

Multi-organ Damage and Rheumatology

Group leader

Corominas Macias, Héctor (FGS)

Researchers

Arroyo Díaz, Juan Antonio (FGS)

Barcelo Trias, Montserrat (FGS)

Casademont Pou, Jordi (FGS)

Castellvi Barranco, Ivan (FGS)

Codes Méndez, Helena (FGS)

Díaz Torne, César (FGS)

García Alija, Asier (FGS)

Hernández De Sosa, Nerea (FGS)

Laiz Alonso, Ana Maria (FGS)

Magallares López, Berta Paula (FGS)

Malouf Sierra, Jorge (FGS)

Moya Alvarado, Patricia (FGS)

Sainz Comas, Luís (FGS)

Santos Gutiérrez, Álvaro (FGS)

Tandaipan Jaime, José Luis (FGS)

Torres Bonafonte, Olga (FGS)

Research technicians

Bernardez Moreno, Julia (IR)

Dutren Tella, Adriána (IR)

Ros Abarca, Sandra (IR)

Sihuro Cervantes, Margarita (IR)



MAIN LINES OF RESEARCH

Bone Metabolism and Osteoporosis

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

Hypertension and Vascular Risk

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

Clinical Management, Internal Medicine and Geriatrics

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

Rheumatology and Rheumatoid Arthritis

- Immunological basis and pathogenic studies of rheumatoid arthritis and other inflammatory conditions.

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

Systemic Sclerosis

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

Gout

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

Sjögren Syndrome, SLE and others

- Study of the pattern of interstitial lung disease in primary Sjögren's syndrome

SCIENTIFIC CHALLENGES

To establish stable work relations between the HSCSP Bone Metabolism and Genomics of Complex Diseases Groups and the Bone Metabolism Unit of Hospital del Mar Medical Research Institute and the Faculty of Biology of the University of Barcelona.

To strengthen ties between the HSCSP Rheumatology and Immunology departments regarding the study of immunological diseases.

DOCTORAL THESES DEFENDED

- Bianchi, María Marta. Características diferenciales de la neumonía organizada asociada o no a enfermedades autoinmunes sistémicas. 08/11/2024. Universitat Autònoma de Barcelona. Supervisors: Castellvi Barranco, Ivan; Castillo Villegas, Diego; Casademont Pou, Jordi. <https://hdl.handle.net/10803/693036>
- Sainz Comas, Luis. Estudis farmacogenètics dels fàrmacs inhibidors d'interleucina-6 en el tractament de l'artritis reumatoide. 28/05/2024. Universitat Autònoma de Barcelona. Supervisors: Moya Alvarado, Patricia; Corominas Macias, Hector; Casademont Pou, Jordi. <https://hdl.handle.net/10803/691902>.

