



C100

2015

Scientific Report



Sant Pau Biomedical Research Institute

HSCSP Research Institute Board of Trustees

President

Enric Argelagués Vidal

Secretary

Joaquim Jornet Porta

Members

Managing Director, Hospital de la Santa Creu i Sant Pau

Alberto Salazar Soler

Designated by the Hospital de la Santa Creu i Sant Pau Foundation

Jordi Sierra Gil

Francisco Blanco Vaca

Josep M. Foracada i Casanovas

Designated by the Generalitat de Catalunya

Carles Constante Beitia

Andreu Mas-Collell

Designated by the Autonomous University of Barcelona

Antonio Escartín Siquier

Manuel Armengol Carrasco

Designated by the Board of the Research Institute of Sant Pau Hospital

Josep M. Ventura Ferrero

Antoni Esteve Cruella

IIB Sant Pau Steering Committee

Chair

Alberto Salazar Soler

Managing Director,
Hospital de la Santa Creu i Sant Pau Healthcare
Management Foundation

Members

Jordi Bachs i Ferrer

Hospital de la Santa Creu i Sant Pau
Private Foundation

Lluís Tort i Bardolet

Autonomous University of Barcelona

Lina Badimon Maestro

Catalan Institute of Cardiovascular Sciences

Helena Isábal Roca

Puigvert Foundation

[Pending to nominate]

Blood and Tissue Bank

Xavier Bonfill i Cosp

Iberoamerican Cochrane Centre

Jaume Sellarès Sallas

Barcelona-Sardenya Primary Care Centre

Carme Borrell Thió

Public Health Agency of Barcelona

Jaume Kulisevsky Bojarski

Hospital de la Santa Creu i Sant Pau
Research Institute

Summary

IIB Sant Pau · 2015 Scientific Report

- 04 Presentation
- 07 IIB Sant Pau Scientific Structure
- 08 Who We Are
- 09 Strategic Objectives
- 10 IIB Sant Pau Entities
- 12 Vertical Areas of Research
- 13 Transversal Areas of Research
- 13 Associated Groups
- 14 Organization Chart
- 16 Financial Data
- 18 Scientific Outcomes
- 20 Publications with an Impact Factor
- 21 Publications by Thematic Area and Quartile
- 22 Research Resources
- 23 Research Training
- 24 Doctoral Theses
- 27 Patents
- 28 Technology Transfer Agreements
- 29 Clinical Guidelines
- 32 Research Support Services
- 42 Scientific and Technical Service Platforms

46 Areas of Research

- 48 Area 1. Cardiovascular Diseases
- 78 Area 2. Genetic, Metabolic and Inflammatory Diseases
- 116 Area 3. Haematological and Oncological Diseases
- 138 Area 4. Neurological, Mental Disorders and Ageing
- 176 Area 5. Urology and Experimental Surgery
- 186 Area T1. Epidemiology, Public Health and Healthcare Services
- 208 Area T2. Molecular, Genomic, Cellular and Kinetic-Dynamic Bases for Diseases and their Treatment
- 218 Associated Groups

Presentation



Dear colleagues and friends

Once again I am pleased to present the Annual Scientific Report of the Sant Pau Biomedical Research Institute (IIB Sant Pau) for the year 2015. This annual event gives us the opportunity to share and acknowledge the efforts and achievements of all those who collaborate to make our Institute a dynamic and solid entity, committed to the advancement of medical knowledge and its applicability to clinical practice.

In the pages of this Report the reader will find evidence of the sustained improvement in the amount and the quality of the scientific output of our research groups. Moreover, this report completes the first life-cycle of the IIB Sant Pau as Sanitary Research Institute credited by the Ministry of Health (2011-2015). Remarkably, the great work done during this period by the researchers, managers, administrative staff, support staff, and technicians, has led to the recent renewal of this important recognition.

The activity of the seven areas of scientific research that integrate the structure of the IIB Sant Pau, composed of 52 consolidated and 22 associated groups, has achieved significant indicators. For instance, in 2015, our researchers published 804 scientific papers, most (or many) of them (58%) in journals of the first quartile and many in the first decile of the correspondent research area. The total impact factor of the published articles was 3.927,427 with a mean impact factor of 4.096. The sustained growth of the activities of clinical research allowed us to maintain our leading position for performing clinical trials. Importantly, there was a growth in studies of early clinical development (phase I and II) of the Drug Research Area (CIM Sant Pau). The Scientific Management Area gave support to the presentation and management of more than 300 projects during 2015, which included technical assessment to young researchers for the presentation of investigator initiated research. The Innovation Area succeeded in provide technical support for the presentation of 24 International and European Projects, one of them eventually granted. Moreover, in 2015 six inventions were protected, some of them transferred to the industry thereby providing royalties to our institute. Regarding training and education, the implication of the researchers with the University gave rise to the lecture of XXX doctoral thesis.

Among other important aspects of the activity of the IIB during 2015, it is worth mentioning the operative implementation of the 2014-2017 Strategic Plan and its corresponding indicators for evaluation, which was previously discussed and agreed with the effective participation of the organization. In 2015 the European Commission awarded our institute with the recognition "HR Excellence in Research", owing to our commitment to deploy a 4-year action plan intended to develop a favorable working environment for our research staff. A third milestone in 2015 has been the launch of our intranet, a tool that will improve internal communication and allow investigators to speed up a number of ancillary processes related with their research.

As for the obtained financial resources needed to sustain the research activities, our institute, with an annual budget of around 14 million euros, displays very high efficiency rates. The dynamic activity of our researchers for obtaining competitive resources (including scientific grants, donations, and contracts with the pharmaceutical industry and other promoters), allowed us to continue our activities with a minimal index of public subsidy. Among the challenges for coming years, is securing funding to allow an adequate policy for capture research talent and development of new infrastructures of research.

Other areas for improvement that face our Institute for the next future are the growth in human capital and scientific quality, properly distributed among the different areas and research programs of the IIB. Specifically, we need to secure the funding and prepare the organization for the future moving of the bulk of the experimental activity to the New Research Building of the Institute that will represent a quantum leap in the life of the Institute. It should be preceded by a further strengthening within the organization of the particularities of the research culture, and the crucial role of competitiveness and merits in the policy for distributing space and resources. According to the Strategic Plan, we will continue conducting external evaluations to analyze the scientific outputs of the researchers funded by the IIB and the activity of the research groups, persuaded that these assessments help to learn and improve the performance of the groups and to ensure their alignment to the strategic positioning of the organization.

Research and education activities are essential to advancing patient care. The multidisciplinary research teams of the different biomedical and healthcare entities integrated in the IIB Sant Pau strive to generate and rapidly translate new discoveries to improve the prevention and treatment of disease and injury. They are in close contact with the needs of the patients and work across disciplines to expand the frontiers of scientific understanding while moving the most promising breakthroughs into tangible health benefits through clinical trials. However, we firmly believe that a passive role of patients in health investigation is no longer satisfactory and see our patients as partners in health research collaborating to prioritize a patient-centered research agenda that captures issues that patients, their relatives, clinical specialists and researchers consider important. Many of these activities that our members bring to the patients and the community promoting the dissemination of science, the importance of translational medicine and the crucial role of patient involvement in research priorities, were conducted in 2015 and will be stimulated in the next future.

I take this opportunity to once again congratulate all who in one way or another was involved in the activities of the IIB Sant Pau for the results summarized at this 2015 Report, and to encourage our patients and investigators to continue to work together with renewed enthusiasm to face the many challenges of medical research.

Jaume Kulisevsky
Scientific Director

IIB Sant Pau Scientific Structure

IIB Sant Pau has seven research areas that can be divided into two research lines: vertical, transversal and associated groups.

The vertical line has five main areas:

- Cardiovascular Diseases
- Genetic, Metabolic and Inflammatory Diseases
- Haematological and Oncological Diseases
- Neurological and Mental Disorders
- Uronephrology and Experimental Surgery

The transversal line consists of two areas:

- Epidemiology, Public Health and Healthcare Services
- Molecular, Genomic, Cellular and Kinetic-Dynamic Bases for Diseases and their Treatment

Activities in the transversal line complement and support research in the vertical line.

Who We Are

The Sant Pau Biomedical Research Institute (IIB Sant Pau) conducts research into basic, clinical and epidemiological medicine and healthcare services. Ten entities cooperate to perform high-level research into new techniques and processes aimed at improving the quality of life of patients. Stakeholders include the following:

- Hospital de la Santa Creu i Sant Pau Healthcare Management Foundation
- Hospital de la Santa Creu i Sant Pau Private Foundation
- Hospital de la Santa Creu i Sant Pau Research Institute
- Autonomous University of Barcelona - Ageing Institute
- Catalan Institute of Cardiovascular Sciences
- Puigvert Foundation
- Blood and Tissue Bank
- Iberoamerican Cochrane Centre
- Barcelona-Sardenya Primary Health Care Centre
- Public Health Agency of Barcelona

IIB Sant Pau was founded in 2009 as an association of healthcare entities carrying out their own research. Throughout 2010, IIB Sant Pau became consolidated as a research centre, while continuing to implement an accreditation process as a Healthcare Research Institute with the Spanish Ministry of Science and Innovation. This accreditation was finally obtained in early 2011. The institutions participating in IIB Sant Pau, which together form a natural alliance for historical and geographical proximity reasons, jointly implement research activities and cooperate in other scientific areas. The cooperation between these institutes represents a qualitative leap in terms of fostering translational research projects that bridge the gap between basic and clinical research.

The knowledge developed in this kind of research is channelled to society by the application of discoveries to clinical practice and to healing patients. The most tangible benefits are the application of technology to health and the scientific communication of new knowledge. This research infrastructure also generates employment and spotlights Catalonia's contributions to biomedical research. The success as a research centre ultimately translates to patient health.

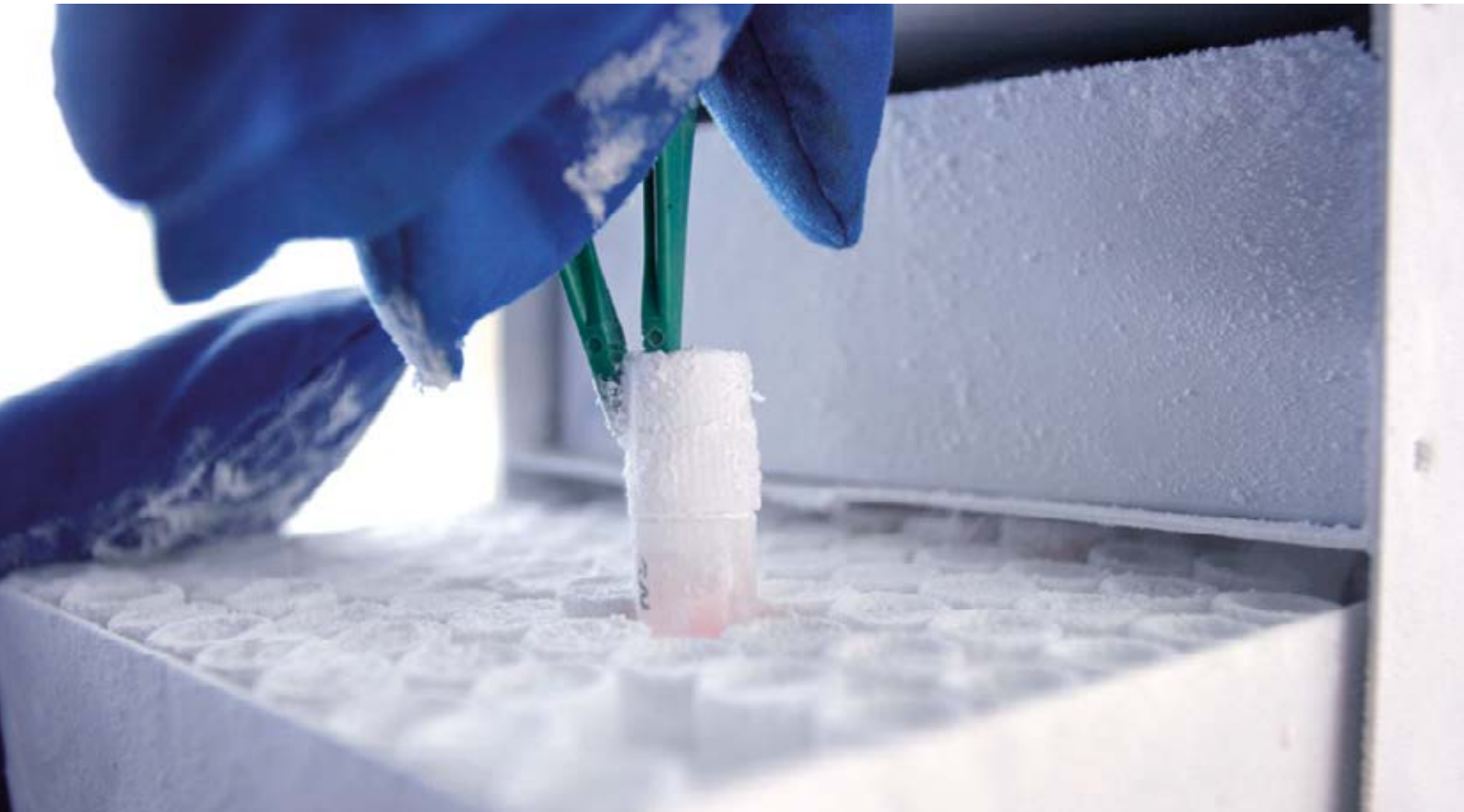


Strategic Objectives

IIB Sant Pau's mission is to manage, promote, develop and communicate research into the health sciences.

To fulfil its mission, IIB Sant Pau has set itself a number of strategic objectives that guide its activities:

- Promote and consolidate relationships and knowledge exchanges between IIB Sant Pau researchers and with other public and private organizations, prioritizing the implementation of joint projects and the creation of multidisciplinary teams so as to strengthen alliances and implement translational research with a bearing on clinical activities.
- Organize courses, conferences, open days, seminars and workshops aimed at communicating scientific advances to society and at facilitating innovation and technology transfers to the productive sector.
- Organize and participate in continuous professional development, whether by developing teaching activities or arranging grant-aided stays abroad for researchers.
- Participate in developing policies aimed at coordinating biomedical research in Catalonia, while ensuring a strong presence in national and international research projects and networks of excellence.
- Acquire, maintain and optimize use of scientific and technological infrastructures and equipment.



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



Institut de Recerca

The Hospital de la Santa Creu i Sant Pau Research Institute (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.

The Ageing Institute, attached to this university, is a non-profit foundation governed by a board of trustees formed by the UAB, the UAB Foundation and the Agrupació Mútua del Comerç i de la Indústria. Its mission is to improve knowledge of different aspects related to ageing with the aim of enhancing the quality of life of older people and promoting actions that contribute to adapting society and people to the challenges of demographic change.



Catalan Institute of Cardiovascular Sciences (ICCC)

The ICCC performs basic and clinical research into cardiovascular and heart diseases. The fact that it competes successfully at the international level enables it to avail of the infrastructure necessary to transfer basic research to the development of therapies and diagnostic methods, ultimately improving medical care for patients.



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

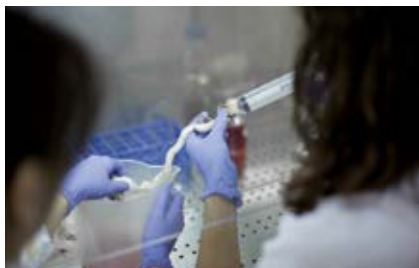
This autonomous body, created by the Barcelona Health Consortium, has as its main mission to analyse and monitor the health of the population of Barcelona with a view to improving health and preventing risk. It is also responsible for epidemiological surveillance and the provision of medical care to 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.



Urology 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

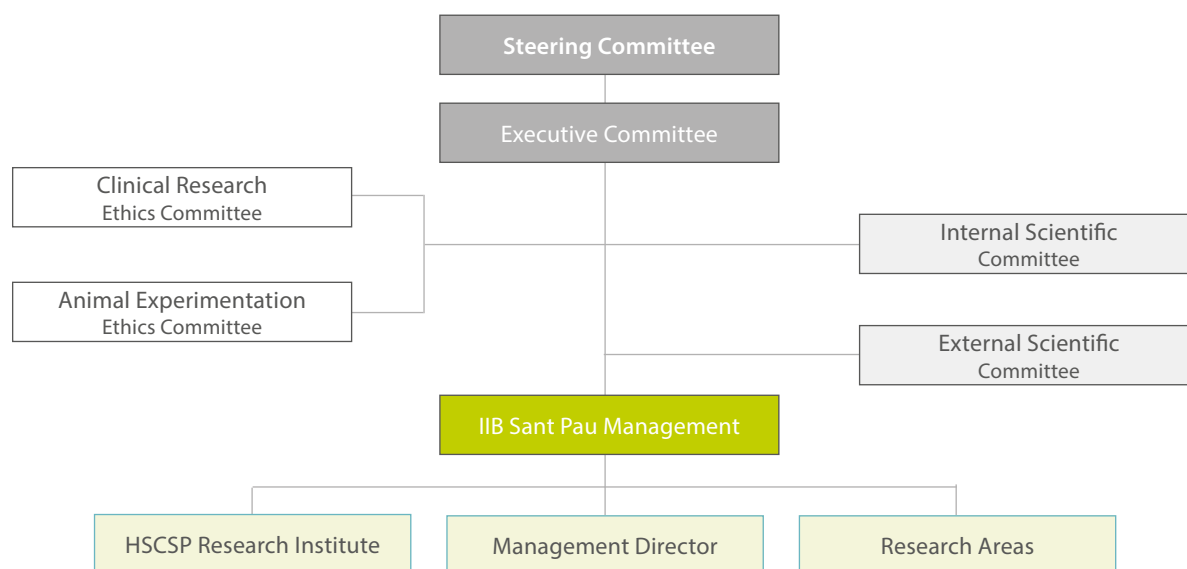
This area focuses on the structure of proteins associated with neurodegenerative diseases and inflammatory processes and on factors linked to the innate immune system. Research is also conducted in the area of osteoporosis, ageing-related macular degeneration and coagulation-cascade factors closely linked 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. Lina Badimon
Catalan Institute of Cardiovascular Sciences

Dr. Helena Isábal
Puigvert Foundation

[Pending to nominate]
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

Executive Committee

Chair

Dr. Jaume Kulisevsky
IIB Sant Pau Manager

Representatives of Associated Entities

Dr. Manel Trias
Autonomous University of Barcelona

Dr. Ramon Mangues
Hospital de la Santa Creu i Sant Pau Research Institute

Dr. Xavier Bonfill
Iberoamerican Cochrane Centre

Dr. Juan Cinca
Hospital de la Santa Creu i Sant Pau Healthcare Management Foundation

Dr. Alessandro Sionis
Hospital de la Santa Creu i Sant Pau Private Foundation

Dr. Lina Badimon
Catalan Institute of Cardiovascular Sciences

Dr. Helena Isabal
Puigvert Foundation

[Pending to nominate]
Blood and Tissue Bank

Dr. Carme Borrell
Public Health Agency of Barcelona

Dr. Carlos Brotons
Barcelona-Sardenya Primary Care Centre

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

Dr. Antoni Salvà
Autonomous University of Barcelona -
Ageing Institute

Dr. Carlos Brotons
Barcelona-Sardenya Primary Care Centre

Dr. Lina Badimon
Catalan Institute of Cardiovascular Sciences

Dr. Sílvia Mateu
Puigvert Foundation

2 members each representing IIB Sant Pau thematic areas

Cardiovascular Diseases

Dr. Jordi Ordóñez
Hospital de la Santa Creu i Sant Pau:
Cardiovascular biochemistry

Dr. Luis Vila
Hospital de la Santa Creu i Sant Pau
Research Institute: Vascular biology and
inflammation

Genetic, Metabolic, Inflammatory and Infectious Diseases

Dr. Cándido Juárez
Hospital de la Santa Creu i Sant Pau:
Inflammatory diseases

Dr. Carlos Guarnier
Hospital de la Santa Creu i Sant Pau:
Cirrhosis complications

Haematological and Oncological Diseases

Dr. Josep Nomdedéu
Hospital de la Santa Creu i Sant Pau:
Haematological diagnosis

Dr. Jaime Prat
Hospital de la Santa Creu i Sant Pau:
Molecular cancer pathology

Neurological, Mental Disorders and Ageing

Dr. Víctor Pérez
Hospital de la Santa Creu i Sant Pau: Clinical
psychiatry

Dr. Alberto Lleó
Hospital de la Santa Creu i Sant Pau Research
Institute: Neurobiology of dementia

Urology and Experimental Surgery

Dr. José Ballarín
Puigvert Foundation: Nephrology research

Dr. Manel Trias
Hospital de la Santa Creu i Sant Pau:
General and digestive surgery

Epidemiology, Public Health and Healthcare Services

Dr. Gerard Urrútia
Hospital de la Santa Creu i Sant Pau:
Clinical epidemiology and healthcare
services

Dr. Carles Ariza
Public Health Agency of Barcelona:
Evaluation of public health policies and
programmes

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

Dr. Jordi Sierra
Blood and Tissue Bank: Generation of
advanced treatments

Dr. José Manuel Soria
Hospital de la Santa Creu i Sant Pau Research
Institute: Genomics and bioinformatics for
genetically complex disease

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. Vicente Vicente
Haematology group researcher
Faculty of Internal Medicine
Murcia General University Hospital (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)

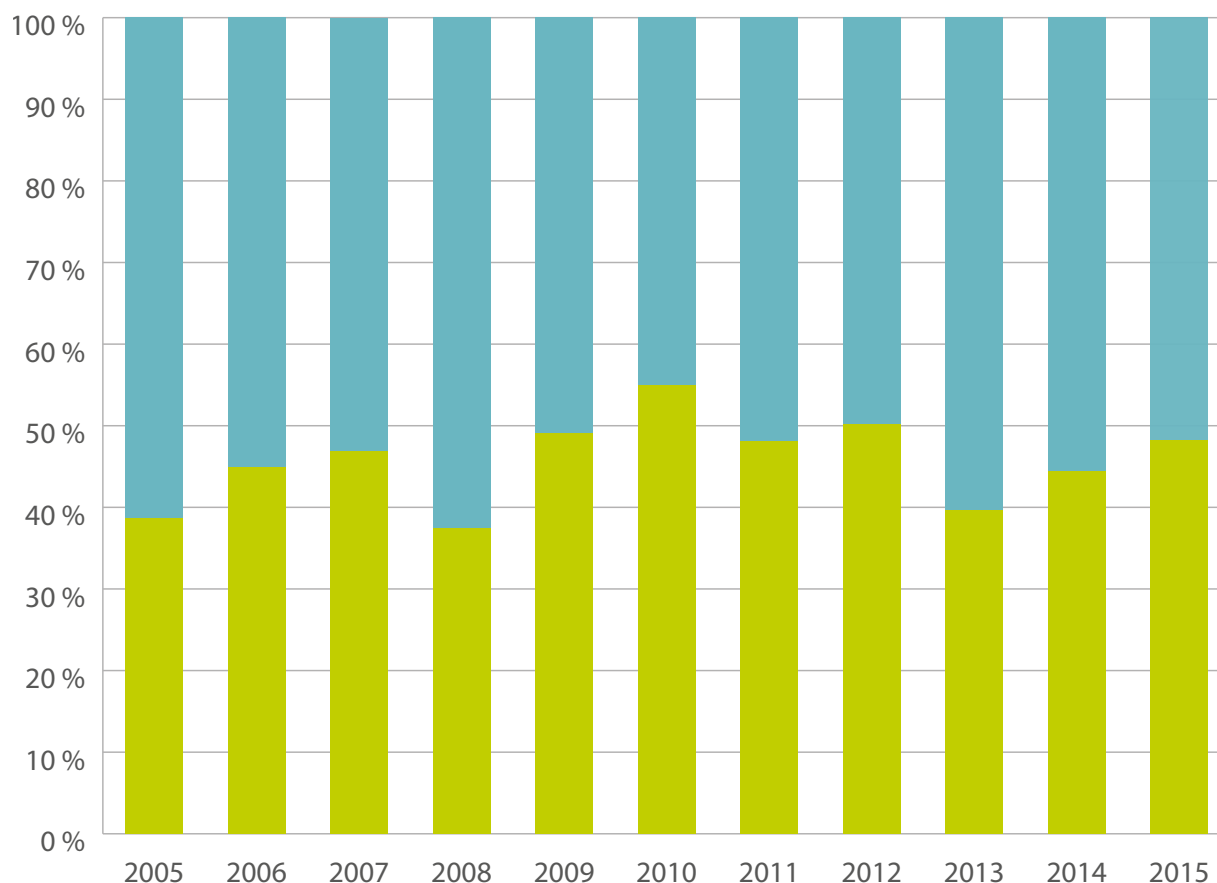
Dr. John Louis McGregor
Director of Research-INSERM Unit 689
Cardiovascular Research Centre–
Lariboisière Hospital (Paris, France)

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)

Financial Data

Public/Private Income Summary 2005-2015



Public	3.57	3.61	4.27	4.81	7.02	7.73	6.31	6.02	4.99	5.92	7.42
Private	5.67	4.42	4.85	8.02	7.28	6.33	6.81	5.99	7.59	7.42	7.94

In millions of euros

Income Statement year ending 31 December 2015

Income from activities	14,030,821
Services	4,408,892
Collaborations with partners and sponsors	2,281,391
Government grants	6,071,938
Other grants, donations and legacies	1,364,529
Repayment of grants, donations, etc	-95,929
Stocks and supplies	-1,153,789
Material and equipment for activities	-1,153,789
Other income	157,738
Additional and management income	157,738
Personnel expenditure	-8,357,984
Salaries	-6,426,977
Social security	-1,931,007
Other operating expenses	-4,432,967
External services	-3,933,605
Leases and Royalties	-227
Repairs and maintenance	-106,418
Freelance services	-460,949
Insurance	-49,215
Banking	-17,034
Sundry	-1,750
Other services	-3,298,011
Taxes	-21,082
Loss, deterioration and variation in provisions for operations	64,314
Other operating expenses	-542,595
Depreciation of fixed assets	-1,247,901
Grants, donations and bequests transferred to results	888,382
Deterioration and gains/losses on disposal of fixed assets	0
Gains/losses from disposal and other	0
Other gains/losses	10,914
Incidental expenses	-41,315
Incidental income	52,229
OPERATIONAL PROFIT/LOSS	-104,787
Financial income	245,811
From investments in equity instruments	245,811
Negotiable costs	245,811
Financial expenditure	-179,032
Debts with third parties	-179,032
Exchange differences	-1,177
FINANCIAL PROFIT/LOSS	65,602
OVERALL PROFIT/LOSS	-39,185

In euros

Scientific Outcomes

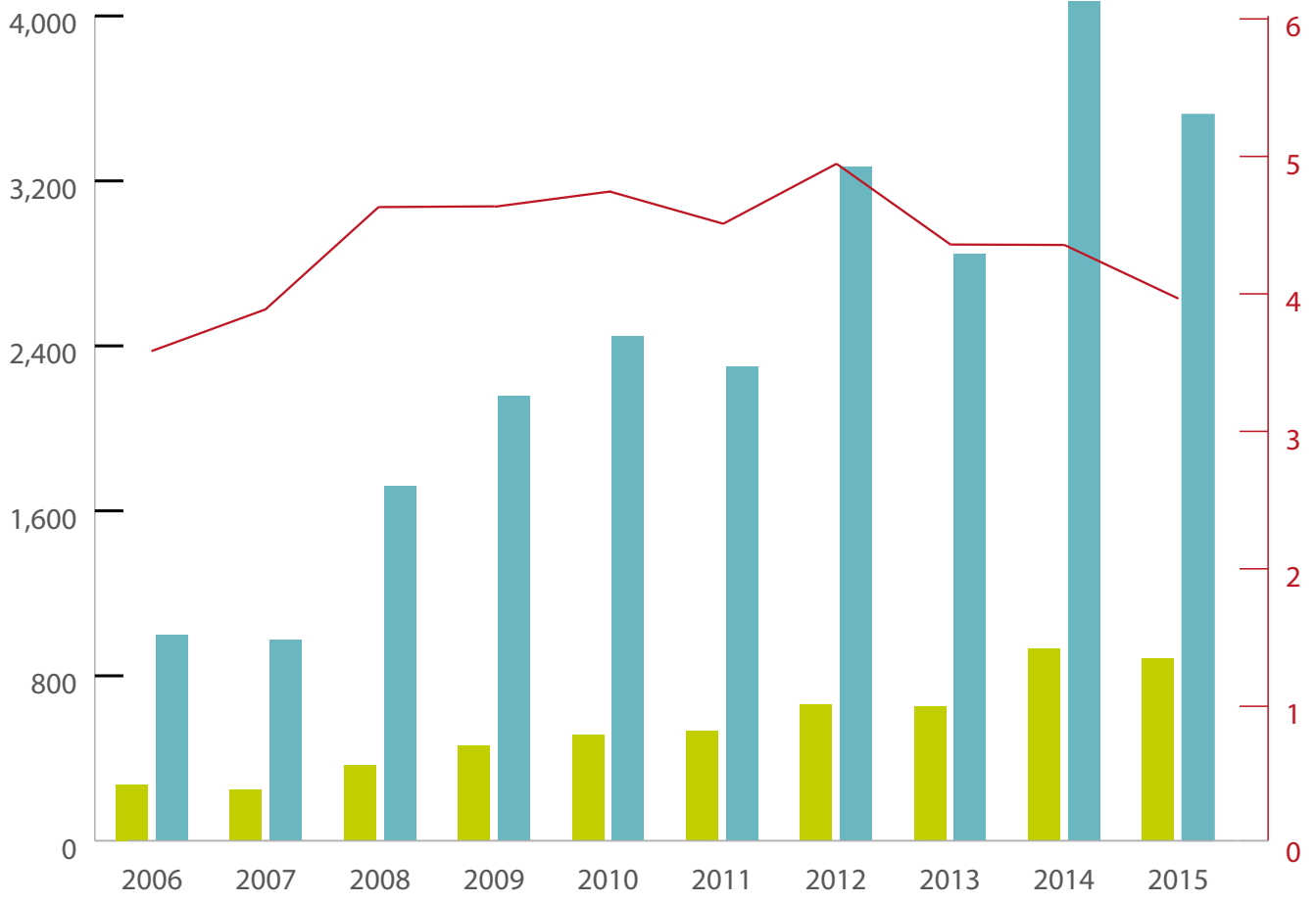
Outcomes for IIB Sant Pau's scientific activities are summarized in the following pages as follows:

