependència en les persones grans. Programa Interreg-POCTEFA 2014-2020. IP: Bruno Vellas. Local IP: Antoni Salvà. 390,000 €.
- INNOBRAIN. Noves tecnologies per a la innovació en rehabilitació i estimulació cognitiva COMRDI15-1-0017Ris3Cat. Local IP. Antoni Rivero. 42,370.39 €.
- REMI en centres d'atenció social i sociosanitària per a persones grans. Obra Social La Caixa. IP: Antoni Rivero. 45,386 €. http://salut-envelliment.uab.cat/remi/
- LOMAPT. Prevention of cognitive decline in older adults with low DHA/EPA index in red blood cells. IP: Bruno Vellas. Up to 723,895 € (Max.).
- SUMAR. 16,470.40 €: 1. Avaluació de l'impacte d'un model d'ACP en residències per a persones grans. IP: Antoni Salvà. 2. Constucció d'una eina per a l'avaluació de la satisfacció en residencies. IP: Antoni Rivero.
- XARESS. Xarxa de recerca en centres sociosanitaris. Departament de Salut. IP: Antoni Salvà.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 6.9540 · Mean Impact Factor: 2.3180

Coll-Planas L., Blancafort S., Rojano X., Roque M., Monteserin R., Promoting self-management, health literacy and social capital to reduce health inequalities in older adults living in urban disadvantaged areas: Protocol of the randomised controlled trial AEQUALIS (2018) BMC PUBLIC HEALTH, 18 (1). **IF: 2.4200**

Deidda M., Coll-Planas L., Gine-Garriga M., Guerra-Balic M., Roque I Figuls M., Tully M.A., Caserotti P., Rothenbacher D., Salva Casanovas A., Kee F., Blackburn N.E., Wilson J.J., Skjodt M., Denkinger M., Wirth K., McIntosh E., Cost-effectiveness of exercise referral schemes enhanced by self-management strategies to battle sedentary behaviour in older adults: Protocol for an economic evaluation alongside the SITLESS three-armed pragmatic randomised controlled trial (2018) BMJ OPEN, 8 (10), e022266-. **IF: 2.4130**

Perez L.M., Roque M., Glynn N.W., Santanasto A.J., Ramoneda M., Molins M.T., Coll-Planas L., Vidal P., Inzitari M., Validation of the Spanish version of the Pittsburgh Fatigability Scale for older adults (2018) AGING CLIN EXP RES, 1-6. **IF: 2.1210**

Other Publications

- Laura Fernández-Maldonado, Sergi Blancafort Alias, Marta Ballester Santiago, Lilisbeth Perestelo-Pérez, and Antoni Salvà Casanovas . "Spain: How Can Patient Involvement and a Person-Centered Approach Improve Quality in Healthcare? The Patients' University and Other Lessons from Spain". In: Jeffrey Braithwaite, Russell Mannion,Yukihiro Matsuyama, Paul G. Shekelle, Stuart Whittaker, and Samir Al-Adawi (Eds.) Healthcare Systems: Future Predictions for Global Care. Boca Raton: CRC Press, 2018.

AREA 4 · Neurological, Mental Disorders and Ageing

Addictive Behaviours

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Remis Rebollo, Sergio (FGS)
Ribalta Corona, Elisa (FGS)
Rius Bataller, Lidia (IR)
Roca Tutusaus, Francisco Javier Juan (FGS)
Sánchez Marqués, Oriol (FGS)
Sancho Navarro, Marta (FGS)
Tome Pérez, José Alberto (FGS)
Trujols Albet, Joan (FGS)

Main Lines of Research

Alcohol

- Pharmaco-epidemiological, non-interverventional, prospective, multicenter study with Selincro® in alcohol dependence, to determine patterns of use and consumption of alcohol in routine clinical practice in Spain.
- Prospective observational study for reducing the negative consequences associated with excessive alcohol use (RINCA) through the treatment program to reduce alcohol consumption with nalmefene.

Cocaine

- Evaluation of cocaine craving during hospitalization conditions.

Tobacco

- Evaluation of the neuropsychiatric safety and efficacy of varenicline and bupropion hydrochloride for smoking cessation in subjects with and without a history of psychiatric disorders.
- Non-treatment follow-up for cardiac assessments following use of smoking cessation treatments in subjects with and without a history of psychiatric disorders.
- Effectiveness of a telephone intervention for smoking cessation in patients with mental disorder: a pragmatic clinical trial.

Opiates

- Patient satisfaction concerning maintenance treatment with opioid agonists (methadone and buprenorphine/naloxone).
- Satisfaction of the heroin-dependent patient regarding methadone and methadone pharmacogenetics.

Behavioral Addictions

- Effectiveness of a Mindfulness-Based Cognitive-Behavioral Therapy for Gambling Disorder. A randomized controlled trial.
- Effectiveness of a combined treatment for Hypersexual Disorder.
- Impact of the gambling advertising in general and clinical population.
- Effectiveness of the Cognitive-Behavioral Therapy for behavioral addictions.

Detoxification Hospital Units

- Retention of treatment in detoxification and dehabituation hospital units.

Scientific Challenges

- Establish bidirectional links between clinical practice and investigation both to suggest hypotheses and incorporate recent advances.
- Participate in controlled clinical trials on the treatment of addictive disorders.
- Develop clinical research studies into the perspective of patients with addictions.
- Integrate clinical research in routine medical practice to assess the effectiveness of procedures.
- Evaluate the validity and reliability of frequently used clinical evaluation procedures.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Clinical Epidemiology and Healthcare Services.
- Clinical Psychiatry.
- Genetic Diseases.

External Collaborations

- Area of Psychiatric and Mental Health Nursing, Sant Pau School of Nursing, Autonomous University of Barcelona, Barcelona, Spain.
- Monash Institute of Cognitive and Clinical Neurosciences, Monash University, Clayton, Victoria, Australia.
- Department of Clinical and Experimental Psychology, University of Huelva, Huelva, Spain.

- Department of Neurosciences, University of Cádiz, Cádiz, Spain.
- Department of Psychology, International University of La Rioja, Logroño, Spain.
- Department of Psychology, University of Jaén, Jaén, Spain.
- Department of Psychiatry, Bellvitge University Hospital-IDIBELL, Barcelona, Spain.
- DeustoPsych, R+D+I in Psychology and Health, University of Deusto, Bilbao, Spain.

Active Grants

- Joan Trujols Albet. Calidad de vida desde la perspectiva del paciente en tratamiento con agonistas opioides: síntesis de estudios cualitativos y desarrollo de una escala centrada en el paciente. PI16/00056. Instituto de Salud Carlos III. Duration: 2017-2019. 28,500 €.
- José Carlos Pérez de los Cobos Peris. Efecto de los polimorfismos de genes implicados en el perfil farmacodinámico y farmacocinético de la metadona sobre la satisfacción con este medicamento en pacientes dependientes de heroína con mala respuesta terapéutica. 2016I036. Ministerio de Sanidad, Servicios Sociales e Igualdad. Duration: 2017-2019. 24,480 €.
- Joan Trujols Albet. Aproximacions a la perspectiva de la persona en tractament de manteniment amb metadona: Millora percebuda i satisfacció amb el tractament com a indicadors, i participació en el desenvolupament dels instruments de mesura com a eina. 2018 TDCAT 00058. Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR). Duration: 2018-2018. 465.11 €

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- José Carlos Pérez de los Cobos Peris. Estudio transversal y multicéntrico para el desarrollo de un modelo de predicción clínico y farmacogenético de la satisfacción del paciente dependiente de heroína con la metadona como un medicamento. SLT006/17/00179. Departament de Salut. Duration: 2018-2020. 119,480.93 €.
- José Carlos Pérez de los Cobos Peris. Estudio transversal y multicéntrico para el desarrollo de un modelo de predicción clínico y farmacogenético de la satisfacción del paciente dependiente de heroína con la metadona como un medicamento. SLT006/17/00179-01. Departament de Salut. Duration: 2018-2020, 4,795.20 €.
- Marta Sancho Navarro. Impacto de la publicidad en función de la tipología de juego, factores sociodemográficos y psicopatología asociada. ONCE 2018. Organización Nacional de Ciegos Españoles (ONCE). Duration: 2018-2019. 27,272.73 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Costa S, Pinet C, Barros A, Tensa MJ. Fumadors amb infart agut de miocardi, intervenció integrada hospital-unitat especialitzada. VIII Jornada Societat Catalana d'Atenció i Tractament del Consum de Tabac. Barcelona, February 2. Second Award.
- De Andrés S. Young Talent Award in Specialized Career. Societat Catalano Balear d'Infermeria.
- Trujols J. Phd Excellence Award. Universitat de Barcelona.

Scientific Production

Total Impact Factor: 42.294 · Mean Impact Factor: 2.3497

Alcaraz S., Gonzalez-Saiz F., Trujols J., Vergara-Moragues E., Sinol N., Perez de los Cobos J., A cluster-analytic profiling of heroin-dependent patients based on level, clinical adequacy, and patient-desired adjustment of buprenorphine dosage during buprenorphine-naloxone maintenance treatment in sixteen Spanish centers (2018) DRUG ALCOHOL DEPEN, 187, 278-284. **IF: 3.3220**

Alcaraz S., Viladrich C., Trujols J., Sinol N., de los Cobos J.P., Heroin-dependent patient satisfaction with methadone as a medication influences satisfaction with basic interventions delivered by staff to implement methadone maintenance treatment (2018) PATIENT PREFER ADHER, 12, 1203-1211. **IF: 1.7330**

Barrio P., Ortega L., Guardia J., Roncero C., Yuguero L., Gual A., Who Receives Nalmefene and How Does It Work in the Real World? A Single-Arm, Phase IV Study of Nalmefene in Alcohol Dependent Outpatients: Baseline and 1-Month Results (2018) CLIN DRUG INVEST, 38 (2), 147-155. **IF: 1.9180**

Barrio P, Ortega L, Guardia J, Roncero C, Yuguero L, Gual A. (2018). Rply to Braillon et.: Nalmefene Phase IV Study: A Seeding Flying in the Face of Evidence? CLIN DRUG INVESTIG. Published online: 26 February 2018. DOI: 10.1007/s40261-018-0626-5 **IF: 1.918**

Barrio P, Ortega L, Guardia J, Roncero C, Yuguero L, Gual A. (2018). A comparison between phase-III trials and phase-IV study of nalmefene in alcohol use disorder patients. Is there a difference? Adicciones. Jul 13;1046. DOI:10.20882/adicciones.1046 **IF: 2.021**

Feliu-Soler A, Pérez-Aranda A, Andrés-Rodríguez L, Butjosa A, Diaz N.S, Trujols J, Nunez C, Stephan-Otto C, Rozadilla-Sacanell A, Serrano-Blanco A, Kratz A.L, Luciano J.V. Digging into the construct of fibrogog: Psychometric properties of the Spanish version of the Multidimensional Inventory of Subjective Cognitive Impairment in patients with fibromyalgia. Journal of Applied Biobehavioral Research 23(2):e12134. DOI:10.1111/jabr.12134. **IF: 2.50**.

Gonzalez-Saiz F., Lozano Rojas O., Trujols J., Alcaraz S., Sinol N., Perez de los Cobos J., Evidence of validity and reliability of the Opiate Dosage Adequacy Scale (ODAS) in a sample of heroin addicted patients in buprenorphine/naloxone maintenance treatment (2018) DRUG ALCOHOL DEPEN, 183, 127-133. **IF: 3.3220**

Guardia Serecigni J., Overdose epidemic linked to the prescription of opioid analgesics in the United States Epidemia de sobredosis relacionada con la prescripción de analgésicos opioides en Estados Unidos (2018) ADICCIONES, 30 (2), 87-92. **IF: 2.0210**

Lascorz D., Lopez V., Pinedo C., Trujols J., Vegue J., Perez V., Psychometric study of the Required Care Levels for People with Severe Mental Disorder Assessment Scale (ENAR-TMG) Estudio psicométrico de la Escala de valoración de los Niveles de Atención Requerida para personas con Trastorno Mental Grave (ENAR-TMG) (2018) REV PSIQUIATR SALUD, 11 (3), 156-168. **IF: 2.2330**

Olano Espinosa E., Lozano Polo A., Grifell Guardia M., Pinet Ogue M.C., Isorna Folgar M., Moreno Arnedillo J.J., Why and how keep in mind cannabis in our smoking outpatients? ¿Por qué y cómo tener en cuenta al cannabis en nuestros pacientes fumadores? (2018) ATEN PRIM. **IF: 1.1480**

Perez de los Cobos J., Trujols J., Alcaraz S., Sinol N., Lozano O., Gonzalez-Saiz F., Development and validation of the scale to assess satisfaction with medications for addiction treatment – Buprenorphine-naloxone for heroin addiction (SASMAT-BUNHER) (2018) INT J DRUG POLICY, 58, 126-134. **IF: 4.2440**

Rabella M., Grasa E., Trujols J., Gich I., Torrubia R., Corripio I., Perez V., Riba J., Validation of a Spanish version of The Schizotypal Personality Questionnaire (SPQ): Psychometric characteristics and underlying factor structure derived from a healthy university student sample (2018) ACTAS ESP PSIQUIATRI, 46 (5), 159-173. **IF: 0.8780**

Raich A., Pinet C., Ballbe M., Mondon S., Tejedor R., Arnau A., Fernandez E., Cano M., Carcole B., Fernandez T., Martinez A., Nieva G., Pinet C., Raich A., Roig P., Serra I., Serrano J., Multimodal treatment for smoking cessation with varenicline in alcoholic, methadone-maintained, and psychotic patients: A one-year follow-up (2018) TOB INDUC DIS, 16 (December). **IF: 1.5390**

Romero-García M., de la Cueva-Ariza L., Benito-Aracil L, Lluch-Canut T, Trujols-Albet J, Martínez-Momblan MA, Juvé-Udina ME, Delgado-Hito P. (2018). Nursing Intensive-Care Satisfaction Scale (NICSS): Development and validation of a patient-centred instrument. Journal of Advanced Nursing 74(6):1423-1435. doi: 10.1111/jan.13546. **IF: 2.267**

Sancho M., De Gracia M., Rodriguez R.C., Mallorqui-Bague N., Sanchez-Gonzalez J., Trujols J., Sanchez I., Jimenez-Murcia S., Menchon J.M., Mindfulness-based interventions for the treatment of substance and behavioral addictions: A systematic review (2018) FRONT PSYCHIATRY, 9 (MAR). **IF: 2.8570**

Trujols J, Allende S. (2018). Addiction as a disease: Mitigating or fuelling stigma? Adicciones, 30(3):223-224. DOI: 10.20882/adicciones.1082. **IF: 2.021**

Trujols J., de Diego-Adelino J., Feliu-Soler A., Iraurgi I., Puigdemont D., Alvarez E., Perez V., Portella M.J., Looking into the effect of multi-item symptom domains on psychometric characteristics of the Quick Inventory of Depressive Symptomatology-Self Report (QIDS-SR 16) (2018) PSYCHIAT RES, 267, 126-130. **IF: 2.2230**

Vicent-Gil M., Keymer-Gausset A., Serra-Blasco M., Carceller-Sindreu M., de Diego-Adelino J., Trujols J., Mur M., Perez V., Alvarez E., Cardoner N., Portella M.J., Cognitive predictors of illness course at 12 months after first-episode of depression (2018) EUR NEUROPSYCHOPHARM, 28 (4), 529-537. **IF: 4.1290**

Other Publications

- Nieva G, Mondon S, Ballbe M, Bruguera E, Cano M, Carcole B, Fernández T, Martínez A, Grupo de trabajo de la Coordinadora de CAS de Cataluña (Pinet C). Cambios autopercibidos en profesionales de Centros de Atención y Seguimiento a las drogodependencias de Catalunya (CAS) tras recibir formación en intervención en tabaquismo. Revista Española de Drogodependencias 2018;43(3):56-67.
- Guardia Serecigni J, Flórez Menéndez G. Trastorno por uso de ansiolíticos e hipnóticos y otros trastornos mentales. Colección de Guías Clínicas basadas en la evidencia científica. Nº 5. Barcelona: Socidrogalcohol. 2018.
- Guardia Serecigni J. Manual per a la prevenció i l'abordatge del consum d'alcohol i els problemas relacionats en l'àmbit hospitalari. Sub-direcció General de Drogodependències. Agència de Salut Pública. Generalitat de Catalunya.

Books or Chapters with ISBN

- De Francisco S., Trujols J., Torres C., Guillaumet M., Ricart M. Efectividad de un módulo de risoterapia integrativa conducido por una enfermera en salud mental: Estudio naturalístico en un hospital de día de adicciones. In: Asociación Española de Enfermería en Salud Mental (editor). Nuevos retos en salud y bienestar. Las enfermeras de salud mental apostando por el futuro. Madrid: Asociación Española de Enfermería en Salud Mental; 2018, pp. 2036-2057. ISBN: 978-84-946764-3-7.
- Guardia Serecigni J. Ansiolíticos e hipnóticos. In: Pereiro Gómez C, Fernández Miranda JJ (coordinators) Guía de Adicciones para especialistas en formación. Barcelona: Socidrogalcohol; 2018, pp. 241-280. ISBN: 978-84-945737-8-1.

Diffusion Activities

Courses/Classes

- Duran-Sindreu S. Professor in Máster de Psicologia Integradora. Universidad Rey Juan Carlos I (Instituto Mensalus).
- Duran-Sindreu S. Formación en Suicidio; Empresa ABD, Agència de Salut Pública de Barcelona. December 2018.
- Grup de Treball en Addiccions (Batlle F). Curs en Addiccions i Patologia Dual. Barcelona, January-April 2018.
- Guardia J. Avaluació psiquiàtrica de la dependència i d'altres conductes addictives. In: L'abordatge del consum d'alcohol als hospitals. Sub-direcció General de Drogodependències. Agència de Salut Pública. Generalitat de Catalunya. Barcelona, 14 November 2018.
- Guardia J. Alcoholisme. In: Máster de Enfermería Psiquiátrica. Escola Universitària d'Infermeria. Hospital de la Santa Creu i Sant Pau. Barcelona, 7-14 March 2018.
- Sancho M. Adicciones comportamentales. In: Curso de especialización "Adicciones: intervencion enfermera". Escola Universitària d'Infermeria. Hospital de la Santa Creu i Sant Pau. July 2018.
- Sancho M. Adicciones comportamentales. CECAS. Barcelona, 30 October 2018.

Conferences

- De Andrés S. "El futur de les addiccions: Captius o lliures". V Seminari de la CORE en Salut Mental: El cervell addicte: l'addicció com a conducta i la conducta com a addicció. Comunitat de Recerca Estratègica (CORE) en Salut Mental. Universitat Autònoma de Barcelona. Hospital Universitari Dexeus. Barcelona, 15 November 2018.
- Guardia J. "Tratamiento de la dependencia de alcohol en la cirrosis". 101º Curso de la Escuela de Patología Digestiva. Barcelona, 21-23 November 2018.
- Guardia J. "Los analgésicos opioides y las llamadas conductas aberrantes". XII Congreso Internacional de la Sociedad Española de Cuidados Paliativos. Vitoria-Gasteiz, 7-9 June 2018.
- Pinet C. "¿Consideramos el tabaco en el diagnóstico de Patología Dual?". XX Jornadas Nacionales de Patología Dual. Madrid, 19-21 April 2018.
- Pinet C. "Combinacions Farmacològiques que milloren les possibilitats d'abandonament del tabac". 4t Simposi d'Actualitzacions en Tabaquisme. SCATT. Girona, 16 May 2018.
- Pinet C. "Salut mental i Seguretat en el Tractament farmacològic del tabaquisme". I Jornada Comunitària de Tabaquisme. Institut català de la Salut. Pineda de Mar, 17 May 2018.
- Pinet C. "¿Qué podemos hacer con los pacientes fumadores duales de cànnabis y tabaco?". ENSP-CNPT International Conference on Tobacco Control 2018. Madrid, 14-16 June 2018.
- Pinet C. "Gestió de casos clínics d'elevada complexitat". V Jornada Tabac i Salut Mental. Departament de Salut. Generalitat de Catalunya, ICO, Xarxa Catalana d'Hospitals sense Fum. Barcelona, 19 October 2018.

- Roca FJ. "Estratègies d'intervenció en la dependència del cànnabis". XXXIII Jornada de la Societat Catalana de Recerca I Teràpia del Comportament (SCRITC). Casa de la Convalescència (UAB), Barcelona, 1 June 2018.
- Roca FJ. "Evolució de l'abordatge psicològic dels addictes als opiacis". XII Jornada de la Coordinadora del CAS: El trastorn per ús d'opiacis a Catalunya. Terrassa, 28 November 2018.
- Sancho M. "Addiccions comportamentals - La (des)regulació emocional". Servei Salut Mental i Addiccions. Hospital de Mataró. 31 May 2018.
- Sancho M. "Regulación emocional en el Trastorno de juego: diferencias según sexo, edad y preferencia de juego". XXXIII Jornada Teràpia del Comportament i Medicina Conductual en la pràctica clínica. Barcelona, 22 March 2018.

Communications in congresses

- Almenta D, García Barrachina M., Puigdemont D., Grasa E., Carmona., Fernández Vidal a, Duran-Sindreu S, et al. ¿Qué tratamiento preferirías que te recomendaran en un episodio psicótico? Encuesta en una población de psiquiatras. NEI (Neuroscience Education Institute) Congress. Orlando, USA.
- Bauzà, J., Alcaraz, S., Muñoz, L., Siñol, N., Duran-Sindreu, S., Batlle, F., Trujols, J., Pérez de los Cobos, J. Benzodiazepine use during cocaine inpatient detoxification treatment: Comparing cocaine craving, cocaine withdrawal severity, anxiety and depression symptoms. ECNP School of Neuropsychopharmacology. Oxford, June.
- Bauzà J., Alcaraz S., Muñoz L., Siñol N., Duran-Sindreu S., Batlle F., Trujols J., Pérez de los Cobos J. La toma de benzodiacepinas previa al tratamiento hospitalario de desintoxicación de cocaína como un marcador de la gravedad del trastorno por consumo de cocaína. XXI Congreso Nacional de Psiquiatría. Granada, 18-20 October 2018.
- Costa S, Pinet C, Barros A, Tensa MJ. Fumadors amb infart agut de miocardi, intervenció integrada hospital-unitat especialitzada. VIII Jornada Societat Catalana d'Atenció i Tractament del Consumo de Tabac. Barcelona, 2 February 2018. Second Award.
- De Andrés S. Factores relacionados con la adherencia terapéutica en pacientes con un trastorno por consumo de sustancias. XLV Jornadas Nacionales Socidrogalcohol. Toledo, 8-10 March 2018.
- Nieva G, Pinet C, Mondon S, Hernández R, Vicens J, Bruguera E et al. Aceptación del "061_Quit mental": intervención telefónica multicomponente para dejar de fumar tras la hospitalización en unidades de psiquiatría de agudos. XLV Jornadas Nacionales de Socidrogoalcohol. Toledo, 8-10 March 2018.
- Pérez de los Cobos J, Alcaraz S, Trujols J, Siñol N, Vergara-Moragues E, González-Saiz F. Patient-reported side effects of Buprenophine-Naloxone: Identifying independent predictors from patient views and clinical assessment during maintenance treatment of heroin use disorder. ISPOR Europe 2018, Barcelona, November 2018.
- Pérez de los Cobos J, Alcaraz S, Trujols J, Muñoz L, Siñol N, Fernández-Serrano MJ, Verdejo A, Durán-Sindreu S, Batlle F. Ausencia de craving de cocaína durante la hospitalización para interrumpir el consumo de esa sustancia. XLV Jornadas de Socidrogralcohol. Toledo, March 2018.
- Pinet C, Costa S, Remis S, Duran-Sindreu S. Characteristics of patients admitted to a detoxification unit interested in tobacco cessation. ENSP-CNPT International Conference on Tobacco Control 2018. Madrid, 14-16 June 2018.
- Pinet C, Anton L, Ballbe M, Carcole B, Feria I, Nieva G et al. Psychiatric inpatient unit. A good place for smoking cessation?. ENSP-CNPT International Conference on Tobacco Control 2018. Madrid, 14-16 June 2018.
- Martinez A, Baena A, Chuecos M, Pinet C, Masuet C, Moral M et al. Toquit smoking succesfully: formes smoker's testimonies sharing knowledge to promote quitting tobacco. (Poster) ENSP-CNPT International Conference on Tobacco Control 2018. Madrid, 14-16 June 2018.
- Salamanco RM, Marimon C, Palaus T, Madrid M, De Francisco S, Trujols J. Escala de Satisfacción con los Cuidados de Enfermería (ESCE): estudi psicomètric en una mostra de pacients ingressats en una unitat hospitalària de desintoxicació. V Congrés Català d'Infermeria de Salut Mental 2018. HoritzOx100. 7-8 June 2018.
- Sancho M, De Gracia M, Rodriguez RC, Mallorqui-Bague N, Sanchez-Gonzalez J, Trujols J, Sanchez I, Jimenez-Murcia S, Menchon JM. Mindfulness-based interventions for the treatment of substance and behavioral addictions: A systematic review. 5th International Congress of Mindfulness, Zaragoza, 20- 23 June 2018.
- Tomé JA, De Andrés S, Madrid MT, Marieges A. Factores asociados a la retención al tratamiento en pacientes con un trastorno por consumo de sustancias. XXXV Congreso Nacional de Enfermería en Salud Mental. Palacio de Congresos y Exposiciones de Galicia. Santiago de Compostela, 21-23 March 2018.

AREA 4 · Neurological, Mental Disorders and Ageing

Molecular Physiology of the Synapse

Coordinator
Bayés Puig, Alejandro (IR)
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Members
Gou Alsina, Gemma (IR)
Ramos Vicente, David (IR)
Reig Viader, Rita (IR)

Main Lines of Research

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

Scientific Challenges

- Characterize 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.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Neurobiology of Dementias (PI: Alberto Ileó)
- Oncogenesis and Antitumour Drugs (PI: Ramón Mangues)
- Molecular Bases of Disease (PI: Pablo Fuentes-Prior)
- Neurosurgery (PI: Gerardo Conesa and Cristian de Quintana)

External Collaborations

International collaborations

- Prof. Seth GN Grant. University of Edinburgh, UK.
- Dr. Noboru Komiyama. University of Edinburgh, UK.
- Dr. Gavin Rumbaugh. Scripps Research Institute, USA.
- Dr. Richard Emes. University of Nottingham, UK.
- Dr. Maksym Kopanitsa. Charlkes River Laboratories, Finland.
- Dr. Hector Escribà. Sorbonne Universités, UPMC Univ Paris 06, CNRS, France.
- Dr. Nael Nadif-Kasri. Radboud University. The Netherlands.
- Dr. Jyoti S. Choudhari. The Wellcome Trust Sanger Institute, UK.
- Dr. Mark Collins. University of Sheffiled, UK.
- Prof. Guus Smith. Vrije University, Amsterdam (The Netherlands).
- Prof. Matthijs Verhague. Vrije University, Amsterdam (The Netherlands).
- Prof. Daniel Choquet. Institut Interdisciplinaire de Neurosciences, Bourdeaux (France).
- Prof. Oliver Brüstle, Institute of Reconstructive Neurobiology, Bonn (Germany).
- Dr. Barbara Treutlein, Max Plank Institute for Evolutionary Antropology, Leipzig (Germany).
- Prof. Jacques Michaud, CHU Ste-Justine-Université de Montreal, Montreal (Canada)

National collaborations

- Dra. Àngels García-Cazorla. Hospital Sant Joan de Déu, Barcelona.
- Dra. Nerea Roher. Universitat Autònoma de Barcelona, Bellaterra.
- Dr. Jordi García Fernández. Universitat de Barcelona, Barcelona.
- Dr. Carles Sindreu. Universitat de Barcelona, Barcelona.
- Dr. David Soto. Universitat de Barcelona, Barcelona.
- Dr. Xavier Altafaj. Bellvitge Biomedical Research Institute (IDIBELL), Barcelona.
- Dra. Liset Menéndez de la Prida. Instituto Cajal, Madrid.
- Dr. Ángel Barco. Instituto de Neurociencias, Alicante.
- Dr. Andrés Ozaita. Universitat Pompeu Fabra, Barcelona.

Active Grants

- Alejandro Bayés Puig. Looking into the dynamics of synaptic molecular machines to learn about the basis of cognition and intellectual disability. BFU2015-69717-P. Ministerio de Economía y Competitividad. Duration: 2016-2019. 156,800 €.
- Alejandro Bayés Puig. Targeted nanocongugates for the selective elimination of stem cells in disseminated cancer. PIE15/00028. Instituto de Salud Carlos III. Duration: 2016-2019. 93,448 €.
- Alejandro Bayés Puig. Synaptic Dysfunction in Intellectual Disability Caused by SYNGAP1. Translational Research to Develop Human Models and Advance Pharmacological Treatments. AC17/00005. Instituto de Salud Carlos III. Duration: 2018-2020. 123,500 €.
- Alejandro Bayés Puig. Ayudas para la incorporación estable de doctores 2017. IEDI-2017-00822. Ministerio de Economía y Competitividad. Duration: 2018-2020. 100,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Alejandro Bayés Puig. Grup de Senyalització Sinàptica. 2017 SGR 01776. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- Alejandro Bayés Puig. Red para el estudio de la sinapsis en el contexto de la disfunción cognitiva. SAF2017-90664-REDT. Ministerio de Economía y Competitividad. Duration: 2018-2020. 19,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Patents

- Juan Fortea, Daniel Alcolea, Àlex Bayés, Olivia Belbin and Alberto Lleó. Markers of synaptopathy in neurodegenerative disease. P18382175. European Patent. 16/03/2018.

Transfer Products

- Research contract: J. Fortea, D. Alcolea, À Bayés, O. Belbin and A. Lleó. Research collaboration and patent license agreement on a set of biomarkers of synaptic loss in Alzheimer's Disease. ADx Neuroscience (Belgium). From 01/07/18 to 12/12/2025.

Scientific Production

Total Impact Factor: 32.5180 · Mean Impact Factor: 4.6454

Bayes A., Setting the stage for a role of the postsynaptic proteome in inherited neurometabolic disorders (2018) J INHERIT METAB DIS, 41 (6), 1093-1101. **IF: 4.0920**

Garcia-Cazorla A., Artuch R., Bayes A., Synaptic metabolism and brain circuitries in inborn errors of metabolism (2018) J INHERIT METAB DIS, 41 (6), 909-910. **IF: 4.0920**

Ji J., Ramos-Vicente D., Navas-Perez E., Herrera-Ubeda C., Lizcano J.M., Garcia-Fernandez J., Escriva H., Bayes A., Roher N., Characterization of the TLR family in branchiostoma lanceolatum and discovery of a novel TLR22-like involved in dsrna recognition in amphioxus (2018) FRONT IMMUNOL, 9 (NOV). **IF: 5.5110**

Kopanitsa M.V., Gou G., Afinowi N.O., Bayes A., Grant S.G.N., Komiyama N.H., Chronic treatment with a MEK inhibitor reverses enhanced excitatory field potentials in Syngap1+/– mice (2018) PHARMACOL REP, 70 (4), 777-783. **IF: 2.7870**

Ramos-Vicente D., Ji J., Gratacos-Batlle E., Gou G., Reig-Viader R., Luis J., Burguera D., Navas-Perez E., Garcia-Fernandez J., Fuentes-Prior P., Escriva H., Roher N., Soto D., Bayes A., Metazoan evolution of glutamate receptors reveals unreported phylogenetic groups and divergent lineage-specific events (2018) ELIFE, 7. **IF: 7.6160**

Reig-Viader R., Sindreu C., Bayes A., Synaptic proteomics as a means to identify the molecular basis of mental illness: Are we getting there? (2018) PROG NEURO-PSYCHOPH, 84, 353-361. **IF: 4.1850**

Salgado-Mendialdua V., Aguirre-Plans J., Guney E., Reig-Viader R., Maldonado R., Bayes A., Oliva B., Ozaita A., Δ9-tetrahydrocannabinol modulates the proteasome system in the brain (2018) BIOCHEM PHARMACOL, 157, 159-168. **IF: 4.2350**

Books or Chapters with ISBN

- Rita Reig-Viader, Àlex Bayés. La Neurogenómica, la genètica del cerebro. (Title in english: Neurogenomics, the brain genètics.) National Geographic. This book is part of the collection: Los Desafios de la Ciencia.ISBN (OC): 978-84-473-9071-7, ISBN: 978-84-473-9368-8, Depósito legal: B.11208-2018. This book has been translated to Italian, French and Portuguese.

Diffusion Activities

Collaborative projects

- Synapse Gene Ontology (SynGO) Project. Since December 2017 our research group is part of the SynGO project, an international collaboration to annotate all synaptic proteins. This project is lead by Steve E Hyman in USA (Director of the Stanley Centre, The Broad Institute, Harvard University, Boston), the Gene Onotology Consortium and, in Europe, Matthijs Verhage (Vrije University, Amsterdam).

Invited talks at international meetings

- Identification of the key molecular pathology underlying Intellectual Disability caused by SYNGAP1. 2nd International Conference on SYNGAP1-related brain disorders. Jupiter, Florida (USA), 27-28 November 2018.
- Identification of the key molecular pathology underlying Intellectual Disability caused by SYNGAP1. University of Southampton, Southampton (UK), 13 June 2018.

Poster presentations at international congresses

- Alberto Lleó, Raúl Núñez-Llaves, Daniel Alcolea, Daniel Balateu-Paños, Martí Colom-Cadena, Gemma Gómez-Giró, Laia Muñoz, Marta Querol-Vilaseca, Jordi Pegueroles, Lorena Rami, Albert Lladó, José L. Molinuevo, Mikel Tainta, Jordi Clarimón, Tara Spires-Jones, Rafael Blesa, Juan Fortea, Pablo Martínez-Lage, Raquel Sánchez-Valle, Àlex Bayés, Olivia Belbin. A unique cerebrospinal fluid profile of synaptic proteins in the Alzheimer's disease contínuum. AAIC18. Chicago, USA. 22-26 July 2018.
- D. Ramos-Vicente, J. Ji, E. Gratacòs-Batlle, G. Gou, R. Reig-Viader, J. Luís, D. Burguera, E. Navas-Pérez, J. García-Fernández, P. Fuentes-Prior, H. Escrivá, N. Roher, D. Soto, and À. Bayés. Metazoan evolution of glutamate receptors reveals unreported phylogenetic groups and divergent lineage-specific events. Berlin, Germany.
- R. Reig-Viader, David Ramos-Vicente, Albert Texidor, Àlex Bayés. Postsynaptic proteome of the hippocampal trisynapitc circuit. 11thFENS Forum, 7-11 July 2018.

Scientific training of undergraduate students

- Sara Gubert Cellalbo, undergraduate student, Universitat de Barcelona.
- Albert Burgas, undergraduate student, Universitat de Barcelona.
- Guillem Lòpez Fernàndez, undergraduate student, Universitat Autònoma de Barcelona.
- Albert Teixidó i del Val, Universitat de Barcelona.

Media coverage about our eLIFE publication in November 2018

- Descubren que conexiones entre neuronas son más complejas de lo que se creía. La Vanguardia. https://www.lavanguardia.com/vida/20181128/453221427469/descubren-que-conexiones-entre-neuronas-son-mas-complejas-de-lo-que-se-creia.html
- Descubren que conexiones entre neuronas son más complejas de lo que se creía. COPE. https://www.cope.es/actualidad/tecnologia/noticias/descubren-que-conexiones-entre-neuronas-son-mas-complejas-que-creia-20181128_301144
- Descubren que conexiones entre neuronas son más complejas de lo que se creía. El Pais (Uruguay). https://www.elpais.com.uy/vida-actual/descubren-conexiones-neuronas-son-complejas-creia.html
- Redefineixen la classificació de receptors de glutamat, essencials per al sistema nerviós central. Portal UB. https://www.ub.edu/web/ub/ca/menu_eines/noticies/2018/11/050.html
- New types of glutamate receptors identified. Portal UAB. https://www.uab.cat/web/newsroom/news-detail/new-types-of-glutamate-receptors-identified-1345668003610.html?noticiaid=1345778190111

AREA 4 · Neurological, Mental Disorders and Ageing

Stroke Pharmacogenomics and Genetics

Coordinator
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Members
Carcel Márquez, Jara (IR)
Carrera Vascones, Cati (external entity)
Cullell Fornés, Natalia (external entity)
González García, Jonathan (external entity)
Muiño Acuña, Elena (IR)
Torres Águila, Nuria (external entity)

Main Lines of Research

- Genetic risk factors for stroke.
- Pharmacogenetics of neurovascular diseases.
- Pharmaco-epigenetics of neurovascular diseases.
- Genetic and epigenetic risk factors for stroke outcome. Long-term disability and acute neurological deterioration.
- Genetic, epigenetic and proteomic risk factors associated with endophenotypes during the acute phase of stroke. Integromics.
- CADASIL, Fabry and other monogenic diseases associated with stroke.

Scientific Challenges

The objectives for the next years are:

At a scientific level:

- To increase the impact factor of the group's publications.
- To consolidate the group as one of the groups with the most experience in epigenetic and pharmacogenomic studies in stroke.
- To find genetic factors associated with neurological deterioration and post-stroke disability that could be potential therapeutic targets.

At the organizational level:

- To consolidate the group with a constant number of researchers.
- To obtain European or US international grants.
- To improve the position within the International Genetics Consortium (ISGC) consortium.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Neurobiology of Dementias (PI: Alberto Lleó)
- Oncogenesis and Antitumour Drugs (PI: Ramón Mangues)
- Molecular Bases of Disease (PI: Pablo Fuentes-Prior)
- Neurosurgery (PI: Gerardo Conesa and Cristian de Quintana)

External Collaborations

National collaborations

- Anna Rossell, Mar Hernández, Carlos Molina, José Álvarez-Sabín, Alejandro Bustamante, Pilar Delgado. Hospital Vall d'Hebron.
- Joan Montaner, Francisco Moniche. IBIS, Hospital Virgen de la Macarena.
- Jordi Jiménez-Conde, Jaume Roquer. Hospital del Mar.
- Tomás Sobrino, José Castillo. Universidad Santiago de Compostela. Hospital Santiago de Compostela.
- Elena Cancio. Hospital de Oviedo.
- Antoni Dávalos. Hospital Germans Trias i Pujol.
- Joaquín Serena. Hospital Dr. Trueta.
- Jurek Krupinski. Hospital Mútua de Terrassa.
- Juan Domingo Gispert. Fundació Pasqual Maragall.
- Tomás Segura. Hospital de Albacete.
- Cristofol Vives, Silvia Tur. Hospital Son Espases.
- Manel Esteller. IDIBELL
- Víctor Obach. Sergi Amaro. Hospital Clínic.
- MariMar Freijó. Hospital de Basurto.
- Juan Arenillas. Hospital de Valladolid.

International collaborations

- Jin-Moo Lee, Carlos Cruchaga. Washington University in St Louise (US).
- John Cole, Braxton Mitchel. Baltimore University (US).
- Jonathan Rosand, Chris Anderson, Natalia Rost. MGH (US).
- Guido Falcone. Yale University (US).
- Brad Worral. University of Virginia (US).
- Daniel Woo. Cincinatti University (US).

- Stéphanie Debette. INSERM, Bourdeux University (France).
- Arne Lindgren. Lund University (Sweden).
- Christina Jern. Gothemburg University (Sweden).
- Jane Maguire, Chris Levi. Newcastle University (Australia).
- Vincent Thjis. Melbourne university (Australia).
- Dominick McAbbe. Dublin University (Ireland).
- Mathew Traylor, Hugh Markus. Cambridge University. (UK)
- Rainer Malik, Martin Dichgands. Munich University.
- Anna Bersano. Milan University (Italia).
- Agnieszka Slowick, Joanna Pera. Krakow University (Poland).
- Daniel Strbian. Helsinki University (Finland).
- Guillaume Pare. McMaster University (Canada).

Active Grants

- Israel Fernández Cadenas. Contractes "Miguel Servet II" 2017. CPII17/00021. Instituto de Salud Carlos III. Duration: 2018-2020. 101,250 €.
- Israel Fernández. Maestro Project. PI18/01338. Instituto de Salud Carlos III. Duration: 2019-2021. 98,252 €
- Israel Fernández. Study of the efficacy/safety profile of apixaban vs. acenocoumarol and its pharmacogenetics in patients with cardioembolic stroke and obstructive sleep apnea - APHAS study. REQ-0000021561. ERISTA: European Thrombosis Investigator Initiated Research Program. Duration: 2019-2021. 296,322 €.
- Israel Fernández. EPIGENISIS Project. Epigenisis project Marató TV3. Marató de TV3. Duration: 2018-2020. 396,250 €.
- Israel Fernández. Ayudas a grupos de investigación 2017 SGR 00878. Agència de Gestió d'Ajuts Universitaris i de Recerca. Generalitat de Catalunya. Duration: 2018-2020. 31,500 €.
- Israel Fernández and Jurek Krupinski. Estudios epigenéticos en el ictus. Fundació Mutua de Terrassa. Duration: 2017-2019. 14,000 €.
- Israel Fernández. Estudios epigenéticos en el ictus-FMT. Red Retics Invictus plus. RD16/0019. Instituto de Salud Carlos III. Duration: 2017-2022. 34,375 €
- Israel Fernández. Pre-Test-Stroke. PMP15/00022. Instituto de Salud Carlos III. Duration: 2016-2020. 145,000 €.
- Israel Fernández. Generacion Project. PI15/01978. Instituto de Salud Carlos III. Duration: 2016-2019. 80,000 €.
- Israel Fernandez/Jurek Krupinski. Sedman Project. Boehringer. Duration: 2015-2018. 300,000 €
- Jin-Moo Lee. GENISIS Project. National Institute of Health (US). Duration: 2013-2018. 300,000 $.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Israel Fernández Cadenas. Proyecto MAESTRO: Análisis del interactoma: asociación de la MetAgenómica, genómica y Epigenómica con la evolución neurológica y la discapacidad después de un ictus isquémico. PI18/01338, Instituto de Salud Carlos III. Duration: 2019-2021. 81,200 €.
- Elena Muiño Acuña. Estudis genètics i epigenètics en l'ictus. CM18/00198. Instituto de Salud Carlos III. Duration: 2019-2021. 53,732 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 47.839 · Mean Impact Factor: 9.5678

Cullell N, Carrera C, Muiño E, Torres N, Krupinski J, Fernandez-Cadenas I. Pharmacogenetic studies with oral anticoagulants. Genome-wide association studies in vitamin K antagonist and direct oral anticoagulants. Oncotarget. 2018;9:29238-29258. **IF: 5.1**

Malik R, Chauhan G, Traylor M, Sargurupremraj M, Okada Y, Mishra A, Rutten-Jacobs L, Giese AK, van der Laan SW, Gretarsdottir S, Anderson CD, Chong M, Adams HHH, Ago T, et al. Multiancestry genome-wide association study of 5200 subjects identifies 32 loci associated with stroke and stroke subtypes. Nat Genet. 2018 50(4):524-537 **IF: 27.9**

Marini S., Devan W.J., Radmanesh F., Miyares L., Poterba T., Hansen B.M., Norrving B., Jimenez-Conde J., Giralt-Steinhauer E., Elosua R., Cuadrado-Godia E., Soriano C., et al., 17p12 Influences Hematoma Volume and Outcome in Spontaneous Intracerebral Hemorrhage (2018) STROKE, 49 (7), 1618-1625. **IF: 6.2390**

Soriano-Tárraga C, Giralt-Steinhauer E, Mola-Caminal M, Ois A, Rodríguez-Campello A, Cuadrado-Godia E, Fernández-Cadenas I, Cullell N, Roquer J, Jiménez-Conde J. Biological Age is a predictor of mortality in Ischemic Stroke. Sci Rep. 2018 Mar 7;8(1):4148. **IF: 4.2**

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Diffusion Activities

- Israel Fernández Cadenas. Epigenetics analysis of dNIHSS using a EWAs approach. International Stroke Genetics Workshop. Washington, US. November 2018.
- Israel Fernández Cadenas. Epigenetics analysis of dNIHSS using a EWAs approach. International Stroke Genetics Workshop. April 2018. Kyoto, Japan.
- Israel Fernández Cadenas. Title: Genética en ictus. Biomarcadores. Futuro. Curso de Formación en Patología Neurovascular (Sociedad Española de Neurología). San Sebastián, Spain. October 2018.
- Israel Fernández Cadenas. (organization) II Curso de Formación y Actualización en Genética de las Enfermedades Complejas- GeneStroke -Consorcio Español de Genética del Ictus (GENESTROKE). 8 March 2018.
- Natalia Cullell. Teràpia individualitzada (farmacogenòmica). ENSEMBL UTILITIES-Grau farmacia. Universitat Ramon Llull 6 February 2018.
- Natalia Cullell. II Curso de Formación y Actualización en Genética de las Enfermedades Complejas- GeneStroke -Consorcio Español de Genética del Ictus (GENESTROKE). 8 March 2018.
- Natalia Cullell. V Curs Formació Neurologia Clínica 2017-2018. SCN - PART II AVENÇOS: Genètica i Epigenètica de les malalties neurològiques.11 April 2018.

- Natalia Cullell. Estudio de Genome-wide association en pacientes con ateroesclerosis intracraneal y extracraneal. II Congreso INVICTUS. 20 April 2018.
- Caty Carrera. II Curso de Formación y Actualización en Genética de las Enfermedades Complejas- GeneStroke. Consorcio Español de Genética del Ictus (GENESTROKE). 8-9 March 2018.
- Caty Carrera. Estudio de genoma completo revela loci asociados a la evolución neurológica temprana post-ictus. (oral presentation) II Congreso INVICTUS: Proyecto GENISIS. 19-20 April 2018.
- Caty Carrera. A Genome-Wide Association Study Identified A Candidate Locus Associated With rtpa-Induced Hemorrhagic Transformation (oral presentation). The 4rd European Stroke Organisation Conference: 16-18 May 2018.

AREA 5

Uronephrology and Experimental S

196 General and Digestive Surgery

200 Neurosurgery

201 Nephrology

208 Women and Perinatal Health Research Group

212 Gynecologic and Peritoneal Oncology Group

Surgery

AREA 5 · Uronephrology and Experimental Surgery

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Rodríguez Blanco, Manuel (FGS)
Rofin Serra, Silvia (FGS)
Sánchez Cabús, Santiago (FGS)
Targarona Soler, Eduardo Maria (FGS)

Main Lines of Research

Gastrointestinal surgery

- Application of laparoscopic surgery in diseases of the spleen.
- Application of laparoscopic surgery in disorders of the oesophago-gastric junction.
- Advanced application of colorectal laparoscopy.
- New stratification and treatment options in colorectal cancer.

Hepatobiliopancreatic surgery

- Surgery for liver metastasis in colorectal cancer.
- Development of diagnostic and therapeutic techniques in the global context of treatment for liver metastasis in colorectal carcinoma.
- Surgery for primary hepatic tumours: determination of efficient prognostic parameters for surgical resection of hepatocarcinoma and likelihood of tumour recurrence after resection.
- Introduction of the laparoscopic methodology to biliary lithiasis.

Endocrine, breast, abdominal wall, soft tissue sarcomas and advanced gynecologycal surgery

- 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 gynecological tumors.
- Advanced surgery of abdominal wall. New techniques for ventral hernia repair.

Emergency care

- Collaborative project on clinical safety for the introduction of safe practices for polytraumatized patients.

Scientific Challenges

Gastrointestinal surgery

- Design, develop and manage a dry laboratory for endoscopic surgery, creating a multifunctional research and teaching space to conduct applied technological research in minimally invasive surgery.

Hepatobiliopancreatic surgery

- Development of techniques to study liver volume and function.
- Development of experimental studies on the function and healing of bilio-intestinal sutures.
- Studies of the value of nutrition in patients undergoing aggressive surgery for highly debilitating cancer.
- Suitable stratification of GIST tumours in accordance with an anatomopathological classification.
- Viability of surgical interventions considering the likelihood of disease recurrence.

Emergency surgery

- Consolidation of a multidisciplinary group for polytraumatized patient care.

Breast surgery

- Technological innovations in surgery.
- Possible role of genetic studies in diagnosis and follow-up.

Endocrinal and cervical surgery

- Technical innovations in surgery.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Endocrinology, Diabetes and Nutrition. Institut de Recerca Hospital de la Santa Creu i Sant Pau - Universitat Autònoma de Barcelona (IRHSP-EDUAB). Eugenia Mato (CIBER Bioingenieria, Biomateriales y Nanomedicina).

External Collaborations

- Obtención de resecciones hepáticas para aislamiento de hepatocitos para uso en investigación. Donation and Tansplantation Institute (DTI). 49/2009.
- Dr. González (IP at Hospital de Sant Pau). RESAR Project. Project of international prospective database in Retroperitoneal Sarcomas led by the Tumori Institute of Milan since December 2018.

Grants Awarded in 2018

- Antonio Moral Duarte. Convenio para la asistencia al XXII Congreso Nacional de Cirugía. G19-2039, W. L. Gore and Associates. Duration: 2018. 2,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 43.181 · Mean Impact Factor: 1.8774

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Bollo J., Ferrara F., Pernas J.C., Rodriguez-Luppi C., Targarona E.M., Trias M., Imaging-Guided Preoperative Localization of Intra-Abdominal Local Recurrences of Colorectal Cancer Using the Harpoon Technique (2018) SCAND J SURG, 107 (2), 120-123. **IF: 1.9250**

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Fernandez-Ananin S., Fernandez A.F., Balague C., Sacoto D., Targarona E.M., What to do when Heller's myotomy fails? Pneumatic dilatation, laparoscopic remyotomy or peroral endoscopic myotomy: A systematic review (2018) J MINIM ACCESS SURG, 14 (3), 177-184. **IF: 1.1370**

Garay M., Balague C., Rodriguez-Otero C., Gonzalo B., Domenech A., Pernas J.C., Gich I.J., Minambres I., Fernandez-Ananin S., Targarona E.M., Influence of antrum size on gastric emptying and weight-loss outcomes after laparoscopic sleeve gastrectomy (preliminary analysis of a randomized trial) (2018) SURG ENDOSC, 32 (6), 2739-2745. **IF: 3.1170**

González-Sánchez M.C., Salvador-Egea M.P, Glückmann-Maldonado E., Ríos-Zambudio A., Martín-Fernández J., Pérez García J.I., García Lorenzo F., Ros-López S., Ortega-Serrano J., Gómez-Ramírez J., Morales-García D.J., Franch-Arcas G. Role of surgery in primary thyroid lymphoma. A multiinstitutional registry. LANGENBECKS ARCH SURG (2018) 403:403–423. **IF: 2.149**

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Patrascu S, Balagué Ponz C, Fernández-Ananín S, Targarona Soler EM. A delayed acute complication of bariatric surgery: Gastric remnant haemorrhagic ulcer after Roux-en-Y gastric bypass. J Minim Access Surg. 2018 Jan-Mar;14(1):68-70. doi: 10.4103/jmas.JMAS_148_16. Erratum in:J MINIM ACCESS SURG. 2018 Apr-Jun;14 (2):175. **IF: 1.282**

Patrascu S., Ponz C.B., Ananin S.F., Soler E.M.T., A delayed acute complication of bariatric surgery: Gastric remnant haemorrhagic ulcer after Roux-en-Y gastric bypass (2018) J MINIM ACCESS SURG, 14 (1), 68-70. **IF: 1.1370**

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Sánchez-Cabús S, Cherqui D, Rashidian N, Pittau G, Elkrief L, Vanlander A, Toso C, Fondevila C, Cunha AS, Berney T, Castaing D, de Hemptinne B, Fuster J, Rogiers X, Adam R, Majno P, García-Valdecasas JC, Troisi RI. Left-liver Adult-to-Adult Living Donor Liver Transplantation: Can It Be Improved? A Retrospective Multicenter European Study. ANN SURG. 2018 Nov;268(5):876-884. **IF: 8.569**

Serra-Aracil X., Pericay C., Golda T., Mora L., Targarona E., Delgado S., Reina A., Vallribera F., Enriquez-Navascues J.M., Serra-Pla S., Garcia-Pacheco J.C., Saigi E., Dotor E., Pisa A., Macias I., Pallisera A., Navarro S., et al., Non-inferiority multicenter prospective randomized controlled study of rectal cancer T2–T3s (superficial) N0, M0 undergoing neoadjuvant treatment and local excision (TEM) vs total mesorectal excision (TME) (2018) INT J COLORECTAL DIS, 33 (2), 241-249. **IF: 2.5330**

Subiela J.D., Balla A., Bollo J., Dilme J.F., Soto Carricas B., Targarona E.M., Rodriguez-Faba O., Breda A., Palou J., Endovascular Management of Ureteroarterial Fistula: Single Institution Experience and Systematic Literature Review (2018) VASC ENDOVASC SURG, 52 (4), 275-286. **IF: 0.8720**

Targarona EM. Endorsement of the HerniaSurge guidelines by the European Association of Endoscopic Surgery. HERNIA. 2018 Feb;22(1):181. doi: 10.1007/s10029-017-1679-7. **IF: 2.054**

Targarona E.M., Balla A., Batista G., Big data and surgery: The digital revolution continues Big data y cirugía: la revolución digital continúa (2018) CIR ESPAN, 96 (5), 247-249. **IF: 0.8410**

Other Publications

- Batista Rodríguez G, Balla A, Fernández-Ananín S, Balagué C, Targarona EM.The Era of the Large Databases: Outcomes After Gastroesophageal Surgery According to NSQIP, NIS, and NCDB Databases. Systematic Literature Review. Surg Innov. 2018 Aug;25(4):400-412. doi: 10.1177/1553350618775539.
- Domínguez, R., Medrano, R., Rofin, S., Caballero, F, & Trias, M. Cirugía urgente de la pared abdominal. Emergency surgery of ventral hernia. Sohah.org. http://doi.org/10.20960/rhh.17
- Garay M, Balagué C, Rodríguez-Otero C, Gonzalo B, Domenech A, Pernas JC, Gich IJ, Miñambres I, Fernández-Ananín S, Targarona EM., Influence of antrum size on gastric emptying and weight-loss outcomes after laparoscopic sleeve gastrectomy (preliminary analysis of a randomized trial). Surg Endosc. 2018 Jun;32(6):2739-2745. doi: 10.1007/s00464-017-5972-4.
- Hernández Casanovas MP, Martinez MC, Bollo J, Balla A, Batista Rodríguez G, Balagué C, Targarona EM. Laparoscopic approach for retrorectal tumors—results of a series of 11 cases. Ann Laparosc Endosc Surg 2017;2:126.
- Martín, B., Medrano, R., Caballero, F., Rofin, S., & Trias, M. (2017). Intestinal Obstruction Complicated by Large Morgagni Hernia. Archives of Surgery and Clinical Research, 1(1), 016-020. http://doi.org/10.29328/journal.ascr.1001003
- Rabal A, Vilanova M, Lerma E, Montserrat E, Perez JI, Mato E, De Leiva A. Moral A.Diagnostic accuracy of ultrasound and fine needle aspiration in the study of thyroid nodule and multinodular goiter. Journal: Endocrinology, Diabetes & Metabolism 2018. DOI: 10.1002/edm2.24.
- Targarona, Eduardo M.; Balla, Andrea. Surgical treatment of rectal cancer: innovations and controversies, Annals of Laparoscopic and Endoscopic Surgery, 2018, 3: 54.

Books or Chapters with ISBN

- Sánchez Cabús S, Fernández-Cruz L. Pancreatectomía total. In: II Guía de Cirugía Hepatobiliopancreática de la Asociación Española de Cirujanos. pp 325-333. Ed. Arán. ISBN 1.ª Edición: 978-84-96881-60-0.
- Sánchez Cabús S, Fernández-Cruz L. Pancreatitis crónica. Indicaciones de tratamiento quirúrgico y técnicas quirúrgicas. In: II Guía de Cirugía Hepatobiliopancreática de la Asociación Española de Cirujanos. pp 229-240. Ed. Arán. ISBN 1.ª Edición: 978-84-96881-60-0.
- Monclova, Targarona, EM, Balague, C, R Luppi, C. Minimally invasive splenectomy for oncological diseases of the spleen. In: Minimally Invasive Upper Abdominal Surgery, MA Cuesta Ed. Springer, 2017, ISBN 978-3-319-54301-7.
- Targarona, EM. Laparoscopic surgery of the spleen, Manual of the European Association of Endoscopic Surgery (EAES). In: Surgical Principles of Minimally Invasive Procedures, Bonjer J, Eds. Springer 2017 ISBN : 978-3-319-43194-9.
- Targarona EM. (foreword) In: Miguelena, JM. Cirugía para el Grado de Medicina. Ed. Editorial Médica Panamericana, Madrid. p. 13. ISBN: 978-84-9110059-1.
- Targarona EM, Balagué C. Cirugia Mínimamente Invasiva. In: Miguelena, JM. Cirugía para el Grado de Medicina. Ed. Editorial Médica Panamericana, Madrid. pp. 51-56. ISBN: 978-84-9110059-1.
- Targarona EM, Fernández Ananain S. Aspectos quirúrgicos de la hemorrágia digestiva In: Miguelena, JM. Cirugía para el Grado de Medicina. Ed. Editorial Médica Panamericana, Madrid. pp. 331-338. ISBN: 978-84-9110059-1.
- Targarona, EM (associated editor). Li, X; Gorgun, E.; Milone, M. (editors). Minimally invasive approach to colorectal diseases. AME Surgery Series 6A008, AME Publishing Company, Hong Kong, 2018. ISBN 978-988-78920-1-4.
- Hernández, MP, Martínez, MC, Bollo, J, Balla, A, Batista, G, Balagué, C, Targarona, EM. Laparoscopic approach for retrorectal tumors-results of a series of 11 cases. In: Li, X; Gorgun, E.; Milone, M. (editors). Minimally invasive approach to colorectal diseases. AME Surgery Series 6A008, AME Publishing Company, Hong Kong, 2018. ISBN 978-988-78920-1-4.
- Turrado V, Targarona, EM. Aneurismas esplácnicos. In: Duza, Palermo, Gimenez (editors). Manejo de la Imágenes en la práctica quirúrgica. Ed Amolca. Buenos Aires, 2018. ISBN 978-958-5426-40-5.
- Turrado V, Targarona, EM, Gomez, I, Rodriguez, C, Trias, M. Patología esplénica. In: Duza, Palermo, Giménez (editors). Manejo de las imágenes en la práctica quirúrgica, Ed Amolca. Buenos Aires 2018. ISBN 978-958-5426-40-5

Diffusion Activities

Courses and conferences

- J.A. González, Dr. R Medrano (Unidad de Cirugía Pared Abdominal, Endocrina y Mama. Servicio de Cirugía General y Digestiva). Alternativas a la fijación mecánica de las mallas en la reparación de los defectos de la pared abdominal. I Reunión de Cirugía de Pared Abdominal.
- Dr. E. Targarona. La toma de decisiones en el futuro de la cirugia MIS; evidencia vs experiencia vs registros. XXXVII Curso actualizaciones en Cirugía: Cirugía Laparoscópica XXV. 7-9 Sevilla 2018.
- Dr. E. Targarona. Large Data Bases, What we have learned in Minimally Invasive Malignant Colorectal Surgery. IFSES Symposium. 16 WCES, SAGES 2018. Seattle, 12-14 April, 2018.
- Dr. E. Targarona. Difficult approaches in solid organ: Large adrenal tumours: lap vs robot. XXVI EAES International Congress. London, 30 May-1 June 2018.
- Dr. E. Targarona. Controversias en el tratamiento laparoscopico el càncer de recto. ALACE 2018. Congreso Latinoamericano de Cirugía Endoscópica. San José de Costa Rica, 29-31 August 2018.
- Dr. E. Targarona. Big data y cirugía endoscópica. ALACE 2018, Congreso Latinoamericano de Cirugía Endoscópica. San José de Costa Rica, 29-31 August 2018.
- Dr. E. Targarona. Cirugía colónica en vivo: sigmoidectomía laparoscópica. Curso Nuevos abordajes en Cirugía Abdominal Endoscópica. Hospital Juan Canalejo. La Coruña, 16-17 October 2018.
- Dr. E. Targarona. Tratamiento quirúrgico del cáncer de recto. II Congreso Internacional de Avances en Oncología. Sucre, Bolivia, 25-27 October 2018.
- Dr. E. Targarona. European Experience in MIS training. ELSA 2018. International Anual Congress of the Endoscopic and Laparoscopic Surgeons of Asia. Kuala Lumpur, Malaysia, 16-17 November 2018.
- Dr. E. Targarona. Key Note lecture: Big data and science. ELSA 2018. International Anual Congress of the Endoscopic and Laparoscopic Surgeons of Asia. Kuala Lumpur, Malaysia, 16-17 November 2018.
- Dr. E. Targarona. Qué hacer cuando la miotomía falla? 89 Congreso Argentino de Cirugía, AAC. Buenos Aires, 10-12 December 2018.
- Dr. E. Targarona. Uso de mallas en hernias para hiatales. 89 Congreso Argentino de Cirugía, AAC. Buenos Aires, 10-12 December 2018

- Dr. E. Targarona. Qué hacer cuando la miotomía falla? Cencil. Centro de Entrenamiento en Cirugía Laparoscópica. Corrientes, Argentina. Simposio Internacional 20 aniversario. Corrientes (Ar), 13-15 December 2018.
- Dr. E. Targarona. Uso de mallas en hernias hiatales. Cencil. Centro de Entrenamiento en Cirugía Laparoscópica. Corrientes, Argentina. Simposio Internacional 20 aniversario. Corrientes (Ar), 13-15 December de 2018.
- Dr. Sánchez Cabús. Estrategias diagnósticas y terapéuticas de los TPMI. Curso de cirugía hepática y pancreática avanzada 2018. Aula Clínic, Hospital Clínic de Barcelona. Barcelona, 4-6 June 2018.
- Dr. Sánchez Cabús. Opcions tècniques i operabilitat en el càncer de pàncrees. Actualització en patologia pancreàtica. Curs de formació mèdica de la Societat Catalana de Pàncrees. Hospital de Bellvitge, 9 October 2018.
- Dr. Sánchez Cabús. Pancreatectomía distal laparoscópica basada en la evidencia. I Jornadas de Actualización en Cirugía Pancreática Laparoscópica. Las Palmas de Gran Canaria, 25-26 October 2018.
- Dr. Sánchez Cabús. Cara a cara: DPC laparoscópica vs. abierta. I Jornadas de Actualización en Cirugía Pancreática Laparoscópica. Las Palmas de Gran Canaria, 25-26 October 2018.
- Dr. Sánchez Cabús. Pancreatectomía total: Cuando está justificada? XXXII Congreso Nacional de Cirugía. Madrid, 12-15 November 2018.
- I Workshop Interhospitalario. Cirugía suprarrenal. Acceso posterior. Unidad de Cirugía Endocrina y Mama. Servicio de Cirugía General y Digestiva Hospital de Sant Pau. Barcelona, 28 May 2018.
- X Curso de Formación en Patología de la Mama. Asociación Española de Cirujanos. Sección de Patología Mamaria. Hospital Germans Trias i Pujol (Badalona). Hospital de la Santa Creu i Sant Pau. Barcelona, 30 May-1 June 2018.
- Curso de Cirugía Endocrina para Residentes 2018. Sección de Cirugía Endocrina. Asociación Española de Cirujanos. Hospital de la Santa Creu i Sant Pau. Barcelona, 4-6 July 2018.
- Gonzalo de Castro, Vigo. Mesa Cirugía de Mama: Temas de Actualidad Face to face: Valoración preoperatoria axilar en el cáncer de mama tras Z0011.; Valoración exhaustiva: PET, RM, Ecografía, BAG Antonio Moral Duarte, Ni mirar ni pinchar. XXXII Congreso Nacional de Cirugía 2018. Madrid 12-15 November 2018.
- Mesa CMA: Face to Face Controversias En CMA. Participación directa del público. Cirugía de la mama en CMA: A favor: Raquel Barriga Sanchez, Madrid. En contra: Jose Ignacio Pérez García, Barcelona. XXXII Congreso Nacional de Cirugía 2018. Madrid 12-15 November 2018.
- Moral A. Coordinator of Sessió de formació continuada avançada de la Societat Catalana de Cirurgia (Cirurgia Endocrina). Barcelona, 12 February 2018.