SCIENTIFIC PRODUCTION

- Alarcón P, Alvarado PM, Alierta E. Ultrasound for the Diagnosis of Giant Cell Arteritis. *European Journal Of Rheumatology*. 2024; 11. DOI:10.5152/eurjrheum.2024.20104. PMID:39311386. Document type: Review.
- Añez G, Torrente V, Bonet M, Vilella MC, Orpinell L, Fernández AP, Busquets N, Pascual M, Corominas H, Díaz C, Moya P, De Agustín JJ. Clinical and ultrasound optimization in rheumatoid arthritis for patients in sustained remission, can it work as a new optimization tool?. *Journal Of Ultrasound*. 2024; DOI:10.1007/s40477-024-00963-z. PMID:39424691. Document type: Article.
- Balias R, Pedret C, Estrada P, Corominas H. Overview of Thigh and Leg Anatomical and Sonographic Landmarks in Rheumatic Patients. *European Journal Of Rheumatology*. 2024; 11. DOI:10.5152/eurjrheum.2022.21131. PMID:36052637. Document type: Review.
- Barceló M, Casademont J, Mascaró J, Gich I, Torres OH. Should patients with exceptional longevity be treated for osteoporosis after a hip fracture?. *AGE AND AGEING*. 2024; 53(6):afae118. DOI:10.1093/ageing/afae118. PMID:38899445. IF:6,000 (Q1/1D). Document type: Article.
- Bover J, Gómez C, Casado E, Rodríguez M, Lloret MJ, Castro C, Gifre L, Henríquez F, Prior A, de la Manzanara VL, Láiz AM, Martínez A, Torregrosa JV, Cigarrán S, Górriz JL, Montomoli M, Panizo N, Costa E, Martínez D, Rodríguez M, Navarro JF. Osteoporosis management in patients with chronic kidney disease (ERCOS Study): A challenge in nephrological care. *NEFROLOGIA*. 2024; 44(2). DOI:10.1016/j.nefro.2023.05.00. IF:2,000 (Q2/5D). Document type: Article.
- Bover J, Gómez C, Casado E, Rodríguez M, Lloret MJ, Castro C, Gifre L, Henríquez F, Prior Á, López de la Manzanara V, Láiz AM, Martínez À, Torregrosa JV, Cigarrán S, Górriz JL, Montomoli M, Panizo N, Costa E, Martínez D, Rodríguez M, Navarro JF. Manejo de la osteoporosis en el paciente con enfermedad renal crónica (Estudio ERCOS): un desafío en la asistencia nefrológica. *NEFROLOGIA*.

- 2024; 44(2). DOI:10.1016/j.nefro.2023.05.002. PMID:38531765. IF:2,000 (Q2/5D). Document type: Article.
- Clotet S, Prieto M, Llorach PD, Gutiérrez AS, Pou JC, Bonafonte O. Malnutrition, Functional Decline, and Institutionalization in Older Adults after Hospital Discharge Following Community-Acquired Pneumonia. *Nutrients*. 2024; 16(1):11. DOI:10.3390/nu16010011. PMID:38201841. IF:4,800 (Q1/2D). Document type: Article.
 - Codes H, Jeria S, Park HS, Moya P, Magallares B, Moltó E, Álvaro Y, Mariscal A, Moga E, Tandaipan JL, Díaz C, Laiz A, Sainz L, Castellví I, Corominas H. Clinical and Serological Profiles in Cryoglobulinemia: Analysis of Isotypes and Etiologies. *Journal of Clinical Medicine*. 2024; 13(20):6069. DOI:10.3390/jcm13206069. PMID:39458019. IF:3,000 (Q1/2D). Document type: Article.
 - Codes H, Magallares B, Park HS, Mariscal A, Juárez C, Boronat S, Martínez L, Corominas H. Diagnostic accuracy of serum calprotectin measured by CLIA and EIA in juvenile idiopathic arthritis: a proof-of-concept study. *Frontiers in Pediatrics*. 2024; 12:1422916. DOI:10.3389/fped.2024.1422916. PMID:38962573. IF:2,100 (Q2/4D). Document type: Article.