- **Publications with an Impact Factor (IF):** This figure shows IIB Sant Pau publications over the years with an impact factor, one of the most important indicators used to identify the relevance of a science journal in its field and to give an approximate idea of the quality of the publications of researchers.
- **Publications by Thematic Area:** This figure reflects the relative importance of each of the thematic areas covered by IIB Sant Pau.
- **Publications by Quartile:** This figure depicts IIB Sant Pau publications by quartiles that reflect the importance of the scientific journal. The journals in a specific category are listed in descending order according to their impact factor and the list is divided into four equal quartiles. Thus, journals in the top quartile (Q1) are the most important journals in their category.
- **Research Resources and Training:** These tables show the list of institutions providing support to IIB Sant Pau and sharing its vision of research.
- **Doctoral Theses:** This table reflects the potential of up-and-coming IIB Sant Pau staff members and their ability to generate new ideas and drive new projects.
- **Patents:** This table shows the patents requested by IIB Sant Pau researchers between 2009 (foundation year) and 2014.
- **Technology Transfer Agreements:** This table reflects agreements signed between 2009 (foundation year) and 2014.
- **Clinical Guidelines.**



Publications with an Impact Factor

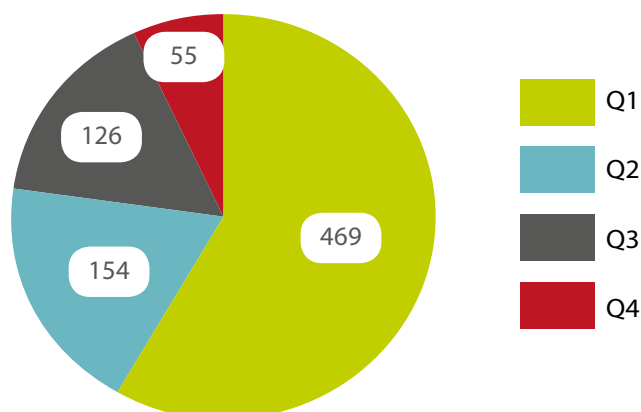
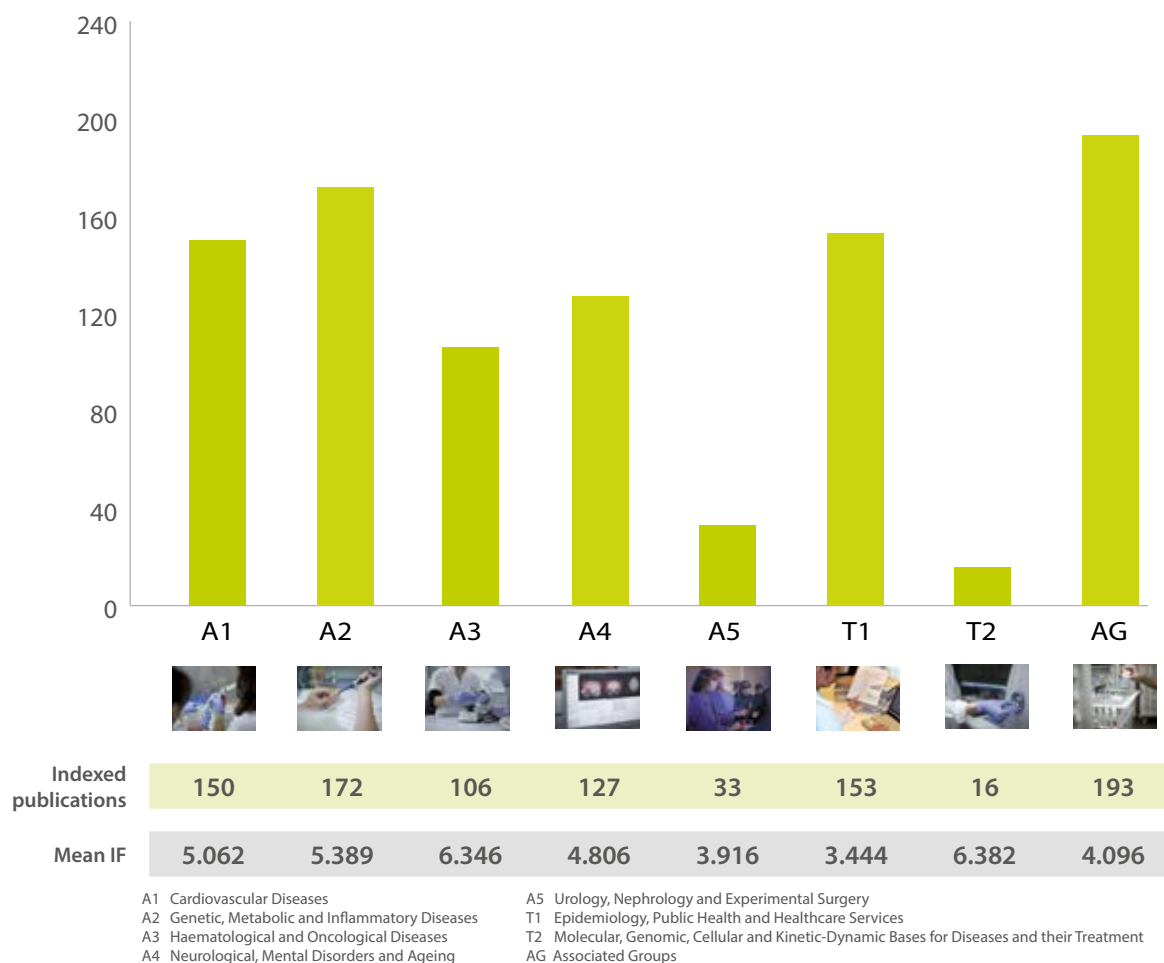
Production status



Publications	275	250	367	461	514	534	664	654	933	804
Total IF	1,001.03	975.36	1,722.76	2,158.53	2,448.88	2,298.44	3,269.47	2,848.27	4,074.22	3,927.43
Mean IF	3.64	3.9	4.69	4.68	4.78	4.30	4.92	4.35	4.37	3.98

Publications by Thematic Area and Quartile

Indexed publications



Research Resources

Centre	Active		Granted	
	2014	2015	2014	2015
AGAUR (Agència de Gestió d'Ajuts Universitats i Recerca)	19	23	23	2
European Commission	5	5	1	1
American Grants	1	1		
EAES (European Association for Endoscopic Surgery)	1	1	-	-
COIB (Col·legi Oficial d'Infermeria de Barcelona)	2	1	-	1
Fundació Marató TV3	9	10	5	5
Fundació Mútua Madrileña (FMM)	2	2	-	1
Fundación Mapfre	1	-	-	-
ISCIII (Instituto de Salud Carlos III)	113	101	21	21
MINECO (Ministerio de Economía y Competitividad)	6	8	6	2
Ministerio de Sanidad, Servicios Sociales e Igualdad	11	10	-	1
SEPAR (Sociedad Española de Neumología y Cirugía Torácica)	9	8	4	-
AECC (Asociación Española Contra el Cáncer)	3	3	-	3
Merk Serono	1	1	-	-
Fundació Acadèmia de Ciències Mèdiques i de la Salut de Catalunya i de Balears	1	-	-	-
SOCAP (Societat Catalana de Pneumologia)	1	2	-	-
Sociedad Española de Diabetes	1	-	-	1
Fundació Catalana de Pneumologia	2	2	1	1
Sociedad Española de Cardiología	-	-	-	1
Asociación Española de Artroscopia	1	-	-	-
AFM Telethon	1	1	1	1
Societat Catalana de Psiquiatria i Salut Mental	1	1	-	-
Fundació Alfonso Martín Escudero	1	1	-	-
CIBERER	1	-	-	-
GILEAD	1	2	1	-
Grup Espanyol d'Investigació en Sarcomes	-	1	1	-
Mutual Médica	-	-	1	-
Federación Española de Enfermedades Raras / Fundación Isabel Gemio / Federación Española de Enfermedades Neuromusculares	-	1	1	-
Fundació Privada de l'Hospital de la Santa Creu i Sant Pau	-	-	-	6
Col·legi de Farmacèutics de Barcelona	-	-	-	1
Fundación y Sociedad Española de Arteriosclerosis	-	-	-	1
European Society of Cardiology	-	-	-	1
Fundació Víctor Grífols i Lucas	-	-	-	1
Fundació Ramón Pla Armengol	-	-	-	1
Institució CERCA	-	-	-	1
Fundació Privada Daniel Bravo-Andreu	-	-	-	1
Foundation International Guillain-Barré	-	1	-	-
	194	186	66	54

Research Training

Centre	Active		Granted	
	2014	2015	2014	2015
AGAUR (Agència de Gestió d'Ajuts Universitats i Recerca)	3	5	2	2
Departament de Salut (Generalitat de Catalunya)	3	3	-	-
MINECO (Ministerio de Economía y Competitividad)	6	3	-	1
ISCIII (Instituto de Salud Carlos III)	27	30	12	12
Fundació Gestió Sanitària	5	-	-	-
Fundación Casa del Corazón	-	1	1	1
American Grants	-	1	1	-
Fundación J. L. Castaño	-	1	1	-
Fundació Privada de l'Hospital de la Santa Creu i Sant Pau	-	-	-	4
	44	44	17	20

Source: Hospital de la Santa Creu i Sant Pau Research Institute

Doctoral Theses

IIB Sant Pau Accredited Groups	Candidate	Thesis title	Director(s)
Anaesthesiology	Mercedes García Álvarez	NGAL como biomarcador de disfunción renal aguda en pacientes postoperados de cirugía cardíaca	Antoni Betbesé Roig, Alfonso Martínez López, Jorge Ordóñez Llanos
Anaesthesiology	Pilar Paniagua	Lesión miocárdica tras la cirugía no cardíaca: Análisis de la cohorte española del estudio VISION	Xavier León Vintró, Pablo Alonso Coello
Anaesthesiology	M. L. Maestre Hittinger	Valoración de los factores de riesgo asociados a la transfusión en pacientes de cirugía cardíaca mediante análisis de partición recursiva	Xavier Ruis Cornadó, Xavier Borràs Pérez, Josep M. Padró Fernández
Andrology	Chiara Chianese	Genetic and Epigenetic Aspects of Male Infertility	C. Krausz
Angiology, Vascular Biology and Inflammation	Zenaida Piñero Aguin	Expresión de la prostaciclina sintetasa en los carcinomas de cabeza y cuello y valor pronóstico en la respuesta a radioterapia	Mercedes Camacho, Xavier León, Luis Vila
Chronic Respiratory Diseases	Diego M. Castillo Villegas	Rendimiento de un programa de estudio de casos de EPOC en usuarios de alto riesgo de la farmacia comunitaria	Pere Casan Clara, Mercedes Mayos
Chronic Respiratory Diseases	Jordi Giner Donaire	Estàndards i qualitat en la determinació de la funció pulmonar (l'espirometria) a l'Atenció Primària	Joaquín Sanchis Aldas, Vicente Plaza Moral
Chronic Respiratory Diseases	Virginia Pajares Ruiz	Utilización de criosondas para la realización de la biopsia pulmonar transbronquial	Joaquín Sanchis Aldás, Vicente Plaza Moral
Clinical and Translational Cardiology	Francisco Javier Noriega Sanz	Caracterización clínica y electrofisiológica de las alteraciones recíprocas del electrocardiograma en el infarto agudo de miocardio	Joan M. Cinca Cuscollola
Clinical and Translational Cardiology	Jesús Álvarez García	Consecuencias clínicas, bioquímicas y electrofisiológicas de la oclusión aguda de las arterias coronarias auriculares durante la angioplastia en el ser humano	Joan M. Cinca Cuscollola
Clinical Oncology	Bárbara Garcia-Valdecasas Vilanova	Cáncer de mama: estudio de focos neoplásicos invasores y no invasores de la expresión de Ki67 y su relación con la supervivencia	Agustí Barnadas
Digestive Diseases	Elisabet Sánchez Ardid	Modelos experimentales de peritonitis bacteriana inducida en ratas con cirrosis y nuevas estrategias terapéuticas	Carlos Guarner
Digestive Diseases	Juan Camilo Nieta Sachica	Caracterización de la respuesta inmune innata a ligandos de tlr, infecciones bacterianas y tratamiento con probióticos en la cirrosis	Carlos Guarner
Endocrinology, Diabetes and Nutrition	Gemma Carreras González	Terapia intensiva en la diabetes mellitus tipo 1 desde el debut. Efecto sobre el control glucémico y las complicaciones tardías a los 20 años de evolución	Antonio Pérez, Isabel Badell

IIB Sant Pau Accredited Groups	Candidate	Thesis title	Director(s)
Evaluation of Public Health Policies and Programmes	Núria Obradors	Factors individuals i contextuals associats al consum de risc d'alcohol en joves de la Catalunya Central	Carles Ariza
Evaluation of Public Health Policies and Programmes	Olga Juárez	Programas de prevención del embarazo, las infecciones de transmisión sexual, incluida la infección por el VIH/ SIDA, entre jóvenes escolarizados de Barcelona ciudad (1992-2014)	Carles Ariza
Inflammation and Vascular Remodelling	Judith Alonso Nieto	Papel de NOR-1 en la apoptosis y el estrés oxidativo: regulación de cIAP2 y la familia SOD en células musculares lisas humanas	Antonio Rodríguez Sinovas, José Martínez González
Inflammation and Vascular Remodelling	Mar Orriols Martins	Mecanismos de regulació de la Lisil Oxidasa i la Fibulina-5 a nivell vascular: Implicació en la reestenosi i l'aneurisma d'aorta abdominal	Antonio Rodríguez Sinovas, José Martínez González
Inflammatory Diseases	Eder Fredy Mateus Medina	Papel de STAT1 y STAT3 en la tolerancia inducida por Staphylococcal enterotoxin B.Entity	Cándido Juárez
Inflammatory Diseases	Juan C. Nieto Sachica	Caracterización de la respuesta inmune innata a ligandos de TLR, infecciones bacterianas y tratamiento con probióticos en la cirrosis	Silvia Vidal Alcorisa
Intensive Medicine	Mercedes García	Neutrophil gelatinase-associated lipocalin (NGAL) como marcador predictivo de fracaso renal agudo en pacientes postoperados de cirugía cardíaca	Antoni-Jordi Betbesé Roig, Jorge Ordóñez Llanos, Alfonso Martínez López
Lipids and Cardiovascular Pathology	Elena Revuelta-López	Implicación del receptor LRP1 en el remodelado vascular y cardiaco	Vicenta Llorente Cortés
Locomotor System Research	Francisco Javier Aguilera Roig	Ácido tranexámico en cirugía protésica de rodilla	Claudia Mariana Lamas Gómez
Locomotor System Research	Jordi Álvarez San Nicolás	Cirugía de salvamento de extremidad en sarcoma de Ewing: supervivencia, complicaciones y factores de riesgo	Claudia Mariana Lamas Gómez
Locomotor System Research / Anaesthesiology	Mireia Rodríguez Prieto	Eficacia del bloqueo ecoguiado de nervios periféricos en el control del dolor postoperatorio en cirugía ambulatoria de rizartrosis	Xavier Rius Cornadó, Claudia Mariana Lamas Gómez, Albert García Muret
Microbiology and Infectious Diseases	Laura García Arroyo	Epidemiología de les infeccions respiratòries víriques a l'Hospital de la Santa Creu i Sant Pau: Estudi retrospectiu de 17 anys i avaluació de dos mètodes moleculars pel diagnòstic virològic	Núria Rabella, Ferran Navarro
Microbiology and Infectious Diseases	Mar Martí Carrizosa	Cándida Parapsilosis, C. Orthopsilosis y C. Metapsilosis: Epidemiología de las candidemias, patrones de sensibilidad y mecanismos de resistencia a las equinocandidas	Fernando Sánchez
Molecular Pathology and Therapeutic of Ischaemic and Atherothrombotic Diseases / Biomarkers for Cardiovascular Disease	Ilaria Ramaiola	Thombus composition in acute coronary syndrome	Lina Badimon, Teresa Padró
Molecular Pathology and Therapeutic of Ischaemic and Atherothrombotic Diseases	Sonia Espinosa Ferrer	Neovascularización mediada por factor tisular en la placa aterosclerótica	Lina Badimon, Gemma Arderiu

IIB Sant Pau Accredited Groups	Candidate	Thesis title	Director(s)
Molecular Pathology and Therapeutic of Ischaemic and Atherothrombotic Diseases	Raquel de la Torre Tovar	Mecanismos de inflamación y trombosis: papel de la proteína C-reactiva y de la proteína 78 regulada por glucosa	Lina Badimon
Nephrology	Laia Sans Atxer	Estudio del perfil cardiovascular, sistema renina-angiotensina-aldosterona, inflamación y disfunción endotelial en pacientes normotensos con poliquistosis renal autosómica dominante y sin insuficiencia renal	Patricia Fernández-Llama, Julio Pascual
Neurobiology of Dementia	Daniel Andrés Alcolea Rodríguez	Cerebrospinal fluid biomarkers for the study of the pathophysiological pathways in Alzheimer's disease	Alberto Lleó Bisa, Rafael Blesa González
Neuromuscular Diseases	Xavier Suárez	Nous aspectes fisiopatogènics en la dermatomiositis	Isabel Illa
Nursing Care Research	M. Teresa Ricart Basagaña	Proceso de alta de una unidad de cuidados intensivos: medición de la ansiedad y factores relacionados	Mar Llleixà Fortuño
Nursing Care Research / Intensive Medicine	Gemma Robleda Font	Relevancia clínica del dolor asociado con los procedimientos del paciente crítico	Josep Eladi Baños Díez, Jordi Mancebo Cortés
Oncogenesis and Antitumoral Drugs	Laia Estalella Mercadé	Estudio de factores clínico-patológicos y valor pronóstico de la expresión subcelular de E-cadherina en metástasis hepáticas de cáncer colorectal	Maria Virtudes Céspedes, Vicenç Artigas, Manuel Trias
Ophthalmology	Jaume Crespi Vilimelis	New gens involved in rare diseases in Ophthalmology	José Antonio Buil Calvo, José García-Arumí
Ophthalmology	José Ignacio Vela Segarra	Estudio de las lesiones paravasculares en el paciente alto miope mediante OCT de dominio espectral	José Antonio Buil Calvo, José García-Arumí
Pain and Neurosciences	Miren Revuelta Rizo	Efectividad de la respuesta al tratamiento intervencionista en la Unidad del Dolor sobre la radiculalgia secundaria a hernia discal	Xavier León Vintró, Elena Català Puigbò
Pain and Neurosciences	M. Mercè Genové	Impacte de les alteracions cerebrals en la percepció del dolor per herpes zòster i neuràlgia postherpètica	Xavier Rius Cornadó, Elena Català Puigbò, Maria J. Portella Moll
Parkinson Disease and Movement Disorders	Eva Ruzafa Valiente	Comportamiento de la escala Parkinson's Disease – Cognitive Rating Scale (PD-CRS) en patologías diferentes a la enfermedad de Parkinson	Jaime Kulisevsky, Carmen García Sánchez
Pharmacological Research in Humans	Savion Gropper Achitoov	Absorption, safety and tolerability of a Topical Quinolone	Rosa Antonijoan
Pharmacy	Noé Garin Escrivà	Distribution of multiple chronic conditions and their impact on the Spanish population*	M. Antònia Mangues
Pituitary and Gland Disorders	Anna Aulinas	Investigation of the telomere maintenance system in Cushing's syndrome: A contribution to the phenomena of early ageing and specific morbidity	Susan Webb
Pituitary and Gland Disorders	Alícia Santos	Estudio neuropsicológico, neuroradiológico y clínico en el hipercortisolismo endógeno	Susan Webb
Plastic Surgery	Gemma Pons Playá	Planificación preoperatoria de anastomosis linfático-venosas mediante ICG y linfoRMN	Jaume Masià, Xavier Rius, Xavier León
Urology	Carlos Errando	Valoración funcional y de la calidad de vida tras implante de cabestrillo reajutable tipo remeex® en incontinencia de orina femenina recidivada o insuficiencia esfinteriana intrínseca	A. Gelabert, F. Millán, J. Palou

*European theses

Patents

IIB Sant Pau Group	Researchers	Organizations	Title	Application Number
Molecular Pathology of Gynaecologic Cancer	Jaime Prat	HSCSP RI	Method to predict risk of recurrence in endometrial carcinoma	PCT/EP2015/053387
Reproductive Health	Ramon Rovira	HSCSP RI	Dispositivo para simular una operación endoscópica vía orificio natural	P201531796

Technology Transfer Agreements

Organizations	Partners	Intellectual property / Technology
HSCSP; HSCSP RI	Sociedad de Gestión de Proyectos Tecnológicos SL	mHealth Platform
HSCSP RI	Eli Lilly and Company	Clinical scales
HSCSP RI	Bracket Global LLC	Clinical scales

Clinical Guidelines

PUBMED

- Baselga Torres E., Bernabéu Wittel J., van Esso Arbolave D.L., Febrer Bosch M.I., Carrasco Sanz A., de Lucas Laguna R., Del Pozo Losada J., Hernández Martín Á., Jiménez Montañés L., López Gutiérrez J.C., Martín-Santiago A., Redondo Bellón P., Ruíz-Canela Cáceres J., Torrelo Fernández A., Vera Casaño A., Vicente Villa M.A. [Spanish consensus on infantile haemangioma]. *An Pediatr (Barc)*. 2015 Nov 19. pii: S1695-4033(15)00398-7. doi: 10.1016/j.anpedi.2015.10.004. [Epub ahead of print]
- Puente J., García del Muro X., Pinto Á., Láinez N., Esteban E., Arranz J.Á., Gallardo E., Méndez M.J., Maroto P., Grande E., Suárez C. Expert Recommendations for First-Line Management of Metastatic Renal Cell Carcinoma in Special Subpopulations. *Target Oncol*. 2015 Dec 26. [Epub ahead of print]
- Martin-Richard M., Custodio A., García-Girón C., Grávalos C., Gomez C., Jimenez-Fonseca P., Manzano J.L., Pericay C., Rivera F., Carrato A. Seom guidelines for the treatment of gastric cancer 2015. *Clin Transl Oncol*. 2015 Dec;17(12):996-1004. doi: 10.1007/s12094-015-1456-y. Epub 2015 Dec 21.
- Grande E., Santamaría Sandi J., Capdevila J., Navarro González E., Zafón Llopis C., Ramón y Cajal Asensio T., Gómez Sáez J.M., Jiménez-Fonseca P., Riesco-Eizaguirre G., Galofré J.C. Consensus on management of advanced medullary thyroid carcinoma on behalf of the Working Group of Thyroid Cancer of the Spanish Society of Endocrinology (SEEN) and the Spanish Task Force Group for Orphan and Infrequent Tumors (GETHI). *Clin Transl Oncol*. 2015 Dec 21. [Epub ahead of print]
- Carrascosa J.M., de la Cueva P., Ara M., Puig L., Bordas X., Carretero G., Ferrándiz L., Sánchez-Carazo J.L., Daudén E., López-Estebanz J.L., Vidal D., Herranz P., Jorquera E., Coto-Segura P., Ribera M. Methotrexate in Moderate to Severe Psoriasis: Review of the Literature and Expert Recommendations. *Actas Dermosifiliogr*. 2015 Nov 21. pii: S0001-7310(15)00456-1. doi: 10.1016/j.ad.2015.10.005. [Epub ahead of print]
- Riesco-Eizaguirre G., Galofré J.C., Grande E., Zafón Llopis C., Ramón y Cajal Asensio T., Navarro González E., Jiménez-Fonseca P., Santamaría Sandi J., Gómez Sáez J.M., Capdevila J. Spanish consensus for the management of patients with advanced radioactive iodine refractory differentiated thyroid cancer. *Endocrinol Nutr*. 2015 Nov 18. pii: S1575-0922(15)00228-4. doi: 10.1016/j.endonu.2015.08.007. [Epub ahead of print]
- Fernández-Bañares F., Casanova M.J., Arguedas Y., Beltrán B., Busquets D., Fernández J.M., Fernández-Salazar L., García-Planella E., Guagnozzi D., Lucendo A.J., Manceñido N., Marín-Jiménez I., Montoro M., Piqueras M., Robles V., Ruiz-Cerulla A., Gisbert J.P.; Spanish Microscopic Colitis Group (SMCG). Current concepts on microscopic colitis: evidence-based statements and recommendations of the Spanish Microscopic Colitis Group. *Aliment Pharmacol Ther*. 2016 Feb;43(3):400-26. doi: 10.1111/apt.13477. Epub 2015 Nov 24.
- García del Muro X., de Alava E., Artigas V., Bague S., Braña A., Cubedo R., Cruz J., Mulet-Margalef N., Narvaez J.A., Martínez Tirado O., Valverde C., Verges R., Viñals J., Martín-Broto J. Clinical practice guidelines for the diagnosis and treatment of patients with soft tissue sarcoma by the Spanish group for research in sarcomas (GEIS). *Cancer Chemother Pharmacol*. 2016 Jan;77(1):133-46. doi: 10.1007/s00280-015-2809-5. Epub 2015 Nov 12.
- Bravo García-Morato M., Padilla-Merlano B., Nozal P., Espiño M., Juárez C., Villar L.M., López-Trascasa M.; On behalf of the Grupo de Inmunoquímica de la Sociedad Española de Inmunología. Laboratory guidelines for the diagnosis and follow-up of patients with monoclonal gammopathies. *Rev Clin Esp*. 2015 Oct 16. pii: S0014-2565(15)00227-1. doi: 10.1016/j.rce.2015.09.002. [Epub ahead of print]
- López-Sendón J., González-Juanatey J.R., Pinto F., Cuenca Castillo J., Badimón L., Dalmau R., González Torrecilla E., López-Mínguez J.R., Maceira A.M., Pascual-Figal D., Pomar Moya-Prats J.L., Sionis A., Zamorano J.L.; INCARDIO Task Force (Indicadores de Calidad en

Unidades Asistenciales del Área del Corazón) joint Sociedad Española de Cardiología and Sociedad Española de Cirugía Torácica Cardiovascular task force. Quality Markers in Cardiology. Main Markers to Measure Quality of Results (Outcomes) and Quality Measures Related to Better Results in Clinical Practice (Performance Metrics). INCARDIO (Indicadores de Calidad en Unidades Asistenciales del Área del Corazón): A SEC/SECTCV Consensus Position Paper. *Rev Esp Cardiol (Engl Ed)*. 2015 Nov;68(11):976-995. e10. doi: 10.1016/j.rec.2015.07.003. Epub 2015 Aug 25.

Verberne H.J., Acampa W., Anagnostopoulos C., Ballinger J., Bengel F., de Bondt P., Buechel R.R., Cuocolo A., van Eck-Smit B.L., Flotats A., Hacker M., Hindorf C., Kaufmann P.A., Lindner O., Ljungberg M., Lonsdale M., Manrique A., Minarik D., Scholte A.J., Slart R.H., Trägårdh E., de Wit T.C., Hesse B.; European Association of Nuclear Medicine (EANM). EANM procedural guidelines for radionuclide myocardial perfusion imaging with SPECT and SPECT/CT: 2015 revision. *Eur J Nucl Med Mol Imaging*. 2015 Nov;42(12):1929-40. doi: 10.1007/s00259-015-3139-x. Epub 2015 Aug 21.

Llau J.V., Acosta F.J., Escolar G., Fernández-Mondéjar E., Guasch E., Marco P., Paniagua P., Páramo J.A., Quintana M., Torradadella P. Multidisciplinary consensus document on the management of massive haemorrhage (HEMOMAS document). *Med Intensiva*. 2015 Nov;39(8):483-504. doi: 10.1016/j.medin.2015.05.002. Epub 2015 Jul 29.

Arbizu J., García-Ribas G., Carrió I., Garrastachu P., Martínez-Lage P., Molinuevo J.L. Recommendations for the use of PET imaging biomarkers in the diagnosis of neurodegenerative conditions associated with dementia: SEMNIM and SEN consensus. *Rev Esp Med Nucl Imagen Mol*. 2015 Sep-Oct;34(5):303-13. doi: 10.1016/j.remnm.2015.03.002. Epub 2015 Jun 20.