Communications

- 8th Biennial Congress of the European Society of Endocrine Surgeons (ESES 2018). Amsterdam, 24-26 May 2018:
  - Rabal A, Pérez J.I, Mato E, Moral A. EP33-TWIST1 and ANLN gene expressions may be relevant in the diagnosis of thyroid neoplasias with malignant prognosis.
  - Rabal A, Pérez J.I., Mato E, Moral A. LDL cholesterol regulate the expression of LDL-R in follicular thyroid cells.
- XXXII Congreso Nacional de Cirugía. Asociación Española de Cirujanos. Madrid, 12-15 November 2018:
  - Fornaguera Marimón, Ione; de la Fuente, Noa; Martín, Belen; González, José Antonio; Rodríguez, Manuel; Cerdan, Gemma; Artigas, Vicenç. Resección de gist gástrico avanzado con afectación multivisceral.
  - Bonet Peris R. Medrano Caviedes P., Murazzo Vásquez G., Rofin Serra S., Caballero Mestres F., Moral Duarte A. Traumatismo esplénico en la era del intervencionismo.
  - J. Ye Zhou, R. Medrano Caviedes, J. Mateo Arranz, P. Paniagua, Iglesias, S. Rofin Serra, F. Caballero Mestres, A. Moral Duarte. Resultados de la aplicación de un protocolo para el tratamiento de los trastornos de la coagulación en cirugía urgente.
  - J.I. Pérez García, E. Ballester Vázquez, I. Gómez Torres, D. López-Mora, M. Clos, J. Duch, J.A. González López, A. Moral. Identificación de adenomas ocultos en el hiperparatiroidismo primario con pet-tc colina.
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  - E. Pareja Nieto, J.I. Pérez García, M. Clos Enrríquez, J.A. González, López, I. Gómez Torres, C. Galán Martínez, A. Moral Duarte. Análisis de la evolución y supervivencia en pacientes sometidos a suprarrenalectomía por metástasis adrenal con tumor primario pulmonar.
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  - G. Vitiello, I. Gómez, M. Clos, J.I. Perez, R. Pineda, L. López, D. Sacoto, A. Moral. Carcinoma ductal in situ con doble biopsia negativa e imágenes radiológicas sugestivas de malignidad.
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  - D.G. Sacoto Urgilez, V. Artigas Raventos, M. Rodriguez Blanco, J.M. Romero Carro, G. Cerdan Riart, A.B. Martin Arnau, A. Moral Duarte. Leiomiosarcomas vasculares del retroperitoneo: experiencia en nuestro centro.
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- XXIV Jornada de Cirurgia als Hospitals de Catalunya. Martorell, 19 October 2018:
  - Bonet Peris, Idoia; Medrano, Rodrigo; Murazzo, Piero; Rofin, Silvia; Caballero, Ferran; Moral, Antonio. Traumatismo esplénico en la era del intervencionismo.
  - Ye Zhou, Jinghuang; Medrano Caviedes, Rodrigo; Mateo Arranz, José; Paniagua Iglesias, Pilar; Caballero Mestres, Ferran; Moral Duarte, Antonio. Resultados de la aplicación de un protocolo para el tratamiento de los trastornos de la coagulación en cirugía urgente.
  - Pérez García, Jose Ignacio; Ballester Vazquez, Eulàlia; Gómez Torres, Irene; López Mora, Diego; Clos Enríquez, Montserrat; Moral Duarte, Antonio. Identificació d'adenomes ocults en hiperparatiroidisme primari amb pet-tc colina.
  - Basterra, Alberto; Medrano, Rodrigo; Caballero, Ferran; Moral, Antonio. Necrosis enzimática como causa de perforación colónica en pancreatitis agudagrave. caso clínico y revisión de la literatura.
- 8th Biennial Congress of the European Society of Endocrine Surgeons. Amsterdam, The Netherlands. 24-26 May 2018:
  - González-Sánchez M.C., Salvador-Egea M.P., Glückmann-Maldonado E., Ríos-Zambudio A., Martín-Fernández J., Pérez García J.I., García Lorenzo F., Ros-López S., Ortega-Serrano J., Gómez-Ramírez J. Morales-García D.J., Franch-Arcas G. Role of surgery in primary thyroid lymphoma. A multiinstitutional registry.

AREA 5 · Uronephrology and Experimental Surgery

Neurosurgery

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Vilana Goma, Francesc Xavier (IR)

Main Lines of Research

- Biomaterials: comparative study of two different cranial bone fixations.
- Tumour biology: gliomas (prognostic value of different mutations in anaplastic astrocytoma and GBM), pituitary gland adenomas.
- Biomarkers in anaplastic astrocytomas and glioblastoma multiforme.
- Anatomy of the skull base.
- Clinical evaluation of neurostimulation techniques in different neurological entities (treatment-resistant depression and neuropathic pain).
- Prospective study of patients operated by endoscopic endonasal approach.

Scientific Challenges

- Monitor the clinical trial on treatment-resistant depression treated using deep brain stimulation techniques (jointly with psychiatry).
- Evaluate neurostimulation for other disorders: cluster headache.
- Use of intraoperative ecography for treatment of brain tumors.
- Intraoperative neuromonitoring of oculomotor cranial nerves in skull base tumors.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Studies about Central Nervous Systems (CNS). A Data Base of all the CNS tumors (Medical and Radiotherapy Oncology, Radiology).
- Studies about Glioma tumors (Pathological Anatomy).
- Studies about pituitary tumors (Endocrinology).
- Studies about endoscopic endonasal surgery with ENT.

External Collaborations

- Fernando Muñoz. SWITCH Trial. Swiss Trial of Decompressive Craniectomy versus Best Medical Treatment of Spontaneous Intracerebral Hemorrhage. An International Randomized Controlled Trial.
- Carlos Asencio. A Post Market registry to assess the clinical performance of a polymeric cranial burr hole cover system (Cranial Cover). Cover Registry. Prospective Study.
- Carlos Asencio. Observational, retrospective, case series, post-marketing clinical follow-up study to evaluate the performance and safety of a polymeric clamp-like cranial fixation system.

Scientific Production

Total Impact Factor: 6.529 · Mean Impact Factor: 1.0881

Berrocal-Izquierdo N, Mucoz F, Bosch J, Molet J. Primary central nervous system lymphoma mimicking cerebellopontine angle tumour. Neurologia. 2018 Nov - Dec;33(9):614-616. **IF: 1.9380**

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De Quintana-Schmidt C., Llado-Carbo E., Cortes-Donate V.E., Neurophysiological monitoring options in brain tumour resections. Consensus statement from the Spanish Society of Neurosurgery's (SENEC) Neuro-oncology Working Group and the Spanish Society of Clinical Neurophysiology (SENFC) Opciones de monitorización neurofisiológica en la resección de tumoraciones cerebrales. Documento de consenso entre el Grupo de Trabajo de Neurooncología de la Sociedad Española de Neurocirugía (SENEC) y la Sociedad Española de Neurofisiología Clínica (SENFC) (2018) NEUROCIRUGIA, 29 (1), 25-38. **IF: 0.3100**

Leidinger A, Muñoz-Hernandez F, Molet-Teixidó J. Neurocirugia (Astur). Absence of neurovascular conflict during microvascular decompression while treating essential trigeminal neuralgia. How to proceed? Systematic review of literature. 2018 May - Jun;29(3):131-137. **IF: 0,3100**

Salgado Lopez L., Munoz Hernandez F., Asencio Cortes C., Tresserras Ribo P., Alvarez Holzapfel M.J., Molet Teixido J., Extradural anterior clinoidectomy in the management of parasellar meningiomas: Analysis of 13 years of experience and literature review Clinoidectomía anterior extradural en el manejo de meningiomas paraselares: análisis de 13 años de experiencia y revisión de la literatura (2018) NEUROCIRUGIA, 29 (5), 225-232. **IF: 0.3100**

Salgado-Lopez L., de Quintana-Schmidt C., Catala-Antunez I., Aibar-Duran J., San Roman-Manzanera L., Molet-Teixido J., Non-aneurysmal subarachnoid haemorrhage secondary to panarteritis nodosa at paediatric age: A case report Hemorragia subaracnoidea no aneurismática secundaria a panarteritis nodosa en edad pediátrica: Caso clínico (2018) REV NEUROLOGIA, 66 (10), 340-343. **IF: 0.6010**

Diffusion Activities

- Pere Tresserras and Fernando Muñoz. Cursos Teórico-Prácticos de Base de Cráneo. Abordajes petrosos, presigmoideo y transpetrosos. Abordajes transcondilares. Hospital de la Santa Creu i Sant Pau. Barcelona. 15-16 March 2018.

AREA 5 · Uronephrology and Experimental Surgery

Nephrology

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Silva Torres, Irene (F. Puigvert)
Torra Balcells, Roser (F. Puigvert)

Main Lines of Research

Fundació Puigvert's Nephrology Research Group has been part of the IIB since its very beginning. The group carries out translational research within the field of renal diseases along different lines from hypertension, hereditary diseases, glomerular diseases and renal fibrosis, to transplants and dialysis.

Those different lines are analysed in detail below:

- Dra. Torra is the head researcher of the hereditary diseases line – she and Dra. Ars have leaded many research projects on these diseases, and both have supervised several doctoral theses. The hereditary renal diseases team is currently analysing phenotype variability of those diseases, both in its genomic and its clinical dimension. Dra. Torra coordinates both the Catalan and the Spanish hereditary renal diseases teams, and is a member of the homonymous European board of the EDTA (European Dialysis and Transplant Association).
- Dra. Ars heads the molecular genetics laboratory; she has optimised the Next generation sequencing tools for hereditary renal diseases. Dra. Ars coordinates the Sant Pau IIB's Fundació Puigvert's On-line Biobank node belonging to the National Biobanks Platform. She is also the person responsible for organising an European Molecular Quality Network (EMQN) outline for quality control of the genetic diagnoses of ADPKD by European laboratories. Currently she is leading a research project for applying this outline to kidney and urinary tract congenital abnormalities.
- Jointly with Dra. Díaz, Dr.Ballarin leads several clinical trials, both national and international, on glomerular and systemic diseases affecting the kidneys. They also participate in registries at a Catalan, Spanish and European level.
- Dra. Díaz leads the studies on renal inflammation and fibrosis. Renal grafts from cadaveric donors are an apt model for her study due to their less-good prognosis and to a high probability of inflammation and ensuing fibrosis as compared to living donor grafts. Dra. Díaz and Dra. Guillén have identified the activation of purinoma elements, both in cell cultures and in grafts from cadaver donors. This activation participates in inflammation and fibrosis, triggered by the phenotype change of macrophages into anti-inflammatory and pro-fibrotic, and interacting with other pro-fibrotic classical pathways. This new role of the purinergic pathways could be the key for the detection of new markers and new therapeutic targets associated with renal graft dysfunction after transplant.
- Dra. Fernández-Llama is participating in the development of a prototype of a multiplex system for flow cystometry focused on a new multi-parametric etio-pathogenic diagnosis of acute renal damage. As an expert in hypertension, she participates in a collaborative trial for evaluating 24-hour central blood pressure, its circadian rythms and its relationship with organic damage.
- Dr. Bover is also a member of the EDTA work force board on bone metabolism, this being his primary research subject.
- Dr. Díaz leads the dialysis research line. Currently the two major research lines are concerned with the appropriateness of peritoneal dialysis, and the investigation for biomarkers of the acute renal failure.
- Dra. Coll, who belongs in the dialysis team, heads the research of genomic damage in patients on renal replacement therapy, either transplant or dialysis. She analyses the differences of oxidative stress in transplanted vs. dialysis patients. She also analyses the effect of different antioxidants on genomic damage of dialysis patients.
- The transplant team, leaded by Dr. Guirado, either participates or heads over 15 studies, amongst them clinical trials with drugs against kidney rejection or for treating associated viral infections. His active participation and his leadership in the investigation of biochemical, serologic and genomic biomarkers of both rejection and viral infections associated with renal transplant, are outstanding.
- Ms. Luz San Miguel, Ms. Judith Ballart, Ms. Irene Silva and Ms. Beatriz Bardají are the coordinators of clinical studies and trials. Their work is essential and of the utmost importance for carrying out the high number of clinical trials performed by the group.

Scientific Challenges

- To strengthen our translational character and maintain our scientific production.
- To transfer research results to society as our main goal. To maintain and increase our relationship with patient associations in order to progressively incorporate the RRI approach into our translational research with the objective to better align the research process and its results with the values, the needs and the expectations of our patients.
- To potentiate Innovation: To continue with active collection of research samples from CKD and transplant patients. To collaborate with private and researchers groups in the detection of tissue, urine and blood biomarkers for the development of innovative tools for optimizing the diagnosis or follow up control of transplant, inherited diseases, chronic renal patients. To participate in innovative projects with Information and Communication Technologies (ICT) for educational purposes and empowerment of patients.

- To strengthen collaborative research as the best way to obtain funds and results: To maintain participation in national working groups and increase international cooperation. To achieve to access to European projects funds in the field of rare inherited diseases.
- To consolidate our participation in the elaboration of national and international clinical nephrology guidelines.
- To increase our participation in relevant private pharmaceutical clinical studies, specially early-staged clinical trials.

Collaborations

Collaborations with other IIB Sant Pau Groups

Active collaboration in basic and clinical research projects

- Inflammatory Diseases Group: renal fibrosis.
- Anaesthesiology Group (in collaboration with the Catalan ANESCARDIOCAT Group): risk of major adverse cardiovascular and cerebrovascular events in non-cardiac surgery associated with the preoperative estimated glomerular filtration rate.
- Paediatrics Group: nephrotic syndrome evolution, Ig A nephropathy and inherited kidney diseases.
- Andrology Group: infertility.
- Urology Group: genetic predisposition to congenital urological malformations and transplant.
- Ginecology Group: High risk pregnancies, prenatal diagnosis, preimplantation diagnosis.
- Reumathology Group: bone disease in chronic renal failure.
- Multidisciplinary teams for inherited kidney diseases: collaboration with most specialities from Sant Pau Hospital for different inherited kidney diseases (data bases, articles, protocols...).
- Biobank platform: translational research in all specific lines.

External Collaborations

National Academic Collaborations

- Department of Biochemistry and Molecular Biology, Universitat de Barcelona, Institute of Biomedicine and Oncology Programme, National Biomedical Research Institute of Liver and Gastrointestinal Diseases (CIBER EHD): renal fibrosis.
- Laboratory of Proteomics CSIC/Universitat Autònoma de Barcelona: diabetic nephropathy.
- Mutagenesis Department of Universitat Autònoma de Barcelona: renal impairment in chronic kidney disease.
- Genomic Regulation Center (CRG): inherited kidney diseases.
- Universidad de Salamanca: acute kidney injury.
- Universitat de Lleida: chronic kidney disease.
- National scientific societies (such as Sociedad Española de Nefrología) and investigators of other centres: basic and clinical studies (including public grants, clinical trials, observational studies...) promoted by them.

International Academic Collaborations/International Networks and Consortiums

- Biochemistry and Microbiology Institute UACH (Chile): renal fibrosis and diabetic nephropathy.
- Mayo Clinic (Rochester, USA): Autosomal Dominant Polycystic Kidney Disease (ADPKD).
- Hospital Tenon (Paris, France): nephrotic syndrome.
- EURenOmics Plataform: membranous nephropathy and nephrotic syndrome.
- Toronto General Hospital (Canada): molecular genetics of idiopathic nephrotic syndrome.
- University of Melbourne (Australia): Alport syndrome.
- Wake Forest University (USA): MUC1 studies
- Cyprus University (Cyprus): Alport modifiers studies.
- University Medicine Goettingen (Germany): Alport syndrome.
- EDTA (multinational, Europe): inherited kidney diseases and chronic kidney disease-mineral and bone disorders.
- Addenbrooke's Hospital, Cambridge University Hospitals NHS (United Kingdom): vasculitis.
- EUVAS Group (multinational collaborative Group): vasculitis.
- CYS-tic consortium: Autosomal Dominant Polycystic Kidney Disease cohort studies
- NEOCYST: Early Onset Cystic Kidney Disease
- European Molecular Quality Network: Autosomal Dominant Polycystic Kidney Disease (PKD1 and PKD2)

Patients Organisations

- Alianza VHL (Von Hippel Lindau disease)
- Asociación Española de Esclerosis Tuberosa
- MPS España (mucopolisacaridosis)
- ASHUA (Sd hemolítico Urémico Atípico)
- AIRG (inherited diseases)
- ACLECA (lupus)
- ALCER (chronic kidney disease)

Private National and International Collaborations

- Participation in clinical studies including clinical trials and postauthorisation studies promoted by national and international pharmaceutical companies.
- Research Joint-Venture with VU Medisch Centrum (Amsterdam, The Netherlands); Medizinische Klinik I (Aachen, Germany) and San Paolo Hospital (Milan, Italy) sponsored by Abbvie Co on effects of vitamina D derivatives in CKD-MBD.

Active Grants

- Roser Torra Balcells. Nefropatías familiares no filiadas: genes implicados en su causa y su variabilidad fenotípica. PI15/01824. Instituto de Salud Carlos III. Duration: 2016-2019. 115,500 €.
- Elisabeth Ars Criach. Estudio genómico de nefropatías de inicio temprano. PI16/01998. Instituto de Salud Carlos III. Duration: 2017-2019. 107,500 €.
- Montserrat Mercedes Díaz Encarnación. Impacto de las vías purinérgicas sobre la activación de macrófagos en el donante cadáver: pieza clave en el desarrollo de fibrosis y disfunción en el trasplante renal. PI17/01566. Instituto de Salud Carlos III. Duration: 2018-2020. 44,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Roser Torra Balcells. Modelos de predicción en las nefropatías hereditarias autosómicas dominantes. PI18/00362. Instituto de Salud Carlos III. Duration: 2019-2021. 82,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- The Neprology Group has been recognised as:
  - CSUR Enfermedades Glomerulares Complejas. Ministerio de Sanidad
  - XUEC renal. Reference center for rare renal diseases. Generalitat de Catalunya.

Transfer Products

- During 2018, the group has participated in 27 clinical trials with drugs and 31 other clinical studies (investigations with devices, observational studies with drugs and other clinical research projects) sponsored by private companies or academics.

Doctoral Theses

- Lara K. da Silva Santos. Impacto de la inflamación y fibrosis en la función del injerto renal. Universitat Autònoma de Barcelona. Directors: M. Díaz, Elena Guillén, José Ballarín. Dte of defense: 13/11/2018.

Scientific Production

Total Impact Factor: 146.498 · Mean Impact Factor: 5.0516

Aguado R., Paez-Vega A., Aguera M.L., Montejo M., Guirado L., Fortun J., Suarez-Benjumea A., Len O., Farinas M.C., de Gracia C., Hernandez D., Cobos-Ceballos M.J., Torre-Cisneros J., Cantisan S., Lack of evidence of association between IFNG and IL28B polymorphisms and QuantiFERON-CMV test results in seropositive transplant patients (2018) HUM IMMUNOL, 79 (6), 499-505. **IF: 1.9940**

Ayasreh N., Bullich G., Miquel R., Furlano M., Ruiz P., Lorente L., Valero O., Garcia-Gonzalez M.A., Arhda N., Garin I., Martinez V., Perez-Gomez V., Fulladosa X., Arroyo D., Martinez-Vea A., Espinosa M., Ballarin J., Ars E., Torra R., Autosomal Dominant Tubulointerstitial Kidney Disease: Clinical Presentation of Patients With ADTKD-UMOD and ADTKD-MUC1 (2018) AM J KIDNEY DIS, 72 (3), 411-418. **IF: 7.1290**

Bellur SS, Roberts ISD, Troyanov S, Royal V, Coppo R, Cook HT, Cattran D, Arce Terroba Y, Asunis AM, Bajema I, Bertoni E, Bruijn JA, Cannata-Ortiz P, Casartelli D, Maria Di Palma A, Ferrario F, et al. Reproducibility of the Oxford classification of immunoglobulin A nephropathy, impact of biopsy scoring on treatment allocation and clinical relevance of disagreements: evidence from the VALidation of IGA study cohort. NEPHROL DIAL TRANSPLANT. 2018 Dec 15. doi: 10.1093/ndt/gfy337. PMID: 30561721. **IF: 4.602**

Bover Sanjuán J, Navarro-González JF, Arenas MD, Torregrosa JV, Tamargo Menéndez J, de Francisco ALM, González-Parra E, Lloret Cora MJ, Sánchez Álvarez JE, Martín-Malo A, Molina Vila P, Bajo MA, DaSilva Santos I. Pharmacological interactions of phosphate binders. NEFROLOGIA. 2018 Nov - Dec;38(6):573-578. doi: 10.1016/j.nefro.2018.05.003. Epub 2018 Jul 7. PMID: 30473007. **IF: 1.167**

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Bover J, Ureña-Torres P, Torregrosa JV, Rodríguez-García M, Castro-Alonso C, Górriz JL, Laiz Alonso AM, Cigarrán S, Benito S, López-Báez V, Lloret Cora MJ, daSilva I, Cannata-Andía J. Osteoporosis, bone mineral density and CKD-MBD complex (I): Diagnostic considerations. NEFROLOGIA. 2018 Sep - Oct;38(5):476-490. doi: 10.1016/j.nefro.2017.12.006. Epub 2018 Apr 24. PMID: 29703451. **IF: 1.167**

Breda A., Territo A., Gausa L., Tugcu V., Alcaraz A., Musquera M., Decaestecker K., Desender L., Stockle M., Janssen M., Fornara P., Mohammed N., Siena G., Serni S., Guirado L., Facundo C., Doumerc N., Robot-assisted Kidney Transplantation: The European Experience [Figure presented] (2018) EUR UROL, 73 (2), 273-281. **IF: 17.5810**

Bullich G., Domingo-Gallego A., Vargas I., Ruiz P., Lorente-Grandoso L., Furlano M., Fraga G., Madrid A., Ariceta G., Borregan M., Pinero-Fernandez J.A., Rodriguez-Pena L., Ballesta-Martinez M.J., Llano-Rivas I., Menica M.A., Ballarin J., Torrents D., Torra R., Ars E., A kidney-disease gene panel allows a comprehensive genetic diagnosis of cystic and glomerular inherited kidney diseases (2018) KIDNEY INT, 94 (2), 363-371. **IF: 8.4290**

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Coussement J, Maggiore U, Manuel O, Scemla A, López-Medrano F, Nagler EV, Aguado JM, Abramowicz D; European Renal Association-European Dialysis Transplant. Association (ERA-EDTA) Developing Education Science and Care for Renal Transplantation in European States (DESCARTES) working group and the European Study Group for Infections in Compromised Hosts (ESGICH) of the European Society of Clinical Microbiology and Infectious Diseases (ESCMID). Diagnosis and management of asymptomatic bacteriuria in kidney transplant recipients: a survey of current practice in Europe. NEPHROL DIAL TRANSPLANT. 2018 Apr 9. doi: 10.1093/ndt/gfy078. [Epub ahead of print] PubMed. PMID: 29635410. **IF: 4.602**

Covic A., Vervloet M., Massy Z.A., Torres P.U., Goldsmith D., Brandenburg V., Mazzaferro S., Evenepoel P., Bover J., Apetrii M., Cozzolino M., Bone and mineral disorders in chronic kidney disease: implications for cardiovascular health and ageing in the general population (2018) LANCET DIABETES ENDO, 6 (4), 319-331. **IF: 19.3130**

de la Sierra A., Pareja J., Yun S., Acosta E., Aiello F., Oliveras A., Vazquez S., Armario P., Blanch P., Sierra C., Calero F., Fernandez-Llama P., Central blood pressure variability is increased in hypertensive patients with target organ damage (2018) J CLIN HYPERTENS, 20 (2), 266-272. **IF: 2.6290**

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Other Publications

- Draibe J, Rodó X, Fulladosa X, Martínez-Valenzuela L, Diaz-Encarnación M, Santos L, Marco H, Quintana L, Rodriguez E, Barros X, Garcia R, Balius A, Cruzado JM, Torras J; Grupo de Malalties Glomerulars de la Societat Catalana de Nefrologia (GLOMCAT). Seasonal variations in the onset of positive and negative renal ANCA-associated vasculitis in Spain. Clin Kidney J. 2018 Aug;11(4):468-473. doi: 10.1093/ckj/sfx127. Epub 2017 Dec 2. PMID: 30094010
- Guirado L. Does Rabbit Antithymocyte Globulin (Thymoglobuline®) Have a Role in Avoiding Delayed Graft Function in the Modern Era of Kidney Transplantation? J Transplant. 2018 Jul 12;2018:4524837. doi: 10.1155/2018/4524837. eCollection 2018. Review. PMID: 30112193
- Sanchez-Niño MD, Perez-Gomez MV, Valiño-Rivas L, Torra R, Ortiz A. Podocyturia: why it may have added value in rare diseases. Clin Kidney J. 2018 Oct 5;12(1):49-52. doi: 10.1093/ckj/sfy081. eCollection 2019 Feb. PMID: 30863545
- Siena G, Campi R, Decaestecker K, Tuğcu V, Sahin S, Alcaraz A, Musquera M, Territo A, Gausa L, Randon C, Stockle M, Janssen M, Fornara P, Mohammed N, Guirado L, Facundo C, Doumerc N, Vignolini G, Breda A, Serni S. Robot-assisted Kidney Transplantation with Regional Hypothermia Using Grafts with Multiple Vessels After Extracorporeal Vascular Reconstruction: Results from the European Association of Urology Robotic Urology Section Working Group. Eur Urol Focus. 2018 Mar;4(2):175-184. doi: 10.1016/j.euf.2018.07.022. Epub 2018 Jul 23. PMID: 30049659
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Diffusion Activities

Courses organized by the Nephrology Group

- IV Jornada Multidisciplinària de Malaltia Renal Hereditària. 16th February. Director: R. Torra.
- Fracaso Renal Agudo. VI edition. 12-13th March. Directors: J.M. Díaz in collaboration with A. Betbesé (Intesive Medicine Group, IIB Sant Pau).
- 20a Jornada de Nefrologia i Atenció Primària: Atenció Coordinada al Pacient amb Malaltia Renal. 30th May. Organization: Nephrology Group.
- VII Meeting Preceptorship Program on CKD-MBD. 7-8th June. Director: J. Bover.
- Preceptorship AML-CET. 22th June. Director: R. Torra.
- Masterclass in Renal Transplantation. 26-27th September. Director: Ll. Guirado.
- Preceptorship on Kidney Transplantation. 15th November. Director: Ll. Guirado.
- Formación Teórico-Práctica en Trasplante Renal de Donante Vivo. XV edition. 26-27 November. Directors: Ll. Guirado in collaboration with A. Breda (Urology Group, IIB Sant Pau).

Participation in nephrology congresses and conferences

Jornada Cercle de Salut sobre Experiències Multidisciplinàries. Barcelona, 19th January:

- R. Torra: Equips multidisciplinars de malalties renals hereditàries.

XI Conferencia Internacional "Hipertensión y Riñón" Hipertensión y Riesgo Vascular Asociado a la Enfermedad Renal. Madrid, 14-16th February:

- J. Bover: Etelcalcetide, a new intravenous calcimimetic in the treatment of hyperparathyroidism in hemodialysis patients.
- R. Torra: Screening, diagnosis and management of patients with Fabry disease: Kidney Disease: Improving Global Outcomes (KDIGO).

6º Simposium Update in Dialysis. Barcelona, 19th April:

- J. Bover: Moderator round table Avances en riesgo cardiovascular.

Fabry Masterclass. Athens, 19-20th April:

- R. Torra: Consultation with the nephrologist.

European Molecular Quality Network Annual Meeting. Varsovia, 2-4th May:

- E. Ars: Responsable of organisation of quality of control scheme for the genetic diagnosis of Autosomal Dominant Polycystic Kidney Disease (PKD1 y PKD2 gens).

XXXIV Annual Meeting of the Catalan Society of Nephrology. Lleida, 17-18th May:

- M. Díaz: Moderator oral communications Nefrología clínica.
- L. Guirado: Moderator Round table 4: Transplante.

Oral communications:

- Sánchez-Baya, M; Lloret, MJ; Benito, S; López, V; Martínez, E; Martínez, J; Doñate, T; Coll, E; Herreros, MA; Díaz, JM; Guirado, Ll; Bover, J. Estimación del riesgo de fractura en una unidad de hemodiàlisis.
- Bermejo, S; González, E; López, K; Ibernon, M; López, D; Martín-Gómez, A; García, R; Linares, T; Díaz, M; Martín, N; Barros, X; Marco, H; Navarro, MI; Esparza, N; et al. Diagnòstic anatomopatològic de la Malaltia Renal Diabètica: Resultats preliminars de l'estudi Multicèntric Espanyol BIODIAB GLOSEN GEENDIAB.
- Bermejo, S; González, E; López, K; Ibernon, M; López, D; Martín-Gómez, A; García, R; Linares, T; Díaz, M; Martín, N; Barros, X; Marco, H, Navarro, MI; Esparza, N; Elias, S; et al. Resultats preliminars estudi multicèntric espanyol BIODIAB GLOSEN GEENDIAB: els pacients diabètics afectes de nefropatia diabètica presenten pitjor pronòstic renal.
- López-Báez, V; Canal Girol, C; Benito, S; Ramos Galí, A; Lloret Cora, MJ; Facundo Molas, C; Vila-Santandreu, A; Serra Cabañas, N; Díaz, JM; Herreros García, MA; Guirado Perich, Ll. Inmunoadsorción (IA) específica como técnica de acondicionamiento en el trasplante renal AB0 incompatible (AB0I)

Posters:

- Benito; S; López-Baéz, V; Ramos-Gali, A; Chang, P; Sánchez-Baya, M; Anagua, F; Vila-Santandreu, A; Bover, J; Guirado, L; Ayasreh, N. Gammagrafia òssia: prova confirmatòria de rabdomiòlisi post-pneumònia.
- Ramos Galí, A; Arce Terroba, Y; Sánchez-Baya, M; López-Báez, V; Benito García, S; Fernández-Llama, P; Ayasreh, N; Ballarín, J; Díaz-Encarnación, M. Nefritis túbulo-intersticial mediada por cadenas ligeras.
- Sánchez-Baya, M; Ayasreh, N; Bover, J; García-Cuevas, S; Díaz-Arenas, D; Ramos Gali, A; Benito-García, S; Anagua Melendres, F; López-Báez, VA.Nefropatía por oxalato asociada a ORLISTAT®, a propósito de un caso.
- Benito,S; López-Baéz, V; Chang, P; Ramos-Gali, A; Sánchez-Baya, M; Anagua, F; Alonso, A; Guirado, L; Vila-Santandreu, A. Infecció crònica latent amb reactivació amb l'inici d'immunosupressió.
- López-Báez, V; Benito, S; Ramos Galí, A; Franklin Anagua, J; Sánchez-Baya, M; Guirado Perich, Ll; Serra Cabañas, N. Sarcoma de KAPOSI y trasplante renal. A propósito de un caso.

55th ERA-EDTA Congress. Copenhaguen, 23-27th May:

- J. Bover (speaker): Calcium sensing receptor and calcimimetics.
- R. Torra (speaker): What's new in Tuberous Sclerosis Complex?
- R. Torra (speaker): The ERA-EDTA guidelines in clinical practice.

Posters:

- Torra, R; Germain, DP; Bichet, DG; Schiffmann, R; Yu, J; Castelli, JP; Skuban, N; Barth, JA. Clinical outcomes with migalastat in patients with fabry disease based on degree of renal impairment: results from phase 3 trials.
- Torregrosa, V; Andrés, A; Ávila, A; de Juan, J; del Pino, D; Fernández, E; de Dios García, J; Hernández, D; Luño, J; Martínez, I; Paniagua, J; Posadas, M; Rodríguez, JC; Santamaría, R; Torra, R; Torras, J; Vidau, P. Prefine: results of a spanish screening for fabry disease in 10,000 patients in dialysis.
- Navarro-González, JF; Arenas, MD; Bover, J; Molina, P; González-Parra, E; Sánchez, E; Buades, JM; Lloret, MJ; Crespo, A; Gil, L; Mora, J; García, MA; del Pino, MD; Piñera, C; Cubas, A; Herrero, JA; Bajo, MA; Martín de Francisco, A. Prospective real-world data with sucroferric oxyhydroxide in hemodialysis patients: effects on mineral, iron and inflammatory profile.

28th European Meeting on Hypertension and Cardiovascular Protection. Barcelona, 8-11th June:

- P. Fernández-Llama: Moderator round table Sexual dysfunction, hypertension and cardiovascular risk.

Clinical Sessions. Canarias, 21-22th June:

- J. Bover (speaker): Tratamiento CKD-MBD.

XIX International Congress on Nutrition and Metabolism in Renal Disease (ICRNM 2018). Genova, 26-30th June:

- J. Bover (speaker): From renal osteodystrophy to osteoporosis in CKD patients.

5º Congreso de la Sociedad Española de Trasplante. Madrid, 30th June-1st July:

Oral communications:

- Canal, C; Comas, J; Facundo, C; Serra, N; Vila, A; Bardají, B; Ballarín, JA; Guirado, Ll. Supervivencia de injerto y paciente a largo plazo en el trasplante renal en Catalunya.
- Portoles, J; Pérez-Saez, MJ; Sánchez-Sobrino, B; Hernandez, D; Navarro, D; Mazuecos, MA; de Sousa, E; Llamas, F; Guirado, Ll; Martín Moreno, P. Los donantes de criterio expandido tras muerte cardiaca (cdcd) son una fuente de órganos para el trasplante renal (TXR)

- Serra Cabañas, N; Bardají de Quixano, B; Millán, O; Facundo Molas, C; Canal Girol, C; Silva Torres, I; Arce, Y; Vila Santandreu, A; Guirado Perich, Ll; Brunet Serra, M. ¿Biomarcadores: nueva herramienta para detectar la inflamación subclínica?

Poster:

- Ruiz, JC; Sánchez-Fructuoso, A; Franco, A; Redondo, D; Diekmann, F; Calviño, J; Serra, N; Aladren, MJ; Cigarran, S; Manonelles, A. Efectividad y seguridad de la nueva formulación melt-dose de tacrolimus en una cohorte de receptores de trasplante renal estables convertidos a partir de formulaciones de una o dos veces al día: estudio RECONOCE.

5th Fabry Expert Day in Nephrology. Madrid, 17-18th September

- R. Torra (speaker): NGS in Nephrology.

XXIX Congresso Brasileiro de Nefrologia. Rio de Janeiro, 19-22th September

- R. Torra (speaker): Afectación renal y Fabry.

Actualització en Hemodiàlisi: HPTS en el Pacient Renal Crònic: un Desafiament Constant. Barcelona, 4th October

- J. Bover (speaker): Calcimimètics: Paper en guies clíniques 2017-2018 i futur.

YNP Joint CME Course: Genetics and Kidney Diseases How to Become Your Local Expert in Nephrogenetics. Belgrad, 8-9th October:

- R. Torra: moderator session Genetics and Glomerular Diseases.
- R. Torra (speaker): Comprehensive and personalised care in patients with ADPKD: diagnosis, education and management of extra - renal manifestations.

Comprehensive Management of Secondary Hyperparathyroidism and Anemia in Kidney Patients. Ljubljana, 8th November:

- J. Bover (speaker): Secondary hyperparathyroidism – Overview of mineral metabolism.

1st ESU-ESUT Masterclass on Kidney Transplant. Madrid, 15-16th November:

- Ll. Guirado (speaker): Immunosuppression and pathology.
- Ll. Guirado (speaker): Immunosuppression present and future.

XLVIII Congreso de la Sociedad Española de Nefrología. IX Congreso Iberoamericano de Nefrología. Madrid, 16-19th November:

- E. Ars (speaker): Causas genéticas de ERC en las tres primeras décadas de la vida.
- J.A. Ballarín: Moderator Treatment of membranous nephropathy. An update.
- J. Bover: Moderator Hueso y endotelio en la ERC. Nuevas recomendaciones.
- Ll. Guirado. Moderator of oral sessions of kidney transplant
- Ll. Guirado (speaker): Donante vivo: Casos prácticos.
- R. Torra: Moderator Enfermedades renales hereditarias.
- R. Torra (speaker): Enfermedades hereditarias renales que cursan con hematurias: importancia del estudio genético.
- R. Torra (speaker): Marcadores pronósticos de la Enfermedad Renal Poliquística del adulto.
- R. Torra: Moderator Tratamiento de la PQRAD con Tolvaptán: experiencia de hasta 11 años.
- R. Torra (speaker): Situación de la PQRAD en España: Registro Nacional de PQRAD.
- R. Torra (speaker): Screening, diagnóstico y tratamiento de los enfermos con Enfermedad de Fabry: Conclusiones de Kidney Disease: Improving Global Outcomes (KDIGO).

Oral communications:

- Jarque, M; Melilli, E; Gutiérrez, A; Moreso, F; Guirado, L; Crespo, E; Montero, N; Diekman, F; Grinyó, JM; Bestard, O. Estudio prospectivo, randomizado, doble ciego para la predicción de la infección por CMV según la respuesta inmunológica celular específica basal contra el CMV en trasplantados renales.
- Torra, R; Feldt-Rasmussen, U; Germain, DP; Hughes, DA; Bichet, DG; Schiffmann, R; Yu, J; Castelli, JP; Skuban, N; Barth, JA. Resultados clínicos con migalastat en pacientes con enfermedad de Fabry según el grado de insuficiencia renal basal: resultados de los ensayos clínicos fase 3.
- Tomas, P; Algarra, J; Guzman Herrera, JJ; Puchades, MJ; Casas, J; Betriu, A; Valdivielso, JM; Fernández, E; Torra, R; Górriz, JL. Riesgo vascular, acontecimientos cardiovasculares y mortalidad en pacientes poliquistosis renal autosómica dominante. Comparación con otras etiologias y una población control. Subanálisis del estudio NEFRONA.
- Furlano, M; Arlandis, R; Bullich, G; Domingo, A; Ayasreh, N; Ars, E; Torra, R. Herencia digénica en el sindrome de Alport.

Posters:

- Furlano, M; Loscos, I; Ayasreh, N; Martí, T; Hernandez, J; Ars, E3; Torra, R. Identificación de pacientes con poliquistosis renal rápidamente progresiva mediante el volumen renal total por ecografía.
- Calero, F; Fernández-Llama, P; Díaz, JM; Bover, J; Coll, E; Llauger, MA; Ballarin, JA; Guirado, Ll. Consultoría virtual entre nefrología y atención primaria (AP) un paso más en la atención coordinada de la enfermedad renal crónica (ERC)
- Canal, C; Comas, J; Facundo, C; Serra, N; Vila, A; Ayasreh, N; Bardají, B; Ballarín, J; Guirado, L. Supervivencia de injerto y paciente a largo plazo en el trasplante renal en Catalunya.
- Guillén-Gómez, E; Dasilva, I; Silva, I; Guirado, L; Serra, N; Pastor-Anglada, M; Ballarín, J; Díaz-Encarnación, MM. Vías inflamatorias implicadas en la disfunción crónica del injerto renal procedente de donantes fallecidos.
- Valle, MV; Arango Sancho, P; Madrid Aris, A; Miranda Cam, M; Codina Sampera, E; Calzada Baños, Y; López Baez, V; García Rojas, A. Glomerulopatía por C3 en la edad pediátrica. Diferentes caras de una misma moneda.
- Sánchez-Baya, M; Lloret Cora, MJ; Benito, S; Ramos Gali, A; Martínez, E; Martínez, J; Coll, E; Herreros, MA; Díaz, JM; Bover, J. Estimación del riesgo de fractura en una unidad de hemodiálisis.
- Prevalencia de malnutrición-inflamación en Cataluña. Carreras, JC; Arias, MA, Coll, EC; Calabia, JC; Collado, SC; González, JG, Betancourt, LB; Montero, NM; Martín, GM; Gaspar, MG.
- Serra Cabañas, N; Facundo Molas, C; Canal Gil, C; Bardají De Quixano, B; Vila Santandreu, A; Silva Torres, I; Arce, Y; Ayasreh, N; Ballarín Castan, JA; Guirado Perich, Ll. Trasplante renal en glomerulonefritis primarias. Supervivencia del injerto renal a largo plazo.

XXXIX Congreso de la Sociedad Española de Medicina Interna. Burgos, 21-23th November:

- R. Torra (speaker): Enfermedades renales hereditarias.

XIII Jornada de Conferencias Asociación Catalana de Lupus E.G. Barcelona, 1st December:

- M. Díaz (speaker): Lupus en el riñón.

XVII Moscow Assembly "Health of the Capital". Moscou, 5-6th December:

- J. Bover (speaker): Prevention and treatment of MBD at the pre-dialysis stage of CKD.
- J. Bover (speaker): Foreign experience: Primary care and Nephrology collaboration.

31 Jornades Catalanes sobre Hipertensió Arterial. 25 Reunió de la Societat Catalana d'Hipertensió Arterial. Barcelona, 11-12th December:

- P. Fernández-Llama (speaker): Recerca bàsica.

Patient divulgation activities

Encuentro sobre la Enfermedad de Von Hippel-Lindau. Fundació Puigvert. Barcelona, 14 th April.

- Organization: Nephrology Group - Director: Ll. Guirado in collaboration with Alianza española de familias de von Hippel-Lindau
- External teaching staff: L. Botella (Centro de Investigaciones Biológicas. CSIC – CIBERER), B. González (Complejo Hospitalario de Toledo), F. Muñoz (Hospital de Sant Pau), K. Villar (Alianza VHL)

Viure amb malaltia renal. VI edició de les Trobades per a Pacients Nefrològics. Fundació Puigvert. Barcelona, 23th January, 20th March and 22 th May

- Organization: Nephrology Group - Director: Ll. Guirado

Viure amb malaltia renal. VII edició de les Trobades per a Pacients Nefrològics. Fundació Puigvert. Barcelona, 6th November

- Organization: Nephrology Group - Director: Ll. Guirado

AREA 5 · Uronephrology and Experimental Surgery

Women and Perinatal Health Research Group

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Porta Roda, Josep Oriol (FGS)
Rodríguez Sureda, Víctor (CIBERER)
Sánchez García, Olga (IR)

Main Lines of Research

- Prediction and prevention of complications arising from placental insufficiency, intrauterine growth restriction / preeclampsia (IUGR / PE).
- Placental insufficiency and maternal cardiovascular risk later in life.
- Role of the oxygen transport deficit in the placental insufficiency.
- Development of predictive methods based on the integration of pre and postnatal factors for the detection of abnormal neurodevelopment in congenital hearts diseases.
- Toxics and air pollution effects con pregnancy and fetal programming.
- Management of pelvic floor dysfunction: chronic pelvic pain, urinary incontinence and pelvic organ prolapse.

Scientific Challenges

- To study novel placental biomarkers in the diagnosis and prognosis of preeclampsia (PE) and intrauterine growth restiction (IUGR) in order to generate future hypothesis for target prevention and therapeutic interventions in theses pathologies.
- To determine the usefulness of novel placental biomarkers (sFlt-1/PlGF ratio) in the diagnosis and prognosis of preeclampsia (PE) in order to change polices and improve maternal and neonatal health.
- To study novel maternal cardiovascular risk biomarkers after placental insufficiency and to explore potential preventive strategies in order to identify mother at risk for cardiovascular disease later in life.
- To study the role of placental insufficiency and hypoxia in congenital heart disease in order to gain insights into the relationships between hypoxia-dependent placental morphogenesis, placental function and effects on oxygen metabolism in the fetus.
- To develop biomarkers in fetal and neonatal life that help to predict postnatal neurological risk in congenital heart diseases.
- To evaluate the impact of maternal exposure to traffic-related air pollution on fetal development in order to generate evidence base to support regulation, implementation of finely-targeted interventions, and in time, the inclusion of this impact in the next iteration of the global burden of the diseases (GBD) attributable to ambient air pollution.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Active collaboration with the Gynaecology and Obstetrics Service: Obdulia Alejos, Antoni Fernández, Laura Gomila, M. del Carmen Medina, Anna Olivella, Juan Parra, Irene Ribera, Cristina Trilla, M Julia Zanini, Marta Però and Carla Domínguez.
- Active collaboration with Puigvert Foundation: Carlos Dosouto, Susana Peón and M. Jesús Saiz.
- Breast Cancer (Dra. Bárbara García-Valdecasas)
- Genetic Research (Dr. Jordi Surrallés)
- Oncogenesis and Antitumour Drugs (Dra. Virtudes Céspedes)
- Reproductive Health (Dr. Joaquim Calaf)
- Anesthesiology (Dra. M. Victoria Moral)
- General and Digestive Surgery (Dr. Antonio Moral)
- Endocrinology, Diabetes and Nutrition (Dra. Rosa Corcoy)
- Paediatrics (Dr. Eduard Carreras)
- Clinical Epidemiology and Healthcare Services (Dr. Xavier Bonfill)
- Clinical Biochemistry Service (Dr. Francisco Blanco)
- Image Diagnostic Service, Neuroradiology Section (Dra. Beatriz Gómez-Ansón)

External Collaborations

International Collaborations

- Project: Role of Placental Insufficiency and Hypoxia in Congenital Heart Defects. Principal investigator: Steven A. Fisher, M.D.; Professor of Medicine and Physiology S-012a HSF II, 20 Penn St. Univ of Maryland School of Medicine (Baltimore MD 212) Collaborator: Elisa Llurba.
- Project: Accuracy of clinical characteristics, biochemical and ultrasound markers in the prediction of preeclampsia: an Individual Pa-

tient Data (IPD) Meta-analysis. Principal Investigator: Shakila Thangaratinam, PhD; Professor in maternal and perinatal health at Queen Mary University of London, of Mile End Road, London. Collaborator: Elisa Llurba.

National Collaborations

- Centro de Investigación Biomédica en RED Enfermedades Raras (CIBERER). CB06/07/0027; IP: Dr. Eduard Gratacòs.
- Maternal and Child Health and Development Research Network (SAMID Network). RD16/0022/0014; IP: Dra. M. Dolores Gómez Roig.
- Project: Traffic-related air pollution and birth weight: the roles of noise, placental function, green space, physical activity, and socioeconomic status (FRONTIER). Principal Investigator: Dadvand, Payam; Assistant Research Professor, Barcelona Institute for Global Health (ISGlobal) (Former CREAL); Co-PI: Jordi Sunyer, Barcelona Institute for Global Health (ISGlobal). Funding: The Health Effects Institute (HEI), 17-1 Assessing Adverse Health Effects of Exposure to Traffic-Related Air Pollution, Noise, and Their Interactions With Socio-Economic Status. Duration: 01/05/2018 - 31/10/2022. Collaborators: Elisa Llurba, Carmen Garrido, Víctor Rodríguez-Sureda and Olga Sánchez.
- Project: Pre-natal exposure to urban AIR pollution and pre- and post-Natal Brain development (AIR-NB). Principal Investigator: Jordi Sunyer, Barcelona Institute for Global Health (ISGlobal). Funding: European Research Council (ERC), Horizon 2020, ERC-2017-ADG. Duración: 01/01/2018 - 31/12/2022. Collaborators: Elisa Llurba, Carmen Garrido, Víctor Rodríguez-Sureda and Olga Sánchez.
- Maternal and Infant Health and Development Network (SAMID Network). RD16/0022/0015. Principal Investigator: Elisa Llurba. Collaborators: Olga Sánchez, Ana Polo.
- Project: Breast cancer during pregnancy. Neurologic and cardiologic outcomes after chemotherapy exposition during fetal period. Principal Investigator: Dr. Octavi Córdoba (Hospital Universitari Vall d'Hebron, Barcelona). Collaborator: Olga Sánchez.
- Project: Angiogenic factors during pregnancy and cardiovascular risk in the medium to long term in patients with preeclampsia. Clinical and experimental approach. Principal Investigator: Dr. Lluís Cabero Roura (Hospital Universitari Vall d'Hebron, Barcelona). Collaborator: Olga Sánchez.
- Banc de Sang i Teixits (Blood and Tissue Bank). Collaborator: Elisa Llurba.

Active Grants

- Elisa Llurba Olivé. Incorporación del ratio sFlt1/PlGF en el diagnóstico y clasificación de preeclampsia: Ensayo clínico randomizado (EuroPE estudio). PI16/00375. Instituto de Salud Carlos III. Duration: 2017-2019. 92,500 €.
- Elisa Llurba Olivé. Red de salud materno-infantil y del desarrollo. RD16/0022/0015. Instituto de Salud Carlos III. Duration: 2017-2021. 178,530 €.
- Josep Oriol Porta Roda. Estudio de las propiedades biológicas de una matriz dérmica de origen humano para su aplicación en cirugía de corrección del prolapso de órganos pélvicos e incontinència urinaria femenina. CONVENI BST 2017-3. Banc de Sang i Teixits. Duration: 2017-2020. 136,904 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Elisa Llurba Olivé. Women and Perinatal Health Research Group. 2017 SGR 1267. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2020. 10,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Doctoral Theses

- Enrique Pazos Coronado. Impacto de la realidad virtual en el dolor asociado a la terapia manual dentro de un programa multimodal para el tratamiento de la vulvodinia. Universitat Autònoma de Barcelona. Director: Josep Oriol Porta Roda. Date of defense: 01/06/2018.

Scientific Production

Total Impact Factor: 27.6324 · Mean Impact Factor: 2.512

Alijotas-Reig J., Esteve-Valverde E., Ferrer-Oliveras R., LLurba E., Ruffatti A., Tincani A., Lefkou E., Bertero M.a.T., Espinosa G., de Carolis S., Rovere-Querini P., Lundelin K., Picardo E., Mekinian A., Comparative study between obstetric antiphospholipid syndrome and obstetric morbidity related with antiphospholipid antibodies Estudio comparativo entre síndrome antifisfolipídico obstétrico y morbilidad obstétrica relacionada con anticuerpos antifosfolípido (2018) MED CLIN-BARCELONA, 151 (6), 215-222. **IF: 1.1680**

Esteve-Valverde E., Ferrer-Oliveras R., Gil-Aliberas N., Baraldes-Farre A., Llurba E., Alijotas-Reig J., Pravastatin for Preventing and Treating Preeclampsia: A Systematic Review (2018) OBSTET GYNECOL SURV, 73 (1), 40-55. **IF: 2.0140**

Franco-Jarava C, Wang H, Martin-Nalda A, Alvarez SD, García-Prat M, Bodet D, García-Patos V, Plaja A, Rudilla F, Rodriguez-Sureda V, García-Latorre L, Aksentijevich I, Colobran R, Soler-Palacín P. TNFAIP3 haploinsufficiency is the cause of autoinflammatory manifestations in a patient with a deletion of 13Mb on chromosome 6. CLIN IMMUNOL. 2018 Jun;191:44-51. doi: 10.1016/j.clim.2018.03.009. Epub 2018 Mar 20. PMID: 29572183. **IF: 4.0370**

Gascón A, Goya M, Mendoza M, Garcia A, Higueras T, Calero I, Avilés M, Sánchez MA, Llurba E, Cabero L, Carreras E. Intraobserver and interobserver variability in first-trimester transvaginal ultrasound cervical length. J MATERN FETAL NEONATAL MED. 2018 Sep 9:1-6. PMID: 30198351. **IF: 1.4674**

Gil-Ibañez B, Regueiro P, Llurba E, Fariñas-Madrid L, Garcia A, Diaz-Feijoo B. Challenges in the management of neuroendocrine cervical cancer during pregnancy: A case report. MOL CLIN ONCOL. 2018 Nov; 9(5):519-522. PMID: 30402233. **IF: –**

Herraiz I., Llurba E., Verlohren S., Galindo A., Bartha J.L., De La Calle M., Delgado J.L., De Paco C., Escudero A.I., Moreno F., Garcia-Hernandez J.A., Romero-Requejo A., Marcos-Puig B., Perales A., Mendoza M., Update on the Diagnosis and Prognosis of Preeclampsia with the Aid of the sFlt-1/PlGF Ratio in Singleton Pregnancies (2018) FETAL DIAGN THER, 43 (2), 81-89. **IF: 1.8130**

Llurba Olive E, Xiao E, Natale DR, Fisher SA. Oxygen and lack of oxygen in fetal and placental development, feto-placental coupling, and congenital heart defects. BIRTH DEFECTS RES. 2018 Dec 1;110(20): 1517-1530. PMID: 30576091. **IF: –**

Mazarico E., Llurba E., Cabero L., Sanchez O., Valls A., Martin-Ancel A., Cardenas D., Gomez Roig M.D., Associations between neural injury markers of intrauterine growth-restricted infants and neurodevelopment at 2 years of age (2018) J MATERN-FETAL NEO M, 1-7. **IF: 1.4930**

Paules C, Dantas AP, Miranda J, Crovetto F, Eixarch E, Rodriguez-Sureda V, Dominguez C, Casu G, Rovira C, Nadal A, Crispi F, Gratacos E Premature placental aging in term small-for-gestational-age and fetal-growth-restricted fetuses. ULTRASOUND OBSTET GYNECOL. 2018 Aug 19. doi: 10.1002/uog.20103.PMID: 30125412. **IF: 4.2540**

Pratcorona L., Goya M., Merced C., Rodo C., Llurba E., Higueras T., Cabero L., Carreras E., Arevalo S., Aviles M., Calero I., Casellas M., Folch M., Gascon A., Mendoza M., Sanchez M.A., Suy A., Cervical pessary to reduce preterm birth <34 weeks of gestation after an episode of preterm labor and a short cervix: a randomized controlled trial (2018) AM J OBSTET GYNECOL, 219 (1), 99.e1-99.e16. **IF: 5.7320**

Sanchez O., Ruiz-Romero A., Dominguez C., Ferrer Q., Ribera I., Rodriguez-Sureda V., Alijotas J., Arevalo S., Carreras E., Cabero L., Llurba E., Brain angiogenic gene expression in fetuses with congenital heart disease (2018) ULTRASOUND OBST GYN, 52 (6), 734-738. **IF: 5.6540**

Other Publications

- I Herraiz, E Llurba, S Verlohren , A. Galindo, en nombre del Grupo español para el estudio de los marcadores angiogénicos en la preclampsia. "Actualización del diagnóstico y el pronóstico de la preclampsia con la ayuda del cociente sFlt-1/PlGF en embarazos únicos". Revista PROGRESOS.

Books or Chapters with ISBN

- Ana Polo Ramos. Hormona antimuleriana. Fecundación In Vitro: claves para mejorar nuestra estrategia terapéutica. Ed. Glosa ISBN: 978-84-7429-704-1. 2018 p 31-39.

Diffusion Activities

Congresses

National Congresses

10è Congrés Català d'Obstetrícia i Ginecologia. Societat Catalana d'Obstetrícia. Barcelona, 7-9th November 2018:

- Josep Oriol Porta Roda. Meeting organization.
- L. Balcells Eichenberger; A. Fernandez Oliva; MJ. Zanini Mangialardi; I. Ribera Casellas; C. Garrido Gimenez; E. Llurba Olivé. Preeclàmpsia en gestació gemel·lar bicorial-biamniòtica amb segon fetus afecte de RCIU tipus III: evolució dels factors angiogènics postreducció selectiva del fetus RCIU.
- A. Luzarraga Aznar; MJ. Zanini; A. Fernandez Oliva; I. Ribera Casellas; C. Garrido Gimenez; E. Llurba Olivé. Ruptura hepàtica en el síndrome de Hellp: cas clínic i revisió de la literatura.
- M. Bailón Queiruga; C. Garrido Giménez; A. Longo; MC. Medina Mallén; A. Olivella Garcia; I. Ribera Casellas; A. Fernandez Oliva; E. Llurba Olivé. Hiponatrèmia associada a trastorns hipertensius de l'embaràs.
- L. Blanch; MJ. Zanini; A. Fernandez Oliva; E. Llurba; C. Garrido; I. Ribera. Corioamnionitis subclínica per Clostridium perfringens: cas clínic i revisió de la literatura.
- Fabra P, Medina MC, Simó M, Armengol J, Ramos A, Pérez R, Llurba E, Pujol M. Resultats obstètrics a la assistencia integral del part de natges.

International Congresses

- Garrido-Gimenez C, Capote-Lopez S, Cabrera S, Goya-Canino, M, Melnychuk, T, Centeno C, Higueras T, Cabero-Roura L, Gil-Moreno A, Carreras-Moratonas E. Adverse obstetric outcomes associated with cervical loop electrosurgical excisional procedure and short cervix. 17th World Congress in Fetal Medicine. Athens (Greece): 24-28th June 2018.
- Elisa Llurba. Tratamiento del CIR: es una realidad. 68 Congreso Mexicano de Obstetricia y Ginecología. Mazatlán (Mexico): 11-13th November 2018. Oral Presentation.
- Elisa Llurba. Gestación gemelar bicorial: complicaciones maternas y fetales. 68 Congreso Mexicano de Obstetricia y Ginecologia. Mazatlán (Mexico): 11-13th November 2018. Oral Presentation.
- Elisa Llurba. Manging preeclampsia with angiogenic factors. 4th Annual International Conference of Egyptian Fetal Medicine Foundation. El Cairo (Egypt): 8-9th February 2018. Oral Presentation.
- Elisa Llurba. CIR precoz. 30 Congreso Nacional de la Sección de Ecografía Obstétrico-Ginecológica de la SEGO. Toledo (Spain): 4-6th October 2018. Oral Presentation.
- Elisa Llurba. Aplicación Clínica del ratio sFlt1/PlGF. 26º Congreso de Medicina Perinatal de la SEGO. Murcia (Spain): 24-26th May 2018. Oral Presentation.

Meetings/Seminars

- Ana Polo Ramos. Meeting organization: Jornada Entre Mares. Recinte Modernista de Sant Pau. Barcelona. 21th April 2018.
- Ana Polo Ramos. Meeting organization and co-direction: Jornada d'actualització del cribatge de malalties recessives en Reproducció Assistida. 25th May 2018.
- Ana Polo Ramos. Meeting organization: Programa Cuida't with She Oak Association (4 conferences):
  - Relaxació i fertilitat.19th September 2018.
  - Consells pràctics durant els tractaments. 17th October 2018.
  - Nutrició i fertilitat. Programa Cuida't. Amb She Oak. 14th November 2018.
  - Teràpies naturals i reproducció assistida. 12th December 2018.
- Ana Polo Ramos. Worshops organization: Practical clinical case workshops with Ferring. 27th April 2018.
- Elisa Llurba. Caso Clínico. Anticoagulantes para prevenir complicaciones recurrentes dek embarazo mediadas por la placenta" VI Symposio de Trombosis, Embarazo y Reproducción, Workshop Dexeus. Barcelona, 9th November 2018. Oral Presentation.
- Elisa Llurba. Sospecha Clínica de Preeclampsia. Sympossium sobre manejo clínico de la preeclampsia con factores angiogénicos. Tercera Jornada sobre la utilidad de los marcadores angiogénicos en el manejo de la preeclamsia (Roche). Madrid: 22-23th February 2018. Oral Presentation.
- Ana Polo Ramos. Fallos de Implantación. Donación de ovocitos. Indicaciones y técnica. Caso clínico: DGP-HLA. XVI Jornadas de Residentes (IVI). Jerez de la Frontera. 12-13th April 2018. Oral communication.
- Ana Polo Ramos. Mites i realitats de la fertilitat al segle XXI. Nous models de família. Nous horitzons de les tècniques de reproducció assistida. Jornada Entre Mares. Recinte Modernista de Sant Pau. Barcelona. 21th April 2018. Oral comunication.

- Ana Polo Ramos. Evolució del cribatge de les malalties recessives, el seu paper en Medecina Reproductiva. Jornada d'actualització del cribatge de malalties recessives en Reproducció Assistida. Fundació Puigvert. Barcelona. 25th May 2018. Oral communication.
- Ana Polo Ramos. Gestación tras múltiples ciclos de FIV y melanoma. Casos clínicos prácticos. Ferring. Barcelona. 27th September 2018. Oral communication.
- Ana Polo Ramos. Tècniques de Reproducció Assistida en el context d'una Malaltia Reumàtica. II Jornada d'Embaràs i Malalties Reumàtiques. Acadèmia de Ciències Mèdiques de Catalunya. 9th October 2018. Oral communication.
- Ana Polo Ramos. Opciones reproductivas en portadoras de mutación en BRCA1 y 2. III Jornada de Cáncer de Mama y Ovario Hereditario. Barcelona. 27th October 2018. Oral communication.

Courses

- Elisa Llurba, director since 2017. Màster Medicina Materno-Fetal. Departament d'Obstetrícia i Ginecologia. Universitat Autònoma de Barcelona.
- Elisa Llurba. Aplicación Clínica del ratio sFlt1/PlGF. VI Curs d'actualització en ciències de laboratori clínic. Barcelona, 18th October 2017-20th June 2018.
- Elisa Llurba. Crisis resource management (CRM) en sala de partos. 10th May 2018.
- Elisa Llurba. Materno-fetal Course. BCNatal Hospital Clínic-Sant Joan de Déu. Lloret de Mar, 10th May 2018.
- Carmen Garrido Giménez. Actualitzacions en Obstetrícia i Ginecologia (registre: 09/020107-MD). Hospital de la Santa Creu i Sant Pau. 15th May 2018.
- Carmen Garrido Giménez. Programa d'Obstetrícia i Ginecologia (Study Abroad) - Universitat Autònoma de Barcelona (university students of the Autonomous Popular University of the State of Puebla of Mexico). June 2018.
- Ana Polo Ramos. Dieta y Fertilidad. VIII Edición del Máster Internacional en Reproducción Humana. Campus del H. del Mar. Barcelona, 23th October 2018.
- Elisa Llurba. Anticoagulantes para prevenir complicaciones recurrentes del embarazo mediadas por la placenta. VI Symposio de Trombosis, Embarazo y reproducción, Workshop Dexeus. Barcelona, 9th November 2018.
- Ana Polo Ramos. Caso 8: Amenorrea hipotalámica funcional. Curso práctico de endocrinología y reproducción humana basado en el caso. Unitat Docent Sant Pau. Barcelona, 15th November 2018.