 - Del Galdo F, Lescoat A, Conaghan PG, Bertoldo E, Colic J, Santiago T, Suliman YA, Matucci M, Gabrielli A, Distler O, Hoffmann AM, Castellvi I, Balbir A, Vonk M, Ananyeva L, Rednic S, Tarasova A, Ostojic P, Boyadzhieva V, El Aoufy K, Farrington S, Galetti I, Denton CP, Kowal O, Mueller U, Allanore Y. EULAR recommendations for the treatment of systemic sclerosis: 2023 update. *ANNALS OF THE RHEUMATIC DISEASES*. 2024; DOI:10.1136/ard-2024-226430. PMID:39393843. IF:20,300 (Q1/1D). Document type: Article.
 - Díaz C, Pou MA, Horne A, Gasteiger C, Dalbeth N. 'Gout was like the boss'. A qualitative study exploring the impact of gout on employment. *RMD Open*. 2024; 10(3). DOI:10.1136/rmdopen-2024-004443. PMID:39160089. IF:5,100 (Q1/2D). Document type: Article.
 - Estrada P, Domínguez M, Melero RB, de Miguel E, Silva M, Valero JA, González I, Sánchez J, Narváez J, Galíndez E, Mendizábal J, Iñiguez CL, Rodríguez L, Loricera J, Muñoz A, Moya P, Moran P, Navarro VA, Galisteo C, Castañeda S, Blanco R, ARTESER Project Collaborative GRP. 18F-FDG-PET/CT Scan for Detection of Large Vessel Involvement in Giant Cell Arteritis: Arteser Spanish Registry. *Journal of Clinical Medicine*. 2024; 13(20):6215. DOI:10.3390/jcm13206215. PMID:39458165. IF:3,000 (Q1/2D). Document type: Article.
 - Estrada P, Moya P, Narváez J, Moragues C, Navarro V, Camacho O, Roig D, Cerdà D, Heredia S, Reina D, Corominas H. Utility of applying a diagnostic algorithm in giant cell arteritis based on the level of clinical suspicion. *MEDICINA CLINICA*. 2024; 163(3). DOI:10.1016/j.medcli.2023.11.021. PMID:38278759. IF:2,600 (Q1/3D). Document type: Article.
 - Fernández D, Hernández I, Narvaez J, Domínguez M, De Miguel E, Silva M, Belzunegui JM, Morales CM, Sánchez J, Galíndez E, Aldaroso V, Abasolo L, Loricera J, Garrido N, Alvarado PM, Larena C, Navarro VA, Calvet J, Casafont I, Ortiz F, Monte TCS, Castañeda S, Blanco R, ARTESER Project Collaborative GRP. Incidence and clinical manifestations of giant cell arteritis in Spain: results of the ARTESER register. *RMD Open*. 2024; 10(1):e003824. DOI:10.1136/rmdopen-2023-003824. PMID:38531620. IF:5,100 (Q1/2D). Document type: Article.
 - Figueras I, Feito M, García M, Monte E, Ros S, Zaragoza V, De Tena AL, De Frutos F. A Qualitative Tool to Guide in the Interpretation of the Numerical Rating Scale for Pruritus Intensity in Patients with Atopic Dermatitis. *ACTA DERMATO-VENEREOLÓGICA*. 2024; 104:adv18255. DOI:10.2340/actadv.v104.18255. PMID:38566531. IF:3,500 (Q1/3D). Document type: Article.
 - Giuliadori A, Soudah E, Malouf J, Martel L, Amodru V, Gil J, Hernández JA, Domingo MP, Webb SM, Valassi E. Evaluation of bone-related mechanical properties in female patients with long-term remission of Cushing's syndrome using quantitative computed tomography-based finite element analysis. *EUROPEAN JOURNAL OF ENDOCRINOLOGY*.