Wassef M., Blei F., Adams D., Alomari A., Baselga E., Berenstein A., Burrows P., Frieden I.J., Garzon M.C., Lopez-Gutierrez J.C., Lord D.J., Mitchel S., Powell J., Prendiville J., Vikkula M.; ISSVA Board and Scientific Committee. Vascular Anomalies Classification: Recommendations From the International Society for the Study of Vascular Anomalies. *Pediatrics*. 2015 Jul;136(1):e203-14. doi: 10.1542/peds.2014-3673. Epub 2015 Jun 8.

Digby G.C., Kukla P., Zhan Z.Q., Pastore C.A., Piotrowicz R., Schapachnik E., Zareba W., Bayés de Luna A., Pruszczyk P., Baranchuk A.M. The value of electrocardiographic abnormalities in the prognosis of pulmonary embolism: a consensus paper. *Ann Noninvasive Electrocardiol*. 2015 May;20(3):207-23. doi: 10.1111/anec.12278.

Lahoz C., Esteban Gracia C., Reinares García L., Bellmunt Montoya S., Brea Hernando Á., Fernández Heredero Á., Suarez Tembra M., Botas Velasco M., Guijarro C., Bravo Ruiz E., Pintó X., Vega de Ceniga M., Moñux Ducajú G.; on behalf of the Grupo de Prevención Secundaria de la Sociedad Española de Arteriosclerosis and of the Sección de Medicina Vasculard de la Sociedad Española de Angiología y Cirugía Vasculard. [Guide recommendations for diagnosis and treatment of abdominal aortic aneurysm]. *Clin Investig Arterioscler*. 2015 May-Jun;27(3):159-65. doi: 10.1016/j.arteri.2015.01.004. Epub 2015 Mar 30.

Gómez Sáez J.M., Jiménez-Fonseca P., Santamaría Sandi J., Capdevila Castellón J., Navarro González E., Zafón Llopis C., Ramón y Cajal Asensio T., Riesco Eizaguirre G., Grande Pulido E., Galofré Ferrater J.C. Spanish consensus for the management of patients with anaplastic cell thyroid carcinoma. *Endocrinol Nutr*. 2015 Mar;62(3):e15-22. doi: 10.1016/j.endonu.2014.11.006. Epub 2015 Jan 9.

Luger T., Boguniewicz M., Carr W., Cork M., Deleuran M., Eichenfield L., Eigenmann P., Fölster-Holst R., Gelmetti C., Gollnick H., Hamelmann E., Hebert A.A., Muraro A., Oranje A.P., Paller A.S., Paul C., Puig L., Ring J., Siegfried E., Spergel J.M., Stingl G., Taieb A., Torrelo A., Werfel T., Wahn U. Pimecrolimus in atopic dermatitis: consensus on safety and the need to allow use in infants. *Pediatr Allergy Immunol*. 2015 Jun;26(4):306-15. doi: 10.1111/pai.12331. Epub 2015 Apr 13.

Mata P., Alonso R., Ruiz A., Gonzalez-Juanatey J.R., Badimón L., Díaz-Díaz J.L., Muñoz M.T., Muñoz O., Galve E., Irigoyen L., Fuentes-Jiménez F., Dalmau J., Pérez-Jiménez F. [Diagnosis and treatment of familial hypercholesterolemia in Spain: Consensus document]. *Semergen*. 2015 Jan-Feb;41(1):24-33. doi: 10.1016/j.semgerg.2014.05.001. Epub 2014 Jul 17.

ISI Web of Knowledge

Berenguer J., Polo R., Lopez Aldegue J., Lozano F., Aguirrebengoa K., Ramon Arribas J., Ramon Blanco J., Boix V., Luis Casado J., Clotet B., Crespo M., Domingo P., Estrada V., Garcia F., Gatell J.M., Gonzalez-Garcia J., Gutierrez F., Antonio Iribarren J., Knobel H., Llibre J.M., Locutura J., Carlos Lopez J., Miro J.M., Moreno S., Podzamczar D., Portilla J., Pulido F., Ribera E., Riera M., Rubio R., Santos J., Sanz-Moreno J., Sanz J., Jesus Tellez M., Tuset M.,

Rivero A., GESIDA, National AIDS Plan. Executive summary of the GESIDA/National AIDS Plan Consensus Document on antiretroviral therapy in adults infected by the human immunodeficiency virus (updated January 2015). *Enfermedades Infecciosas y Microbiología Clínica*, 33 (8), 544-556. doi: 10.1016/j.eimc.2015.03.017.

Barbato E., Carrie D., Dardas P., Fajadet J., Gaul G., Haude M., Khashaba A., Koch K., Meyer-Gessner M., Palazuelos J., Reczuch K., Ribichini F.L., Sharma S., Sipotz J., Sjogren I., Suetsch G., Szabo G., Valdes-Chavarri M., Vaquerizo B., Wijns W., Windecker S., de Belder A., Valgimigli M., Byrne R.A., Colombo A., di Mario C., Latib A., Hamm C. EAPCI Sci Documents Comm. European expert consensus on rotational atherectomy. *Eurointervention*, 11 (1), 30-36.

Gutierrez-Rivas E., Illa I., Pascual-Pascual S.I., Perez-Lopez J., Vilchez-Padilla, J.J., Bautista-Lorite J., Barrot E., López de Munain A. Guidelines for monitoring late-onset Pompe disease. *Revista de Neurologia*, 60 (7), 321-328.

Aguilar G., Albiol S., Alcaide J., Alonso M., Alonso V., Andreu M., Aparicio J., Arias de la Vega F., Arrivi A., Ayuso J.R., Bohn U., Bouzas R., Cano J.M., Castanon C., Castells A., Cerda P., Cerezo L., Conill C., Cuatrecasas M., del Pozo M.N., Ignacio Delgado J., Enriquez-Navascues J.M., Escudero P., Espin E., Estevan R.I., Falco E., Farre J., Feliu J., Fernandez-Martos C., Ferrer A.I., Gallego R., Galvez E., Garcia de Albeniz X., Garcia Olmo D., Garcia-Carbonero R., Gomez Dorronsoro M., Gomez Martin C., Gonzalez Moreno S., Hernandez A., Iraola A., Jimenez E., Jimenez M.C., Jurado I., Leno R., Leon A., Martin E., Martin M., Maurel J., Mendez J.C., Mendez R., Palma P., Pardo F., Pereira F., Perez-Altozano J., Perez E., Rodriguez J., Ruiz-Casado A.I., Sabater L., Sarria L., Segura A., Sevilla I., Tobena M., Torres E., Viudez A., Zanui M., Zorrilla M. Guidelines for diagnosis, staging and treatment of metastatic colorectal cancer by Grupo Espanol Multidisciplinar en Cancer Digestivo (GEMCAD). *Colorectal Cancer*, 4 (2), 97-112. doi: 10.2217/CRC.15.9.

Other

Alba E., Antón A., Barnadas A., Barraón E., Blancas I., Carrasco E., Casas A., González A., Lao J., Lluch A., López-Tarruella S., Martín M., Muñoz M., Sánchez Escribano R., Solà I. Fundación GEICAM (Grupo Español de Investigación en Cáncer de Mama) en colaboración con el Centro Cochrane Iberoamericano. Guía GEICAM de práctica clínica para el diagnóstico y tratamiento del cáncer de mama metastásico. 28/02/2015.

Research Support Services

The main objective of the research support services, which are divided into two blocks, is the sharing and pooling of resources as an effective way to optimize funds and boost research.

Research Support Services

These provide facilities and equipment that are exclusively available to any specific research group but are shared among groups at all institutions within IIB Sant Pau.

IIB Sant Pau has 14 services:

- Clinical Trial Documentation Management
- Research Institute Management
- Research Institute Projects Unit
- Tumour Bank
- Quality and Information Systems Unit
- Radioactivity Unit
- Centre for Drug Research (CIM Sant Pau)
- Central Clinical Research and Clinical Trials Unit (UCICEC Sant Pau)
- Animal Housing
- Transfer and Innovation Unit
- Author Editing
- Communications Coordination Team
- Clinical Research Ethics Committee
- Clinical Research Ethics Committee Secretariat

Scientific and Technical Service Platforms

The main aim of these support services is to manage, allocate and optimize the top-level research resources available to IIB Sant Pau. They provide researchers with support and scientific and technical assessment and advise on the most appropriate methods to prepare samples and to plan optimal work flows for each objective.

IIB Sant Pau has 5 platforms:

- Genomics and Transcriptomics Platform
- Functional and Cellular Analysis Platform
- Microscopy and Immunohistochemistry Platform
- Innovation Platform i2Health Sant Pau
- Biobank

The platforms also have access to equipment available for general use to complement their functioning.

**Manager:**

Rosa M. Antonijoan
rantonijoana@santpau.cat

Coordinator:

M. Teresa Mas
mmas@santpau.cat

Staff:

Susana Daniel
Pilar Matamoros
M. Àngels Piera
Montserrat Ruiz

Clinical Trial Documentation Management

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 Support Services



Coordinator:

Hilda Herrero
hherrero@santpau.cat

Staff:

Management Control Unit
Soraya González, Sandra Parera,
Laura San Martín

Administrative-Financial Unit
Ana Espallargas, Cristina Requena,
Núria García, Declan de la Fuente

Human Resources Unit
Rafael Fernández

General Secretariat
Rosa M. García
Amanda García
Marta Lorente
Magda Sanz

Research Institute Management

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 Rodríguez
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

Quality and Information Systems Unit

Functions:

> General:

- Support management with strategic projects (accreditation, CERCA evaluation, biobank legalization, evaluation of research groups, etc).
- Manage IIB Sant Pau research groups: creation, dissolution and changes in composition.
- Manage new laboratory works performed under the contingency plan.
- Implement the functional plan for the new research building.
- Support management of the IIB Sant Pau Internal Scientific Committee, External Scientific Committee, Executive Committee and Delegate Committee.
- Implement policies for the dissemination of research among the general public and especially among secondary pupils and health science university students.
- Manage the HSCSP Research Institute Biosafety Committee.
- Participate in the Animal Experimentation Ethics Committee.
- Participate in the UCICEC Sant Pau Technical Committee.
- Represent the HSCSP Research Institute before external organizations.

> Quality:

- Implement policies to improve quality under GLP, GCP, GMP and ISO 9001 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.

Research Support Services



Coordinator:

Montserrat Ribas
mribas@santpau.cat

Supervisor in charge:

Josep Julve
jjulve@santpau.cat

Radioactivity Unit

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.
 - Cellular cholesterol efflux.
 - Metabolism 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 CO₂ incubator for cell cultures.



Manager:

Jaime Prat
jprat@santpau.cat

Coordinators:

Lluís Catasús
lcatasus@santpau.cat

Íñigo Espinosa

iespinosa@santpau.cat

Staff:

María Jesús Nagel

Jorge Pena

Tumour Bank

Functions:

- > Create and maintain a collection of healthy and diseased tissue samples in optimal conditions for use in research projects that may include morphology, phenotype and molecular analyses and which may also be used in diagnosis.
- > Guarantee the quality of stored material by means of morphology analyses of samples, assuring anatomical and pathological correlation with definitive diagnoses for tissues.
- > Supply material to research groups on a non-profit basis (investigators may apply for samples as long as their project complies with current regulations and is scientifically, technically and ethically viable).

Equipment:

- > 4 fast-freeze apparatus (isopentane bath, stored at -50°C).
- > Storage and cryopreservation systems: 2 freezers -80°C and 1 deposit for liquid nitrogen.
- > 1 cryostat.
- > 1 manual tissue arrayer.

**Coordinator:**

Rosa M. Antonijoan
rantonijoana@santpau.cat

Staff:

M. Rosa Ballester
Judith Claramunt
Susana Clos
Sonia Coma
M. Ángeles Funes
Consuelo García
Ignasi Gich
Sandra Giménez
Ana Gomis
Mireia González
David Martínez
Joan Martínez
Maribel Martínez
Pura Martínez
Esteve Mercader
Sara Mora
Montserrat Punes

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 concerning:

- > 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.

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.

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.

Communications Coordination Team

Functions:

- > Coordinate IIB Sant Pau communications.
- > Prepare IIB Sant Pau annual reports and other communication materials.
- > Provide an effective news distribution service and generate positive media coverage.
- > Respond to media enquiries.
- > Update website content.
- > Establish standards concerning graphics and linguistic style to ensure visual uniformity in all IIB Sant Pau communications.

Research Support Services



Coordinator:

Rosa M. Antonijoan
rantonijoana@santpau.cat

Staff:

Claudia E. Delgado
Nadia Llaveró
Pablo Bros
Enrique Peña

Central Clinical Research and Clinical Trials Unit (UCICEC 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.

UCICEC 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), Clinical Research Ethics Committee (CEIC), Autonomous Communities (CCAA) and other relevant authorities.
 - Advice on project registration in public databases.
 - Identification of spinoff projects.
 - Advice on the presentation of research results.

Methodological and statistical support unit:

- > Advice on study design.
- > Data entry.
- > Data processing.
- > Development of statistical reports.
- > Electronic CRFs validation and management.
- > Documentation and reports.

Documentation, archiving, monitoring and follow-up unit:

- > Support in document creation: EudraCT form and annexes / application forms / evaluation forms follow form.
- > Support in the processing of initial applications, clarifications and amendments: AEMPS, CEIC, other health authorities regarding clinical trials, and other post-authorization studies.
- > Comprehensive monitoring of clinical trials and observational studies.
- > Management of initial, follow-up and final reports.
- > Development and file custody promoter (Master File), file preparation investigator.
- > Other communications to CEIC, autonomous communities and competent authorities.

Unit of management and financial management:

- > Management of clinical trials contracts with participating centers.
- > Management of collaboration agreements with laboratories / companies for funding.
- > Management of clinical trial-related contracts (CRO's, E-CRDs, statistics, etc.).
- > Management of clinical trial-related client and supplier invoices.
- > Management of clinical trial insurance policies.
- > Preparation of financial reports for the submission of studies to ethics committees.
- > Management of payment of fees to the competent authorities.



Coordinator:
M. Antònia Rubio
arubioc@santpau.cat

Staff:
Animal welfare advisor:
M. Antonia Rubio

Veterinary surgeon:
Eder Fredy Mateus

Animal care workers:
Margarita Domingo
Luis Garcia

Animal Housing

Functions:

- > Produce different small rodent strains in-house for research and teaching purposes.
- > Manage the purchase and transportation of animals from domestic and international breeding and supply centres.
- > Receive and house incoming animals and deliver them to users once quarantine and health requirements are met.
- > House and maintain experimental animals while ensuring their welfare.
- > Regularly check rodent health status.
- > Perform twice-yearly health checks.
- > Clean and sterilize of materials and maintain the pathogen-free area.
- > Feed animals according to experimental protocols.
- > Provide support for animal surgery, anaesthesia and euthanasia.
- > Supply laboratory materials and collect samples.
- > Monitor mating, mating plugs, pregnant females and weaning.
- > Provide healthcare.
- > Advise the animal welfare expert.
- > Perform periodic health checks with sentinel screening in all rooms.
- > Maintain monitoring protocols.
- > Ensure the hygiene and safety of facilities and equipment.
- > Manage waste disposal.
- > Attend training in relation to all protocols developed in the animal house.
- > Advise on the drafting of research projects involving the use of animals.
- > Attend training in relation to all protocols developed in the animal house.
- > Advise on the drafting of research projects involving the use of animals.

Facilities:

Conventional Animal Facility:

- > Mice rooms (2), total capacity 2400.
- > Rat room, capacity 200.
- > Quarantine room.
- > Washroom.
- > Clean-storage room.
- > Standard storeroom.
- > Surgery room.
- > CO2 euthanasia equipment.
- > Treatment room.
- > Office.
- > Shower.
- > WC.

Pathogen-free area:

- > Pre-changing room.
- > Changing room.
- > Air shower.
- > Work room.
- > Mice room and changing area.
- > S.A.S.
- > Autoclave and washing area.
- > storage room.

Research Support Services



innovacio@iibspau.cat

Coordinator:

Alfons Hervàs
ahervas@santpau.cat

Staff:

Marina Passarell
Miquel Arrieta



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
Jordi Mancebo
Margarita Meseguer
Estela Moreno
M. Virtudes Pacheco
Javier Pagonabarraga
Maria Teresa Ricart Basagaña

Transfer and Innovation Unit

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.

Clinical Research Ethics Committee

The Ethics Committee for Clinical Research (CEIC) 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 trial and provide public assurance of that

protection, 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 drugs and health products.
 - Observational 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 CEIC.
- > Monitor of clinical drug trials and clinical research with medical devices.

**Coordinator:**

Milagros Alonso
malonsoma@santpau.cat

Administrative Staff:

Marisol Mogollón
Albert Querol
Romy Rodríguez

Clinical Research Ethics Committee Secretariat

The Clinical Research Ethics Committee 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 Secretariat of the Clinical Research Ethics Committee 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.
- > Administer contracts for all clinical trials 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.

**Coordinator:**

Carolyn Newey
cnewey@santpau.cat

Author Editing

Functions:

- > Review and edit research papers, abstracts, posters, presentations and other scientific documents written in English.
- > Assist in the preparation and delivery of presentations, lectures, speeches, etc in English for meetings, conferences and similar events.

Scientific and Technical Service Platforms



sequenciacio_ir@santpau.cat
transcriptomica@santpau.cat

Coordinator:
Elena Serrano
eserrano@santpau.cat

Technical Staff:
Genomics Laboratory:
Eva Companys
ecompanysa@santpau.cat

Transcriptomics Laboratory:
Elena Serrano
eserrano@santpau.cat

Genomics and Transcriptomics Platform

> GENOMICS LABORATORY

Functions:

- > Next-generation sequencing: full transcriptome genotyping, RNA-Seq, Ampli-Seq, ChIP-Seq, amplicon sequencing and sequencing and identification of microorganisms.
- > Sanger sequencing: mutational analysis, microorganism identification and validation of cell lines.
- > Analysis of fragments: microsatellite instability, loss of heterozygosity studies in pathological conditions, mutation detection and genotyping, quantification of gene copy numbers, methylation studies and studies of polymorphisms associated with disease states.

Equipment:

- > Ion Torrent Personal Genome Machine.
- > Ion OneTouch (TM) System.
- > 3130xl Genetic Analyzer capillary electrophoresis sequencer.

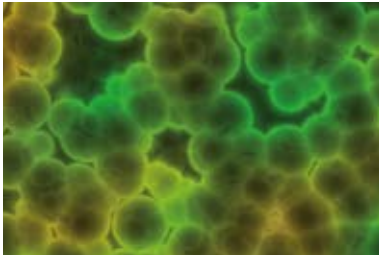
> TRANSCRIPTOMICS LABORATORY

Functions:

- > Hybridization and analysis of Affymetrix microarrays:
 - RNA and micro-RNA expression profiles in normal conditions and in diseases and treatment.
 - Loss of heterozygosity, copy number analysis and genome-wide mutation detection.
 - Genome-wide linkage and association studies.
- > Real time quantitative PCR (gene expression, allelic discrimination).
- > Nucleic acid quality assessment.
- > Quantification of nucleic acids (Bioanalyzer, Nanodrop).

Equipment:

- > Affymetrix array platform (upgrade 7G).
- > Real time quantitative PCR ABI 7900HT (384-well plates and TLDA).
- > Bioanalyzer 2100
- > Nanodrop 2000.



citometria@santpau.cat

Coordinator:

Elena Serrano
eserrano@santpau.cat

Technical Staff:

Flow Cytometry Laboratory:
 Marta Soler
msolerC@santpau.cat

Cell Culture Laboratory:

Rosa Antón
RAnton@santpau.cat

Functional and Cellular Analysis Platform

> FLOW CYTOMETRY LABORATORY

Functions:

- > Conventional cytometry in homogenous (cell line) or heterogeneous (biological fluid) samples:
 - Detection of the presence of proteins and determination of cell populations (cell markers).
 - Studies of signalling cascades (cell cycle, cell proliferation, apoptosis, intracellular calcium determination).
 - Quantification of transfection efficiency.
 - Phenotype changes and relative and absolute presence.
 - Production of mediators.
 - Detection of minority populations.
- > Cell sorter:
- Separation of cell populations in sterile conditions.

Equipment:

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

> CELL CULTURE LABORATORY

Functions:

- > To make adequate facilities and equipment available to researchers working with cell cultures in a BSL2 laboratory.

Equipment:

- > 3 CO₂ incubators.
- > 2 hypoxia incubators (2-21% O₂).
- > 2 IIA biosafety cabinets (BSL2).
- > 2 hypoxia cabinets (BSL1).
- > Culture baths.
- > Olympus inverted microscope with high-resolution colour camera.
- > Refrigerated centrifuge.
- > Fridge 4°C and freezer -20°C.
- > Thermo-desinfector and autoclave.

Scientific and Technical Service Platforms



ihq@santpau.cat
microscopia@santpau.cat

Coordinator:
Elena Serrano
eserrano@santpau.cat

Technical Staff:
Immunohistochemistry Laboratory:
Montserrat Gómez
mgomezy@santpau.cat

Microscopy Laboratory:
Eva Companys
eCompanysa@santpau.cat



info@i2healthsantpau.eu

Coordinators:
Alfons Hervàs
ahervas@santpau.cat

Josep M. Colomé (i2Cat Foundation)
josep.colome@i2cat.net

Microscopy and Immunohistochemistry Platform

> IMMUNOHISTOCHEMISTRY LABORATORY

Functions:

- > Tissue processing.
- > Paraffin and OCT-block preparation.
- > Block cutting with microtome/cryostat.
- > Automatic immunostaining (simple and dual).
- > Staining (Giemsa, haematoxylin-eosin, trichromic, PAS, Oil Red, etc).
- > Preparation of tissue arrays.
- > Image acquisition and analysis using high-resolution colour microscopy and specialist software.

Equipment:

- > Tissue processor (Sakura).
- > Paraffin bath (Sakura).
- > Microtome (Microm).
- > Cryostat (Leica).
- > Immune autostainer AS48 (Dako).
- > Autostainer (Sakura).
- > Semiautomatic tissue arrayer.

> MICROSCOPY LABORATORY

Functions:

- > Confocal microscopy in live and fixed cells:
 - Immunofluorescence of 2 to 5 fluorochromes.
 - Reconstruction of 3D and 4D images.
 - Colocalization studies.
- Inter- and intra-interactions (FRET and FLIM).
- Molecular diffusion times (FCS).
- > Conventional fluorescence microscopy (immunofluorescence with 1 or 2 fluorochromes, FISH) in live and fixed cells.

Equipment:

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

Innovation Platform i2Health Sant Pau

Functions:

- > Promote the development of the information and communication technologies in the health sector.
- > Support researchers and healthcare staff undertaking e-health projects.
- > Provide a dedicated space within the hospital to create a living lab by bringing together medical staff, engineers, technologists, industry and health administration.



PLAN
AVANZA



biobanc@santpau.cat

Coordinator:

Elena Serrano
eserrano@santpau.cat

Technical Staff:

Iris Rodriguez
irodriguezR@santpau.cat

Biobank

Functions:

- > Create and maintain a collection of healthy and diseased biological human samples in optimal conditions for use in research projects.
- > Facilitate collaboration projects by putting investigators in touch and making biological human sample cession possible.
- > Supply (non-profit) human biological samples to research groups, in accordance with legal regulations.
- > Obtain, process and store human biological samples in accordance with international standards, maintaining sample traceability and security in accordance with legal requirements.
- > Provide training in legal and ethical regulations governing biological human sample management.

Grants:

- > HSCSP Research Institute. Biobank Network 2009. Amount: €138,000.

Equipment for General Use

> **IMAGE ANALYSIS LABORATORY:**

Equipment:

- > Revolution 4200 microarray scanner (Vidar).
- > Image Station 4000MM Pro (Kodak) gel documentation: luminescence, fluorescence, absorption.

> **OTHER EQUIPMENT**

Equipment:

- > Precision weighing balances (Sartorius).
- > Bioanalyzer 2100 (Agilent).
- > Nanodrop 2000 (Thermo).
- > Infinite 200 (Tecan) microplate reader: spectrophotometer, fluorometer, luminometer.

Grants:

- > HSCSP Research Institute. Innovation Network 2009. Amount: €123,414.
- > Kulisevsky, J. Expert system integrating teleassistance and medicine to prevent dependence and promote autonomy of the elderly in the home environment. E-HEALTH Platform for Healthy Ageing. Plan Avanza. Amount: €60,848.55.



Coordinator:

Elena Serrano
eserrano@santpau.cat

Technical Staff:

Image Analysis Laboratory:
Rosa Anton
ranton@santpau.cat

Other Equipment:

Elena Serrano
eserrano@santpau.cat

Areas of Research

48



Area 1
Cardiovascular Diseases

78



Area 2
Genetic, Metabolic and
Inflammatory Diseases

116



Area 3
Haematological and
Oncological Diseases

138



Area 4
Neurological,
Mental Disorders and Ageing

176



Area 5
Uronephrology
and Experimental Surgery

186



Area T1

Epidemiology, Public Health
and Healthcare Services

208



Area T2

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


218



Associated Groups

AREA 1

Cardiovascular Disease

- 
- 50 Clinical and Translational Cardiology
 - 56 Thrombosis and Haemostasis
 - 58 Cardiovascular Biochemistry
 - 62 Angiology, Vascular Biology and Inflammation
 - 64 Molecular Pathology and Therapeutic of Ischaemic and Atherothrombotic Diseases
 - 68 Inflammation and Vascular Remodelling
 - 70 Biomarkers for Cardiovascular Disease
 - 72 Atherosclerosis and Vascular Biology
 - 74 Regulation of Cardiac Rhythm and Contraction
 - 76 Lipids and Cardiovascular Pathology

eases



Clinical and Translational Cardiology

Coordinator

Cinca Cuscollola, Juan FGS
jcinca@santpau.cat

Members

Álvarez García, Jesús IR
Amorós Figueras, Gerard IR
Anglí Ferrándiz, Laia IR
Carreras Costa, Francesc FGS
Fernández Martínez, Ana IR
Ferrero Gregori, Andreu IR
García-Moll Marimon, Xavier FGS
Guerra Ramos, José M. FGS
Jorge Vizuete, Esther IR
Martí Claramunt, Vicenç FGS
Mateo Aguilar, Ester IR
Pons Lladó, Guillem FGS
Roig Minguell, Eulàlia FGS
Serra Peñaranda, Antoni FGS
Sionis, Alessandro FGS
Solé González, Eduard IR
Subirana Doménech, M. Teresa FGS
Viñolas Prat, Xavier FGS
Vives Borrás, Miquel IR



Main Lines of Research

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

Challenges

Electrophysiology

- ▶ Describe the mechanisms and clinical significance of the electrocardiographic alterations in patients with acute myocardial infarction, using translational research in pig heart models.
- ▶ Characterize the ECG patterns and prognosis in patients with left circumflex coronary occlusion.
- ▶ Describe the behaviour of myocardial electrical impedance in normal and acute ischemic models using new bioimpedance methods developed in our laboratory.

Heart failure

- ▶ Develop new risk scores for ambulatory heart failure patients predicting death and re-hospitalizations.
- ▶ 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

- ▶ Settle a Program for patients with refractory angina.
- ▶ Treat complex atherosclerotic coronary artery lesions using international techniques.

Valvular heart disease

- ▶ Implement new percutaneous techniques for the treatment of mitral valve regeneration 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 software analysis for fusion imaging in patients submitted to coronary interventions.
- ▶ 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, ICCC - CSIC.
- ▶ Leif Hove Madsen, ICCC - 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 Cinca Cuscollola (HSCSP), Programme 6: Clinical and Translational Cardiology, RD12/0042-RIC (Cardiovascular Research Network):**

- ▶ Alfredo Bardají Ruiz. Hospital Universitari Joan XXIII (Tarragona)
- ▶ Fernando Wörner Diz. Hospital Universitari Arnau de Vilanova (Lleida)
- ▶ Andrés Grau Sepúlveda. Hospital Son Dureta (Palma de Mallorca)
- ▶ Xavier Rosell Ferrer. Universitat Politècnica Catalunya – UPC (Barcelona)
- ▶ Rafael Vázquez García. Hospital Universitario Virgen de Valme (Sevilla) / Hospital Puerta del Mar (Cádiz)
- ▶ Joaquín Lucena Romero. Instituto de Medicina Legal (Sevilla)
- ▶ José M. Cubero Gómez. Hospital Virgen del Rocío (Sevilla)
- ▶ Antonio Fernández Romero. CHARE Utrera SAS (Sevilla)
- ▶ Josep Brugada Terradellas. Hospital Clínic (Barcelona)
- ▶ Julián Pérez-Villacastín. Hospital Clínico San Carlos (Madrid)
- ▶ Juan Francisco Delgado Jiménez. Hospital 12 de Octubre (Madrid)
- ▶ Jose Luis Zamorano. Hospital Ramón y Cajal (Madrid)

- ▶ Mariano Valdés Chavarri. Hospital Universitario Virgen de la Arrixaca (Murcia)
- ▶ José Ramón González. Hospital Clínico Universitario (Santiago de Compostela)
- ▶ Luis Alonso-Pulpón Rivera. Hospital Puerta del Hierro (Madrid)
- ▶ Covadonga García González. Hospital Guadarrama (Madrid)
- ▶ José Miguel Rivera. Hospital La Fe (Valencia)
- ▶ Alfonso Castro Beiras. Complejo Hospitalario Universitario A Coruña
- ▶ Francisco Fernández Avilés. Hospital Gregorio Marañón (Madrid)
- ▶ Ignacio Flores Hernández. Centro Nacional de Investigaciones Cardiovasculares - CNIC (Madrid)

Antoni Serra Peñaranda TEAM:

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

Xavier Viñolas Prat, RETAC Group - European Network for the Treatment of Arrhythmias 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)
- ▶ Thomas Arentz. Herzzentrum Brad Krozingen (Germany)

Active Grants

- ▶ Juan Cinca Cuscollola. Red Cardiovascular. RD12/0042/0002. Instituto de Salud Carlos III. Duration: 2013-2016. €594,532.28.
- ▶ Eulàlia Roig Minguell. Detección de rechazo agudo postrasplante cardiaco mediante la determinación de troponina T cardiaca de alta sensibilidad (cTnT-HS). Estudio piloto multicéntrico. SEC 2010-1. Sociedad Española de Cardiología. Duration: 2010-2016. €4,999.99.
- ▶ Ana Belén Méndez Fernández. Ultrafiltración periférica frente a tratamiento convencional para el tratamiento de las descompensaciones hipervolémicas en pacientes con insuficiencia cardiaca crónica y resistencia a diuréticos. SEC 2011. Sociedad Española de Cardiología. Duration: 2011-2015. €5,925.98.