AREA 5 · Uronephrology and Experimental Surgery

Gynecologic and Peritoneal Oncology Group

Coordinator
Céspedes Navarro, María Virtudes (IR)
mcespedes@santpau.cat

Members
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González López, José Antonio (FGS)
Guibourg, Rocío Luna (FGS)
Rovira Negre, Ramon (FGS)
Soler Moreno, Cristina (FGS)

Main Lines of Research

- Identify new prognostic biomarkers and new therapeutic targets for risk and therapeutic stratification in endometrial cancer patients.
- Study the effect of the nervous system in tumor progression and metastasis in gynaecological and peritoneal cancers.
- Modeling gynecological and peritoneal cancers in animals to better understand tumor physiopathology and the use for preclinical drug evaluation.
- Development of new antitumour drugs, using nanotechnology, in cell lines and animal models for targeted delivery to cancer stem cells (in collaboration with the Oncogenesis and Antitumour Drugs group).

Scientific Challenges

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

Collaborations

Collaborations with other IIB Sant Pau Groups

- Women and Perinatal Health Research Group, Obstetric and Gynecological Department (Dra. Elisa Llurba).
- Oncogenesis and Antitumour Drug Group (Dr. Ramon Mangues).
- Thrombosis and Haemostasis (Dr. Joan Carles Souto).
- Hepatobiliopancreatic Surgery Unit (Dr. Santiago Sánchez).
- Endocrinology, Diabetes and Nutrition Group (Dra. Eugenia Mato and Dr. Didac Mauricio).
- Anatomy and Pathology Department (Dr. Enrique Lerma and Dr. Alberto Gallardo).
- Clinic Oncology Department (Dr. López Pousa) RETOS Project. RTC-2017-6347-1.

External Collaborations

National Collaborations

- Maria Macias, Biomedical Research Institute (IRB), Barcelona.
- Antonio Villaverde, Institut de Biotecnologia i de Biomedicina. Universitat Autònoma de Barcelona.
- Ramón Eritja, Institute for Advanced Chemistry of Catalonia (IQAC). Spanish Council for Scientific Research (CSIC), Barcelona.
- Xavier Matias-Guiu, Hospital de Bellvitge, Barcelona.
- María Jesús Delgado, Faculty of Biology, Universidad Complutense, Madrid.
- Eduard Batlle, Biomedical Research Institute (IRB), Barcelona.
- Ramon Rovira Negre. Patients survival evaluation after extraperitoneal laparoscopic lymphadenectomy in locally advanced cervix cancer. Code Protocol PR(AMI) 159/2015. Duration: 2015-2018. Collaboration with Hospital Vall d'Hebron.
- Misericordia Guinot Gasull. Multicentric observational epidemiological study in patients with Premature Ovarian Insufficiency. Protocol IIB Sant Pau Health – IOP – 2012-109. Duration: 2015-2017. Collaboration with Hospital de la Santa Creu i Sant Pau.

International Collaborations

- Luis Ulloa. New Jersey Medical School, Rutgers University, Newark, New Jersey (USA).
- Julie Pannequin. SIRIC Montpellier Cancer Institut, Montpellier, France.
- Paolo Micheli. Institute for Cancer Research and Treatment, Candiolo, Turin (Italy).
- Arne Östman. Cancer Center Karolinska, Karolinska Institutet, Stockholm (Sweden).

Active Grants

- Virtudes Céspedes Navarro. Preclinical trial to assess safety, tolerability, and efficacy of CEB-01 membrane in mouse cancer models. CEBIOTEX S.L. Duration: 2018-2019.
- Virtudes Céspedes Navarro. Targeted therapy for the elimination of CXCR4+ metastatic cancer stem cells in endometrial cancer. AP1666942017. Mutua Madrileña Fundation (FMMA). Duration: 2017-2019. 140,000 €.
- Virtudes Céspedes Navarro. Neuroimmune modulation in metastatic pancreatic cancer. Therapeutic implications. MV18/00027. Instituto de Salud Carlos III. Duration: 2019. 14,640 €. Participating Institution: New Jersey Medical School. Rutgers University and IIB Sant Pau-HSCSP.
- Virtudes Céspedes Navarro. Nanoconjugates for targeted therapy against CXCR4+ cancer stem cells in pancreatic cancer. CP15/00163. Instituto de Salud Carlos III. Duration: 2016-2018. 121,500 €.

Note: Total amount granted to PI. It does not include indirect costs.

Patents

- Vazquez E, Unzueta U, Ferrer N, Villaverde AP, Céspedes MV, Casanova I, Mangues R. Methods and reagents for efficient and targeted delivery of therapeutic molecules to CXCR4 cells. EP 11382005.4, 2011-03-03, WO 2012/095527, Extended PCT/EP2012/050513, T2010027PCT, 19 July 2012, PCT Int. 13/979,560, PTO/SB/01A (09-12), July 12, 2013. EPO 11382005.41216, Patent, 03/03/2011.
- Vazquez E, Unzueta U, Serna N, Sanchez L, Villaverde AP, Céspedes MV, Casanova I, Mangues R, Nanostructured proteins and uses thereof. Application No/ 17169722.0-1401, Patent, 05/05/2017.
- Vazquez E, Unzueta U, Serna N, Sanchez L, Villaverde AP, Céspedes MV, Casanova I, Mangues R., date 14.07.17., Therapeutic nanoconjugates and uses thereof, Application No/17382461.6-1453, Patent, 14/07/2017.
- Ramon Rovira, Dispositivo para simular una operación endoscópica vía orificio natural - 12/12/2016 in process, PCT/ EP2016/080572, Patent, 12/12/2016.
- Ramon Rovira, Procedimiento y dispositivo para el aprendizaje y entrenamiento de operaciones de cirugía laparoscópica e intervenciones similares, ES2534140B1, Patent, 17/04/2015.

Transfer Products

- Spin off: Surgitrainer S.L. Start-up. Ramon Rovira. Method and device for learning and training operations laparoscopic surgery and similar procedures. C-66663303 15/03/2016. Active
- Technology Transfer Agreement: 2016 2016-101. Surgitrainer and Hystrainer Licence/Transference Agreement. Surgitrainer SL. 13/9/2016

Scientific Production

Total Impact Factor: 35.552 · Mean Impact Factor: 5.9253

Estadella J, Español P, Ascencio F, Perelló J, Calaf J. Ulipristal acetate for the management of acute heavy menstrual bleeding without fibroids. GYNECOL ENDOCRINOL. 2018 Jul;34(7):554-557. doi: 10.1080/09513590.2017.1417376. **IF 1.413**

Cespedes M.V., Unzueta U., Avino A., Gallardo A., Alamo P., Sala R., Sanchez-Chardi A., Casanova I., Mangues M.A., Lopez-Pousa A., Eritja R., Villaverde A., Vazquez E., Mangues R., Selective depletion of metastatic stem cells as therapy for human colorectal cancer (2018) EMBO MOL MED, 10 (10). **IF: 10.2930**

Moreno M.J., Gallardo A., Novelli S., Mozos A., Arago M., Pavon M.A., Cespedes M.V., Pallares V., Falgas A., Alcoceba M., Blanco O., Gonzalez-Diaz M., Sierra J., Mangues R., Casanova I., CXCR7 expression in diffuse large B-cell lymphoma identifies a subgroup of CXCR4+ patients with good prognosis (2018) PLOS ONE, 13 (6). **IF: 2.7660**

Pallares V., Hoyos M., Chillon M.C., Barragan E., Conde M.I.P., Llop M., Falgas A., Cespedes M.V., Montesinos P., Nomdedeu J.F., Brunet S., Sanz M.A., Gonzalez-Diaz M., Sierra J., Mangues R., Casanova I., Focal adhesion genes refine the intermediate-risk cytogenetic classification of acute myeloid leukemia (2018) CANCERS, 10 (11). **IF: 5.3260**

Sanchez-Garcia L., Serna N., Alamo P., Sala R., Cespedes M.V., Roldan M., Sanchez-Chardi A., Unzueta U., Casanova I., Mangues R., Vazquez E., Villaverde A., Self-assembling toxin-based nanoparticles as self-delivered antitumoral drugs (2018) J CONTROL RELEASE, 274, 81-92. **IF: 7.8770**

Unzueta U., Cespedes M.V., Sala R., Alamo P., Sanchez-Chardi A., Pesarrodona M., Sanchez-Garcia L., Cano-Garrido O., Villaverde A., Vazquez E., Mangues R., Seras-Franzoso J., Release of targeted protein nanoparticles from functional bacterial amyloids: A death star-like approach (2018) J CONTROL RELEASE, 279, 29-39. **IF: 7.8770**

Diffusion Activities

- María Virtudes Céspedes. Referee in Microb Cell Fact journal 2018
- María Virtudes Cespedes. Referee in Biomolecules journal 2018
- Pia Español. Associate-Professor in Clinical Practices in Gynecology and Obstetrics. Degree in Medicine (Campus Sant Pau - Universitat Autònoma de Barcelona). Barcelona, Academic Course 2016, 2017 and 2018.
- Pia Español. Associate-Professor in Study Abroad Program of Universitat Autònoma de Barcelona, Degree in Medicine (Universidad Popular Autónoma del Estado de Puebla, México). Barcelona, June 2018.

Communications to congresses

- Pia Español Lloret; Cristina Soler Moreno; Rocio Luna Guibourg; Ramon Rovira Negre. Laparoscopic approach of pelvic adenopathic conglomerate and para-aortic lymphadenectomy. Video. 34 Reunión Nacional de la Sección de Ginecología, Oncología y Patología Mamaria de la SEGO. Barcelona, 2018.
- Pia Español Lloret; Cristina Soler Moreno; Rocio Luna Guibourg; Ramon Rovira Negre. Surgical staging impact on Endometrial Cancer at the Hospital de la Santa Creu i Sant Pau. Poster presentation. 34 Reunión Nacional de la Sección de Ginecología, Oncología y Patología Mamaria de la SEGO. Barcelona, 2018.
- Pia Español Lloret; Cristina Soler Moreno; Rocio Luna Guibourg; Ramon Rovira Negre. Extraperitoneal Laparoscopic Para-aortic Lymphadenectomy. Video. 34 Reunión Nacional de la Sección de Ginecología, Oncología y Patología Mamaria de la SEGO. Barcelona, 2018.

AREA T1

Epidemiology, Pub Healthcare Service

216 Clinical Epidemiology and Healthcare Services

223 Evaluation of Public Health Policies and Programmes

226 Transport and Health: Injuries and Mobility

229 Transmissible Diseases

234 Health Inequalities

237 Epidemiology of Addictions

239 Primary Care Research

lic Health and
s

AREA T1 · Epidemiology, Public Health and Healthcare Services

Clinical Epidemiology and Healthcare Services

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Members
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Alonso Coello, Pablo Ignacio (IR)
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Bolíbar Ribas, Ignasi (FGS)
Canelo Aybar, Carlos Gilberto (CIBERESP)
Cánovas Martínez, Leonor Esther (ACCIB)
Cervera Alepuz, Andrea (ACCIB)
Gich Saladich, Ignasi Josep (FGS)
Girós Boixadós, Meritxell (IR)
Gorgues Sendra, Marta (FGS)
Martínez García, Laura (FGS)
Martínez Zapata, María José (IR)
Merchán Galvis, Ángela María (IR)
Millán Portillo, Olga (external entity)
Múñoz Gallarín, María Trinidad (ACCIB)
Niño de Guzman Quispe, Ena Pery (IR)
Pardo Hernández, Héctor (CIBERESP)
Pérez Bracchiglione, Javier (ACCIB)
Popova, Ekaterina (IR)
Puchol Sánchez, Cristina (ACCIB)
Puig Reixach, Maria Teresa (FGS)
Quintana Ruíz, María Jesús (FGS)
Rabassa Bonet, Montserrat (IR)
Requeijo Lorenzo, Carolina (FGS)
Rigau Comas, David (ACCIB)
Robleda Font, Gemma (ACCIB)
Rocha Calderon, Claudio Alfonso (IR)
Roqué Fíguls, Marta Cristina (IR)
Salas Gama, Karla Rocío (FGS)
Samsó Jofra, Laura (FGS)
Solà Arnau, Ivan (FGS)
Solà Roca, Judit (FGS)
Song, Yang (UAB)
Sucuple Obregón, Stefanie Chriss (ACCIB)
Urrútia Cànovas, Xavier (ACCIB)
Urrútia Cuchí, Gerard (FGS)
Valli, Claudia (IR)
Vázquez Niebla, Juan Carlos (ACCIB)

Main Lines of Research

Main lines of research

- Evidence-based medicine: systematic reviews, clinical practice guidelines and clinical trials.
- Health service evaluations.
- Methodological research.

Areas of interest

- Evidence-based medicine.
- Cancer.
- Perioperative medicine.
- Cardiovascular medicine.
- Public health.
- Appropriateness.

Scientific Challenges

- To develop and promote systematic-review production about the effects of healthcare interventions, in order to contribute to healthcare and clinical decision-making based on the best available scientific evidence.
- To promote national and international clinical and applied research projects that will contribute with new knowledge to solve clinical or healthcare problems that are relevant to the needs of the system (applied clinical studies, healthcare services assessment studies, clinical trials).
- To foster, organise and/or conduct training activities in order to promote healthcare professionals' acquisition of skills and knowledge on Evidence-Based Medicine (EBM) tools.
- To promote methodological research projects aiming to provide guidance and tools to improve scientific information analysis, interpretation and communication.
- To develop knowledge transfer activities (clinical practice guidelines) and scientific-knowledge dissemination tools.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Addictive Behaviours
- Anaesthesiology
- Angiology, Vascular Biology and Inflammation
- Blood and Tissue Bank
- Central Clinical Research and Clinical Trials Unit
- Clinical and Translational Cardiology
- Clinical Oncology
- Evaluation of Public Health Policies and Programmes - Public Health Agency of Barcelona
- Locomotor System Research
- Palliative Care
- Plastic Surgery
- Primary Care Research - EAP Sardenya
- Thrombosis and Haemostasis
- Urology
- Women and Perinatal Health Research

External Collaborations

- Population Health Research Institute, Mc-Master University (Canada).
- Clinical Trial Service Unit and Epidemiological Studies Unit, University of Oxford (United Kingdom).
- European Respiratory Society.
- Facultad de Ciencias de la Salud, Universidad Tecnológica Equinoccial (Ecuador).
- GRADE Working Group.
- Guidelines International Network.
- Cochrane Collaboration.
- Joint Research Centre - European Commission.
- Applied Health Research Center - Saint Michael's Hospital (Canada).
- Universitat Pompeu Fabra – Nutrimedia.

Active Grants

- Xavier Bonfill Cosp. Centro de Investigación Biomédica en Red de Epidemiología y Salud Pública. CB06/02/1010. Ministerio de Sanidad y Política Social. Duration: 2007-2018. 390,174.30 €.
- Pablo Ignacio Alonso Coello. La toma de decisiones compartida en cáncer de pulmón. Proyectos Singulares 2013. Associación Española Contra el Cáncer. Duration: 2014-2018. 54,000 €.
- Pablo Ignacio Alonso Coello. Contratos Miguel Servet II 2015. MSII15/00034. Instituto de Salud Carlos III. Duration: 2016-2019. 101,250 €.
- Xavier Bonfill Cosp. Estudio de adecuación de la terapia hormonal intermitente en pacientes con cáncer de próstata. PI15/00886. Instituto de Salud Carlos III. Duration: 2016-2019. 81,500 €.
- Laura Martínez García. Elaboración de una herramienta de priorización para la actualización de preguntas clínicas y aplicación a las guías de práctica clínica del Sistema Nacional de Salud. PI15/00325. Instituto de Salud Carlos III. Duration: 2016-2020. 50,000 €.
- María José Martínez Zapata. Contratos Miguel Servet I 2015. MS15/00116. Instituto de Salud Carlos III. Duration: 2016-2021. 202,500 €.
- María José Martínez Zapata. International, multi-centre, randomized controlled trial to assess transfusion thresholds in patients undergoing cardiac surgery (TRICS III). CP15/00116. Instituto de Salud Carlos III. Duration: 2016-2020. 114,350 €.
- Pablo Ignacio Alonso Coello. Perioperative myocardial ischemia: implementation of troponin monitoring, economic analysis and further insights in pathophysiology. MARATO 20150110. Fundació La Marató de TV3. Duration: 2016-2019. 159,202.88 €.
- Laura Martínez García. Contratos Juan Rodés 2015. JR15/00004. Instituto de Salud Carlos III. Duration: 2016-2019. 135,000 €.
- Ekaterine Popova. Mecanismos implicados en la lesión miocárdica perioperatoria: estudio mediante angiografía coronaria computerizada y resonancia magnética cardíaca. PI16/01162. Instituto de Salud Carlos III. Duration: 2017-2019. 74,500 €.
- María José Martínez Zapata. Ensayo clínico aleatorizado multicéntrico paralelo en pacientes antiagregados con fractura pertrocantérea de fémur que evalua una estrategia para acortar el tiempo hasta la cirugía. PI16/01879. Instituto de Salud Carlos III. Duration: 2017-2019. 71,500 €.
- Montserrat Rabassa Bonet. Contractes postdoctorals "Sara Borrell" 2016. CD16/00157. Instituto de Salud Carlos III. Duration: 2017-2019. 80,598 €.
- Pablo Ignacio Alonso Coello. COMPAR-EU - Comparing effectiveness of self-management interventions in 4 high priority chronic diseases in Europe. 754936-IR. European Union. Duration: 2018-2022. 456,109 €.
- Gerard Urrútia Cuchí. The effect of additional core stability exercises on improving dynamic sitting balance, trunk control and functional rehabilitation for subacute stroke patients: A randomized controlled trial. MARATO 20173710. Fundació La Marató de TV3. Duration: 2018-2021. 159,530 €.
- Ena Pery Niño de Guzman Guispe. Contractes de formació en recerca "Río Hortega" 2017. CM17/00199. Instituto de Salud Carlos III. Duration: 2018-2019. 53,732 €.
- Pablo Ignacio Alonso Coello. La toma de decisiones compartida de la terapia tromboprofiláctica durante el embarazo: el valor añadido del método de Análisis de Decisión. PI17/01874. Instituto de Salud Carlos III. Duration: 2018-2020. 52,000 €.
- Pablo Ignacio Alonso Coello. COMPAR-EU - Comparing effectiveness of self-management interventions in 4 high priority chronic diseases in Europe. 754936-FGS. European Union. Duration: 2018-2022. 180,120 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Ángela María Merchán Galvis, Evaluación de intervenciones para disminuir el riesgo de sangrado y/o trombosis asociada a la cirugía por fractura proximal de fémur. FI17/00190, Instituto de Salud Carlos III. Duration: 2018-2022, 82,400 €.
- Xavier Bonfill Cosp, Grup de Recerca Clínica i Sanitària Aplicada. 2017 SGR 01760, Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- María José Martínez Zapata, Ensayo clínico que evalúa la factibilidad de una estrategia basada en una prueba diagnóstica para acortar el tiempo de cirugía de los pacientes antiagregados que presentan una fractura de fémur, IR17-MS5, Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2018, 10,500 €.
- Pablo Ignacio Alonso Coello, La toma de decisiones compartida en cáncer de pulmón., IR17-MS3, Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2018, 10,500 €.
- Xavier Bonfill Cosp, Análisis y mejora de adecuación de la prescripción de quimioterapia al final de la vida., PI18/00034, Instituto de Salud Carlos III. Duration: 2019-2021, 56,000 €.
- Alba Maria Antequera Martín, Contractes Río Hortega 2018. CM18/00141, Instituto de Salud Carlos III. Duration: 2019-2021, 53,732 €.
- María José Martínez Zapata, Diseño e implementación de ensayos clínicos multicéntricos y de ámbito internacional focalizados principalmente en la seguridad del paciente quirúrgico. MV18/00028, Instituto de Salud Carlos III. Duration: 2019, 4,880 €.
- Laura Martínez García, Evaluation of primary school resources from the Informed Health Choices project in improving the ability of Spanish children to assess claims about treatments. CP18/00007, Instituto de Salud Carlos III. Duration: 2019-2024, 202,500 €.
- Montserrat León García, La toma de decisiones compartida de la terapia tromboprofiláctica durante el embarazo: el valor añadido del método de análisis de decisión. FI18/00014, Instituto de Salud Carlos III. Duration: 2019-2023, 82,400 €.
- Ignasi Bolibar Ribas, Optimisation of antibiotic prescription in acute non-complicated respiratory tract infections in children: a multicenter randomised controlled clinical trial with a 2x2 factorial design to assess two strategies targeting health professionals and pare, MARATO 20180410, Fundació La Marató de TV3. Duration: 2019-2022, 159,718.50 €.
- Pablo Ignacio Alonso Coello, COCOCARE-European partnership on Competencies for high Value Cost Concious Care., 2018-1-NL01-KA203-039070, Unió Europea. Duration: 2018-2021, 43,288 €.

- Laura Martínez García, Evaluation of primary school resources from the Informed Health Choices project in improving the ability of Spanish children to assess claims about treatments. CP18/00007(P), Instituto de Salud Carlos III. Duration: 2019-2022, 40,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Bonfill Cosp X.: Premi "Jaume Aiguader i Miró". Fundació Acadèmia de Ciències Mèdiques i de la Salut de Catalunya i de Balears. Translation, publication and dissemination in Catalan of the book "Testing Treatments. Better Research for Better Healthcare". Catalan title: "Els tractaments, a prova. Millor recerca per millorar la salut".
- Giné A, Fité J, Riera C, Puig T, Escudero JR, Bellmunt S. Estimación Individual del diámetro aórtico infrarenal normal. Comunicación oral. 64 Congreso SEACV. Prize for the best oral communication in the field of vascular diagnosis. Madrid, España 2018.

Doctoral Theses

- José Domingo Alarcón. Evidencias científicas relacionadas con los accidentes de tráfico y su manejo clínico del trauma craneoencefálico: estudio comparativo, revisión sistemática y evaluación de guías de práctica clínica. Universitat Autònoma de Barcelona. Directors: Xavier Bonfill Cosp, Gerard Urrútia Cuchí. Date of defense: 04/12/2018.
- Robin Wilhelmus Maria Vernooij. Updated clinical guidelines: improving their methods and reporting, Universitat Autònoma de Barcelona. Directors: Pablo Alonso Coello, Laura Martínez García. Date of defense: 16/02/2018.
- Lyda Zoraya Rojas Sánchez. Aportes al entendimiento de la cardiomiopatía chagásica: electrocardiografía, ecocardiografía y biomarcadores. Universitat Autònoma de Barcelona. Director: Maria Teresa Puig Reixach. Date of defense: 12/12/2018.

Scientific Production

Total Impact Factor: 277.46 · Mean Impact Factor: 5.3358

Alonso-Coello P., Schunemann H.J., Moberg J., Brignardello-Petersen R., Akl E.A., Davoli M., Treweek S., Mustafa R.A., Rada G., Rosenbaum S., Morelli A., Guyatt G.H., Oxman A.D., GRADE Evidence to Decision (EtD) frameworks: a systematic and transparent approach to making well informed healthcare choices. 1: Introduction Marcos GRADE de la evidencia a la decisión (EtD): un enfoque sistemático y transparente para tomar decisiones sanitarias bien informadas. 1: Introducción (2018) GAC SANIT, 32 (2), 166.e1-166.e10. **IF: 1.5810**

Alonso-Coello P., Oxman A.D., Moberg J., Brignardello-Petersen R., Akl E.A., Davoli M., Treweek S., Mustafa R.A., Vandvik P.O., Meerpohl J., Guyatt G.H., Schunemann H.J., GRADE Evidence to Decision (EtD) frameworks: a systematic and transparent approach to making well informed healthcare choices. 2: Clinical practice guidelines Marcos GRADE de la evidencia a la decisión (EtD): un enfoque sistemático y transparente para tomar decisiones sanitarias bien informadas. 2: Guías de práctica clínica (2018) GAC SANIT, 32 (2), 167.e1-167.e10. **IF: 1.5810**

Andrade Miranda A., Franco J.V., Sanclemente G., Kuah C.Y., Yu A.M., Shpadaruk V., Roquei Figuls M., Martin-Lopez J.E., Chua S., Interventions for pruritus of unknown cause (2018) COCHRANE DB SYST REV, 2018 (9). **IF: 6.7540**

Asenjo-Lobos C., Fonseca C., Leucht S., Garcia-Ribera C., Cortes-Jofre M., Clozapine versus quetiapine for people with schizophrenia (2018) COCHRANE DB SYST REV, 2018 (12). **IF: 6.7540**

Asenjo-Lobos C., Cortes-Jofre M., Fonseca C., Leucht S., Madrid E., Bonfill Cosp X., Clozapine versus risperidone for people with schizophrenia (2018) COCHRANE DB SYST REV, 2018 (12). **IF: 6.7540**

Ballesteros-Urpi A., Pardo-Hernandez H., Ferrero-Gregori A., Torralbas-Ortega J., Punti-Vidal J., Tapies Olivet P., Izaguirre Eguren J., Verges Balasch P., Lara Lloveras A., Bertomeu S., Peramiquel M., Herreros V., Vidal A., Font E., Romero S., Garcia M., Lazaro L., Morer A., Validation of the Spanish and Catalan versions of the Health of the Nation Outcome Scale for Children and Adolescents (HoNOSCA) (2018) PSYCHIAT RES, 261, 554-559. **IF: 2.2230**

Bonfill X., Arevalo-Rodriguez I., Garcia L.M., Quintana M.J., Buitrago-Garcia D., Urbina D.L., Cordero J.A., Intermittent androgen deprivation therapy: Recommendations to improve the management of patients with prostate cancer following the GRADE approach (2018) CANCER MANAG RES, 10, 2357-2367. **IF: 3.7020**

Buse G.L., Manns B., Lamy A., Guyatt G., Polanczyk C.A., Chan M.T.V., Wang C.Y., Villar J.C., Sigamani A., Sessler D.I., Berwanger O., Biccard B.M., Pearse R., Urrutia G., Szczeklik R.W., Garutti I., Srinathan S., Malaga G., Abraham V., Chow C.K., Jacka M.J., Tiboni M., Ackland G., Macneil D., Sapsford R., Leuwer M., Le Manach Y., Devereaux P.J., Troponin T monitoring to detect myocardial injury after noncardiac surgery: A cost-consequence analysis (2018) CAN J SURG, 61 (3), 185-194. **IF: 2.2390**

Climent E., Benaiges D., Pedro-Botet J., Goday A., Sola I., Ramon J.M., Roux J.A.F.-L., Checa M.A., Laparoscopic Roux-en-Y gastric bypass vs. Laparoscopic sleeve gastrectomy for morbid obesity: A systematic review and meta-analysis of lipid effects at one year postsurgery (2018) MINERVA ENDOCRINOL, 43 (1), 87-100. **IF: 1.2600**

Coll-Planas L., Blancafort S., Rojano X., Roque M., Monteserin R., Promoting self-management, health literacy and social capital to reduce health inequalities in older adults living in urban disadvantaged areas: Protocol of the randomised controlled trial AEQUALIS (2018) BMC PUBLIC HEALTH, 18 (1). **IF: 2.4200**

Devereaux P.J., Duceppe E., Guyatt G., Tandon V., Rodseth R., Biccard B.M., Xavier D., Szczeklik W., Meyhoff C.S., Vincent J., Franzosi M.G., Srinathan S.K., Erb J., Magloire P., Neary J., Rao M., Rahate P.V., Chaudhry N.K., Mayosi B., de et al., Dabigatran in patients with myocardial injury after non-cardiac surgery (MANAGE): an international, randomised, placebo-controlled trial (2018) LANCET, 391 (10137), 2325-2334. **IF: 53.2540**

Florez I.D., Veroniki A.-A., Al Khalifahn R., Yepes-Nunez J.J., Sierra J.M., Vernooij R.W.M., Acosta-Reyes J., Granados C.M., Perez-Gaxiolan G., Cuello-Garcia C., Zea A.M., Zhang Y., Foroutan N., Guyatt G.H., Thabane L., Comparative effectiveness and safety of interventions for acute diarrhea and gastroenteritis in children: A systematic review and network meta-analysis (2018) PLOS ONE, 13 (12). **IF: 2.7660**

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Gomez A., Puig T., Obradors X., Diminish electrostatic in piezoresponse force microscopy through longer or ultra-stiff tips (2018) APPL SURF SCI, 439, 577-582. **IF: 4.4390**

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dergoing fertility treatment (2018) COCHRANE DB SYST REV, 2018 (10). **IF: 6.7540**

Johnston B.C., Alonso-Coello P., Bala M.M., Zeraatkar D., Rabassa M., Valli C., Marshall C., El Dib R., Vernooij R.W.M., Vandvik P.O., Guyatt G.H., Methods for trustworthy nutritional recommendations NutriRECS (Nutritional Recommendations and accessible Evidence summaries Composed of Systematic reviews): A protocol (2018) BMC MED RES METHODOL, 18 (1). **IF: 2.5240**

Jordan M., Aguilera X., Gonzalez J.C., Castillon P., Salomo M., Hernandez J.A., Ruiz L., Mora J.M., Camacho-Carrasco P., Prat-Fabregat S., Bosch A., Rodriguez-Arias A., Martinez-Zapata M.J., Prevention of postoperative bleeding in hip fractures treated with prosthetic replacement: efficacy and safety of fibrin sealant and tranexamic acid. A randomised controlled clinical trial (TRANEXFER study) (2018) ARCH ORTHOP TRAUM SU. **IF: 1.9670**

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Marti-Fabregas J., Medrano-Martorell S., Merino E., Prats-Sanchez L., Marin R., Delgado-Mederos R., Camps-Renom P., Martinez-Domeno A., Gomez-Choco M., Lara L., Casado-Naranjo I., Canovas D., Torres M.J., Freijo M., Calleja A., Bravo Y., et al., Statins do not increase Markers of Cerebral Angiopathies in patients with Cardioembolic Stroke (2018) SCI REP-UK, 8 (1). **IF: 4.1220**

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Martinez-Esain J., Faraudo J., Puig T., Obradors X., Ros J., Ricart S., Yanez R., Tunable Self-Assembly of YF3 Nanoparticles by Citrate-Mediated Ionic Bridges (2018) J AM CHEM SOC, 140 (6), 2127-2134. **IF: 14.3570**

Martinez-Zapata M.J., Mathioudakis A.G., Mousa S.A., Bauersachs R., Tinzaparin for Long-Term Treatment of Venous Thromboembolism in Patients With Cancer: A Systematic Review and Meta-Analysis (2018) CLIN APPL THROMB-HEM, 24 (2), 226-234. **IF: 1.8520**

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Moberg J., Oxman A.D., Rosenbaum S., Schunemann H.J., Guyatt G., Flottorp S., Glenton C., Lewin S., Morelli A., Rada G., Alonso-Coello P., The GRADE Evidence to Decision (EtD) framework for health system and public health decisions (2018) HEALTH RES POLICY SY, 16 (1). **IF: 2.1790**

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- Requeijo C., Salas K., Merchan A., Quintana M.J., Bonfill X. DianaHealth.com: a useful tool that promotes appropriateness in healthcare. 5ª International Conference on Preventive Overdiagnosis. Copenhagen, Dinamarca. 2018

- Salas K., Requeijo C., Merchan A., Quintana M.J., Medarde E., Sánchez A., Bonfill X. on behalf of the DianaSalud Survey Group. A survey to assess the awareness of, and agreement with initiatives and recommendations about low-value diagnostic practices. 5ª International Conference on Preventive Overdiagnosis. Copenhagen, Dinamarca. 2018.
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- Lopez-Alcalde J. , Stallings E. , Cabir Nunes S. , Daheron M. , Fernández-Chávez A., Fernandez-Felix BM., Bonfill Cosp X., Zamora J. Sex and Gender Appraisal Tool for Systematic Reviews (SGAT-SR): impact on the consideration of sex and gender in Cochrane Reviews of interventions to prevent healthcare associated infections. 25th Colloquium Cochrane. Edinburgh, UK. 2018.
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- Armora M., Robleda G., Puig T. "Efectividad de una aplicación para smartphone en pacientes de cirugía mayor ambulatoria". Comunicación Oral. II Congrès d'Inferemeres Directives de Catalunya. Barcelona. 2018.
- Giné A., Fité J., Riera C., Puig T., Escudero JR., Bellmunet S. Estimación Individual del diámtro aórtico infrarenal normal. Comunicación oral. 64 Congreso SEACV. Madrid. Premio a la mejor comunicación oral en l'àmbit del diagnòstic vascular. 2018
- Escobar B., Redondo M., Joseph J., Gil J., Zamora S., Puig T. Programa Piloto de Cribado Poblacional de Aneurisma de Aorta Abdominal mediante ecografía realizada en Atención Primaria.XXXVIII Congreso de la SEMFYC. Barcelona. 2018.
- Sitjà i Rabert M., Pardo-Hernandez H. Research in Physiotherapy: identification of clinical trials conducted in Spain. Oral presentation at the I International Physiotherapy Congress; Barcelona, Spain. 2018.
- Cabanas Valdés R., Urrútia G., Calvo Sanz J., Serra Llobet P., Rodríguez Rubio P., Germán Romero A. La efectividad de la terapia por ondas de choque para reducir la espasticidad de la extremidad inferior en pacientes que han sufrido un ictus. Revisión Sistemática y Metaanálisis. XVI Jornadas de la Sociedad Española de Neurorrehabilitación. Sevilla, Spain. 2018.

AREA T1 · Epidemiology, Public Health and Healthcare Services

Evaluation of Public Health Policies and Programmes

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Main Lines of Research

- Evaluation of Public Health Policies and Programmes.
- Monitoring of behaviours and other health risk factors such as environmental exposure.
- Process and impact evaluation of public health programmes and services (schoolbased prevention programmes for obesity, smoking, alcohol and cannabis consumption, breast cancer screening programmes and memory training workshops for elderly people) and public policies (Barcelona mental health action plan, energy poverty, guaranteed minimum income, "superilles").
- Evaluation of ICT innovation in public health.
- Evaluation of food contaminants.

Scientific Challenges

- Promote research into the evaluation of policies and programmes.
- Support the debate on conceptual and methodological aspects of results evaluation in prevention and health promotion.
- Consolidate the group's research, fostering less developed aspects such as financial assessment and evaluation of health protection interventions.
- Develop a theoretical corpus of concepts, principles, methods and examples that contribute to filling the gap in underand postgraduate teaching regarding the design and evaluation of risk prevention and health promotion interventions.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Clinical Epidemiology and Healthcare Services (PI: Xavier Bonfill).
- Transport and Health: Injuries and Mobility (PI: Catherine Pérez).
- Health Inequalities (PI: Carme Borrell).
- Epidemiology of Addictions (PI: M. Teresa Brugal).

External Collaborations

- CIBER-Epidemiology and Public Health (Group 18: Evaluation of public health policies and programmes).
- CIBER-Obesity and Nutrition (Group PI: Fernando Fernández de Aranda).
- AGAUR Consolidated Research Group (Evaluation of public health policies and programmes).
- Tobacco Working Group of the Spanish Epidemiology Society.
- Social Determinants Group of the Spanish Epidemiology Society.
- Foreign universities: Johns Hopkins University, USA.
- Spanish universities: Universitat Pompeu Fabra, Universitat Ramon Llull, Universitat de Vic, Universitat Internacional de Catalunya, Universitat Oberta de Catalunya, Universidad de Santiago de Compostela, Universidad de Alcalá de Henares.
- Primary care centres: Ciutat Meridiana, Roquetes, Sant Rafael and Sardenya (Barcelona).
- Catalan Institute of Oncology (ICO).
- Municipal bodies: Barcelona Sports Institute (IBE), Barcelona Municipal Institute of Education (IME).
- Regional bodies: Public Health Agency of Catalunya (Promoting Health through Physical Activity and Healthy Eating Plan) and Catalan Health Information and Quality Agency (AQUAS).
- Other bodies: Catalan Recreation Foundation (FCE).
- Companies: Fontvella and Danone (Health Affairs Departments).

Active Grants

- Rosa Puigpinós Riera. Influencia de determinantes sociales, estilos de vida, bienestar emocional y uso de terapias no convencionales en la evolución del cáncer de mama en una cohorte de mujeres diagnosticadas. PI13/01977. Instituto de Salud Carlos III. Duration: 2014-2018. 64,470 €.
- Carles Ariza Cardenal. Diseño y evaluación de la efectividad de una intervención de prevención selectiva del consumo de alcohol y cannabis en jóvenes vulnerables en el ámbito comunitario. 2015I070. Ministeri de Sanitat, Serveis Socials i Igualtat. Duration: 2016-2018. 61,773 €.
- Carles Ariza Cardenal. Evaluación de un proyecto de prevención integral de la obesidad infantil en la etapa pre-escolar en Barcelona (proyecto POIBA-2ª fase). PI16/00701. Instituto de Salud Carlos III. Duration: 2017-2019. 66,500 €.
- María José López Medina. Exposición al humo ambiental y residual del tabaco en niños y niñas: cohorte HUMO. PI17/01359. Instituto de Salud Carlos III. Duration: 2018-2020. 73,000 €.
- María José López. Tackling secondhand tobacco smoke and e-cigarette emissions: exposure assessment, novel interventions, impact on lung diseases and economic burden in diverse European populations (project ID: 681040). European Commission (H2020). Duration: 2015-2019. 426,940.97 €.

Note: Total amount granted to PI. It does not include indirect costs.

Doctoral Theses

- Teresa Arechavala Roé. Exposición al humo ambiental de tabaco en población infantil: prevalencia, intensidad y factores asociados a la exposición en casa. Universitat Pompeu Fabra. Director: María José López Medina. Date of defense: 08/11/2018.

Transfer Products

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- Nuria Calzada, Carles Ariza, Lucía Artazcoz, Elia Díez, Ana Fernández, Olga Juárez, Esperanza Peracho, Catherine Pérez, Pilar Ramos, Iolanda Robles, Llanos Roldán, Maria Salvador. Promoció de l'alimentació saludable i activitat física als barris de Barcelona ciutat. ASPB, Barcelona, July 2018.
- Elena Santamariña-Rubio, Gemma Serral, Catherine Pérez, Carles Ariza and collaborator group poll FRESC 2016. La salut i els seus determinants en l'alumnat adolescent. Enquesta FRESC 2016. ASPB, Barcelona 2018.
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Scientific Production

Total Impact Factor: 55.624 · Mean Impact Factor: 2.2250

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Arechavala T, Continente X, Pérez-Ríos M, Schiaffino A, Fernandez E, Cortés-Francisco N, Centrich F, Muñoz G, López MJ. Second-hand smoke exposure in homes with children: assessment of airborne nicotine in the living room and children's bedroom. Tobacco Control. 2018 Jul;27(4):399-406. PMID:28822971. DOI: 10.1136/tobaccocontrol-2017-053751 **IF: 4.151.**

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Garcia-Altes A., Peiro M., Artells J.J., Prioritising measures for consolidating shared decision-making in the services rendered by the Spanish National Health System Priorización de medidas para la consolidación de la toma de decisiones compartidas en las prestaciones del Sistema Nacional de Salud español (2018) GAC SANIT. **IF: 1.5810**

Graells-Sans A., Serral G., Puigpinos-Riera R., Social inequalities in quality of life in a cohort of women diagnosed with breast cancer in Barcelona (DAMA Cohort) (2018) CANCER EPIDEMIOL, 54, 38-47. **IF: 2.8880**

Lletjos P., Continente X., Arechavala T., Fernandez E., Schiaffino A., Perez-Rios M., Lopez M.J., Association between exposure to second-hand smoke and health status in children Asociación entre el humo ambiental de tabaco y el estado de salud en la población infantil (2018) GAC SANIT. **IF: 1.5810**

Lobato-Pajares M.T., Villalbi J.R., Public health services: reading their available reports Los servicios de salud pública: una lectura de los informes disponibles (2018) GAC SANIT. **IF: 1.5810**

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Serra-Picamal X., Roman R., Escarrabill J., Garcia-Altes A., Argimon J.M., Soler N., Faner R., Carbonell E.M., Trilla A., Agusti A., Hospitalizations due to exacerbations of COPD: A big data perspective (2018) RESP MED, 145, 219-225. **IF: 3.2300**

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Vela E., Tenyi A., Cano I., Monterde D., Cleries M., Garcia-Altes A., Hernandez C., Escarrabill J., Roca J., Population-based analysis of patients with COPD in Catalonia: A cohort study with implications for clinical management (2018) BMJ OPEN, 8 (3). **IF: 2.4130**

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Other Publications

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- Ruiz-Muñoz D, Aguado H, García-Altés A. [What kind of health information does the public need? Results of a qualitative study]. Journal of Healthcare quality research. 2018 May-Jun;33(3):130-135.

Books or Chapters with ISBN

- Hernandez-Aguado I, Villalbí JR. Public-private interaction with the alcohol industry and failures in the regulation of alcohol in Spain. In: Public health and the food and drinks industry: the governance and ethics of interaction. Lessons from research, policy and practice. UK Health Forum, 2018; 96-101. ISBN E-version: 978-1-874279-16-7

Diffusion Activities

Courses

- Tamar Mendelson, Carles Ariza. Prevention of Mental Disorders: Public Health Interventions. Fall Institute Johns Hopkins Bloomberg School of Public Health. November 19-21, 2018. Barcelona
- Carles Ariza, Tamar Mendelson. The Evaluation of the Barcelona Action Plan on Mental Health. Fall Institute Johns Hopkins Bloomberg School of Public Health. November 22, 2018. Barcelona.
- Mary Sheehan, Joan Ramon Villalbí. Current Issues in Policy Analysis: Advanced Issues at the Forefront of Climate Change and Health Policy and Practice. November 26-27, 2018. Barcelona.
- Mª José López. Avaluació de polítiques i programes en salut pública. Departament de Salut. Barcelona, November 2018.
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- Carles Ariza, Francesca Sánchez. II Curs de Disseny d'Intervencions de Promoció de la Salut. May-June 2018.
- Carles Ariza. Curs sobre Estils de Vida i Addiccions. EASP - País Basc (Donosti). April 2018.
- Mª José López. Taller d'intervencions comunitaries: sessió d'avaluació. Mensual.

Communications to congresses

- F. Sánchez-Martínez. Oral communication: Incidencia y factores predictores de la obesidad en escolares de 8 a 10 años de la ciudad de Barcelona. XXXVI Reunión Científica de la Sociedad Española de Epidemiología. Lisboa, 11-14 September 2018.
- X. Continente. Oral communication: Percepción de los padres y madres del riesgo para la salud de la exposición al humo ambiental de tabaco en menores. XXXVI Reunión Científica de la Sociedad Española de Epidemiología. Lisboa, 11-14 September 2018.
- X. Continente. Oral communication: Factores asociados a la exposición al humo ambiental de tabaco y a las normas de consumo de tabaco en el hogar. XXXVI Reunión Científica de la Sociedad Española de Epidemiología. Lisboa, 11-14 September 2018.
- R. Puigpinós. Oral communication: Fatiga en mujeres supervivientes de larga duración de cáncer de mama: Cohort DAMA. XXXVI Reunión Científica de la Sociedad Española de Epidemiología. Lisboa, 11-14 September 2018.

Conferences

- Carles Ariza. Alimentació i Salut. Trobada de Salut Pública 2018. Consorci de Salut i Social de Catalunya. Barcelona, 6 November 2018.
- Francesca Sánchez. Projecte de prevenció de l'obesitat infantil a Barcelona (POIBA). IX Jornada d'Infermeria Pediàtrica. Lleida 16 March 2018
- Mª José López. Exposició al fum ambiental de tabac en nens i nenes: evidència científica per a l'acció. VIII Jornada de la Societat Catalana d'Atenció i Tractament del Consum de Tabac. Barcelona, 2 February 2018.

AREA T1 · Epidemiology, Public Health and Healthcare Services

Transport and Health: Injuries and Mobility

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Main Lines of Research

- Health impacts of urban health, including housing, urban planning and mobility.
- Public health injury surveillance.
- Evaluation of road safety strategies at the urban level.
- Indicators of mobility exposure and risk of traffic injuries.
- Determinants of walking as a mode of transport.
- Health impact assessment of active transport (walking and cycling).
- Inter-sector policies in transport: impact on sustainable environment, health and equity.

Scientific Challenges

- Study of the nature of injuries and their severity according to the characteristics of the collision and the vehicles involved, particularly in urban settings.
- Evaluate road safety policies and interventions.
- Calculation of risk indicators using mobility exposure.
- Study motorized and non-motorized mobility and its impact on health.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Health Inequalities (PI: Carme Borrell)

External Collaborations

- All members of the group are members of the group of Social Inequalities of CIBERESP (Consorcio de Investigación Biomédica de Epidemiología y Salud Pública).
- The IP of the group is member of the European Committee of the Transport and Health Study Group (THSG) (UK).
- Joint action on monitoring injuries in Europe (JAMIE) (European Agency for Health and Consumers).
- Member of the Scientific Comitee of the Institut Français des Sciences et Technologies des Transports, de l'Amenagement et de Réseaux (IFSTTAR) since 2016.
- Partners of the Safety CaUsation, Benefits and Efficiency (SafetyCube) (H2020 N. 633485), a research project funded by the European Commission under the Horizons 2020.
- Partners of the Participatory Urban Living for Sustainable Environments (PULSE) (H2020 N. 727816), a research project funded by the European Commission under the Horizons 2020.
- Partners of the Pan-European urban Climate Services (PUCS) (H2020 N 730004) , a research project funded by the European Commission under the Horizons 2020.
- Safety indicators for cities IRTAD Cities (Joint Transport Research Centre of the OECD and the International Transport Forum (JTRC)).

Active Grants

- Catherine Pérez. Environmental, health effects and health inequalities of Superblocks in Barcelona (Salut als Carrers). Vital Strategies. Partnership for Healty Cities. Duration: 2018-2019. 80,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Ana Novoa Pardo. Impacto en salud y bienestar de la vivienda cooperativa en cesión de uso., PI18/01761, Instituto de Salud Carlos III. Duration: 2019-2021. 62,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 10.763 · Mean Impact Factor: 1.7938

Colell E., Sanchez-Ledesma E., Novoa A.M., Daban F., Fernandez A., Juarez O., Perez K., Community health assessment of the programme "Barcelona Health in the Neighbourhoods". Methodology for a participatory process El diagnóstico de salud del programa Barcelona Salut als Barris. Metodología para un proceso participativo (2018) GAC SANIT, 32 (4), 396-399. **IF: 1.5810**

Novoa A.M., Perez G., Espelt A., Echave C., de Olalla P.G., Calvo M.J., Pasarin M., Diez E., Borrell C., Calvo M.J., Cormenzana B., Cortes I., Diez E., Echave C., Espelt A., de Olalla P.G., Gomez J., Novoa A.M., Pallares M., Perez G., Rodriguez-Sanz M., The Experience of Implementing Urban HEART Barcelona: a Tool for Action (2018) J URBAN HEALTH, 95 (5), 647-661. **IF: 1.7380**

Perez K., Weijermars W., Bos N., Filtness A.J., Bauer R., Johannsen H., Nuyttens N., Pascal L., Thomas P., Olabarria M., Implications of estimating road traffic serious injuries from hospital data (2018) ACCIDENT ANAL PREV. **IF: 2.5840**

Sanchez-Ledesma E., Perez A., Vazquez N., Garcia-Subirats I., Fernandez A., Novoa A.M., Daban F., Community prioritization in Barcelona Salut als Barris program La priorización comunitaria en el programa Barcelona Salut als Barris (2018) GAC SANIT, 32 (2), 129-134. **IF: 1.5810**

Weijermars, W., Bos, N., Filtness, A., Brown, L., Bauer, R., Dupont, E., Martin, J.L., Perez, K., Thomas, P. Burden of injury of serious road injuries in six EU countries .(2018) ACCIDENT ANALYSIS AND PREVENTION, 111, pp. 184-192. DOI: 10.1016/j.aap.2017.11.040 **IF: 2.5840**

Weijermars W., Bos N., Schoeters A., Meunier J.-C., Nuyttens N., Dupont E., Machata K., Bauer R., Perez K., Martin J.-L., Johansson H., Filtness A., Brown L., Thomas P., Serious Road Traffic Injuries in Europe, Lessons from the EU Research Project SafetyCube (2018) TRANSPORT RES REC. **IF: 0.6950**

Books or Chapters with ISBN

- Pérez Katherine. Epidemiología y prevención de las lesiones por accidentes. Ed. Hernandez-Aguado I. Manual de epidemiología y salud pública: para grados en ciencias de la salud. Editorial Médica Panamericana 2018. ISBN-13: 978-8491101734.

Diffusion Activities

- Jornada científica sobre el canvi climàtic a Barcelona. Com afecta el canvi climàtic a la salut. With the participation of Jessica Amaro (SMC, Servei Meteorològic de Catalunya), Joan Ballester (ISGLOBAL) and Tomàs Montalvo (ASPB, Agència de Salut Pública de Barcelona) and moderated by Anna Gómez (ASPB). 9 November 2018.
- Katherine Pérez, Presentació de l'Estudi "La Salut Mental a Barcelona 2016". Saló de l'ocupació juvenil. 14-16 March 2018.
- H. Vásquez-Vera, L. Bordera, J. Carrere, BB. León-Gómez, K. Pérez, C. Borrell, &. PULSE Consortium. New technologies for the assessment of Superblocks' effects on health in Barcelona: the PULSE experience. XXXVI Reunión Anual de la Sociedad Española de Epidemiología (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Lisboa, September 2018.
- H. Vásquez-Vera, A. Fernández, AM. Novoa, L. Delgado, J. Barcala, C. Macías, C. Borrell, y. Grupo Fotovoz ASPB. Mediadores percibidos entre la inseguridad residencial y la salud: un estudio con la metodología fotovoz. XXXVI Reunión Anual de la Sociedad Española de Epidemiología (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Lisboa, September 2018.
- H. Vásquez-Vera, LP. Palència, AN. Novoa, CB. Borrell, Grupo de Investigación en Vivienda y Salud de la ASPB. ¿Qué sabemos sobre la inseguridad residencial y la salud? la experiencia del grupo de investigación en vivienda y salud de la ASPB. XXXVI Reunión Anual de la Sociedad Española de Epidemiología (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Lisboa, September 2018.
- J Carrere, AM Novoa, J Benach, Desigualdades en pobreza energética y salud en un contexto urbano del sud de Europa XXXVI Reunión Anual de la Sociedad Española de Epidemiología (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Lisboa, September 2018.
- Olabarria M, Clotas C, Férnandez A, E, Gallardo R, Daban F, Diéz E, Pérez K. Facilitadores y barreras para la participación infanto-juvenil en procesos de diagnóstico de salud comunitaria. Póster. XXXVI Reunión Anual de la Sociedad Española de Epidemiología (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Lisboa, September 2018.
- Catrina Clotas, Marta Olabarria, Ferran Daban, Anna Macià, Katherine Pérez, Elia Díez. La mirada de la población infantil en un diagnóstico de salud comunitario a través de la fotografía: una investigación cualitativa. XXXVI Reunión Anual de la Sociedad Española de Epidemiología (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Lisboa, September 2018. Póster.
- AM Novoa, M Rodríguez-Sanz, Limitaciones en la utilización del municipio de residencia del Boletín Estadístico de Defunción. XXXVI Reunión Anual de la Sociedad Española de Epidemiología (SEE) y XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Lisboa, September 2018.
- Pérez G, Colonia F, Puig-Barrachina V, Pasarín M, Pérez K, Artazcoz L, Rodríguez-Sanz M, Díez E, Borrell C., Diseño del plan para el abordaje de las desigualdades en salud en la actuación de la Agencia de Salud Pública de Barcelona. XXXVI Reunión Anual de la Sociedad Española de Epidemiología (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Lisboa, September 2018.
- Glòria Perez, Brenda Leon, Natalia Valero, Marc Rico, Marc Marí-Dell'Olmo, Laia Font, Catherine Perez, Anna Gomez, Maribel Pasarin y Helena Pañella. Diseño e implementación del sistema de vigilancia de los efectos en la salud de la contaminación del aire en Barcelona: VISCAB. XXXVI Reunión Anual de la Sociedad Española de Epidemiología (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Lisboa, September 2018.
- Brenda Biaani León-Gómez, Gloria Pérez, Natalia Valero, Laia Font, Marc Marí-Dell'Olmo, Marc Rico, Anna Gómez, Catherine Perez, Maribel Pasarín, Helena Pañella. Efectos a largo plazo de la contaminación del aire en la salud de la población en Barcelona. XXXVI Reunión Anual de la Sociedad Española de Epidemiología (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Lisboa, September 2018.
- M Marí-Dell'Olmo, J Barrera-Gómez, X Basagaña, L Font-Ribera, N Valero, BB León-Gómez, G Pérez, M Rico, A Gómez-Gutiérrez, M Pasarín, K Pérez, H Pañella. Impacto a corto plazo de la contaminación del aire sobre la salud en Barcelona. XXXVI Reunión Anual de la Sociedad Española de Epidemiología (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Lisboa, September 2018.

- A Puig-Ribera, I. Arumí-Prat, M. Solà, A. Codina, E. Cirera, BB. León-Gómez ,L. Palència ,C. Pérez. Evaluation of the Superblocks Program in Barcelona: Impact on Physical Activity and Sedentary Behavior. Urban Transitions. October 2018.
- BB. León-Gómez, G. Pérez, N. Valero, L. Font, M. Rico, M. Marí-Dell'Olmo, K. Perez, M. Pasarín, H. Pañella, et al. Evaluación de impacto cuantitativo en salud a largo plazo de la contaminación del aire en la población de Barcelona; XXXVI Reunión Anual de la Sociedad Española de Epidemiología (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Lisboa, September 2018.
- M. Gotsens, V. Puig-Barrachina, A.M. Novoa, D. Malmusi, M.I. Pasarin, C. Borrell, K. Perez, Observatorio de los impactos en la salud de las politicas municipales en Barcelona: vigilancia de las desigualdades, XXXVI Reunión Anual de la Sociedad Española de Epidemiología (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Lisboa, September 2018.

AREA T1 · Epidemiology, Public Health and Healthcare Services

Transmissible Diseases

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Main Lines of Research

Line 1: Tuberculosis prevention and treatment adherence

- Investigate the impact of the incorporation of new technologies and circuits to favor the control of TB transmission, treatment adherence and TB contact tracing (Farma TITL project, Video DOT, etc.). To describe the incidence and epidemiological characteristics of multidrug resistant TB and TB in people infected with HIV in Europe (Study groups: TB-Net and EuroTB are carrying out observational epidemiological studies to get a more accurate view of this illness). Develop network information tools with different people in charge of the control of TB in other European cities, which allow developing strategies of assistance and control of the disease most suitable for large cities. We participate in the group "TB in Big Cities" promoted by the European CDC and with which we have made a document of consensus on control strategies in large cities. Describe socio-demographic, epidemiological and clinical characteristic of certain vulnerable groups that suffers from TB such as children, immigrants, homeless, etc.

Line 2: HIV and other STI surveillance and control

- Evaluation of interventions based on reducing diagnostic delay of HIV and other sexual transmitted infections (STI): study of sexual contacts, especially vulnerable groups (men who have sex with men, immigrant population...) and offers the HIV and STI tests. The aims are: 1. To offer the HIV test, and other STIs for men who have sex with men and other users of gays saunas, 2. To increase the vaccination coverage of hepatitis A and B in this group, 3. To improve the awareness of the users and workers of the saunas about the risk of exposing themselves to situations that favor the transmission and the need to take prevention measures and facilitate the access of preventive materials for HIV/STI/Hepatitis, 4. Involve entrepreneurs and employees of these centers in the implementation of this initiative. 5. Inform about access to other prevention services outside of saunas.

Line 3: Research in other notifiable diseases

- It focuses on the study of the temporal evolution and transmission patterns of parotiditis, pertussis, other STI, epidemic outbreaks and other emerging diseases, both in Spanish and Foreign-born. The aims are: 1. To describe the epidemiological pattern of these diseases in the last 10 years with the objective of detecting possible changes during the period 2014-2018 and its relationship with the economic crisis. We always try to strengthen the prevention and control measures in order to prevent the appearance of new cases. 2. Describe the temporal evolution of measles and parotiditis in relation to the systematic vaccination policies developed in Catalonia. 3. Investigate the transmission lines during the epidemic measles periods promoting the identification of strains due to molecular epidemiology. 4. Investigate the lines of transmission of pertussis during periods of epidemic in order to establish the discussion about different strategies for preventing the disease. 5. Investigate the sources of infection and the intrafamily secondary transmission rates of the pertussis, and establish the lines of transmission of pertussis within the family nucleus. 6. To know the epidemiological pattern of malaria in order to identify previously possible cases of autochthonous transmission of disease. 7. In hepatitis we are dealing with the European project, Hepscreen, which objective is to compare 2 strategies: passive (prevalence of infection is seen in immigrants who consult) and active (prevalences are studied from immigrants recruited by community health workers).

Line 4: Community health workers and notifiable disease control among foreign born patients

- For more than fifteen years, we have a team of Community Health Workers (CHW) that acts as sociocultural mediators and translators. They are from six different regions worldwide and collaborate within the team of epidemiologists and public health nursing team. Based on a strategy of complementary profiles, they are responsible for carrying out accompaniment in the diagnosis and treatment of diseases such as TB, hepatitis or HIV in populations with language barriers or the risk of social exclusion (undocumented immigrants). With their cultural and idiomatic profile, can treat patients from Eastern Europe, Asian countries with high incidence of communicable diseases such as China and India, Latin American, Maghreb countries and of sub-Saharan Africa. The aims are: 1. To evaluate the impact of their intervention in prevention and control of communicable diseases (HIV, TB and STI) in immigrant, 2. To adapt and disseminate information for the prevention and the promotion of healthy habits 3. To increase knowledge of the risk factors among these groups, as well as adequate access to the Catalan health system and 4. To reinforce patient's social relations into the communities so that they can become a useful resource in the fight against HIV, other STI and TB.

Line 5: Vaccine hesitancy

- To identify attitudes, beliefs, and knowledge about vaccines among the health care workers who are involved in the administration of systematic childhood vaccines in the public primary care setting in Barcelona, Spain. To describe and compare knowledge, attitudes, and beliefs regarding the vaccination calendar of pediatric primary care teams (doctors and nurses) and determine the factors associated with vaccine hesitancy in Barcelona in 2016-17.

Line 6: Vector Born Transmitted Diseases

- Arboviruses and other arthropod born disese such as malaria, are a group of diseases transmitted through arthropods. Many of them are capable of producing infection in humans. Some of the arboviruses such as West Nile Virus (WNV), Chikungunya (CHK), Dengue or Zika Virus (ZV) are emerging and have a high potential of generating epidemic outbreaks in European non-endemic countries. The threat of arbovirosis emergence and re-emergence has created a risk scenario for global public health. ZV as CHK, dengue and WNV are mandatory notification diseases in Spain. Furthermore, in Barcelona an active epidemiological surveillance system is carried out based on a close relation-ship with the doctors in charge of imported diseases and in the electronic notification system for notification diseases. It is precisely this concern that has led several countries to adopt new protocols and procedures that adapt to these new situations to respond to this public health problem. After the diagnostic of the first cases of imported arbovirosis in the city, it was seen that they could pose a risk to public health since A.albopictus is endemic in our setting. That is the reason why a system of active epidemiological and entomological surveillance of notifiable diseases records (EDO) for each detected case, has been implemented and the Epidemiology and Entomological Surveillance Service, both from the Public Health Agency of Barcelona are working very close for minimizing the risk of having an autochthonous case. The aims are: 1. To explain the epidemiological and entomological surveillance that took place against the vector born transmitted diseases, and 2.To identify the possible areas if improvement in the procedures in order to control ZV and other emerging arbovirosis that could be transmitted by local competent vectors.

Scientific Challenges

- Prevent sexually transmitted infections and other transmissible diseases.
- Evaluate HIV screening programs in gay saunas.
- Improve detection and research into causes of C hepatitis.
- Improve detection and control measures of outbreaks.
- Improve adherence of tuberculosis and latent tuberculosis infection.
- STD/HIV and TB contract tracing.
- Cost effective analysis on public health interventions.
- Describe the threats and improve the procedures of vector born transmitted diseases.

Collaborations

External Collaborations

- HEPSCREEN: Screening for hepatitis Project. http://hepscreen.eu/
- CASCADE
- GEMES
- COHERE
- GESIDA: grupo de estudio del SIDA de la Sociedad Española de Enfermedades Infecciosas y Microbiología Clínica (SEIMC). http://gesida-seimc.org/
- PII-TB SEPAR: Programa integrado de investigación en Tuberculosis de la Sociedad Española de Patología Torácica.
- AGAUR: Agència de gestió d'ajuts Universitaris i de Recerca. http://agaur.gencat.cat/ca/inici
- TB-NET: Tuberculisis European Network. http://www.tb-net.org/
- CIBERESP: CIBER of Epidemiology and Public Helath. http://www.ciberesp.es/
- UITB: Unitat d'Investigació en Tuberculosi de Barcelona.

Active Grants

- Patricia García de Olalla Rizo. Uso de las Aplicaciones para telefonía móvil en la promoción de las pruebas del VIH y otras Infecciones de Transmisión sexual en hombres que tienen sexo con hombres. PI16/02025. Instituto de Salud Carlos III. Duration: 2017-2019. 46,500 €.
- Antonio Moreno Martínez. Asociación de diabetes y tuberculosis en un distrito con alta incidencia de tuberculosis. Estudio de casos y controles, 2007-2016. PI16/01751. Instituto de Salud Carlos III. Duration: 2017-2019. 46,500 €.
- Àngels Orcau Palau. Asociación de diabetes y tuberculosis en un distrito con alta incidencia de tuberculosis. Estudio de casos y controles, 2007-2016. PI16/01751. Instituto de Salud Carlos III. Duration: 2017-2019. 46,500 €.
- Sandra Manzanares Laya. Prueba rápida de hepatitis C en hombres que tienen sexo con hombres: conocimientos, prevalencia e implicaciones para el cribado en VIH negativos. PI17/02077. Instituto de Salud Carlos III. Duration: 2018-2020. 32,200 €.
- José Antonio Gullón. Estudio de contactos de pacientes con tuberculosis en España. 378/2018 SEPAR. Duration: 2018-2019. 18,000 €.
- Teresa Rodrigo Sanz. Evaluación del Programa Integrado de Investigación en Tuberculosis de SEPAR. 415/2018. SEPAR. Duration: 2018. 9,000 €.
- Tomás Montalvo Porro. Ecología del movimiento de la gaviota argéntea (Larus michahellis) y su relación en la dispersión de patógenos en zonas urbanas. Fundación Barcelona Zoo. Duration: 2018-2019. 6,000 €.
- M. Jesús Cruz Carmona. Prevalencia de sensibilización a proteínas aviares o fúngicas en diferentes ámbitos laborales: trabajadores de empresas de control de aves, y trabajadores de parques y jardines. PI15/01954 FIS. Duration: 2015-2018. 86,515 €.
- Pere Godoy García. Efectividad de la vacuna contra la tos ferina en mujeres embarazadas en el tercer trimestre para prevenir la tos ferina: un estudio de casos y controles en Cataluña. PI15/01348 FIS. Duration: 2016-2018. 50,215 €.
- Ángela Domínguez García. Factores asociados a los brotes de gastroenteritis aguda por norovirus en instituciones cerradas y semicerradas. PI16/02005 FIS. Duration: 2017-2019. 116,765 €.
- Joan Pau Millet Vilanova. Organización del control de la tuberculosis en los hospitales de España. Evaluación de una intervención dirigida a fomentar la creación de Unidades de Tuberculosis. 114/2013 SEPAR. 18,000 €.
- Joan A. Caylà. TBTC Estudio 36: Plataforma para la evaluación de resultados de tratamiento de tuberculosis: un estudio observacional de personas tratadas de tuberculosis pulmonar. CDC-EEUU. Duration: 2015-2017. 310,000 €.
- Fernando Alcaide. Estudio de las resistencias a los fármacos y los mecanismos moleculares más frecuentes en Mycobacterium tuberculosis en España (Estudio REMOTUBES). SEPAR. Duration: 2015-2018. 18,000 €.
- Sandra Manzanares. Smartphone application for aging HIV-infected men who have sex with men to prevent sexually transmitted infections. GILEAD. Duration: 2016-2017. 69,250 €.