- 2024; 190(1). DOI:10.1093/ejendo/lvae004. PMID:38285633. IF:5,300 (Q1/2D). Document type: Article.
- Gras L, Plaza A, Zarate B, Vera P, Torres OH, Bastida C, Soy D, Ruiz J. Risk Factors Associated with Antibiotic Exposure Variability in Critically Ill Patients: A Systematic Review. *Antibiotics-Basel*. 2024; 13(9):801. DOI:10.3390/antibiotics13090801. PMID:39334976. IF:4,300 (Q1/2D). Document type: Review.
 - Grunden N, Calabria M, García C, Pons C, Arroyo JA, Gómez B, Estévez MD, Belvís R, Morollón N, Cordero M, Mur I, Pomar V, Domingo P. Evolving trends in neuropsychological profiles of post COVID-19 condition: A 1-year follow-up in individuals with cognitive complaints. *PLoS One*. 2024; 19(8):e0302415. DOI:10.1371/journal.pone.0302415. PMID:39116061. IF:2,900 (Q1/3D). Document type: Article.
 - Lobo D, Sainz L, Laiz A, De Dios A, Fontcuberta L, Fernández S, Masip M, Riera P, Pagès N, Ros S, Gomis M, Corominas H. Designing an integrated care pathway for spondyloarthritis: A Lean Thinking approach. *JOURNAL OF EVALUATION IN CLINICAL PRACTICE*. 2024; DOI:10.1111/jep.14132. PMID:39253893. IF:2,100 (Q2/3D). Document type: Article.
 - López C, Calvo J, Abalos MC, Cepas F, Plasencia C, Martínez A, Balsa A, Faré R, Juan A, Ruiz V, Sainz L, Díaz C, Godoy FJ, Añón I, Mena N, Manrique S, Moreno MS, Ortega R, Escudero A. Exploring the influence of baseline rheumatoid factor levels on TNF inhibitor retention rate in patients with rheumatoid arthritis: a multicentre and retrospective study. *RMD Open*. 2024; 10(1):e003975. DOI:10.1136/rmdopen-2023-003975. PMID:38395455. IF:5,100 (Q1/2D). Document type: Article.
 - López M, Moya P, Park HS, Martín MC, Calleja S, Codes H, Magallares B, Castellví I, Barros AJ, Laiz A, Díaz C, Sainz L, Bernárdez J, Martínez L, Corominas H. Comparative Analysis of Classification Criteria in IgG4-Related Disease and Evaluating Diagnostic Accuracy from a Retrospective Cohort in Clinical Practice. *Diagnostics*. 2024; 14(22):2583. DOI:10.3390/diagnostics14222583. PMID:39594249. IF:3,000 (Q1/2D). Document type: Article.
 - Martín A, Loricera J, Narváez J, Aldasoro V, Maiz O, Vela P, Romero S, de Miguel E, Galíndez E, Fernández JC, Ferraz I, Sánchez J, Moya P, Campos C, López F, Castaneda S, Blanco R, Tocilizumab Giant Cell Arteritis Spanish Collaborative GRP. Effectiveness Of Tocilizumab In Aortitis And Aneurysms Associated With Giant Cell Arteritis. *European Journal of Internal Medicine*. 2024; 129DOI:10.1016/j.ejim.2024.06.013. PMID:38908981. IF:5,900 (Q1/1D). Document type: Article.
 - Martínez C, Díaz C, Park HS, Feliu A, Vidal S, Corominas H. Tofacitinib and Baricitinib in Type 2 Diabetic Patients with Rheumatoid Arthritis. *Medicina-Lithuania*. 2024; 60(3):360. DOI:10.3390/medicina60030360. PMID:38541086. IF:2,400 (Q1/3D). Document type: Article.
 - Martínez C, Feliu A, Park HS, Juanes A, Díaz C, Vidal S, Corominas H. Are There Sex-Related Differences in the Effectiveness of Janus Kinase Inhibitors in Rheumatoid Arthritis Patients?. *Journal of Clinical Medicine*. 2024; 13(8):2355. DOI:10.3390/jcm13082355. PMID:38673626. IF:3,000 (Q1/2D). Document type: Article.
 - Martínez C, Gich I, Díaz C, Park HS, Feliu A, Vidal S, Corominas H. Patient-related factors influencing the effectiveness and safety of Janus Kinase inhibitors in rheumatoid arthritis: a real-world study. *Scientific Reports*. 2024; 14(1):172. DOI:10.1038/s41598-023-50379-8. PMID:38168532. IF:3,800 (Q1/2D). Document type: Article.
 - Martínez C, Tey JMG, Ruiz J, Feliu A, Puig M, Vidal S, Corominas H. Adverse reactions to Janus kinase inhibitors: Study of their incidence and predictive factors in patients with rheumatoid arthritis. *MEDICINA CLINICA*. 2024; 163(8). DOI:10.1016/j.medcli.2024.05.007. PMID:39003114. IF:2,600 (Q1/3D). Document type: Article.
 - Millán P, Castellví I, Martínez L, Mariscal A, Barril S, D'Alessandro M, Franquet T, Castillo D. Diagnostic Value of Krebs von