- ▶ Juan Cinca Cuscollola. Desarrollo preclínico de una nueva técnica para guiar la ablación eléctrica de las arritmias ventriculares en pacientes con infarto crónico mediante bioimpedancia. PI13/00765. Instituto de Salud Carlos III. Duration: 2014-2016. €140,250.
- ▶ Juan Cinca Cuscollola. Grup de Recerca Clínica i Translacional en Cardiologia - RCTCAR. 2014 SGR 620. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016.

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

Theses

- ▶ Francisco Javier Noriega Sanz. Caracterización clínica y electrofisiológica de las alteraciones recíprocas del electrocardiograma en el infarto agudo de miocardio. Universitat Autònoma de Barcelona. Director: Joan M. Cinca Cuscollola. Date of defense: 30 September de 2015.

- ▶ Jesús Álvarez García. Consecuencias clínicas, bioquímicas y electrofisiológicas de la oclusión aguda de las arterias coronarias auriculares durante la angioplastia en el ser humano. Universitat Autònoma de Barcelona. Director: Juan Cinca Cuscollola. Date of defense: 13 de novembre de 2015.

Clinical and Translational Cardiology

*TIF: 312.5140 **MIF: 5.0405

Alegret J.M., Vinolas X., Martinez-Rubio A., Pedrote A., Beiras X., Garcia-Sacristan J.F., Crespo-Mancebo F., Ruiz-Mateas F., Gender differences in patients with atrial fibrillation undergoing electrical cardioversion. (2015) J WOMENS HEALTH, 24 (6), 466-470.

IF: 2.0320

Alonso J.J., Muniz J., Gomez-Doblas J.J., Rodriguez-Roca G., Lobos J.M., Permanyer-Miralda G., Anguita M., Chorro F.J., Roig E., Prevalence of Stable Angina in Spain. Results of the OFRECE Study. (2015) REV ESP CARDIOL, 68 (8), 691-699.

IF: 4.5960

Alonso-Gonzalez R., Lopez-Guarch C.J., Subirana-Domenech M.T., Oliver Ruiz J.M., Gonzalez I.O., Cubero J.S., Del Cerro M.J., Salvador M.L., Dos Subira L., Gallego P., Escribano-Subias P., Pulmonary hypertension and congenital heart disease: An insight from the REHAP national registry. (2015) INT J CARDIOL, 184 (1), 717-723.

IF: 4.6380

Alquezar Arbe A., Santalo Bel M., Sionis A., Clinical interpretation of high sensitivity troponin T. (2015) MED CLIN-BARCELONA, 145 (6), 258-263.

IF: 1.2670

Alvarez-Garcia J., Ferrero-Gregori A., Puig T., Vazquez R., Delgado J., Pascual-Figal D., Alonso-Pulpon L., Gonzalez-Juanatey J.R., Rivera M., Wornor F., Bardaji A., Cinca J., Hove-Madsen L., A simple validated method for predicting the risk of hospitalization for worsening of heart failure in ambulatory patients: The Redin-SCORE. (2015) EUR J HEART FAIL, 17 (8), 818-827.

IF: 5.1350

Alvarez-Garcia J., Ferrero-Gregori A., Puig T., Cinca J., The Redin SCORE: useful, but not for all: Reply. (2015) EUR J HEART FAIL,

IF: 5.1350

Anguera I., Dallaglio P., Martinez-Ferrer J., Rodriguez A., Alzueta J., Perez-Villacastin J., Porres J.M., Vinolas X., Fontenla A., Fernandez-Lozano I., Garcia-Alberola A., Sabate X., Shock Reduction with Multiple Bursts of Antitachycardia Pacing Therapies to Treat Fast Ventricular Tachyarrhythmias in Patients with Implantable Cardioverter Defibrillators: A Multicenter Study. (2015) J CARDIOVASC ELECTR, 26 (7), 774-782.

IF: 3.0970

Arroyo-Ucar E., Moreno R., Garcia E., Teles R., Rumoroso J.-R., Carvalho H.C., Goicolea F.J., Moreu J., Mauri J., Sabate M., Mainar V., Patriocio L., Valdes M., Fernandez-Vazquez F., Sanchez-Recalde A., Galeote G., Jimenez-Valero S., Almeida M., Lopez De Sa E., Calvo L., Plaza I., Lopez-Sendon J.-L., Martin J.-L.R., Drug-eluting stent thrombosis in the treat-

ment of chronic total coronary occlusions: Incidence, presentation and related factors. Data from the CIBELES trial. (2015) REV PORT CARDIOL, 34 (3), 193-199.

IF: 0.8730

Arzamendi D., Li C.H., Serra A., Cardiac Computed Tomography-guided Closure of Ventricular Septal Defect Secondary to Myocardial Infarction. (2015) REV ESP CARDIOL,

IF: 4.5960

Azzalini L., Sole E., Sans J., Vila M., Duran A., Gil-Alonso D., Santalo M., Garcia-Moll X., Sionis A., Feasibility and safety of an early discharge strategy after low-risk acute myocardial infarction treated with primary percutaneous coronary intervention: The ED-AMI pilot trial. (2015) CARDIOLOGY, 130 (2), 120-129.

IF: 1.9940

Ballester M.R., Roig E., Gich I., Puntès M., Delgadillo J., Santos B., Antonijoan R.M., Randomized, open-label, blinded-endpoint, crossover, single-dose study to compare the pharmacodynamics of torasemide-PR 10 mg, torasemide-IR 10 mg, and furosemide-IR 40 mg, in patients with chronic heart failure. (2015) DRUG DES DEV THER, 9, 4291-4302.

IF: 2.8810

Barahona M.-J., Resmini E., Vilades D., Fernandez-Real J.-M., Ricart W., Moreno-Navarrete J.-M., Pons-Llado G., Leta R., Webb S.M., Soluble TNF α -receptor 1 as a predictor of coronary calcifications in patients after long-term cure of Cushing's syndrome. (2015) PITUITARY, 18 (1), 135-141.

IF: 3.4070

Barbato E., Carrie D., Dardas P., Fajadet J., Gaul G., Haude M., Khashaba A., Koch K., Meyer-Gessner M., Palazuelos J., Reczuch K., Ribichini F.L., Sharma S., Sipotz J., Sjogren I., Suetsch G., Szabo G., Valdes-Chavarri M., Vaquerizo B., Wijns W., Windecker S., De Belder A., Valgimigli M., Byrne R.A., Colombo A., Di Mario C., Latib A., Hamm C., European expert consensus on rotational atherectomy. (2015) EUROINTERVENTION, 11 (1), 30-36.

IF: 3.8630

Benito N., Garcia-Vazquez E., Horcajada J.P., Gonzalez J., Oppenheimer F., Cofan F., Ricart M.J., Rimola A., Navasa M., Rovira M., Roig E., Perez-Villa F., Cervera C., Moreno A., Clinical features and outcomes of tuberculosis in transplant recipients as compared with the general population: A retrospective matched cohort study. (2015) CLIN MICROBIOL INFEC, 21 (7), 651-658.

IF: 4.5750

Bessissow A., Khan J., Devereaux P.J., Alvarez-Garcia J., Alonso-Coello P., Postoperative

atrial fibrillation in non-cardiac and cardiac surgery: An overview. (2015) J THROMB HAEMOST, 13 (S1), S304-S312.

IF: 5.5650

Bos L., Mirabet S., Brossa V., Lopez L., Sionis A., Capellades H., Cinca J., Roig E., Role of Vascular Disease in the Evolution of Heart Transplant Patients. (2015) TRANSPL P, 47 (8), 2393-2394.

IF: 0.8670

Chevalier B., Wijns W., Silber S., Garcia E., Serra A., Paunovic D., Serruys P., Five-year clinical outcome of the Nobori drug-eluting coronary stent system in the treatment of patients with coronary artery disease: Final results of the NOBORI 1 trial. (2015) EUROINTERVENTION, 11 (5), 549-554.

IF: 3.8630

Cortes-Vicente E., Delgado-Mederos R., Bellmunt S., Borrás X.F., Gomez-Anson B., Bague S., Camps-Renom P., Marti-Fabregas J., Stroke caused by a myxoma stenosing the common carotid artery. (2015) J STROKE CEREBROVASC, 24 (4), e87-e89.

IF: 1.5990

Crespo-Leiro M.G., Segovia-Cubero J., Gonzalez-Costello J., Bayes-Genis A., Lopez-Fernandez S., Roig E., Sanz-Julve M., Fernandez-Vivancos C., De Mora-Martin M., Garcia-Pinilla J.M., Varela-Roman A., Almenar-Bonet L., Lara-Padron A., De La Fuente-Galan L., Delgado-Jimenez J., Adherence to the ESC Heart Failure Treatment Guidelines in Spain: ESC Heart Failure Long-term Registry. (2015) REV ESP CARDIOL, 68 (9), 785-793.

IF: 4.5960

Cruz-Gonzalez I., Arzamendi D., Rama-Merchan J.C., Pina-Gonzalez P., Sanchez P.L., Serra A., Left Atrial Appendage Occlusion With the New Amulet™ Device: Feasibility, Safety and Short-term Efficacy. (2015) REV ESP CARDIOL,

IF: 4.5960

De Luna A.B., Rovai D., Llado G.P., Gorgels A., Carreras F., Goldwasser D., Kim R.J., The end of an electrocardiographic dogma: A prominent R wave in V1 is caused by a lateral not posterior myocardial infarction - New evidence based on contrast-enhanced cardiac magnetic resonance - Electrocardiogram correlations. (2015) EUR HEART J, 36 (16), 959-964.

IF: 15.0640

Duran-Cambra A., Sutil-Vega M., Fiol M., Nunez-Gil I.J., Vila M., Sans-Rosello J., Cinca J., Sionis A., Systematic review of the electrocardiographic changes in the Takotsubo syndrome. (2015) ANN NONINVAS ELECTRO, 20 (1), 1-6.

IF: 1.5690

*TIF: 312.5140 **MIF: 5.0405

Galassi A.R., Sianos G., Werner G.S., Escaned J., Tomasello S.D., Boukhris M., Castaing M., Buttner J.H., Bufe A., Kalnins A., Spratt J.C., Garbo R., Hildick-Smith D., Elhadad S., Gagnor A., Lauer B., Bryniarski L., Christiansen E.H., Thuesen L., Meyer-Gessner M., Goktekin O., Carlino M., Louvard Y., Lefevre T., Lismanis A., Gelev V.L., Serra A., Marza F., Di Mario C., Reifart N., Retrograde recanalization of chronic total occlusions in Europe: Procedural, in-hospital, and long-term outcomes from the multicenter ERCTO registry. (2015) J AM COLL CARDIOL, 65 (22), 2388-2400.

IF: 17.7590

Garcia-Moll X., Lights and (some) shadows in the management of acute coronary syndrome in Spain: The DIOCLES study. (2015) REV ESP CARDIOL, 68 (2), 85-86.

IF: 4.5960

Gil-Ortega I., Pedrote-Martinez A., Fontenla-Cerezuela A., Arias M.A., Pindado J., Marti J., Bodegas A., Exposito-Pineda M.C., Moreno-Arribas J., Dominguez-Mafe E., Manuel Rubio-Campal J., Sabate X., Brouzet T., Jimenez-Diaz J., Fontenla A., Segura F., Castro V., Gonzalez-Vasserot M., Campos B., Tralero R., Perez-Castellano N., Alcalde-Rodriguez O., Cabanas-Grandio P., Rivas-Gandara N., Rodriguez-Perez J.C., Martinez-Basterra J., Magnani S., Asso A., Ibanez-Criado J.L., Jimenez-Bello J., Puntí-Sala J., Romero-Garrido R., Moreno J., Matia R., Macias A., Grande A., Jimenez Candil J., Doblado-Calatrava M., Arana-Rueda E., Alvarez-Lopez M., Ibanez-Criado A., Arcocha-Torres M.F., Sarrías A., Rubio J., Pelaez A., Pastor A., Sarquella-Brugada G., Cano-Calabria L., Osca J., Fosch J., Rubin J.M., Guerra J.M., Garcia-Alberola A., Caballero-Dorta E., Roca-Luque I., Linde A., Diaz-Infante E., Peinado R., Garcia-Medina D., Perez-Rodon J., Barrera A., Alonso C., Ibars S., Vinolas X., Rodriguez-Font E., Ortega-Molina M., Moya-i-Mitjans A., Mont L., Romero R., Rodriguez-Entem F., Garcia-Fernandez J., Perez-Alvarez L., Herreros B., Arenal A., Morina P., Rubio-Caballero A., Martinez-Sande J.L., Mazuelos F., Almendral J., Martinez-Brotons A., Ferrero-de-Loma A., Fidalgo M.L., Spanish Catheter Ablation Registry. 14th Official Report of the Spanish Society of Cardiology Working Group on Electrophysiology and Arrhythmias (2014). (2015) REV ESP CARDIOL, 68 (12), 1127-1137.

IF: 4.5960

Goldwasser D., Senthilkumar A., Bayes de Luna A., Elosua R., Carreras F., Pons-Llado G., Kim R.J., Lateral MI Explains the Presence of Prominent R Wave ($R \geq S$) in V1. (2015) ANN NONINVAS ELECTRO, 20 (6), 570-577.

IF: 1.5690

Goldwasser D., Senthilkumar A., Bayes De Luna A., Elosua R., Carreras F., Pons-Llado G., Kim R.J., Lateral MI Explains the Presence of Prominent R Wave ($R \geq S$) in V1. (2015) ANN NONINVAS ELECTRO, 20 (6), 570-577.

IF: 1.5690

Gomez-Hospital J.A., Mauri J., Pinar E., Goicolea J., Garcia Del Blanco B., Serra A., Tizon-Marcos H., Molina E., Sanchez E., Aragon V., Masotti M., Rodriguez J., Jimenez J., Ortas R., Martinez P., Serra B., Moreu J., Diego Nieto G., Bossa F., Nogales J.M., Bassaganyas J., Diaz J., Cascon J.D., The titan-ami multicenter registry evaluating the usage of titan2 stent in patients with ST segment elevation myocardial infarction. Final result at 12-month follow-up. (2015) MINERVA CARDIOANGIOL, 63 (1), 11-20.

IF: 0.7520

Gonzalez-Vilchez F., Segovia Cubero J., Almenar L., Crespo-Leiro M.G., Arizon J.M., Villa A., Delgado J., Roig E., Lage E., Gonzalez-Costello J., Spanish Heart Transplantation Registry. 26th Official Report of the Spanish Society of Cardiology Working Group on Heart Failure and Heart Transplantation (1984-2014). (2015) REV ESP CARDIOL, 68 (11), 1008-1021.

IF: 4.5960

Harjola V.-P., Lassus J., Sionis A., Kober L., Tarvasmaki T., Spinar J., Parisis J., Banaszewski M., Silva-Cardoso J., Carubelli V., Di Somma S., Tolppan H., Zeymer U., Thiele H., Nieminen M.S., Mebazaa A., Clinical picture and risk prediction of short-term mortality in cardiogenic shock. (2015) EUR J HEART FAIL, 17 (5), 501-509.

IF: 5.1350

Healey J.S., Viñolas X., Cardioverter defibrillator implantation without induction of ventricular fibrillation: A single-blind, non-inferiority, randomised controlled trial (SIMPLE). (2015) LANCET, 385 (9970), 785-791.

IF: 44.0020

Herraz-Martinez A., Alvarez-Garcia J., Llach A., Molina C.E., Fernandes J., Ferrero-Gregori A., Rodriguez C., Vallmitjana A., Benitez R., Padro J.M., Martinez-Gonzalez J., Cinca J., Hove-Madsen L., Ageing is associated with deterioration of calcium homeostasis in isolated human right atrial myocytes. (2015) CARDIOVASC RES, 106 (1), 76-86.

IF: 5.4650

Ielasi A., Brugaletta S., Silvestro A., Cequier A., Iniguez A., Serra A., Hernandez-Antolin R., Mainar V., Valgimigli M., Den Heijer P., Bethencourt A., Vazquez N., Serruys P., Sabate M., Tespili M., Everolimus-eluting stent versus bare-metal stent in elderly (≥ 75 years) versus non-elderly (< 75 years) pa-

tients with ST-elevation myocardial infarction undergoing primary percutaneous coronary intervention: Insights from the examination trial. (2015) INT J CARDIOL, 179, 73-78.

IF: 4.6380

Jackson C.E., *et al.* Differing prognostic value of pulse pressure in patients with heart failure with reduced or preserved ejection fraction: results from the MAGGIC individual patient meta-analysis. (2015) EUR HEART J, 36 (18), 1106-1114.

IF: 15.0640

Lopez-Sendon J., Gonzalez-Juanatey J.R., Pinto F., Cuenca Castillo J., Badimon L., Dalmau R., Gonzalez Torrecilla E., Lopez-Minguez J.R., Maceira A.M., Pascual-Figal D., Pomar Moya-Prats J.L., Sionis A., Zamorano J.L., Quality Markers in Cardiology. Main Markers to Measure Quality of Results (Outcomes) and Quality Measures Related to Better Results in Clinical Practice (Performance Metrics). INCARDIO (Indicadores de Calidad en Unidades Asistenciales del Área del Corazón): A SEC/SECTCV Consensus Position Paper. (2015) REV ESP CARDIOL, 68 (11), 976-995e10.

IF: 4.5960

Marti V., Brugaletta S., Garcia-Picart J., Delgado G., Cequier A., Iniguez A., Hernandez-Antolin R., Serruys P., Serra A., Sabate M., Radial versus femoral access for angioplasty of st-segment elevation acute myocardial infarction with second-generation drug-eluting stents. (2015) REV ESP CARDIOL, 68 (1), 47-53.

IF: 4.5960

Martinez-Selles M., Diez-Villanueva P., Sanchez-Sendin D., Hevia A.C., Doblas J.J.G., De La Villa B.G., Cornide L., Tello A.A., Ogando R.A., Vera T.R., Jimenez A.A., Carrillo P., Pascual C.R., Romeva M.C.I., Borrás X., Vazquez S., Lopez-Palop R., Comorbidity and intervention in octogenarians with severe symptomatic aortic stenosis. (2015) INT J CARDIOL, 189 (1), 61-66.

IF: 4.6380

Martin-Yuste V., Alvarez-Contreras L., Sabate M., How should i treat subacute stent thrombosis in the context of brain haemorrhage with abciximab? (2015) EUROINTERVENTION, 10 (10), e1-e2.

IF: 3.8630

Masia J., Bordoni D., Pons G., Liuzza C., Castagnetti F., Falco G., Oncological safety of breast cancer patients undergoing free-flap reconstruction and lipofilling. (2015) EJSO-EUR J SURG ONC, 41 (5), 612-616.

IF: 2.9400

Clinical and Translational Cardiology

*TIF: 312.5140 **MIF: 5.0405

Masia J., Pons G., Loschi P., Sanchez Porro-Gil L., Nardulli M.L., Olivares L., Autologous Reconstruction of a Complex Form of Poland Syndrome Using 2 Abdominal Perforator Free Flaps. (2015) ANN PLAS SURG, 74 (5), 580-583.

IF: 1.5350

Masia J., Pons G., Nardulli M.L., Combined Surgical Treatment in Breast Cancer-Related Lymphedema. (2015) J RECONSTR MICRO-SURG, 32 (1), 16-27.

IF: 1.7340

Mendez A.B., Ordóñez-Llanos J., Farrero M., Mirabet S., Brossa V., Lopez L., Bonet R., Sionis A., Perez-Villa F., Roig Minguell E., Cost-Effectiveness of Highly Sensitive Cardiac Troponin T to Rule Out Acute Rejection after Heart Transplantation. (2015) TRANSPL P, 47 (8), 2395-2396.

IF: 0.8670

Millan X., Skaf S., Joseph L., Ruiz C., Garcia E., Smolka G., Noble S., Cruz-Gonzalez I., Arzamendi D., Serra A., Kliger C., Sia Y.T., Asgar A., Ibrahim R., Jolicoeur E.M., Transcatheter Reduction of Paravalvular Leaks: A Systematic Review and Meta-analysis. (2015) CAN J CARDIOL, 31 (3), 260-269.

IF: 3.1120

Mirabet S., Roig E., Amyloidosis: Is there hope? (2015) REV CLIN ESP, 215 (1), 27-28.

IF: 0.7600

Munoz P., *et al*, Current epidemiology and outcome of infective endocarditis: A multicenter, prospective, cohort study. (2015) MEDICINE, 94 (43),

IF: 1.2060

Nunez Gil I.J., Andres M., Almendro Delia M., Sionis A., Martin A., Bastante T., Cordoba Soriano J.G., Linares Vicente J.A., Gonzalez Surrats S., Sanchez-Grande Flecha A., Characterization of tako-tsubo cardiomyopathy in Spain: Results from the RETAKO national registry. (2015) REV ESP CARDIOL, 68 (6), 505-512.

IF: 4.5960

Ortega A., Tarazon E., Rosello-Lleti E., Gil-Cayuela C., Lago F., Gonzalez-Juanatey J.-R., Cinca J., Jorge E., Martinez-Dolz L., Portoles M., Rivera M., Patients with dilated cardiomyopathy and sustained monomorphic ventricular tachycardia show up-regulation of KCNN3 and KCNJ2 genes and CACNG8-linked left ventricular dysfunction. (2015) PLOS ONE, 10 (12),

IF: 3.0570

Pijuan-Domenech A., Galian L., Goya M., Casellas M., Merced C., Ferreira-Gonzalez I., Marsal-Mora J.R., Dos-Subira L., Subirana-Domenech M.T., Pedrosa V., Baro-Marine F., Manrique S., Casaldaliga-Ferrer J., Tornos P., Cabero L., Garcia-Dorado D., Car-

diac complications during pregnancy are better predicted with the modified WHO risk score. (2015) INT J CARDIOL, 195, 149-154.

IF: 4.6380

Ramaola I., Padro T., Pena E., Juan-Babot O., Cubedo J., Martin-Yuste V., Sabate M., Badimon L., Changes in thrombus composition and profilin-1 release in acute myocardial infarction. (2015) EUR HEART J, 36 (16), 965-975.

IF: 15.0640

Roig E., Almenar L., Crespo-Leiro M., Segovia J., Mirabet S., Delgado J., Perez-Villa F., Luis Lambert J., Teresa Blasco M., Muniz J., Heart transplantation using allografts from older donors: Multicenter study results. (2015) J HEART LUNG TRANSPL, 34 (6), 790-796.

IF: 7.5090

Roldan C., Mirabet S., Cecilia C., Brossa V., Roig E., Martin C., Gelpi C., CD4⁺CD45RO⁺CD25^{-low}CD127⁺: CD4⁺CD45RO⁺CD25hiCD127^{-low} Ratio in Peripheral Blood: A Useful Biomarker to Detect Cardiac Allograft Vasculopathy in Heart Transplanted Patients. (2015) TRANSPLANTATION, 99 (7), 1521-1528.

IF: 3.6900

Ruiz-Morales J., *et al*, Left-sided infective endocarditis in patients with liver cirrhosis. (2015) J INFECTION, 71 (6), 627-641.

IF: 4.3820

Serra-Grima R., Donate M., Alvarez-Garcia J., Barradas-Pires A., Ferrero A., Carballeira L., Puig T., Rodriguez E., Cinca J., Long-term follow-up of early repolarization pattern in elite athletes. (2015) AM J MED, 128 (2), 192.e1-192.e9.

IF: 5.6100

Simpson J., Castagno D., Doughty R.N., Poppe K.K., Earle N., Squire I., Richards M., Andersson B., Ezekowitz J.A., Komajda M., Petrie M.C., McAlister F.A., Gamble G.D., Whalley G.A., McMurray J.J., Meta-Analysis Global Group in Chronic Heart Failure (MAGGIC). Is heart rate a risk marker in patients with chronic heart failure and concomitant atrial fibrillation? Results from the MAGGIC meta-analysis. (2015) EUR J HEART FAIL, 17(11), 1182-91.

IF: 6.5260

Sionis A., Ruiz-Nodar J.M., Fernandez-Ortiz A., Marin F., Abu-Assi E., Diaz-Castro O., Nunez-Gil I.J., Lidon R.-M., Update on ischemic heart disease and intensive cardiac care. (2015) REV ESP CARDIOL, 68 (3), 234-241.

IF: 4.5960

Suades R., Padro T., Vilahur G., Martin-Yuste V., Sabate M., Sans-Rosello J., Sionis A., Badimon L., Growing thrombi release increased levels of CD235a+ microparticles and decreased levels of activated platelet-derived

microparticles. Validation in ST-elevation myocardial infarction patients. (2015) J THROMB HAEMOST, 13 (10), 1776-1786.

IF: 5.5650

Taniwaki M., Stefanini G.G., Raber L., Brugal-etta S., Cequier A., Heg D., Iniguez A., Kelbaek H., Serra A., Ostojic M., Hernandez-Andolin R., Baumbach A., Blochlinger S., Juni P., Mainar V., Sabate M., Windecker S., Predictors of adverse events among patients undergoing primary percutaneous coronary intervention: Insights from a pooled analysis of the COMFORTABLE AMI and EXAMINATION trials. (2015) EUROINTERVENTION, 11 (4), 391-398.

IF: 3.8630

Vaquerizo B., Barros A., Pujadas S., Bajo E., Estrada D., Miranda-Guardiola F., Rigla J., Jimenez M., Cinca J., Serra A., Bioresorbable everolimus-eluting vascular scaffold for the treatment of chronic total occlusions: CTO-ABSORB pilot study. (2015) EUROINTERVENTION, 11 (5), 555-563.

IF: 3.8630

Vaquerizo B., Miranda-Guardiola F., Fernandez E., Rumoroso J.R., Gomez-Hospital J.A., Bossa F., Iniguez A., Oategui I., Serra A., Treatment of Small Vessel Disease with the Paclitaxel Drug-Eluting Balloon: 6-Month Angiographic and 1-Year Clinical Outcomes of the Spanish Multicenter Registry. (2015) J INTERV CARDIOL, 28 (5), 430-438.

IF: 1.3270

Vaquerizo B., Theriault-Lauzier P., Piazza N., Percutaneous Transcatheter Mitral Valve Replacement: Patient-specific Three-dimensional Computer-based Heart Model and Prototyping. (2015) REV ESP CARDIOL, 68 (12), 1165-1173.

IF: 4.5960

Vilades Medel D., Munoz Guijosa C., Carreras Costa F., Padro Fernandez J.M., Pons Llado G., Leta Petracca R., Assessment of Radial Artery Graft Patency Through 256-slice Cardiac Computed Tomography, and the Mid-term Prognostic Impact of Graft Occlusion. (2015) REV ESP CARDIOL.

IF: 4.5960

Vilades Medel D., Leta R., Alomar Serralach X., Carreras Costa F., Pons-Llado G., Reliability of a new method for coronary artery calcium or metal subtraction by 320-row cardiac CT. (2015) EUR RADIOLOGY, 1-7.

IF: 3.6400

Other Publications

- ▶ Hidalgo A., Pons-Lladó G. Usefulness of cardiac MRI in the prognosis and follow-up of ischemic heart disease. (2015) *RADIOLOGIA*, 57 (3), 201-212.
- ▶ Rovai D., Bayes de Luna A., Goldwasser D., Pons-Llado G., Carreras F., di Bella G., Pingitore A., van der Weg K., Gorgels A., Kim R. Q wave myocardial infarction of anteroseptal zone: a new classification. (2015) *INT J CARDIOL*, 180, 44-5.
- ▶ Ruiz-Salas A., Barrera-Cordero A., Viñolas X., Sola N.B., Álvarez L.P., Olalla J.J., Brugada J., Alzueta J. Usefulness of antitachycardia pacing in arrhythmogenic right ventricular dysplasia/cardiomyopathy. (2015) *INT J CARDIOL*, 181, 172-3.
- ▶ SEC Working Group for the ESC 2014 Guidelines on the Diagnosis and Management of Acute Pulmonary Embolism; Expert Reviewers for the ESC 2014 Guidelines on the Diagnosis and Management of Acute Pulmonary Embolism; SEC Clinical Practice Guidelines Committee: Evangelista Masip A., Gómez de Diego J.J., Calvo Iglesias F., Forteza Gil A., García de Vinuesa P.G., Martín M., Nistal J.F., Sánchez Sánchez V., Teixido i Tura G., Vilacosta I., Azqueta Molluna M., Barros A., Fernández Tarrío R., García Fernández M.A., Lidón Corbi R.M., López de Sa y Areses E., López Fernández T., Mesa Rubio D., Mosquera V., Pérez de la Sota E., Tornos Mas P., San Roman Calvar J.A., Sionis Green A., Di Stefano S., Viana Tejedor A., Vivancos Delgado R., Zamorano Gómez J.L., Anguila Sánchez M.P., Cequier Fillat A.R., Badimón Maestro L., Barrabés Rui J.A., Comin Colet J., Fernández Lozano I., Gómez de Diego J.J., Álvarez Osorio M.P., Rodríguez Padial L., San Román Calvar J.A., Sánchez Fernández P.L. Comments on the 2014 ESC Guidelines on the diagnosis and management of acute pulmonary embolism. (2015) *REV ESP CARDIOL*, 68(1), 10-6.