- Vinicio Israel Molina. Recaídas en Tuberculosis: ¿reinfección exógena o reactivación endógena?. SEPAR. Duration: 2016-2017. 12,000 €.
- Hector Javier Sánchez. Evaluación de nano-partículas magnéticas eléctricamente activas (NP-MEAS) para detectar, capturar y concentrar células de Mycobacterium tuberculosis de muestras clínicas. SEPAR. 2016-2017. 9,000 €.
- Joan A Caylà. Factores asociados a los brotes de gastroenteritis aguda por norovirus en instituciones cerradas y semicerradas. FIS PI16/02005. Duration: 2016-2018. 116.765 €.
- Àngels Orcau. Incidencia de tuberculosis entre contactos infectados por Mycobacterium tuberculosis en una gran ciudad. SEPAR. Duration: 2017-2018. 18,000 €.
- Joan Pau Millet. Barcelona Tb Photovoices Project. Sin financiación. Duration: 2016-2019. Tomás M. Pérez Porcuna. Estudio observacional de la infección tuberculosa en niños VFR (visiting Friends and relatives) que viajan a países con elevada incidencia de tuberculosis. FIS PI16/00314. Duration: 2017-2019. 50,215 €.
- Israel Molina. PICAT (Plataforma integral para el control de arbovirosis en Cataluña. Departament de Salut. Duration: 2017-2019. 599,934 €.
- Àngels Orcau. Estudio de mejora de la adherencia y seguimiento del tratamiento de la infección tuberculosa latente mediante un programa de dispensación y seguimiento en farmacias comunitarias. SEPAR. Duration: 2018-2019. 6,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- XXV Prize of the Spanish Society of Epidemiology to the best original article in epidemiology. Novoa AM, Pérez G, Espelt A, Echave C, García de Olalla P, Calvo MJ, Pasarín M, Diez È, Borrell C; Urban HEART Barcelona Working Group, The Experience of Implementing Urban HEART Barcelona: a Tool for Action. J Urban Health. 2018 Oct;95(5):647-661.
- IV edition of the prize "Santiago Rubio" to the titled work "Aceptabilidad, viavilidad y utilidad de un aplicativo dirigido a la prevención y promoción de la salud sexual en HSH que viven con el VIH". Vilaplana C, García de Olalla P, Manzanares S. Escuela Nacional de Sanidad. Instituto de Salud Carlos III. Madrid, 7 June 2018.

Doctoral Theses

- Constanza Jacques Aviñó. Discursos y prácticas sexuales de usuarios de saunas gay. Una aproximación desde las masculinidades. Universitat Rovira i Virgili. Directors: Oriol Romaní, Joan A. Caylà, 15/11/2018

Transfer Products

- Technological transfer product. Innovation in Epidemiology and Public Health. Project financed by GILEAD: Smartphone application for aging HIV-infected men who have sex with men to prevent sexually transmitted infections. Creation of an App for smartphones whose objective is to promote sexual health and provide knowledge about ITS among men who have sex with other men (MSM) who live with HIV through the use of messages with or without geolocation. 13/01/2016.
- Technological transfer product. Innovation in Epidemiology and Public Health. Use of applications for mobile telephony in the promotion of HIV testing and other sexually transmitted infections in men who have sex with men. Use of profiles in Apps of contacts such as Grindr or Gay Romeo to launch messages offering HIV and other ITS tests for free and confidential. These messages are launched individually or in mass campaigns. A cohort has been created for this initiative to carry out tests of ITS and HIV. 10/01/2016.

Scientific Production

Total Impact Factor: 85.283 · Mean Impact Factor: 3.1586

Alarcón Gutiérrez M, Fernández Quevedo M, Martín Valle S, Jacques-Aviñó C, Díez David E, Caylà JA, García de Olalla P Acceptability and effectiveness of using mobile applications to promote HIV and other STI testing among men who have sex with men in Barcelona Spain (2018) Sex Transm Infect 94(6):443-448. PMID: 29626174 DOI: 10.1136/sextrans-2017-053348. **IF: 3.3460**

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- Millet JP, Ruiz MC. "25 anys de Seveis Clínics". Sesión Especial del Día Mundial de la Tuberculosis. Barcelona, 15 March 2018. Paper.
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- Novoa AM, Pérez G, Espelt A, Echave C, García de Ollala P, Calvo MJ. Pasarín M, Díez E, Borrell C, Grupo de Trabajo Urban HEART Barcelona. "The experience of implementin urban heart Barcelona: a tool for action". XXXVI Reunión anual de la Sociedad Española de Epidemiologia (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Portugal, 11-14 September 2018. Oral communication.
- Martin-Sanchez M, Brugueras S, de Andrés A, Simon P, Gorrindo P, Ros M, Masdeu E, Millet JP, Caylà, JA. Orcau A. "Incidencia de enfermedad tuberculosa en contactos de casos de tuberculosis que resultaron infectados. Barcelona, 2008-2016". XXXVI Reunión anual de la Sociedad Española de Epidemiologia (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Portugal, 11-14 September 2018. Oral communication.
- Elizondo U, Garcia M, Rius, C Díez E. "Factores Asociados a la reticència vacunal en personal de medicina y enfermería pediàtrica de los Centros de Atención Primaria de Barcelona". XXXVI Reunión anual de la Sociedad Española de Epidemiologia (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Portugal, 11-14 September 2018. Oral communication.
- Brugueras S, Gómez D, Fernández B, Larrauri A, Álamo-Junquera D, Rius C. "Metodología de una revisión sistemática sobre arbovirosis y enfermedades trasmitidas por vectores asociadas al cambio climático en países europeos de la región del Mediterráneo". XXXVI Reunión anual de la Sociedad Española de Epidemiologia (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Portugal, 11-14 September 2018. Poster.
- De Andrés A, Álamo MD, Simón P, Ros M, Rodríguez López E, Masdeu E, Palau P, Gorrindo P, Rius C. "A propósito de un brote de sarampión". XXXVI Reunión anual de la Sociedad Española de Epidemiologia (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Portugal, 11-14 September 2018. Poster.
- Picchio CA, Garcia-Carrasco M, Sagué-Solivella M, Rius C. Knowledge, attitudes and beliefs about vaccination in primary health care workers involved in the administration of systematic childhood vaccines in Barcelona". XXXVI Reunión anual de la Sociedad Española de Epidemiologia (SEE) and XIII Congresso da Associação Portuguesa de Epidemiologia (APE). Portugal, 11-14 September 2018. Poster.
- García de Olalla P. "Epidemiologia de les ITS. Millorant la notificació de les ITS de declaració obligatòria" I Jornada d'Actualització en Infeccions de Transmissió Sexual en el context de la infecció pel VIH. Barcelona, 3 October 2018. Paper.
- Forcada N, Millet JP. "Tuberculosis Photovoice: dar voz a los pacientes que no tienen voz". Inauguració de l'exposició Art i Salut. Barcelona, 11 October 2018. Paper.
- Masdeu E, Jové N. Incidencias durante el tratamiento de la TB. "Acciones para mejorar la adherencia y el estudio de contactos". XXII Jornadas Internacionales sobre Tuberculosis. Barcelona, 26-27 November 2018. Paper.
- De Andrés A, Simón P, Avellanés I, Ros M, Masdeu E, Artigas A, Forns L, Gorrindo P. "Intervenciones de enfermería en los brotes de parotiditis en la ciudad de Barcelona". XXII Encuentro Internacional de Investigación en Cuidados. 22nd International Nursing Research Conference. Córdoba, 14-16 November 2018. Poster.
- Ospina JE. "10 años de actividad de los Agentes Comunitarios de Salud en el control de la TB en Barcelona". XXII Jornadas Internacionales sobre Tuberculosis. Barcelona, 26-27 November 2018. Paper.
- García de Olalla P. "Estratègies i noves tecnologies pel diagnòstic del VIH i les ITS a Barcelona". Jornada Més enllà del 90-90-90. 20 anys de la Cohort PISCIS. Barcelona, 11 December 2018. Paper.
- García-Carrasco M. Reticència vacunal: el paper dels equips pediàtrics. Sessions científiques de l'Agència de Salut Pública de Barcelona. Barcelona, 11 December 2018. Paper.

Teaching

- Masdéu E. Practicum Avançat III (4th year). Escola Superior d'Infermeria del Mar. Student: María de la O. Ribas Closa. 5 February-16 March 2018.
- Masdeu E. Pràcticum Avançat III (4th year). Escola Superior d'Infermeria del Mar. Student: Sergio Sánchez López. 7 May-8 June 2018.
- García de Olalla P, Orcau A, Rius C. Subject: "Epidemiología de las Enfermedades Transmisibles". Máster de Salud Pública. Universitat Pompeu Fabra. Academic year 2017-2018

Continuing education sessions for health professionals

- "Vigilància de arbovirosis transmeses per mosquits":
  - Milet JP, Ricart M. Clínica Quirón/Dexeus. Barcelona, 20 June 2018.
  - Millet JP, Ricart M. Hospital de Barcelona. Barcelona, 26 June 2018.
  - García M, Cunillé M. Clínica Corachán. Barcelona, 27 June 2018.
  - Millet JP, Mercuriali L, Santomá MJ. Hospital Platón. Barcelona, 11 July 2018.
  - García M, Santomá MJ. Hospital Sagrat Cor. Barcelona, 28 June 2018
  - García M, Ros M. Hospital Dos de Maig. Barcelona, 3 July 2018
  - Millet JP, Ros M. Hospital de Sant Pau. Barcelona, 14 June 2018
  - García M, Mercuriali L, Masdeu E. Hospital del Mar. Barcelona, 4 July 2018
- "Actualització Xarampió 2018 i recomanacions del personal sanitari":
  - Simón P, Forns L. CAP Vallcarca. Barcelona, 3 May 2018
- "Gestió de casos complicats de tuberculosi a Catalunya. 25 anys d'experiència de Serveis Clínics, centre de TDO i d'internament de pacients amb tuberculosi":
  - Millet JP. Consorci Hospitalari de Vic. Vic, 15 November 2018.

Events Organization

- Caylà JA, Millet JP, Orcau A. World Tuberculosis Day. Barcelona, 15 March 2018.
- Caylà JA, Millet JP, Orcau A. VIII Jornada de Enfermedades Emergentes. Barcelona, 13 June 2018.
- Caylà JA, Orcau A. XXI Jornadas Internacionales de Tuberculosis. Barcelona, 26-27 November 2018.

AREA T1 · Epidemiology, Public Health and Healthcare Services

Health Inequalities

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Vásquez Vera, Hugo Erick (IR)

Main Lines of Research

Social class and geographical inequalities in health

- Study of health inequalities according to social class in Spain and worldwide.
- Exploitation of information at the census section level as the maximum disaggregation unit and at higher geographic aggregation levels such as the neighbourhood, town and region.

Gender inequalities in health

- Sexual division between productive and reproductive work (gender roles) and differences in male and female identities as the 2 main structural factors that generate gender inequalities in health.

Social and political determinants of health and their impact on policy building and interventions

- Evidence of the macroeconomic determinants of health inequalities between countries.
- The impact of the political context on the health of the population and the conclusion that countries with better developed welfare states have better levels of health.

Scientific Challenges

Health-inequalities according to different inequality axes

- Study of social determinants of health in terms of social class and gender, with the purpose of integrating these 2 axes and analysing inequalities among immigrants.
- Research into the impact of area of residence, especially smaller urbanized areas, on the health of the population.

Gender inequalities in health

- Further explore the theoretical framework and explanatory charts developed to guide comprehension of the gender determinants that affect health.

Social and political determinants of health and their impact on policy building and interventions

- Study the influence of policies on the health of populations and on social inequalities in health.

Sex and reproductive inequalities in health

- Establish a line of research to investigate different aspects of sexual and reproductive health (sexuality, contraception, pregnancy, birth, miscarriage, abortion, birth rates, etc).

Collaborations

External Collaborations

- Vlaamse Instelling Voor Technologisch Onderzoek N.V. (VITO), Mol, Belgium.
- Meteotest Societe Cooperative (METEOTEST), Bern, Switzerland.
- GISAT S.R.O. (GISAT), Praha, Czech Republic.
- Katholieke Universiteit Leuven (KU Leuven), Belgium.
- Fundación Privada Instituto de Salud Global Barcelona (ISGLOBAL) Barcelona, Spain.
- Joanneum Research Forschungsgesellschaft MBH (JR), Graz 8010, Austria.
- T6 Ecosystems SRL (T6ECO), Roma, Italy.
- Arctik SPRL (ARCTIK), Bruxelles, Belgium.
- Stad Antwerpen (Stad Antwerpen), Antwerpen, Belgium.
- Bikecityguide Apps GMBH (BikeCityGuide), Graz, Austria.
- Soprintendenza Speciale Colosseo Mnr E Area Archeologica Di Roma (SSColosseo), Roma, Italy.
- INES Energieplanung GMBH (INES), Bern, Switzerland.
- IURS - Institut Pro Udrzitelny Rozvoj Sidel ZS (IURS), Ostrava Poruba, Czech Republic.
- Universidade De Coimbra, Coimbra, Portugal.
- Department of Health (DH), Leeds United Kingdom.

- Universite Paris Ouest Nanterre La Defense (UPO), Nanterre France.
- Instituto Superior Tecnico (IST), Lisboa, Portugal.
- Universiteit Maastricht, Netherlands.
- University College London (UCL), United Kingdom.
- Karolinska Institutet (KI), Stockholm, Sweden.
- Beuth-Hochschule Fuer Technik Berlin, Berlin, Germany.
- Univerzita Karlova V Praze, Praha, Czech Republic.
- Ethniko Kai Kapodistriako Panepistimio Athinon (UoA), Athina, Greece.
- Consorzio Per Il Sistema Informativo (CSI Piemonte), Torino, Italy.
- Ekonomicka Univerzita V Bratislave (EUBA), Bratislava, Slovakia.
- Vrije Universiteit Brussel (VUB), Brussel, Belgium.
- Universitat Pompeu Fabra. Departament de Polítiques Públiques i Departament de Ciències Experimentals i de la Salut. Barcelona, Spain.
- Departamento de Salud del Gobierno Vasco. Vitoria, Spain.
- Departamento de Salud de la Comunidad de Madrid. Madrid, Spain.
- Escuela Andaluza de Salud Pública. Granada, Spain.
- IGOB. Barcelona, Spain.
- Universidad de Antioquia. Medellín, Colombia.

Active Grants

- Maica Rodríguez Sanz. Evolución de las desigualdades socioeconómicas y medioambientales en la distribución geográfica de la mortalidad en Barcelona (1996-2015): MEDEA3. PI16/00961. Instituto de Salud Carlos III. Duration: 2017-2019. 27,000 €.
- Marc Mari Dell'Olmo. Pobreza energética y salud desde múltiples perspectivas: análisis individual, geográfico y temporal. PI15/02006. Instituto de Salud Carlos III. Duration: 2016-2020. 84,150 €.
- M. Isabel Pasarín, Evaluación de un proyecto de prevención integral de la obesidad infantil en la etapa pre-escolar en Barcelona (POIBA-2a fase). PI16/00701. Instituto de Salud Carlos III, Duration: 2016-2019. 80,465 €.
- Catherine Pérez González. Safety CaUsation, Benefits and Efficiency – SAFETYCUBE 633485. European Commission. Horizon 2020. 120,000 €.
- Carme Borrell i Thió. Joint Action Health Equity Europe. 801600 — JA-HI, European Commission. Duration: 2018-2021. 26,122.23 €.
- Marc Marí Dell Olmo. Blue, Green & Grey_Adapting Schools to Climate Change From school vulnerable to heat to an open climate shelter for all the citizenship: implementation of blue, green and traditional solutions against heat in school equipments and CC consciousness, GBG_AS2C, Urban Innovation Action, Duration: 2018-2021. 238,000.80 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Gloria Pérez Albarracín, Promoción de activos protectores de la violencia de género en la adolescencia y pre-adolescencia. PI18/00544, Instituto de Salud Carlos III. Duration: 2019-2021, 23,000 €.
- Carme Borrell Thió, PULSE., PULSE 2018-IR, Agència de Salut Pública de Barcelona. Duration: 2018-2021, 38,914.42 €.
- Carme Borrell Thió, PULSE., PULSE 2018-ASPB, Agència de Salut Pública de Barcelona. Duration: 2018-2021, 209,878.76 €.
- Marc Marí Dell'Olmo, Projecte PUCS (Pan-European Urban Climate Services)., PUCS-IR, Agència de Salut Pública de Barcelona. Duration: 2018-2020, 37,916.70 €.
- Marc Marí Dell'Olmo, Projecte PUCS (Pan-European Urban Climate Services)., PUCS-ASPB, Agència de Salut Pública de Barcelona. Duration: 2018-2020, 28,083.30 €.
- Carme Borrell Thió, Proyecto B-MINCOME., Convenio B-MINCOME, Agència de Salut Pública de Barcelona. Duration: 2018-2020, 228,269.76 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Best Thesis Award in Epidemiology and Public Health 2017 of the Spanish Society of Epidemiology. Natalia López, "Evolución de las desigualdades socioeconómicas en la mortalidad por suicidios en Barcelona durante el periodo 2006-2016" (directes by Mercè Gotsens)
- XV prize of the Spanish Society of Epidemiology to the best original article in epidemiology for the article: Ana M Novoa, Glòria Pérez, Albert Espelt, Cynthia Echave, Patricia G de Olalla, M. Jesus Calvo, Maribel Pasarín, Èlia Díez, Carme Borrell. The experience of implementing urban heart Barcelona: a tool for action. Journal of Urban Health.

Transfer Products

- Pla d'acció sobre drogues 2017-2020 (Drug Action Plan 2017-2020). Available at: http://www.aspb.cat/documents/pla-daccio-sobre-drogues-barcelona-2017-20/
- Report of "La salut a Barcelona 2016" (Health in Barcelona 2016), Available at: https://www.aspb.cat/wp-content/uploads/2017/11/Informe_Salut_2016.pdf
- Report of "La salut i els seus determinants en l'alumnat adolescent de Barcelona. Enquesta de Factors de Risc en Estudiants de Secundària. FRESC 2016". Available at: http://www.aspb.cat/wp-content/uploads/2017/05/salut-i-els-seus-determinants-en-alumnat-adolescent-Barcelona-FRESC-2016.pdf

Scientific Production

Total Impact Factor: 57.0680 · Mean Impact Factor: 1.9678

Alvarez-Castano L.S., Caicedo-Velasquez B., Castano-Diez C., Mari-Dell'Olmo M., Gotsens M., Full-term low birth weight and its relationship with the socioeconomic conditions of municipalities in Antioquia: Spatio-temporal analysis (2018) BIOMEDICA, 38 (3), 345-354. **IF: 0.6200**

Arias-de la Torre J., Molina A.J., Fernandez-Villa T., Artazcoz L., Martin V., Mental health, family roles and employment status inside and outside the household in Spain (2018) GAC SANIT. **IF: 1.5810**

Artazcoz L., Chilet E., Escartin P., Fernandez A., Incorporation of the gender perspective in community health. SESPAS Report 2018 Incorporación de la perspectiva de género en la salud comunitaria. Informe SESPAS 2018 (2018) GAC SANIT, 32, 92-97. **IF: 1.5810**

Artazcoz L., Cortes-Franch I., Escriba-Aguir V., Lopez M., Benavides F.G., Long working hours and job quality in europe: Gender and welfare state differences (2018) INT J ENV RES PUB HE, 15 (11). **IF: 2.1450**

Asensio A, Nebot L, Estruga L, Perez G, Diez È. Contraception in the Roma population living in two low-income neighborhoods of Barcelona (Spain). Gaceta sanitaria. PMID 29478730. DOI 10.1016/j.gaceta.2017.11.011. **IF 1.5810**

Barbieri N., Gallego R., Morales E., Rodriguez-Sanz M., Palencia L., Pasarin M.I., Measuring and Analysing Community Action for Health: An Indicator-Based Typology and Its Application to the Case of Barcelona (2018) SOC INDIC RES, 139 (1), 25-45. **IF: 1.6480**

Colell E, Sánchez-Ledesma E, Novoa AM, Daban F, Fernández A, Juárez O, Pérez K, por el Grupo de Trabajo de Diagnóstico., Serrano Blanco Antonio. Community health assessment of the programme "Barcelona Health in the Neighbourhoods". Methodology for a participatory process. Gaceta sanitaria. PMID 29496304. DOI 10.1016/j.gaceta.2017.12.003. **IF 1.5810**

Cortes-Franch I., Escriba-Aguir V., Benach J., Artazcoz L., Employment stability and mental health in Spain: towards understanding the influence of gender and partner/marital status (2018) BMC PUBLIC HEALTH, 18 (1). **IF: 2.4200**

Diez E., Lopez M.J., Mari-Dell'olmo M., Nebot L., Perez G., Villalbi J.R., Carreras R., Effects of a counselling intervention to improve contraception in deprived neighbourhoods: A randomized controlled trial (2018) EUR J PUBLIC HEALTH, 28 (1), 10-15. **IF: 2.7820**

Felicitas Dominguez-Berjon M.A., Godoy P., Ruano-Ravina A., Negrin M.N., Vives-Cases C., Alvarez-Dardet C., Bermudez-Tamayo C., Lopez M.A.J., Perez G.R., Borrell C., Acceptance or decline of requests to review manuscripts: A gender-based approach from a public health journal (2018) ACCOUNT RES, 25 (2), 94-108. **IF: 1.4000**

Franco M., Diez J., Gullon P., Margolles M., Cofino R., Pasarin M., Borrell C. Towards a policy relevant neighborhoods and health agenda: engaging citizens, researchers, policy makers and public health professionals. SESPAS Report 2018 Gaceta Sanitaria PMID 30266474. DOI 10.1016/j.gaceta.2018.07.002. **FI 1.5810**

Gonzalez-Marin P., Puig-Barrachina V., Cortes-Franch I., Bartoll X., Artazcoz L., Malmusi D., Clotet E., Daban F., Diez E., Cardona, Borrell C. Social and material determinants of health in participants in an active labor market program in Barcelona. Archives of Public Health. PMID 30386597. DOI 10.1186/s13690-018-0310-4. **IF: –**

Lopez Ruiz V., Segura del Pozo J., Pires Gomez M.P., Malmusi D., Vergara Duarte M., Perez Sanz E. Municipalism and community health: transforming through local government. SESPAS Report 2018 Gaceta Sanitaria. PMID 30268585 DOI 10.1016/j.gaceta.2018.06.007. **IF: 1.5810**

Lorant V., De Gelder R., Kapadia D., Borrell C., Kalediene R., Kovacs K., Leinsalu M., Martikainen P., Menvielle G., Regidor E., Maica R.-S., Wojtyniak B., Strand B.H., Bopp M., Mackenbach J.P., Socioeconomic inequalities in suicide in Europe: The widening gap (2018) BRIT J PSYCHIAT, 212 (6), 356-361. **IF: 5.8670**

Malmusi D., Muntaner C., Borrell C., Suhrcke M., O'Campo P., Julia M., Melis G., Palencia L., Bosakova L., Toffolutti V., Bacigalupe A., Mitchell C., Freiler A., Vanroelen C., Tarafa G., Olle-Espluga L., Sanchez E., Artazcoz L., et al., Social and Economic Policies Matter for Health Equity: Conclusions of the SOPHIE Project (2018) INT J HEALTH SERV, 48 (3), 417-434. **IF: 1.2920**

Marí-Dell'Olmo M, Tobías A, Gómez-Gutiérrez A, Rodríguez-Sanz M, García de Olalla P, Camprubí E, Gasparrini A, Borrell C. Social inequalities in the association between temperature and mortality in a South European context. International journal of public health. PMID 29577171. DOI 10.1007/s00038-018-1094-6. **IF: 2.6170**

Marti-Pastor M., Perez G., German D., Pont A., Garin O., Alonso J., Gotsens M., Ferrer M., Health-related quality of life inequalities by sexual orientation: Results from the Barcelona Health Interview Survey (2018) PLOS ONE, 13 (1). **IF: 2.7660**

Montoya I, Esnaola S, Calvo M, Aldasoro E, Audicana C, Marí-Dell'Olmo M. Small area estimation of health indicators based on data from the Basque Country Health Survey. Gaceta sanitaria. PMID 30033097. DOI 10.1016/j.gaceta.2018.04.016. **IF 1.581**

Novoa A.M., Perez G., Espelt A., Echave C., de Olalla P.G., Calvo M.J., Pasarin M., Diez E., Borrell C., Calvo M.J., Cormenzana B., Cortes I., Diez E., Echave C., Espelt A., de Olalla P.G., Gomez J., Novoa A.M., Pallares M., Perez G., Rodriguez-Sanz M., The Experience of Implementing Urban HEART Barcelona: a Tool for Action (2018) J URBAN HEALTH, 95 (5), 647-661. **IF: 1.7380**

Palencia L., Puig-Barrachina V., Mari-Dell'Olmo M., Gotsens M., Rodriguez-Sanz M., Bartoll X., Perez G., Trends in small-for-gestational age before and after the economic crisis in Spain (2018) EUR J PUBLIC HEALTH, 28 (2), 325-327. **IF: 2.7820**

Palencia L., Rodriguez-Sanz M., Lopez M.J., Calzada N., Gallego R., Morales E., Barbieri N., Blancafort X., Bartroli M., Pasarin M.I., Community action for health in socioeconomically deprived neighbourhoods in Barcelona: Evaluating its effects on health and social class health inequalities (2018) HEALTH POLICY, 122 (12), 1384-1391. **IF: 2.2930**

Perez G, Gotsens M, Cevallos-García C, Felicitas Domínguez-Berjón M. The impact of the economic recession on inequalities in induced abortion in the main cities of Spain. European journal of public health. PMID 30508071 . DOI 10.1093/eurpub/cky250. **IF 2.782**

Pérez K, Weijermars W, Bos N, Filtness AJ, Bauer R, Johannsen H, Nuyttens N, Pascal L, Thomas P, Olabarria M. Implications of estimating road traffic serious injuries from hospital data. Accident; analysis and prevention. PMID 29680154. DOI Implications of estimating road traffic serious injuries from hospital data. **IF: 2.5840**

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Prasad A., Borrell C., Mehdipanah R., Chatterji S., Tackling Health Inequalities Using Urban HEART in the Sustainable Development Goals Era (2018) J URBAN HEALTH, 95 (5), 610-612. **IF: 1.7380**

Rius Ulldemolins A, Benach J, Guisasola L, Artazcoz L. Why are there gender inequalities in visual impairment? European journal of public health. PMID 30500932. DOI 10.1093/eurpub/cky245. **IF 2.7820**

Sanchez-Martinez F., Juarez O., Serral G., Valmayor S., Puigpinos R., Pasarin M.I., Diez E., Ariza C., Lorenzo C., Roca D., Sagarra N., Suades E., Castell C., Roure E., Lozano N., Llinas M., Moncada A., Rajmil L., Montero Y., Ortega E., M. Isabel Pasarín. A childhood obesity prevention programme in Barcelona (POIBA project): Study protocol of the intervention. Journal of Public Health Research. PMID 29780761. DOI 10.4081/jphr.2018.1129. **IF: –**

Serral G., Borrell C., Puigpinos i Riera R., Socioeconomic inequalities in mammography screening in Spanish women aged 45 to 69 Desigualdades socioeconómicas en el control mamográfico en mujeres españolas de 45 a 69 años de edad (2018) GAC SANIT, 32 (1), 61-67. **IF: 1.5810**

Vergara-Duarte M., Borrell C., Perez G., Martin-Sanchez J.C., Cleries R., Buxo M., Martinez-Solanas E., Yasui Y., Muntaner C., Benach J., Sentinel Amenable Mortality: A New Way to Assess the Quality of Healthcare by Examining Causes of Premature Death for Which Highly Efficacious Medical Interventions Are Available (2018) BIOMED RES INT, 2018. **IF: 2.5830**

AREA T1 · Epidemiology, Public Health and Healthcare Services

Epidemiology of Addictions

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Main Lines of Research

Epidemiology of Drug Consumption and Patterns of Use

- Estimating cocaine use incidence and consumption patterns.
- Estimating heroin incidence and consumption patterns.
- Estimating the prevalence of problematic cocaine, heroin and alcohol users.

Health Problems Associated with Drug Use

- Quality of life and psychiatric comorbidity in cocaine users.
- Service use in cocaine and alcohol users.
- Factors associated with cocaine addict and alcoholic retention in treatment programmes.
- Violent behaviour and aggressive attitudes in young cocaine consumers.
- Mortality and its determinants in cohorts with substance abuse disorders (alcohol, heroin and cocaine).
- Factors associated with acute health problems developing after cocaine and heroin use.
- Social and health discrepancies between immigrants and native drug users.

Health Policies

- Social inequalities in the evaluation of results and adherence to treatment.
- Infectious diseases related to drug use.
- Brief motivational intervention programs as a treatment alternative for teenage users of psychoactive substances.
- Role of the workplace in drug consumption.

Scientific Challenges

Epidemiology of Drug Consumption and Patterns of Use

- Determine incidence and patterns of cocaine use.
- Determine incidence and patterns of heroin use.
- Determine prevalence of cocaine, heroin and alcohol use.

Health Problems Associated with Drug Use

- Analyse aggressive and violent attitudes and behaviour in young cocaine users.
- Assess quality of life in users with psychiatric comorbidity.
- Determine use of services among young heroin, cocaine and alcohol users.
- Analyse factors associated with retention in treatment programmes for cocaine and alcohol addiction.
- Assess mortality and its determinants in cohorts of alcohol and cocaine-dependent subjects.
- Analyse factors associated with acute health problems following cocaine use.
- Analyse differential social and health determinants among immigrant users of illegal drugs.

Health Policies

- Evaluate supervised drug consumption rooms and other policies to reduce harm.
- Study social inequalities in evaluating results and adherence to treatment.
- Evaluate brief motivational intervention programmes as an alternative to disciplinary measures in teenage users of psychoactive substances.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Evaluation of Public Health Policies and Programmes (PI: Carlos Ariza).
- Health Inequalities (PI: Carme Borrell).

External Collaborations

- Several CIBERSAM and CIBERESP groups.

Active Grants

- Maria Teresa Brugal Puig. Evaluación del tratamiento en una cohorte de pacientes con trastorno por uso de alcohol y/o cocaína: Análisis del impacto de la Comorbilidad Psiquiátrica, Uso de Servicios y Análisis Costes. PI16/01075. Instituto de Salud Carlos III. Duration: 2017-2019. 66,500 €.
- Maria Teresa Brugal Puig. Red de Trastornos Adictivos. RD16/0017/0013. Instituto de Salud Carlos III. Duration: 2017-2021. 101,975 €.
- Marina Bosque Prous. Disponibilidad, accesibilidad, visibilidad de consumo, promoción y publicidad del alcohol en el entorno urbano y su relación con el consumo de alcohol en adolescentes. 2016I029. Ministerio de Sanidad, Servicios Sociales e Igualdad. Duration: 2017-2019. 37,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Maria Teresa Brugal Puig. Drug Addiction Research and Epidemiology (DARE group), 2017 SGR 01418, Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- Maria Teresa Brugal Puig. Estudio transversal y multicéntrico para el desarrollo de un modelo de predicción clínico y farmacogenético de la satisfacción del paciente dependiente de heroína con la metadona como un medicamento., SLT006/17/00179, Departament de Salut. Duration: 2018-2020, 18,849.81 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 31.5090 · Mean Impact Factor: 2.6258

Bosque-Prous M., Mendieta-Paredes J., Bartroli M., Teresa Brugal M., Espelt A., Cancer and alcohol consumption in people aged 50 years or more in Europe (2018) ALCOHOL ALCOHOLISM, 53 (3), 317-324. **IF: 2.3680**

Colell E., Domingo-Salvany A., Espelt A., Pares-Badell O., Brugal M.T., Differences in mortality in a cohort of cocaine use disorder patients with concurrent alcohol or opiates disorder (2018) ADDICTION, 113 (6), 1045-1055. **IF: 5.9530**

Collazos F., Markle S.L., Chavez L., Brugal M.T., Aroca P., Wang Y., Hussain I., HIV Testing in Clinical and Community Settings for an International Sample of Latino Immigrants and Nonimmigrants (2018) J LAT O PSYCHOL. **IF: 1.3750**

Mangot-Sala L., Bosque-Prous M., Bartroli M., Teixido-Compano E., Brugal M.T., Espelt A., The Role of Individual and Social Mediators in the Association Between Drug Consumption and Mental Health Among Adolescents in Barcelona (2018) INT J MENT HEALTH AD, 1-15. **IF: 1.1920**

Molist G., Brugal M.T., Barrio G., Mesias B., Bosque-Prous M., Pares-Badell O., de la Fuente L., Effect of ageing and time since first heroin and cocaine use on mortality from external and natural causes in a Spanish cohort of drug users (2018) INT J DRUG POLICY, 53, 8-16. **IF: 4.2440**

Nordt C., Wiessing L., Kuijpers W., Wisselink J., Espelt A., Brugal M.T., Mravcik V., Nechanska B., Seifritz E., Herdener M., Long-Term Opioid Agonist Treatment Participation after First Treatment Entry is Similar across 4 European Regions but Lower in Non-Nationals (2018) EUR ADDICT RES, 24 (4), 173-183. **IF: 2.6530**

Novoa A.M., Perez G., Espelt A., Echave C., de Olalla P.G., Calvo M.J., Pasarin M., Diez E., Borrell C., Calvo M.J., Cormenzana B., Cortes I., Diez E., Echave C., Espelt A., de Olalla P.G., Gomez J., Novoa A.M., Pallares M., Perez G., Rodriguez-Sanz M., The Experience of Implementing Urban HEART Barcelona: a Tool for Action (2018) J URBAN HEALTH, 95 (5), 647-661. **IF: 1.7380**

O'Brien K.S., Forrest W., Greenlees I., Rhind D., Jowett S., Pinsky I., Espelt A., Bosque-Prous M., Sonderlund A.L., Vergani M., Iqbal M., Alcohol consumption, masculinity, and alcohol-related violence and anti-social behaviour in sportspeople (2018) J SCI MED SPORT, 21 (4), 335-341. **IF: 3.9290**

Palencia L., Rodriguez-Sanz M., Lopez M.J., Calzada N., Gallego R., Morales E., Barbieri N., Blancafort X., Bartroli M., Pasarin M.I., Community action for health in socioeconomically deprived neighbourhoods in Barcelona: Evaluating its effects on health and social class health inequalities (2018) HEALTH POLICY, 122 (12), 1384-1391. **IF: 2.2930**

Sureda X., Carreno V., Espelt A., Villalbi J.R., Pearce J., Franco M., Alcohol in the city: wherever and whenever El alcohol en la ciudad: en todo lugar y momento (2018) GAC SANIT, 32 (2), 172-175. **IF: 1.5810**

Teixido-Compano E., Espelt A., Sordo L., Bravo M.J., Sarasa-Renedo A., Indave B.I., Bosque-Prous M., Brugal M.T., Differences between men and women in substance use: the role of educational level and employment status Diferencias entre hombres y mujeres en el consumo de sustancias: el rol del nivel educativo y la situación laboral (2018) GAC SANIT, 32 (1), 41-47. **IF: 1.5810**

Villalbi J.R., Espelt A., Suelves J.M., Bosque-Prous M., Bartroli M., Brugal M.T., A population based perspective of twenty years of specialized ambulatory treatment for alcohol use disorders in publicly financed clinics. Barcelona 1996–2015 (2018) J SUBST ABUSE TREAT, 92, 11-16. **IF: 2.6020**

AREA T1 · Epidemiology, Public Health and Healthcare Services

Primary Care Research

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Cuixart Costa, Lluís (entitat externa)
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Delgado Álvarez, Beatriz (EAP Sardenya)
Fernández Valverde, Diana Elizabeth (IR)
Fuentes García, Rubén (IR)
Galan Diez, María Luisa (EAP Sardenya)
Gallego Francisco, Rut (EAP Sardenya)
Gil Calvo, Joan Josep (EAP Sardenya)
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Jiménez Muñoz, Beatriz (EAP Sardenya)
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Pedro Pijoan, Anna Maria (EAP Sardenya)
Peix Sambola, Maria Amor (EAP Sardenya)
Puig Palma, Mireia (EAP Sardenya)
Rayo Martínez, Elisabet (EAP Sardenya)
Rivero Morcillo, Ana Belén (IR)
Sellarès Sallas, Jaume (EAP Sardenya)
Serrano Pons, Helena (EAP Sardenya)
Verdú Arnal, Montserrat (EAP Sardenya)
Vila García, Judit (EAP Sardenya)
Vilella Moreno, Maria Teresa (IR)

Main Lines of Research

- Cardiovascular risk estimation.
- Health promotion in primary care settings.
- Ageing.
- Hypertension.
- Diabetes.
- Immunization.
- Psychiatrics.
- Technology (Telemedicine).

Scientific Challenges

- Cooperate with other research teams in IIB Sant Pau.
- Cooperate with other European institutions in implementing projects on risk prevention and health promotion in primary care settings.
- Encourage research into medical ethics in family medicine training.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Clinical Epidemiology and Health Care Services.
- Evaluation of Public Health Policies and Programmes.
- Ageing Institute.
- Lipids and Cardiovascular Pathology Research, Sant Pau Hospital.
- Molecular Biology Laboratory, Fundació Puigvert.
- Agency of Public Health of Barcelona.

External Collaborations

- Ibermutua, Mutual insurance company collaborating with National Social Security.
- Cooperate with Mental Health research group- IMIM, Hospital del Mar.
- Spanish Society of Atherosclerosis.

Active Grants

- Carles Brotons Cuixart. Ensayo clínico multicéntrico, aleatorizado y abierto, para evaluar la eficacia en la reducción del riesgo cardiovascular de una intervención dirigida a mejorar la información a los pacientes con riesgo cardiovascular alto. Estudio INFORISK. SLT002/16/00313. Departament de Salut. Duration: 2017-2019. 93,831.62 €.
- Mariano de la Figuera Von Wichmann. Prueba piloto de un programa de cribado poblacional de aneurisma de aorta abdominal realizada en atención primaria mediante ecografia. SLT002/16/00441. Departament de Salut. Duration: 2017-2019. 52,737.31 €.
- Diana Elizabeth Fernández Valverde. Avaluació de l'eficàcia de la telemedicina en la insuficiència cardíaca: programa @tendidos. ACADEMIA 2017. Acadèmia de Ciències Mèdiques. Duration: 2017-2020. 22,727.27 €.
- Carles Brotons Cuixart. Ensayo clínico multicéntrico, aleatorizado y abierto, para evaluar la eficacia en la reducción del riesgo cardiovascular de una intervención dirigida a mejorar la información a los pacientes con riesgo cardiovascular alto. Estudio INFORISK. SLT002/16/00313-01. Departament de Salut. Duration: 2017-2019. 46,034.03 €.
- Mariano de la Figuera Von Wichmann. Prueba piloto de un programa de cribado poblacional de aneurisma de aorta abdominal realizada en atención primaria mediante ecografia. SLT002/16/00441-01. Departament de Salut. Duration: 2017-2019. 61,591.76 €.
- Carles Brotons Cuixart. Validación externa de una ecuación de riesgo cardiovascular de por vida. PI17/01031. Instituto de Salud Carlos III. Duration: 2018-2020. 41,000 €.
- Carles Brotons Cuixart. Performance of the SCORE (Systematic COronary Risk Evaluation) model for European low risk countries and the new US American College of Cardiology (ACC)/American Heart Association (AHA) Risk Equation in a Spanish Cohort: the VALID study. MARATO 20150310. Fundació La Marató de TV3. Duration: 2016-2019. 92,300 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 102.178 · Mean Impact Factor: 8.5148

Brotons C., EUROPREV (European Network for Prevention and Health Promotion) (2018) ATEN PRIM, 50, 3-. **IF: 1.1480**

Brotons C., Moral I., Fernandez D., Puig M., Calvo Bonacho E., Martinez Munoz P., Catalina Romero C., Quevedo Aguado L.J., Estimation of Lifetime Risk of Cardiovascular Disease (IBERLIFERISK): A New Tool for Cardiovascular Disease Prevention in Primary Care Estimación del riesgo cardiovascular de por vida (IBERLIFERISK): una herramienta nueva en prevención primaria de las enfermedades cardiovasculares (2018) REV ESP CARDIOL. **IF: 5.1660**

Brotons Cuixart C., Aleman Sanchez J.J., Banegas Banegas J.R., Fondon Leon C., Lobos-Bejarano J.M., Martin Rioboo E., Navarro Perez J., Orozco-Beltran D., Villar Alvarez F., Cardiovascular preventive recommendations. PAPPS Update 2018 Recomendaciones preventivas cardiovasculares. Actualización PAPPS 2018 (2018) ATEN PRIM, 50, 4-28. **IF: 1.1480**

Castera P, Stewart E, Großkopf J, Brotons C, Brix Schou M, Zhang D, Steiniger Brach B, Meulien D; onbehalf of the PICASO Study Investigators. Nalmefene, Given as Needed, in the Routine Treatment of Patients with Alcohol Dependence: An Interventional, Open -Label Study in Primary Care. Eur Addict Res. 2018; 24(6): 293-303. doi: 10.1159/000494692. **IF: 2.653**

Coll-Planas L., Blancafort S., Rojano X., Roque M., Monteserin R., Promoting self-management, health literacy and social capital to reduce health inequalities in older adults living in urban disadvantaged areas: Protocol of the randomised controlled trial AEQUALIS (2018) BMC PUBLIC HEALTH, 18 (1). **IF: 2.4200**

De la Figuera M., Cinza S., Marin N., Egocheaga I., Prieto M.A., Clinical characteristics of patients with atrial fibrillation treated with direct oral anticoagulants attended in primary care setting. The SILVER-AP study Perfil clínico de pacientes con fibrilación auricular tratados con anticoagulantes orales de acción directa atendidos en atención primaria. Estudio SILVER-AP (2018) ATEN PRIM, 50 (6), 359-367. **IF: 1.1480**

De Gonzalo-Calvo D, Vea A, Bär C, Fiedler J, Couch LS, Brotons C, Llorente-Cortes V, Thum. Circulating non-coding RNAs in biomarker-guided cardiovascular therapy: a novel tool for personalized medicine? Eur Heart J. 2018 Apr 24. doi: 10.1093/eurheartj/ehy234 [Epub ahead of print]. **IF: 23.425**

Gaziano J.M., Brotons C., Coppolecchia R., Cricelli C., Darius H., Gorelick P.B., Howard G., Pearson T.A., Rothwell P.M., Ruilope L.M., Tendera M., Tognoni G., Use of aspirin to reduce risk of initial vascular events in patients at moderate risk of cardiovascular disease (ARRIVE): a randomised, double-blind, placebo-controlled trial (2018) LANCET, 392 (10152), 1036-1046. **IF: 53.2540**

Illamola Martin L., Rodriguez Cristobal J.J., Alonso-Villaverde C., Salvador-Gonzalez B., Moral Pelaez I., Long-term effects of intensive intervention on changes in lifestyle in patients with hyperfibrinogenaemia and moderate-high cardiovascular risk Efectos a largo plazo de una intervención intensiva sobre cambios en los estilos de vida en pacientes con hiperfibrinogenemia y riesgo cardiovascular moderado-alto (2018) ATEN PRIM, 50 (6), 325-331. **IF: 1.1480**

Martin-Rioboo E., Perula De Torres L.A., Banegas J.R., Lobos-Bejarano J.M., Brotons Cuixart C., Garcia Criado E.I., Martin-Carrillo P., Martin-Rabadan Muro M., Egocheaga Cabello M.I., Maiques Galan A., Knowledge, availability, and use of ambulatory and home blood pressure monitoring in primary care in Spain: The MAMPA study (2018) J HYPERTENS, 36 (5), 1051-1058. **IF: 4.0920**

Pedro-Botet J., Rodriguez-Padial L., Brotons C., Esteban-Salan M., Garcia-Lerin A., Pinto X., Lekuona I., Ordonez-Llanos J., The Ideal Lipid Report: A Need for Consensus El informe analítico ideal del perfil lipídico. Necesidad de un consenso (2018) REV ESP CARDIOL, 71 (7), 512-514. **IF: 5.1660**

Piepoli M.F., Hoes A.W., Brotons C., Hobbs R.F.D., Corra U., Main messages for primary care from the 2016 European Guidelines on cardiovascular disease prevention in clinical practice (2018) EUR J GEN PRACT, 24 (1), 51-56. **IF: 1.4100**

Other Publications

- Brotons C, Fernández D, Moral I. Factores de riesgo cardiovascular emergentes frente a clásicos. Diabetes Práctica 2018; 9(1); 10
- Pedro-Botet J, Rodríguez-Padial L, Brotons C, Esteban-Salán M, García-Lerín A, Pintó X, Lekuona I, Ordóñez-Llanos J. Homogenization of the lipid profile values. Clin Investig Arterioscler. 2018 Jan-Feb;30(1):36-48. doi: 10.1016/j.arteri.2017.12.001.
- López-Simarro F, Moral I, Aguado-Jodar A, Cols-Sagarra C, Mancera-Romero J, Alonso-Fernández M, Miravet-Jiménez S, Brotons C. The impact of therapeutic inertia and the degree of the medication adherence on the control goals for patients with diabetes]. Semergen. 2018 Nov-Dec; 44(8): 579-585. doi: 10.1016/j.semerg.2017.10.002
- Cinza Sanjurjo S, et al. Prevalencia de obesidad y comorbilidad cardiovascular asociada en los pacientes incluidos en el estudio IBERICAN (Identificación de la poBlación Española de RIesgo CArdiovascular y reNal). Semergen. 2018. https://doi.org/10.1016/j.semerg.2018.11.003 (Anexo. Investigadores Participantes- Cataluña: Diana Elizabeth Fernández Valverde)

Diffusion Activities

- Fernández D, Brotons C, Vilella T. Estudio @tendidos: Insuficiencia Cardíaca en Atención Primaria. 8es Jornades TIC Salut i Social. Vic, 2018.
- Ruilope LM, Calvo-Bonacho E, Brotons C, Quevedo-Aguado L, Segura J, Martínez P, Ruiz-Hurtado G, Moral I. Comparativa entre la medida en consulta y otros cuatro métodos para evaluar la presión arterial (BPTRU, AMPA, MAPA Y PAC) durante 3 años de seguimiento. XX Congreso de la Sociedad Española de Cardiología. Sevilla, 25-27 October 2018. (Poster)
- Brotons Cuixart C, Moral Peláez I, Fernández Valverde D, Puig Palma M, Calvo-Bonacho E, Martínez-Muñoz P, Catalina-Romero C, Quevedo-Aguado LJ. Riesgo cardiovascular de por vida: comparación del nuevo modelo español con los modelos el británico y norteamericano. XX Congreso de la Sociedad Española de Cardiología. Sevilla, 25-27 October 2018. (Poster)
- Brotons C, Moral I, Puig M, Calvo E, Martínez P, Quevedo L, Catalina C. Are we overestimating or underestimating cardiovascular events risk? The impact of using the American, British and European guidelines on cardiovascular risk assessment. Preventing Overdiagnosis 2018. Copenhagen, Denmark. 20-22 August 2018. (Oral communication).
- Brotons C. Más allá de los factores de riesgo convencionales en la isquemia prematura: estudio PRESARV. 31 Congreso de la Sociedad Española de Arterioesclerosis. Girona, 30-31 May-1 June 2018. (Workshop Grupo Arterioesclerosis prematura.Nuevas perspectivas en la valoración del riesgo vascular en los pacientes con isquemia prematura).
- Moral I, Calvo E, Puig M, Quevedo LJ, Catalina C, Fernández-Labandera C, Martínez P, Fernández DE, Vilella MT, Brotons C. Riesgo cardiovascular de por vida: una nueva herramienta para el cálculo del riesgo en adultos jóvenes. 31 Congreso de la Sociedad Española de Arterioesclerosis. Girona, 30-31 May-1 June 2018. (Oral communication).
- Fernández Valverde D, Brotons Cuixart C, Casasa Plana A, Moral Peláez I, Vilella Moreno MT, Redondo Prieto M. Utilización de la telemedicina en insuficiencia cardiaca: programa @tendidos. XXXVIII Congreso de la semFYC, 10-12 May 2018. Barcelona (Research forum "Tecnología, de la teoría a la práctica")
- Fuentes García R, Moral Peláez I, Fernández Valverde DE, Vilella Moreno MT, Brotons Cuxiart C. Ensayo clínico multicéntrico, aleatorizado y abierto, para evaluar la eficacia en la reducción del riesgo cardiovascular de una intervención dirigida a mejorar la información a los pacientes con riesgo cardiovascular alto. Estudio inforisk? XXXVIII Congreso de la semFYC, 10-12 May 2018. Barcelona (Oral communication)
- Posa Santa María I, Cob Peña E, Penella Alicia S, Fernández Jubera M, Moral Peláez I, Monteserían Nadal R. Y los pacientes que opinan, ¿médico de atención primaria o médico de familia? XXXVIII Congreso de la semFYC, 10-12 May 2018. Barcelona. (Poster with defense)

AREA T2

Molecular, Genomi Kinetic-Dynamic B and their Treatmen

244 Molecular Bases of Disease

246 Pharmacokinetic/Pharmacodynamic Modelling and Simulation

248 Regenerative Medicine & Tissue Bioengineering

ic, Cellular and ases for Diseases nt

AREA T2 · Molecular, Genomic, Cellular and Kinetic-Dynamic Bases for Diseases and their Treatment

Molecular Bases of Disease

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Members
Antón López, Rosa (IR)
Fernández Rojas, Daniela Priscilla (external entity)
Nadal Rovira, Marta (IR)
Rodà Llordés, Sergi (IR)

Main Lines of Research

Cancer

- Structural and functional analysis of the androgen receptor (AR). Design and structure-function characterization of AR homodimerization inhibitors.
- Analysis of mutations and SNPs that affect the TET2 gene and implications for hematopoietic and lymphoid neoplasms.

Neurodegenerative diseases

- Analysis of the structural bases of exon-7 exclusion from SMN2 and implications for the pathobiology of spinal muscular atrophy (SMA).
- Structural and functional investigations of the kinase, PINK1, and implications for Parkinson's disease.

Thrombosis and haemostasis

- Structural and functional investigations of blood coagulation factors, with emphasis on thrombin interactions with physiological substrates (factor VIII and protease-activated receptors).

Lipid metabolism and dyslipidemias

- Bioinformatics analysis of STAP1 mutations identified in individuals with hypercholesterolemia.

Scientific Challenges

- Consolidate and extend research within the HSCSP Research Institute and the rest of the IIB Sant Pau in a context of limited access to financial support. To this end, the group needs to participate in at least one financed structure-and-function project in each of three major research areas (cardiovascular diseases, neurodegenerative diseases and cancer and innate immune responses).

Collaborations

Collaborations with other IIB Sant Pau Groups

- Metabolic Bases of Cardiovascular Risk.
- Parkinson Disease and Movement Disorders.
- Haematological Diagnosis.
- Genetic Diseases.
- Molecular Physiology of the Synapse.

External Collaborations

- Dra. Eva Estébanez-Perpiña, UBIB, Universitat de Barcelona.
- Dr. Jun Xu, Sun Yat-Sen University, Guangzhou, China.

Active Grants

- Pablo Fuentes Prior. Estudio de las interacciones de la trombina con sustratos e inhibidores y su aplicación al diseño de nuevos pro- y anticoagulantes. SAF2014-57994-R. Ministeri d'Economia i Competitivitat. Duration: 2015-2018. 100,000 €.
- Pablo Fuentes Prior. A novel splicing therapeutic approach for Spinal Muscular Atrophy. Daniel Bravo 2015. Fundació Privada Daniel Bravo-Andreu. Duration: 2016-2019. 157,717 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 16.6650 · Mean Impact Factor: 4.1663

Alias L., Bernal S., Calucho M., Martinez E., March F., Gallano P., Fuentes-Prior P., Abuli A., Serra-Juhe C., Tizzano E.F., Utility of two SMN1 variants to improve spinal muscular atrophy carrier diagnosis and genetic counselling (2018) EUR J HUM GENET, 26 (10), 1554-1557. **IF: 3.6360**

Blanco-Vaca F., Martin-Campos J.M., Perez A., Fuentes-Prior P., A rare STAP1 mutation incompletely associated with familial hypercholesterolemia (2018) CLIN CHIM ACTA, 487, 270-274. **IF: 2.9260**

Calucho M., Bernal S., Alias L., March F., Vencesla A., Rodriguez-Alvarez F.J., Aller E., Fernandez R.M., Borrego S., Millan J.M., Hernandez-Chico C., Cusco I., Fuentes-Prior P., Tizzano E.F., Correlation between SMA type and SMN2 copy number revisited: An analysis of 625 unrelated Spanish patients and a compilation of 2834 reported cases (2018) NEUROMUSCULAR DISORD, 28 (3), 208-215. **IF: 2.4870**

Ramos-Vicente D., Ji J., Gratacos-Batlle E., Gou G., Reig-Viader R., Luis J., Burguera D., Navas-Perez E., Garcia-Fernandez J., Fuentes-Prior P., Escriva H., Roher N., Soto D., Bayes A., Metazoan evolution of glutamate receptors reveals unreported phylogenetic groups and divergent lineage-specific events (2018) ELIFE, 7, -. **IF: 7.6160**

AREA T2 · Molecular, Genomic, Cellular and Kinetic-Dynamic Bases for Diseases and their Treatment

Pharmacokinetic/Pharmacodynamic Modelling and Simulation

Coordinator
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Members
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Main Lines of Research

- Population pharmacokinetic analysis aimed at establishing the pharmacokinetic characteristics of drugs and at differentiating and quantifying the degree of intra- and inter- variability.
- Pharmacokinetic/pharmacodynamic analysis of continuous response aimed at the analysis of effects (in the presence or absence of drugs) where the variable being evaluated changes values gradually.
- Pharmacokinetic/pharmacodynamic analysis of non-continuous response for responses most frequently observed in clinical practice, such as categorical responses, survival, frequency and censored responses.
- Simulation of clinical trials and therapeutic dosage selection aimed at assisting with the design of clinical trials to help the development of new drugs (for pharmaceutical companies) and at improving the design of clinical trials (basic research and non-profit clinical studies) and to help in applications of daily clinical practice.

Scientific Challenges

- Maintain existing external cooperation agreements.
- Establish new cooperation agreements within the HSCSP RI.
- Generate sufficient financial resources to maintain and expand group staffing.
- Communicate the group's activities.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Human Neuropsychopharmacology. Active grant "PI16/00078". Principal investigators: Jordi Riba and Enrique Álvarez. Title: Effects of an ayahuasca analogue in emotional processing in patients with borderline personality disorder. Instituto de Salud Carlos III. Total amount: 56,265 €.
- Pharmacological Research in Humans.
- Pharmacy Service. Developing the project "Population pharmacokinetics of busulfan".
- Psychiatry. Active grant PI16/00078. Principal investigators: Jordi Riba and Enrique Álvarez. Title: Effects of an ayahuasca analogue in emotional processing in patients with borderline personality disorder. Instituto de Salud Carlos III. Total amount: 56,265 €.
- Epidemiology and Traumatology Services. Developing the project "pharmacokinetics of tranexamic acid".

External Collaborations

- Lluita Contra la SIDA Foundation, Germans Trias i Pujol Hospital, Badalona, Spain:
  - Active grant: "Eficacy and safety of the HIVcons vaccine with romidepsine ini the reduction of the virus reservoir and the viral control after stopping cART. Population PK/PD anallylsis". Fondo de Investigación Sanitaria (Instituto Carlos III). (PI15/). Beatriz Mothe/José Moltó. Investigator at Sant Pau: Marta Valle.
  - Developing the project: "Population pharmacokinetics of dolutegravir in HIV infected patients".
- Pharmacy Service, Hospital Quiron, Mallorca, Spain. Developing the PhD thesis: "Antimicrobial use in a small-medium size hospital".
- Department of Pharmacology, Torino University, Italy. Developing the project: "population pharmacokinetics of dolutegravir in HIV infected patients".
- Department of Oncology. Hospital Vall d'Hebron. Developing the PhD thesis: "Pharmacokinetics of oncologic drugs in patients with hepatic or renal impairment".

Active Grants

- Marta Valle Cano. Targeted nanocongugates for the selective elimination of stem cells in disseminated cancer. PIE15/00028. Instituto de Salud Carlos III. Duration: 2016-2019. 82,640 €.
- Marta Valle Cano. Use of modeling and simulation for the development of a new entity in oncology. Orizon Genomics SA. 25,900 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Marta Valle Cano, Grup d'Investigació en Farmacología Humana., 2017 SGR 01133, Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.

Note: Total amount granted to PI. It does not include indirect costs.

Doctoral Theses

- Pedro Más Morey. Intervention of clinical pharmacists on antimicrobial use in small-to-medium-sized hospitals and its economic impact. Universitat Autònoma de Barcelona. Director: Marta Valle Cano. Date of defense: 30/11/2018.
- Arantxa Sancho. New clinical trial designs applied to the study of orphan and rare diseases: feasibility of methodological guidance to clinical development of new treatments from a regulatory perspective. Universitat Autònoma de Barcelona. Directors: Caridad Pontes/ Ferran Torre (Tutor: Marta Valle). Date of defense: 30/11/2018.
- Yolanda Escamilla. Comparison of two intravenous alpha-2 agonists as anesthetic adyuvants in nasosinusal endoscopic surgery: randomized clinical trial of clonidina vs desmedetomidine, Universitat Autònoma de Barcelona. Director: Caridad Pontes (Tutor: Marta Valle). Date of defense: 18/10/2018.

Scientific Production

Total Impact Factor: 13.909 · Mean Impact Factor: 3.4773

Mas-Morey P, Valle M. A systematic review of inpatient antimicrobial stewardship programmes involving clinical pharmacists in small-to-medium-sized hospitals. Eur J Hosp Pharm 2018;25:e69-e73. **IF: 0.538**

Mas-Morey P, Ballesteros-Fernández A, Sanmartin-Mestre E, Valle M. Impact of clinical pharmacist intervention on antimicrobial use in a small 164-bed hospital. Eur J Hosp Pharm 2018;25:e46-e5. **IF: 0.538**

Molto J., Curran A., Miranda C., Challenger E., Santos J.R., Ribera E., Khoo S., Valle M., Clotet B., Pharmacokinetics of darunavir/cobicistat and etravirine alone and co-administered in HIV-infected patients (2018) J ANTIMICROB CHEMOTH, 73 (3), 732-737. **IF: 5.2170**

Ripolles P., Ferreri L., Mas-Herrero E., Alicart H., Gomez-Andres A., Marco-Pallares J., Antonijoan R.M., Noesselt T., Valle M., Riba J., Rodriguez-Fornells A., Intrinsically regulated learning is modulated by synaptic dopamine signaling (2018) ELIFE, 7. **IF: 7.6160**

Other Publications

- Santamaría E, Izquierdo I, Valle M, Vermeulen J, Potter P. Rupatadine oral solution for 2-5-year-old children with allergic rhinitis: a safety, open-label, prospective study. J Asthma Allergy. 2018 Sep 4;11:225-231. doi: 10.2147/JAA.S164632. eCollection 2018.

Books or Chapters with ISBN

- Marta Valle, Elisabet Domínguez-Clavé, Matilde Elices, Juan Carlos Pascual, Joaquim Soler, José A. Morales-García, Ana Pérez-Castillo, Jordi Riba. Ayahuasca as an unusually versatile therapeutic agent: from molecules to meta-cognition and back. In: Labate B.C. and Cavnar C. Ayahuasca Healing and Science. Springer, 2018.

Diffusion Activities

Contributions to conferences

- M. Valle. Modeling and optimal design in pediatrics. Modelbio 2018. Jornadas de modelización y simulación en biomedicina 2018. Alicante, Spain. 21-23 November, 2018.
- Pla-Junca F, Riba J, Garrido M, Puntes M Antonijoan RM, González M, Martínez-Bonifacio D, Claramunt J, Valle M. Population pharmacokinetic modelling of a sublingual single dose of tetrahydrocannabinol and cannabidiol in healthy male volunteers. Modelbio 2018. Jornadas de modelización y simulación en biomedicina 2018. Alicante, Spain. 21-23 November, 2018.

AREA T2 · Molecular, Genomic, Cellular and Kinetic-Dynamic Bases for Diseases and their Treatment

Regenerative Medicine & Tissue Bioengineering

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Riba Tietz, Tatiana (IR)
Tabera, Jaime (BST)
Trias Adroher, Esteve (BST)
Vilarrodona Serrat, Anna (BST)

Main Lines of Research

- Tissue procurement, clinical application, ethics and regulation.
- Tissue decellularization approaches for clinical applications.
- Cell-based therapy for ocular diseases.
- 3D bioimpression and biocompatible substrates.
- Ex-vivo cell expansion for regenerative purposes.

Scientific Challenges

- Optimization and improvement of technical procedures related to the donor and tissues.
- Advances in the elaboration of criteria, regulation and ethics for donor and tissues.
- Technical excellence related to the processing cells, tissues and advanced therapies medical products (ATMP).
- The development of new approaches and ATMPs for regenerative medicine.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Ophthalmology (Dr. José Antonio Buil, Dra. Zoraida del Campo).
- Locomotor System Research (Dr. Pablo Gelber).
- Women and Perinatal Health Research Group (Dr. Josep Oriol Porta, Dra. Elisa Llurba).
- Genomics of Complex Diseases (Dr. José Manuel Soria).
- Metabolic Bases of Cardiovascular Risk (Dr. Josep Julve).

External Collaborations

National

- University of Barcelona, Department of Surgery.
- University of Barcelona, Biophysics and Bioengineering Unit.
- Institute for Bioengineering of Catalonia (IBEC).
- Center of Regenerative Medicine (CMR), Barcelona.
- Center of Genomic Regulation (CRG), Barcelona.
- Image Diagnostic Institute (IDI), Barcelona.
- Vall d'Hebron Research Institute (VHIR), Barcelona.
- Advanced Therapies Committee, Hospital Clínic de Barcelona.
- ICREC Group, Hospital Germans Trias i Pujol (Badalona).
- Department of Cell Biology (UAB).

International

- National Health Service Blood and Tissue (Liverpool, UK).
- Veneto Eye and Multitissue Bank (Mestre-Treviso, Italy).
- Irish Blood and Tissue Bank (Dublin, Ireland).
- Croatia National Tissue Bank (Zagreb, Croatia).
- EFS-National Blood Service (Paris, France).