- den Lungen (KL-6) for Interstitial Lung Disease: A European Prospective Cohort. ARCHIVOS DE BRONCONEUMOLOGIA. 2024; 60(6). DOI:10.1016/j.arbres.2024.03.028. PMID:38644152. IF:8,700 (Q1/1D). Document type: Article.
- Molina J, Alonso F, Otero L, Bohórquez C, Torné CD, García CP, Madrigal JMB, Vela P, Álvaro JM, Castrejón I, BIOBADASER GRP. Cancer risk with biologic and targeted synthetic DMARDs in patients with rheumatic diseases and previous malignancies: Results from the BIOBADASER register. SEMINARS IN ARTHRITIS AND RHEUMATISM. 2024; 64:152341. DOI:10.1016/j.semarthrit.2023.152341. PMID:38128174. IF:4,600 (Q1/2D). Document type: Article.
 - Molina J, Domínguez M, Melero RB, Fernández E, Silva M, Valero JA, González I, Martín JS, Narváez J, Calvo I, Mendizábal J, Alcázar LA, Loricera J, Ruíz A, Moya P, Cabañas MT, Estrada P, Prado FJ, Castañeda S, Blanco R, ARTESER Project Collaborative GRP. Visual manifestations in giant cell arteritis: identification of risk factors from the ARTESER Registry. RHEUMATOLOGY. 2024; DOI:10.1093/rheumatology/keae042. PMID:38244610. IF:4,700 (Q1/2D). Document type: Article.
 - Molina JT, Hernández B, Corominas H. Initial Treatment with Biological Therapy in Rheumatoid Arthritis. Journal of Clinical Medicine. 2024; 13(1):48. DOI:10.3390/jcm13010048. PMID:38202055. IF:3,000 (Q1/2D). Document type: Review.
 - Morales CM, Gil JG, García NB, Varillas JLM, del Río VC, Alvarado PM, García FJN, Espinosa G, Fontecha PDD, Rodríguez MG, Arranz JM, Gómez ML, Hernández FMF, Trujillo MM, Sobrín RD, Sánchez J, Manzano JM, Cuba JS. SER recommendations on treatment of refractory Behçet's syndrome. Reumatología Clínica. 2024; 20(4). DOI:10.1016/j.reuma.2023.12.001. PMID:38614885. Document type: Article.
 - Ortiz MA, Díaz C, De Agustín JJ, Estrada P, Reina D, Hernández MV, Sang HY, Zamora C, Canto E, Corominas H, Vidal S, Celec P. Altered CD39 and CD73 Expression in Rheumatoid Arthritis: Implications for Disease Activity and Treatment Response. Biomolecules. 2024; 14(1):1. DOI:10.3390/biom14010001. PMID:38275742. IF:4,800 (Q1/3D). Document type: Article.
 - Park HS, Martínez L, López BM, Castellví I, Moya P, Codes H, Sosa NH, Díaz C, Laiz A, Sainz L, Tandaipan JL, Mariscal A, Franco T, Casademont J, Juárez C, Corominas H. Prognostic significance of lymphocytic foci composition in minor salivary gland biopsies for severe disease flare and severity in Sjögren's syndrome: a 3-year follow-up cohort study. Frontiers in Immunology. 2024; 15:1332924. DOI:10.3389/fimmu.2024.1332924. PMID:38469314. IF:5,700 (Q1/3D). Document type: Article.
 - Qasim M, Picazo ML, Wills CR, Noailly J, Di S, Barquero LMD, Sierra JM, Humbert L. 3D-DXA based finite element modelling for femur strength prediction: evaluation against QCT. JOURNAL OF CLINICAL DENSITOMETRY. 2024; 27(2):101471. DOI:10.1016/j.jocd.2024.101471. PMID:38306806. IF:1,700 (Q4/8D). Document type: Article.
 - Santos CS, Oliveira MM, Solari PN, Mateus P, Santos MJ, Corominas H, Castro CA, Álvarez ED. Cardiovascular disease in patients with systemic autoimmune diseases: The relationship between self-perceived risk and actual risk. Reumatología Clínica. 2024; 20(5). DOI:10.1016/j.reuma.2024.01.002. PMID:38880551. Document type: Article.