Thrombosis and Haemostasis

Coordinators

Souto Andres, Joan Carles FGS
jsouto@santpau.cat

Members

Cárdenas Yebra, Antonio IR
Carrasco Expósito, Marina FGS
Cerdà Urbano, Elia FGS
Coll Torrens, Inmaculada FGS
Cuevas Eduardo, Biel IR
Fontcuberta Boj, Jorge FGS
Llobet Lorente,
Maria Dolors FGS
Macho López, Raquel IR
Mateo Arranz, Jose FGS
Millon Caño, Juan Antonio IR
Morte Piferrer, Alan IR
Murillo Escoda, Joaquín IR
Pérez Calleja, Raquel IR
Tirado García, Isabel FGS
Vallvé Fornieles, Cristina FGS
Vázquez Santiago, Miguel IR
Vilalta Seto, 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.
- ▶ 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.

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.
- ▶ 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 subproject) 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).
- ▶ Incorporation to the new CIBER cardiovascular research network.

Collaborations	<p>Collaborations with other IIB Sant Pau Groups</p> <ul style="list-style-type: none"> ▶ Genomics of Complex Diseases (GAIT1, GAIT2, RETROVE, VEREMA and MIRTO Project). ▶ Stroke Unit (HERO, EDUCANT and MIRTO Project). ▶ Vascular Surgery (GAIT2, genetics of venous insufficiency). ▶ Medical Oncology (MIRTO Project). ▶ Clinical Haematology (MIRTO Project). ▶ Digestive Diseases (HEPACO). <p>External Collaborations</p> <ul style="list-style-type: none"> ▶ Cardiovascular Research Network (RIC). 	<ul style="list-style-type: none"> ▶ 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).
-----------------------	---	--

Active Grants	<ul style="list-style-type: none"> ▶ Joan Carles Souto Andrés. Red Cardiovascular. RD12/0042/0032. Instituto de Salud Carlos III. Duration: 2013-2016. €181,000. ▶ Jose Mateo Arranz. Estudio randomizado y controlado para comparar el tratamiento con anticoagulación oral con antagonistas 	<p>de la vitamina K versus heparina de bajo peso molecular (bemparina) en pacientes con criterios de anticoagulación. Laboratoris Farmacèutics Rovi. Duration: 2012-2016. €6,507.11.</p> <p>Note: Total amount granted to PI. It does not include indirect costs.</p>
----------------------	---	---

Grants Awarded in 2015	<ul style="list-style-type: none"> ▶ 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. Duration: 2016-2018. €104,665. <p>Note: Total amount granted to PI. It does not include indirect costs.</p>
-------------------------------	---

***TIF: 25.5710 **MIF: 3.1964**

Scientific Production	<p>Alonso-Coello P, Montori V.M., Diaz M.G., Devereaux P.J., Mas G., Diez A.I., Sola I., Roura M., Souto J.C., Oliver S., Ruiz R., Coll-Vinent B., Gich I., Schunemann H.J., Guyatt G., Values and preferences for oral antithrombotic therapy in patients with atrial fibrillation: Physician and patient perspectives. (2015) HEALTH EXPECT, 18 (6), 2318-2327. IF: 3.2070</p> <p>Carles M., Brosa M., Souto J.C., Garcia-Alamino J.M., Guyatt G., Alonso-Coello P., Cost-effectiveness analysis of dabigatran and anticoagulation monitoring strategies of vitamin K antagonist. (2015) BMC HEALTH SERV RES. IF: 1.6060</p> <p>Carles M., Brosa M., Souto J.C., Garcia-Alamino J.M., Guyatt G., Alonso-Coello P., Cost-effectiveness analysis of dabigatran and anticoagulation monitoring strategies of Vitamin K antagonist Utilization, expenditure, economics and financing systems. (2015) BMC HEALTH SERV RES, 15 (1). IF: 1.6060</p> <p>Franberg M., Gertow K., Hamsten A., PRO-CARDIS consortium, Lagergren J., Sennblad B., Souto J., Soria J.M., Discovering Genetic Interactions in Large-Scale Association Studies by Stage-wise Likelihood Ratio Tests. (2015) PLOS GENET, 11 (9). IF: 7.5280</p> <p>Herrero R., Real L.M., Rivero-Juarez A., Pineda J.A., Camacho A., Macias J., Laplana M., Konieczny P., Marquez F.J., Souto J.C., Soria J.M., Saulle I., Lo Caputo S., Biasin M., Rivero A., Fibla J., Caruz A., Association of complement receptor 2 polymorphisms with innate resistance to HIV-1 infection. (2015) GENES IMMUN, 16 (2), 134-141. IF: 2.4720</p> <p>Millon Cano J.A., Vilalta Seto N., Mateo Arranz J., Souto Andres J.C., Importance of appropriate clinical management of direct oral anticoagulants. (2015) MED CLIN-BARCELONA. IF: 1.2670</p> <p>Olson N.C., Butenas S., Lange L.A., Lange E.M., Cushman M., Jenny N.S., Walston J., Souto J.C., Soria J.M., Chauhan G., Debette S., Longstreth W.T., Seshadri S., Reiner A.P., Tracy R.P., Coagulation factor XII genetic variation, ex vivo thrombin generation, and stroke risk in the elderly: Results from the Cardiovascular Health Study. (2015) J THROMB HAEMOST, 13 (10), 1867-1877. IF: 5.5650</p> <p>Pujol-Moix N., Vazquez-Santiago M., Morera A., Ziyatdinov A., Remacha A., Nomdedeu J.F., Fontcuberta J., Soria J.M., Souto J.C., Genetic determinants of Platelet Large-Cell Ratio, Immature Platelet Fraction, and other platelet-related phenotypes. (2015) THROMB RES, 136 (2), 361-366. IF: 2.3200</p>
------------------------------	--

Other Publications	<ul style="list-style-type: none"> ▶ Rubio-Terrés C., Soria J.M., Morange P.E., Souto J.C., Suchon P., Mateo J., Saut N., Rubio-Rodriguez D., Sala J., Gracia A., Pich S., Salas E. Economic Analysis of Thrombo inCode, a Clinical-Genetic Function for Assessing the Risk of Venous Thromboembolism. (2015) APPL HEALTH ECON HEALTH POLICY, 13, 233-42. 	<ul style="list-style-type: none"> ▶ Drobnic F., Pineda A., Escudero J.R., Soria J.M., Souto J.C. Guía de práctica clínica para la prevención, diagnóstico y tratamiento de la enfermedad tromboembólica venosa en el deporte. (2015) APUNTS MED ESPORT, 50, 147-159.
---------------------------	--	--

*Total Impact Factor **Mean Impact Factor

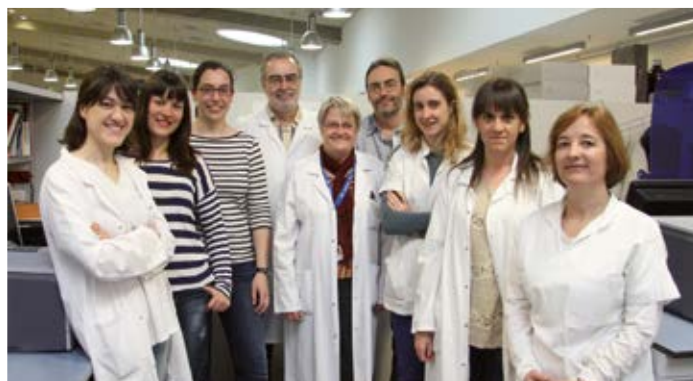
Cardiovascular Biochemistry

Coordinator

Ordóñez Llanos, Jorge FGS
jordonez@santpau.cat

Members

Benítez González, Sonia IR
Bonet Marqués, Rosa FGS
Castellví Griso, Agustina FGS
Estruch Alrich, Montserrat IR
Freixa Martín, Julia FGS
Mercé Muntañola, Javier FGS
Porcel Jabalera, Inmaculada FGS
Rentería Obregon, Ivy Mariel IR
Rivas Urbina, Andrea Patricia IR
Rull Aixa, Anna IR
Sánchez Quesada, José Luis IR



Main Lines of Research

Atherosclerosis mechanisms

- ▶ Analysis of apolipoprotein J (apoJ) as a marker of CVR.
- ▶ Use of mimetic peptides derived from apoJ as therapeutic tools.
- ▶ Involvement of LDL(-) on lipid accumulation in cardiomyocytes and heart failure.

Inflammatory mechanisms induced by LDL(-) on monocytes from patients with diabetes

- ▶ Diagnosis of chronic or acute cardiovascular diseases.

- ▶ 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.

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, HIV or cardiac failure.

Active Grants

- ▶ Jorge Ordóñez Llanos. Red Cardiovascular. RD12/0042/0043. Instituto de Salud Carlos III. Duration: 2013-2016. €94,000.
- ▶ Anna Rull Aixa. Ayudas para Contratos de Perfeccionamiento "Sara Borrell 2012". CD12/00439. Instituto de Salud Carlos III. Duration: 2013-2016. €75,600.
- ▶ José Luis Sánchez Quesada. Contracte Programa d'Estabilització i Intensificació. CES12/023. Departament de Salut. Duration: 2013-2017. €120,000
- ▶ José Luis Sánchez Quesada. Implicación de la apolipoproteína J (clusterina) en

la arteriosclerosis. Utilización terapéutica de péptidos miméticos con actividad chaperona. PI13/00364. Instituto de Salud Carlos III. Duration: 2014-2016. €85,500.

- ▶ Jorge Ordóñez Llanos. Grup de Recerca d'Estructura de Lipoproteïnes, Dislipèemies i altres factors de risc de l'Arteriosclerosi. 2014 SGR 246. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016.

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

Collaborations with other IIB Sant Pau Groups

- ▶ Metabolic Bases of Cardiovascular Risk (Dr F. Blanco Vaca).
- ▶ Endocrinology, Diabetes and Nutrition (Dr A. Pérez).
- ▶ Angiology, Vascular Biology and Inflammation (Dr L. Vila).
- ▶ Clinical and Translational Cardiology (Dr J. Cinca).
- ▶ Lipids and Cardiovascular Pathology (Dr C. Llorente).

External Collaborations

Research into atherosclerosis mechanisms

- ▶ Dr Petri Kovanen, Wihuri Research Institute, Helsinki, Finland.
- ▶ Dr Kati Öörni, Wihuri Research Institute, Helsinki, Finland. Pre-doctoral stay by Montserrat Estruch (4 months).
- ▶ Dr Olga Gursky, Boston University School of Medicine, Boston, USA. Post-doctoral stay by Anna Rull (6 months).
- ▶ Dr Sandra Villegas, Biochemistry and Molecular Biology Department, UAB, Barcelona, Spain (ISCIII/FIS coordinated project under PI10/00265).

Research into diagnosis

- ▶ Dr Daniel Podzamczar, HIV Unit, Infectious Disease Service, Bellvitge University Hospital, Barcelona, Spain (ATADAR, SPIRAL and BICOMBO clinical trials).
- ▶ Formation and maintenance of a bank of samples within the Cardiovascular Research Network (RIC), Programme 6 (Clinical and Translational Heart Failure).
- ▶ Cardiovascular Research Network (RIC): Dr Francisco Marín, Cardiology, Hospital Virgen de Arrixaca, Murcia, Spain, 3-month stay by Dr Juan Antonio Vilchez (during a Rio Hortega contract) in our collaborative studies laboratory.

- ▶ Dr Mariano Valdés, Virgen de Arrixaca University Hospital, Murcia (Spain), 3-week stay by Dr Carmen Puche in our collaborative studies laboratory.
- ▶ 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.

Participation in multicentre studies

- ▶ MUSIC (sudden death in heart failure) Risk Score, Spanish Society of Cardiology.
- ▶ MAGGIC (meta-analysis global group in chronic heart failure), European Society of Cardiology.

*TIF: 58.5230 **MIF: 3.9015

Alquezar-Arbe A., Ordonez-Llanos J., Quo vadis, troponin? (2015) REV ESP CARDIOL, 68 (6), 457-459.

IF: 4.5960

Apple F.S., Jaffe A.S., Collinson P., Mockel M., Ordonez-Llanos J., Lindahl B., Hollander J., Plebani M., Than M., Chan M.H.M. IFCC educational materials on selected analytical and clinical applications of high sensitivity cardiac troponin assays. (2015) CLIN BIOCHEM, 48 (4-5), 201-203.

IF: 2.3820

Bayes-Genis A., Ordonez-Llanos J., Multiple biomarker strategies for risk stratification in heart failure. (2015) CLIN CHIM ACTA, 443, 120-125.

IF: 2.7990

Cedo L., Cedo L., Escola-Gil J.C., Metso J., Santos D., Sanchez-Quesada J.L., Julve J., Garcia-Leon A., Mora-Brugues J., Jauhainen M., Blanco-Vaca F., Consumption of polyunsaturated fat improves the saturated fatty acid-mediated impairment of HDL antioxi-

dant potential. (2015) MOL NUTR FOOD RES, 59 (10), 1987-1996.

IF: 4.5510

De Gonzalo-Calvo D., Cenaarro A., Martinez-Bujidos M., Badimon L., Bayes-Genis A., Ordonez-Llanos J., Civeira F., Llorente-Cortes V., Circulating soluble low-density lipoprotein receptor-related protein 1 (sLRP1) concentration is associated with hypercholesterolemia: A new potential biomarker for atherosclerosis. (2015) INT J CARDIOL, 201, 20-29.

IF: 4.6380

Estruch M., Rajamaki K., Sanchez-Quesada J.L., Kovanen P.T., Oorni K., Benitez S., Ordonez-Llanos J., Electronegative LDL induces priming and inflammasome activation leading to IL-1 β release in human monocytes and macrophages. (2015) BBA-MOL CELL BIOL L, 1851 (11), 1442-1449.

IF: 4.7790

Jackson C.E., *et al.*, Differing prognostic value of pulse pressure in patients with heart fail-

ure with reduced or preserved ejection fraction: results from the MAGGIC individual patient meta-analysis. (2015) EUR HEART J, 36 (18), 1106-1114.

IF: 15.0640

Martinez-Bujidos M., Rull A., Gonzalez-Cura B., Perez-Cuellar M., Montoliu-Gaya L., Villegas S., Ordonez-Llanos J., Sanchez-Quesada J.L., Clusterin/apolipoprotein J binds to aggregated LDL in human plasma and plays a protective role against LDL aggregation. (2015) FASEB J, 29 (5), 1688-1700.

IF: 5.2990

Mendez A.B., Ordonez-Llanos J., Farrero M., Mirabet S., Brossa V., Lopez L., Bonet R., Sionis A., Perez-Villa F., Roig Minguell E., Cost-Effectiveness of Highly Sensitive Cardiac Troponin T to Rule Out Acute Rejection after Heart Transplantation. (2015) TRANSPL P, 47 (8), 2395-2396.

IF: 0.8670

Minambres I., Sanchez-Quesada J.L., Vinagre I., Sanchez-Hernandez J., Urgell E., De Leiva

Cardiovascular Biochemistry

*TIF: 58.5230 **MIF: 3.9015

Scientific Production

A., Perez A., Hypovitaminosis D in type 2 diabetes: Relation with features of the metabolic syndrome and glycemic control. (2015) ENDOCR RES, 40 (3), 160-165.

IF: 1.4760

Minambres I., Sanchez-Quesada J.L., Perez A., The association between hypovitaminosis D and metabolic syndrome: Current understanding. (2015) CLIN LIPIDOL, 10 (6), 513-524.

IF: 0.7690

Revuelta-Lopez E., Cal R., Julve J., Rull A., Martinez-Bujidos M., Perez-Cuellar M., Ordonez-Llanos J., Badimon L., Sanchez-Quesada J.L., Llorente-Cortes V., Hypoxia worsens the impact of intracellular triglyceride

accumulation promoted by electronegative low-density lipoprotein in cardiomyocytes by impairing perilipin 5 upregulation. (2015) INT J BIOCHEM CELL B, 65, 257-267.

IF: 3.9050

Rull A., Martinez-Bujidos M., Perez-Cuellar M., Perez A., Ordonez-Llanos J., Sanchez-Quesada J.L., Increased concentration of clusterin/apolipoprotein J (apoJ) in hyperlipemic serum is paradoxically associated with decreased apoJ content in lipoproteins. (2015) ATHEROSCLEROSIS, 241 (2), 463-470.

IF: 3.9420

Rull A., Ordonez-Llanos J., Sanchez-Quesada J.L., The role of LDL-bound apoJ in the development of atherosclerosis. (2015) CLIN LIPIDOL, 10 (4), 321-328.

IF: 0.7690

Vilchez J.A., Perez-Cuellar M., Marin F., Gallego P., Manzano-Fernandez S., Valdes M., Vicente V., Noguera-Velasco J.A., Lip G.Y.H., Ordonez-Llanos J., Roldan V., sST2 levels are associated with all-cause mortality in anticoagulated patients with atrial fibrillation. (2015) EUR J CLIN INVEST, 45 (9), 899-905.

IF: 2.6870

Angiology, Vascular Biology and Inflammation

Coordinator

Vila Navarro, Luis IR
lvila@santpau.cat

Members

Alcolea Ruiz, Sonia IR
Alonso Nieto, Judith IR
Bellmunt Montoya, Sergio FGS
Camacho Pérez de Madrid, María Mercedes IR
Dilmé Muñoz, Jaume Fèlix FGS
Escudero Rodríguez, José Román FGS
Gómez Jabalera, Efrén FGS
Romero Carro, Josep María
Siguero Martín, Laura IR
Solá Font, Olga IR



Main Lines of Research

Cardiovascular Research

- ▶ Inflammatory mechanisms involved in vascular disorders.
- ▶ Genetic basis of vascular pathologies: atherothrombosis, aortic aneurism and chronic venous insufficiency.
- ▶ New, more effective targets. Research into pharmacologic targets for NSAIDs of cardiovascular interest.

Cancer Research

- ▶ Role of inflammatory mediators in head and neck squamous carcinoma and in regulating gene expression in tumour relapse.

Challenges

- ▶ Increase cooperation between clinicians and experimental researchers to enhance the translation level of our research by setting up training programmes for clinical physicians.
- ▶ Increase funding sources by establishing collaborations with the industrial sector.
- ▶ Improve research quality in terms of standard evaluation indexes.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Ear, Nose and Throat Cancers (Xavier León, Jacinto Gracia and Miquel Quer).
- ▶ Genomics of Complex Diseases (José Manuel Soria, PI).
- ▶ Thrombosis and Haemostasis (Juan Carlos Souto, PI).
- ▶ Atherosclerosis and Vascular Biology (José Martínez, PI).
- ▶ Inflammation and Vascular Remodelling (Cristina Rodríguez, PI).

- ▶ General and Digestive Surgery (Eduard Targarona and Carmen Balagué).

External Collaborations

- ▶ Dr Mercedes Salices. Pharmacology Group, Universidad Autónoma de Madrid, Spain.
- ▶ Dr Juan Miguel Redondo. CNIC, Madrid, Spain.
- ▶ Dr Alicia García Arroyo. CNIC, Madrid, Spain.
- ▶ Dr Francesc-Xavier Avilés-Jurado. Otorhinolaryngology Department, Hospital Universitari de Tarragona Joan XXIII, ISPV, Universitat Rovira i Virgili, Tarragona, Spain.

Theses

- ▶ Zenaida Piñeiro Aguin. Expresión de la prostaciclina sintetasa en los carcinomas de cabeza y cuello y valor pronóstico en la respuesta a radioterapia. Universitat Autònoma de Barcelona. Directors: Mercedes Camacho, Xavier León, Luis Vila. Date of defense: 12 June 2015.

Active Grants

- ▶ Luis Vila Navarro. Red Cardiovascular. RD12/0042/0051. Instituto de Salud Carlos III. Duration: 2013-2016. €201,869.56.
- ▶ Luis Vila Navarro, Mercedes Camacho Pérez de Madrid. Papel de las vías de la PGE2 y glutatión reducido/Nfr2-ARE en la hipervascularización asociada al aneurisma de aorta abdominal. SAF2013-46707-R. Ministerio de Economía y Competitividad. Duration: 2014-2016. €110.000.
- ▶ Luis Vila Navarro. Laboratorio de Angiología, Biología Vascular e Inflamación (LABVI). 2014 SGR 402. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016.

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

*TIF: 42.2190 **MIF: 4.6910

Scientific Production

Bellmunt-Montoya S., Escribano J.M., Dilme J., Martínez-Zapata M.J., CHIVA method for the treatment of chronic venous insufficiency. (2015) COCHRANE DB SYST REV, 6, CD009648-.

IF: 6.0350

Calvayrac O., Rodriguez-Calvo R., Marti-Pamies I., Alonso J., Ferran B., Aguiló S., Crespo J., Rodriguez-Sinovas A., Rodriguez C., Martinez-Gonzalez J., NOR-1 modulates the inflammatory response of vascular smooth muscle cells by preventing NFκB activation. (2015) J MOL CELL CARDIOL, 80, 34-44.

IF: 4.8740

Camacho M., Pineiro Z., Alcolea S., Garcia J., Balart J., Terra X., Aviles-Jurado F.-X., Soler M., Quer M., Leon X., Vila L., Prostacyclin-synthase expression in head and neck carcinoma patients and its prognostic value in the response to radiotherapy. (2015) J PATHOL, 235 (1), 125-135.

IF: 7.3810

Cortes-Vicente E., Delgado-Mederos R., Bellmunt S., Borrás X.F., Gomez-Anson B., Bague

S., Camps-Renom P., Marti-Fabregas J., Stroke caused by a myxoma stenosing the common carotid artery. (2015) J STROKE CEREBROVASC, 24 (4), e87-e89.

IF: 1.5990

Garcia-Redondo A.B., Briones A.M., Martinez-Revelles S., Palao T., Vila L., Alonso M.J., Salaices M., C-Src, ERK1/2 and Rho kinase mediate hydrogen peroxide-induced vascular contraction in hypertension: Role of TXA2, NAD(P)H oxidase and mitochondria. (2015) J HYPERTENS, 33 (1), 77-87.

IF: 5.0620

Guerrero N.A., Camacho M., Vila L., Iniguez M.A., Chillon-Marinas C., Cuervo H., Poveda C., Fresno M., Girones N., Cyclooxygenase-2 and prostaglandin E₂ signaling through prostaglandin receptor EP-2 favor the development of myocarditis during acute trypanosoma cruzi infection. (2015) PLOS NEGLECT TROP D, 9 (8).

IF: 3.9480

Leon X., Bothe C., Garcia J., Parreno M., Alcolea S., Quer M., Vila L., Camacho M., Expression of IL-1α correlates with distant metastasis

in patients with head and neck squamous cell carcinoma. (2015) ONCOTARGET, 6 (35), 37398-37409.

IF: 5.0080

Rodriguez-Calvo R., Ferran B., Alonso J., Marti-Pamies I., Aguiló S., Calvayrac O., Rodriguez C., Martinez-Gonzalez J., NR4A receptors up-regulate the antiproteinase alpha-2 macroglobulin (A2m) and modulate MMP-2 and MMP-9 in vascular smooth muscle cells. (2015) THROMB HAEMOSTASIS, 113 (6), 1323-1334.

IF: 5.2550

Sola-Villa D., Dilme J.-F., Rodriguez C., Soto B., Vila L., Escudero J.-R., Martinez-Gonzalez J., Camacho M., Expression and cellular localization of 15-hydroxy-prostaglandin-dehydrogenase in abdominal aortic aneurysm. (2015) PLOS ONE, 10 (8).

IF: 3.0570

Molecular Pathology and Therapeutic of Ischaemic and Atherothrombotic Diseases

Coordinator

Badimon Maestro, Lina ICCC
lbadimon@csic-iccc.org

Members

Aledo Zamora, Rosa ICCC
Arderiu Marqués, Gemma ICCC
Azorín Ortuño, María ICCC
Bejar Serrano, María Teresa ICCC
Borrell Pagès, Maria ICCC
Camino López, Sandra ICCC
Casani Arazo, Laura ICCC
Chiva Blanch, Gemma ICCC
Crespo Asensio, Javier ICCC
Cubedo Rafols, Judit ICCC
De la Torre Tovar, Raquel ICCC
Deya Vidal, Alba ICCC
Escate Chávez, Rafael ICCC
Espinosa Ferrer, Sonia ICCC
Ferrer Lorente, Raquel ICCC
Florit Carbonell, Sergi ICCC
Juan Babot, Josep Oriol ICCC
Lambert Goitia, Carmen ICCC
López Bernal, Sergio ICCC
Serra Pascual, Selma ICCC
Vilahrur García, Gemma ICCC



Main Lines of Research

- ▶ Physiopathological role of LRP family proteins in chronic diseases.
- ▶ Identification and characterization of transcription factors and genetic targets. Role of lipids and inflammation.
- ▶ 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-factor-mediated angiogenic switch.

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.

Awards

- ▶ Lina Badimon. Doctor Honoris Causa. Carol Davila University of Medicine and Pharmacy.
- ▶ Lina Badimon, Judit Cubedo. Finalista. Segundo Concurso de Innovación en Salud de Vall d'Hebron Institut de Recerca (VHIR).
- ▶ Lina Badimon, Judit Cubedo. Apo J-Glyc POC device in myocardial ischemia. 1a Convocatoria CaixaImpulse Innovation for Society. Fundació "la Caixa".
- ▶ Lina Badimon, Gemma Vilahrur. Cardioshield: Prevenció de la lesió per reperfusió. Second Award. VALORTEC (concurs de plans de negoci de patents i empreses de base tecnològica). Projecte ACCIO. Generalitat de Catalunya.

Theses

- ▶ Ilaria Ramaiola. Thombus composition in acute coronary syndrome. Universitat Pompeu Fabra. Directors: Lina Badimon, Teresa Padró. Date of defense: 24 March 2015.
- ▶ Sonia Espinosa Ferrer. Neovascularización mediada por factor tisular en la placa aterosclerótica. Universidad de Barcelona. Directors: Lina Badimon, Gemma Arderiu. Date of defense: 20 July 2015.
- ▶ Raquel de la Torre Tovar. Mecanismos de inflamación y trombosis: papel de la proteína C-reactiva y de la proteína 78 regulada por glucosa. Universitat de Barcelona. Director: Lina Badimon.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Clinical and Translational Cardiology (PI: Juan Cinca).
- ▶ Biomarkers for Cardiovascular Disease (PI: Teresa Padró).
- ▶ Cerebrovascular Diseases (PI: Joan Martí Fàbregas).
- ▶ Endocrinology, Diabetes and Nutrition (PI: Alberto de Leiva).
- ▶ Pharmacological Research in Humans (PI: Rosa M. Antonijoan).

National Collaborations

- ▶ Department of Internal Medicine, Hospital Clínic, Barcelona (R. Estruch).
- ▶ Department of Cardiology, Thorax Institute, Hospital Clínic, University of Barcelona (Salvatore Brugaletta, Victoria Martín-Yuste, Clarissa Cola, Manel Sabaté).
- ▶ Quirúrgica Cirujanos Asociados (Alberto Díez-Caballero).
- ▶ Department of Plastic Surgery, Centro Médico Teknon, Barcelona (Fabrizio Moscatiello, Javier Herrero).

- ▶ Centro Laparoscópico Doctor Ballesta SLU, Barcelona (Carlos Ballesta-López).
- ▶ Fundación Jiménez Díaz, Madrid (Rodrigo Alonso, Pedro Mata).
- ▶ Cell Therapy Network (TerCel), RD12/0019.
- ▶ Cardiovascular Research Network (RIC), RD12/0042.
- ▶ Programa Emprenedoria Corporativa de ACCIÓ (MEDIGENIUM SL, february 2015).

International Collaborations

- ▶ Experimental, Diagnostic and Speciality Medicine, University of Bologna, Bologna, Italy (Raffaele Bugiardini).
- ▶ 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).