Active Grants

- Ricardo P. Casaroli-Marano. Potencial terapéutico de las células progenitoras pluripotentes inducidas (IPSC) y las células progenitoras mesenquimales del estroma de la médula ósea (MSCs) nestina positivas para la regeneración de la superficie ocular. PI14/00196 2014 Fondos de Investigaciones Sanitarias. Instituto de Salud Carlos III. Duration: 2015-2018. 136,125,00 €.
- Ricardo P. Casaroli-Marano (PVE); Cristina Muccioli. Interferon-γ Release Assay (IGRA), GeneXpert platform and Real-time Polymerase Chain Reaction (RT-PCR): Implications for the diagnosis and management of tuberculosis-related ocular inflammation. 401096/2014-9National Council for Scientific and Technological Development (CNPq). Duration: 2015-2018. 74,370 €.

- Ricardo P. Casaroli-Marano. Analysis of the composition and in vitro functionality of amniotic membran extract and umbilical cord plasma as therapeutic agents for the regeneration of the ocular surface. Banc de Sang i Teixits (BST). Covocatoria de Proyectos Internos 2017 I.2017.036. Duration: 2017-2018. Dotación: 73.200,00 €.
- Caterina Aloy-Reverte Aislamiento y expansión exvivo de queratinocitos epidérmicos para aplicación clínica. Banc de Sang i Teixits (BST- GenCAT). I.2017.057. Covocatoria de Proyectos Internos 2017. Duration: 2017-2019. 38,552 €.
- Nuria Nieto-Nicolau. Obtención de matriz nerviosa descelularizada para la regeneración de nervios periféricos. Banc de Sang i Teixits (BST- GenCAT). I.2017.056. Covocatoria de Proyectos Internos 2017. Duration: 2017-2020. Dotación: 136,000 €.
- Esteve TRIAS. Good Practices for demonstrating safety and quality through recipient follow-up — Euro-GTP II. European Union's Health Programme (2014-2020). 709567-EuroGTP II-HP-PJ-2015. Duration: 2015-2019. 1,030,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Ricardo Pedro Casaroli Marano. Bioenginyeria de Teixits i Medicina Regenerativa. 2017 SGR 01113. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2017-2019.
- Ricardo Pedro Casaroli Marano. Células pluripotentes inducidas y reprogramación celular en las aproximaciones de terapia basada en células para la regeneración de la córnea. PI18/00355. Instituto de Salud Carlos III. Duration: 2019-2021. 92,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Ricardo P Casaroli-Marano: Professor Joaquín Barraquer Price, Catalonia Royal Academy of Medicine. Barcelona 2017.
- Ricardo P Casaroli-Marano: Special Visiting Researcher, program "Science Without Frontiers", National Council for Scientific and Technological Development (CNPq, Brazil). Grant 401096/2014-9 (Mar 2015-Mar 2019).

Doctoral Theses

- Bárbara Delas Alos, Análisis de la anatomía y funcionalidad foveal en ojos de pacientes con agujero macular idiopático antes y después de la cirugía. Universitat de Barcelona. Directors: Ricardo P Casaroli-Marano, Jeroni Nadal Reus. Date of defense: 24/01/2018.

Patents

- Casaroli Marano RP, Reina M, Vilaró S, Parente Duena A, García Antón JM., Use of glycoprotein NF3 (Pseudoalteromas antartica) for the treatment and re-epithelization of wounds. European Patent Office: 02738185.4-2107-ES0200281, Patent in operation, 07/06/2002
- Parente Duena A, Garces Garces J, Guinea Sánchez J, García Antón JM, Casaroli Marano RP, Reina M, Vilaró S. Use of glyprotein produced by Pseudoalteromonas antartica and having fibroblast adhesion and keratinocyte growth promoting action in topical compositions for woung treatment and re-epithelization. International Patent Classification: WO2002102406-A1 / EP1402898-A1 / EP1402898-B1, Patent in operation, 27/12/2002
- Parente Duena A, Garces Garces J, Guinea Sánchez J, García Antón JM, Casaroli Marano RP, Reina M, Vilaró S., Use of a glycoprotein for the treatment and re-epithelization of wounds.
- Official Gazette of the United States Patent and Trademark Office Patents (ISSN: 0098-1133), 04April06. United States Patent and Trademark Office Patents: US07022668. Patent in operation, 04/04/2006
- Benet Ferrus D, Corcostegui Guraya B, Prieto García J, (Casaroli-Marano RP)., Conjunto de moléculas anti-angiogénicas y su uso. Oficina Española de Patentes y Marcas: P200801291. Patent, 01/09/2011
- Benet Ferrus D, Corcostegui Guraya B, Prieto García J, (Casaroli-Marano RP)., Set of antiangiogenic molecules and use thereof. European Patent Office: PCT/ES2009/000236 / WO2009138533, Patent, 26/11/2010
- Q-Genomics, Maribel Canut Jordana, Casaroli-Marano RP., In Vitro pharmacogenomic screening method for anticipating a patient's response to the treatment of ocular hypertension. European Patent Office: 18195545.1, Patent, 19/09/2018

Transfer Products

- Casaroli-Marano RP, Sala A, Baró T. Programa CAR: Comunicación de Alto Rendimiento (para oftalmólogos). Programa Formativo Acreditado. Comisión de Formación Continuada del Sistema Nacional de Salud (SNS), Sociedad Española de Reina y Vítreo (SERV) y Bayer España, 2018. (http://www.caroftalmologos.com)
- Trias E, Villarodona A, Fariñas O, Tabera J, Agustí E, Perez ML, Casaroli-Marano R, Piteira R. Master's Degree in Transfusion Medicine and Advanced Cell Therapies - Didactic Unit 6: Tissue Banking

Scientific Production

Total Impact Factor: 25.666 · Mean Impact Factor: 3.2083

Aloy-Reverté C, Moreno-Amador JL, Nacher M, Montanya E, Semino CE. Use of RGD-Functionalized Sandwich Cultures to Promote Redifferentiation of Human Pancreatic Beta Cells After In Vitro Expansion. (2018) Tissue Eng Part A. 24(5-6):394-406. doi: 10.1089/ten.tea.2016.0493. PMID: 28873332. **IF: 3.508**

Castella M, Boronat A, Martín-Ibáñez R, Rodríguez V, Suñé G, Caballero M, Marzal B, Pérez-Amill L, Martín-Antonio B, Castaño J, Bueno C, Balagué O, González-Navarro EA, Serra-Pages C, et al. Development of a Novel Anti-CD19 Chimeric Antigen Receptor: A Paradigm for an Affordable CAR T Cell Production at Academic Institutions. (2018) Mol Ther

Methods Clin Dev. 6;12:134-144. doi:10.1016/j.omtm.2018.11.010. PMID: 30623002. **IF: 3.681**

De Castro-Miro M., Tonda R., Marfany G., Casaroli-Marano R.P., Gonzalez-Duarte R., Novel mutation in the choroideremia gene and multi-mendelian phenotypes in Spanish families (2018) BRIT J OPHTHALMOL, 102 (10), 1378-1386. **IF: 3.3840**

Freitas-Simoes TM, Cofán M, Blasco MA, Soberón N, Foronda M, Corella M, Asensio EM, Serra-Mir M, Roth I, Calvo C, Valls-Pedret C, Casaroli-Marano RP, Doménech M, Rajaram S, Sabaté J, Ros E, Sala-Vila A. The red blood cell proportion of arachidonic acid relates to shorter leukocyte telomeres in Mediterranean elders: A secondary analysis of a randomized controlled trial. (2018) Clin Nutr. Feb 17 (open access). pii: S0261-5614(18)30074-8. doi: 10.1016/j.clnu.2018.02.011. **IF: 5.496**

Fernandez-Robredo P, Recalde S, Hernandez M, Zarranz-Ventura J, Molins B, Casaroli-Marano RP, Adan A, Saenz-de-Viteri M, García-Layana A. Novel Association of High C-Reactive Protein Levels and A69S at Risk Alleles in Wet Age-Related Macular Degeneration Women. (2018) Front Immunol. 14;9:1862. doi: 10.3389/fimmu.2018.01862. PMID: 30154790. **IF: 5.511**

Gelber PE, Erquicia JI, Ramírez-Bermejo E, Fariñas O, Monllau JC. Fresh Osteochondral and Meniscus Allografting for Post-traumatic Tibial Plateau Defects. (2018) Arthrosc Tech. 28;7(6):e661-e667. doi: 10.1016/j.eats.2018.02.010. PMID: 30013907. **IF: 0.660**

Gelber PE, Perelli S, Ibañez M, Ramírez-Bermejo E, Fariñas O, Monllau JC, Sanchis-Alfonso V. Fresh Osteochondral Patellar Allograft Resurfacing. (2018) Arthrosc Tech. 14;7(6):e617-e622. doi: 10.1016/j.eats.2018.04.001. PMID: 30013903. **IF: 0.660**

Moreno-Amador JL, Téllez N, Marin S, Aloy-Reverté C, Semino C, Nacher M, Montanya E. Epithelial to mesenchymal transition in human endocrine islet cells. (2018) PLoS One. 23;13(1):e0191104. doi: 10.1371/journal.pone.0191104. PMID: 29360826. **IF: 2.766**

Other Publications

- Casaroli-Marano RP. Aspectos Fisiopatológicos del Edema Macular que Justifican la Terapia Antiinflamatoria.Monografía Allergan. You & Us SA Madrid (España), 2018 (ISBN: 978-84-947862-6-6) (Deposito legal: M-1437-2018), pp 1-6.

Books or Chapters with ISBN

- Pinilla I, Casaroli-Marano RP, Chhablani JK, García N, Gallego R. Distrofias Coriorretinianas. Manual de Imagen Multimodal en Retina (Club Español de la Macula). Elsevier España LSU (Barcelona, España), 2018 (ISBN: 978-84-9113-356-8) (Depósito legal: B 24750-2017). Capítulo 11, pp 161-178.

Diffusion Activities

Communications in congresses

- Martínez-Conesa EM, Vilarrodona A, Paredes A, Romero R, Belenes C, Otero N, Agustí E, Casaroli-Marano RP, Trias E. Development of a new lyophilization procedure for human amniotic membrane. XXX European Eye Bank Association (EEBA) Meeting. Coimbra, Portugal. 25-27 de enero de 2018 (International).
- Iglesias M, Laiseca A, Casaroli-Marano RP, Kudsieh B, Nadal J, Barrauqer RI. New experimental applanation tonometer for myopic patients after laser refractive surgery. Association for Research in Vision and Ophthalmology (ARVO), 2018 Annual Meeting, Honolulu (Hawaii, USA), 29 April-3 May 2018 (International).
- Bandeira FB, Aloy-Reverté C, Loureiro RR, Covre J, Otero N, Cristovam P, Guell JL, Casaroli-Marano RP, Gomes JA.Comparison between Human Corneal Endothelial Cells (HCEC) expansion with corneas preserved in intermedium-term and long-term corneal storage media. Association for Research in Vision and Ophthalmology (ARVO), 2018 Annual Meeting, Honolulu (Hawaii, USA), 29 April-3 May 2018 (International).
- Fernández-Zamora Y, Casaroli-Marano RP, Finamor L, Marinho PM, Silva LMP, Rodrigues D, Muccioli C. Differences in the approach of Brazilian experts to the diagnosis and treatment of tuberculosis-related uveitis. World Ophthalmological Congress (WOC) 2018, Barcelona (Spain), 16-19 June 2018 (International).
- Silva LMP, Fernández-Zamora Y, Finamor L, Casaroli-Marano RP, Muccioli C. Quality of life and psychosocial aspects in uveítis patients. World Ophthalmological Congress (WOC) 2018, Barcelona (Spain), 16-19 June 2018 (International).
- Finamor L, Casaroli-Marano RP, Fernández-Zamora Y, Marinho PM, Silva LMP, Rodrigues D, Muccioli C. Interferon-gamma realice assay (IGRA): Implications for the diagnosis and management of tuberculosis-related ocular inflammation. Main results. World Ophthalmological Congress (WOC) 2018, Barcelona (Spain), 16-19 June 2018 (International).
- Nieto-Nicolau N, Martínez-conesa EM, Otero N, Trias E, Vilarrodona A, Casaroli-Marano RP. Ages donor feasibility as source of limbal stem cells (LSC) for cell therapy. World Ophthalmological Congress (WOC) 2018, Barcelona (Spain), 16-19 junio 2018 (International).
- Iglesias M. Barraquer RI, Kudsieh B, Laiseca A, Nadal J, Casaroli-Marano RP.New experimental applanation tonometer for myopic patients after LASER refractive surgery. World Ophthalmological Congress (WOC) 2018, Barcelona (Spain), 16-19 June 2018 (International).
- Delas B, Fernandez-Vega A, Julio G, Nadal J, Casaroli-Marano RP. Reduction of foveal bulges and other anatomical changes in fellow eyes of patients with unilateral idiopathic macular hole without vitreomacular traction. World Ophthalmological Congress (WOC) 2018, Barcelona (Spain), 16-19 June 2018 (International).
- Sanchez-Dalmau B, Camos-Carrera A, Casaroli-Marano RP, Figueroa JP, Giralt J, Serrano AR, Alforja S. Paracentral acute middle maculopaty in a young girl with neurofibromatosis: A case report. World Ophthalmological Congress (WOC) 2018, Barcelona (Spain), 16-19 de June 2018 (International).
- Figueras-Roca M, Parrado A, Casaroli-Marano RP, Barthelmes D, Gillies MC, Zarranz-Ventura J. One-year comparison of fixed bi-monthly and treat-and-extend anti-VEGF regimes for treatment naïve neovascular age-related degeneration: a routine clinical practice observational report. 18Th EURETINA Congress, Vienna, Austria. 20-23 September 2018. (International)
- Otero N, Vilarrodona A, Agustí E, Martínez-Conesa EM, Peraza J, Torras J, Huguet TM, Gris O, Güell JL, Casaroli-Marano RP, Trias E. Descemet memebrane graft separation at Barcelona Tissue Bank: Techniquer description, safety and efficacy analysis throug clinical follow-up. 36th Congress of European Society of Cataract & Refractive Surgeons (ESCRS), Vienna, Austria. 22-26 September 2018. (International).
- Castro-Miró M, Tuson M, Tonda Hernández R, Ciccioli M, Hidalgo DA, Casaroli-Marano RP, Marfany G, González-Duarte R. Comparación de estrategias de secuenciación de última generación para un diagnóstico molecular exhaustivo de las enfermedades oculares hereditarias: secuenciación del exoma frente a paneles de genes. 94 Congreso de la Sociedad Española de Oftalmología, Granada (España). 26-29 September 2018 (National).
- Perez ML, Martínez-Conesa EM, Otero N, Agustí E, Vilarrodona A, Casaroli-Marano RP, Trias E. Development of a new lyophilization procedure for human amniotic membranes. 27th Congress of European Association of Tissue Banks (EATB), Lillle, France. 17-19 October 2018. (International).

- Pelegrin L, Martinez A, Abuli M, Sibila O, Bhandari S, Subedi Y, Pyakurel D, Roca E, Garrido L, Bayés-Genís A, Casaroli-Marano RP, Soria JM. Choroidal and retinal thickness changes induced by hypoxia in high-altitude conditions: Results from the SHERPA-Everest'2017 Project. XII International Society for Mountain Medicine (ISMM) World Congress 2018, Katmandu, Nepal. 21-25 de noviembre de 2018. (International).
- Parrado-Carrillo A, Figueras-Roca M, Casaroli-Marano RP, Zarranz-Ventura J. Resultados y comparación del tratamiento durante un año con pauta fija bimensual versus treat-and-extend en pacientes con degeneración macular asociada a la edad neovascular naïve: estudio observacional de práctica clínica real con la plataforma Fight Retinal Blindness (FRB). 49 Congrés de la Societat Catalana de Oftalmologia, Barcelona. 22-24 November 2018 (National).
- Carreras X, Pulido L, Anmella X, Marín S, Alforja S, Casaroli-Marano RP. Hallazgos mediante tomografía de coherencia óptica (OCT) en pacientes con vasculopatía coroidea polipoidal. 49 Congrés de la Societat Catalana de Oftalmologia, Barcelona, España. 22-24 November 2018 (National).
- Marín S, AnmellaX, Pulido L, Carreras X, Alforja S, Casaroli-Marano RP. Tomografía de coherencia óptica (OCT): hallazgos característicos en la proliferación angiomatosa de la retina. 49 Congrés de la Societat Catalana de Oftalmologia, Barcelona, España. 22-24 November 2018 (National).
- Fernández Zamora Y, Peixoto Finamor L, Merie Silva LP, Rodrigues D, Casaroli-Marano RP, Muccioli C.Correlation between tuberculin skin test and interferon-gamma released assays in ocular tuberculosis. 20th Research Days Postgraduate Program in Ophthalmology and Visual Science, Sao Paulo, Brasil. 13-14 December 2018. (International).
- Nieto-Nicolau N; Castells-Sala C; López-Chicón P; Fariñas O; Navarro X; Udina E; Bolívar S; Trias E. Preliminary studies about nerve decellularization. Congress of European Association of Tissue Banks (EATB). Lille, Francia. 17-19 October 2018. (International).

Conferences

- Casaroli-Marano RP. Therapeutic alternatives for severe lachrymal dysfuction syndrome: Umbilical cord blood serum eye drop. XXX Annual Congress of European Eye Bank Association (EEBA). Coimbra (Portugal). 25-27 January 2018. (International).
- Martínez-Conesa EM, Pérez ML. Therapeutic alternatives for severe lachrymal dysfuction syndrome: The Amniotic Membrane Extract. XXX Annual Congress of European Eye Bank Association (EEBA). Coimbra (Portugal). 25-27 January 2018. (International).
- Rita Piteira. EuroGTP II Project - Good Practices for Demonstrating Safety and Quality Trough Recipient Follow-up. XXX Annual Congress of European Eye Bank Association (EEBA). Coimbra (Portugal). 25-27 January 2018. (International).
- Elba Agustí. Implementing a New Quality Control in Precut Corneas Because of Non Safisfactory Follow-up. XXX Annual Congress of European Eye Bank Association (EEBA). Coimbra (Portugal). 25-27 January 2018. (International).
- Rita Piteira (Chair in the session)Cell therapy. The EBMT Legal and Regulatory Affairs Committee special session". 44th Annual Meeting of European Society for Blood and Marrow Transplantation (EBMT). Lisbon (Portugal) 18-21 March 2018. (International).
- Esteve Trias. The EuroGTP II project. 44th Annual Meeting of European Society for Blood and Marrow Transplantation (EBMT). Lisbon (Portugal) 18-21 March 2018. (International).
- Casaroli-Marano RP. Una nueva visión de Aflibercept: Más allá del VEGF-A (Simposio Bayer). XXII Congreso de la Sociedad Española de Retina y Vítreo (SERV). Santander (Spain). 02 March 2018. (National).
- Casaroli-Marano RP. Ophthalmology: Incoming technologies and transplantation. 10 th International Course on Tissue Banking and Advanced Therapies, Barcelona (Spain). 31 May 2018. (International).
- Casaroli-Marano RP. Futures challenges of Eye Banks: Cell therapies and other innovative therapies. 3rd World Eye Bank Symposium (WEBS), Barcelona (Spain). 15 June 2018. (International).
- Vilarrodona A. Hacia un modelo eficiente de establecimiento de tejidos. El futuro del trasplante en España ¿Podemos hacerlo mejor? Organización Nacional de Trasplantes, Madrid, 4 April 2018. (National).
- Jaime Tabera, Rita Piteira, Richard Lomas, Akila Chandrasekar. EuroGTP II Workshop - Using EuroGTP II methodologies & tools to assess safety and efficacy. 27th Congress of European Association of Tissue Banks (EATB). Lille (France) 17-19 October 2018. (International).

Courses and seminars

- Vilarrodona A (coordinator). Donación de Tejidos. Curso de Donación y Trasplante en Anestesiología y Reanimación. Donación de Tejidos, Barcelona (Spain). 28 February-3 March 2018.
- Vilarrodona A (coordinator). II Curso sobre la Prevención de Transmisión de Enfermedades y el Control de Riesgos en la Donación y en el Trasplante de Órganos y Tejidos. Barcelona (Spain). 10-11 April 2018.
- Trías E, Vilarrodona A, Casaroli-Marano RC, Fariñas O, Martí-Huguet T, Plaza Y, Agustí E, Otero N, Martínez-Conesa EM (coordinators). Capacitació de Teixit Ocular i Membrana Amniótica. Barcelona (Spain). 15 November 2018. Accredited by the Catalan Board of Continuing Education for Health Professions (CCFCPS) with 1.2 credits (File 09/023411-MD).
- Agustí E (coordinator). El Papel de los Banco de Ojos en el Programa de Autosuficiencia de Córneas en España. Módulo III. Zaragoza (Spain). Organización Nacional de Trasplantes, 8-9 March 2018.
- Vuilarrodona A, Agustí E (coordinators). Jornada Intercongresos de la Asociación Española de Banco de Tejidos (AEBT). Madrid (Spain). 25 May 2018.

Associated Groups

254 Emerging Processes in Prevalent Diseases

257 Radiophysics and Radioprotection

259 Paediatrics

263 Ophthalmology

264 Nuclear Medicine

266 Intensive Medicine

269 Pharmacy

273 Dermatology

275 Anaesthesiology

277 Plastic Surgery

280 Palliative Care

281 Andrology

284 Urology

294 Radiation Oncology

296 Locomotor System Research

298 Pain and Neurosciences

300 Nursing Care Research

302 Reproductive Health

303 Cardiac Surgery

Associated Groups

Emerging Processes in Prevalent Diseases

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Blázquez Andion, Marta (FGS)
Bustamante Araujo, Marco (FGS)
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Gil Olivas, Eva (FGS)
Guardiola Tey, José María (FGS)
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Herrera Mateo, Sergio Antonio (FGS)
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Lozano Polo, Laura (FGS)
Mateo Roca, Miriam (FGS)
Mauri Plana, Albert (FGS)
Moliné Pareja, Antoni (FGS)
Montiel Dacosta, Josep Antoni (FGS)
Moreno Pinillos, Rosa (FGS)
Mur Arizon, Isabel (FGS)
Piera Salmerón, Aina (FGS)
Puig Campmany, Mireia (FGS)
Ris Romeu, Josep (FGS)
Rizzi, Miguel Alberto (FGS)
Romero Carrete, Carlos José (FGS)
Seres Roig, Montserrat (FGS)
Serradell Arranz, Sonia (FGS)
Trejo Gutiérrez, Olga Maria (FGS)
Turbau Valls, Miquel (FGS)

Main Lines of Research

Emerging Processes in Prevalent Diseases

- Study and analysis of processes frequently observed in emergency departments so as to transfer the results to clinical practice and provide better care to patients.

Clinical Organization and Management (Mireia Puig and Josep Ris)

- Patient safety and emergency service quality. PI: Maite Álvarez.
- Nosocomial infection. PI: Albert Mauri.
- Short-stay unit. PI: J.M. Guardiola.
- Undergraduate teaching. PI: J.A. Montiel.

Organ Donation and Coordination (Francisco Caballero and Jesús Leal)

Respiratory System Disorders (Salvador Benito)

- Acute Respiratory Failure. PI: A. Moliné.
- Ventilatory pattern analysis in heart failure. PI: Sergio Herrera.
- Pneumonia in the emergency department. PI: Míriam Mateo.
- Noninvasive ventilation. PI: Miquel Turbau.
- Pulmonary embolism. PI: Laura Lozano.

Cardiovascular System (Miquel Santaló)

- Acute coronary syndrome PI: Ivan Díaz.
- Acute coronary syndrome in women. PI: Marta Blázquez.
- Ultrasensitive markers in acute coronary syndrome. PI: Aitor Alquézar.
- Cardiac failure. PI: Miguel Rizzi.
- Supraventricular arrhythmias. PI: Olga Trejo.

Community Disorders

- Diabetes care in emergency departments. PI: Iván Agra.
- Infection in emergency departments. PI: J.M. Guardiola.
- Sepsis syndrome. PI: Ivan Díaz.
- Elderly patients. PI: Leopoldo Higa.
- Sexes transmitted disease. PI: Montse Seres.
- Haematology disease. PI: Marta Blázquez.

Grants Awarded in 2018

- Mireia Puig Campmany. Nueva área de Urgencias para ancianos frágiles creada en el marco de un Programa de Atención Geriátrica del Servicio: Evaluación de la experiencia del paciente. QUIRONSALUD 2018, Quironsalud. Duration: 2019-2020, 10,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- I Premio Quirónsalud a las Mejores Iniciativas en Experiencia del Paciente. Año 2018. "Nueva área de Urgencias para ancianos frágiles creada en el marco de un Programa de Atención Geriatrica del Servicio: Evaluación de la experiencia del paciente"

Doctoral Theses

- Laura Lozano Polo. Adherència a les guies de pràctica clínica en el diagnòstic d'embolisme pulmonar en un Servei d'Urgències. Impacte clínic d'una intervenció formativa., Universitat Autònoma de Barcelona. Director: Mireia Puig Campmany. Date of defense: 15/10/2018

Scientific Production

Total Impact Factor: 62.017 · Mean Impact Factor: 3.4453

Alberto R.M., Domingo R., Aitor A., Sergio H.M., Pascual P., Mireia P., Salvador B., Herminia T.O., Long-term prognostic value of functional status and delirium in emergency patients with decompensated heart failure (2018) EUR GERIATR MED, 9 (4), 515-522. **IF: 1.1690**

Alquezar-Arbe A., Lopez Barbeito B., Clinical scales: Tools for the diagnosis of unstable angina Escalas clínicas: una herramienta para el diagnóstico de angina inestable (2018) REV CLIN ESP, 218 (2), 72-73. **IF: 1.1840**

Alquezar-Arbe A., Sanchis J., Guillen E., Bardaji A., Miro O., Ordonez-Llanos J., Cardiac troponin measurement and interpretation in the diagnosis of acute myocardial infarction in the emergency department: A consensus statement Utilización e interpretación de la troponina cardiaca para el diagnóstico del infarto agudo miocardio en los servicios de urgencias (2018) EMERGENCIAS, 30 (5), 336-349. **IF: 3.6080**

Berenguer J., Jarrin I., Perez-Latorre L., Hontanon V., Vivancos M.J., Navarro J., Tellez M.J., Guardiola J.M., Iribarren J.A., Rivero-Juarez A., Marquez M., Artero A., Morano L., Santos I., Moreno J., Farinas M.C., Galindo M.J., Hernando M.A., Montero M., et al., Human immunodeficiency virus/hepatits C virus coinfection in Spain: Elimination is feasible, but the burden of residual cirrhosis will be significant (2018) OPEN FORUM INFECT DI, 5 (1). **IF: 3.2400**

Caballero F, Puig M, Leal J, Trejo O, Diaz I, Herrera S, Turbau M, Ris J, Benito S. A helpful approach to organ donation: from end-of-life care to effective organ transplantation. Am J Transplant 2018; 18: 528-529. **IF 6.165.**

Juanes A., Garin N., Mangues M.A., Herrera S., Puig M., Faus M.J., Baena M.I., Impact of a pharmaceutical care programme for patients with chronic disease initiated at the emergency department on drug-related negative outcomes: A randomised controlled trial (2018) EUR J HOSP PHARM-S P, 25 (5), 274-280. **IF: 0.5380**

Llorens P., Javaloyes P., Martin-Sanchez F.J., Jacob J., Herrero-Puente P., Gil V., Garrido J.M., Salvo E., Fuentes M., Alonso H., Richard F., Lucas F.J., Bueno H., Parissis J., Muller C.E., Miro O., Fuentes M., et al., Time trends in characteristics, clinical course, and outcomes of 13,791 patients with acute heart failure (2018) CLIN RES CARDIOL, 107 (10), 897-913. **IF: 4.4550**

Lozano-Polo L., Puig-Campmany M., Herrera-Mateo S., Mateo-Roca M., Santos-Rodriguez J.A., Benito-Vales S., Diagnosis of pulmonary embolism in the elderly: Adherence to guidelines and age-adjusted D-dimer concentration values Diagnóstico en urgencias del embolismo pulmonar en ancianos: Adherencia a las guías y valor del dímero-D corregido por edad (2018) EMERGENCIAS, 30 (5), 321-327. **IF: 3.6080**

Martin-Sanchez F.J., Rodriguez-Adrada E., Vidan M.T., Diez Villanueva P., Llopis Garcia G., Gonzalez del Castillo J., Rizzi M.A., Alquezar A., Herrera Mateo S., Pinera P., Sanchez Nicolas J.A., Lazaro Aragues P., Llorens P., Herrero P., Jacob J., Gil V., Fernandez C., Bueno H., Miro O., Impact of geriatric assessment variables on 30-day mortality among older patients with acute heart failure Impacto de las variables geriátricas en la mortalidad a 30 días de los ancianos atendidos por insuficiencia cardiaca aguda (2018) EMERGENCIAS, 30 (3), 149-155. **IF: 3.6080**

Martin-Sanchez F.J., Llopis Garcia G., Gonzalez-Colaco Harmand M., Fernandez Perez C., Gonzalez del Castillo J., Llorens P., Herrero P., Jacob J., Gil V., Dominguez-Rodriguez A., Rossello X., Miro O., Adrada E.R., Santos M.C., Salgado L., Brizzi B.N., et al., Identification of Senior At Risk scale predicts 30-day mortality among older patients with acute heart failure La escala Identification of Senior At Risk predice la mortalidad a los 30 días en los pacientes mayores con insuficiencia cardiaca aguda (2018) MED INTENSIVA. **IF: 1.7550**

Medrano L.M., Garcia-Broncano P., Berenguer J., Gonzalez-Garcia J., Jimenez-Sousa M.A., Guardiola J.M., Crespo M., Quereda C., Sanz J., Canorea I., Carrero A., Hontanon V., Munoz-Fernandez M.A., Resino S., Elevated liver stiffness is linked to increased biomarkers of inflammation and immune activation in HIV/hepatitis C virus-coinfected patients (2018) AIDS, 32 (9), 1095-1105. **IF: 4.9140**

Miro O., Hazlitt M., Escalada X., Llorens P., Gil V., Martin-Sanchez F.J., Harjola P., Rico V., Herrero-Puente P., Jacob J., Cone D.C., Mockel M., Christ M., Freund Y., Di Somma S., Laribi S., Mebazaa A., Harjola V.-P., Fuentes M., Gil C., Alonso H., Garmila P., Adrada E.R., Escoda R., Xipell C., Sanchez C., Gaytan J.M., et al., Effects of the intensity of prehospital treatment on short-term outcomes in patients with acute heart failure: the SEMICA-2 study (2018) CLIN RES CARDIOL, 107 (4), 347-361. **IF: 4.4550**

Miro O., Estruch R., Martin-Sanchez F.J., Gil V., Jacob J., Herrero-Puente P., Herrera Mateo S., Aguirre A., Andueza J.A., Llorens P., Alonso H., Fuentes M., Gil C., Perez-Dura M.J., Salvo E., Escoda R., Xipell C., Sanchez C., Gaytan J.M., Noval A., Torres J.M., et al., Adherence to Mediterranean Diet and All-Cause Mortality After an Episode of Acute Heart Failure: Results of the MEDIT-AHF Study (2018) JACC-HEART FAIL, 6 (1), 52-62. **IF: 8.2020**

Miro O., Martinez G., Masip J., Gil V., Martin-Sanchez F.J., Llorens P., Herrero-Puente P., Sanchez C., Richard F., Lucas-Invernon J., Garrido J.M., Mebazaa A., Rios J., Peacock W.F., Hollander J.E., Jacob J., Fuentes M., Gil C., Alonso H., Garmila P., Adrada E.R., et al., Effects on short term outcome of non-invasive ventilation use in the emergency department to treat patients with acute heart failure: A propensity score-based analysis of the EAHFE Registry (2018) EUR J INTERN MED, 53, 45-51. **IF: 3.2820**

Miro O., Gil V.ictor., Martin-Sanchez F.J., Jacob J., Herrero P., Alquezar A., Llauger L., Aguilo S., Martinez G., Rios J., Dominguez-Rodriguez A., Harjola V.-P., Muller C., Parissis J., Peacock W.F., Llorens P., Fuentes M., Gil C., Perez-Dura M.J., Salvo E., Xipell C., Sanchez C., Gaytan J.M., Noval A., Torres J.M., et al., Short-term outcomes of heart failure patients with reduced and preserved ejection fraction after acute decompensation according to the final destination after emergency department care (2018) CLIN RES CARDIOL, 107 (8), 698-710. **IF: 4.4550**

Rizzi M, Ruiz D, Alquézar A, Piñera P, Herrera S, Puig M, Benito S. Long-term prognostic value of functional status and delirium in emergency patients with decompensated heart failure. Eur Geriatr Med 2018; 9(4):515-522. **IF 1.169**.

Romero R., Gaytan J.M., Aguirre A., Llorens P., Gil V., Herrero P., Jacob J., Martin-Sanchez F.J., Perez-Dura M.J., Alquezar A., Lopez M.L., Roset A., Peacock W.F., Hollander J.E., Coll-Vinent B., Miro O., Fuentes M., Gil C., Alonso H., Garmila P., Javier Martin-Sanchez F., Garcia G.L., Yanez-Palma M.C., Lopez S.I., Miro O., Escoda R., et al., The role of atrial fibrillation in the short-term outcomes of patients with acute heart failure (2018) CLIN RES CARDIOL. **IF: 4.4550**

Velilla Moliner J., Gros Baneres B., Povar Marco J., Santalo Bel M., Ordonez Llanos J., Martin Martin A., Temboury Ruiz F., Diagnostic performance of high sensitive troponin in non-ST elevation acute coronary syndrome Rendimiento diagnóstico de la troponina de alta sensibilidad en el síndrome coronario agudo sin elevación del segmento ST (2018) MED INTENSIVA. **IF: 1.7550**

Other Publications

- Agra Montava I, Puig Campmany M, Mauri Plana A, Trejo Gutierrez OM.¿Que hacemos si un paciente diabético no ingresa? Nuevas pautas según el tiempo de estancia en urgencias. Emergencias 2018;30:280-281.

Books or Chapters with ISBN

- M. Puig, J. Ris, S. Benito. Gestión en el departamento de Emergencias. In: Gestión Gestión en Áreas Críticas. Chapter 22. Antonio O. Gallesio, Eduardo Schnitzler, Sebastián Cosenza. Editorial Panamericana. Argentina 2018. Sponsored by the Sociedad Argentina de Terapia Intensiva and the Federación Panamericana e Ibérica de Medicina Critica y Terapia Intensiva. ISBN 978-950-06-9568-8.

Diffusion Activities

Posters and oral communications

- Ivan Agra Montava; Xenia-Teresa Campá Garcia; Sergio Herrera Mateo; Hector Hernandez Ontiveros; Miquel Turbau Valls; Montserrat Serès Roig. Pauta bolo-basal a urgències: Avaluació del tractament del pacient diabètic. XXV Congrés Nacional Català d'Urgències i Emergències (Girona, 19-20 April 2018). Oral communication
- Xènia Teresa Campá Garcia; Ivan Agra Montalva; Mertixell Brutau Bimbela; Sergio Herrera Mateo; Anais del Saz. Diabetis a urgències: Avaluació del maneig mitjançant l'ús d'un protocol específic. XXV Congrés Nacional Català d'Urgències i Emergències (Girona, 19-20 April 2018). Oral communication
- Ivan Agra Montava; Xenia-Teresa Campá Garcia; Sergio Herrera Mateo; Hector Hernandez Ontiveros; Miquel Turbau Valls; Montserrat Serès Roig. Pauta bolo-basal en urgencias: Correcto control glucémico. 30º Congreso Nacional SEMES (Toledo, 6-8 June 2018). Oral communication
- I Agra Montava, X Campá Garcia, M Mateo Roca, S Herrera Mateo, M.T Alvarez Albarran, I Diaz Rodriguez. Evaluación del registro glucemico en urgencias. 30º Congreso Nacional SEMES (Toledo, 6-8 June 2018). Oral communication
- Puig M, Serés M, Mateo M, Blázquez M, Mauri A, Higa J.L, Juanes Ana, Moliné A, Bustamante M, Agra I, López M, Piera A, Ris J. Elder Friendly Area in Emergency Department to improve Urgent Care for older people with frailty. 41th International Hospital Federation Congress. Finalist in IHF/EOH HEALTH Excellence Award for Leadership and Management in Healthcare. Brisbane, Australia, 2018. Poster
- Puig M, Ris J, Moline A, Gómez Ansón B, Camps P, Arjones M. Aplicació de "The Model of Improvement & The Plan-Do-Study-Act (PDSA) cycle" en la millora de processos: Comissió multidisciplinar de Seguiment de la Malaltia Vascular Cerebral Aguda. Jornada sobre atenció multidisciplinària de la Societat Catalana de Gestió Sanitària. Barcelona, 2018. Oral communication
- Blázquez M, Puig M, Ris J, Mateo M, Serés M, Espier M. Pacients que viuen en residències geriàtriques derivats a Urgències: utilitat d'una avaluació geriàtrica integral (AGI) en el marc d'un programa d'atenció a la fragilitat del servei d'urgències. XXV Congrés Nacional Català d'Urgències i Emergències. Girona 2018. Prize for the best poster.
- Blázquez M, Puig M, Mateo M, Mauri A, Garcia Sarasola A, Villegas E. La hospitalización a domicilio como alternativa al ingreso después de la visita a urgencias. 30 Congreso Nacional de la la Sociedad Española de Medicina de Urgencias y Emergencias (SEMES) 2018. Toledo, 2018. Poster
- Blázquez M, Puig M, Moline A, López M, Turbau M, Ris J. Dispositivo de atención a la fragilidad del servicio de urgencias (DAFSU): resultados. 30 Congreso Nacional de la la Sociedad Española de Medicina de Urgencias y Emergencias (SEMES) 2018. Toledo, 2018. Poster
- Puig M, Blázquez M, Higa JL, Agra I, Lozano L, Ris J. Pacientes de residencias geriátricas derivados a urgencias: utilidad de una evaluación geriátrica. 30 Congreso Nacional de la la Sociedad Española de Medicina de Urgencias y Emergencias (SEMES) 2018. Toledo, 2018. Poster
- Agra I, Puig M, Lozano L, Campà X, Mauri A,. Pauta Bolo Basal en urgencias: correcto control glucémico. 30 Congreso Nacional de la la Sociedad Española de Medicina de Urgencias y Emergencias (SEMES) 2018. Toledo, 2018. Poster

Lectures

- Mireia Puig. Continuïtat Assistencial en el procés urgent i noves maneres d'atendre la fragilitat. En: Comissió Clínica, cap a un nou model de treball. Jornada AIS Dreta. Hospital de la Santa Creu i Sant Pau, 2018.
- Miriam Mateo. Jornada de actualización en dolor. XIX Edición. Formación continuada en dolor y anestesia regional. Sant Pau Docent i Clínica del Dolor de l'Hospital de la Santa Creu i Sant Pau. Barcelona. Març 2018.
- Mireia Puig. Reptes de funcionament de la xarxa assistecial. En: III Jornada sociosanitaria de la Unió Catalana d'Hospitals. Propostes disruptives per a l'evolució del model de l'atenció sociosanitària. Barcelona, 18 abril 2018.
- Mireia Puig. Continuïtat Assistencial en el procés urgent i noves maneres d'atendre la fragilitat. En: Comissió Clínica, cap a un nou model de treball. Jornada AIS Dreta. Hospital de la Santa Creu i Sant Pau, 2018.

Congress organization

- Mireia Puig 1ª Jornada d'actualització Problemes de Salut relacionats amb els medicaments (PSM). Actuacions Coordinades en el Territori (AIS Dreta): Urgències, Atenció Primària, C. Sociosanitaris, Hospitalització Domiciliària, Residències. Hospital de la Santa Creu i Sant Pau, 2018.

Associated Groups

Radiophysics and Radioprotection

Coordinator
Ribas Morales, Montserrat (FGS)
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Members
Carrasco de Fez, Pablo (FGS)
Delgado Tapia, Paula (FGS)
Gallego Franco, Pedro (FGS)
Jornet Sala, Núria (FGS)
Latorre Musoll, Arthur (FGS)
Lizondo Gisbert, Maria (IR)
Pallerol Pinzano, Rosa M. (FGS)
Pérez-Alija Fernández, Jaime (FGS)
Ruiz Martínez, Agustín (FGS)

Main Lines of Research

External beam radiotherapy

- Characterization of various in vivo dose measurement detectors for radiation therapy treatments with intensity modulation (IMRT, VMAT).
- Validation of dose calculation algorithms for external beam radiotherapy planning systems.
- Optimization of QA procedures for IMRT, VMAT, stereotactic body radiation therapy (SBRT) and gating respiratory treatments.
- Skin dose in IMRT and SBRT techniques.

Nuclear Medicine

- Performance evaluation of the Philips Vereos PET/CT System according to the NEMA NU2-2012 standard

Collaborations

External Collaborations

- Grup d'estudis citogenètics i moleculars dels efectes de les radiacions ionitzants i del càncer. 2017 SGR 255. UAB: Joan Francesc Barquinero (IP), HSCSP: Pablo Carrasco, Montserrat Ribas, Teresa Eudaldo, Núria Jornet, Artur Latorre, Agustín Ruiz, Paula Delgado, Carla Cases, P. Itziar Valverde. 2017-2019.
- Institut de Tècniques Energètiques de Catalunya (INTE), UPC. Ongoing research and knowledge transfer projects: development of thermoluminiscence in vivo dosimetry for external beam radiotherapy use. Application of the Monte Carlo simulation method for radiation transport in a clinical environment and especially for testing and improving treatment planning systems algorithms used in external beam radiation therapy.

Active Grants

- Montserrat Ribas Morales. Precisión y seguridad en SBRT: evaluación del efecto del movimiento respiratorio y dosimetría "in vivo" mediante dosimetría portal. PI15/00788. Instituto de Salud Carlos III. Duration: 2016-2018. 81,500 €.
- Pablo Carrasco de Fez. Dosimetría en piel en técnicas de IMRT y SBRT. PROYECTOS SINGULARES 2015. Asociación Española Contra el Cáncer. Duration: 2015-2018. 25,500 €.
- Maria Lizondo Gisbert. Evaluación de las nuevas estrategias de irradiación en el tratamiento del cáncer de mama y su implementación en la clínica. AIO 2016. Associació Espanyola Contra el Càncer. Duration: 2016-2019. 135,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 9.4090 · Mean Impact Factor: 3.1363

Buus S., Lizondo M., Hokland S., Rylander S., Pedersen E.M., Tanderup K., Bentzen L., Needle migration and dosimetric impact in high-dose-rate brachytherapy for prostate cancer evaluated by repeated MRI (2018) BRACHYTHERAPY, 17 (1), 50-58. **IF: 2.2270**

Mancosu P., Nisbet A., Jornet N., Editorial: The role of medical physics in lung SBRT (2018) PHYS MEDICA, 45, 198-204. **IF: 2.2400**

Vaandering A., Jornet N., Scalliet P., Coffey M., Lievens Y., Doing the right thing: Quality in radiotherapy, a European perspective (2018) RADIOTHER ONCOL, 127 (2), 161-163. **IF: 4.9420**

Other Publications

- Catharine H Clark, Nuria Jornet, LP Muren. The role of dosimetry audit in achieving high quality radiotherapy. (2018) PhiRo (5) 85-87
- M. Pasler, V. Hernandez, N. Jornet, CH Clark. Novel methodologies for dosimetry audits; Adapting to advanced treatment techniques. (2018) PhiRo (5) 76-84
- Victor Hernandez, Jordi Saez, Marlies Pasler, Diego Jurado-Bruggeman, Nuria Jornet. Comparison of complexity metrics for multi-institutional evaluations of treatment plans in RT. (2018) PhiRo (5) 37-43

Diffusion Activities

Courses

- N. Jornet, A.Latorre, C. Cases, M. Ribas. Workshop "Dosimetria in vivo portal" in collaboration with Sun Nuclear. HSCSP, Barcelona, 21 April 2018. 2 h
- N. Jornet. ESTRO course on dose modelling and dose verification. Dublin 10-14 June 2018 (5 h.).

Invited presentations

- A. Ruiz. Protecció radiològica de la pacient de cribatge de mama en l'àmbit de la Directiva 2013/59/EURATOM. Parc de Recerca Biomèdica de Barcelona, 23 February 2018.
- M. Ribas. Abstract "VIII Jornadas Nacionales de Protección Radiológica Hospitalaria. Armonización de la Directiva 2013/59/EURATOM". SCFM. Barcelona, 24 May 2018.
- N. Jornet. Prospective risk analysis: basics and applications to treatment QA. ESTRO 37. Barcelona, 20-24 April 2018.
- N. Jornet. Dosimetry in IMRT: harming your patients is easy. Seminar on Perspectives of Advanced Radiotherapy in Middle Income Countries. Teheran (Iran), 26-28 September 2018
- N. Jornet. The role of clinical Audits in RT advanced techniques. Seminar on Perspectives of Advanced Radiotherapy in Middle Income Countries. Teheran (Iran), 26-28 September 2018
- N. Jornet. Training opportunities at ESTRO. Seminar on Perspectives of Advanced Radiotherapy in Middle Income Countries. Teheran (Iran), 26-28 September 2018
- N. Jornet. New guidelines for small field dosimetry: ICRU91 and IAEA483. AIFM/AIRO meeting on SBRT (3rd edition). Florence, Italy. 4-6 October 2018.
- N. Jornet. Recent advances in technical radiotherapy for lung cancers. 7th Annual Scientific Meeting Scottish radiotherapy research forum Immuno-Radiotherapy: Combining Precision Drugs with Precision RT. Stirling (UK). 1 November 2018.
- A. Ruiz. El concepte de dosi a pacient a Radiologia. ACRAM i SCFM. Barcelona, 8 November 2018.
- A. Latorre-Musoll. Scripting a Eclipse. Grup de treball de la Societat Catalana de Física Mèdica. XXVI Congrés GOCO (Hospital del Mar, Barcelona), 16 November 2018.

Oral communications

- A. Latorre-Musoll. Informe del grup de treball: Scriptint en Sistemes de Planificació. SCFM. Barcelona, 24 May 2018.
- M. Lizondo. Prospective breast cancer database. Opening of 2nd ESTRO physics workshop on science in developement. Málaga, 26-27 October 2018.

Posters

- Sottiaux A, Latorre A, Sempau J, Baltieri V, Leclerq C, Monseux A, Vanache D, Tomsej M. EPID response modeling with Monte Carlo for Novalis TrueBeam STx. Charleroi, Belgium, 2-3 February 2018.
- M. Lizondo, M.J. Fuentes-Raspall, N. Jornet, A. Ruiz-Martinez, A. Latorre-Musoll, T. Eudaldo, P. Carrasco, P. Delgado-Tapia, C. Cases, I. Valverde, M. Ribas. Do radiotherapy-treated breast cancer patients with mammary implants (both augmented breasts) present more severe acute skin toxicity than patients without? EBCC11 Barcelona, March 2018. European Journal of Cancer, Vol. 92, S28
- P. Carrasco de Fez, M. Lizondo, P. DelgadoTapia, C. Cases, N. Jornet, A. Latorre Musoll, T.Eudaldo, A. Ruiz Martínez, M. Ribas. Skin dose measurements in SBRT and IMRT treatments. ESTRO 37 Barcelona, 20-24 April 2018. Radiotherapy and Oncology vol 127, Suplement 1, 2018. EP-1804
- M. Lizondo, P. Carrasco, A. Latorre-Musoll, T. Eudaldo, A. Ruiz-Martinez, C. Cases, N. Jornet, P. Delgado-Tapia, I. Valverde, M. Ribas.Reproducibility and stability of DIBH in intra and inter fraction in RT of left-sided breast cancer. ESTRO 37 Barcelona, 20-24 April 2018. Radiotherapy and Oncology vol 127, Suplement 1, 2018. EP-2039
- G. Sancho Pardo, E. Acosta, L. Tilea, D. Hernández, N., Farré, J. Balart, N. Jornet, G. Gómez de Segura, J.Craven-Bartle. Postprostatectomy dose intensified salvage radiotherapy is associated with grade 3 late hematuria. ESTRO 37 Barcelona, 20-24 April 2018. Radiotherapy and Oncology vol 127, Suplement 1, 2018. PO-0829
- A. Latorre-Musoll C. Cases Copestake, N. Jornet Sala, T. Eudaldo Puell, M. Lizondo Gisbert, P. Delgado-Tapia, P. Carrasco de Fez, A. Ruiz-Martínez, I. Valverde Pascual, M. Ribas Morales. Feasibility of a transit in vi vo dosimetry method to monitor cumulative dose in lung SBRT treatments. ESTRO 37 Barcelona, 20-24 April 2018. Radiotherapy and Oncology vol 127, Suplement 1, 2018. PO-0883
- N. Jornet, D. Viladés-Mendel, M. Lizondo, M. Fuentes, R. Leta, P. Carrasco de Fez, A. Latorre-Musoll, P. Delgado, A. Ruiz-Martinez, T. Eudaldo, J. Isern, M. Ribas. The role of coronary CT angiography for early detection of heart coronary disease after breast EBRT. ESTRO 37 Barcelona, 20-24 April 2018. Radiotherapy and Oncology vol 127, Suplement 1, 2018. EP-1334
- J. Perez-Alija, P. Gallego, I. Linares, E. Ambroa, A. Pedro. Failure to publish Radiotherapy Clinical Trials results: Is the number of participants relevant? ESTRO 37 Barcelona, 20-24 April 2018. Radiotherapy and Oncology vol 127, Suplement 1, 2018. EP-1677
- P. Delgado-Tapia, P. Carrasco, N. Jornet, C. Cases, A. Latorre-Musoll, A. Ruiz-Martinez, M. Lizondo, I. Valverde-Pascual, M. Ribas. Impact of Positioning and Immobilization Devices On Skin Dose for IMRT Techniques. AAPM 2018 Nashville (EEUU), 29 July-August 2018. Med. Phys. 45 (6), June 2018
- N. Jornet, D. Vilades, R. Leta, N. Espinosa, P. Carrasco, A. Latorre- Musoll, P. Delgado, A. Ruiz, C. Cases, MJ. Fuentes, M.Lizondo, M.Ribas. Coronary CT Angiography for Early Detection of Heart Coronary Artery Disease After Breast EBRT. AAPM 2018 Nashville (EEUU), 29 July-August 2018. Med. Phys. 45 (6), June 2018, pg. 368-369

Associated Groups

Paediatrics

Coordinator
Boronat Guerrero, Susana (FGS)
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Members
Álvarez Pérez, Roser (FGS)
Amat Giménez, Maria Isabel (FGS)
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Betancourt Castellanos, Jocelyn Cristina (FGS)
Carreras González, Eduard (FGS)
Carreras González, Gemma (FGS)
Coca Fernández, Elisabet (FGS)
Fraga Rodríguez, Gloria Mª (FGS)
García Borau, María Jose (FGS)
Ginovart Galiana, Gemma (FGS)
Josa Eritja, María (FGS)
López Bernal, Ester (FGS)
Moliner Calderón, Elisenda (FGS)
Sisinni, Luisa (FGS)
Tobajas Torrubiano, Eva (FGS)
Torrent Español, Montserrat (FGS)
Turon Viñas, Eulàlia (FGS)

Main Lines of Research

- Neurocutaneous diseases.
- Bone marrow transplantation.
- Bone marrow failure.
- Hereditary erythropathology.
- Preterm labor.
- Human breast milk.

Scientific Challenges

- Transplant haematopoietic progenitor cells from alternative donors.
- Transplant of haematopoietic progenitor cells in congenital immunodeficiencies.
- Transplant of haematopoietic progenitor cells in congenital metabolic pathologies.
- Research in congenital immunodeficiencies.
- Research in Fanconi anaemia (group recognized by the UAB, Barcelona).
- Apply adaptive cell immunotherapy to tumours.
- Intervention in postasphyxia neuronal damage in infants with asphyxia by applying therapeutic hypothermia (in the context of a Catalan network).
- Polytraumatized patient care programme. PPT implementation code in HSCSP and in CatSalut central register.
- Genotype-phenotype correlation in neurocutaneous diseases.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Collaboration of Dra. Gloria Maria Fraga in the Dra. Roser Torra Balcells project (IP of the FIS project) PI15/01824: Nefropatías familiares no filiadas: genes implicados en su causa y su variabilidad fenotípica. REsearcher collaborator .2016-2018.
- Collaboration of Dra Gloria Fraga in the Dra. Elisabeth Ars Criach project (IP of the project) PI16/01998: Estudio genómico de nefropatías de inicio temprano.
- Collaboration of Dra. Gloria Maria Fraga in Dra Elisa Llurba Olivé project (IP of the project) RD16/0022: Red de Salud Materno Infantil y del Desarrollo (SAMID). Periodo 2017--2021 Número de expediente RD 16/0002/0015. RETICS financiada por el PN I+D+I 2013-2016, ISCIII - Subdirección General de Evaluación y Fomento de la Investigación y el Fondo Europeo de Desarrollo Regional (FEDER).
- Collaboration of Dra Laia Turón in the study Sarepta 4045-301. IP: J. Díaz Manera. Clinical trials. Gov identifier: NCT02500381.

External Collaborations

- Clinical research group linked to Centro de Investigación Biomédica en la Red de Enfermedades Raras (CIBERER).
- G. Fraga (collaborator). Estudio multicéntrico europeo (París, Roma, Barcelona): estudio de Asociación de Genoma Completo (GWAS) para la identificación de factores genéticos de riesgo en pacientes con síndrome nefrótico córtico-sensible (SNCS)/síndrome nefrótico por lesiones mínimas (SNLM).
- Project "Compromiso por la Calidad de las Sociedades Médicas" (coordinated by Ministerio de Sanidad, Servicios Sociales e Igualdad, Sociedad Española de Medicina Interna and GuíaSalud).
- E. Carreras, S. Brió, E. Moliner. Programa VINCat. Resultados de la vigilancia estandarizada de la incidencia de bacteriemia relacionada con cateter venos central (BRCVC) en las Unidades de Cuidados Intensivos Pediátricos (UCIP) y Neonatales (UCIN) de los Hospitales de Catalunya.
- Evaluación de una intervención basada en la evidencia para reducir la bacteriemia asociada a catéter vascular central en recién nacidos de muy bajo peso. Code of the study: INBERBAC-Neo –PI17/00565. IP: Marisela Pérez; IP of the centre: Elisenda Moliner. Project nomber: INBERBAC-Neo –PI17/00565, accepted for financing by the Instituto de Salud Carlos III in its FIS 2018 call.
- Elisenda Moliner, co-investigator of the Respiratory Sincitial Virus (VRS) study. Estudio de las características del virus, del huésped, y los factores ambientales como determinantes de la epidemia y su gravedad clínica. FIS project PI18/00685. Estimated duration 3 years. Principal Investigator: Andrés Antón Pagarolas; Co-researcher: Elisenda Moliner. Accepted for financing by the Instituto de Salud Carlos III in its FIS 2018 call.
- co-investigator of the study of serious neurological infections in children caused by emergent enteroviruses in Spain: EV-A71 and

EV-D68. FIS project PI18CIII/00017. Estimated duration 3 years. Principal Investigator: María Cabrerizo. Accepted for financing by the Instituto de Salud Carlos III in its FIS 2018 call.

- Dra Torrent (in collaboration with SEHOP: Sociedad Española de Hematología y Oncología Pediátrica and GEIS: Grupo Español de Investigación en Sarcomas)
- LINES: Protocolo Europeo de Tratamiento para el Neuroblastoma de Riesgo Bajo e Intermedio. Estudio SIOPEN.
- Ensayo intergrupo para niños adolescentes con LNH-B o LLA-B (LLA-L3): Evaluación de la eficacia y seguridad de Rituximab para pacientes de alto riesgo. Code of the protocol: INTER-B-NHL.
- International Randomised Controlled Trial for the Treatment of Newly Diagnosed Ewing's Sarcoma Family of Tumours. Euro Ewing 2012.
- International randomised controlled trial of chemotherapy for the treatment of recurrent and primary refractory Ewing sarcoma.
- Estudio prospectivo observacional de la expresión de ABCB1/P-glicoproteína como factor para la estratificación biológica del osteosarcoma no metastático de las extremidades.
- Ensayo GEIS 39 (ABRADES): Phase II trial of nab-paclitaxel for the treatment of desmoid tumors and multiply relapsed/refractory desmoplastic small round cell tumors and Ewing's sarcoma"
- Ensayo LCH-IV: International collaborative treatment protocol for children and adolescents with Langerhans cell histiocytosis.
- NOPHO-DBH AML 2012: Research study for treatment of children and adolescents with acute myeloid leukaemia 0-18 years.
- Protocol: 20120215 - A Randomized, Open-Label, Controlled Phase 3 Adaptive Trial to Investigate the Efficacy, Safety, and Tolerability of the BiTE ® Antibody Blinatumomab as Consolidation Therapy Versus Conventional Consolidation Chemotherapy in Pediatric Subjects with High-Risk First Relapse of B-precursor Acute Lymphoblastic Leukemia (ALL).
- Clincal trial CINC424F12201: A Phase I/II open-label, single-arm, multi-center study of ruxolitinib added to corticosteroids in pediatric patients with grade II-IV acute graft vs. host disease after allogeneic hematopoietic stem cell transplantation.
- AdVance Study: Incidence and outcomes associated with the management of adenovirus infections in allogenic hematopoietic cell transplant recipients.
- GC P05.01.020 Phase III: A Multicenter, Randomized, Phase III Registration Trial of Transplantation of NiCord®, Ex Vivo Expanded, Umbilical Cord Blood-derived, Stem and Progenitor Cells, versus Unmanipulated Umbilical Cord Blood for Patients with Hematological Malignancies.

Active Grants

- Gemma Carreras.6-Month, Multicenter, Randomized, Open-label, 2-Arm, Parallel-group Study Comparing the Efficacy and Safety of a New Formulation of Insulin Glargine and Lantus® Injected Once Daily in Children and Adolescents age 6-17 years with Type 1 Diabetes Mellitus with a 6-month Safety Extension Period". Sanofi Aventis. EFC13957 Edition Junior. Duration: 2016-2018.
- Gemma Carreras (collaborator researcher). Prevenir la enfermedad coronaria prematura e Cataluña augmentando el diagnóstico de hipercolesterolemia familiar". Fundación Marató de TV3 2015.
- Isabel Badell. Identificación de biomarcadores genéticos que ayuden a predecir la evolución del trasplante de progenitores hematopoyéticos en edad pediátrica. Grupo Español de Trasplante Hematopoyético y Terapia Celular. GEN-TPH_201701
- Isabel Badell. A Phase I/II open-label, single-arm, multi-center study of ruxolitinib added to corticosteroids in pediatric patients with grade II-IV acute graft vs. host disease after allogeneic hematopoietic stem cell transplantation. EudraCT. 2018-000422-55
- Isabel Badell. ALL SCTped 2012 FORUM Allogeneic Stem Cell Transplantation in Children and Adolescents with Acute Lymphoblastic Leukaemia International Therapy Protocol. EudraCT. 2012-003032-22
- Isabel Badell. A Phase 2b open-label, single-arm study to evaluate pharmacokinetics, efficacy, safety and tolerability of letermovir in pediatric participants from birth to less than 18 years of age at risk of developing CMV infection and/or disease following allogeneic haematopoietic stem cell transplantation (HSCT). EudraCT. 2018-001326-25
- Isabel Badell. A Multicenter, Randomized, Phase III Registration Trial of Transplantation of NiCord®, Ex Vivo Expanded, Umbilical Cord Blood-derived, Stem and Progenitor Cells, versus Unmanipulated Umbilical Cord Blood for Patients with Hematological Malignancies. EudraCT. 2016-000704-28

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 96.363 · Mean Impact Factor: 3.4415

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Diffusion Activities

Conferences

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- Boronat S. Round table 11: ¿Qué hay de nuevo? Neurodesarrollo en los pacientes con cardiopatías congénitas. XII Congreso Nacional de la Sociedad Española de Cardiología Pediátrica y cardiopatías congénitas. San Sebastián, 2018.
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- Boronat S, Barber I, Delgado I, Cano P, Poca MA, Macaya A. Morfometría de fosa craneal posterior en el espectro Chiari pediátrico.
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- Boronat S., Cueto AM, Hornos C, Macaya A, Sánchez-Montañez A. Telangiectasia hemorrágica hereditaria por mutación en ENG en un recién nacido. Caso clínico y revisión de casos con debut neonatal.

II Congreso Nacional de la Sociedad Española de Paliativos Pediátricos. Almería, 2018

- Corretja N., Serna JV., Pérez M., Vila M., Aristayeta A., Cucala M. Desarrollo de una herramienta de Gestión para mejorar la calidad asistencial del niño con Patología Compleja y/o Paliativa.
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XLVIII Congreso de la Sociedad Española de Medicina Psicosomática 2018

- Tobajas E, Ros S, Turón E, Luna S, Bernal S; Granell E; Soria L; Pulido M.C; Torrent M; Serna JV, Baselga E, Roe E.Resultados de la valoración psicológica en niños afectados de NF1 dentro del comité multidisciplinar de genodermatosis. Premio de la Sociedad andaluza de Medicina Psicosomática al mejor poster.

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- Itziar Astigarraga, Susana Garcia-Obregón, Carmen Rodriguez-Vigil, Ignacio Gutierrez-Carrasco, Montserrat Torrent. Situación actual de las iniciativas sobre Histiocitosis en España.
- Montserrat Torrent; J Vicente Serna; M Laura Blanco; Lizbeth Estefanía Diaz; Isabel Badell. Síndrome de Emberger. A propósito de un caso.
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- Lizbeth Estefania Díaz, Luisa Sisinni, Laura Medina, Montserrat Torrent, Vicente Serna, Alba Bosch, Sergi Querol, Isabel Badell. Donor lymphocyte infusion for treatment of mixed donor chimerism for pediatric hematopoietic stem cell transplantation in nonmalignant diseases.

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- B Magallares, J. Betancourt, G. Fraga, E. Quesada-Masach, M. López–Corbeto, M. Torrent, A. Marin, S. Herrera, E. Carreras, J. Casademont, H. Corominas, J. Malouf. Clinical and densitometric characteristics in pediatric population with risk factors to develop low bone mass.

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- B. Magallares López, J. Betancourt, G. Fraga, E. Quesada-Masach, M. López–Corbeto, M. Torrent, A. Marin, S. Herrera, E. Carreras, J. Casademont, H. Corominas, J. Malouf. Clinical and densitometric characteristics in paediatric population with risk factors to develop low bone mass/osteoporosis.

Sociedad Española de Urgencias de Pediatria (SEUP 2018). Sitges, 2018

- Quinteiro M; Curbelo M; Torrent M; Goruppi I; Garrido M; Castillo F. Síndrome febril en postoperado de apendicitis aguda.

66 Congreso de la Asociación Española de Pediatría. Zaragoza, 7-9 June 2018

- Marta Freixas, Montserrat Torrent, Sara Iglesias, Lisbeth Estefanía Díaz, Juan Ángel Aibar, Luisa Sisinni. Clínica Neurológica en paciente con Drepanocitosis.
- Iglesias S, Freixas M., Salazar J., Serna JV., Payan S., Badell I. Diseritropoyesis Congénita. Un Caso Excepcional Como Reto Diagnóstico.

Associated Groups

Ophthalmology

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Rodríguez Álvarez, Fernando (FGS)
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Solans Barri, Teresa (FGS)
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Vela Segarra, José Ignacio (FGS)

Main Lines of Research

- Optimization of the functional rehabilitation of patients after cataract surgery using multifocal intraocular lens, and evaluation of vision quality in terms of parameters such as visual acuity, sensitivity to contrast and aberrometry.
- Ocular repercussions of allogeneic medullary transplants and evaluation of the different clinical manifestations and response to treatment in graft-versus-host disease.
- Comparison of the effectiveness and safety of intravitreal injection of ranibizumab vs laser photocoagulation in patients with visual alteration due to diabetic macular edema.

Scientific Production

Total Impact Factor: 14.5420 · Mean Impact Factor: 2.4237

Alias L., Crespi J., Gonzalez-Quereda L., Tellez J., Martinez E., Bernal S., Gallano M.P., Next-generation sequencing reveals a new mutation in the LTBP2 gene associated with microspherophakia in a Spanish family (2018) BMC MED GENET, 19 (1). **IF: 1.9130**

Calucho M., Bernal S., Alias L., March F., Vencesla A., Rodriguez-Alvarez F.J., Aller E., Fernandez R.M., Borrego S., Millan J.M., Hernandez-Chico C., Cusco I., Fuentes-Prior P., Tizzano E.F., Correlation between SMA type and SMN2 copy number revisited: An analysis of 625 unrelated Spanish patients and a compilation of 2834 reported cases (2018) NEUROMUSCULAR DISORD, 28 (3), 208-215. **IF: 2.4870**

Cardona G., Vega F., Gil M.A., Varon C., Buil J.A., Millan M.S., Visual acuity and image quality in 5 diffractive intraocular lenses (2018) EUR J OPHTHALMOL, 28 (1), 36-41. **IF: 1.8970**

Garcia-Arumi J., Gomez-Ulla F., Amparo N., Cervera E., Fonollosa A., Arias L., Araiz J., Donate J., De Figueroa M.S., Manzanas L., Crespi J., Gallego R., Efficacy and safety of an aflibercept treat-and-extend regimen in treatment-naïve patients with macular oedema secondary to Central Retinal Vein Occlusion (CRVO): A Prospective 12-Month, Single-Arm, Multicentre Trial (2018) J OPHTHALMOL, 2018. **IF: 1.6800**

Perez-Moreiras J.V., Gomez-Reino J.J., Maneiro J.R., Perez-Pampin E., Romo Lopez A., Rodriguez Alvarez F.M., Castillo Laguarta J.M., del Estad Cabello A., Gessa Sorroche M., Espana Gregori E., Sales-Sanz M., et al., Efficacy of Tocilizumab in Patients With Moderate-to-Severe Corticosteroid-Resistant Graves Orbitopathy: A Randomized Clinical Trial (2018) AM J OPHTHALMOL, 195, 181-190. **IF: 4.7950**

Vela J.I., Marcantonio I., Diaz-Cascajosa J., Crespi J., Buil J.A., Progression of retinal pigmentation mimicking unilateral retinitis pigmentosa after bilateral pars planitis: a case report (2018) BMC OPHTHALMOL, 18 (1), 242-. **IF: 1.7700**

Associated Groups

Nuclear Medicine

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Flotats Giralt, Albert (FGS)
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Main Lines of Research

Oncology

- New diagnostic methods based on the identification and visualization of molecular targets employing metabolic mechanisms, receptor systems, hypoxia, angiogenesis and apoptosis.
- New applications for sentinel node detection and radioguided surgery models.

Cardiovascular Research

- New methods for non-invasive assessment of ischaemic heart disease and heart failure.
- Cardiovascular functional studies.
- New methods for assessing cardiac innervation.

Functional Neuroimaging

- Development of new functional imaging methods for evaluating neurodegenerative diseases (Parkinson, Parkinson-Plus, Alzheimer, MCI).
- Dopaminergic system studies using IBZM and Datscan.

Scientific Challenges

- Introduce new technologies to clinical research (given that imaging techniques are evolving very rapidly towards multimodal systems that integrate biological, molecular, anatomical and functional information in a single examination) and include these technologies, mainly PET/CT and PET/MR, in the group and hospital's research activities.

New Molecular Imaging Techniques

- Develop new hybrid molecular imaging technologies, mainly PET/CT and PET/MR, building on pre-clinical and clinical molecular imaging models developed using.
- SPECT and conventional nuclear medicine technologies.

PET Imaging Biomarkers

- Develop new PET radioactive tracers to be used as biomarkers in new imaging tecnologies building on our experience with radioactive tracers to view in vivo diagnostic and therapeutic targets.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Neuroradiology: research into neurological and mental disorders and ageing (Dr. Camacho, member).
- Oncology, Gynaecology, Surgery, Radiology, Radiotherapy, Nuclear Medicine and Pathology: evaluation of the usefulness of PET CT with 18F-FDG in the staging of locally advanced breast carcinoma (Dr. Duch, PI).
- Cerebrovascular Diseases (Dr. Carrió, member).

External Collaborations

- Zhejiang University, Hangzhou, China. Molecular imaging (Prof. Hong Zhang, Prof. Mei Tian).
- Hospital Clínico Universitario de Chile, Santiago de Chile. (Prof. P. González, Prof. T. Massardo).
- QIMP team, Center of Medical Physics and Biomedical Engineering, Medical University of Vienna, Vienna, Austria. (Prof. T. Beyer).

Active Grants

- Philips Healthcare Master Research Agreement. Assessment of Advanced Technologies for Molecular Imaging.
- Sub-study to study WN25203, using positron emission tomography (PET) with an amyloid tracer to assess changes in amyloid load over time in subjects with prodeomal Alzheimer's disease. ROCHE protocol WN25203-PET-substudy.
- PET imaging substudy associated with: a phase III, randomized, double-blind, placebo-controlled, parallel-group, multicenter, efficacy, and safety study of gantenerumab in patients with mild Alzheimer's disease. ROCHE protocol WN28745-PET Substudy.
- Ensayo clínico de fase III, aleatorizado, controlado con placebo, de grupos paralelos, doble ciego, para estudiar la eficacia y la seguridad de MK-8931 (SCH900931) en pacientes con deterioro cognitivo leve amnésico debido a la enfermedad de Alzheimer (EA prodrómica). MK-8931-019.
- Estudio aleatorizado, doble ciego, controlado con placebo y de grupos paralelos de la eficacia y la seguridad de MK-8931 en sujetos con enfermedad de Alzheimer leve o moderada. MK-8931-017.
- A 24 month, multicenter, randomized, double-blind, placebo-controlled, parallel-group, efficacy, safety, tolerability, biomarker, and pharmacokinetic study of AZD3293 in outpatients with early Alzheimer's disease. D5010C00009.
- A Phase 3 Multicenter, Randomized, Double-Blind, PlaceboControlled, Parallel-Group Study to Evaluate the Efficacy and Safety of Aducanumab (BIIB037) in Subjects with Early Alzheimer's Disease. Phase 3. 221AD-301 & 302.
- A multi-centre, double-bind, parallel-group, randomized controlled study to investigate the efficacy, safety and toleralility of orally administered BI409306 during a 12 week treatment period compared to placebo in patients with Alzheimer's disease. 1289.5.
- A randomized, double-blind, placebo-controlled and delayed start study of LY3314841 in Mild alzheimer's disease dementia. I8D-MC-AZET.
- Multicenter, randomized, double-blind, placebo-controlled study to assess the efficacy, safety, pharmacokinetics, and pharmacodynamics of GZ/SAR402671 in patients with early-stage Parkinson's disease carrying a GBA mutation or other pre-specified variant. ACT14820.
- A placebo controlled, double blind, parallel group, 24 month study to evaluate the efficacy and safety of E2609 in subjects with early Alzheimer's disease. E2606-G000-302.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 43.8990 · Mean Impact Factor: 4.3899

Camacho V., Gomez-Grande A., Sopena P., Garcia-Solis D., Gomez Rio M., Lorenzo C., Rubi S., Arbizu J., Amyloid PET in neurodegenerative diseases with dementia PET amiloide en enfermedades neurodegenerativas que cursan con demencia (2018) REV ESP MED NUCL IMA, 37 (6), 397-406. **IF: 1.2020**

Flotats A., Carrio I., Does inflammation get on nerves in patients with heart failure? (2018) J NUCL CARDIOL, 25 (3), 854-856. **IF: 3.8470**

Flotats A., Carrio I., 123I-mIBG and the phantom tollbooth (2018) J NUCL CARDIOL, 25 (4), 1198-1200. **IF: 3.8470**

Gonzalo-Calvo D.D., Colom C., Vilades D., Rivas-Urbina A., Moustafa A.-H., Perez-Cuellar M., Sanchez-Quesada J.L., Perez A., Llorente-Cortes V., Soluble LRP1 is an independent biomarker of epicardial fat volume in patients with type 1 diabetes mellitus (2018) SCI REP-UK, 8 (1). **IF: 4.1220**

Leon X., Pardo L., Sansa A., Fernandez A., Camacho V., Garcia J., Lopez M., Quer M., Prognostic role of extracapsular spread in planned neck dissection after chemoradiotherapy (2018) HEAD NECK-J SCI SPEC, 40 (11), 2514-2520. **IF: 2.4710**

Lopez-Mora D.A., Camacho V., Fernandez A., Fuentes F., Perez-Perez J., Carrio I., Value of 18F-FDG PET/CT in the diagnosis of chorea-acanthocytosis Valor de la 18F-FDG PET/TC en el diagnóstico de corea-acantocitosis (2018) REV ESP MED NUCL IMA, 37 (5), 328-329. **IF: 1.2020**

Lopez-Mora D.A., Camacho V., Fernandez A., Granell E., Carrio I., Striking lack of visualization of striatum on 18F-FDG brain PET in chorea-acanthocytosis (2018) EUR J NUCL MED MOL I, 45 (3), 511-512. **IF: 7.7040**

Martinez-Horta S., Perez-Perez J., Sampedro F., Pagonabarraga J., Horta-Barba A., Carceller-Sindreu M., Gomez-Anson B., Lozano-Martinez G.A., Lopez-Mora D.A., Camacho V., Fernandez-Leon A., Carrio I., Kulisevsky J., Structural and metabolic brain correlates of apathy in Huntington's disease (2018) MOVEMENT DISORD, 33 (7), 1151-1159. **IF: 8.3240**

Morenas-Rodriguez E., Sala I., Subirana A., Pascual-Goni E., Sanchez-Saudinos M.B., Alcolea D., Illan-Gala I., Carmona-Iragui M., Ribosa-Nogue R., Camacho V., Blesa R., Fortea J., Lleo A., Clinical Subtypes of Dementia with Lewy Bodies Based on the Initial Clinical Presentation (2018) J ALZHEIMERS DIS, 64 (2), 505-513. **IF: 3.4760**

Nobili F., Schmidt R., Carrio I., Frisoni G.B., Brain FDG-PET: clinical use in dementing neurodegenerative conditions (2018) EUR J NUCL MED MOL I, 45 (9), 1467-1469. **IF: 7.7040**

Associated Groups

Intensive Medicine

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Vera Artazcoz, Paula (FGS)
Zapata Fenor, Luis (FGS)

Main Lines of Research

Acute Respiratory Failure and Artificial Ventilation

- Non-invasive ventilation.
- New ventilation modes: proportional-assist ventilation and NAVA.
- Prone decubitus in acute respiratory dysfunction syndrome (ARDS).
- Artificial ventilation withdrawal.
- Expert ventilation systems.
- Sleep and artificial ventilation.
- Early and active mobilization of the critical patient.
- Extracorporeal CO2 removal in ARDS patients.
- High-flow oxygen administration by nasal cannula in postextubation phase.
- Prevalence of drug interactions in critical care unit.

Study of the Usefulness of New Biomarkers in Critically Ill Patients

- BNP in weaning from mechanical ventilation.
- Use of the NGAL protein in the renal prognosis of critically ill patients.
- Strict control of blood glucose in critically ill patients.
- Prophylaxis of acute gastric mucosal injury in critically ill patients.
- Study of the haemodynamic effects of different antipyretic drugs in critically ill patients.
- Influence of position change to supine decubitus position in intra-abdominal pressure.

Scientific Challenges

- Consolidate clinical and physiological research into ventilation in critically ill patients through multicentre and multinational networking.
- Create a stable and well-trained group of researchers in this discipline.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Pharmacological Research in Humans.

Grants Awarded in 2018

- Juan Carlos Suarez Montero, Reversibilidad precoz de la disfunción diastólica como marcador pronóstico en el shock séptico (REPRISS). SOCMIC 2018, Societat Catalana de Medicina Intensiva i Crítica. Duration: 2018-2020. 1,363.64 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Ignacio Sánchez Nicolay Award of the Fundación Española del Enfermo Crítico/Semicyuc, to the besc communication (accesit). Parrilla FJ, Alfaro M, Rodríguez N, Festa O, Aguirre-Bermeo H, Mancebo J, Morán I. Comparación de dos estrategias ventilatorias en el síndrome de distres respiratorio agudo (SDRA): ventilación protectora convencional vs ventilación ultraprotectora mediante uso de técnicas de extracción extracorpórea de CO2 (ECCO2R). LIII Congreso Nacional de la Sociedad Española de Medicina Intensiva, Crítica y Unidades Coronarias (SEMICYUC). Granada, 11-13 June 2018.

Doctoral Theses

- Hernán Marcelo Aguirre Bermo. Efectos fisiológicos de diferentes estrategias ventilatorias empleadas en pacientes con insuficiencia respiratoria aguda severa. Universitat Autònoma de Barcelona. Director: Jordi Mancebo Cortés. Date of defense: 26/10/2018.

Transfer Products

- Antoni J. Betbesé Roig: PArticipation in clinical trials: Nephroprotect, Sepcell, Interest.
- Lluís Zapata Fenor. PI of "Estudio observacional sobre la evolución de los pacientes ingresados para cuidados intensivos orientados a la donación".
- Lluís Zapata Fenor. PI of "Reversibilidad precoz de la disfunción diastólica en el shock séptico".

Scientific Production

Total Impact Factor: 118.0160 · Mean Impact Factor: 11.8016

Aguirre-Bermeo H., Turella M., Bitondo M., Grandjean J., Italiano S., Festa O., Moran I., Mancebo J., Lung volumes and lung volume recruitment in ARDS: a comparison between supine and prone position (2018) ANN INTENSIVE CARE, 8 (1). **IF: 3.7710**

Collet M.O., Caballero J., Sonneville R., Bozza F.A., Nydahl P., Schandl A., Woien H., Citerio G., van den Boogaard M., Hastbacka J., Haenggi M., Colpaert K., Rose L., Barbateskovic M., Lange T., Jensen A., et al., Prevalence and risk factors related to haloperidol use for delirium in adult intensive care patients: the multinational AID-ICU inception cohort study (2018) INTENS CARE MED, 44 (7), 1081-1089. **IF: 15.0080**

Cortegiani A., Madotto F., Gregoretti C., Bellani G., Laffey J.G., Pham T., Van Haren F., Giarratano A., Antonelli M., Pesenti A., Grasselli G., Sula H., Nunci L., Cani A., Zazu A., Dellera C., Insaurralde C.S., et al., Immunocompromised patients with acute respiratory distress syndrome: Secondary analysis of the LUNG SAFE database (2018) CRIT CARE, 22 (1). **IF: 6.4250**

Ferrer R., Martinez M.L., Goma G., Suarez D., Alvarez-Rocha L., de la Torre M.V., Gonzalez G., Zaragoza R., Borges M., Blanco J., Herrejon E.P., Artigas A., Martinez M.L., del Mar Cruz M., Barbadillo S., et al., Improved empirical antibiotic treatment of sepsis after an educational intervention: The ABISS-Edusepsis study (2018) CRIT CARE, 22 (1). **IF: 6.4250**

Grieco D.L., Bitondo M.M., Aguirre-Bermeo H., Italiano S., Idone F.A., Moccaldo A., Santantonio M.T., Eleuteri D., Antonelli M., Mancebo J., Maggiore S.M., Patient-ventilator interaction with conventional and automated management of pressure support during difficult weaning from mechanical ventilation (2018) J CRIT CARE, 48, 203-210. **IF: 2.8720**

Guerin C., Beuret P., Constantin J.M., Bellani G., Garcia-Olivares P., Roca O., Meertens J.H., Maia P.A., et al., A prospective international observational prevalence study on prone positioning of ARDS patients: the APRONET (ARDS Prone Position Network) study (2018) INTENS CARE MED, 44 (1), 22-37. **IF: 15.0080**

Mauri T., Foti G., Fornari C., Constantin J.-M., Guerin C., Pelosi P., Ranieri M., Conti S., Tubiolo D., Rondelli E., Lovisari F., Fossali T., Spadaro S., Grieco D.L., Navalesi P., Calamai I., Becher T., Roca O., et al., Pressure support ventilation + sigh in acute hypoxemic respiratory failure patients: Study protocol for a pilot randomized controlled trial, the PROTECTION trial (2018) TRIALS, 19 (1). **IF: 2.0670**

Mezidi M., Parrilla F.J., Yonis H., Riad Z., Bohm S.H., Waldmann A.D., Richard J.-C., Lissonde F., Tapponnier R., Baboi L., Mancebo J., Guerin C., Effects of positive end-expiratory pressure strategy in supine and prone position on lung and chest wall mechanics in acute respiratory distress syndrome (2018) ANN INTENSIVE CARE, 8 (1). **IF: 3.7710**

Puntillo K.A., Max A., Timsit J.-F., Ruckly S., Chanques G., Robleda G., Roche-Campo F., Mancebo J., Divatia J.V., Soares M., Ionescu D.C., Grintescu I.M., Maggiore S.M., Rusinova K., Owczuk R., et al., Pain distress: the negative emotion associated with procedures in ICU patients (2018) INTENS CARE MED, 44 (9), 1493-1501. **IF: 15.0080**

Wittekamp B.H., Plantinga N.L., Cooper B.S., Lopez-Contreras J., Coll P., Mancebo J., Wise M.P., Morgan M.P.G., Depuydt P., Boelens J., Dugernier T., Verbelen V., Jorens P.G., Verbrugghe W., et al., Decontamination Strategies and Bloodstream Infections with Antibiotic-Resistant Microorganisms in Ventilated Patients: A Randomized Clinical Trial (2018) JAMA-J AM MED ASSOC, 320 (20), 2087-2098. **IF: 47.6610**

Other Publications

- Guia M.C., Zapata L, Gomez R, Rodríguez E, Portugal Rodriguez E, Leache I, García M, Roche-Campo F, Lafuente M, Palazón A, ICAUCI study group (Insuficiencia Cardíaca Aguda en Unidades de Cuidados Intensivos). Clinical and epidemiological characteristics of acute heart failure in the critically ill patient. Intensive Care Medicine Experimental 2018, 6(suppl 2): 40.
- Gomez R, Guía C, García T, Barros A, Fernandez A, Solla M.A., Rodriguez D.P., Besteiro B, Keituqwa I, Zapata L. Acute heart failure treatment in critically ill patients. Intensive Care Medicine Experimental 2018, 6(suppl 2): 40.
- Zapata L, Gómez R, Guía M.C., Rodado I, Cabrera J, Torrejón I, Tarancón C, De la Torre M.J., Martínez M.L., Colinas L. Diagnostic process of acute heart failure in the ICU, impact on mortality. Intensive Care Medicine Experimental 2018, 6(suppl 2): 40.

Diffusion Activities

- Dr. Jordi Mancebo Cortés (Co-Director). XIII Curso Nacional de Ventilación Mecánica, Hospital Universitario Puerta de Hierro, Majadahonda 7-9 November 2018. Accredited activity by Consell Català de Formació Mèdica Continuada de les Professions Sanitàries and Comisión de Formación Continuada de les Professions Sanitàries (3,2 credits).
- Dr. Indalecio Morán Chorro (Co-Director). XXIV Edición Curso de Formación continuada sobre Intoxicaciones Agudas. Barcelona, 5-7 noviembre 2018. Accredited activity by Consell Català de Formació Mèdica Continuada de les Professions Sanitàries and Comisión de Formación Continuada de les Professions Sanitàries (3,6 credits).

Conferences Dr. Jordi Mancebo Cortés

- Repàs a l'evolució del SDRA. XXXIX Reunió de la Societat Catalana de Medicina Intensiva i Crítica. XXXV Jornades Catalanes d'Infermeria Intensiva i Crítica. Granollers, 15 March 2018.
- Ventilación en posición decúbito prono: ¿cuándo y hasta cuándo? LIII Congreso Nacional de la Sociedad Española de Medicina Intensiva, Crítica y Unidades Coronarias (SEMICYUC). Granada, 11-13 June 2018.

- Ventilación no invasiva. XIII Curso Nacional de Ventilación Mecánica, Majadahonda, 7-9 November 2018. Accredited activity by Consell Català de Formació Continuada de les Professions Sanitàries and Comisión de Formación Continuada del Sistema Nacional de la Salud (3,2 credits).
- SDRA: Ventilación protectora y decúbito prono. XIII Curso Nacional de Ventilación Mecánica, Majadahonda, 7-9 November 2018. Accredited activity by Consell Català de Formació Continuada de les Professions Sanitàries and Comisión de Formación Continuada del Sistema Nacional de la Salud (3,2 credits).
- Ventilación en EPOC/Asma. XIII Curso Nacional de Ventilación Mecánica, Majadahonda, 7-9 Noviembre 2018. Accredited activity by Consell Català de Formació Continuada de les Professions Sanitàries and Comisión de Formación Continuada del Sistema Nacional de la Salud (3,2 credits).
- Movilización temprana del paciente en ventilación mecánica. Curso-Taller avanzado de ventilación mecánica. Querétaro, México, 21-23 February 2018.
- Presión transpulmonar y estrés pulmonar. Curso-Taller avanzado de ventilación mecánica. Querétaro, México, 21-23 February 2018.
- Impacto de la ventilación en posición prono. Curso-Taller avanzado de ventilación mecánica. Querétaro, México, 21-23 February 2018.
- Ventilación ultraprotectora y circulación extracorpórea. Curso-Taller avanzado de ventilación mecánica. Querétaro, México, 21-23 February 2018.
- Driving Pressure. Curso-Taller avanzado de ventilación mecánica. Querétaro, México, 21-23 February 2018.
- Modes of mechanical ventilation (un update). PAV+TM Train the Trainers. Ciudad de México, 8-9 March 2018.
- Proportional assist ventilation (Concept introduction). PAV+TM Train the Trainers. Ciudad de México, 8-9 March 2018.
- Workshop discussion: Conventional modes of mechanical ventilation. D. Georgopoulos, J. Mancebo. PAV+TM Train the Trainers. Ciudad de México, 8-9 March 2018.
- Mechanical ventilation in A.R.D.S. patients. PAV+TM Train the Trainers. Ciudad de México, 8-9 March 2018.
- Mechanical ventilation in obstructive lung disease. PAV+TM Train the Trainers. Ciudad de México, 8-9 March 2018.
- Workshop discussion: Patient-ventilator asynchrony. D. Georgopoulos, J. Mancebo. PAV+TM Train the Trainers. Ciudad de México, 8-9 March 2018.
- Day one general discussion: PAV+ advantages versus conventional modes. D. Georgopoulos, J. Mancebo. PAV+TM Train the Trainers. Ciudad de México, 8-9 March 2018.
- Weaning predictors. ESICM, Lives Forum 2018. Monitoring in acute respiratory failure. Madrid, 3-5 May 2018.
- ¿Qué hemos aprendido del SIRA después de 50 años? XLV Congreso Anual del Colegio Mexicano de Medicina Crítica (COMMEC). Ciudad de Puebla. México, 1-5 October 2018.
- Alto flujo y ventilación no invasiva en SIRA: ¿avance o problema? XLV Congreso Anual del Colegio Mexicano de Medicina Crítica (COMMEC). Ciudad de Puebla. México, 1-5 October 2018.
- Modos convencionales de ventilación: lo esencial. XLV Congreso Anual del Colegio Mexicano de Medicina Crítica (COMMEC). Ciudad de Puebla. México, 1-5 October 2018.
- Movilización temprana. XLV Congreso Anual del Colegio Mexicano de Medicina Crítica (COMMEC). Ciudad de Puebla. México, 1-5 October 2018.
- Mechanics in ventilation. Positive pressure, PEEP and mechanical support – bench to bedside. Jornadas de Medicina Intensiva do Porto 2018. Ventilation the good, the bad and the essential. Porto, 18-19 October 2018.
- Key Points in ARDS. Prone is the key? Jornadas de Medicina Intensiva do Porto 2018. Ventilation the good, the bad and the essential. Porto, 18-19 October 2018.
- Ventilating a patient with obstructive disease. 31st Annual Congress of the European Society of Intensive Care Medicine. Lives 2018. Paris, 20-24 October 2018.

Conferences Dr. Indalecio Morán Chorro

- Metformina. XXII Jornadas Nacionales de Toxicología Clínica. XII Jornadas de Toxicovigilancia. Hospital Universitario Reina Sofía. Córdoba, 1.8-19 October 2018.

Associated Groups

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Main Lines of Research

- Pharmaceutical care and personalized medicine.
- Clinical Epidemiology and Public Health.
- Artificial nutrition.
- Pharmaceutical formulation.
- Oncohaematology.
- Independent clinical trials.
- Innovation, artificial intelligence & big data.

Scientific Challenges

- Evaluate the impact of different pharmaceutical care programmes on the effectiveness and the safety of pharmacological treatments: personalized 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, assessment of regular clinical practice.
- Evaluate the impact of artificial nutrition on the clinical evolution of patients.
- Study the stability of cytostatics in different pharmaceutical forms.
- Determine the stability and the PK-PD of protein nanoparticles with antimetastatic activity.
- Actively cooperate in independent clinical trials performed in Sant Pau.
- mHealth, eHealth, artificial intelligence, big data, innovative procedures, etc.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Oncogenesis and Antitumour Drugs (GOA) - CIBER-BBN.
- Clinical Haematology.
- Medical Oncology.
- Emergency.
- Cardiology.
- Infectious diseases (HIV).
- Genetics.
- Pediatrics.
- Biochemistry.

External Collaborations

- Centro de Investigación Biomédica en Red de Bioingenieria, Biomateriales y Nanomedicina (CIBER-BBN). Instituto de Salud Carlos III.
- Centro de Investigación en Salud Mental (CIBERSAM). Instituto de Salud Carlos III.
- Centro de Investigación Biomédica en Red de Enfermedades Raras (CIBERER). Instituto de Salud Carlos III.
- Department of Pharmacology, Toxicology and Therapeutic Chemistry, Faculty of Pharmacy, University of Barcelona.
- Spanish Society of Hospital Pharmacy.
- Catalan Society of Clinical Pharmacy.
- Col·legi Oficial de Farmacèutics de Barcelona.

Active Grants

- M. Antònia Mangues Bafalluy; Pau Riera Armengol; Irene Arroyo; Elisa Rioja; Xavier León; Miquel Quer Microémbolos tumorales circulantes en biopsia líquida y pronóstico del carcinoma de cabeza y cuello. Roche Farma. DURATION: 2019. 30,000 €.
- Mar Gomis Pastor, M.Antònia Mangues Bafalluy Coordinación y expansión de medplan+ en el seguimiento interdisciplinar e integral del paciente complejo crónico. Amgen Pharma SL. Start: Duration: 2018-2020.
- Mar Gomis Pastor. Beca de Complemento para ampliación de Estudios. Sociedad Española de Farmacia Hospitalaria. Duration: 2018.
- Beatriz Zurita(researcher). M Antònia Mangues (director). Atención Farmacéutica orientada al empoderamiento del paciente. Janssen Cilag and Fundació Institut de Recerca de l'Hospital de Sant Pau i la Santa Creu.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Maria Antònia Mangues Bafalluy. Abordaje integral de los problemas de salud relacionados con los medicamentos: Código Medicamento. PI18/00889, Instituto de Salud Carlos III. Duration: 2019-2021. 72,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Best Practice de la Ruta de la Excelencia. Proyecto mHeart. Sociedad Catalana de Farmacia Clínica. 26/09/2018

Patents

- Mar Gomis-Pastor; M. Antònia Mangues Bafalluy, Content of the technology platform Nabelia Hospital Sant Pau Transplantation. Pending assignment. 18/12/2018

Scientific Production

Total Impact Factor: 33.706 · Mean Impact Factor: 2.5928

Broto-Sumalla A., Rabanal-Tornero M., Garcia-Pelaez M., Aguilar-Salmeron R., Fernandez de Gamarra-Martinez E., Martinez-Sanchez L., Gaspar-Caro M.-J., Nogue-Xarau S., Availability of antidotes in 70 hospitals in Catalonia, Spain Disponibilidad de antídotos en 70 hospitales de Cataluña (2018) MED CLIN-BARCELONA, 150 (1), 16-19. **IF: 1.1680**

Cespedes M.V., Unzueta U., Avino A., Gallardo A., Alamo P., Sala R., Sanchez-Chardi A., Casanova I., Mangues M.A., Lopez-Pousa A., Eritja R., Villaverde A., Vazquez E., Mangues R., Selective depletion of metastatic stem cells as therapy for human colorectal cancer (2018) EMBO MOL MED, 10 (10). **IF: 10.2930**

Estadella J, Villamarín L, Feliu A, Perelló J, Calaf J. Characterization of the population with severe iron deficiency anemia at risk of requiring intravenous iron supplementation. (2018) EUR J OBSTET GYNECOL Reprod Biol. 2018 May; 224:41-44. doi: 10.1016/j.ejogrb.2018.03.005. Epub 2018 Mar 6. **IF: 1.809**

Gonzalez-Colominas E., Londono M.-C., Morillas R.M., Torras X., Mojal S., Lens S., Lopez D., Gallego A., Marino Z., Ardevol M., Pages N., Sola R., Carrion J.A., Potential drug–drug interactions of OMBITASVIR, PARITAPREVIR/ritonavir ± DASABUVIR ± ribavirin in clinical practice (2018) J GASTROEN HEPATOL, 33 (5), 1100-1107. **IF: 3.4830**

Jordan M., Aguilera X., Gonzalez J.C., Castillon P., Salomo M., Hernandez J.A., Ruiz L., Mora J.M., Camacho-Carrasco P., Prat-Fabregat S., Bosch A., Rodriguez-Arias A., Martinez-Zapata M.J., Prevention of postoperative bleeding in hip fractures treated with prosthetic replacement: efficacy and safety of fibrin sealant and tranexamic acid. A randomised controlled clinical trial (TRANEXFER study) (2018) ARCH ORTHOP TRAUM SU. **IF: 1.9670**

Juanes A., Garin N., Mangues M.A., Herrera S., Puig M., Faus M.J., Baena M.I., Impact of a pharmaceutical care programme for patients with chronic disease initiated at the emergency department on drug-related negative outcomes: A randomised controlled trial (2018) EUR J HOSP PHARM-S P, 25 (5), 274-280. **IF: 0.5380**

Kristensen L.E., Alten R., Puig L., Philipp S., Kvien T.K., Mangues M.A., van den Hoogen F., Pavelka K., Vulto A.G., Non-pharmacological Effects in Switching Medication: The Nocebo Effect in Switching from Originator to Biosimilar Agent (2018) BIODRUGS, 32 (5), 397-404. **IF: 3.8250**

Pages-Puigdemont N., Molas G., Gorgas M.Q., Berga N., Codina C., Cruel M., Gomez-Perez B., Espona M., Rodriguez-Arias A., Salas E., Mangues M.A., Design of a relative value unit-based tool for the measurement and reimbursement of pharmacy services for clinical trials (2018) EUR J HOSP PHARM-S P. **IF: 0.5380**

Pagès-Puigdemont N, Tuneu L, Masip M, Valls P, Puig T, Mangues MA. Determinants of medication adherence among chronic patients from an urban area: a cross-sectional study. (2018) EUR J PUBLIC HEALTH. 2018 Dec 5. doi: 10.1093/eurpub/cky259. **IF: 0.5380**

Ramos A., Rabasa F., Mendoza L., Cardenete J., Gill P., Morilla A., Cardona D., Perez A., Differences in Glycemic Control in Diabetic and Non-diabetic Patients with Parenteral Nutrition Using a Basal plus Correction Insulin Regimen: An Observational, Retrospective Study (2018) DIABETES THER, 9 (3), 1359-1367. **IF: 2.2240**

Riera P., Garrido-Alejos G., Cardenete J., Moliner E., Zapico-Muniz E., Cardona D., Garin N., Physicochemical Stability and Sterility of Standard Parenteral Nutrition Solutions and Simulated Y-Site Admixtures for Neonates (2018) NUTR CLIN PRACT, 33 (5), 694-700. **IF: 2.5910**

Saavedra-Mitjans M., Ferrand E., Garin N., Bussieres J.-F., Role and impact of pharmacists in Spain: a scoping review (2018) INT J CLIN PHARM-NET, 40 (6), 1430-1442. **IF: 1.5080**

Stefanos Tyrovolas, Noe Garin Escriva, Jose Luis Ayuso-Mateos, Somnath Chatterji, Ai Koyanagi, Marta Miret, Moneta Victoria, Beatriz Olaya, Beata Tobiasz-Adamczyk, Seppo Koskinen, Matilde Leonardi, Josep Maria Haro. - Frailty and health status of older individuals in three European countries: The COURAGE cross-sectional study. (2018) EXP GERONTOL. 106:137-144. doi: 10.1016/j.exger.2018.02.028. **IF: 3.2240**.

Other Publications

- Beatriz Zurita Alonso, Núria Mas Malagarriga i Montserrat Masip Torné. Servei de Farmàcia. Hospital de la Santa Creu i Sant Pau (Barcelona). Prevenció d'errors de medicació a la farmàcia ambulatòria de l'hospital. Butlletí de Prevenció d'Errors de Medicació de Catalunya. Vol. 16, nr. 3. July-Sep 2018.
- Grup de treball d'informació sobre medicaments dirigida a la ciutadania del Canal Medicaments i Farmàcia. Què he de saber sobre el tractament de l'hepatitis C crònica? Canal Medicaments i Farmàcia. Departament de Salut. CatSalut. Generalitat de Catalunya. 11 December 2018. vailable at: http://medicaments.gencat.cat/ca/ciutadania/tractaments/hepatitis-c-cronica/
- Moreno E. Tratamiento del mieloma múltiple. Posología de daratumumab. El Farmacéutico Hospitales, 2018;213:25-9
- Abad MR, Camps C, Domenech-Climent N, López R, Moreno E, Poveda JL, et al. Determinación de la aportación de valor de la inmunoterapia aplicada a la oncología en España mediante análisis de decision multicriterio. Rev Esp Econ Salud 2018;13(5):852-867
- GlobaLLC. Iniciativa estratégica de salud en Leucemia Linfocítica Crónica. Member of the panel of experts: Estela Moreno. ES-ABBV-180230 (Octubre 2018)
- M. Estela Moreno Martínez. Farmacocinética: utilidad y nuevos enfoques. In: M. Estela Moreno Martínez (coordinator). 10 temas candentes en farmacia oncohematológica. ISBN 978-84-09-05725-2
- M. Estela Moreno Martínez (coordinator). Revisión de fármacos: cancer de próstata y cáncer renal. ISBN 978-84-09-02495-7 (October 2018)
- M. Estela Moreno Martínez (coordinator). Entrevista Clínica y Atención Farmacéutica al paciente oncohematológico. ISBN 978-84-697-9550-7 (Octubre 2018)
- Acciones dirigidas a la normalización de la vida de los pacientes con Mieloma Múltiple y sus familiares. Proyecto HuMMan Humanizando el itinerario del paciente con Mieloma Múltiple. June 2018. Sociedad Española de Hematología y Hemoterapia (editor). Member of the panel of experts: M. Estela Moreno Martínez. ES/INI/0918/0019(1) a http://www.sehh.es/images/stories/recursos/2018/10/23/INFORME_HuMMAan_2018.pdf
- Consensus recommendations for the role and competencies of the european pharmacist and clinical pharmacologist involved in hematopoietic stem cell transplantation. On behalf of the EBMT Pharmacist Committee (May 2018). Available at https://www.ebmt.org/sites/default/files/2018-06/Position_Statement_Paper_HSCT_pharmacist_EBMT%20Pharmacist%20Committee%20FINAL%20DOCUMENT%2005062018docx.pdf
- Edurne Fernández de Gamarra. Formación sanitaria especializada y nuevas competencias en farmacia hospitalaria. In: Perspectivas innovadoras en farmacia hospitalaria onco-hematológica. Edición: Fundación Gaspar Casal. 2018. ISBN: 978-84-09-05410-7.
- Edurne Fernández de Gamarra. Observación directa. In: Herramientas de evaluación de residentes de Farmacia Hospitalaria. Editado por SEFH. Sociedad Española de Farmacia Hospitalaria. 2018. ISBN: 978-84-09-01387-6.
- Coordination of the bulletin AFInf: Actualización en terapéutica antimicrobiana y enfermedades infecciosas. Member: Edurne Fernández de Gamarra. Grupo de trabajo AFInf – Sociedad Española de Farmacia Hospitalaria. ISSN: 2445-2882.

Diffusion Activities

Courses

- XLV Curso de Farmacia Clínica Joaquim Bonal. Organization and direction: M. Antònia Mangues (Servicio de Farmacia, Hospital de la Santa Creu i Sant Pau). February-April 2018. Accredited course.
- Farmacogenética: perfil genético y acción farmacològica. Pau Riera Armengol. UB. Universitat de Barcelona. May 2018.
- Farmacogenètica. Nivell avançat. Pau Riera Armengol. Col·legi Oficial de Farmacèutics de Barcelona. May 2018.
- Taller de Entrevista Clínica. VII Curso de Atención Farmacéutica al paciente ambulatorio en tratamiento con medicación hospitalaria de dispensación ambulatoria (MHDA). Montserrat Masip Torné. Organization: Servei de Farmàcia, Hospital Universitari Germans Trias i Pujol. Badalona, June 2018.

Seminars / Conferences (speakers)

- Montserrat Masip Torné. Session-workshop: Entrevista clínica. Organized by Servei de Farmàcia, Hospital General de Granollers. Febrer, 2018.
- Mireia Riba Solé. Aspectes pràctics per al maneig dels pacients amb inhibidors de ciclines per al tractament del càncer de mama. XVIII Jornades d'Actualització Terapèutica. Societat Catalana de Medicina Familiar i Comunitària (CAMFiC). 2018.
- Ana María Juanes Borrego. 1a Jornada d'Actualització de Problemes de Salut relacionats amb els Medicaments. "PSM, detecció i avaluació". Hospital de la Santa Creu i Sant Pau. Barcelona. April, 2018.
- Ana María Juanes Borrego. No em trobo bé, serà la medicació? XXV Congrés Nacional d'Urgències i Emergències. Girona. Girona, Arpil 2018.
- M. Estela Moreno Martínez. Retos de la evaluación económica en Mieloma Múltiple. Mesa debate. Conjungando equidad de acceso e individualización del tratamiento. Madrid, December 2018.
- M. Estela Moreno Martínez. GEDEFO. Mesa 2: Universos paralelos. VI Congreso de Oncología Médica, Hematología y Farmacia Oncohematológica. Tendiendo Puentes. Toledo, November 2018.
- M. Estela Moreno Martínez. GEDEFO. Mesa 5: Inmunooncología: Presente y futuro de la inmunooncología. Mesa 2: Integración en el equipo asistencial con responsabilidades definidas. Monitorización del Metotrexate. 3a Reunión anual GEDEFO: Atención Farmacéutica al paciente oncohematológico. Madrid, October 2018.
- Mª Estela Moreno Martínez. Debat clínic-gestor sobre l'accés a nous tractaments, la compra innovadora com a instrument per a la sostenibilitat del SNS i els resultats en salut dels nous medicaments. Gestió pública dels medicaments innovadors. Cicle de debats CSC 2018. Barcelona, May 2018.
- Mª Estela Moreno Martínez. Aspectes pràctics del maneig del inhibidors de ciclines per al tractament del cáncer de mama. XVIII Jornades d'actualització terapéutica 2018: Barcelona, May 2018.
- Mª Estela Moreno Martínez. Manejo de las interacciones farmacológicas Simposio Papel Actual de los Inhibidores de la BTK en síndromes linfoproliferativos. Casa de Convalescència, UAB. Barcelona; April 2018.
- Mª Estela Moreno Martínez. Speaker and moderator: Drug interactions in HSCT: what the pharmacist should know. 3ndPharmacist Day, 44ndAnnual meeting of the European Society for Blood and Marrow Transplantation. Lisbon, Portugal. March 2018.
- Mar Gomis Pastor. Actualización de las TICs en el seguimiento del paciente. 6ª Jornada teórico-práctica de mejora de la adherencia al tratamiento. Hospital Universitari Clínic de Barcelona, December 2018.
- Mar Gomis Pastor. Impact of a Mobile Pharmaceutical and Healthcare Programme on Therapeutic Adherence in New Cardiac Transplant Patients. Pharmacy Practice Advancements in a Global Healthcare Ecosystem. ASHP Midyear Clinical Meeting. Anaheim, 2018.
- Mar Gomis Pastor. Nuevas Estrategias Para el Seguimiento de Pacientes con Comorbilidades y Polimedicación: Proyecto Mheart. 63 Congreso de la SEFH. Palma de Mallorca, November 2018.
- Mar Gomis Pastor. Nuevas estrategias para el seguimiento de pacientes trasplantados cardíacos: proyecto mHeart. SEC 2018. Sevilla, October 2018.

- Mar Gomis Pastor. Impact of a mobile pharmaceutical and healthcare programme on therapeutical adherence in heart transplant patients. Campfire Presentation. International Congress of the Transplantation Society (TTS) 2018. Madrid, July 2018.
- Mar Gomis Pastor. Impact of a mobile application and healthcare program on therapeutic adherence in heart transplant patients. 5º Congreso de la Sociedad Española de Trasplante (SET). Madrid, June 2018.
- Edurne Fernández de Gamarra. Farmacia Hospitalaria. Organizado por Facultat de Farmàcia i Ciències de l'Alimentació. XXIX Congreso Nacional de Estudiantes de Farmacia de la FEEF. Barcelona, November 2018.
- Edurne Fernández de Gamarra. Perlas en Farmacia Oncológica: Red de Antídotos. Atención farmacéutica al paciente onco-hematológico. GEDEFO. Madrid, October 2018.
- Edurne Fernández de Gamarra. Sedoanalgesia: ¿Cómo? ¿Cuándo? ¿Dónde? ¿Cuánto?. Servicio de Medicina Intensiva del Hospital Virgen de la Arrixaca, Murcia, May 2018.
- M. Antònia Mangues Bafalluy Conferences: "Desarrollo de la Dosis Unitaria en España"; "Estructura del Sistema de Dispensación de Medicamentos por Dosis Unitaria en el Servicio de farmacia del Hospital de la Sta. Creu i St. Pau."; "Estudios farmacocinéticos y su aporte a la terapéutica individualizada del paciente"; "Conciliación y reconciliación de medicamentós". . I Curso Internacional de Actualización en dosis unitaria. Sociedad Ecuatoriana de Farmacia Hospitalaria. Ecuador, November 2018.
- M. Antònia Mangues. ¿Son los resultados en salud la respuesta? VI Seminario Universidad Internacional Menendez-Pelayo Innovacion y Sostenibilidad. UIMP y UCB. December, 2018.
- M. Antònia Mangues. Evaluación de Medicamentos. I Encuentro Anual para Farmacéuticos de Hospital. Madrid, October 2018.

Communications in congresses

- S. Eroles Baena et al. App de registro de la temperatura de neveras ubicadas en unidades de hospitalización. 63 Congreso de la SEFH; Palma de Mallorca, November 2018 (nº 1020, Book of abstracts, page 612).
- A. Prat Riera et al. Comparación de las características fisicoquímicas y validación microbiológica de diferentes formulaciones de acetilcisteína colirio 10% utilizadas en queratoconjuntivitis filamentosa. 63 Congreso de la SEFH; Palma de Mallorca, November 2018 (nº 427, Book of abstracts, page 540).
- Laia Lopez et al. Patrones de uso e impacto económico de los factores estimulantes de la trombopoyesis en pediatria. 63 Congreso de la SEFH; Palma de Mallorca, November 2018 (nº 1061, Book of abstracts, page 271).
- Gil Gomez MI et al. Prestación farmacéutica especializada en centros de asistencia social en España. 63 Congreso de la SEFH; Palma de Mallorca, November 2018 (nº 637, Book of abstracts, page 591).
- De Pourcq JT et al. Mensajería entre profesional y paciente a través de una app de seguimiento farmacoterapéutico en el paciente trasplantado cardíaco. 63 Congreso de la SEFH; Palma de Mallorca, November 2018 (nº 834, Book of abstracts, page 606).
- Montero Delgado JA et al. Servicios de Farmacia Hospitalaria en Twitter: Análisis cuantitativo y cualitativo. 63 Congreso de la SEFH; Palma de Mallorca, November 2018 (nº 1308, Book of abstracts, page 623).
- Montero Delgado JA et al. Nivel de alfabetización en salud digital de farmacéuticos especialistas en farmacia. 63 Congreso de la SEFH; Palma de Mallorca, November 2018 (nº 1110, Book of abstracts, page 617).
- García Peláez M et al. Situación actual del farmacéutico de hospital en las unidades de cuidados intensivos a nivel nacional. 63 Congreso de la SEFH; Palma de Mallorca, November 2018 (nº 657, Book of abstracts, page 74).
- Soria Soto M, et al. Evaluación de la formación sanitaria especializada en Farmacia Hospitalaria. 63 Congreso de la SEFH; Palma de Mallorca, November 2018 (nº 1109, Book of abstracts, page 616).
- Irene Conejo; et al. Prevalencia de la vacunación de la gripe en inmunodeprimidos. 63 Congreso de la SEFH; Palma de Mallorca, November 2018 (nº 411, Book of abstracts, page 408).
- M. Gomis-Pastor et al. Nuevas estrategias para el seguimiento de pacientes con comorbilidades y polimedicación: proyecto MHEART. 63 Congreso de la SEFH; Palma de Mallorca, November 2018 (nº 356 e-Poster:, Book of abstracts, page 57).
- N. Mas; et al. ¿Están nuestros pacientes trasplantados cardíacos dispuestos a usar la salud móvil? 63 Congreso de la SEFH; Palma de Mallorca, November 2018 (nº 416, Book of abstracts, page 582).
- Ylenia Campos Baeta et al. Physicochemical compatibility of dexmedetomidine with parenteral nutrition. 40th Congress of The European Society for Clinical Nutrition and Metabolism (ESPEN); Madrid. Novembre 2018.
- M Galvan; et al. Adverse events associated with high-alert medications detected by trigger methodology in patients with chronic illnesses. 23 rd congress of the European Association of Hospital Pharmacy; Gothenburg, Sweden, March 2018.
- N. Corbacho, et al. Tratamiento de hepatitis por virus c con agentes de acción directa en pacientes coinfectados por VIH. Congreso Nacional de GeSIDA. Madrid, November 2018.
- Acosta García H, et al. Consenso sobre las actividades del farmacéutico en la atención a las personas con enfermedades crónicas complejas en España. X Congreso Nacional del Paciente Crónico. Zaragoza, Spain, March 2018.
- Corrochano M, et al. Uso de nepa (netupitant más palonosetrón) para la prevención de las náuseas y vómitos en receptores de trasplante de progenitores hematopoyéticos. LX Congreso Nacional de la SEHH. Granada, Spain. Octubre 2018.
- Corrochano M, et al. Nepa (netupitant plus palonosetron) for the prevention of chemotherapy induced nausea and vomiting in patients receiving stem cell transplantation. 23rd European Hematology Association Congress, Stockholm, Sweden, June 2018.
- Corrochano M, et al. NEPA (Nepupitan Plus Palonosetron) for the prevention of nausea and vomiting in patients receiving high emetogenic conditioning regimen for stem cell transplantation. 44th Annual Meeting of the European Society for Blood and Marrow Transplantation (EBMT), Lisbon, Portugal, March 2018.
- Y. Campos et al. Clinically relevant drug interactions in heart transplant recipients using complementary therapies. 2018 ASHP Midyear Clinical Meeting; Ananheim, CA (USA). December 2018.
- M.Gomis-Pastor; et al. Prevalencia de la vacunación frente a la gripe 2017-2018 en pacientes trasplantados cardíacos. SEC 2018. Sevilla, Spain, October 2018.
- M. Gomis et al.Impact of a mobile pharmaceutical and healthcare programme on therapeutical adherence in heart transplant patients. 27th International Congress of the Transplantation Society (Outcomes Driven TTS2018); Madrid, Spain, June 2018.
- M.Gomis Pastor et al. Clinically relevant drug interactions in heart transplant recipients using complementary therapies., 38th Annual Meeting and Scientific Sessions; Niza, France. April 2018.
- Valera Rubio M, et al. Proyecto Red de Antídotos entre hospitales: gestión eficiente de los antídotos. XIV Jornadas de Gestión y Evaluación en Salud, Barcelona, June 2018.
- Pi Sala N, et al. Experiencias sobre el uso del suero antiofidico en Cataluña.
- XXII Jornadas Toxicología Clínica XII Jornadas de Toxicovigilancia, Córdoba, Spain, October 2018.
- Martínez Sánchez L, et al. One pill killers y otros medicamentos altamente tóxicos disponibles en España. XXII Jornadas Toxicología Clínica, XII Jornadas de Toxicovigilancia, Córdoba, Spain, October 2018.
- Soria Soto M, et al. Análisis de una encuesta nacional de satisfacción a residentes sobre la formación sanitaria especializada en Farmacia Hospitalaria.
- III Congreso Nacional SEFSE AREDA. A Coruña, Spain. October 2018.

Associated Groups

Dermatology

Coordinator
Puig Sanz, Luis (FGS)
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Members
Alegre Fernández, Marta (FGS)
Baselga Torres, Eulàlia (FGS)
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Garcès Gatnau, Joan Ramon (FGS)
García Muret, Maria Pilar (FGS)
Gely Vila, Cristina (IR)
López Ferrer, Anna (FGS)
Margarit de Miguel, Esther (IR)(
Mir Bonafe, Juan Francisco (FGS)
Morales Munera, Caridad Elena (FGS)
Paz del Río, Rocío (FGS)
Roe Crespo, Esther (FGS)
Ros Abarca, Sandra IR
Ruiz Salas, Verónica (FGS)
Serra Baldrich, Esther (FGS)
Spertino, Jorge Luis (FGS)
Vilarrasa Rull, Eva (FGS)

Main Lines of Research

- Biologic therapy in dermatology.
- Genome-wide association studies in psoriasis.
- Medical and physical treatment options for vascular tumours.
- Psychopathological studies of patients with chronic dermatological disorders.
- Innate and acquired immunity-mediated dermatological diseases.

Scientific Challenges

- Ensure a stable clinical research infrastructure and staff.
- Foster interdepartmental collaborative research.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Parkinson Disease and Movement Disorders.
- Inflammatory Diseases.

Scientific Production

Total Impact Factor: 207.0840 · Mean Impact Factor: 5.3098

Almendros I., Martinez-Garcia M., Campos-Rodriguez F., Riveiro-Falkenbach E., Rodriguez-Peralto J.L., Nagore E., Martorell-Calatayud A., Blasco L.H., Roca J.B., Vives E.C., Sanchez-de-la-Torre A., et al., Intermittent hypoxia is associated with high hypoxia inducible factor-1α but not high vascular endothelial growth factor cell expression in tumors of cutaneous melanoma patients (2018) FRONT NEUROL, 9 (APR). **IF: 3.5080**

Alonso N., Canueto J., Ciria S., Bueno E., Palacios-Alvarez I., Alegre M., Badenas C., Barreiro A., Pena L., Maldonado C., Nespeira-Jato M.V., Pena-Penabad C., Azon A., Gavrilova M., Ferrer I., Sanmartin O., Robles L., Hernandez-Martin A., Urioste M., Puig S., Puig L., Gonzalez-Sarmiento R., Novel clinical and molecular findings in Spanish patients with naevoid basal cell carcinoma syndrome (2018) BRIT J DERMATOL, 178 (1), 198-206. **IF: 6.1290**

Aluma-Tenorio M.S., Avila-Alvarez A., Jaimes N., Caballero-Uribe N., Gonzalez A., Terzian L.R., Ocampo-Candiani J., Zuluaga M.A., Garza-Rodriguez V., Tamayo-Betancur M.C., Cuesta- Castro D.P., Garces J.R., Ruiz-Salas V., Goldberg L., Kimyai-Asadi A., Basal cell carcinoma treated with Mohs micrographic surgery in young Ibero-American patients (2018) INT J DERMATOL, 57 (12), 1447-1453. **IF: 1.5410**

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Main Lines of Research

- Intraoperative respiratory strategies.
- Management of preoperative anxiety in pediatric anesthesia and surgery.
- Intraoperative hypothermia management.
- Perioperative TVP management.
- Perioperative medicine.
- Patient blood management.
- Massive blood transfusion and associated hemosthatic disorders.
- Loco-regional anesthesia and ecographic plexus identification.
- Ecocardiography.
- ECMO therapy.
- Acute and cronic pain management.
- New modalities of care delivery: Preoperative prehabilitation, team preoperative evaluations and perioperative care in Oftalmic surgery.

Scientific Challenges

- Critical analysis of new clinical technologies.
- Patient blood management.
- Perioperative medicine.
- Development of new health service systems.
- Clinical and preclinical research into physiology, pharmacology and anaesthetic/analgesic techniques.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Estudio PALLAPUPAS. Influencia de la intervención de pallapupas sobre la ansiedad preoperatoria infantil medida por niveles de cortisol salival CEIC HSCSP, IR HSCSP.2016-2018.
- Estudio IPROVE-O2. Reducción de la infección de la herida quirúrgica con ventilación de protección pulmonar y FiO2 elevada. Incliva EUDRAC: 2016: 002934-34 - Instituto de Salud Carlos III. 2017-2018.
- Estudio ALBUMINA-CEC. Influencia de la albúmina en CEC sobre el desarrollo de disfunción renal aguda postoperatoria asociada a la cirugía cardíaca bajo circulación extracorpórea. CEIC HSCSP. 2017-2019.
- Estudio HIPOTERMIA QUIR. Análisis de la eficacia de los sistemas de calentamiento por convección en la prevención de la hipotermia intraoperatoria no deseada. IR HSC, 2017-2019.
- POSE (Peri-interventional Outcome Study in the Elderly) Aachen University Hospital (Mark Coburm Md) 03152734 - ESA (European Society of Anaesthesiology). 2018.
- CC- GERIATRIA Análisis de la relación coste-beneficio de la cirugía cardíaca en pacientes de edad superior a 80 años. HSCSP. IR HSC. 2018-2019.

External Collaborations

- POPULAR (Postanesthesia PULmonary complications After use of muscle Relaxants in Europe), multicentre observational study. European Society of Anaesthesiology (ESA).
- Analysis of the Hemostatic Potential of Coagulation Factor Concentrates in an In Vitro Model of Extreme Hemodilution. Beca Heimburger.
- Collaboration in a Competitive, International and Multicentric Study entitled TRICS (Restrictive or liberal red-cell transfusion for cardiac surgery). Population Health Research Institute. Hamilton General Hospital Canada. NCT 02042898.
- Collaboration in a Competitive, International and Multicentric Study entitled MANAGE (Management of myocardial injury after noncardiac surgery) - Population Health Research Institute. Hamilton General Hospital Canada. NCT 01661101. 2014-2017.
- Collaboration in a Competitive Study entitled AFFECT (Ensayo clínico aleatorizado multicéntrico paralelo en pacientes antiagregados con fractura pertrocantérea de fémur que evalúa una estrategia para acortar el tiempo hasta la cirugía) PI16/01879. Instituto de Salud Carlos III, 2017-2019.
- Collaboration in a Competitive, International and Multicentric Study entitled HIP- ATTACK (Hip fracture accelerated surgical care and TreaTment Track)- Population Health Research Institute. Hamilton General Hospital Canada CEIC 15/294 - Population Health Research Institute. Hamilton General Hospital Canada. NCT 01661101.
- Study IPEGASUS (Individualized Perioperative goal- directed Therapy in Major Abdominal Surgery). NCT 030221525 - Hamburg University, Deutchland. 2017-2019.

Active Grants

- Pilar Paniagua Iglesias. Evaluación del grado de cumplimiento e impacto clínico de los protocolos de transfusión masiva (PTM). PI16/01134. Instituto de Salud Carlos III. Duration: 2017-2019. 82,000 €.
- Individualized perioperative hemodynamic goal-directed therapy in major abdominal surgery (iPEGASUS-trial) A multi-center, prospective, randomized controlled trial.University Medical Center Hamburg-Eppendorf, Germany Professor Daniel A. Reuter.
- Randomized, active controlled, multicentric phase study investigating efficacy and safety of intraoperative use of BT524 (human fibrinoge concentrate) in subjects undergoing major spine surgery (Adfirst study) EUDRAC 2017-001163-20 Sponsor Biotest AG Dreieich Germany.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Maria Victòria Moral García. Influencia de la albúmina en el desarrollo de la disfunción renal aguda asociada a la cirugía cardiaca bajo circulación extracorpórea. IR17-G2, Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2018. 38,250 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 163.309 · Mean Impact Factor: 20.4136

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Books or Chapters with ISBN

- Rivilla, Galán, Moral. Determinantes fisiológicos y umbrales de la transfusión de hematíes. In: Llau JV, M. Basora, MJ Colomina, R. Ferrandis, A. Gomez, JL Jover, V. Moral (ed) Medicina Transfusional Perioperatoria (2a edición) 2018 ISBN 9788491134671.
- Azparren, Felipe, Moral. Anemia, transfusión sanguínea y métodos de ahorro de sangre en cirugía oncológica. In: Llau JV, M. Basora, MJ Colomina, R. Ferrandis, A. Gomez, JL Jover, V. Moral (ed) Medicina Transfusional Perioperatoria (2a edición) 2018 ISBN 9788491134671.

Associated Groups

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Main Lines of Research

- Application of imaging techniques for intraoperative studies of perforator vessels with the aim to improve the design of flaps, evaluate the suitable blood perfusion and the viability of the flaps avoiding secondary postoperative complications to secondary vascular supply problems.
- Anatomical studies of the variability of perforator vessels in the following regions: internal mammary artery, inferior epigastric system and internal superficial circumflex system.
- Study of the perioperative and postoperative factors that influence on the viability of the microsurgical free flaps.
- Research by indocyanine green angiography of the concept of vascular blood balance after the disecction of a perforator flap.
- Research by indocyanine green angiography of the relationship between the different anatomical patterns of lymphatic vessels in the upper extremity and its readiness to develop lymphedema in the affected breast cancer patients.
- Feasibility of the research in animal models of major surgical and nonsurgical techniques existing today to treat secondary lymphatic insufficiency: fat transplant of autologous stem cells, stem cell transplantation autologous from bone marrow, lymphatic- venous anastomosis, free flap of vascularised autologous lymph nodes.
- Linfangiogenesis studies in a comparative animal model between transplantation of adipose tissue stem cells vs bone marrow stem cells, lymphatic-venous anastomoses and transplantation of vascularized lymph nodes for lymphoedema treatment.
- Research in an experimental animal model on lymphangiogenesis and regeneration of the lymphatic system after a model of obstructive lymphoedema.
- Imaging studies using lymphography and indocyanine green, as well as lympho-magnetic resonance techniques.

Scientific Challenges

- Improvement of the preoperative planning of perforator flaps with the help of advances in imaging techniques and knowledge of anatomy.
- Consolidate and optimize preoperative management techniques for locating the most suitable perforating vessels for each microsurgical flap.
- Minimize intra- and postoperative complications in perforator flaps using new imaging techniques to visualize intraoperatively patterns of vascularisation of the flaps and vascular blood supply dominance.
- Lymphedema prevention in those patients with mastectomy in which we perform searching procedures of sentinel node and/or axillaries lymph node dissections using new techniques of surgical treatment for this disease (lymphatic venous anastomosis, transfer of vascularised lymph nodes...).
- Identification by indocyanine green angiography for those patients affected with breast cancer with a major risk of developing secondary lymphedema.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Advances in imaging techniques and theraphy in muscle dystrophies: evaluation and treatment of the fibrosis. Beca FIS. Clinical trial in conjunction with the Department of Neurology.

External Collaborations

- Reporting clinical outcomes of prepectoral Braxon-assisted breast reconstruction: A 2-year Retrospective European Audit. (Evaluación de los resultados clínicos de la reconstrucción mamaria prepectoral con prótesis y malla Braxon. Estudio de Auditoría Europeo retrospectivo de 2 años.)
- A Double-Blind, Placebo-Controlled, Multicenter Study with an open-label extension to evaluate the efficacy and safety of SRP-4045 and SRP-4053 in Patients with Duchenne Muscular Dystrophy sponsorized by Sarepta Therapeutics, Inc.
- Study of the socio-economic impact on women diagnosed with breast cancer (prospective study). Institut de Recerca, Hospital de la Santa Creu i Sant Pau - Jornada "Entre Nosaltres". From 2018 upwards.
- Study of the socio-economic impact on women diagnosed with breast cancer (retrospective study). GC Aesthetics Management Limited. From 2016 to 2018.
- Research by indocyanine green angiography of the relationship between the different anatomical patterns of lymphatic vessels in the upper extremity and its readiness to develop lymphedema in the affected breast cancer patients. Fluoptics. From 2015 to 2018.

Active Grants

- Josep Jaume Masià Ayala. Modelo experimental comparativo entre trasplante de células madre de tejido adiposo/médula ósea,anastomosis linfáticovenosas,trasplante de ganglios vascularizados en el linfedema. PI13/02793. Instituto de Salud Carlos III. Duration: 2014-2018. 29,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Award for the best communication. Riba J, Fernández M, Pons G, Sarriá J, Masià J. Tissue Oximetry for Continuous perforator Free Flap Monitoring in Upper and Lower Limb Reconstruction: One year experience. 18th International Course on Perforator Flaps. Ghent University Hospital. Gante (Bèlgica)

Doctoral Theses

- Hemin Oathman Sheriff. Supraclavicular artery perforator flap. Anatomical study, imaging findings and clinical applications. Universitat Autònoma de Barcelona. Director: Jaume Masià. Date of defense: 01/03/2018

Scientific Production

Total Impact Factor: 14.620 · Mean Impact Factor: 1.6244

Chang E.I., Masia J., Smith M.L., Combining Autologous Breast Reconstruction and Vascularized Lymph Node Transfer (2018) SEMIN PLAST SURG, 32 (1), 36-41, **IF: 0.8000**

Farhadi J., Hofer S.O.P., Masia J., Preface (2018) CLIN PLAST SURG, 45 (1), xiii-, **IF: 2.0160**

Fernandez Garrido M., Pereira N., Lopez Fernandez S., Vega C., Masia J., Turbocharged bilateral pedicled DIEP flap for reconstruction of thigh defect without recipient vessels: A case report (2018) MICROSURG, 38 (3), 324-327, **IF: 2.0710**

Murphy B.D., Kerrebijn I., Farhadi J., Masia J., Hofer S.O.P., Indications and Controversies for Abdominally-Based Complete Autologous Tissue Breast Reconstruction (2018) CLIN PLAST SURG, 45 (1), 83-91, **IF: 2.0160**

Riba J., de Romani S.E., Masia J., Neoadjuvant Chemotherapy for Breast Cancer Treatment and the Evidence-Based Interaction with Immediate Autologous and Implant-Based Breast Reconstruction (2018) CLIN PLAST SURG, 45 (1), 25-31, **IF: 2.0160**

Sham E, Masia J, Reddy TJ. Vascular Analysis of Radial Artery Perforator Flaps. Annals of Maxillofacial Surgery. 2018; 8(1): 66-72. **IF: –**

Sheriff H.O., Mahmood K.A., Hamawandi N., Mirza A.J., Hawas J., Moreno E.G., Clavero J.A., Hankins C., Masia J., The Supraclavicular Artery Perforator Flap: A Comparative Study of Imaging Techniques Used in Preoperative Mapping (2018) J RECONSTR MICROSURG, 34 (7), 499-508, **IF: 1.8650**

Sumarroca A., Rodriguez-Bauza E., Lop-Gros J., Garcia J., Lopez M., Quer M., Leon X., Repair of post-laryngectomy pharyngocutaneous fistulas using a pectoralis major flap Reparo de fístulas faringocutâneas pós-laringectomia utilizando retalho do músculo peitoral maior (2018) BRAZ J OTORHINOLAR, -, **IF: 1.4120**

Vidya R, Masià J, Cawthorn S, Berna G, Bozza F, Gardetto A, Kolacinska A, Dell'Antonia F, Tiengo C, Bassetto F, Caputo GG, Governa M. Reply to Rana Nadeem's Letter to the Editor. Breast Journal. 2018; 24(2): 225-226. **IF: 2.4240**

Other Publications

- Sheriff H, Vega C, Jaber S, FICMS, EBOPRAS, Bernárdez D, Shahab Kareem S, Fernández M, Masià J. Supraclavicular Artery Island Flap: Relation between Length and Distal End Necrosis. International Microsurgery Journal. 2018; 2(1): 5.