Active Grants

- ▶ Lina Badimon Maestro. Safer and faster evidence-based translation (SAFE-T). European Commission IMI_Call_2008_1_05. 115003, IMI-JU. Duration: Sept 2009-June 2015.
- ▶ Lina Badimon Maestro, Gemma Vilahur Garcia. Biomarker for cardiovascular risk assessment in Europe (BiomarCaRe). FP7-European Commission HEALTH-2011. GA 278913. Duration: Oct 2011-Oct 2015.
- ▶ Lina Badimon Maestro. Search of new targets to inhibit the transformation of silent atherosclerosis into ischemic syndromes: tissue factor mediated angiogenic switch. National Plan for Scientific and Technical Research and Innovation. SAF2013-42962-R. Duration: Jan 13-Dec 2016.
- ▶ Gemma Vilahur Garcia. Functional and molecular effects of different HDL forms in myocardial remodelling post-infarction: application of a systems biology approach to identify regulated genes and gene products. National Plan for Scientific and Technical Research and Innovation. SAF2012-40208. Duration: Jan 2013-Dec 2015.
- ▶ Gemma Arderiu Marqués. Peripheral vascular disease and angiogenesis: role of tissue factor in the stabilization of neovessels.

Health Research Projects. ISCIII-FIS PI12/02332. Duration: Jan 2013-Dec 2015.

- ▶ Lina Badimon Maestro. Cell Therapy Network (TerCel). Carlos III Health Institute. RD12/0019/0026. Duration: Jan 2013-Dec 2016.
- ▶ Lina Badimon Maestro. Cardiovascular Research Network (RIC). Carlos III Health Institute. RD12/0042/0027. Duration: Jan 2013-Dec 2016.
- ▶ Lina Badimon Maestro. Ajuts de suport als Grups de Recerca de Catalunya. AGAUR 2014. SGR 1303. Duration: Jan 2014-Dec 2016.
- ▶ Lina Badimon Maestro. Exploring the mechanisms involved in ticagrelor[®]-related acute cardioprotection. Do they translate into a better remodeling process and improved cardiac performance at long-term? Astra Zeneca AB. Duration: Jan 2015-June 2016.
- ▶ Lina Badimon Maestro. Transcriptomic profile of cardiac markers and endothelial function in humans: effect from the moderate consumption of beer. Beer and Health Information Centre (CICS). Duration: Nov 2013-Mar 2016.

*TIF: 216.5510 **MIF: 5.8527

Scientific Production

Adler Y, Charron P, Imazio M, Badano L, Baron-Esquivias G, Bogaert J, Brucato A, Gueret P, Klingel K, Lionis C, Maisch B, Mayosi B, Pavie A, Ristic A.D, Tenas M.S, Seferovic P, Swedberg K, Tomkowski W, Achenbach S, Agewall S, Al-Attar N, Ferrer J.A, Arad M, Asteggiano R, Bueno H, Caforio A.L.P, Carerj S, Ceconi C, Evangelista A, Flachskampf F, Giannakoulas G, Gielen S, Habib G, Kolh P, Lambrinou E, Lancellotti P, Lazaros G, Linhart A, Meurin P, Nieman K, Piepoli M.F, Price S, Roos-Hesselink J,

Zamorano J.L., Aboyans V, Badimon L., Baumgartner H., Bax J.J., Dean V., Erol C., Fitzimons D., Gaemperli O., Kirchhof P., Lip G.Y.H., Nihoyannopoulos P., Ponikowski P., Roffi M., Torbicki A., Carneiro A.V., Windecker S., 2015 ESC Guidelines for the diagnosis and management of pericardial diseases. (2015) EUR HEART J, 36 (42), 2921-2964.

IF: 15.0640

Aledo R., Padro T., Mata P., Alonso R., Badimon L., Rs11613352 polymorphism (TT Genotype) associates with a decrease of triglyc-

erides and an increase of HDL in familial hypercholesterolemia patients. (2015) REV ESP CARDIOL, 68 (4), 305-309.

IF: 4.5960

Arderiu G., Peña E., Badimon L. Angiogenic microvascular endothelial cells release microparticles rich in tissue factor that promotes postischemic collateral vessel formation. (2015) ARTERIOSCLEROSIS, THROMBOSIS AND VASCULAR BIOLOGY, 35(2), 348-357.

IF: 6.0100

Molecular Pathology and Therapeutic of Ischaemic and Atherothrombotic Diseases

*TIF: 216.5510 **MIF: 5.8527

Badimon L., Vilahur G., Neutrophil extracellular traps: A new source of tissue factor in atherothrombosis. (2015) *EUR HEART J*, 36 (22), 1364-1366.

IF: 15.0640

Badimon L., Onate B., Vilahur G., Adipose-derived mesenchymal stem cells and their reparative potential in ischemic heart disease. (2015) *REV ESP CARDIOL*, 68 (7), 599-611.

IF: 4.5960

Barrabes J.A., Cequier A., Bueno H., Gonzalez A., Fernandez-Ortiz A., Lidon R.M., Marin F., Sanchis J., Sionis A., Hernandez J.M.D., Vinas J.A., Abu-Assi E., Sole, A.A., Castro O.D., Gutierrez J.L.F., Lledo A.G., Gil I.N., Roubin S.R., Rodriguez-Palomares J.F., Tejedor A.V., Balcones D.V., Anguita M., Cequier A., Alfonso F., Badimon L., Lozano I.F., de Diego J.J.G., Padial L.R., Romn J.A., Sanchez P.L. Comments on the 2015 ESC Guidelines for the management of acute coronary syndromes in patients presenting without persistent ST-segment elevation, (2015) *REVISTA ESPAÑOLA DE CARDIOLOGIA* 68 (12): 1061-1067.

IF: 4.5960

Borrell-Pages M., Romero J.C., Badimon L., Cholesterol modulates LRP5 expression in the vessel wall. (2015) *ATHEROSCLEROSIS*, 235 (2), 363-370.

IF: 3.9420

Borrell-Pages M., Carolina Romero J., Badimon L., LRP5 and plasma cholesterol levels modulate the canonical Wnt pathway in peripheral blood leukocytes. (2015) *IMMUNOL CELL BIOL*, 93 (7), 653-661.

IF: 4.4730

Bugiardini R., Dorobantu M., Vasiljevic Z., Kedev S., Knezevic B., Milicic D., Calmac L., Trninic D., Daullxhiu I., Cenko E., Ricci B., Puddu P.E., Manfredi O., Koller A., Badimon L., Unfractionated heparin-clopidogrel combination in ST-elevation myocardial infarction not receiving reperfusion therapy. (2015) *ATHEROSCLEROSIS*, 241 (1), 151-156.

IF: 3.9420

Calvayrac O., Rodriguez-Calvo R., Marti-Pamies I., Alonso J., Ferran B., Aguilo S., Crespo J., Rodriguez-Sinovas A., Rodriguez C., Martinez-Gonzalez J., NOR-1 modulates the inflammatory response of vascular smooth muscle cells by preventing NFkB activation. (2015) *J MOL CELL CARDIOL*, 80, 34-44.

IF: 4.8740

Cequier A., Maroto J.L., Alfonso F., Barrabes J., Canovas S., Carnero M., Fernandez-Ortiz A., Sabate M., Sanchis J., Reyes G., Alegria E., Aros F., Cuenca J., Diaz J., Lidon R.M., Gude M.J.L., Lozano I., Ruiz-Noda J.M., de la Torre J.M., Pan M., Sanchez-Recalde A., Anguita M., Badimon L., Barrabes J., Cequier A., Comin J.,

Fernandez-Lozano I., Pan M., Padial L.R., Sanchez P.L., Roman A.S., de Diego J.J.G. Group Author(s): SEC SECTCV Working Grp ESC EACTS 2; Expert Reviewers ESC EACTS 2014 Gu; SEC Clinical Practice Guidelines C, Comments on the 2014 ESC/EACTS Guidelines on Myocardial Revascularization. (2015) *REVISTA ESPAÑOLA DE CARDIOLOGIA*, 68 (2), 92-97.

IF: 4.5960

Costales P., Fuentes-Prior P., Castellano J., Revuelta-Lopez E., Corral-Rodriguez M.A., Nasarre L., Badimon L., Llorente-Cortes V., K domain CR9 of low density lipoprotein (LDL) receptor-related protein 1 (LRP1) is critical for aggregated LDL-induced foam cell formation from human vascular smooth muscle cells. (2015) *J BIOL CHEM*, 290 (24), 14852-14865.

IF: 4.2580

Cubedo J., Padro T., Pena E., Aledo R., Formiga F., Ferrer A., Padros G., Badimon L., High Levels of Antifibrinolytic Proteins Are Found in Plasma of Older Octogenarians With Cardiovascular Disease and Cognitive Decline. (2015) *J AM COLL CARDIOL*, 65 (24), 2667-2669.

IF: 17.7590

Cubedo J., Padro T., Garcia-Arguinzonis M., Vilahur G., Minambres I., Pou J.M., Ybarra J., Badimon L., A novel truncated form of apolipoprotein A-I transported by dense LDL is increased in diabetic patients. (2015) *J LIPID RES*, 56 (9), 1762-1773.

IF: 4.3680

De Gonzalo-Calvo D., Lopez-Vilaro L., Nasarre L., Perez-Olabarria M., Vazquez T., Escuin D., Badimon L., Barnadas A., Lerma E., Llorente-Cortes V., Intratumor cholesteryl ester accumulation is associated with human breast cancer proliferation and aggressive potential: A molecular and clinicopathological study. (2015) *BMC CANCER*, 15 (1),

IF: 3.2650

De Gonzalo-Calvo D., Cenaarro A., Martinez-Bujidos M., Badimon L., Bayes-Genis A., Ordonez-Llanos J., Civeira F., Llorente-Cortes V., Circulating soluble low-density lipoprotein receptor-related protein 1 (sLRP1) concentration is associated with hypercholesterolemia: A new potential biomarker for atherosclerosis. (2015) *INT J CARDIOL*, 201, 20-29.

IF: 4.6380

Guindo J., Anguita M., Alonso J., Aznar J., Pascual J.F., Ruiz MDM, Ordonez B., Quiles J., Vazquez G., EsquiviasGB, Alonso VB, Sales JC, Loban CFG, Martinez JMG, Marimon XGM, Borreguero LJ, Gorostiza EL, Romero FL, Cubero AP, Vera TR, Fernandez JAR, Anguita M, Cequier A, Alfonso F, Badimon L, BarrabesJA, Lozano IF, de Diego JGG, Padial LR,

San Roman JA, Sanchez PL, Sanchis J; Sionis A. Comments on the 2015 ESC Guidelines for the Diagnosis and Management of Pericardial Diseases. A Report by the Spanish Society of Cardiology Guidelines Committee Working Group, (2015) *REVISTA ESPAÑOLA DE CARDIOLOGIA* 68 (12): 1068-1074.

IF: 4.5960

Hoefer I.E., Steffens S., Ala-Korpela M., Back M., Badimon L., Bochaton-Piallat M.-L., Boulanger C.M., Caligiuri G., Dimmeler S., Egido J., Evans P.C., Guzik T., Kwak B.R., Landmesser U., Mayr M., Monaco C., Pasterkamp G., Tunon J., Weber C., Novel methodologies for biomarker discovery in atherosclerosis. (2015) *EUR HEART J*, 36 (39), 2635-2642.

IF: 15.0640

Lara-Pezzi E., Menasche P., Trouvin J.-H., Badimon L., Ioannidis J.P.A., Wu J.C., Hill J.A., Koch W.J., De Felice A.F., de Waele P., Steenwinckel V., Hajjar R.J., Zeiher A.M., Guidelines for Translational Research in Heart Failure. (2015) *ADV DATA ANAL CLASSI*, 9 (1), 3-22.

IF: 1.7070

Lopez-Sendon J., Gonzalez-Juanatey J.R., Pinto F., Cuenca Castillo J., Badimon L., Dalmau R., Gonzalez Torrecilla E., Lopez-Minguez J.R., Maceira A.M., Pascual-Figal D., Pomar Moya-Prats J.L., Sionis A., Zamorano J.L., Quality Markers in Cardiology. Main Markers to Measure Quality of Results (Outcomes) and Quality Measures Related to Better Results in Clinical Practice (Performance Metrics). *INCARDIO* (Indicadores de Calidad en Unidades Asistenciales del Área del Corazón): A SEC/SECTCV Consensus Position Paper. (2015) *REV ESP CARDIOL*, 68 (11), 976-995e10.

IF: 4.5960

Marín F, Sánchez PL, Cortina JM, Robles JA, Jiménez D, Lecumberri R, Recalde AS, Sionis A, Abu-Assi E, Freire RB, Iglesias FC, Doblas JJ, de Sa y Areses EL, Moreiras JM, Marzal D, de Isla LP, Schilling VR, Anguita M, Badimon L, Barrabés JA, Cequier A, Comín J, Lozano IF, deDiego JJ, Pan M, Román JA, Sánchez PL. SEC Working Group for the ESC 2014 Guidelines on the Diagnosis and Management of Acute Pulmonary Embolism; Expert Reviewers for the ESC 2014 Guidelines on the Diagnosis and Management of Acute Pulmonary Embolism; SEC Clinical Practice Guidelines Committee. Comments on the 2014 ESC Guidelines on the diagnosis and management of acute pulmonary embolism, (2015) *REVISTA ESPAÑOLA DE CARDIOLOGIA* (English ed.) 68(1):10-16.

IF: 4.5960

Marti-Fabregas J., Delgado-Mederos R., Crespo J., Pena E., Marin R., Jimenez-Xarrie E., Fernandez-Arcos A., Perez-Perez J., Martinez-Domeno A., Camps-Renom P., Prats-

*TIF: 216.5510 **MIF: 5.8527

Scientific Production

Sanchez L., Casani F., Badimon L., Circulating endothelial progenitor cells and the risk of vascular events after ischemic stroke. (2015) PLOS ONE, 10 (4),

IF: 3.0570

Padro T., Vilahur G., Sanchez-Hernandez J., Hernandez M., Antonijoan R.M., Perez A., Badimon L., Lipidomic changes of LDL in overweight and moderately hypercholesterolemic subjects taking phytosterol- and omega-3-supplemented milk. (2015) J LIPID RES, 56 (5), 1043-1056.

IF: 4.3680

Pallares J., Senan O., Guimera R., Vernet A., Aguilar-Mogas A., Vilahur G., Badimon L., Sales-Pardo M., Cito S., A comprehensive study on different modelling approaches to predict platelet deposition rates in a perfusion chamber. (2015) SCI REP-UK, 5,

IF: 5.2280

Pena E., Arderiu G., Badimon L., Protein disulphide-isomerase A2 regulated intracellular tissue factor mobilisation in migrating human vascular smooth muscle cells. (2015) THROMB HAEMOSTASIS, 113 (4), 891-902.

IF: 5.2550

Ramaola I., Padro T., Pena E., Juan-Babot O., Cubedo J., Martin-Yuste V., Sabate M., Badimon L., Changes in thrombus composition and profilin-1 release in acute myocardial infarction. (2015) EUR HEART J, 36 (16), 965-975.

IF: 15.0640

Revuelta-Lopez E., Cal R., Herraiz-Martinez A., de Gonzalo-Calvo D., Nasarre L., Roura S., Galvez-Monton C., Bayes-Genis A., Badimon L., Hove-Madsen L., Llorente-Cortes V., Hypoxia-driven sarcoplasmic/endoplasmic reticulum calcium ATPase 2 (SERCA2) down-regulation depends on low-density lipoprotein receptor-related protein 1 (LRP1)-signalling in cardiomyocytes. (2015) J MOL CELL CARDIOL, 85, 25-36.

IF: 4.8740

Revuelta-Lopez E., Cal R., Julve J., Rull A., Martinez-Bujidos M., Perez-Cuellar M., Ordóñez-Llanos J., Badimon L., Sanchez-Quezada J.L., Llorente-Cortes V., Hypoxia worsens the impact of intracellular triglyceride accumulation promoted by electronegative

low-density lipoprotein in cardiomyocytes by impairing perilipin 5 upregulation. (2015) INT J BIOCHEM CELL B, 65, 257-267.

IF: 3.9050

Roffi M., Patrono C., Collet J.-P., Mueller C., Valgimigli M., Andreotti F., Bax J.J., Borger M.A., Brotons C., Chew D.P., Gencer B., Hasenfuss G., Kjeldsen K., Lancellotti P., Landmesser U., Mehilli J., Mukherjee D., Storey R.F., Windecker S., Baumgartner H., Gaemperli O., Achenbach S., Agewall S., Badimon L., Baigent C., Bueno H., Bugiardini R., Carerj S., Casselman F., Cuisset T., Erol C., Fitzsimons D., Halle M., Hamm C., Hildick-Smith D., Huber K., Iliodromitis E., James S., Lewis B.S., Lip G.Y.H., Piepoli M.F., Richter D., Rosemann T., Sechtem U., Steg P.G., Vrints C., Zamorano J.L., Guía ESC 2015 sobre el tratamiento de los síndromes coronarios agudos en pacientes sin elevación persistente del segmento ST: Grupo de Trabajo de la Sociedad Europea de Cardiología (ESC) para el tratamiento de los síndromes coronarios agudos en pacientes sin elevación persistente del segmento ST. (2015) REV ESP CARDIOL, 68 (12), 1125e1-1125e64.

IF: 4.5960

Sambri I., Crespo J., Aguilo S., Ingrassia D., Rodriguez C., Gonzalez J.M., MiR-17 and -20a target the neuron-derived orphan receptor-1 (NOR-1) in vascular endothelial cells. (2015) PLOS ONE, 10 (11),

IF: 3.0570

Slevin M., Matou S., Zeinolabediny Y., Corpas R., Weston R., Liu D., Boras E., Di Napoli M., Petcu E., Sarroca S., Popa-Wagner A., Love S., Font M.A., Potempa L.A., Al-Baradie R., Sanfeliu C., Revilla S., Badimon L., Krupinski J., Monomeric C-reactive protein - A key molecule driving development of Alzheimer's disease associated with brain ischaemia? (2015) SCI REP-UK, 5,

IF: 5.2280

Suades R., Padro T., Badimon L., The Role of Blood-Borne Microparticles in Inflammation and Hemostasis. (2015) SEMIN THROMB HAEMOST, 41 (6), 590-606.

IF: 3.5050

Suades R., Padro T., Vilahur G., Martin-Yuste V., Sabate M., Sans-Rosello J., Sionis A., Badi-

mon L., Growing thrombi release increased levels of CD235a+ microparticles and decreased levels of activated platelet-derived microparticles. Validation in ST-elevation myocardial infarction patients. (2015) J THROMB HAEMOST, 13 (10), 1776-1786.

IF: 5.5650

Vilahur G., Padro T., Casani L., Mendieta G., Lopez J.A., Streitenberger S., Badimon L., Polyphenol-enriched diet prevents coronary endothelial dysfunction by activating the Akt/eNOS pathway. (2015) REV ESP CARDIOL, 68 (3), 216-225.

IF: 4.5960

Vilahur G., Cubedo J., Padro T., Casani L., Mendieta G., Gonzalez A., Badimon L., Intake of cooked tomato sauce preserves coronary endothelial function and improves apolipoprotein A-I and apolipoprotein J protein profile in high-density lipoproteins. (2015) TRANSL RES, 166 (1), 44-56.

IF: 4.5570

Vilahur G., Badimon L., Biological actions of pentraxins. (2015) VASC PHARMACOL, 73, 38-44.

IF: 2.5000

Windecker S., Kolh P., Alfonso F., Collet J.-P., Cremer J., Falk V., Filippatos G., Hamm C., Head S.J., Juni P., Kappetein A.P., Kastrati A., Knuuti J., Landmesser U., Laufer G., Neumann F.-J., Richter D.J., Schauerte P., Uva M.S., Stefanini G.G., Taggart D.P., Torracca L., Valgimigli M., Wijns W., Witkowski A., Zamorano J.L., Achenbach S., Baumgartner H., Bax J.J., Bueno H., Dean V., Deaton C., Erol C., Fagard R., Ferrari R., Hasdai D., Hoes A.W., Kirchhof P., Lancellotti P., Linhart A., Nihoyanopoulos P., Piepoli M.F., Ponikowski P., Sirnes P.A., Tamargo J.L., Tenders M., Torbicki A., Pepper J., Anyanwu A., Badimon L., Bauersachs J., Baumbach A., Beygui F., Bonaros N., De Carlo M., Dobrev D., Dunning J., Eeckhout E., Gielen S., Luckraz H., Mahrholdt H., Montalescot G., Paparella D., Rastan A.J., Sanmartin M., Sergeant P., Silber S., Ten Berg J., Thiele H., Van Geuns R.J., Wagner H.-O., Wassmann S., Wendler O., Clinical practice guidelines of the ESC on myocardial revascularization, 2014. (2015) REV ESP CARDIOL, 68 (2), 144.e-144.e.

IF: 4.5960

Other Publications

- ▶ Cubedo J, Padró T, Badimon L. Author reply. (2015) TRANSLATIONAL RESEARCH, 165(2), 363-364.
- ▶ De Gonzalo-Calvo D, Llorente-Cortés V, Orbe J, Páramo JA, Badimon L. High triglyceride-low HDL cholesterol lipid profile is associated with a dysregulated gene expression in mononuclear leukocyte from hypercholesterolemic patients. (2015) INTERNATIONAL JOURNAL OF CARDIOLOGY, 178, 02-104.

- ▶ Vilahur G, Gutierrez M, Casani L, Cubedo J, Capdevila A, Pons-Lladó G, Carreras F, Hidalgo A, Badimon L. Hypercholesterolemia abolishes high-density lipoproteins-related cardioprotective effects in myocardial infarction. (2015) JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY, Dec 1, 66(21), 2469-2470.

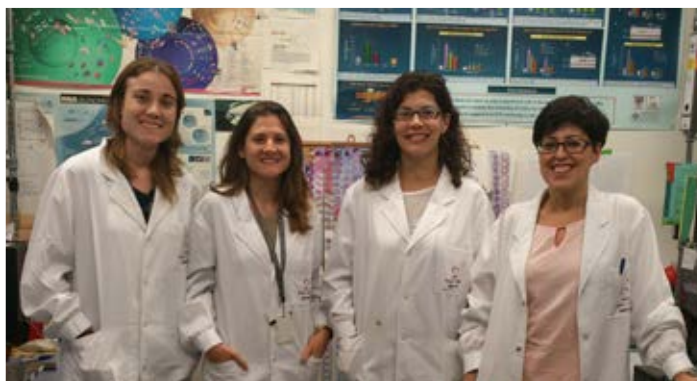
Inflammation and Vascular Remodelling

Coordinator

Rodríguez Sinovas, Cristina ICCC
crodriguez@csic-iccc.org

Members

Aguiló Núñez, Silvia
Galán Arroyo, María IR
Segalés Aguilar, Estefanía ICCC



Main Lines of Research

- ▶ Inflammation and vascular remodelling: regulation of vascular homeostasis by extracellular matrix components and modifying enzymes.
- ▶ Molecular and cellular mechanisms in atherosclerosis: identification of new therapeutic targets.
- ▶ Molecular basis of abdominal aortic aneurysm (AAA): new pharmacological strategies.
- ▶ Epigenetics in cardiovascular diseases.

Challenges

- ▶ Identify new therapeutic targets, progression markers and biomarkers in atherosclerosis and AAA.
- ▶ Establish genetically modified animal models that could become useful disease models in atherosclerosis and AAA.
- ▶ Expand and consolidate the scientific staff.
- ▶ Increase regular funding through national and international calls.
- ▶ Set up new stable collaborations within IIB Sant Pau and with national and international groups and consolidate those already established.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Angiology, Vascular Biology and Inflammation (PI: Luis Vila).
- ▶ Regulation of Cardiac Rhythm and Contraction (PI: Leif Hove-Madsen).
- ▶ Atherosclerosis and Vascular Biology (PI: José Martínez González).

External Collaborations

- ▶ Jain K. Mukesh. Case Western Reserve University School of Medicine (Cleveland, Ohio, USA).
- ▶ Mark Slevin. Manchester Metropolitan University (United Kingdom).
- ▶ Nadia Mercader. Universidad de Berna (Switzerland).
- ▶ Vicente Andrés. Centro Nacional de Investigaciones Cardiovasculares (Spain).

- ▶ José Manuel Redondo. Centro Nacional de Investigaciones Cardiovasculares (Spain).
- ▶ Jesús Egido. Fundación Jiménez Díaz (Madrid, Spain).
- ▶ Jesús Osada. CIBEROBN, Universidad de Zaragoza (Spain).
- ▶ Manel Vázquez Carrera. CIBERDEM, Universitat de Barcelona (Spain).
- ▶ Mercedes Salaices. Universidad Autónoma de Madrid (Spain).
- ▶ Victoria Cachafeiro. Universidad Complutense de Madrid (Spain).
- ▶ Francisco Marín. Department of Cardiology, Hospital Clínico Universitario Virgen de la Arrixaca, Murcia (Spain).
- ▶ Jerzy Krupinski. Hospital Mútua Universitària de Terrassa (Barcelona, Spain).
- ▶ Francisco Sánchez. Hospital de la Princesa (Madrid, Spain).

Active Grants

- ▶ Cristina Rodríguez Sinovas. Mecanismos epigenéticos implicados en el remodelado de la matriz extracelular asociado al aneurisma de aorta abdominal: nuevas estrategias terapéuticas. Instituto de Salud Carlos III. PI12/01952. Duration: 2013-2015. €153,065.
- ▶ José Martínez González. Red de Investigación Cardiovascular (RIC). MINECO-ISCI. RD12/0042/0053. Duration: 2013-2016. €205,000.

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

Theses

- ▶ Mar Orriols Martins. Mecanismes de regulació de la Lisil Oxidasa i la Fibulina-5 a nivell vascular: Implicació en la reestenosi i l'aneurisma d'aorta abdominal. Universitat de Barcelona. Directors: Antonio Rodríguez Sinovas, José Martínez González. Date of defense: 30 April 2015.
- ▶ Judith Alonso Nieto. Papel de NOR-1 en la apoptosis y el estrés oxidativo: regulación de cIAP2 y la familia SOD en células musculares lisas humanas. Universitat de Barcelona. Directors: Antonio Rodríguez Sinovas, José Martínez González. Date of defense: 22 May 2015.

Awards

- ▶ Galan M, Varona S, Orriols M, Aguiló S, De Diego A, Navarro MA, Osada J, Martínez-González J, Rodríguez C. Lysyl oxidase over-expression impacts cardiovascular remodelling. Young investigator award- Basic science. 2nd World Congress on Acute Heart Failure. Sevilla, May 2015.
- ▶ Orriols M, Martí-Pàmies I, Guadall A, Varona S, Galán M, Escudero JR, Camacho M, Martínez-González J, Rodríguez C. Contribución de SOX-9 y de mecanismos epigenéticos en la inhibición de la Fibulina-5 por estímulos inflamatorios: implicación en el aneurisma de aorta abdominal. 3er Premio a la mejor Comunicación. XXVIII Congreso Nacional de la Sociedad Española de Arteriosclerosis. Logroño, May 2015.

*TIF: 40.9480 **MIF: 5.1185

Scientific Production

- Aguado A., Rodríguez C., Martínez-Revelles S., Avendano M.S., Zhenyukh O., Orriols M., Martínez-Gonzalez J., Alonso M.J., Briones A.M., Dixon D.A., Salices M., HuR mediates the synergistic effects of angiotensin II and IL-1 β on vascular COX-2 expression and cell migration. (2015) BRIT J PHARMACOL, 172 (12), 3028-3042. **IF: 5.2590**
- Calvayrac O., Rodríguez-Calvo R., Martí-Pamies I., Alonso J., Ferran B., Aguiló S., Crespo J., Rodríguez-Sinovas A., Rodríguez C., Martínez-Gonzalez J., NOR-1 modulates the inflammatory response of vascular smooth muscle cells by preventing NF κ B activation. (2015) J MOL CELL CARDIOL, 80, 34-44. **IF: 4.8740**
- Jover E., Marin F., Quintana M., Perez-Andreu J., Hurtado J.A., Rodríguez C., Martínez-Gonzalez J., Gonzalez-Conejero R., Valdes M., Hernandez-Romero D., CALU polymorphism A29809G affects calumenin availability involving vascular calcification. (2015) J MOL CELL CARDIOL, 82, 218-227. **IF: 4.8740**
- Herraiz A., Álvarez-García J., Llach A., Molina C.E., Fernandes J., Ferrero A., Rodríguez C., Vallmitjana A., Benítez R., Padró J., Martínez-González J., Cinca J., Hove-Madsen L. Ageing is associated with deterioration of the calcium homeostasis isolated human right atrial myocytes. (2015) CARDIOVASC RES, 106, 76-86. **IF: 5.9400**
- Miana M., Galan M., Martínez-Martinez E., Varona S., Jurado-Lopez R., Bausa-Miranda B., Antequera A., Luaces M., Martínez-Gonzalez J., Rodríguez C., Cachofeiro V., The lysyl oxidase inhibitor β -aminopropionitrile reduces body weight gain and improves the metabolic profile in diet-induced obesity in rats. (2015) DIS MODEL MECH, 8 (6), 543-551. **IF: 4.3160**
- Palomer X., Capdevila-Busquets E., Botteri G., Davidson M.M., Rodríguez C., Martínez-Gonzalez J., Vidal F., Barroso E., Chan T.O., Feldman A.M., Vazquez-Carrera M., MiR-146a targets Fos expression in human cardiac cells. (2015) DIS MODEL MECH, 8 (9), 1081-1091. **IF: 4.3160**
- Rodríguez-Calvo R., Ferran B., Alonso J., Martí-Pamies I., Aguiló S., Calvayrac O., Rodríguez C., Martínez-Gonzalez J., NR4A receptors up-regulate the antiproteinase alpha-2 macroglobulin (A2m) and modulate MMP-2 and MMP-9 in vascular smooth muscle cells. (2015) THROMB HAEMOSTASIS, 113 (6), 1323-1334. **IF: 5.2550**
- Sambri I., Crespo J., Aguiló S., Ingrosso D., Rodríguez C., Gonzalez J.M., MiR-17 and -20a target the neuron-derived orphan receptor-1 (NOR-1) in vascular endothelial cells. (2015) PLOS ONE, 10 (11). **IF: 3.0570**
- Sola-Villa D., Dilme J.-F., Rodríguez C., Soto B., Vila L., Escudero J.-R., Martínez-Gonzalez J., Camacho M., Expression and cellular localization of 15-hydroxy-prostaglandin-dehydrogenase in abdominal aortic aneurysm. (2015) PLOS ONE, 10 (8). **IF: 3.0570**

Biomarkers for Cardiovascular Disease

Coordinator

Padró Campmany, Teresa ICCC
tpadro@csic-iccc.org

Members

García Arquinzonis, Maisa Inés ICCC
Peña Sendra, Esther ICCC
Ramaiola, Ilaria ICCC
Suades Soler, Rosa ICCC



Main Lines of Research

- ▶ Identification of new biomarkers of atherothrombosis and ischaemic heart disease with potential use in diagnosis and prognosis research is based on cell culture studies, animal models of cardiovascular disease and human samples of patients with coronary heart disease risk factors.

Challenges

- ▶ Advance research aiming to identify and characterize new biomarkers of vascular injury, atherothrombotic disease and/or ischaemic, coronary and cerebrovascular syndromes using postgenomic techniques.
- ▶ Generate new information on potential soluble biomarkers (in serum, plasma) and in microparticles circulating in blood, as well as in blood and/or vascular cells studies include proteomic and lipidomic techniques based on liquid chromatography and bidimensional electrophoresis, antibody array systems and mass spectrometry (MALDI-ToF/ToF; linear ion trap).
- ▶ 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 (biology of systems).
- ▶ Consolidate the lipidomic platform.
- ▶ Lead the Biobank in the SAFE-T European project.

Collaborations

External Collaborations

- ▶ Department of Cardiology, Thorax Institute, Hospital Clínic, University of Barcelona, Spain (Salvatore Brugaletta, Victoria Martín-Yuste, Clarissa Cola, Manel Sabaté).
- ▶ Fundación Jiménez Díaz, Madrid (Rodrigo Alonso, Pedro Mata).
- ▶ Red TERCEL.
- ▶ Member of IIB Sant Pau Biobank External Committee.
- ▶ Member of IIB Sant Pau Training Committee.
- ▶ Member of the Local Organizing Committee of the Congress of the MLTD (Valencia, 2014).
- ▶ Member of the Councilor Board of the European and Mediterranean League Against Thrombotic Diseases (EMLTD) since June 2015.
- ▶ Member of the Scientific Organizing Committee for the Annual Congress of the Spanish Society of Thrombosis and Haemostasis, Santiago de Compostela, Spain; 2016.

Theses

- ▶ Ilaria Ramaiola. Thombus composition in acute coronary syndrome. Universitat Pompeu Fabra. Directors: Lina Badimon, Teresa Padró. Date of defense: 24 March 2015.

Active Grants

- ▶ Teresa Padró. Qualification of Translational Safety Biomarkers from Non Clinical to Early Clinical Studies: SAFE-T Project. IMI_Call_2008_1_05 – FP7 EU. Duration: 2009-2015.
- ▶ Teresa Padró. Biomarker For Cardiovascular Assessment in Europe (BiomarCaRE) FP7-Health-2011/ GA 278913. European Community FP7. Duration: 2011-2016.
- ▶ Teresa Padró. Molecular and Cellular pathology in atherosclerosis. Regulating role of the extracellular matrix. ISCIII. PI13/02850. Duration: 2014-2016.
- ▶ Teresa Padró. Identificación de nuevas dianas para inhibir el desarrollo de placa arteriosclerótica: abordaje traslacional en el estudio de la perilipina TIP47. Sociedad Española de Cardiología (SEC). Duration: 2014-2016.
- ▶ Teresa Padró. Cell Therapy Network (TerCel). RD12/0019/0026. Carlos III Health Institute. Duration: Jan 2013-Dec 2016.
- ▶ Teresa Padró. Consolidated Research Group. AGAUR 2014 SGR 1303. Duration: Jan 2014-Dec 2016.

Active patents

- ▶ L. Badimon; J. Cubedo; T. Padró. Title: Apolipoprotein J isoforms as biomarkers of organ damage. Patent Number: P201030168. Applicant: CSIC-ICCC. Country of Priority: Spain.

Awards

- ▶ Ramaiola I, Padro T, Peña E, Juan-Babot O, Cubedo J, Martin-Yuste V, Sabaté M, Badimon L. Changes in thrombus composition and profilin-1 release in acute myocardial infarction. Best published article about thrombosis and haemostasia. XXXI Congreso Nacional de la SETH. Valencia, 22-24 October 2015.

*TIF: 80.8370 **MIF: 6.2182

Scientific Production

Aledo R., Padro T., Mata P., Alonso R., Badimon L., Rs11613352 polymorphism (TT Genotype) associates with a decrease of triglycerides and an increase of HDL in familial hypercholesterolemia patients. (2015) REV ESP CARDIOL, 68 (4), 305-309.

IF: 4.5960

Arderiu G., Peña E., Badimon L. Angiogenic microvascular endothelial cells release microparticles rich in tissue factor that promotes postischemic collateral vessel formation. (2015) ARTERIOSCLER THROMB VASC BIOL, 35(2), 348-57.

IF: 6.0100

Cubedo J., Padro T., Pena E., Aledo R., Formiga F., Ferrer A., Padros G., Badimon L., High Levels of Antifibrinolytic Proteins Are Found in Plasma of Older Octogenarians With Cardiovascular Disease and Cognitive Decline. (2015) J AM COLL CARDIOL, 65 (24), 2667-2669.

IF: 17.7590

Cubedo J., Padro T., Garcia-Arguinzonis M., Vilahur G., Minambres I., Pou J.M., Ybarra J., Badimon L., A novel truncated form of apolipoprotein A-I transported by dense LDL is increased in diabetic patients. (2015) J LIPID RES, 56 (9), 1762-1773.

IF: 4.3680

Marti-Fabregas J., Delgado-Mederos R., Crespo J., Pena E., Marin R., Jimenez-Xarrie E., Fernandez-Arcos A., Perez-Perez J., Mar-

tinez-Domeno A., Camps-Renom P., Prats-Sanchez L., Casoni F., Badimon L., Circulating endothelial progenitor cells and the risk of vascular events after ischemic stroke. (2015) PLOS ONE, 10 (4).

IF: 3.0570

Padro T., Vilahur G., Sanchez-Hernandez J., Hernandez M., Antonijoan R.M., Perez A., Badimon L., Lipidomic changes of LDL in overweight and moderately hypercholesterolemic subjects taking phytosterol- and omega-3-supplemented milk. (2015) J LIPID RES, 56 (5), 1043-1056.

IF: 4.3680

Pena E., Arderiu G., Badimon L., Protein disulfide-isomerase A2 regulated intracellular tissue factor mobilisation in migrating human vascular smooth muscle cells (2015) THROMB HAEMOSTASIS, 113 (4), 891-902.

IF: 5.2550

Ramaiola I., Padro T., Pena E., Juan-Babot O., Cubedo J., Martin-Yuste V., Sabate M., Badimon L., Changes in thrombus composition and profilin-1 release in acute myocardial infarction. (2015) EUR HEART J, 36 (16), 965-975.

IF: 15.0640

Suades R., Padro T., Badimon L., The Role of Blood-Borne Microparticles in Inflammation and Hemostasis. (2015) SEMIN THROMB HEMOST, 41 (6), 590-606.

IF: 3.5050

Suades R., Padro T., Vilahur G., Martin-Yuste V., Sabate M., Sans-Rosello J., Sionis A., Badimon L., Growing thrombi release increased levels of CD235a+ microparticles and decreased levels of activated platelet-derived microparticles. Validation in ST-elevation myocardial infarction patients. (2015) J THROMB HAEMOST, 13 (10), 1776-1786.

IF: 5.5650

Vilahur G., Padro T., Casani L., Mendieta G., Lopez J.A., Streitenberger S., Badimon L., Polyphenol-enriched diet prevents coronary endothelial dysfunction by activating the Akt/eNOS pathway. (2015) REV ESP CARDIOL, 68 (3), 216-225.

IF: 4.5960

Vilahur G., Cubedo J., Padro T., Casani L., Juan-Babot O., Crespo J., Bendjama K., Lawton M., Badimon L. Roflumilast-induced Local Vascular Injury Is Associated with a Coordinated Proteome and Microparticle Change in the Systemic Circulation in Pigs. (2015) TOXICOL PATHOL, 43-4, 569-580.

IF: 2.1370

Vilahur G., Cubedo J., Padro T., Casani L., Mendieta G., Gonzalez A., Badimon L., Intake of cooked tomato sauce preserves coronary endothelial function and improves apolipoprotein A-I and apolipoprotein J protein profile in high-density lipoproteins. (2015) TRANSL RES, 166 (1), 44-56.

IF: 4.5570

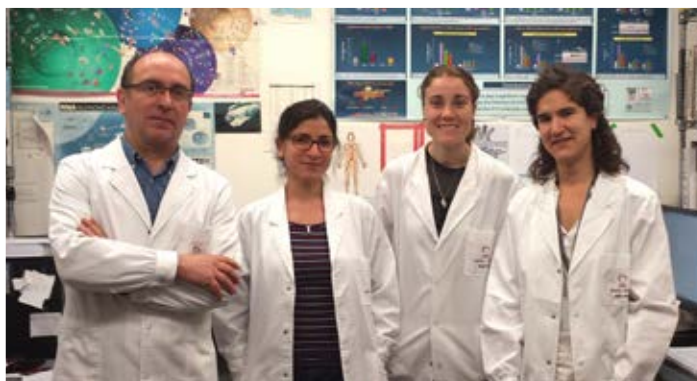
Atherosclerosis and Vascular Biology

Coordinator

Martínez González, José CSIC
jmartinez@csic-iccc.org

Members

Ferran Pérez, Beatriz ICCC
Martí Pàmies, Ingrid ICCC
Varona Álvarez, Saray ICCC



Main Lines of Research

- ▶ Identification and characterization of master genes involved in the onset, development and complication of ischaemic heart disease (IHD), abdominal aortic aneurysm (AAA) and cardiac hypertrophy.
- ▶ Mechanisms involving nuclear receptors in IHD, AAA and cardiac hypertrophy.
- ▶ Identification and validation of new targets for diagnosis, prognosis and treatment of cardiovascular diseases.
- ▶ Development of new (genetically modified) animal models for IHD, AAA and cardiac hypertrophy.

Challenges

- ▶ Incorporate new PhD and postdoctoral students as well as staff investigators to preserve the core group and implement new technical expertise and experimental approaches.
- ▶ Find affinities with other IIB Sant Pau groups in order to increase critical mass and implement joint strategies to optimize resources and access to alternative funding sources.
- ▶ Consolidate present relationships with national collaborators and expand our international collaborations.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Inflammation and Vascular Remodelling (PI: Cristina Rodríguez).
- ▶ Angiology, Vascular Biology and Inflammation (PI: Luis Vila).
- ▶ Regulation of Cardiac Rhythm and Contraction (PI: Leif Hove-Madsen).

External Collaborations

- ▶ José Luis de la Pompa. Centro Nacional de Investigaciones Cardiovasculares, CNIC.
- ▶ Jain K. Mukesh. Case Western Reserve University School of Medicine, Cleveland.
- ▶ Mark Slevin. Manchester Metropolitan University.
- ▶ Jerzy Krupinski. Hospital Mútua Universitària de Terrassa.
- ▶ Francisco Marín. Hospital Clínico Universitario Virgen de la Arrixaca, Murcia.
- ▶ Jesús Osada. Universidad de Zaragoza.

- ▶ Mercedes Salaices. Universidad Autónoma de Madrid, UAM.
- ▶ Vicente Andrés García. Centro Nacional de Investigaciones Cardiovasculares, CNIC.
- ▶ Juan Miguel Redondo. Centro Nacional de Investigaciones Cardiovasculares, CNIC.
- ▶ Victoria Cachafeiro. Universidad Complutense de Madrid, UCM.
- ▶ José Luis Martín Ventura. Fundación Jiménez Díaz-UAM.
- ▶ Francisco Sánchez Madrid. Hospital de la Princesa-UAM.
- ▶ Manuel Vázquez Carrera. Universitat de Barcelona.

<p>Active Grants</p>	<p>▶ José Martínez González. Mecanismos celulares y moleculares que involucran al receptor nuclear NOR-1 en enfermedades cardiovasculares. MINECO SAF2012-40127. Duration: Jan 2013-Dec 2015. €169,400.</p>	<p>▶ José Martínez González. Red de Investigación cardiovascular (RIC). MINECO-ISCI. Grupo referencia RD12/0042/0053. Duration: Jan 2013-Dec 2016. €170,975.</p> <p>Note: Total amount granted to PI. It does not include indirect costs.</p>
<p>Grants Awarded in 2015</p>	<p>▶ José Martínez González. Immunoregulatory molecules and miRNAs as targets in coronary heart disease and acute coronary syndrome. Fundació La Marató de TV3. 201523 30 31. Duration: Jan 2016-Dec 2018. €300,000.</p> <p>▶ José Martínez González. Análisis de las propiedades anti-apoptóticas del receptor nuclear NOR-1 en la cardiopatía isquémica: papel de cIAP2. Fundación Española del Corazón (FEC) - Sociedad Española de Cardiología (SEC). Duration: Oct 2015-Dec 2016. €18,000.</p> <p>Note: Total amount granted to PI. It does not include indirect costs.</p>	
<p>Theses</p>	<p>▶ Mar Orriols Martins. Mecanismos de regulació de la Lisil Oxidasa i la Fibulina-5 a nivell vascular: Implicació en la reestenosi i l'aneurisma d'aorta abdominal. Universitat de Barcelona. Date of defense: 30 April 2015.</p>	<p>▶ Judith Alonso Nieto. Papel de NOR-1 en la apoptosis y el estrés oxidativo: regulación de cIAP2 y la familia SOD en células musculares lisas humanas. Universitat de Barcelona. Date of defense: 22 May 2015.</p>
<p>Awards</p>	<p>▶ Galan M, Varona S, Orriols M, Aguiló S, De Diego A, Navarro MA, Osada J, Martínez-González J, Rodríguez C. Lysyl oxidase overexpression impacts cardiovascular remodelling. Young investigator award- Basic science. 2nd World Congress on Acute Heart Failure. Sevilla, May 2015.</p> <p>▶ Orriols M, Martí-Pàmies I, Guadall A, Varona S, Galán M, Escudero JR, Camacho M, Martínez-González J, Rodríguez C. Contribución</p>	<p>de SOX-9 y de mecanismos epigenéticos en la inhibición de la Fibulina-5 por estímulos inflamatorios: implicación en el aneurisma de aorta abdominal. 3er Premio a la mejor Comunicación. XXVIII Congreso Nacional de la Sociedad Española de Arteriosclerosis. Logroño, May 2015.</p>

*TIF: 40.4730 **MIF: 4.4970

<p>Scientific Production</p>	<p>Aguado A., Rodriguez C., Martinez-Revelles S., Avendano M.S., Zhenyukh O., Orriols M., Martinez-Gonzalez J., Alonso M.J., Briones A.M., Dixon D.A., Salaces M., HuR mediates the synergistic effects of angiotensin II and IL-1β on vascular COX-2 expression and cell migration. (2015) BRIT J PHARMACOL, 172 (12), 3028-3042. IF: 5.2590</p> <p>Calvayrac O., Rodriguez-Calvo R., Marti-Pamies I., Alonso J., Ferran B., Aguiló S., Crespo J., Rodriguez-Sinovas A., Rodriguez C., Martinez-Gonzalez J., NOR-1 modulates the inflammatory response of vascular smooth muscle cells by preventing NFκB activation. (2015) J MOL CELL CARDIOL, 80, 34-44. IF: 4.8740</p> <p>Herraiz-Martinez A., Alvarez-Garcia J., Llach A., Molina C.E., Fernandes J., Ferrero-Gregori A., Rodriguez C., Vallmitjana A., Benitez R., Padro J.M., Martinez-Gonzalez J., Cinca J., Hove-Madsen L., Ageing is associated with deterioration of calcium homeostasis in isolated human right atrial myocytes. (2015) CARDIOVASC RES, 106 (1), 76-86. IF: 5.4650</p>	<p>Jover E., Marin F., Quintana M., Perez-Andreu J., Hurtado J.A., Rodriguez C., Martinez-Gonzalez J., Gonzalez-Conejero R., Valdes M., Hernandez-Romero D., CALU polymorphism A29809G affects calumenin availability involving vascular calcification. (2015) J MOL CELL CARDIOL, 82, 218-227. IF: 4.8740</p> <p>Miana M., Galan M., Martinez-Martinez E., Varona S., Jurado-Lopez R., Bausa-Miranda B., Antequera A., Luaces M., Martinez-Gonzalez J., Rodriguez C., Cachofeiro V., The lysyl oxidase inhibitor β-aminopropionitrile reduces body weight gain and improves the metabolic profile in diet-induced obesity in rats. (2015) DIS MODEL MECH, 8 (6), 543-551. IF: 4.3160</p> <p>Palomer X., Capdevila-Busquets E., Botteri G., Davidson M.M., Rodriguez C., Martinez-Gonzalez J., Vidal F., Barroso E., Chan T.O., Feldman A.M., Vazquez-Carrera M., MiR-146a targets Fos expression in human cardiac cells. (2015) DIS MODEL MECH, 8 (9), 1081-1091. IF: 4.3160</p>	<p>Rodriguez-Calvo R., Ferran B., Alonso J., Marti-Pamies I., Aguiló S., Calvayrac O., Rodriguez C., Martinez-Gonzalez J., NR4A receptors up-regulate the antiproteinase alpha-2 macroglobulin (A2m) and modulate MMP-2 and MMP-9 in vascular smooth muscle cells. (2015) THROMB HAEMOSTASIS, 113 (6), 1323-1334. IF: 5.2550</p> <p>Sambri I., Crespo J., Aguiló S., Ingrassio D., Rodriguez C., Gonzalez J.M., MiR-17 and -20a target the neuron-derived orphan receptor-1 (NOR-1) in vascular endothelial cells. (2015) PLOS ONE, 10 (11). IF: 3.0570</p> <p>Sola-Villa D., Dilme J.-F., Rodriguez C., Soto B., Vila L., Escudero J.-R., Martinez-Gonzalez J., Camacho M., Expression and cellular localization of 15-hydroxy-prostaglandin-dehydrogenase in abdominal aortic aneurysm. (2015) PLOS ONE, 10 (8). IF: 3.0570</p>
------------------------------	--	--	--

*Total Impact Factor **Mean Impact Factor

Regulation of Cardiac Rhythm and Contraction

Coordinator

Hove-Madsen, Leif CSIC
lhove@csic-iccc.org

Members

Espinosa Molina, Cristina ICCC
Gandia Sánchez, Jordi ICCC
Tarifa Lora, Carmen ICCC



Main Lines of Research

- ▶ Receptor-mediated changes in intracellular calcium homeostasis in atrial fibrillation.
- ▶ Contribution of genetic variants to electrical remodelling and arrhythmogenesis.
- ▶ Effects of development and ageing on calcium handling in cardiac myocytes.
- ▶ Functional effects of lipid accumulation in cardiomyocytes.

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), the detection and role of Reactive Oxygen Species in diseased cardiomyocytes, and the role of telomere length in cardiac senescence and regeneration.
- ▶ 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 (PI: Juan Cinca)
- ▶ Lipids and Cardiovascular Pathology (PI: Vicenta Lorente)
- ▶ Atherosclerosis and Vascular Biology (PI: José Martínez)

National Collaborations

- ▶ Diego Franco, Amelia Aranega. Departamento de Biología Experimental, Universidad de Jaén.
- ▶ Blas Echebarria. Departament de Física Aplicada, Universitat Politècnica de Catalunya.
- ▶ Raul Benitez. Enginyeria de Sistemes, Automàtica i Informàtica Industrial, Universitat Politècnica de Catalunya.

- ▶ Vicente Andrés. Fisiopatología Cardiovascular Molecular y Genética, CNIC.

- ▶ Ignacio Flores. Regeneración y envejecimiento, CNIC.

- ▶ Leif Hove-Madsen, Researcher Collaborator at the Red de Investigación Cardiovascular (RIC).

International Collaborations

- ▶ SR Wayne Chen. Department of Physiology and Pharmacology, University of Calgary, Canada.

- ▶ Glen F Tibbitts. 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.

Active Grants

- ▶ Leif Hove-Madsen. Identificación de factores de riesgo moleculares y electrofisiológicos, que conllevan un mayor riesgo de padecer fibrilación auricular. SAF2014-58286-C2-1-R.
- ▶ Leif Hove-Madsen. Grup de Recerca Emergent: Anàlisi i Control del Ritme Cardíac. AGAUR 2014. SGR 1465. Duration: 2014-2017. €22,000.

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

*TIF: 19.7320 **MIF: 4.9330

Scientific Production

Álvarez-García J., Ferrero-Gregori A., Puig T., Vázquez R., Delgado J., Pascual-Figal D., Alonso-Pulpón L., González-Juanatey J.R., Rivera M., Worner F., Bardají A., Cinca J. A simple validated method for predicting the risk of hospitalization for worsening of heart failure in ambulatory patients: the RedinSCORE.; investigators of the Spanish Heart Failure Network (REDINSCOR). (2015) EUR J HEART FAIL, 17(8), 818-27.

IF: 5.1350

Herraiz-Martinez A., Alvarez-Garcia J., Llach A., Molina C.E., Fernandes J., Ferrero-Gregori A., Rodriguez C., Vallmitjana A., Benitez R., Padro J.M., Martinez-Gonzalez J., Cinca J.,

Hove-Madsen L., Ageing is associated with deterioration of calcium homeostasis in isolated human right atrial myocytes. (2015) CARDIOVASC RES, 106 (1), 76-86.

IF: 5.4650

Hiess F., Vallmitjana A., Wang R., Cheng H., Ter Keurs H.E.D.J., Chen J., Hove-Madsen L., Benitez R., Chen S.R.W., Distribution and function of cardiac ryanodine receptor clusters in live ventricular myocytes. (2015) J BIOL CHEM, 290 (33), 20477-20487.

IF: 4.2580

Revuelta-Lopez E., Cal R., Herraiz-Martinez A., de Gonzalo-Calvo D., Nasarre L., Roura S., Galvez-Monton C., Bayes-Genis A., Badimon

L., Hove-Madsen L., Llorente-Cortes V., Hypoxia-driven sarcoplasmic/endoplasmic reticulum calcium ATPase 2 (SERCA2) down-regulation depends on low-density lipoprotein receptor-related protein 1 (LRP1)-signalling in cardiomyocytes. (2015) J MOL CELL CARDIOL, 85, 25-36.

IF: 4.8740

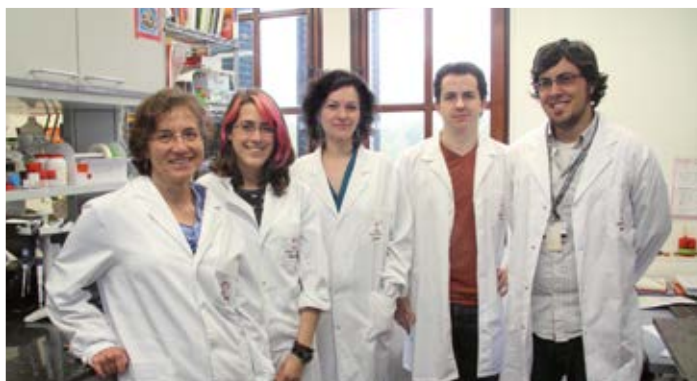
Lipids and Cardiovascular Pathology

Coordinator

Llorente Cortés,
Concepción Vicenta ICCC
cllorente@csic-iccc.org

Members

De Gonzalo Calvo, David IR
Revuelta Pérez, Elena ICCC



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.

Challenges

- ▶ Develop transgenic mice with tissue-specific LRP1 modulation to proceed to in-depth analysis of LRP1-dependent mechanisms.
- ▶ Maintain and amplify relationship with IIB Sant Pau groups regarding translation in this research area.
- ▶ Maintain and strengthen international collaborations to set up future applications for European funding.
- ▶ Establish collaborations with companies with the aim of developing new products useful for prognosis, diagnosis and treatment.

Awards

- ▶ Circulating microRNAs as emerging cardiac biomarkers: response to acute exercise in healthy subjects and implications for health and performance. Third place in XVII National Sports Medicine Research Award, Spain.
- ▶ David de Gonzalo-Calvo. Young investigator fellowship 2015, European Society of Atherosclerosis.

Active Grants

- ▶ David de Gonzalo Calvo. Contractes "Sara Borrell" 2014. CD14/00109. Instituto de Salud Carlos III. Duration: 2015-2017. €89,598.
 - ▶ David de Gonzalo-Calvo. Grant of the European Society of Cardiology (ESC). First Contract Initiative Grant from the ESC Council on Basic Cardiovascular Science.
- Note: Total amount granted to PI. It does not include indirect costs.

Theses

- ▶ Elena Revuelta-López. Implicación del receptor LRP1 en el remodelado vascular y cardiaco. Universitat de Barcelona. Director: Vicenta Llorente Cortés.

Collaborations with other IIB Sant Pau Groups

- ▶ Cardiovascular Biochemistry (PI: Jordi Ordóñez)
- ▶ Regulation of Cardiac Rhythm and Contraction (PI: Leif Hove-Madsen)
- ▶ Molecular Pathology and Therapeutic of Ischaemic and Atherothrombotic Diseases (PI: Lina Badimon)
- ▶ Clinical and Translational Cardiology (PI: Juan Cinca)
- ▶ Metabolic Bases of Cardiovascular Risk (PI: Francisco Blanco)
- ▶ Molecular Bases of Disease (PI: Pablo Fuentes)
- ▶ Clinical Oncology (PI: Agustí Barnadas)
- ▶ Oncogenesis and Antitumour Drug (PI: Ramon Mangués)
- ▶ Enrique Lerma (researcher of Molecular Pathology of Gynecologic Cancer)
- ▶ Lluís Guirado (researcher at Fundació Puigvert)

National Collaborations

- ▶ Dr. Bayés-Genís. Grupo ICREC (Insuficiencia Cardíaca y Regeneración Cardíaca). Hospital Germans Trias i Pujol. Badalona.
- ▶ Marta Casado Pinna. Unidad de Patología Médica Experimental. Consejo Superior de Investigaciones Científicas. Valencia.
- ▶ Francisco Tinahones. Endocrinology Department, Biomedical Research Laboratory. Hospital Virgen de la Victoria, Málaga.
- ▶ Eduardo Iglesias Gutiérrez. Grupo ITS (Intervenciones Traslacionales para la Salud). Universidad de Oviedo.
- ▶ Rocío Toro. Departamento de Medicina. Facultad de Medicina, Universidad de Cádiz.

International Collaborations

- ▶ Colette Lacabanne & Valerie Samouillan. Group Physique des Polymères, Institut Carnot, CIRIMAT, Université Paul Sabatier. Toulouse, France.
- ▶ Max Bown. Vascular Surgery group. Department of Cardiovascular Sciences University of Leicester, New England.
- ▶ Fulvia Ortolani. Department of Experimental Clinical Medicine. Università degli Studi di Udine. Italy.
- ▶ Gustavo Alberto Chiabrando. CIBICI-CONICET/FCQ-Universidad Nacional de Córdoba, Argentina.
- ▶ Claudia Huesca Gómez. Departamento de Biomedina Cardiovascular. Instituto Nacional de Cardiología "Ignacio Chávez". México D.F.

Other Collaborations

- ▶ InnoPharma BioFarma-USEF Research Group. University of Santiago de Compostela.
- ▶ Teresa Tarragó. Iproteos. Parc Científic. Barcelona. Spain.

*TIF: 23.9440 **MIF: 3.9907

Costales P., Fuentes-Prior P., Castellano J., Revuelta-Lopez E., Corral-Rodriguez M.A., Nasarre L., Badimon L., Llorente-Cortes V., K domain CR9 of low density lipoprotein (LDL) receptor-related protein 1 (LRP1) is critical for aggregated LDL-induced foam cell formation from human vascular smooth muscle cells. (2015) *J BIOL CHEM*, 290 (24), 14852-14865.

IF: 4.2580

de Gonzalo-Calvo D., Lopez-Vilaro L., Nasarre L., Perez-Olabarria M., Vazquez T., Escuin D., Badimon L., Barnadas A., Lerma E., Llorente-Cortes V., Intratumor cholesteryl ester accumulation is associated with human breast cancer proliferation and aggressive potential: A molecular and clinicopathological study. (2015) *BMC CANCER*, 15 (1).

IF: 3.2650

De Gonzalo-Calvo D., Davalos A., Montero A., Garcia-Gonzalez A., Tyshkovska I., Gonzalez-Medina A., Soares S.M.A., Martinez-Cam-

blor P., Casas-Agustench P., Rabadan M., Diaz-Martinez A.E., Ubeda N., Iglesias-Gutierrez E., Circulating inflammatory miRNA signature in response to different doses of aerobic exercise. (2015) *J APPL PHYSIOL*, 119 (2), 124-134.