Books or Chapters with ISBN

- Masià J, Pons G, Rodríguez-Bauza E. Surgical management of post mastectomy lymphedema. In: Peter C. Neligan. Plastic Surgery: 6-Volume Set, 4th edition. 2018. ISBN: 978-0-323-35630-5.

Diffusion Activities

- Masià J. Avances en el tratamiento del Linfedema. Sociedad Paraguaya de Cirugía Plástica. Asunción (Paraguay). 2018
- Masià J. Preoperative Planning Imaging. 19th International Course on Perforator Flaps. Bogotá (Colombia). 2018.
- Masià J. Vascularized Lymph Node Transfer. 19th International Course on Perforator Flaps. Bogotá (Colombia). 2018.
- Masià J. Irradiated Breast. 19th International Course on Perforator Flaps. Bogotá (Colombia). 2018.
- Masià J. The Barcelona Cocktail. 2nd Annual Lymphedema Symposium. Boston (USA). 2018.
- Masià J. Surgical approach to the lymphatic System. Training Course in Lymphatic Microsurgery. Diagnostics, indications, treatment options, postoperative care and practical training. Cáceres (Spain). 2018.
- Masià J. How to set up a lymphedema network. Training Course in Lymphatic Microsurgery. Diagnostics, indications, treatment options, postoperative care and practical training. Cáceres (Spain). 2018.
- Masià J. Risk reducing lymphedema surgery: from T-BAR to T-LAR. 2th International Course on Supermicrosurgery Meeting. Jinan (Chin). 2018.
- Masià J. Microvascular Breast Reconstruction. Anatomic fundamentals. New trends in breast reconstruction. XI Breast Reconstruction Course on Cadaver. Alacant (Spain). 2018.

- Masià J. Breast sharing technique IMAPc. Anatomic fundamentals. Real indications, design and elevation of the flap. XI Breast Reconstruction Course on Cadaver. Alacant (Spain). 2018.
- Masià J. Pre-pectoral ADM reconstruction: One stage implant reconstruction with epifascial matrix (BRAXON). XI Breast Reconstruction Course on Cadaver. Alacant (Spain). 2018.
- Masià J. DIEP/SIEP. Anatomic fundamentals. Applications, design and elevation of the flap. Lymph-node transferences in lymphatic microsurgery. XI Breast Reconstruction Course on Cadaver. Alacant (Spain). 2018.
- Masià J. Breast Reconstruction Lecture and Cadaver Lab Simulcast. American Society of Plastic Surgeons (ASPS). Chicago (USA). 2018.
- Masià J. Breast Reconstruction Lecture and Cadaver Lab. American Society of Plastic Surgeons (ASPS). Chicago (USA). 2018.
- Masià J. How to optimize perforator flaps breast reconstruction. Northwestern Memorial Hospital de Chicago. USA. 2018.
- Masià J. Tricks and tips on microsurgical dissection techniques. Northwestern Memorial Hospital de Chicago. USA. 2018.
- Masià J. How to raise the SIEA Flap. Al Breast Reconstruction Cadaver Workshop. Paris (France). 2018.
- Masià J. How to raise the DIEP Flap. Al Breast Reconstruction Cadaver Workshop. Paris (France). 2018.
- Masià J. Abdominal flaps for breast reconstruction: indications and principles. Breast Reconstruction Cadaver Workshop. París (France). 2018.
- Masià J. Keynote Address: in conversation with the Masters of lymphatic surgery. London Breast Meeting. Londres (United Kingdom). 2018.
- Masià J. IBSA best practice sessions: Diagnosis of capsular contracture. London Breast Meeting. Londres (United Kingdom). 2018.
- Masià J. Optimising results in your autologous breast reconstructions. London Breast Meeting. Londres (United Kingdom). 2018.
- Masià J. Planning perforator flaps in breast reconstruction. Ukrainian Breast Meeting. Dnipro (Ukraine). 2018.
- Masià J. Prepectoral DTI reconstruction: breaking the dogma. Ukrainian Breast Meeting. Dnipro (Ukraine). 2018.
- Masià J. BCS versus mastectomy. Ukrainian Breast Meeting. Dnipro (Ukraine). 2018.
- Masià J. Breast reconstruction goals in XXI century. Ukrainian Breast Meeting. Dnipro (Ukraine). 2018.
- Masià J. Keynote Speaker: A Lifetime of Learning. Liverpool Oncoplastic Fellow's Meeting a Liverpool (United Kingdom). 2018.
- Masià J. Cómo se atiende el cáncer de mama en mi país? 2 Cali Breast Meeting. Santiago de Cali (Colombia). 2018.
- Masià J. Principios de Oncoplastia. 2 Cali Breast Meeting. Santiago de Cali (Colombia). 2018.
- Masià J. Mastectomía profiláctica: qué pacientes se benefician. 2 Cali Breast Meeting. Santiago de Cali (Colombia). 2018.
- Masià J. Reconstrucción con implante en mastectomía profiláctica vs microcirugía. 2 Cali Breast Meeting. Santiago de Cali (Colombia). 2018.
- Masià J. Reduciendo el riesgo de linfedema. 2 Cali Breast Meeting. Santiago de Cali (Colombia). 2018.
- Masià J. Mastectomía preventiva con mallas Braxon. 2 Cali Breast Meeting. Santiago de Cali (Colombia). 2018.
- Masià J. Autologeous Breast reconstruction. 37th Congress of the Scandinavian Association of Plastic Surgeons. Copenhagen. 2018.
- Masià J. Lymphatic reconstruction. 37th Congress of the Scandinavian Association of Plastic Surgeons. Copenhagen. 2018.
- Masià J. Realistic role of DTA (direct to autologous). Rome Breast Symposium. Roma. 2018.
- Masià J. Perforator flaps in BCT: Are they a feasible alternative? Rome Breast Symposium. Roma. 2018.
- Masià J. Management of lymphedema: a great challenge facing public health. Paris Breast rendez-vous. París. 2018.
- Masià J. Patient selection in Autologous breast reconstruction. Paris Breast rendez-vous. Paris. 2018.
- Masià J. Flap harvesting: how to go faster / safer? Paris Breast rendez-vous. Paris. 2018.
- Masià J. Lymphedema surgery: facts and myths. 14th Congress of the European Federation of Societies for Microsurgery. Belgrad (Serbia). 2018.
- Masià J. Experimental models for the study of lymphedema and lymphangiogenesis. 14th Congress of the European Federation of Societies for Microsurgery, Belgrad (Serbia). 2018.
- Masià J. IMAP flap: how to extend the potential reconstructive indications. 14th Congress of the European Federation of Societies for Microsurgery, Belgrad (Serbia). 2018.
- Masià J. Optimizing abdominal perforator flaps for breast reconstruction. 14th Congress of the European Federation of Societies for Microsurgery, Belgrad (Serbia). 2018.
- Masià J. Prophylactic surgery for the upper limb Lymphedema. 14th Congress of the European Federation of Societies for Microsurgery, Belgrad (Serbia). 2018.
- Masià J. Fat & the breast: what is the real future and where we are. South American Plastic Surgery Meeting. Colòmbia. 2018.
- Masià J. Avoiding complications in mastopexy & reduction mammoplasty. South American Plastic Surgery Meeting. Colombia. 2018.
- Masià J. How do we measure outcomes following Lymphedema Surgery? Chicago Breast & Lymphedema Symposium. Chicago. 2018.
- Masià J. How has my approach changed and why? Chicago Breast & Lymphedema Symposium. Chicago. 2018.
- Masià J. The evolution of breast reconstruction, from sub-pectoral to pre-pectoral implant. XI Simposium Internacional Cáncer de Mama. Chile. 2018.
- Masià J. Early outcomes in cost-effectiveness and functionality in pre-pectoral ADM covered implant versus sub-muscular breast reconstruction. XI Simposium Internacional Cáncer de Mama. Chile. 2018.
- Masià J. Cirugía Plástica, Estética y Reconstructiva. XI Congreso de Correlación Básico Clínica. Organizado por la Asociación Colombiana Médica Estudiantil ACOME. Cúcuta (Colombia). 2018.
- Masià J. Aplicación del verde de Indocianina en cirugía de la mama. 37º Congreso SESPM. Cádiz (Spain). 2018.
- Masià J. Mejor una mastectomía con reconstrucción que una mala conservadora. VII curso de cirugía del cáncer de mama. Barcelona. 2018.
- Masià J. ¿Cómo podemos tratar las secuelas secundarias a la cirugía y radioterapia axilar? III Foro Extremeño multidisciplinar de cáncer de mama y tumores ginecológicos. Abordaje integral de la axila en cáncer de mama y novedades terapéuticas. Cáceres. 2018.
- López Fernández S, Sarriá García JR, Vega García C, Fernández Garrido M, Masià Ayala J. Manejo quirúrgico de las anomalías vasculares en zona genital. 10ª Reunión de la Sociedad Española de Anomalías Vasculares. La Coruña (Spain). 2018.
- Sarriá J, Pons G, Riba J, Masià J. Angiografía con ICG en la Reconstrucción mamaria: experiencia de 5 años. 52º Congrès de la Sociedad Española de Cirugía Plástica, Reparadora y estética (SECPRE). Bilbao (Spain). 2018.
- Masia. London Breast Meeting 2018 Co-Chairman. London (UK). 5-8 September 2018.
- Masia. 1st Ukrainian Breast Meeting 2018 Co-Chairman. Dnipro (Ukraina). 20 - 21 September 2018.

Associated Groups

Palliative Care

Coordinator
Pascual López, Antonio (FGS)
apascual@santpau.cat

Members
Collette, Nadia (IR)
Fariñas Balaguer, Óscar (FGS)
Güell Pérez, Ernest (FGS)
Ramos Fernández, Adelaida (FGS)

Main Lines of Research

- Symptom evaluation and control: pain, dyspnoea, cognitive failure, complex situations.
- End-of-life ethical issues: sedation, expression of a desire for death, euthanasia.
- Psychosocial care for patients and families: adaptation to the terminal situation, grief, spiritual needs.
- Training in palliative care: training needs, outcomes.
- Art therapy.

Scientific Challenges

- Psychosocial care for patients and families.
- Counselling and hospital sensitization.
- Quality evaluation and control.
- Symptom evaluation and control.
- Integrated care: analysis and care of end-of-life emotional, social and spiritual dimensions and adequate ethical reflection in decision making.

Active Grants

- Óscar Fariñas Balaguer. Ampliació criteri edat al·loempelts tendinosos. CONVENI BST 2017-1. Banc de Sang i Teixits. Duration: 2017-2019. 27,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 2.4900 · Mean Impact Factor: 2.4900

Berlanga A.J., Sanchez-Avila M.T., Bracho-Vela L., Tinoco-Aranda A., Bruera E., Palliative Care Needs in an Acute Internal Medicine Ward in Mexico (2018) J PALLIAT MED, 21 (2), 163-168. **IF: 2.4900**

Associated Groups

Andrology

Coordinator
Ruiz Castañe, Eduard (F. Puigvert)
eruiz@fundacio-puigvert.es

Members
Bassas Arnau, Lluis (F. Puigvert)
González, Mònica (F. Puigvert)
Krausz, Csilla Gabriella (F. Puigvert)
Maestre, Francesc (F. Puigvert)
Martínez Pasarell, Olga (F. Puigvert)
Moreno, Daniel (F. Puigvert)
Pedraza Godoy, M. Fernanda (F. Puigvert)
Riera Escamilla, Antoni (F. Puigvert)
Sánchez-Curbelo, Josvany (F. Puigvert)
Sarquella, Joaquim (F. Puigvert)
Vives Suñé, Alvarobar (F. Puigvert)

Main Lines of Research

- Genetics applied to male infertility.
- Male fertility preservation in oncological patients.
- Optimisation of preimplantation genetics diagnosis and in vitro fertilization techniques.
- 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).
- Sexually transmitted diseases and public health.
- Quality of life and integral sexual approach: gender and psicological aspects.

Scientific Challenges

- Our multidisciplinary team of professionals develops translational and clinical research in the field of diagnosis and treatment of andrological disorders and female sexuality. 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 divulgate sexuality as health topic and as main aspect of global health and quality life inclusive in chronic and ill patients to professionals who requires a broad and multidisciplinar approach to their patients.
- To work up in the relationship with patients associations and progressively incorporate them as workteam to develop a responsible research with relevant results with social impact.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Nephrology Group.
- Urology Group.
- Gynecological Group.

External Collaborations

National

- Medical and Molecular Genetics Centre (RI)-IDIBELL: genetics applied to infertility.
- Cellular Biology and Medical Genetics Unit-UAB: preimplantation of genetic diagnosis techniques.

International

- Mario Serio Experimental and Clinical Biomedical Sciences Unit, University of Florence: genetics applied to male infertility.
- Reproductive Genomics Laboratory, Human Genetics Centre (KU Leuven): genetics applied to male infertility.
- New England Research Institutes: hypogondadism.
- European Academy of Andrology: radiology examinations of the male genital tract.

Private

- Participation in clinical studies including clinical trials and postauthorization studies sponsored by national and international pharmaceutical companies.

Active Grants

- Csilla Gabriella Krausz. Estudio genético y genómico de subtipos específicos de azoospermia secretora: desarrollo de nuevas herramientas diagnósticas y pronósticas. PI14/01250. Instituto de Salud Carlos III. Duration: 2015-2019. 86,500 €.
- Csilla Gabriella Krausz. Estudio genético y genómico en pacientes infértiles y pacientes con tumor testicular de células germinales: desarrollo de nuevas herramientas para un diagnóstico precoz. PI17/01822. Instituto de Salud Carlos III. Duration: 2018-2020. 102,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Transfer Products

- Druring 2018, the group participated in 3 clinical trials with drugs and 5 other clinical studies (clinical investigations with devices or observational studies with dugs or other type of clinical research projects) sponsored by private companies or academics.

Scientific Production

Total Impact Factor: 36.935 · Mean Impact Factor: 3.3577

Barbonetti A, Calogero AE, Balercia G, Garolla A, Krausz C, La Vignera S, Lombardo F, Jannini EA, Maggi M, Lenzi A, Foresta C, Ferlin A. The use of follicle stimulating hormone (FSH) for the treatment of the infertile man: position statement from the Italian Society of Andrology and Sexual Medicine (SIAMS). (2018) J Endocrinol Invest 41 9 1107-1122. doi: 10.1007/s40618-018-0843-y. Epub 2018 Feb 1. **IF: 3.166**

Barcelo M., Mata A., Bassas L., Larriba S., Exosomal microRNAs in seminal plasma are markers of the origin of azoospermia and can predict the presence of sperm in testicular tissue (2018) HUM REPROD, 33 (6), 1087-1098. **IF: 4.9900**

Bonomi M, Vezzoli V, Krausz C, Guizzardi F, Vezzani S, Simoni M, Bassi I, Duminuco P, Di Iorgi N, Giavoli C, Pizzocaro A, Russo G, Moro M, Fatti L, Ferlin A, Mazzanti L, Zatelli MC, Cannavò S, Isidori AM, Pincelli AI, Prodam F, Mancini A, Limone P, Tanda ML, Gaudino R, Salerno M, Francesca P, Maghnie M, Maggi M, Persani L; Italian Network on Central Hypogonadism. Characteristics of a nationwide cohort of patients presenting with isolated hypogonadotropic hypogonadism (IHH) (2018) Eur J Endocrinol 178 1 23-32. doi: 10.1530/EJE-17-0065. **IF: 4.333**

Colpi GM, Francavilla S, Haidl G, Link K, Behre HM, Goulis DG, Krausz C, Giwercman A. European Academy of Andrology guideline Management of oligo-astheno-teratozoospermia. (2018) Andrology. 6 4 513-524. doi: 10.1111/andr.12502. Review. **IF: 2.734**

Cosentino M, Peraza MF, Vives A, Sanchez J, Moreno D, Perona J, Ortiz G, Alcoba M, Ruiz E, Sarquella J.Factors predicting success after microsurgical vasovasotomy. (2018) Int Urol Nephrol 50 4 625-632. doi: 10.1007 / s11255-018-1810-4. Epub 2018 8 de febrero. Revisión. **IF: 1.692**

Del Rey J, Vidal F, Ramírez L, Borràs N, Corrales I, Garcia I, Martinez-Pasarell O, Fernandez SF, Garcia-Cruz R, Pujol A, Plaja A, Salaverria I, Oliver-Bonet M, Benet J, Navarro J. Novel Double Factor PGT strategy analyzing blastocyst stage embryos in a single NGS procedure. (2018) PLoS One 17 13 10: e0205692. doi: 10.1371/journal.pone.0205692. eCollection 2018. **IF: 2.766**

Krausz C., Riera-Escamilla A., Genetics of male infertility (2018) NAT REV UROL, 15 (6), 369-384. **IF: 8.0890**

Krausz C., Cioppi F., Riera-Escamilla A., Testing for genetic contributions to infertility: potential clinical impact (2018) EXPERT REV MOL DIAGN, 18 (4), 331-346. **IF: 3.3260**

Kumar K, Lewis S, Vinci S, Riera-Escamilla A, Fino MG, Tamburrino L, Muratori M, Larsen P, Krausz C. Evaluation of sperm DNA quality in men presenting with testicular cancer and lymphoma using alkaline and neutral Comet assays. (2018) Andrology 6 1 230-235. doi: 10.1111/andr.12429. Epub 2017 Sep 26. **IF: 2.734**

Moncada I., Martinez-Salamanca J., Ruiz-Castane E., Romero J., Combination therapy for erectile dysfunction involving a PDE5 inhibitor and alprostadil (2018) INT J IMPOT RES, 30 (5), 203-208. **IF: 1.5170**

Ruiz-Olvera S.F., Rajmil O., Sanchez-Curbelo J.-R., Vinay J., Rodriguez-Espinosa J., Ruiz-Castane E., Association of serum testosterone levels and testicular volume in adult patients (2018) ANDROLOGIA, 50 (3). **IF: 1.5880**

Books or Chapters with ISBN

- Larriba S, Bassas L. Altered transcriptomic profiles associated with male infertility. In: Horcajadas JA, Gosálvez J (Eds) Reproductomics, the OMICS revolution and its impact on human reproductive medicine. Academic Press, London, 2018, pp 125-146; ISBN 978-0-12-812571-7

Diffusion Activities

Training organized by the group

- Curso sobre déficit de testosterona. Un debate de actualidad en el laboratorio y la clínica (1,1 credits, accredited course by Consell Català de la Formació Continuada de les Professions Sanitàries - Comisión de Formación Continuada del Sistema Nacional). Fundació Puigvert. Barcelona, 4t October 2018
  - Organisation: E Ruiz-Castané
  - Teacher: L Bassas. "Hipogonadismo en el varón joven: Etiología y fisiopatología. ¿Cuándo y cómo tratarlo?"
  - Teacher: D Moreno. "Tratamiento sustitutivo con Testosterona: Complicaciones y signos de alarma. Testosterona y càncer de próstata"
  - Teacher: J Sánchez-Curbelo. "Déficit de testosterona en el adulto: Testosterona y edad. Criterios diagnósticos. ¿Cuándo y por qué tratarlo? El tratamiento ideal".
- Jornada multidisciplinar sobre disfuncions sexuals en pacients amb alteracions neurològiques i psiquiàtriques. Fundació Puigvert. Barcelona, 6th June 2018
  - Organization: E Ruiz Castañé. Speakers: M González, F Maestre, J Sánchez, A Vives.
- V International Symposium in Genitourinary Reconstruction. Fundació Puigvert: Barcelona, 28th -30 th May 2018 Organisation: E Ruiz Castañé in collaboration with J Masià (Plastic Surgery Service Hospital de Sant Pau I Santa Creu)
  - J Sarquella:
    - Lecture: Anatomical and physiological review of male genital system.
    - Lecture: Penile recosntruction with radial forearm flap How to avoid complications in penile implants.
    - Lecture: Microsurgery in seminal tract
    - Live surgery session: 3 components penile prosthesis + patch
  - E Ruiz Castañé:
    - Lecture: How to obtain rigidity in total phalloplasty.
  - MF Peraza:
    - Lecture: How to avoid complications in penile implants.
- Masterclass en Cirugía Protésica Andrológica, Fundació Puigvert. Barcelona, 16th November 2018
  - Organization: E Ruiz Castañé
  - J Sánchez:
    - Lecture: Cirugía de la Disfunción Eréctil. Puntos claves en el implante de una prótesis de pene.

- J Sarquella:
  - Live surgery: Implante de prótesis de pene hidráulica Titan© via transescrotal.
  - Lecture: Manejo de las complicaciones en cirugía protésica del pene.
- J Sánchez, J Sarquella:
  - Live Surgery: Implante de prótesis de pene hidráulica Titan© via infrapúbica.

- Máster en Andrología, Fundació Puigvert. Barcelona, February 2018 - January 2020
  - Organisation: E Ruiz Castañé
  - Teachers: All members of the Andrology Group

Congresses, symposium and forums

- F Peraza (Speaker). 2nd Global Men's Health Summit. Panamá, 5-9th February 2018.
- L Bassas: Manejo clínico del hipogonadismo prepuberal.12 Congreso de la Sociedad Aragonesa de Endocrinología y Nutrición. Zaragoza, 21-23 th February 2018
- L Bassas (trainer): Técnicas y trucos de laboratorio en la recuperación espermática testicular. 32 Congreso de la Sociedad Española de Fertilidad. Madrid, 17-18th May 2018
- L Bassas. Buscando causas ocultas de la infertilidad masculina. Jornadas Científicas 2018 del Institut Marquès, Barcelona, 6 th October 2018.
- L Bassas. Diagnòstic i tractament en el laboratori de medicina reproductiva. 6 Curs d'Actualització en Ciències del Laboratori Clínic (Col·legi Oficial de Farmacèutics de Barcelona). Barcelona, 20 th June 2018.
- L Bassas. Marcadores de calidad seminal. 8 Máster Internacional en Reproducción Humana (Universitat Autònoma de Barcelona). Barcelona, 21 th November 2018.
- L Bassas. Alteraciones de la producción y maduración espermática. Trastornos secretores y excretores. 15th Máster en Reproducción Humana (Sociedad Española de Fertlidad and Universidad Autónoma de Madrid). Madrid, 1st December 2018.
- XXI Reunión del Grupo de Andrología. Valladolid, 8-9th February 2018:
  - J Sarquella: Plicatura, ¿a quién, cómo, resultados, complicaciones?""¿El renacer de las prótesis maleables?
  - Vinay, JI; Moreno, D; Vives, A; Rajmil, O; Ruiz-Castañe, E; Sanchez-Curbelo, J. Ondas de choque penianas de baja intensidad para el tratamiento de la disfunción eréctil refractaria a IPD5: Estudio prospectivo, ciego, randomizado.
  - Cocera Rodríguez, R; Torremadé Barreda, J; Sarquella Geli, J; Ferreiro Pareja, C; Suarez Novo, JF; Riera Canals, LI; Vigués Julià, F; Ruiz Castañé, E. Upsizing de las prótesis de pene tras el recambio por fallo mecánico.
- A Vives. ITS en el adolescente. Curso formación continuada "dimecres pediatres". Barcelona, 21th February
- E Ruiz Castañé: Face to Face in penile prosthesis. 20th European Society for Sexual Medicine. 21th World Meeting of the International Society for Sexual Medicine. Lisboa (Portugal), 28 February-3 March 2018
- E Ruiz Castañé: Experiencia Fundació Puigvert. Master class in penile prosthesis implant. London, 18-20 th April 2018.
- E Ruiz Castañé: Secuelas sexuales de la prostatectomía radical. ESAU Meeting. Oporto, 1st-3rd June 2018.
- J Sarquella. Live Surgery: Doble implante en paciente con incontinencia urinaria de esfuerzo y disfunción eréctil con doble abordaje (AMS 800 + AMS 700). Androforum: Actualización y Controversias en Cirugía Reconstructiva Urogenital, Medicina Sexual y Disfunción Miccional del Varón. Madrid, 28 th June 2018.
- E Ruiz-Castañé. Resultados andrología (Clinical case presentation). Advisor Meeting in Penile Prosthesis. Clonmel, 11-12th July 2018.
- 10th Congress of the European Academy of Andrology. Budapest, 11-13th October 2018:
  - Lecture: E Ruiz-Castañé: Indications for ectopic reservoir placement during inflatable penile implant surgery.
  - Oral communication: Riera-Escamilla, A; Moreno-Mendoza, D; Nagirnaja, L; Rusch, J; Casamonti, E; Ruiz-Castañé, E; Conrad, DF; Krausz, C. X-chromosome exome sequencing in highly selected idiopathic azoospermic patients: identification of novel and recurrent genetic factors for early spermatogenic failure.
  - Posters:
    - Riera-Escamilla, A; Chianese, C; Moreno-Mendoza, D; Rajmil, O; Casamonti, E; Ruiz-Castañé, E; Surrallés, J; Krausz, C. Whole exome sequencing in non-obs tructive azoospermia allows the identification of a high-risk subgroup of infertile men for undiagnosed Fanconi Anemia, a cancer-prone disease.
    - Moreno-Mendoza, D; Riera-Escamilla, A, Di Fede, G; Bassas, LI; Sánchez-Curbelo, JR; Krausz, C; Ruiz-Castañe, E. General health and semen quality in night shift workers.
    - Moreno-Mendoza, D; Casamonti, E, Riera-Escamilla, A, Degl'Innocenti, S; Fino, MG; Cioppi, F, Ruiz-Castañe, E; Krausz, C. GR/GR deletion predisposes to Testis Cancer independently from altered spermatogenesis.
    - Vinay, J; Moreno, D; Rajmil, O; Ruiz-Castañe, E; Sánchez-Curbelo, J. Penile low intensity shock wave treatment for PDE 5I refractory erectile dysfunction: A randomized sham-controlled trial.
- E Ruiz Castañé: "Rehabilitación peneana después de cirugía radical de próstata; ¿es real o es marketing?", "Tratamiento Integral de la Enfermedad de La Peyronie". XXXVII Congreso de la Confederación Americana de Urología. XXXI Congreso de la Sociedad Dominicana de Urología. XXIII Congreso de la Sociedad Iberoamericana de Urología Pediátrica. Punta Cana, 30th October-3rd November 2018.
- J Sarquella. Práctica micro-TESE (live surgery). XXX Curso de Microcirugía en Urología. Cáceres, 19-21th November 2018.
- M González. Conversaciones alrededor de la salud genital (session coordinator). XIV Congreso Español de Sexología. VIII Encuentro Iberoamericano de Profesionales de Sexología. Barcelona, 30 th November-2nd December 2018.
- E Ruiz Castañé. Lecture in Casen Recordati Symposium: Los hombres que sufren eyaculación precoz: sus parejas y sus relaciones. A veces lo más obvio funciona. XIV Congreso Español de Sexología. VIII Encuentro Iberoamericano de Profesionales de Sexología. Barcelona, 30 th November-2nd December 2018.
- Ferreiro C, Torremadé J, Sarquella J, Suárez-Novo JF, Cocera R, Sánchez J, Pujol L, Vigués F, Ruiz-Castañé E. Upsizing of penile prostheses in mechanical failure replacement. (2018) The Journal of Sexual Medicine 15 7 Supp3 S225
- Fernández-Pascual E, Torremadé J, Peinado F, Sarquella J, Romero J, Garcia-Baquero R, Turo J, Fraile A, Roselló M, Campos F, Egui A, Moncada I, Carballido J, Martínez –Salamanca JI. Multicenter prospective study of patients with Peyronie's disease (PD) who underwent incision or partial-plaque excision with collagen-fibrinogen-thrombin fleece grafting. (2018) The Journal of Sexual Medicine 15 7 Supp3 S225
- Daniel Moreno-Mendoza, Antoni Riera-Escamilla, Giulia Di Fede, Luis Bassas, Josvany Rene Sanchez-Curbelo, Csilla Krausz, Eduard Ruiz-Castañe. General health and semen quality in night shift workers.
- Jose Vinay, Daniel Moreno, Osvaldo Rajmil, Eduardo Ruiz-Castañe, Josvany Sanchez-Curbelo. Penile low intensity shock wave treatment for PDE5I refractory erectile dysfunction: A randomized sham-controlled trial.

Associated Groups

Urology

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Mateu, Laura (F. Puigvert)
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Sanguedolce, Francesco (F. Puigvert)
Territo, Angelo (F. Puigvert)

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 carries out clinical translational research within the field of urinary tract diseases along different lines from 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 finally diagnoses using the sentinel node technique in penile cancer, and also reconstructive surgery after partial penectomy plus laparoscopic lymphadenectomy of the groin.
- 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 Malmoe University. Bladder preservation in high grade tumours is a difficult decision and the possibility to detect those who will progress will allow earlier aggressive treatment. Another line of research is the nerve sparing surgery in cystectomy in order to preserve sexual function after radical surgery.
- In paediatric urology, 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 Botuline toxine 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 exstrophy epispadias.
- In the Urolithiasis line chaired by Dr. Angerri, clinical research in some aspects is performed: laser energy devices for stone destruction (holmium, thulium, superthulium) in collaboration with IIBSantPau General and Digestive Surgery Group for primary hiperparatirodism, tolerance of surgical material for urolithiasis treatment and pH urine research for the management of cystinuria. In cystinuria, there exists an extensive collaborative research with IDIBELL for its genetic study and an active participation in the National Registry of this Rare Disease.
- The functional urology section 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 line research collaboration with the Centre de Fisioteràpia (RAP) in Barcelona (associated to the UAB Vall d'Hebron) in clinical apps for patients has been recently begun.
- Renal transplantation unit by Dr. Breda is investigating 3D reconstruction models to facilitate renal transplant for a better preservation of the kidney. The group is establishing the robotic renal transplant all over Europe and undergoing analysis of the urogenital tumours in renal transplant patient 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 vaporization) in BPH, the quality of life of patients who had undergone urethroplasty due to urethral stenosis, the use of oral mucosa for urethroplasties. A recent national collaboration for an Urethoplasties Registry has recently begun.
- Mrs Vanessa Muñoz and the nurse Ana Palomino are the coordinators of clinical studies and trials. They are key pieces to continue with the ongoing studies of the department.

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.
- 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.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Uro-oncology meetings: weekly meetings with urologists, oncologists, radiologist, radiation oncologists and pathologist.
- Uropediatric meeting: weekly meetings with urologists, pediatricians, nephrologists, radiologists and nurses.
- Functional urology meeting in chronic pelvic pain: monthly meetings with urologists, anesthesiologists, psychologists and nurses.
- General and Digestive Surgery Group: collaborative surgical group in complex pelvic tumours and urolithiasis research.
- Clinical Epidemiology and Helathcare Services Group: bladder and prostate cancer.
- Inflammatory Group: Biomarkers in urooncology.
- Paediatrics Group: reseach in uropediatric diseases.

External Collaborations

International academic collaborations, network and consortiums

- IRCCVTC (International Renal Cell Carcinoma Venous Thrombus Consortium): vena cava thrombus in kidney cancer.
- European Reference Network for rare and complex urogenital diseases and conditions: rare urogenital pediatric conditions.
- Aarhus University Molecular Genetics Department: bladder cancer.
- International Robotic Cystectomy Consortium: robotic cystectomy.
- LARG (Latin American Renal Cancer Group): renal cancer.
- IBCG (International Bladder Cancer Group): bladder cancer.
- IBCN (International Bladder Cancer Network): bladder cancer.
- European Guidelines EAU Group: Non-Muscle Invasive Bladder Cancer.
- European Guildelines EAU Group: Urothelial Carcinomas of the Upper Urinary Tract.
- ERUS working Group on RAKT.
- Champalimaud Center for the Unknown (Lisbon) and the Malmoe University: High-Grade Non Muscle Invasive Bladder Cancer.
- Columbia University New York, Urooncology.
- GENS (Grupo Español de Neuromodulación de Raíces Sacras).
- IDIBELL: Genetic research in cystinuria.
- RAP (Phisiotherpy center): quality of life research in incontinence.

Private national and international collaborations

- Clinical trials and postauthorization studies promoted by national and international pharmaceutics, medical devices industries and biotechnology companies.

Active Grants

- Bujons A. Autologous enriched stem cell fat injection for the treatment of abdominal defects in patients with Extrophy- Epispadias Complex. FIU- Pedro Cifuentes Díaz Research Grant. Duration: 2016-2018. 18,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Second prize by Actas Urológicas Españolas for the article: Rodriguez Faba O, Palou J, Vila Reyes H, Guirado L, Palazzetti A, Gontero P, Vigués F, Garcia-Olaverri J, Fernández Gómez JM, Olsburg J, Terrone C, Figueiredo A, Burgos J, Lledó E, Breda A. Opciones terapéuticas y factores predictivos de recurrencia y mortalidad cáncer-específica en pacientes con tumor vesical después de trasplante renal: análisis multiinstitucional.
- Platinum Award 2018 by The Platinum Journal to J. Palou for his contribution, dedication and collaboration.
- Award Rene kuss Prize 2018 to A. Territo, European Association of Urology (EAU). The European Experience on robotic assisted kidney transplantation: 2 years after the beginning. The EAU Section of Transplantation Urology (ESTU) – Copenhagen (Denmark).
- Second prize to best comunication awarded by the Asociación Española de Urología during the Eurostars Dinamics Course in Madrid: O. Mayordomo; C. Gutiérrez; L. Mateu; V. Martínez; C. Errando. Neuromodulación sacra en paciente neurogeno.
- 2018 John Blandy prize awarded by the BJU International for the comunication: F. Pisano. The role of re-transurethral resection in the management of high risk non muscle invasive bladder cancer.

Other national recognitions

- The Paediatric Urology Unit has a CSUR in Bladder Extrophy.
- The Paediatric Urology Unit is a Center of Reference for rare disease (XUEC).

Transfer Products

- During 2018, the group participated in 8 clinical trials with drugs, 3 projects for identification of biomarkers in the urooncology field, 8 projects evaluating devices or surgical techniques and 5 other clinical projects sponsored by private companies or academics.

Scientific Production

Total Impact Factor: 208.149 · Mean Impact Factor: 4.7306

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Boormans J.L., Mayor de Castro J., Marconi L., Yuan Y., Laguna Pes M.P., Bokemeyer C., Nicolai N., Algaba F., Oldenburg J., Albers P., Testicular Tumour Size and Rete Testis Invasion as Prognostic Factors for the Risk of Relapse of Clinical Stage I Seminoma Testis Patients Under Surveillance: a Systematic Review by the Testicular Cancer Guidelines Panel (2018) EUR UROL, 73 (3), 394-405. **IF: 17.5810**

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Huguet J., Rosales A., Breda A., Palou J., Atypical relapses in laparoscopic and robot-assisted surgery of urothelial carcinoma of the urinary tract and bladder Recidivas atípicas en la cirugía laparoscópica y robótica del carcinoma urotelial de vía urinaria y vejiga (2018) ACTAS UROL ESP, 42 (8), 485-487. **IF: 1.2600**

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Other Publications

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- Emiliani, E; Subiela, J; Regis, F; Angerri, O; Palou, J. Over 30-year experience on the management of graft stones after renal transplantation. EUR UROL FOCUS 2018, 4(2): 169-174
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- Rodríguez Faba, O; Linares, E; Tilki, D; Capitanio, U; Evans, CP; Montorsi, F; Martínez-Salamanca, J; Libertino, J; Gontero, P; Palou, J. Impact of microscopic wall invasion of the renal vein or inferior vena cava on cancer-specific survival in patients with renal cell carcinoma and tumor thrombus: a multi-institutional analysis from the international renal cell carcinoma-venous thrombus consortium. EUR UROL FOCUS 2018, 4(3): 435-441
- Sanguedolce, F; Petralia, G; Sokhi, H; Tagliabue, E; Anyamene, N; Hellawell, G; Padhani, AR. Baseline multiparametric MRI for selection of prostate cancer patients suitable for active surveillance: which features matter? CLIN GENITOURIN CANCER 2018, 16(2): 155-163
- Siena, G; Campi, R; Decaestecker, K; Tugcu, V; Sahin. S; Alcaraz, A; Musquera, M; Territo, A; Gausa, Ll; Randon, C; Stockle, M; Janssen, M; Fornara, P; Mohammed, N; Guirado, Ll; Facundo, C; Doumerc, N; Vignolini, G; Breda, A; Serni, S. Robot-assisted kidney transplantation with regional hypothermia using grafts with multiple vessels after extracorporeal vascular reconstruction: results from the european association of urology robotic urology section working group. EUR UROL FOCUS 2018, 4(2-3): 175-184
- Subiela, J; Balañà, J. Abu-Suboh, A; Calderón, J; Mercadé, A; Salvador, J; Rosales, A. Laparoscopic management of chylous leakage using a direct lymph node injection with methylene blue as a leakage pint location strategy in a patient with retroperitoneal extragonadal seminoma. J ENDOUROL CASE REP 2018, 4(1): 149-151

Books or Chapters with ISBN

- Palou J, Pisano F.Adjuvant treatment: old and new immunotherapy in non-muscle-invasive bladder cancer. In: Francesco Soria, Paolo Gontero (editors). Treating Urothelial Bladder Cancer. Chapter: 6; p.43-47. Springer 2018. ISBN: 978-3-319-78558-5

Diffusion Activities

Training organized by Fundació Puigvert

Training for general paediatricians

- Primary care management of children with an urological pathology. When to refer them to the physician? Director: A. Bujons. 10 October 2018.

Training for urologists

- Da Vinci Robotic Surgery. Basic Course: Radical Prostatecomy and Partial Nephrectomy. 10-11 April, 8-9 May 2018. Directors: J. Palou, A. Breda.
- Da Vinci Robotic Surgery. Advanced Course In Robotics: Cystectomy And Kidney Transplant. 3 October, 14 November 2018. Directors: J. Palou, A. Breda.
- Surgical Immersions Workshop. Course in Renal Uro-Oncology. 13-14 February; 26-27 February; 18-19 September; 23-24 October; 18-19 December 2018. Directors: J. Palou, A. Breda.
- Course In Uro-Oncology. Directors: J. Palou, A. Breda. 3-4 February; 19-20 June 2018
- Explore Modes of Treatment for Kidney Stones Using PCNL and RIRS. 31 January-2 February; 23-24 May; 14-15 November; 29 November 2018. Director: O. Angerri.
- Explore Modes of Treatment for Upper Tract Urothelial Carcinoma (UTUC). 7 March; 18 April; 6 June; 11 July; 21 November 2018. Directors: J. Palou, A. Breda.
- 55 Urology Course Fundació Puigvert. 17-19 October 2018. Director: J. Palou.

Training for pathologists

- IV Uro-Oncological Pathology Tutorial. A 3 Day Expert Meeting. 9-11 May 2018. Director: F. Algaba.

National and international participations

- Simposio Oncología Urológica. Lisbon (Portugal), 12-13 January
  - F. Algaba: Lecture: ¿Cómo estudiar las piezas de prostatectomía?
- Reunión Hospital Montecelo. Pontevedra, 19 January
  - F. Algaba: Lecture: Actualización patología vesical.
- XXVIII Reunión Nacional de los Grupos de Litiasis y de Endourología, Laparoscopia y Robótica de la AEU. Córdoba, 25-26 January
  - O. Angerri: Lecture: Tratamiento mediante Cirugía Laparoscópica.
  - Videos:
    - Mini Nefrolitotomía Percutánea y Mini cirugía endoscópica combinada intrarrenal usando el Sistema ClearPetra(R) en paciente pediátrico con un coraliforme completo. Carpio Villanueva, J; Llorens de Knecht, E; Angerri Feu, O; Emiliani Sanz, E; Bujons Tur, A.
    - ECIRS con ureteroscopio desechable: tratamiento sincrónico bilateral. Mosquera, L; Angerri, O; Emiliani, E; Sánchez-Martín, F; Millán, F; Palou, J.
    - Reimplante ureteral robótico extravesical tipo Lich-Gregoir en paciente pediátrico con antecedente de inyección endoscópica de agente Bulking. Carpio Villanueva, J; Llorens de Knecht, E; Gaya Sopena, J; Bujons Tur, A.
- ESOU18. 15th. Meeting of the EAU Section of Oncological Urology. Amsterdam (The Netherlands), 26-28 January
  - F. Algaba: Lecture: Morphologic basis of mpMRI prostate cancer evaluation
  - A. Breda:
    - Lecture: New diagnostic tools for upper urinary tract TCC
    - Member of the panel: Panel discussion of clinical cases: Localised RCC
    - Session moderator: The best of uro-oncology in 2017
  - J. Palou:
    - Session moderator: Urothelial cancer II: Non muscle invasive bladder cancer
    - Round table: Second opinion in difficult clinical cases
- VI Forum Actualizaciones en Urología: Laparoscopia y Oncología. Cádiz, 15-16 February
  - C. Errando: Live surgery: Implante de esfinter urinario por incontinencia tras PR
- V Reunión Multidisciplinaria de Urología Clínica. Bilbao, 22-23 February
  - F. Algaba: Lecture: La importancia del patólogo en el diagnóstico del cáncer de próstata. Renamiento en los criterios pronósticos en las piezas de prostatectomía
- IX Rising Stars in Urology. Granada, 1-2 March
  - Poster: Simultaneous and bilateral treatment of urolithiasis. Mayordomo, O; Emiliani, E; Sung Yo, C; Sánchez-Martín, F; Kalidonis, P; Tanidir, Y; Sofer, M; Bin Hamri, S; Millán, F; Angerri, O.
- XXIII Workshop de Urología Oncológica. Ii Multidisciplinary Genitourinary Oncology Course. Lisbon (Portugal), 2-3 March
  - F. Algaba: Lecture: Histological subtypes and treatment
- 33rd EAU Annual Congress. Copenhagen (Denmark), 16-20 March
  - F. Algaba:
    - Lecture: Kidney tumours with the 2018, WHO eyes
    - Lecture: Testis tumours: New insights with clinical impact
  - O. Angerri:
    - Poster session moderator: Straight access to the stone: Percutaneous nephrolithotomy
  - A. Breda:
    - Round table moderator: Renal transplantation and dialysis access surgery
    - Lecture: Recent advances in renal transplantation
    - Pre-recorded video: Applications of confocal endomicroscopy technology in ypper tract tumous
    - Round table member: Methods of renal artery clamping in living donor nephrectomy
    - Lecture: The advantages of the robotic approach
    - Lecture: Uretero-Renoscopy
  - E. Emiliani:
    - Lecture: URS
    - Tutor ESU/ESUT/EULIS Hands-on Training Course in Endoscopic stones treatment-step 1
    - Poster sessions moderator: Safe access through natural orifice: It is the era of ureteroscopy
  - J. Palou:
    - Clinical cases presentation: Case-based Debate: My patient has a normal cystoscopy but a positive urine marker: What now?
    - Participant: Case-based Debate: How should I manage a patient with tumour recurrence despite adequate BCG?
    - Lecture: European school of urology
    - Moderator: Joint session of the European Association of Urology (EAU) and the World Chinese Urologists
    - Lecture: Robotic RC
    - Lecture: Diagnosis, markers and innovations, no video's on PDD, NBI, etc.
    - Lecture: How to deal with abnormal cytology including locations outside the bladder (UUT and urethra) and its limitations
    - Session moderator: Precision Medicine

- F. Sanguedolce
  - Lecture: Patient-related outcome measures in stone disease
- Video: ECIRS with disposable ureteroscope: Bilateral synchronous treatment. Angerri, O; Emiliani, E; Sánchez Martín, F, Millán, F, Villavicencio, H.
- Posters:
  - Disease and patient's characteristics in elderly (age 75 years) treated with radical cystectomy: results of a large multicentre retrospective series. Pisano, F; Gontero, P; Filippini, C; Karnes, J; Colicchia, M; Colombo, R; Joniau,S; Milenkovic, U; Albersen, M; Minervini A; Mari, A; Ayala Perez, KY; Rodríguez Faba, O; Vila Reyes, H; Babjuk, M; Brisuda A; Baniel, J; Mano, R; Witjes, A; Sieverink, C; Varkarakis, J; Manousakis, E; Van Rhijn, B; Mertens, L; Voskuilen, C; Brausi, M; Pizzuto,G; Rink, M; Albers, P; Niegisch, G; Rosgen, D; Roupret, M; Cotte, J; Catto, J; Pang, K; Black, P; Ablat, J; Matveev, V; Ishida, M; Palou, J.
  - Technical data on upper tract urothelial carcinoma (UTUC) grading using 3 different biposy devices. Territo, A; Breda, A; Basile, G; Vila, H; Subiela, JD; Mayordomo, O; Rodríguez Faba, O; Gaya, JM; Palou, J.
  - Correlation between confocal laser endomicroscopy (Cellvizio®) and histological grading of upper tract urothelial carcinoma: Improving our experience. Breda, A; Vila, H; Territo, A; Basile, G; Sanguedolce, F; Gaya, JM; Algaba, F; Palou, J.

- The Talents. The Trans-Atlantic Leaders in Endourological Technologies. Paris (France), 5-7 April
  - O. Angerri: Round table member: Supine is more ergonomic than Prone PCNL! or "Because lateral is superior to dorsal"
  - A. Breda: Round table member: Stone Equipment is not suitable for UTUC treatment! or "Because we urgently need specific equipment for UTUC management"
  - E. Emiliani: Round table member: Laser fiber's efficiency: the Fiber's tip is the key! or "Because the top is the Tip"
- XXXIII Reunión Nacional del Grupo de Urología Oncológica. Jaén, 6-7 April
  - J. Palou:
    - Lecture: Papel actual de la re-RTU
  - Posters:
    - La composición leucocitaria en la orina de pacientes con Tumor Vesical Músculo- Invasivo (TVMI) se asocia al tipo tratamiento realizado y la aparición de Carcinoma in Situ (CIS). Rodríguez Faba, O; Cantó, E; Zamora, C; Carpio, J; Ortiz, MA; Perea, L; Palou, J; Maroto, P; Vidal, S.
    - Análisis clinicopatológico y resultados oncológicos a largo plazo de los pacientes con carcinoma in situ de ductus parauretrales tratados con BCG. Balañà Lucena, J; Subiela Henríquez, JD; Rodríguez Faba, O; Breda, A; Gaya Sopena, JM; Sabiote Rubio, L; Palou Redorta, J.
    - Valoración de la progresión en el CIS primario/concomitante versus secundario: ¿Hay alguna diferencia? Subiela Henríquez, JD; Rodríguez Faba, O; Korsten, L; Pisano, F; Mercadé Sánchez, A; Balañá Lucena, J; Parada Moreno, R; Gaya Sopena, JM; Cornel, EB; Breda A; Palou Redorta J.
- 29th ESPU Congress. Helsinki (Finland), 11-14 April
  - Posters:
    - Long-term follow-up of posterior urethral valves and risk factors for renal failure. Bujons, A; Serra, A; Llorens de Knecht, E.
    - Micro-ureteroscopy for the treatment of distal ureteral calculi in children under two years old. Bujons, A; Serra, A; Llorens de Knecht, E; Kanashiro, A.
    - Botulinum toxin type-a injections for the treatment of continent catheterizable reservoir muscularis overactivity in pediatric patients. Sierra, L; Sabiote, L; Llorens, E; Bujons, A.
  - Videos:
    - Mini PCNL and mini ECIRS with the clearpetra system in a pediatric complet staghorn stone. Llorens, E; Carpio, J; Angerri, O; Bujons, A.
    - Microperctm kit (Polydiagnost, Germany) used to treat a ureteric stone in a child. Llorens de Knecht, E; Bujons, A.
- XXI Simposi de la Societat Catalana d'Urologia. Barcelona, 13-14 April
  - J. Palou: Round table moderator: Tumor de bufeta; No sempre clar! Sessió de casos clínics
  - O. Rodríguez Faba: Round table member: Tumor de bufeta; No sempre clar! Sessió de casos clínics
  - Communications:
    - Modelo predictivo de cistoscopias empleando el test BTA-STAT para el seguimiento de pacientes con carcinoma vesical no músculo invasivo: resultados preliminares. Palou, J; Rodríguez Faba, O; Balanyá, J; Mercadé, A; Subiela, JD; Fernández Gómez, JM; Domínguez Escrig, JL; Requena Tapia, MJ; Angulo Cuesta, J; Amón Sesmero, JH.
    - Enfermedad y características del paciente en ancianos (≥75 años) tratados con cistectomía radical: resultados de una gran serie multicéntrica retrospectiva. Pisano, F; Rodríguez Faba, O; Gaya, JM; Sabiote, L; Flores, LD; Breda, A; Palou, J.
  - Posters:
    - Análisis clínicopatológico y resultados oncológicos a largo plazo de los pacientes con carcinoma in situ de ductus parauretrales tratados con BCG. Balañá, J; Subiela, JD; Malca, LM; Mayordomo, O; Rodriguez Faba, O; Breda, A; Gaya, JM; Sabiote, L; Palou, J.
    - Valoración de la progresión en el CIS primario/ concomitante versus secundario: ¿hay alguna diferencia? Rodríguez Faba, O; Korsten, L; Pisano, F; Mercadé, A; Balañá, J; Parada, R; Gaya, JM; Cornel, EB; Breda, A; Palou, J.
    - Resultados postoperatorios tras cistectomía radical con la incorporación de un programada eras o de recuperación mejorada. Mosquera Seoane, L; Gaya Sopena, JM; Castellarnau Uriz, S; Espinosa Roncancio, J; Sierra Arnedo, P; Sabiote Rubio, L; Flores Valenzuela, LD; Rodríguez Faba, O; Breda, A; Palou Redorta, J.
    - Precisión diagnóstica de la biopsia ureteroscópica en tumores del tracto urinario superior: comparación de tres dispositivos de toma de muestra. Breda, A; Territo, A; Vila, H; Basile, G; Gaya, JM; Rodríguez Faba, O; Sanguedolce, F; Algaba, F; Palou, J.
    - Correlación entre la endomicroscopía confocal láser (CELLVIZIO®) y el grado histológico del tumor de tracto urinario superior: mejorando nuestra experiencia. Breda, A; Vila, H; Territo, A; Basile, G; Gaya, JM; Rodríguez-Faba, O; Sanguedolce, F; Algaba, F; Palou, J.
    - ¿Realmente existe alguien demasiado mayor para una cistectomía radical? Análisis de la tasa de complicaciones perioperatorias y sus predictores en una cohorte retrospectiva multicéntrica de 2006 pacientes con más de 75 años. Pisano, F; Rodriguez Faba, O; Gaya, JM; Sabiote, L; Flores, LD; Gontero, P; Breda, A; Palou, J.
    - Resultado oncológico en una cohorte retrospectiva de pacientes con T1G3 primarios de vejiga. ¿la ubicación de cis realmente importa? Pisano, F; Rodriguez Faba, O; Gaya, JM; Vila, H; Sabiote, L; Flores, LD; Gontero, P; Breda, A; Palou, J.
    - Cistitis radica posterior a radioteràpia per càncer de pròstata: factors de risc associats a hospitalització i intervenció. Mercadé Sanchez, A; Balañà, J; Sanguedolce, F; Pisano, F; Sancho, G; Acosta, E; Breda, A; Territo, A; Basile, G; Carpio, J; Rodríguez Faba, O; Palou, J.
    - Limfadenectomia retroperitoneal robòtica de masses postquimioteràpia en pacients amb tumor testicular. Mercadé Sánchez, A; Rodríguez Faba, O; Subiela Henríquez, JD; Balañà Lucena, J; Gausa Gascón, L; Breda, A; Palou Redorta, J.
    - Nefrectomia laparoscòpica en el tumor renal localment avançat: resultats quirúrgics i oncològics. Balañà Lucena, J; Rodríguez Faba, O; Rosales Bordes, A; Subiela Henriquez, JD; Mercadé Sanchez, A; Breda, A; Palou Redorta, J.
    - Pielonefritis xantogranulomatosa per actinomices. Mayordomo, O; Sabiote, L; Emiliani, E; Sánchez-Martín, F; Millán, F; Alonso, C; Angerri, O; Palou, J.
  - Videos:
    - Derivación urinaria con conducto ileal mediante colocación de malla intraperitoneal via laparoscópica. Salamanca Bustos, JJ2; Fagetti, FJ; Rodríguez Faba, Ó; Rosales Bordes, A; Breda, A; Palou Redorta, J.

- Abordatge laparoscòpic simultani de neoplàsies sincròniques renals i colorectals: viable i raonable. Gaya, JM; Girón, I; Calderón, JF; Martínez, MC; Bollo, J; Gómez, I; Rabal, A; Targarona, EM; Breda, A; Palou, J.
- ECIRS con ureteroscopio desechable: tratamiento sincrónico bilateral. Mosquera Seoane, L; Angerri Feu, O; Emiliani Sanz, E; Sánchez Martín, FM; Millán Rodríguez, F; Palou Redorta, J.
- Láser holmium de alta potencia con tecnología moses: nuestra experiencia inicial. Sabiote, L; Mayordomo, O; Mosquera, L; Flores, L; Emiliani, E; Kanashiro, K; Sánchez Martín, F; Millán, F; Angerri, O.
- Reimplante robótico ureteral como tratamiento en estenosis ureteroneovesical. Sabiote, L; Mosquera, L; Flores, L; Gavrilov, P; Gaya, JM; Rodríguez Faba, O; Breda, A; Palou, J.
- Cistectomía robótica intracorpórea. Salamanca Bustos, JJ; Gavrilov, P; Gausa, Ll; Breda, A; Palou, J.

- Genitourinary & Gynecological Cancers. Kuwait Conference GUG-KC Recent Updates. Kuwait, 14-16 April
  - F. Algaba (lectures):
    - Update on New Grading System in Prostate Cancer
    - Intraductal Carcinoma Prostate: Patterns
    - Biomarkers in GU tumors
    - Update on the patholog of urothelial tumours (Bladder/Renal Pelvis & Ureter)
- III Congreso Nacional de Rehabilitación Multimodal. I GERM International Perioperative Medicine Congress. Salamanca, 18-20 April
  - Poster: Primer año de protocolo ERAS en cistectomías radicales. Gaya, JM; Mosquera, L; Castellarnau, S; Sierra, P; Espinosa, J; Breda, A.
- Jornada sobre Manejo Integral del Paciente con Vejiga Hiperactiva. Barcelona, 19 April
  - C. Errando: Lecture: Vejiga hiperactiva: qué es y cómo se trata.
- III Reunión Sanitas. Guías Clínicas en Urología. Madrid, 20-21 April
  - J. Palou: Round table moderator: GC de cáncer de vejiga no-músculo invasivo.
- Jornada "El podòleg i el fisioterapeuta: peces clau al diagnòstic i maneig del dolor pelvià crònic". Barcelona, 26 April
  - C. Errando: Lecture: Importància clínica del dolor pèlvic crònic: definició, repercusió i maneig mèdic.
- ESU Course: Prostate Biopsies: Tips and Tricks. Sjirat (Marroc), 3 May
  - F. Sanguedolce (lectures):
    - MRI for urologists
    - MRI guided biopsies. Is fusion necessary?
- V MIPS Annual Meeting. Roma (Italy), 3-5 May
  - C. Errando: Video session moderator
  - Oral presentation: Complications of Endoscopic Botulinum Toxin Injection in Patients with AMS 800 Artificial Urinary Sphincter. Gutiérrez, C; Mateu, L; Arañó, P; Palou, J; Errando, C.
- 3rd ESU-ESUT Masterclass on Operative Management of Benign Prostatic Obstruction. Heibronn (Germany), 4-5 May
  - J. Palou: Course moderator
- XXIV Reunión del Grupo de Urología Funcional, Femenina y Urodinámica. Cádiz, 10-11 May
  - Oral presentations:
    - Validación de un diario miccional de 3 días en forma de app para smartphone. Mateu Arrom, L; Peri Cusi, L; López-Fando, L; Franco de Castro, A; Jiménez-Cidre, MA; Alcaraz, A.
    - Corrección del prolapso de órgano pélvico mediante 3 tipos de malla transvaginal: resultados y complicaciones a medio plazo. Mateu Arrom, L; Errando Smet, C; Gutiérrez Ruiz, C; Arañó, P; Palou, J.
    - Cistectomía en síndrome de dolor vesical: complicaciones y resultados a largo plazo. Mateu Arrom, L; Mayordomo, O; Errando Smet, C; Gutierrez Ruiz, C; Palou, J.
- AUA Annual Meeting 2018. San Francisco (California), 18-21 May
  - J. Palou: Lecture: Carcinoma of the Bladder
  - Poster: Oncological outcome in a retrospective cohort of T1G3/HG primary patients. Does the location of CIS really matter? Rodríguez Faba, O; Pisano, F; Algaba, F; Mosquera Seoane, L; Gaya Sopena, JM; Parada, R; Vila Reyes, H; Palou, J.
- 6th. Meeting of the Eau Section of Uro-Technology (ESUT) in Conjunction with the Italian Endourological Association (IEA). Modena (Italy), 24-26 May
  - A. Breda:
    - Live surgery moderator
    - Lecture: Thulium and cellvizio for Upper Tract TCC.
  - E. Emiliani: Lecture: Retrograde Intra Renal Surgery (RIRS) for kidney stone.
- 34 Congreso Nacional de la Sociedad Española de Radiología Médica. Pamplona, 24-27 May
  - F. Algaba: Participant in session: Imagen prostática. Informe estandarizado. Trabajo multidisciplinar Radiólogo / Patólogo.
- 2ª Reunión Internacional de Urólogos Pediatras de Mexico. Mexico, 7-8 June
  - A. Bujons (lectures):
    - Manejo de la litiasis con mínima invasión.
    - Cirugía robótica en Barcelona.
- BCa 18: EAU Update on Bladder Cancer. Munich (Germany), 8-9 June
  - J. Palou
    - Introduction and format of the meeting.
    - Lecture: EAU and ESMO Guidelines on Non-Muscle Invasive Bladder Cancer (NMIBC) What's new and what needs to be changed.
- III Día del Residente. Gijón, 13 June
  - A. Breda: Lecture: Nuevos dispositivos para el diagnostico y manejo conservador de tumores del tracto urinario superior.
  - J. Palou:
    - Session moderator: Curso de la Escuela Europea de Urología (ESU-EAU). New paradigms in bladder cancer.
    - Lecture: European School of Urology: A unique possibility for urological education.
- LXXXIII Congreso Nacional de Urología. Gijón, 13-16 June
  - A. Breda:
    - Course Director: Trasplante renal robótico de donante vivo.
    - Lecture: Detalles técnicos sobre la preparación del riñón en cirugía de banco para el trasplante robótico.
    - Round table member: Aportación de la cirugía robótica al trasplante renal y la nefrectomía parcial.
  - J. Palou: Round table moderator: Situación Guías Europeas Urología. Proyecto Relaciones Institucionales AEU-EAU.
  - O. Rodríguez Faba
    - Lecture: Aspectos quirúrgicos de la nefrectomía de donante vivo por técnicas mínimamente invasivas.
    - Video session moderator: Riñón oncológico.
  - Posters:
    - Validación de un diario miccional de 3 días en forma de APP para smartphone. Mateu Arrom, L; Peri Cusi, LL; Franco De Castro, A; López-Fando, L; Jiménez-Cidre, MA; Alcaraz Asensio, A.
    - Análisis del impacto oncológico del Carcinoma in Situ (CIS) de vejiga en el tumor vesical no-músculo invasivo (TVNMI) T1G3 en función de la localización al diagnóstico mediante biopsias múltiples randomizadas (BMN) Pisano, F; Rodríguez Faba, O; Algaba Arrea, F; Mosquera Seoane, L; Gaya Sopena, JM; Parada Moreno, R; Vila Reyes, H; Breda, A; Palou Redorta, J.
    - Precisión diagnóstica de la biopsia ureteroscópica en tumores del tracto urinario superior: comparación de tres dispositivos

de toma de muestra. Subiela Henríquez, JD; Territo, A; Gaya Sopena, JM; Vila Reyes, H; Sanguedolce, F; Basile, G; Mayordomo Ferrer, O; Algaba Arrea, F; Breda, A; Palou Redorta, J.

- Correlación entre la Endomicroscopía Confocal Láser (Cellvizio®) y el grado histológico del tumor de tracto urinario superior: mejorando nuestra experiencia. Vila Reyes, H; Breda, A; Territo, A; Basile, G; Gaya Sopena, JM; Mayordomo Ferrer, O; Rodríguez Faba, O; Sanguedolce, F; Algaba Arrea, F; Palou Redorta, J.
- Estudio Multicéntrico del Tratamiento Quirúrgico Simultáneo y Bilateral de la Urolitiasis. Mayordomo, O; Emiliani, E; Sánchez-Martín, F; Millán Sánchez, F; Sung Yo, C; Tanidir, Y; Sofer, M; Bin Hamri, S; Kalidonis, P; Palou Redorta, J; Angerri Feu, O.
- Trasplante renal asistido por robot en pacientes obesos: experiencia del grupo ERUS. Vila Reyes, H; Breda, A; Territo, A; Subiela, J.D; Basile, G; Alcaraz, A; Musquera, M; Doumerc, N; Decaestecker, K; Liesbeth, D; Fornara, P; Mohammed, N; Siena, G; Sahin, S; Janssen, M; Stockle, M.
- Experiencia europea en trasplante renal asistido con robot: seguimiento mínimo de 1 año. Territo, A; Breda, A; Vila Reyes, H; Subiela, JD; Basile, G; Alcaraz, A; Musquera, M; Doumerc, N; Decaestecker, K; Liesbeth, D; Fornara, P; Mohammed, N; Siena, G; Sahin, S; Janssen, M; Stockle, M.

- Videos:
  - Uretroplastia Término-Terminal y extracción de manguito Esfinter Urinario Artificial AMS 800. Ponce de León Roca, J; Gutiérrez Ruiz, C; Mateu Arrom, L; Montlleó González, M; Caparros Sarriol, J; Errando Smet, C; Palou Redorta, J.
  - Cirugía endoscópica bilateral simultánea usando el ureteroscopio de un solo uso. Mosquera Seoane, L; Angerri Feu, O; Emiliani Sanz, E; Sánchez Martín, F; Millán Rodríguez, F; Palou Redorta, J.
  - Mini Nefrolitotomía Percutánea y Mini cirugía endoscópica combinada intrarrenal usando el Sistema ClearPetra en paciente pediátrico con un coraliforme completo. Carpio Villanueva, J; Llorens de Knecht, E; Angerri Feu, O; Emiliani Sanz, E; Bujons Tur, A.
  - Tips and tricks en el diagnóstico con Endomicroscopía Confocal Láser (Cellvizio®) y tratamiento endourológico con láser Holmium del tumor de vías urinarias. Breda, A; Territo, A; Vila Reyes, H; Gaya, JM; Sanguedolce, F; Mayordomo, O; Palou, J.
  - Abordaje laparoscópico simultáneo de neoplasias sincrónicas renales y colorectales: viable y razonable. Sánchez Puy A; Gaya Sopena JM; Girón Nanne I; Calderón Cortez JF; Martinez Sánchez MC; Bollo Rodríguez J; Gómez I; Rabal A; Targarona Soler EM; Breda A; Palou Redorta J.
  - Trasplante renal robótico en paciente tratado previamente con prostatectomía radical robótica. Breda, A; Vila Reyes, H; Territo, A; Basile, G; Gausa, L; Rodríguez Faba, O; Gaya, JM; Ponce De León, J; Angerri, O; Palou, J.
  - Reimplante ureteral robótico extravesical tipo Lich-Gregoir modificado en paciente pediátrico con antecedente de inyección endoscópica de agente Bulking. Carpio Villanueva, J; Llorens de Knecht, E; Gaya Sopena, J; Bujons Tur, A.

- Oral presentations:
  - Cistitis rádica tras radioterapia por cáncer de próstata: factores de riesgo asociados a hospitalización e intervención. Balañà Lucena, J; Mercadé Sánchez, A; Sanguedolce, F; Pisano, F; Sancho Pardo, G; Acosta, E; Breda, A; Territo, A; Basile, G; Carpio Villanueva, JE; Rodríguez Faba, O; Palou Redorta, J.
  - Seguimiento a largo plazo tras cistectomía por síndrome de dolor vesical: satisfacción, calidad de vida y salud sexual. Mateu Arrom, L; Mayordomo, O; Gutiérrez, C; Arañó, P; Palou, J; Errando, C.
  - Complicaciones en linfadenectomía inguinal videoendoscópica en el manejo del cáncer de pene: resultados tras 8 años de experiencia. Vila Reyes, H; Gavrilov, P; Rosales, A; Gaya, JM; Breda, A; Palou, J.
  - Penectomía parcial con reconstrucción tipo Bracka: resultados oncológicos y funcionales a largo plazo. Mayordomo Ferrer, O; Rosales Bordes, A; Gaya Sopena, JM; Gausa Gascón, Ll; Parada Moreno, R; Balañá Lucena, J; Breda, A; Palou Redorta, J.
  - Dinámica de la temperatura intra-renal con el uso del laser tulio y holmio. Subiela J; Emiliani E; Bassile G; Territo A; Calderón J; Angerri O; Breda A.

- XXIX Reunión Nacional del Grupo de Uropediatría. Gijón, 15 June
  - A. Bujons: Moderator of the lithiasis oral communications.
  - Oral communications:
    - Microureteroscopia para el tratamiento de cálculos ureterales distales en niños menores de dos años. Llorens, E; Kanashiro, A; Bujons, A.
    - Cirugía retrógrada intrarrenal en pacientes cistinúricos. Experiencia en nuestro centro. Badenes Gallardo, A; Llorens Knecht, E; Bujons Tur, A.
    - Inyección de toxina botulínica tipo A para el tratamiento de la hiperactividad en reservorios cateterizables en pacientes pediátricos. Mayordomo, O; Llorens, E; Sierra, L; Bujons, A.
  - Videos:
    - Uso del MicroPercTM para tratar una litiasis ureteral distal en un niño. Llorens, E; Kanashiro, A; Bujons, A.
    - Mini Nefrolitotomía Percutánea y Mini cirugía endoscópica combinada intrarrenal usando el Sistema ClearPetra en paciente pediátrico con un coraliforme completo. Llorens, E; Carpio, J; Angerri, O; Emiliani, E; Bujons, A.
    - Reimplante ureteral robótico extravesical tipo Lich-Gregoir en paciente pediátrico con antecedente de inyección endoscópica submeatal de agente bulking. Bujons, A; Llorens, E; Carpio, J; Gaya, JM.

- Avances en vejiga hiperactiva. Propiverina: una nueva alternativa farmacológica en vejiga hiperactiva. Barcelona, 15 June
  - C. Errando: Moderator

- IVth Symposium on Current Approaches in Urogynecology. Ankara (Turkey), 22-24 June
  - C. Errando (lectures):
    - Conventional urodynamics with case presentations
    - Problems after Urinary incontinence surgery – I still have urinary incontinence

- Challenges in Laparoscopy & Robotics 2018. Leipzig (Germany), 28-30 June
  - A. Breda:
    - Course Director
    - Live surgery: Kidney implantation
    - Live surgery: Laparoscopic nephroureterectomy
  - J. Palou:
    - Live surgery: Robotic radical cystectomy and pelvic lymphadenectomy
    - Lecture: Vascular complication and management during radical cystectomy

- 2º Curso internacional endourología y HoLEP. León (Mexic), 27-28 July
  - E. Emiliani:
    - Lecture: Pulso largo y corto ¿Cuál es su mecnismo?
    - Lecture: URSf, Micro PERC o MiniPerc, ¿Cuál es mejor?
  - O. Angerri:
    - Lecture: Miniperc consideraciones vs standard PCNL.
    - Lecture: Calculo corales: prone or supine?

- ERUS18: 15th Meeting of the EAU Robotic Urology Section. Marseille (France), 5-7 September
  - A. Breda:
    - Lecture: ERUS Working Group on robotic renal transplantation
    - Live surgery: Nephroureterectomy

- J. Palou (lectures):
  - Lecture: Female cystectomy
  - Lecture: Extracorporeal urinary diversion
  - Lecture: Complications
- LIII Congreso Curso Internacional de Urología de la Sociedad Colombiana de Urología. Cartagena de Indias (Colombia), 5-8 September
  - F. Sanguedolce: Lecture: Cistitis Actinica
- 36th World Congress of Endourology. Paris (France), 20-23 September
  - A. Breda:
    - Lecture: Upper Tract Tumors: The Revolution of the Endourology Era!
    - Lecture: Nightmares in Robotics/Endourology: Dealing with Complications
    - Lecture: Progress in Robotic Renal Transplantation
    - Course Director: Laparoscopic & Retroperitoneal Surgery
    - Live surgery: RIRS UTUC
    - Lecture: Complications of Robot Partial Nephrectomy
  - Posters:
    - Correlation between Confocal laser endomicroscopy (Cellvizio®) and histological grading of upper tract urothelial carcinoma: improving our experience. Territo, A; Breda, A; Vila, H; Basile, G; Corsi, P; Regis, F; Subiela, J; Gaya, JM; Sanguedolce, F; Algaba, F; Palou, J.
    - Comparison of biopsy devices in upper tract urothelial carcinoma. Territo, A; Breda, A; Basile, G; Subiela, J; Gaya, JM; Palou, J.
    - Robot-assisted kidney transplantation in obese recipients: the Erus working group experience. Territo, A; Basile, G; Alcaraz, A; Mosquera, M; Doumerc, N; Decaestecker, K; Liesbeth, D; Fornara, P; Mohamed, N; Siena, G; Serni, S; Sahin, S; Tuğcu, V; Stockle, M; Breda, A.
    - Robotic assisted cystectomy with totally intra-corporeal urinary diversion: surgical data, oncological outcomes and complications. Territo, A; Wijerman, P; Sits, G; Kroon, B; Wijburg, C.
    - The european experience on robot-assisted kidney transplantation: minimum of one year follow up. Territo, A; Basile, G; Subiela, J; Alcaraz, A; Mosquera, M; Doumerc, N; Decaestecker, K; Liesbeth, D; Mohamed, N; Janssen, M; Fornara, P; Siena, G; Serni, S; Sahin, S; Tuğcu, V; Breda, A.
  - Video: Endourological management of upper tract urothelial carcinoma: an imperative case. Breda, A; Territo, A; Basile, G; Vila, H; Gaya, JM; Palou, J.
- AEU Course on MRI Reading in Collaboration with EAU-ESU. Madrid, 28 September
  - F. Sanguedolce: Lecture: Importance of prostate MRI to the urologist an introduction to the course
- 70 Kongress der Deutschen Gesellschaft für Urologie E.V. Dresden (Germany), 26-29 September
  - A. Breda (lectures):
    - Lecture: Intraluminale Tumortherapie bei Urothelkarzinom
    - Lecture: Roboter-assistierte Nierentransplantatino im Rahmen einer Nierenlebendspende
- 7º Curso de Cáncer de Próstata y Vejiga (SOGUG). Barcelona, 5-6 October
  - F. Algaba: Lecture: Clasificación patológica y molecular del càncer de próstata
- Corsi Teorico-Practici di Chirurgia Urologica Laparoscopica e Miniinvasiva. Asti (Italy), 4-5 October
  - O. Angerri: Live surgery: RIRS (Retrograde IntraRenal Surgery)
- 16th ESPU Annual Educational Course. Baku (Azerbaijan), 6 October
  - A. Bujons: Lecture: Stones
- Robotic Kidney Transplantation. Belgium, 8-9 October
  - A. Breda and A. Territo: course professors
- 91º Congresso Nazionale Società Italiana di Urologia. Riccione (Italy), 13-16 October
  - Videos:
    - Robot-assisted kidney transplantation in a patient previously treated with robotic radical prostatectomy. Breda, A; Regis, F; Basile, G; Schwartzmann, I; Gausa, L; Rodríguez-Faba, O; Gaya, JM; Vedovo, F; Corsi, P; Angerri, O; Ponce de Leon, J; Palou, J; Territo, A.
    - Endourological management of upper tract urothelial carcinoma: an imperative case. A. Territo, A; Basile, G; Corsi, P; Vedovo, F; Regis, F; Gaya, JM; Palou, J; Breda, A.
    - Focal salvage prostatic cryo ablation for primary radiotherapy failure. Vedovo, F; Territo, A; Sanguedolce, F; Calderon, JF; Gaya, JM; Huguet, J; Pisano, F; Corsi, P; Regis, F; Breda, A.
  - Posters:
    - Evaluation of insight into the diagnosis and management of tropical diseases among european urologists: are we prepared to deal with mass migration? Results of an international survey. Mantica, G; Zarrabi, A; Vlok, ALW; Ackermann, H; Territo, A; Olapade-Olaopa, EO; Esperto, F; Bongers, M; Van der Merwe, A; Terrone, C; Dotta, F.
    - Robot-assisted kidney transplantation with regional hypothermia using grafts with multiple vessels: results from the eau robotic urology section (ERUS) working group. Campi, R; Sessa, F; Decaestecker, K; Tugcu, V; Sahin, S; Alcaraz, A; Musquera, M; Territo, A; Gausa, L; Randon, C; Stockle, M; Janssen, M; Fornara, P; Mohammed, N; Guirado, Ll; Facundo, C; Doumerc, N; Vignolini, G; Siena, G; Breda, A; Serni, S.
    - Focal salvage prostatic cryo ablation for primary radiotherapy failure. Vedovo, F; Territo, A; Sanguedolce, F; Calderon, JF; Gaya, JM; Huguet, J; Pisano, F; Corsi, P; Regis, F; Breda, A; Regis, F; Territo, A; Subiela, JD; Corsi, P; Vedovo, F; Gaya, JM; Palou, J; Breda, A.
    - Comparison of biopsy devices in upper tract urothelial carcinoma. Breda, A; Territo, A; Corsi, P; Vedovo, F; Regis, F; Basile, G; Subiela, JD; Gaya, JM; Palou, J.
- Curso de Patología Urológica. Oporto (Portugal), 23 October
  - F. Algaba: Lecture: Actualización patología TCC, PCa, RCC
- Jornada UROGAP. De la evidencia científica a la práctica clínica en la patología urológica del paciente mayor. Barcelona, 25 October
  - C Errando (lectures):
    - Lecture: Vejiga hiperactiva/incontinencia urinaria en el paciente mayor
    - Lecture: Síntomas del tramo urinario inferior/Hiperplasia benigna de próstata en el paciente mayor
- XXXVII Congreso de la Confederación Americana de Urología. XXXI Congreso de la Sociedad Dominicana de Urología. XXIII Congreso de la Sociedad Iberoamericana de Urología Pediátrica. Punta Cana (República Dominicana), 30 October-3 November
  - A. Breda (lectures):
    - Trasplante renal asistido con robot
    - Cáncer de riñón, actualización
    - Nefrectomía para donador vivo; técnica quirúrgica paso a paso
    - Nuevas herramientas en el diagnóstico de tumores uroteliales del tracto urinario superior
  - A. Bujons:
    - Moderator: Sesión de Trabajos Científicos 1: "Genitales, uretra"
    - J. Palou
    - Lecture: Enseñar o no enseñar, cuál es el futuro
    - Lecture: Linfadenectomía en cáncer de próstata; ¿cuándo y para qué?
    - Lecture: Seguimiento en el cáncer de vejiga; ¿cuándo es realmente útil?
    - Moderator: Sesión plenaria 1

- Communications:
  - Inyección de toxina botulínica tipo A para el tratamiento de la hiperactividad en reservorios cateterizables continentes en pacientes pediátricos. Bujons, A Llorens, E; Sierra, L; Sabiote, L; Palou, J.
  - Linfadenectomía retroperitoneal robótica en rabdomiosarcoma paratesticular de alto riesgo Bujons, A; Llorens, E; Moncada, E; Palou, J.
  - Cirugía intrarrenal retrógrada para el tratamiento litiásico de riñón pélvico ectópico en niño de 4 años. Ladaria, L; Llorens, E; Melo, T; Bujons, A, Palou, J.
  - Uso del MicroPercTM para tratar una litiasis ureteral distal en un niño. Llorens, E; Kanashiro, A; Bujons, A; Palou J.
  - Seguimiento a largo plazo de las válvulas de uretra posterior: factores de riesgo de fallo renal, disfunción miccional y sexual. Bujons, A(1); Melo, T; Llorens, E; García Stacey, C; Ladaria, L; Serra, A, Palou J.
  - Cirugía retrógrada intrarrenal en pacientes cistinúricos. experiencia en nuestro centro. Bujons, A; Badenas, A; llorens, E; Palou, J.
  - Pieloplastia asistida por robot por doble vena renal derecha. Bujons, A; Serra, A; Llorens, E; Breda, A.
  - Mini Nefrolitotomía Percutánea y Mini cirugía endoscópica combinada intrarrenal usando el Sistema ClearPetra en paciente pediátrico con un coraliforme completo. Bujons, A; Llorens, E; Carpio, J; Angerri, O; Palou, J.
- IX Jornada de Casos Clínics d'Infeccions als Serveis d'Urgències. Barcelona, 6 November
  - Clinical case: Retenció aguda d'orina per motiu poc freqüent. Sabiote, L; Borràs, J; Salvador, J; Palou, J.
- Technology & Training in Endourology. Torino (Italy), 7-9 November
  - O. Angerri:
    - Live surgery: ECIRS
    - Lecture: HOT TOPIC CORNER 2 Nightmares in miniinvasive stone treatments
  - A. Breda:
    - Moderator: ROUND TABLE 1 UTUC conservative treatments
    - Lecture: The problem of the right diagnosis: from imaging to biomarkers
    - Pre-recorded surgery: Step by step< 2 cm UTUC treatment
    - Lecture: En-bloc TURB, pros and cons
    - Moderator: LIVE SURGERY 9
- 2ª Sessió Ordinària de la Societat Catalana D'urologia: Dolor Pèlvic en la Dona. Barcelona, 8 November
  - L. Mateu: Lecture: Dolor pèlvic en la dona
- IV Reunión Nacional del Grupo de Cirugía Reconstructiva Urológica. Málaga, 8-9 November
  - Videos:
    - Uretroplastia dorsal en estenosis de uretra peneana con injerto de mucosa bucal según técnica de ASOPA. Ponce de León Roca, J; Subiela Henríquez, JD; Montlleó González, M; Salvador Bayarri, J; Palou Redorta, J.
    - Cólico nefrítico persistente: síndrome de vena ovárica. Ponce de León, J; Salas, D; Mercadé, A; Montlleó, M; Salvador, J; Palou, J.
- EMUC18: 10TH European Multidisciplinary Congress on Urological Cancers. Amsterdam (The Netherlands), 8-11 November
  - F. Algaba:
    - Round table participant: Nightmare session: It could happen to you
    - Lecture: The patologist's nightmare
  - F. Sanguedolce: Course tutor: ESU/ESUI Hands-on training course in prostate MRI reading for urologist
- Congresso Nazionale NAU. Frascati (Roma, Italy), 9-10 November
  - F. Pisano: Communication: Eyaculación precoz
- XVII Curso de la AEU para residentes de 5º año. Madrid, 13-15 November
  - O. Rodríguez Faba: Lecture: Cáncer de vejiga. Caso clínico
- XV Congreso SINUG 2018. Sevilla, 15-17 November
  - C. Errando:
    - Session moderator: "Simposio comercial NEOMEDIC"
    - Lecture: Poblaciones especiales:¿puede mejorarse la técnica de implantación?
  - Oral communications:
    - Seguimiento a largo plazo tras cistectomía por síndrome de dolor vesical: satisfacción, calidad de vida y salud sexual. Mateu Arrom, L; Mayordomo, O; Gutiérrez Ruiz, C; Arañó, P; Palou, J.
    - Validación de un diario miccional de 3 días en forma de aplicación para móvil. Mateu Arrom, L; Peri Cusi, L; López Fando, L; Franco, A; Jiménez-Cidre, MA, Alcaraz, A.
    - Hallazgos urodinámicos en pacientes con enfermedad de Charcot-Marie-Tooth (CMT) y sintomatología del tramo urinario inferior (STUI) Gutiérrez Ruiz, C; Mayordomo Ferrer, O; Mateu Arrom, L; Palou Redorta, J; Errando Smet, C.
    - Resultados y complicaciones a medio plazo de la corrección del prolapso de órganos pélvicos mediante malla transvaginal. Mateu Arrom, LM; Gutiérrez Ruiz, C; Arañó, P; Palou, J; Errando Smet, C.
- 1st ESU-ESUT Masterclass on Kidney Transplant. Madrid, 15-16 November
  - A. Breda (lectures):
    - Lecture: Technical update: Robotics in living donor nephrectomy and transplant
    - Lecture: New advances in endourology maneuvers in transplant patients
- Programme for Boston Scientific Decision Making in Endourology "As-Live" Masterclass. Paris (France), 20-21 November
  - O. Angerri: Course tutor
- 5th ESU-ESUT Masterclass on Lasers in Urology. Barcelona (Spain), 22-23 November
  - A. Breda:
    - Director of the course
    - Live surgery: RIRS + Cellvizio + Thulium/ Holmium for UTUC
    - O. Angerri
    - Live surgery: Mini-PCNL + Holmium laser for renal stone
  - E. Emiliani: Live surgery: RIRS + Holmium
  - A. Territo: Live surgery: RIRS + Confocal Endomicroscopy for UTUC
- Urostars Dynamics. Madrid, 29-30 November
  - Communication: Neuromodulación sacra en paciente neurogeno. Mayordomo, O; Gutiérrez, C; Mateu, L; Martínez, V; Errando, C.
- 5th Montsouris Symposium: Update in Urological Oncology. Paris (France), 7 December
  - F. Sanguedolce: Lecture: Management of Upper Tract urothelial tumors
- Robotic Kidney Transplantation. Belgium, 17-18 December
  - A. Breda and A. Territo: Course professors

Associated Groups

Radiation Oncology

Coordinator
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Members
Balart Serra, Josep (FGS)
Farré, Nuria (FGS)
Marjecakova, Katerina (FGS)
Sancho, Gemma (FGS)

Main Lines of Research

Radiation Therapy Based on PET/CT Functional Imaging of Tumours

- Implementation of planning techniques for radiotherapy treatment with PET/CT for chest locations and head and neck tumours squamous cell tumours.
- Image-guided radiotherapy and respiratory movement control.
- Salvage brachytherapy for local recurrence after external beam radiotherapy in prostate cancer.
- Hypofractionated intensity-modulated GRT in prostate cancer.

Scientific Challenges

- SBRT for Patients with Lung Cancer and with Oligometastases with the intention to increased the quality of life and avoid surgery.
- Stereotactic body radiotherapy techniques in radical treatment of patients with early-stage non-surgical lung cancer and selected patients with non-surgical oligometastases with the same aim.

Transfer Products

- Gemma Sancho (PI). A prospective randomised phase III study of androgen deprivation therapy with or without local radiotherapy with or without abiraterone acetate and prednisone in patients with metastatic hormone-naïve prostate cancer. GETUG-AFU 21.UC-0160/1105-EudraCT:2012-000142-35.
- Gemma Sancho (PI). A Randomized, Double-blind, placebo-controlled Phase 3 study of JNJ-56021927 in subjects with hign-risk localized prostate cancer receiving treatment with primary radiation therapy. EudraCT:2015-003007-38. ATLAS.
- Gemma Sancho (PI). Enzalutamida y radioterapia hipofraccionada en cáncer de próstata localizado de riesgo intermedio. ENZARTEudraCT Nº: 2015-004617-25. FUNCANIS.
- Katerina Majercacova (PI). Estudio en fase 3, aleatorizado, doble ciego sobre avelumab combinado con la quimiorradioterapia de referencia (cisplatino más radioterapia definitiva) en comparación con la quimiorradioterapia de referencia en el tratamiento de primera línea de pacientes con carcinoma epidermoide localmente vanzado de cabeza y cuello (JavelinHN100). Start: 2018.
- Katerina Majercacova (PI). JAN13004-30. "Ensayo clínico fase IB-II de gel de melatonina oral para la prevención y tratamiento de la mucositis oral en pacientes con cáncer de cabeza y cuello tratados con quimioradioterapia" Estudio MUCOMEL. Start: 2015.
- Katerina Majercacova (PI). Phase I-II prospective trial, multicenter, open label, exploring the combination of Trabectedin plus RAdiotherapy in Soft Tissue Sarcoma patients. Start: 2014.
- Katerina Majercacova (PI). International Randomised Controlled Trial for the Treatment of Newly Diagnosed Ewing's Sarcoma Family of Tumours.
- Núria Farré (researcher collaborator). Phase Ib-II clinical trial of melatonin oral gel for the prevention of oral mucositis in patients with Head and Neck Cancer undergoing Chemoradiation. Promotor: Spherium biomed. Years: 2015-2018.
- Núria Farré (researcher collaborator). A randomized double-blind phase 3 study of avelumab in combination with standard of care chemoradiotherapy (cisplatin plus definitive radiation therapy) versus standard of care chemoradiotherapy in the front-line treatment of patients with locally advanced squamous cell carcinoma of the head and neck. Javelin head and neck 100. Promotor: Pfizer. Year: 2018.
- Núria Farré (researcher collaborator). Evaluar la probabilidad de la no adherencia al tratamiento de radioterapia externa y sus factores asociados en los pacientes tratados por cáncer en Cataluña. Instituto de Salud Carlos III. FIS 2015-2018.
- Núria Farré (researcher collaborator). Ensayo clínico fase II con vinorelbina oral metronómica y cisplatino trisemanal como tratamiento de inducción y posterior concomitancia con radioterapia (RT) en pacientes con cáncer de pulmón no microcítico (CPNM) localmente avanzado irresecable. Promotor: GECP 15/02 (Grupo Español de Cáncer de pulmón). Years: 2015-2018.
- Núria Farré (researcher collaborator). Estudio fase III para valorar la Preservación de la Memoria tras la irradiación craneal profiláctica (ICP) con o sin protección de hipocampo en cáncer de pulmón de célula pequeña (CPCP). Estudio PREMER. GOECP 0114. Promotor: GOECP, SEOR, GICOR. Years: From 2015.

Diffusion Activities

Communications and posters to congresses

- Sanguedolce F., Pisano F , Sancho Pardo G., Acosta E., Mercadé Sanchez A., Balaña Lucena J., Breda A., Territo A., Basile G., Vila H., Rodriguez Faba O., Palou Redorta J. Radiation cystitis after prostate cancer radiotherapy: Risk factors associated to hospital admission and intervention. Eur Urol Suppl 2018; 17(2);e1634. 33rd Annual EAU Congress Copenhagen 17-20 March 2018. (poster- Gemma Sancho).
- G Sancho, E acosta, L Tilea et al. Postprostatectomy dose intensified salvage radiotherapy is associated with grade 3 late haematuria. Barcelona. Radiotherapy and Oncology, Vol. 127, S433. ESTRO 37 Barcelona abril 2018. (poster- Gemma Sancho).
- I Henríquez, C González San Segundo, J Olivera, C Gutierrez, MA Cabeza, J Valero, S Rodríguez, A Hervás, G Sancho, a Alvarez, A Zapatero, P Cuesta-Alvaro. Efficacy and toxicity with high dose rate and low dose rate brachytherapy. ASTRO October 21-24, 2018. Henry B. Gonzalez Convention Center San Antonio, Texas. (poster- Gemma Sancho).
- Katarina Majercakova, Cristina Valero, Montserrat López, Jacinto García, Nuria Farré, Miquel Quer, J.Craven-Bartle, Xavier León. Postoperative staging of the neck dissection using extracapsular spread and lymph node ratio as prognostic factors in HPV-negative head and neck squamous cell carcinoma patients. ASTRO 2018, San Antonio, USA, 21-24 October 2018. (poster-Katerina Majercakova).
- A. Lozano, J. Marruecos, N.Farré, J. Giralt et al. Melatonin oral gel for prevention oral mucositis head and neck cancer undergoing chemo/bio radiation (MUCOMEL). American Society of clinical Oncology (ASCO) 2018. 1-5 June 2018, Chicago. Dra. Nuria Farré.
- N. Rodriguez de Dios , F. Couñago , J. López , P. Calvo , M. Murcia , M. Rico , C. Vallejo , J. Luna , C. Cigarral , I. Trueba, N. Farré, R. Manero, X. Duran, P. Samper. Randomized phase III trial of PCI with or without hippocampal avoidance for SCLC. (GOECP, SEOR, GICOR). ESTRO 37, April 20-24 2018, Barcelona, Spain (Nuria Farré- oral communication).
- M. Bonet , M. Arenas , N. Farré , V. García , M. Algara , B. Farrús , J. Fernández , V. Reyes , A. Eraso , A. Álvarez , M. Cambra , A. Pedro , J. Vayreda , A. Montero , P. Poortmans . RT for bone-only oligometastases in Breast Cancer patients: a survey of current clinical practice . European Society for Radiotherapy and Oncology (ESTRO)37. Barcelona, 20-24 April 2018. (Nuria Farré-Poster communication).
- Dolores Isla, Marga Majem, María Guirado, Bartomeu Massuti, Ramon de las Peñas, Ana Laura Ortega, Manuel Dómine, Raquel Marsé, Maria Ángeles Sala, Alfredo Paredes1, Teresa Morán, Sergio Vázquez, Juan Coves, José Luís González Larriba, Miguel Sánchez, David Vicente, Núria Farré, Luis Fernández Fornos, Francisco Valcárcel, Mariano Provencio .Spanish Lung Cancer Group (SLCG-NORA trial (GECP 15/02): first efficacy results of the Spanish Lung Cancer Group (SLCG) phase II trial of concurrent chemo-radiotherapy (CT-RT) with cisplatin (P) plus metronomic oral vinorelbine (mOV) for unresectable locally advanced non-small cell lung cancer (LA-NSCLC). American Socity Clinical Oncology. (ASCO). Chicago 1-5 June 2018. (Nuria Farré-Poster comunication).
- Multimodal treatment in pathologically confirmed single-station resectable IIIA-N2 non-small cell lung cancer: a single center experience. L. Tilea, E. Acosta, M. Majem, I. Sullivan, A. Barba, E. Martinez, J.C. Trujillo, J. Belda, G. Gomez de Segura, J. Craven-Bartle, A. Giménez, V. Camacho, A. Fernández, L. López, N. Farré. 19 th World Conference on Lung Cancer. Toronto, 23-27 September, 2018 (Nuria Farré-Poster comunication).

Conferences

- Gemma Sancho Pardo. X Oncourology Forum. Cáncer de Riñón, Vejiga y testículo. Novedades ESTRO, ASTRO, Novedades ESTRO, ASTRO, ASCO y EMUC. Madrid, 31 January 2018.
- Gemma Sancho Pardo. Proyecto andógeno. Nuevas evidencias en el tratamiento del Cáncer de Próstata avanzado. Barcelona, 9 March 2018.
- Gemma Sancho Pardo. Avances en cáncer de próstata en oncologia radioterápica (II Curso de Formación en Cáncer de Próstata en Oncología Radioterápica). Barcelona, 1-2 June 2018. (Activity accredited with 1.5 credits by Consell Català de la Formació Continuada de les Professions Sanitàries - Comisión de Formación Continuada del Sistema Nacional).
- Gemma Sancho Pardo. II edición Revisiones en Oncología Clínica. Cáncer de pròstata. Madrid, 5 June 2018.
  - Tratamiento sistémico adyuvante: papel de docetaxel y nuevos antiandrógenos.
  - Integración de los bifosfonatos e inhibidores oscteoclastos en la enfermedad metastásica ósea.
- Gemma Sancho Pardo. Actualizaciones en enzalutamida en càncer de pròstata: Oligometástasis en el mCPRC Tratamiento local/sistémico. Mallorca, 28-29 September 2018.
- Gemma Sancho Pardo. II Reunión de Debate de Controversias en Cáncer de Próstata. Técnicas de imagen en cáncer de próstata (CaP) ¿Qué pedir en función del estadio del tumor y cuándo? Madrid, 3 October 2018.
- Gemma Sancho Pardo. Controvèrsies en càncer de pròstata: "Tractament de rescat després de radioteràpia radical". Hospital de Sabadell Parc Taulí. Sabadell, 8 de novembre de 2018.
- Katerina Majercakova Hipofraccionamiento en Sarcomas, GEIS XVI International Symposium. Sevilla, 4-6 October 2018.

Associated Groups

Locomotor System Research

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Celaya Ibáñez, Fernando (FGS)
Chanes Puiggrós, Lorena (FGS)
Cuartero Archs, Jordi (FGS)
De Caso Rodríguez, Julio (FGS)
Gelber Ghertner, Pablo Eduard (FGS)
González Lucena, Gemma Maria (FGS)
González Rodríguez, José Carlos (FGS)
Gracia Alegría, Isidre (FGS)
Lamas Gómez, Claudia Mariana (FGS)
Monllau García, Joan Carles (FGS)
Nadal Castells, María Josefa (FGS)
Noguera Alonso, Laura (FGS)
Peiró Ibáñez, Ana (FGS)
Proubasta Renart, Ignacio (FGS)
Soria Villegas, Laura (FGS)
Valera Pertegas, Màrius (FGS)
Velázquez Fragoso, Juan José (FGS)

Main Lines of Research

Antiresorptives in Orthopedic and Trauma Surgery

- Effect of zoledronic acid (Aclasta) on periprosthetic bone mineral density in patients undergoing total knee arthroplasty. Study approved by the HSCSP ethics committee and authorized by the Spanish Medicines and Health Products Agency (AEMPS) for the out-of-context indication of Aclasta.

Knee

Haemostasis

- Blood loss control using tranexamic acid in primary prosthetic and knee revision surgery.
- Retrospective study of revision knee arthroplasty to compare the effects of intravenous tranexamic acid and normal haemostasis.
- Clinical trial comparing outcomes for intravenous tranexamic acid with fibrin glue (Tissucol) and normal haemostasis in primary knee prosthetic surgery.
- Observational study of blood loss in redon drainage over time in pertrochanteric hip fractures.
- Randomized multicenter parallel clinical trial in antiaggregated patients with proximal fémur fracture thats evaluates a strategy to sorteen the time to surgery. AFFEcT study.

Cartilage

- Regeneration of cartilage defects using tissue engineering and a matrix seeded with characterized allogeneic chondrocytes.
- Prospective study on fresh osteochondral allograft transplantation. CT, MRI and clinical outcomes.

Patella

- Prospective comparative study on patellar fractures. Metallic wiring versus suture fixation.

Meniscus

- Effect of normal and growth-factor-enriched cell cultures on the meniscal collagen network and glycosaminoglycan expression.
- In vitro experimental study of the feasibility of a polyurethane replacement meniscus pre-seeded with stem cells.
- Evolution of allogeneic meniscal transplants and relationship with extrusion.

Hip

- Coxarthrosis in young adults: etiological study of biomechanical factors.
- Biomechanics of coxarthrosis in young adults: finite element study.
- Influence of hip anatomy in early development of coxarthrosis: controlled, prospective radiographic study.
- Osteosynthesis with cannulated screws in non-displaced femoral neck fractures in elderly patients.
- Randomized clinical trial for capsular and rotator muscles suture in cemented bipolar hemiarthroplasties in patients with femur fracture.

Foot and ankle

- Prospective randomized clinical trial for the surgical treatment of Achilles tendon ruptures: repair with mini-invasive technique vs open tenorrhaphy.

Upper limb

- Anatomical study of stabilizing ligaments in the trapeziometacarpal joint: the role played by dorsoradial and anterior oblique ligaments in Bennett and Rolando fractures.
- Surgical treatment of middle-third clavicle fractures in high-energy trauma in young patients.
- Retrospective study of the use of vascularized bone graft using the 1,2-ICSR artery in the revascularization of proximal pole necrosis in scaphoid pseudarthrosis.

Active Grants

- Pablo Eduard Gelber Ghertner. Preservació en fresc al·loempelts osteocondrals. Conveni BST 2017-2. Banc de Sang i Teixits. Duration: 2017-2019. 44,500 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Pablo Eduard Gelber Ghertner. Preservación en fresco de aloinjertos osteocondrales a 37ºC., PI18/01771, Instituto de Salud Carlos III. Duration: 2019-2021. 57,000 €.

Note: Total amount granted to PI. It does not include indirect costs.

Scientific Production

Total Impact Factor: 31.4340 · Mean Impact Factor: 3.1434

Calvo R., Espinosa M., Figueroa D., Pozo L.M., Conget P., Assessment of Cell Viability of Fresh Osteochondral Allografts in N-Acetylcysteine-Enriched Medium (2018) CARTILAGE. **IF: 2.6210**

Carrera I., Gelber P.E., Chary G., Gomez Masdeu M., Gonzalez Ballester M.A., Monllau J.C., Noailly J., An intact fibula may contribute to allow early weight bearing in surgically treated tibial plateau fractures (2018) KNEE SURG SPORT TR A, 26 (3), 756-761. **IF: 3.2100**

Chahla J., Murray I.R., Robinson J., Lagae K., Margheritini F., Fritsch B., Leyes M., Barenius B., Pujol N., Engebretsen L., Lind M., Cohen M., Maestu R., Getgood A., Ferrer G., Villascusa S., Uchida S., Levy B.A., Von Bormann R., Brown C., Menetrey J., Hantes M., Lording T., Samuelsson K., Frosch K.H., Monllau J.C., Parker D., LaPrade R.F., Gelber P.E., Posterolateral corner of the knee: an expert consensus statement on diagnosis, classification, treatment, and rehabilitation (2018) KNEE SURG SPORT TR A. **IF: 3.2100**

Condello V., Zdanowicz U., Di Matteo B., Spalding T., Gelber P.E., Adravanti P., Heuberer P., Dimmen S., Sonnery-Cottet B., Hulet C., Bonomo M., Kon E., Allograft tendons are a safe and effective option for revision ACL reconstruction: a clinical review (2018) KNEE SURG SPORT TR A. **IF: 3.2100**

Gamba C., Sala-Pujals A., Perez-Prieto D., Ares-Vidal J., Solano-Lopez A., Gonzalez-Lucena G., Gines-Caspedosa A., Relationship of Plantar Fascia Thickness and Preoperative Pain, Function, and Quality of Life in Recalcitrant Plantar Fasciitis (2018) FOOT ANKLE INT, 39 (8), 930-934. **IF: 2.6530**

Masferrer-Pino A., Monllau J.C., Ibanez M., Erquicia J.I., Pelfort X., Gelber P.E., Capsulodesis Versus Bone Trough Technique in Lateral Meniscal Allograft Transplantation: Graft Extrusion and Functional Results (2018) ARTHROSCOPY, 34 (6), 1879-1888. **IF: 4.3300**

Monllau J.C., Poggioli F., Erquicia J., Ramirez E., Pelfort X., Gelber P., Torres-Claramunt R., Magnetic Resonance Imaging and Functional Outcomes After a Polyurethane Meniscal Scaffold Implantation: Minimum 5-Year Follow-up (2018) ARTHROSCOPY, 34 (5), 1621-1627. **IF: 4.3300**

Perez-Prieto D., Portillo M.E., Torres-Claramunt R., Pelfort X., Hinarejos P., Monllau J.C., Contamination occurs during ACL graft harvesting and manipulation, but it can be easily eradicated (2018) KNEE SURG SPORT TR A, 26 (2), 558-562. **IF: 3.2100**

Rodriguez Prieto M., Gonzalez F.J., Sabate S., Garcia M., Lamas C., Font A., Moreno M., Proubasta I., Gil De Bernabe M.A., Moral M.V., Hoffmann R., Low-concentration distal nerve blocks with 0.125% levobupivacaine versus systemic analgesia for ambulatory trapeziectomy performed under axillary block: A randomized controlled trial (2018) MINERVA ANESTESIOL, 84 (11), 1261-1269. **IF: 2.6930**

Valera M., Ibanez N., Sancho R., Llauger J., Gich I., Acetabular overcoverage in the horizontal plane: an underdiagnosed trigger of early hip arthritis. A CT scan study in young adults (2018) ARCH ORTHOP TRAUM SU, 138 (1), 73-82. **IF: 1.9670**

Associated Groups

Pain and Neurosciences

Coordinator
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Parera Ruiz, Ana (FGS)
Revuelta Rizo, Miren Eli (FGS)
Rius Llorens, María Carmen (FGS)
Santeularia Vergès, Maria Teresa (FGS)

Main Lines of Research

- Involvement of brain areas and release of substances in acute and chronic neuropathic pain.
- Sleep disturbance on initiating systemic opioid treatment in patients with severe chronic pain and altered sleep patterns.
- Influence epidural corticosteroids treatment by diferent approach on the effectiveness of the radicular pain due to herniated lumbar disc.
- Profile in terms of demographics, comorbidities, kind of pain, physical and mentalstatus and diability of patient.
- Look for a local and non pharmacological treatment for elderly patients with pain.
- Influence of Radiofrequency lesions in diferent procedures in patients with chronic pain.

Scientific Challenges

- Establish the possible differences in brain area involvement between acute and chronic pain.
- Determine the extent of chronic pain according to the involvement of different brain areas and if these alterations can improve with the relive of pain.
- 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 recommendable opioid.
- Establish the recomended opioid dose to start a treatment and how to remove them.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Psyquiatry: Maria Portella (psycologist).
- Anesthesiology: Mireia Rodriguez & Marc Bausili (acute pain in traumatology area).
- Neurosurgery: Rodrigo Rodriguez (neuromodulation).
- Neurology : Robert Belvis (facial neuralgias pain).
- Neuroradiology: Beatriz Gómez-Ansón (neuromodulation).

External Collaborations

- Validación externa prospectiva de una escala predictiva de la cronificación de Dolor Crónico Post-Quirúrgico (EXPTE. PI16/00279) IP: M. Revuelta Collaborators: A. Parera, R. Díaz, T. Santeularia. Fondo de Investigación Sanitaria. ISCIII Collaboration with Institut Hospital del Mar d'Investigacions Mèdiques. June 2017-June 2018.
- Working with healthcare providers to optimize management of perioperative pain: muti-centre project (PAIN-OUT) in 8 countries in Europe. Identifier: NCT02083835 Coord: W. Meissner IP: M. T Santeularia Collaborators: M. Melo, M. Argilaga, P. Vallhrat, B. Abejarro, M. Griera, E. Català. 2 phases: June 2017- Dec 2019.
- Evaluación de la efectividad del tratamiento médico con apoyo de una APP. A.Parera & Pain clinic team. Societat Catalana del Dolor i Universidad Jaume I. Start: 17/09/2018. PR (ATR381/2015). Reference: CEIC hospital 18/163.

Active Grants

- Rubén Díaz Eficacia del abordaje del nervio supraescapular mediante la administración de corticoides versus radiofrecuencia pulsada en el dolor crónico de hombro. Ensayo clínico Aleatorizado doble ciego. IIBSP-COR-2017-98.
- Marta Ferrándiz & Pain Clinic Team. Ensayo doble ciego, controlado con placebo, aleatorizado, de búsqueda de dosis para determinar la seguridad y eficacia de tres niveles de dosis de EMA401 para reducir la puntuación de intensidad del dolor promedio a las 24 horas

en pacientes con neuralgia posherpética (EMPHENE) ESTUDIO EMA 401A221. CEIC: 17/276/5002.

- Rubén Diaz. Uso de la Tromboelastometría (ROTEM) para la retirada de catéteres epidurales en el postoperatorio de cirugía mayor abdominal. IIBSP-ROT-2018-64.

Note: Total amount granted to PI. It does not include indirect costs.

Awards

- Dr. Luis Aliaga to the best communication. Díaz R, Revuelta M., Parera Ruiz A, Català E. Cefalea: signo/síntoma o enfermedad per se. 7a Reunió de l'abordatge del dolor Societat Catalana del Dolor. Barcelona, 13 March 2018.

Scientific Production

Total Impact Factor: 6.363 · Mean Impact Factor: 3.1815

Ferrando C, Soro M, Unzueta C, Parera A (iPROVE investigator group) et al. Individualised perioperative open-lung approach versus standard protective ventilation in abdominal surgery (iPROVE): a randomised controlled trial.The Lancet Respiratory Medicine. pp. 193-203. 04/03/2018. **IP: 3.67**

Videla S, Català E, Ribera MV, Montes A, Samper D, Fuentes J, Busquets C. Pain Units of Hospitals in Catalonia Group. Characteristics and outcomes of chronic pain patients referred to hospital pain clinics: a prospective observational study. Minerva Anestesiol. 2017 Jan;83(1):12-22. **IP: 2.693**

Other Publications

- Català E, Genové M. Dolor de Espalda Agudo. Investigación, Clínica & Terapéutica, 2018: 33; 104-110.
- Català E, Medel J. Imagen y Dolor. Investigación, Clínica & Terapéutica, 2018: 33; 35-7.
- Català E, Medel J. Imagen y Dolor. Investigación, Clínica & Terapéutica, 2018: 33; 168-9.
- Català E, Medel J. Imagen y Dolor. Investigación, Clínica & Terapéutica, 2018: 33;216-8.
- Diaz R, Revuelta, Parera A, Català E. Cefalea: signo/síntoma o enfermedad per se. Dolor. Investigación, Clínica & Terapéutica, 2018: 33: 47-50.

Diffusion Activities

- Revuelta M. Formación Continuada en las Unidades de Dolor Acreditaciones disponibles. XIX Jornada de Actualización en Dolor. Barcelona (Spain), 3 March 2018.
- Ferrandiz M. Las Clinicas del Dolor de nuestro entorno. Sistemas organizativos asistenciales diferenciales. XIX Jornada de Actualización en Dolor. Barcelona (Spain), 3 March 2018.
- Genové M. Resonancia Magnética Funcional. XV Congreso de la Sociedad Española del Dolor SED 2018. Palma de Mallorca (Spain), 24 May 2018.
- Revuelta M. Segmento lumbar y abordaje del espacio epidural. 45º Congreso Argentino de Anestesiología. Bariloche (Argentina), 25-28 Sept 2018.
- Revuelta M. Síndrome de Dolor Regional Complejo. State of the art. 45º Congreso Argentino de Anestesiología. Bariloche (Argentina), 25-28 Sept 2018.
- Parera A. Analgesia multimodal en el postoperatorio de cirugía toràcica. 45º Congreso Argentino de Anestesiología. Bariloche (Argentina), 25-28 Sept 2018.
- Parera A. Abordaje del nervio supraescapular en patologia crònica de hombro. 45º Congreso Argentino de Anestesiología. Bariloche (Argentina), 25-28 Sept 2018.
- Ferrandiz M. Analgesia Multimodal en el POP en el paciente en Tratamiento crónico con Opioides. 45º Congreso Argentino de Anestesiología. Bariloche (Argentina), 25-28 Sept 2018.
- Santeularia MT. Guies internacionals de dolor en el paciente ancià. Jornada Dolor Pacient Ancià, Acadèmia Ciències Mèdiques. Societat Catalana Dolor. Barcelona (Spain), 26 Oct 2018.
- Díaz R, Revuelta M., Parera Ruiz A, Català E. Cefalea: signo/síntoma o enfermedad per se. Dr. Luis Aliaga prize for the best communication. 7ª Reunió de l'abordatge del dolor Societat Catalana del Dolor. Barcelona (Spain), 13 Mar 2018.
- Melo M., Parera A., Unzueta M., Català E., Trujillo J, Martínez E. Ultrasound guided paravertebral catheter for postoperative multimodal analgesia thymectomy surgery by VATS approach. Euroanaesthesia 2018. Copenhagen (Denmark), Jun 2018.
- Parera A, Melo M, Català E., Trujillo J., Martínez E. Ultrasound guided paravertebral catheter for postoperative multimodal analgesia in video assisted thoracoscopic surgery. Euroanaesthesia 2018. Copenhagen (Denmark), Jun 2018.
- Bainac A., Díaz R, Revuelta M, Parera A, Melo M, Català E. Suprascapular block for chronic shoulder pain, retrospective evaluation of results. Euroanaesthesia 2018. Copenhagen (Denmark), Jun 2018.
- Rius C, Santeularia M, Ferrandiz M., Genovè M., Melo M., Català E. Opioids, can they have a negative bearing in the emotional sphere of patients with chronic pain? 17th World Congress on Pain. Boston (USA), Sept 2018.
- Santeularia T, Revuelta M, Rius C, Parera A, Diaz R, Català E. Use and misuse of opioids in chronic pain. Analysis of 259 patients under opioid treatment on their first visit to a Pain Unit of an European region: Catalonia. 17th World Congress on Pain. Boston (USA), Sept 2018.
- E. Català. Les Clíniques del Dolor. Sessió de Dolor Crònic. Dolor Crònic Un problema prevalent que necessita un abordatge integral. Area d'atenció Sanitària. Departament de Salut. Generalitat de Catalunya. 26/6/2018.
- E. Català. Elaboración de un proyecto de gestión de una Unidad de Dolor. En el Curso de: Programa de Desarrollo Profesional en Gestión de la Unidades de Dolor. Universidad Internacional de la Rioja. UNIR. 15/1/2018.
- E. Català. Abordaje farmacológico e intervencionismo en la estenosis del canal lumbar. Jornada del grupo de Dolor Musculo-esquelético de la SED. Madrid 20/10/2018.
- E. Català. ICH Good Clinical Practice E6 (R2). Score 100%. E-learning course. The Global Health Network. 14/4/2018.

Associated Groups

Nursing Care Research

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Marine Mández, Albert (FGS)
Márquez López, Adrián (FGS)
Ricart Basagaña, Maria Teresa (FGS)
Roca Sarsanedas, Jaume (FGS)
Romero Pastor, Mónica (FGS)
Sillero Sillero, Amalia (FGS)
Valverde Bernal, Jonatan (FGS)
Vicente Pérez, Sílvia (FGS)
Villalobos Abelló, Alba (FGS)

Main Lines of Research

- Fall prevention and analysis of fall-related factors.
- Translation and validation of care evaluation questionnaires.
- Constipation and ageing.
- Quality of life related to nursing care.
- Development and application of health science methods: qualitative and quantitative methods, text analysis and discourse analysis.
- Patient satisfaction with nursing care.
- Attention to the family.
- Pain.

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 cure 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.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Gemma Mas Dalmau. Optimisation of antibiotic prescription in acute non-complicated respiratory tract infections in children: a multicenter factorial randomised controlled trial targeting health professionals and parents. La Marató de TV3 Grant.
- Miriam Armora Verdú. Non-invasive central temperature monitoring and use of a pre-operative body surface active heating system to prevent inadvertent hypothermia (IIBSP-TEM- 2017-94).

External Collaborations

- Gemma Mas. Impact of the implementation of Good Practices Guides on beliefs-attitudes and behavior in relation to Practice Based on Evidence and the perception of the nursing work environment (PR-259/18). COIB Grant. Hospital del Mar Research Institute.
- M. Queralt Cebrià. Improving the therapeutic relationship in nursing care through the evidence multicentical study in Catalonia psychiatry units. Hospital del Mar Research Institute.

Active Grants

- Adrià Márquez López. Desenvolupament i avaluació de l'impacte d'un llistat de verificació de seguretat adaptat a la cardiologia intervencionista. PR-235/17. Fundació Infermeria i Societat. Duration: 2018-2020. 4,000 €.
- Gemma Berga Congost. Early attention in the diagnosis of acute myocardial infarction: impact of an educational and organizational intervention. SLT008/18/00052. Duration: 2018-2020. 90,700€
- Carme Jover Sancho. Effect of a music therapy intervention on the mood state of the critical patient in a Level III Hospital. IIB-SP-MUS-2018-83. Duration: 2018-2021. Private financing.
- Alba Villalobos Abelló,. Degree of satisfaction on the education received in education program of heart transplanted patient during admission. PR-020/16. Duration: 2017-2019. COIB Grant
- Gemma Berga Congost. Impact on reperfusion time after the elaboration and dissemination of an early diagnosis algorithm for acute myocardial infarction. IIBSP-IAM- 2015-84
- Jonatan Valverde Bernal. Impact on the quality of life after implantation of the mitral clip. IIBSP-CLI-2016-85

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2018

- Miriam Armora Verdu, Efectivitat d'una aplicació per a smartphone en pacients de cirurgia major ambulatòria., SLT006/17/00167, Departament de Salut. Duration: 2018. 23,690.32 €.

Note: Total amount granted to PI. It does not include indirect costs.

Patents

- Vicente Pérez, Silvia, Containment device for premature babies, ES 1209914 U, Device, 04/07/2018

Scientific Production

Total Impact Factor: 19.743 · Mean Impact Factor: 3.2905

Grupo de Trabajo de la Sociedad Europea de Cardiología (Berga Congost, G). Comentarios a la guía de la Sociedad Europea de Cardiología de 2018 sobre el diagnóstico y tratamiento del síncope. Rev Esp Cardiol. 71-10, pp. 787-793. Elsevier, Agosto 2018. **FI: 5.166**.

Grupo de Trabajo de la Sociedad Europea de Cardiología (Berga Congost, G). Comentario a la guía de revascularización coronaria de la Sociedad Europea de Cardiología de 2018. Revista Española de Cardiología. 72-1, pp. 16-20. Elsevier, 27/12/2018. **FI: 5.166**.

Grupo de Trabajo de la Sociedad Europea de Cardiología (Berga Congost, G). Comentario a la guía de la 4ª definición universal de infarto de miocardio de la Sociedad Europea de Cardiología de 2018. Revista Española de Cardiología. 72-1, pp.10-15. El sevier, 27/12/2018. **FI: 5.166**.

Neumann I., Alonso-Coello P., Vandvik P.O., Agoritsas T., Mas G., Akl E.A., Brignardello-Petersen R., Emparanza J., McCullagh L., De Sitio C., McGinn T., Almodaimegh H., Almodaimegh K., Rivera S., Rojas L., Stirnemann J., Irani J., Hlais S., Mustafa R., Bdair F., Aly A., Kristiansen A., Izcovich A., Ramirez A., Brozek J., Guyatt G., Schunemann H.J., Do clinicians want recommendations? A multicenter study comparing evidence summaries with and without GRADE recommendations (2018) J CLIN EPIDEMIOL, 99, 33-40. **IF: 4.2450**

Sillero Sillero A, Zabalegui A. Satisfaction of surgical patients with perioperative nursing care in a Spanish tertiary care hospital. SAGE Open Med. 2018 Dec 10;6:2050312118818304. doi:10.1177/2050312118818304. eCollection 2018.

Sillero Sillero A, Zabalegui A. Organizational Factors and Burnout of Perioperative Nurses.Clin Pract Epidemiol Ment Salud. 2018 31 de mayo; 14: 132-142. Doi:10.2174 / 1745017901814010132. eCollection 2018.

Other Publications

- Valverde Bernal, J, Villalobos Abelló, A, Martínez López, J. ¿Cómo influye un evento coronario isquémico en la actividad sexual?. Enferm Cardiol 2018;25(75):48-55.
- Villalobos Abelló A, Urgellés Sanchez I, Gómez Palormar MJ. Higiene en cama: Cuidado básico de enfermería en peligro de extinción. Rev Etica Cuid 2018;v11:e11820.
- Sillero Sillero A, Zabalegui A. Percepción de las enfermeras perioperatorias sobre su entorno laboral y su relación con la sensación de satisfacción o insatisfacción laboral. EVIDENTIA. 2018; v15: e12030. http://ciberindex.com/p/ev/e12030 ISSN 1697-638X © Fundación Index.
- Sillero Sillero A, Zabalegui A. Una revisión integrativa de las percepciones de colaboración entre enfermeras y médicos Paraninfo Digital,2018;XII(28):e156.http://www.indexf.com/para/n28/e156.php.
- Sillero Sillero, A. Experiencia de la madre de un adolescente con diabetes mellitus tipo I. Index Enferm. 2018;27(4):230-233.

Diffusion Activities

- Roca-Sarsanedas J, Falcó-Pegueroles A, Galimany-Masclans J, Vieira-Moreno A, Ibáñez-Pérez MA. Manejo de las extravasaciones de contraste yodado con calor seco. Estudio piloto. XXII Encuentro Internacional de Investigación en Cuidados. 14-16 November 2018. Córdoba, Spain.
- Valverde Bernal J, Villalobos Abelló A, Peñalba Novo MC, Bolibar Ribas I. Experiencia en la seguridad del paciente del entorno asistencial de cardiología" en 39º Congreso de la Asociación en Enfermería en Cardiología. Vigo 2018
- Valverde Bernal J. Impacto en la calidad de vida tras implantación de clip mitral". Ponencia en la Mesa redonda: "Enfer-Cardio Actualidad. Avances y nuevos proyectos". 39º Congreso de la Asociación en Enfermería en Cardiología. Vigo 2018
- Valverde Bernal J, Villalobos Abelló A, Peñalba Novo MC, Bolibar Ribas I. "Experiència en la seguretat del pacient en l'entorn asistencial de Cardiologia". Pòster. 30º Congrés de la Societat Catalana de Cardiologia, Barcelona 2018Valverde Bernal J. Apoderament del pacient. Ponencia en la Mesa Redonda "Gestió Clínica al servei del pacient". 3º Jornada de Gestió Clínica en Cardiologia, El pacient en el cor de la gestió. Barcelona 2018
- Vicente Pérez S, Calle del Campo Y, Valle Torres ME, Riba Sanmartí A, Pérez Restrepo MA, Rubio de Abajo I. Valoración del efecto de la contención posicional durante el procedimiento del peso diario sobre el nivel de estrés en RN pretérmino. Proyecto ÚTER. En: XXXIX Congreso Nacional de la Asociación Nacional de Enfermería de Cuidados Intensivos Pediátricos y Neonatales. Zaragoza. 2018.
- Vicente Pérez S, Calle del Campo Y, Valle Torres ME, Riba Sanmartí A, Pérez Restrepo MA, Rubio de Abajo I. Valoración del efecto de la contención posicional durante el procedimiento del peso diario sobre el nivel de estrés en RN pretérmino. Proyecto ÚTER. En: XXXIX Congreso Nacional de la Asociación Nacional de Enfermería de Cuidados Intensivos Pediátricos y Neonatales. Zaragoza. 2018.

Associated Groups

Reproductive Health

Coordinator
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Members
Adelantado Pérez, Juan Maria (FGS)
Espinós Gómez, Juan José (FGS)
Estadella Tarriel, Josep Ramon (FGS)
Guinot Gasull, Misericordia (FGS)
Perelló Capo, Josep (FGS)
Rams Llop, Noelia (FGS)

Main Lines of Research

- Qualitative study of foetal motility by means of 2D ultrasound in foetuses with spinal muscular atrophy.
- Value of foetal nuchal translucency as a marker of neuromuscular diseases and other monogenic diseases.
- Usefulness of Doppler ultrasound of the umbilical artery during the second trimester as a discriminator of pregnancies at high risk of poor perinatal outcomes.
- Cutoff point for foetal pyelectasis as a nephrourologic pathology discriminator.
- Value of ultrasound in the control of foetal anaemia.

Scientific Challenges

- Consolidate a line of work with Sant Pau's genetics department concerning possible early clinical manifestations detectable using 2D and 4D ultrasound in foetuses affected by genetic diseases, particularly neuromuscular disorders, given that Sant Pau is a referral centre for a particular group of rare diseases.
- Screen for chromosomal abnormalities from the ultrasound and biochemistry points of view, investigating the potential usefulness of the markers used either alone or in combination as indicators of populations at risk of placental insufficiency.
- Investigate the usefulness of new technologies such as 3D power Doppler angiography of the placenta in the diagnosis and control of certain foetal diseases.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Genetic Diseases

Scientific Production

Total Impact Factor: 20.6010 · Mean Impact Factor: 2.9430

Broekhuizen K., Simmons D., Devlieger R., van Assche A., Jans G., Galjaard S., Corcoy R., Adelantado J.M., Dunne F., Desoye G., Harreiter J., Kautzky-Willer A., Damm P., Mathiesen E.R., et al., Cost-effectiveness of healthy eating and/or physical activity promotion in pregnant women at increased risk of gestational diabetes mellitus: Economic evaluation alongside the DALI study, a European multicenter randomized controlled trial (2018) INT J BEHAV NUTR PHY, 15 (1). **IF: 5.5480**

Estadella J., Espanol P., Ascencio F., Perello J., Calaf J., Ulipristal acetate for the management of acute heavy menstrual bleeding without fibroids (2018) GYNECOL ENDOCRINOL, 34 (7), 554-557. **IF: 1.4530**

Estadella J., Villamarin L., Feliu A., Perello J., Calaf J., Characterization of the population with severe iron deficiency anemia at risk of requiring intravenous iron supplementation (2018) EUR J OBSTET GYN R B, 224, 41-44. **IF: 1.8090**

Llaneza P., Calaf J., Jurado A.R., Mendoza N., Otero B., Quereda F., Sanchez-Borrego R., Lubian D., What do TSECs provide in the menopausal hormone therapy? (2018) GYNECOL ENDOCRINOL, 34 (10), 826-832. **IF: 1.4530**

Mendoza L.C., Harreiter J., Simmons D., Desoye G., Adelantado J.M., Juarez F., Chico A., Devlieger R., van Assche A., Galjaard S., Damm P., Mathiesen E.R., Jensen D.M., Andersen L.L.T., Tanvig M., et al., Risk factors for hyperglycemia in pregnancy in the DALI study differ by period of pregnancy and OGTT time point (2018) EUR J ENDOCRINOL, 179 (1), 39-49. **IF: 4.3330**

Monleon J., Canete M.L., Caballero V., del Campo M., Domenech A., Losada M., Calaf J., Epidemiology of uterine myomas and clinical practice in Spain: An observational study (2018) EUR J OBSTET GYN R B, 226, 59-65. **IF: 1.8090**

Simmons D., Devlieger R., van Assche A., Galjaard S., Corcoy R., Adelantado J.M., Dunne F., Desoye G., Kautzky-Willer A., Damm P., Mathiesen E.R., Jensen D.M., Andersen L.L.T., Lapolla A., Dalfra M.G., Bertolotto A., Wender-Ozegowska E., Zawiejska A., Hill D., Snoek F.J., van Poppel M.N.M., Association between gestational weight gain, gestational diabetes risk, and obstetric outcomes: A randomized controlled trial post hoc analysis (2018) NUTRIENTS, 10 (11). **IF: 4.1960**

Associated Groups

Cardiac Surgery

Coordinator
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Members
Montiel Serrano, José (FGS)
Roselló Díez, Elena (FGS)

Main Lines of Research

- Off-pump coronary artery by-pass grafting surgery.
- Mitral repair surgery.
- Ascending aorta pathology.
- Pathogenesis of atrial fibrillation after cardiac surgery: electrophisiologic and mitochondrial analysis.
- Follow-up of sutureless aortic valve prosthesis: Perceval S.
- Follow-up of surgical check-list implementation.
- Use of erythropoietin before cardiac surgery.
- Participation in VISION study (Vascular events In Surgery patients cOhort evaluatioN)-Cardiac Surgery.

Scientific Challenges

- Consolidation as a research group in different cardiac surgery-related fields, specific utureless valve prosthesis-perioperative myocardial infarction.
- Participation in the assessment and validation of new products employed in cardiac surgery: haemostatics, sutures, systems for sternal closure…
- Collaboration with different national and international research teams involved in our lines of study.

Collaborations

Collaborations with other IIB Sant Pau Groups

- Leif Hove-Madsen, CSIC. Regulation of Cardiac Rhythm and Contraction.
- M. Luz Maestre Hittinger. Department of Anaesthesiology.

External Collaborations

- Elena Domínguez Garrido. Unit of Molecular Diagnosis. Fundación Rioja Salud, La Rioja, Spain.
- Elisabeth Berastegui. Department of Cardiac Surgery. Hospital Germans Trias i Pujol, Badalona, Spain.
- Mercé Cladellas Capdevila. Department of Cardiology. Hospital del Mar, Barcelona, Spain.

Scientific Production

Total Impact Factor: 13.0180 · Mean Impact Factor: 4.3393

Mirabet S., Garcia-Osuna A., Garcia De Frutos P., Ferrero-Gregori A., Brossa V., Lopez L., Leta R., Garcia-Picart J., Padro J.M., Sanchez-Quesada J.L., Cinca J., Ordonez-Llanos J., Roig E., High-Sensitivity Troponin T and Soluble Form of AXL as Long-Term Prognostic Biomarkers after Heart Transplantation (2018) DIS MARKERS, 2018. **IF: 2.9490**

Molina C.E., Jacquet E., Ponien P., Munoz-Guijosa C., Baczko I., Maier L.S., Donzeau-Gouge P., Dobrev D., Fischmeister R., Garnier A., Identification of optimal reference genes for transcriptomic analyses in normal and diseased human heart (2018) CARDIOVASC RES, 114 (2), 247-258. **IF: 6.2900**

Rosello-Diez E., Cuerpo G., Estevez F., Munoz-Guijosa C., Tauron M., Cuenca J.J., Gonzalez-Pinto A., Padro J.M., Use of the Perceval Sutureless Valve in Active Prosthetic Aortic Valve Endocarditis (2018) ANN THORAC SURG, 105 (4), 1168-1174. **IF: 3.7790**

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