IF: 3.0040

De Gonzalo-Calvo D., Cenarro A., Martinez-Bujidos M., Badimon L., Bayes-Genis A., Ordonez-Llanos J., Civeira F., Llorente-Cortes V., Circulating soluble low-density lipoprotein receptor-related protein 1 (sLRP1) concentration is associated with hypercholesterolemia: A new potential biomarker for atherosclerosis. (2015) *INT J CARDIOL*, 201, 20-29.

IF: 4.6380

Revuelta-Lopez E., Cal R., Herraiz-Martinez A., de Gonzalo-Calvo D., Nasarre L., Roura S., Galvez-Monton C., Bayes-Genis A., Badimon L., Hove-Madsen L., Llorente-Cortes V., Hypoxia-driven sarcoplasmic/endoplasmic re-

ticulum calcium ATPase 2 (SERCA2) down-regulation depends on low-density lipoprotein receptor-related protein 1 (LRP1)-signalling in cardiomyocytes. (2015) *J MOL CELL CARDIOL*, 85, 25-36.

IF: 4.8740

Revuelta-Lopez E., Cal R., Julve J., Rull A., Martinez-Bujidos M., Perez-Cuellar M., Ordóñez-Llanos J., Badimon L., Sanchez-Quezada J.L., Llorente-Cortes V., Hypoxia worsens the impact of intracellular triglyceride accumulation promoted by electronegative low-density lipoprotein in cardiomyocytes by impairing perilipin 5 upregulation. (2015) *INT J BIOCHEM CELL B*, 65, 257-267.

IF: 3.9050

AREA 2

Genetic, Metabolic Inflammatory Disease

80 Genetic Diseases

82 Metabolic Bases of Cardiovascular Risk

84 Inflammatory Diseases

86 Endocrinology, Diabetes and Nutrition

92 Pituitary Gland Disorders

94 Digestive Diseases

c and ases

98 Microbiology and Infectious Diseases

104 Multi-organ Damage

108 Chronic Respiratory Diseases

112 Research Group in HIV and AIDS



Genetic Diseases

Coordinator

Baiget Bastus, Montserrat FGS
mbaiget@santpau.cat

Members

Albelo Manuel, Lissette FGS
Alias Andreu, Laura CIBERER
Baena Gimeno, Manel IR
Barceló Rubira, María Jesús FGS
Benítez Amaro, Aleyda CIBERER
Cornet Ciurana, Mònica FGS
Del Rio Conde, Elisabeth FGS
Domènech María, Montserrat
Gallano Petit, Maria Pia FGS
González Quereda, Lidia CIBERER
Iturbe Ferreira, Ana Isabel FGS
Lasa Laborde, Adriana María FGS
Moron López, Sara FGS
Riera Armengol, Pau FGS
Rodríguez Fernández, María José FGS
Salazar Blanco, Juliana CIBERER
Sebio García, Ana IR
Sullivan, Ivana Gabriela IR
Vencesla García, Adoración IR



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:
 1. Studies of molecular pathology, disease mechanisms and SMN gene expression.
 2. Identification of modifying genes.
 3. Study of biomarkers for validation processing in spinal muscular atrophy.
 4. Study of the neuromuscular junction in human development.
- ▶ Hereditary breast cancer and BRCA mutations:
 1. Identification of mutations and genetic variants.
 2. Molecular characterization of Circulating tumor cells (CTCSS) through expression profiles in patients with breast cancer.
 3. 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.

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 BRCA 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.

Awards

- ▶ Ana Sebio García. Young Investigator Award. Gastrointestinal Group of the European Organisation for Research and Treatment of Cancer.

Active Grants

- ▶ Maria Pia Gallano Petit. Elaboración de paneles de diagnóstico molecular en patología monogénica hereditaria mediante el sistema de nanofluidos y secuenciación masiva. PI11/02586. Instituto de Salud Carlos III. Duration: 2012-2016. €78,250.
- ▶ Montserrat Baiget Bastus. Servei de Genètica. 2014 SGR 403. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016.
- ▶ Ana Sebio García. Contratos Juan Rodés 2014. JR14/00006. Instituto de Salud Carlos III. Duration: 2015-2018. €135,000.
- ▶ David Paez López-Bravo. Estudio farmacogenético fase II randomizado para evaluar eficacia y seguridad del esquema FOLFIRI con altas dosis de irinotecán (FOLFIRIAD) en pacientes con cáncer colorrectal metastásico de acuerdo con el genotipo UGT1A 1. EC11-336. Ministerio de Sanidad y Política Social. Duration: 2015-2016. 13,965.97 €.

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

Grants Awarded in 2015

- ▶ Lidia González Quereda. Implementación de la secuenciación masiva en el estudio de las Miopatías Congénitas y los Síndromes Místénicos congénitos: un modelo de investigación traslacional en enfermedades raras. FMM 2015. Fundación Mutua Madrileña. Duration: 2015-2017. €74,200.

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

*TIF: 43.8040 **MIF: 3.9822

Scientific Production

Boza-Moran M.G., Martinez-Hernandez R., Bernal S., Wanisch K., Also-Rallo E., Le Heron A., Alias L., Denis C., Girard M., Yee J.-K., Tizzano E.F., Yanez-Munoz R.J., Decay in survival motor neuron and plastin 3 levels during differentiation of iPSC-derived human motor neurons. (2015) SCI REP-UK, 5.

IF: 5.2280

Gaya J.M., Palou J., Rosales A., Maroto P., Sullivan I., Villavicencio H., Is there a limit for the laparoscopic approach of a retroperitoneal residual mass postchemotherapy?. (2015) ACTAS UROL ESP.

IF: 0.9640

Gaya J.M., Palou J., Pena J.A., Rosales A., Maroto P., Sullivan I., Villavicencio H., Is there a limit for the laparoscopic approach of a retroperitoneal residual mass postchemotherapy?. (2015) ACTAS UROL ESP, 39 (4), 264-267.

IF: 0.9640

Geva R., Vecchione L., Kalogeras K.T., Jensen B.V., Lenz H.-J., Yoshino T., Paez D., Montagut C., Souglakos J., Cappuzzo F., Cervantes A., Frattini M., Fountzilas G., Johansen J.S., Hoggdall E.V., Zhang W., Yang D., Yamazaki K., Nishina T., Papamichael D., Vincenzi B., Macarulla T., Loupakis F., De Schutter J., Spindler K.L.G., Pfeiffer P., Ciardiello F., Piessevaux H., Tejpar S., FCGR polymorphisms and cetuximab efficacy in chemorefractory metastatic colorectal cancer: An international consortium study. (2015) GUT, 64 (6), 921-928.

IF: 14.9210

Juan-Mateu J., Gonzalez-Quereda L., Rodriguez M.J., Baena M., Verdura E., Nascimento A., Ortez C., Baiget M., Gallano P., DMD mutations in 576 dystrophinopathy families: A step forward in genotype-phenotype correlations. (2015) PLOS ONE, 10 (8).

IF: 3.0570

Loureiro Amigo J., Gallardo Vigo E., Gallano P., Grau-Junyent J.M., Dysferlinopathy masquerading as a refractory polymyositis. (2015) MED CLIN-BARCELONA.

IF: 1.2670

Martin-Blanco A., Ferrer M., Soler J., Arranz M.J., Vega D., Bauza J., Calvo N., Elices M., Sanchez-Mora C., Garcia-Martinez I., Salazar J., Ribases M., Carmona C., Prat M., Pascual J.C., An exploratory association study of the influence of noradrenergic genes and childhood trauma in Borderline Personality Disorder. (2015) PSYCHIAT RES, 229 (1-2), 589-592.

IF: 2.4660

Pare-Brunet L., Sebio A., Salazar J., Berenguer-Llargo A., Rio E., Barnadas A., Baiget M., Paez D., Genetic variations in the VEGF pathway as prognostic factors in metastatic colorectal cancer patients treated with oxaliplatin-based chemotherapy. (2015) PHARMACOGENOMICS J, 15 (5), 397-404.

IF: 3.7840

Sebio A., Barnadas A., Salazar J., Paez D., Berenguer-Llargo A., Del Rio E., Tobena M., Martin-Richard M., Sullivan I., Targarona E., Balart J., Baiget M., EGFR ligands and DNA

repair genes: Genomic predictors of complete response after capecitabine-based chemoradiotherapy in locally advanced rectal cancer. (2015) PHARMACOGENOMICS J, 15 (1), 77-83.

IF: 3.7840

Stintzing S., Zhang W., Heinemann V., Neureiter D., Kemmerling R., Kirchner T., Jung A., Folwaczny M., Yang D., Ning Y., Sebio A., Stremtizer S., Sunakawa Y., Matsusaka S., Yamauchi S., Loupakis F., Cremolini C., Falcone A., Lenz H.-J., Polymorphisms in genes involved in EGFR turnover are predictive for cetuximab efficacy in colorectal cancer. (2015) MOL CANCER THER, 14 (10), 2374-2381.

IF: 5.5790

Vieitez I., Gallano P., Gonzalez-Quereda L., Borrego S., Marcos I., Millan J.M., Jairo T., Prior C., Molano J., Trujillo-Tiebas M.J., Gallego-Merlo J., Garcia-Barcina M., Fenollar M., Navarro C., Mutational spectrum of Duchenne muscular dystrophy in Spain: Study of 284 cases. (2015) NEUROLOGIA.

IF: 1.7900

Metabolic Bases of Cardiovascular Risk

Coordinator

Blanco Vaca, Francisco FGS
fblancova@santpau.cat

Members

Cedo Gine, Lidia CIBERDEM
Errico, Laura Teresa IR
Escolá Gil, Juan Carlos IR
García Leon, Annabel IR
Julve Gil, Josep IR
Martín Campos, Jesús María IR
Martínez Figueroa, Susana FGS
Méndez Lara, Karen Alejandra IR
Pérez Pérez, Antonio FGS
Quesada Vázquez, Helena IR
Roig Martínez, Rosa FGS
Ruiz Nogales, Sheila IR
Santos Palacios, David CIBERDEM



Main Lines of Research

- ▶ HDL and susceptibility to diabetes, arteriosclerosis and breast cancer: this relationship is being analysed through the study of metabolic disorders, genetic modification, and dietary or drug intervention.
- ▶ Genetic determinants of metabolic factors of cardiovascular risk: dyslipidaemia, type 2 diabetes, hyperhomocysteinaemia.
- ▶ Positive health effects of phytosterols.
- ▶ Development, validation and application of new clinical laboratory methods in the field of metabolic and cardiovascular medicine.

Challenges

- ▶ Analyse the effects of diabetes *mellitus* and hyperhomocysteinaemia in reverse cholesterol transport in vivo.
- ▶ Determine the pathogenic relevance of alterations in cholesterol metabolism in diabetic retinopathy.
- ▶ Compare the effects of niacine and fenofibrate in the HDL of patients with type 2 diabetes.
- ▶ Study anti-cancer mechanisms of HDL genetic modification and phytosterol consumption.
- ▶ Develop new molecular techniques to diagnose metabolic inherited diseases to be used in the clinical laboratory.

Active Grants

- ▶ Juan Carlos Escolá Gil. Estrategias terapéuticas y nutricionales basadas en la mejora de las funciones antioxidante y antiinflamatoria de las HDL en la diabetes mellitus tipo 2 y el cáncer de mama. PI12/00291. Instituto de Salud Carlos III. Duration: 2013-2016. €164,000.
- ▶ Laura Teresa Errico. Contrato FIS Pre-Doc Formación. FI12/00226. Instituto de Salud Carlos III. Duration: 2012-2016. €85,200.
- ▶ Josep Julve Gil. Contratos Miguel Servet 2013 - Tipo I. MS13/00070. Instituto de Salud Carlos III. Duration: 2014-2019. €202,500.
- ▶ Josep Julve Gil. Molecular studies of monogenic familial dyslipemias and construction of a diagnostic/prognosis criteria in mutation-negative patients with familial hypercholesterolemia. CP13/00070. Instituto de Salud Carlos III. Duration: 2014-2016. €121,500.
- ▶ Karen Alejandra Méndez Lara. Estratègies terapèutiques i nutricionals basades en la millora de les funcions antioxidant i antiinflamatòria de les lipoproteïnes d'alta densitat (HDL) en la diabetis tipus 2 i el càncer de mama. 2014 FI00171. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2017. €39,306.
- ▶ 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 familiar. PI14/01648. Instituto de Salud Carlos III. Duration: 2015-2017. €76,500.

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

- Juan Carlos Escolá Gil. Evaluación de nuevos biomarcadores de las funciones cardioprotectoras de las HDL en pacientes con diabetes *mellitus* y en estudios de intervención farmacológica. IR15-P5. Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2015-2016. €33,000.

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

*TIF: 35.3700 **MIF: 3.2155

Cedo L., Cedo L., Escola-Gil J.C., Metso J., Santos D., Sanchez-Quesada J.L., Julve J., Garcia-Leon A., Mora-Brugues J., Jauhiainen M., Blanco-Vaca F., Consumption of polyunsaturated fat improves the saturated fatty acid-mediated impairment of HDL antioxidant potential. (2015) MOL NUTR FOOD RES, 59 (10), 1987-1996.

IF: 4.5510

Chehaibi K., Blanco-Vaca F., Cedo L., Metso J., Palomer X., Santos D., Quesada H., Naceur Slimane M., Wahli W., Julve J., Vazquez-Carrera M., Jauhiainen M., Escola-Gil J.C., PPAR- β/δ activation promotes phospholipid transfer protein expression. (2015) BIOCHEM PHARMACOL, 94 (2), 101-108.

IF: 5.0910

Chehaibi K., Escola-Gil J.C., Hrirra M.Y., Trabelsi I., Escola-Gil J.C., Slimane M.N., Gene Variant and Level of IL-1 β in Ischemic Stroke Patients With and Without Type 2 Diabetes Mellitus. (2015) J MOL NEUROSCI, 57 (3), 404-409.

IF: 2.3520

Kareinen I., Cedo L., Silvennoinen R., Laurila P.-P., Jauhiainen M., Julve J., Blanco-Vaca F., Escola-Gil J.C., Kovanen P.T., Lee-Rueckert M., Enhanced vascular permeability facilitates entry of plasma HDL and promotes macrophage-reverse cholesterol transport from skin in mice. (2015) J LIPID RES, 56 (2), 241-253.

IF: 4.3680

Lobos Bejarano J.M., Brotons Cuixart C., Galve E., Royo-Bordonada M.A., Alegria Ezquerro E., Armario P., Camafort Babkowski M., Cordero Fort A., Maiques Galan A., Mantilla Morato T., Perez Perez A., Pedro-Botet J., Villar Alvarez F., Gonzalez-Juanatey J.R.,

Spanish Interdisciplinary Committee for Cardiovascular Disease Prevention and the Spanish Society of Cardiology position statement on dyslipidemia management. Differences between the European and American guidelines. (2015) REV ESP SALUD PUBLIC, 89 (1), 15-26.

IF: 0.6060

Masana L., Cabre A., Heras M., Amigo N., Correig X., Martinez-Hervas S., Real J.T., Ascaso J.F., Quesada H., Julve J., Palomer X., Vazquez-Carrera M., Girona J., Plana N., Blanco-Vaca F., Remarkable quantitative and qualitative differences in HDL after niacin or fenofibrate therapy in type 2 diabetic patients. (2015) ATHEROSCLEROSIS, 238 (2), 213-219.

IF: 3.9420

Minambres I., Sanchez-Quesada J.L., Vinagre I., Sanchez-Hernandez J., Urgell E., De Leiva A., Perez A., Hypovitaminosis D in type 2 diabetes: Relation with features of the metabolic syndrome and glycemic control. (2015) ENDOCR RES, 40 (3), 160-165.

IF: 1.4760

Minambres I., Sanchez-Quesada J.L., Perez A., The association between hypovitaminosis D and metabolic syndrome: Current understanding. (2015) CLIN LIPIDOL, 10 (6), 513-524.

IF: 0.7690

Padro T., Vilahur G., Sanchez-Hernandez J., Hernandez M., Antonijoan R.M., Perez A., Badimon L., Lipidomic changes of LDL in overweight and moderately hypercholesterolemic subjects taking phytosterol- and omega-3-supplemented milk. (2015) J LIPID RES, 56 (5), 1043-1056.

IF: 4.3680

Revuelta-Lopez E., Cal R., Julve J., Rull A., Martinez-Bujidos M., Perez-Cuellar M., Ordonez-Llanos J., Badimon L., Sanchez-Quesada J.L., Llorente-Cortes V., Hypoxia worsens the impact of intracellular triglyceride accumulation promoted by electronegative low-density lipoprotein in cardiomyocytes by impairing perilipin 5 upregulation. (2015) INT J BIOCHEM CELL B, 65, 257-267.

IF: 3.9050

Rull A., Martinez-Bujidos M., Perez-Cuellar M., Perez A., Ordonez-Llanos J., Sanchez-Quesada J.L., Increased concentration of clusterin/apolipoprotein J (apoJ) in hyperlipemic serum is paradoxically associated with decreased apoJ content in lipoproteins. (2015) ATHEROSCLEROSIS, 241 (2), 463-470.

IF: 3.9420

Inflammatory Diseases

Coordinator

Juarez Rubio, Cándido FGS
cjuarez@santpau.cat

Members

Agustí Martí, Manuela FGS
Baucells de la Peña, Andrés FGS
Canto Naves, Elisabeth IR
De La Calle Martín, Oscar FGS
Julia Agulló, German FGS
Mariscal Rodríguez, Anais FGS
Martínez Carretero,
María Ángeles FGS
Martínez Martínez, Laura FGS
Moga Naranjo, Maria Esther FGS
Nieto Sachica, Juan Camilo IR
Ortiz de Juana, Maria Àngels IR
Rubiales Robles,
Maria Victòria FGS
Sanz Martínez, Maria Teresa IR
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 treatment.
- ▶ 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.
- ▶ Study of lymphocyte subpopulations involved in chronic graft rejection in cardiac posttransplant patients.

Challenges

- ▶ Role of cells and molecules of the innate 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.
- ▶ Involvement of STAT family of transcription factors in response to superantigens.
- ▶ Study of mechanisms involved in immunodeficiency caused by alterations of the CD8a molecule.
- ▶ Role of perivascular adipocytes and TLR signalling pathways in the development of atherosclerosis.
- ▶ Inflammation and rejection in heart transplantation.
- ▶ Effects of immunobiological treatments on immunological variables.
- ▶ Analysis of the evolution of immunological parameters and their correlation with clinical response to treatment with immunomodulators.
- ▶ Effects of rituximab, tocilizumab and adalimumab in immunological variables and their correlation with the clinical response in patients with inflammatory diseases.

Active Grants

- ▶ Cándido Juárez Rubio. Mecanismos implicados en la acción del rituximab en miastenia gravis: efecto diferencial sobre los autoanticuerpos anti-AchR y ANTI-MuSK. PI11/00927. Instituto de Salud Carlos III. Duration: 2012-2016. €66,500.
- ▶ Cándido Juárez Rubio. Grup d'Immunologia. 2014 SGR 357. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016.
- ▶ Silvia Vidal Alcorisa. Estudio de la interacción entre el linfocito T y plaquetas: su aplicación en el desarrollo de una terapia celular para regular la respuesta inmune en la artritis reumatoide. PI14/00741. Instituto de Salud Carlos III. Duration: 2015-2017. €41,500.

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

Theses

- ▶ Juan C. Nieto Sachica. Caracterización de la respuesta inmune innata a ligandos de TLR, infecciones bacterianas y tratamiento con probióticos en la cirrosis. Universitat Autònoma de Barcelona. Director: Silvia Vidal Alcorisa. Date of defense: 2 November 2015.
- ▶ Eder Fredy Mateus Medina. Papel de STAT1 y STAT3 en la tolerancia inducida por Staphylococcal enterotoxin B. Universitat Autònoma de Barcelona. Director: Cándido Juárez Rubio. Date of defense: 30 November 2015.

*TIF: 29.6270 **MIF: 2.9627

Scientific Production

Barnadas M.A., Rubiales M.V., Gich I., Gelpi C., Usefulness of specific anti-desmoglein 1 and 3 enzyme-linked immunoassay and indirect immunofluorescence in the evaluation of pemphigus activity. (2015) INT J DERMATOL, 54 (11), 1261-1268.
IF: 1.4150

Bravo Garcia-Morato M., Padilla-Merlano B., Nozal P., Espino M., Juarez C., Villar L.M., Lopez-Trascasa M., Laboratory guidelines for the diagnosis and follow-up of patients with monoclonal gammopathies. (2015) REV CLIN ESP.
IF: 0.7600

Cuesta-Mateos C., Colom-Fernandez B., Portero-Sainz I., Tejedor R., Garcia-Garcia C., Concha-Garzon M.J., De Las Heras-Alonso M.E., Martinez M.A., Juarez C., Munoz-Calleja C., Autoantibodies against TIF-1- γ and CADM-140 in Spanish patients with clinically amyopathic dermatomyositis (CADM): Clinical significance and diagnostic utility. (2015) J EUR ACAD DERMATOL, 29 (3), 482-489.
IF: 3.0290

Martinez-Martinez L., Martinez-Saavedra M.T., Fuentes-Prior P., Barnadas M., Rubiales M.V., Noda J., Badell I., Rodriguez-Gallego C., de la Calle-Martin O., A novel gain-of-function STAT1 mutation resulting in basal phosphorylation of STAT1 and increased distal IFN- γ -mediated responses in chronic mucocutaneous candidiasis. (2015) MOL IMMUNOL, 68 (2), 597-605.
IF: 3.3750

Nieto J.C., Sanchez E., Romero C., Roman E., Poca M., Guarner C., Juarez C., Soriano G., Vidal S., Impaired innate immune response of leukocytes from ascitic fluid of patients with spontaneous bacterial peritonitis. (2015) J LEUKOCYTE BIOL, 98 (5), 819-825.
IF: 4.1650

Ortiz M.A., Diaz-Torne C., Hernandez M.V., Reina D., de la Fuente D., Castellvi I., Moya P., Ruiz J.M., Corominas H., Zamora C., Canto E., Sanmarti R., Juarez C., Vidal S., IL-6 blockade reverses the abnormal STAT activation of peripheral blood leukocytes from rheumatoid arthritis patients. (2015) CLIN IMMUNOL, 158 (2), 174-182.
IF: 4.0340

Roldan C., Mirabet S., Cecilia C., Brossa V., Roig E., Martin C., Gelpi C., CD4⁺CD45RO⁺CD25^{-/low}CD127⁺: CD4⁺CD45RO⁺CD25hiCD127^{-/low} Ratio in Peripheral Blood: A Useful Biomarker to Detect Cardiac Allograft Vasculopathy in Heart Transplanted Patients. (2015) TRANSPLANTATION, 99 (7), 1521-1528.
IF: 3.6900

Sanchez E., Nieto J.C., Boullosa A., Vidal S., Sancho F.J., Rossi G., Sancho-Bru P., Oms R., Mirelis B., Juarez C., Guarner C., Soriano G., VSL#3 probiotic treatment decreases bacterial translocation in rats with carbon tetrachloride-induced cirrhosis. (2015) LIVER INT, 35 (3), 735-745.
IF: 4.4700

Sanchez E., Soriano G., Mirelis B., Gonzalez B., Nieto J.C., Vidal S., Guarner-Argente C., Juarez C., Mones J., Guarner C., Effect of long-term acid gastric inhibition on bacterial translocation in cirrhotic rats. (2015) EUR J GASTROEN HEPAT, 27 (5), 570-576.
IF: 2.0930

Selva-O'Callaghan A., Trallero-Araguas E., Martinez M.A., Labrador-Horrillo M., Pinal-Fernandez I., Grau-Junyent J.M., Juarez C., Inflammatory myopathy: Diagnosis and clinical course, specific clinical scenarios and new complementary tools. (2015) EXPERT REV CLIN IMMUNOL, 11 (6), 737-747.
IF: 2.5960

Endocrinology, Diabetes and Nutrition

Coordinator

De Leiva Hidalgo, Alberto FGS
aleiva@santpau.cat

Members

Alcántara Aragon, Valeria IR
Bell Ramirez,
Olga Lidia CIBERBBN
Castilla Manjón,
María José IR
Chico Ballesteros,
Ana Isabel FGS
Corcoy Pla, Rosa FGS
Cubero Marcos, José María FGS
González Blanco, Cintia FGS
Juárez Muriel, Fabiola IR
Karseladze, Ekaterina
María María, Miguel Ángel FGS
María Marina, Borja IR
Martínez Roldan,
María José IR
Mato Matute,
Eugenia CIBERBBN
Mercader Farres, Laia IR
Navarro Cano, Gemma FGS
Pérez Pérez, Antonio FGS
Pujol Jiménez, Isabel IR
Rabassa Francisco, Georgina IR
Rivas Urbina, Andrea Patricia IR



Main Lines of Research

- ▶ Endocrine neoplasms: investigation of tumour dedifferentiation mechanisms through genomic, proteomic and bioinformatic procedures.
- ▶ Autoimmune diabetes mellitus (classic type 1 and LADA) and gestational diabetes.
- ▶ Telemedicine and intelligent systems for therapeutic optimization of diabetes mellitus.
- ▶ Prediction, prevention and optimization of the treatment of obesity, hyperlipidaemia, metabolic syndrome and complications.
- ▶ Diabetes and endocrine disorders in pregnancy.
- ▶ History of insulin: old and new controversies about the discovery of insulin.

Active Grants

- ▶ Cintia González Blanco. Intensificación y monitorización telemática personalizada de la modificación del estilo de vida en el tratamiento de la obesidad y la prevención del riesgo cardiometabólico. PI12/00931. Instituto de Salud Carlos III. Duration: 2013-2017. €68,000.
- ▶ Valeria Alcántara Aragón. Intensificación y monitorización telemática personalizada de la modificación del estilo de vida en el tratamiento de la obesidad y la prevención del riesgo cardiometabólico (PREDIRCAM 2). 2014FI00149. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2017. €60,465.12.
- ▶ Alberto de Leiva Hidalgo. Grup de Recerca en Endocrinologia, Diabetis i Metabolisme. 2014 SGR 569. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016. €50,000.
- ▶ Rosa Corcoy Pla. Vitamin D and Lifestyle Intervention for Gestational Diabetes Mellitus (GDM) Prevention. (DALI) 7th Framework Programme, EU. HEALTH-F2-2009-242187. Duration: Mar 2010-Dec 2015. €171,920.

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

Grants Awarded in 2015

- ▶ Miñambres I. Apolipoproteína J (Clusterrina) en la diabetes tipo 2: distribución en las fracciones lipoproteicas, efectos sobre su funcionalidad y relación con el grado de control glucémico. Beca de la Sociedad

Española de Diabetes. Duration: Apr 2015-Aug 2016. €20,000.

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

Theses

- ▶ Gemma Carreras González. Terapia intensiva en la diabetes *mellitus* tipo 1 desde el debut. Efecto sobre el control glucémico y las complicaciones tardías a los 20 años de evolución. Universitat Autònoma de Barcelona. Directors: Antonio Pérez, Isabel Badell. Date of defense: November 2015.

Challenges

Endocrine Neoplasms

- ▶ Molecular markers of the epithelial lineage: expression of the ABCG2 gene/BCRP1 transporter.
- ▶ Importance of thyroglobulin and antithyroglobulin antibodies as prognostic prediction markers in differentiated thyroid cancer of epithelial lineage.
- ▶ 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.

Autoimmune Diabetes Mellitus and Gestational Diabetes

- ▶ 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 different pre-conception, pregnancy, birth and postpartum stages.

Telemedicine and Intelligent Systems for Therapeutic Optimization of Diabetes Mellitus

- ▶ 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.

History of Insulin: Old and New Controversies about the Discovery of Insulin

- ▶ To demonstrate with documented evidence (heuristics) that European research on the development of pancreatic extracts achieved beneficial results in the opotherapy of both experimental and clinical diabetes.
- ▶ Research into impaired glucose tolerance in women suffering from polycystic ovary syndrome.
- ▶ Acquisition of information to help assess the clinical and socio-economic relevance of cardiometabolic risk.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Oncogenesis and Antitumour Drugs (Ramon Mangués).
- ▶ 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).

External Collaborations

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: JL Pedraz.

CONCEPTT: Women with Type 1 Diabetes in Pregnancy Trial

- ▶ Sansum Diabetes Research Institute (SDRI). Santa Barbara (California) USA.

- ▶ University of Toronto, Mount Sinai Hospital, Department Endocrinology & Metabolism. Toronto, Canada.
- ▶ Dalhousie University, Staff Endocrinologist, Department of Medicine. Halifax, Canada.
- ▶ University of British Columbia, BC Women's Diabetes Pregnancy Service. Vancouver, Canada.
- ▶ McMaster University, Endocrinology/General Internal Medicine. Hamilton, Canada.
- ▶ University of Ottawa, The Ottawa Hospital, Division of Endocrinology and Metabolism. Ottawa, Canada.
- ▶ Sunnybrook Health Sciences Centre, Department of Endocrinology. Toronto, Canada.
- ▶ University of Western Ontario, Department of Medicine: Endocrinology & Metabolism. London, Ontario, Canada.
- ▶ Centre de Recherche du CHUL. Unité de recherche sur le diabète. Québec, Canada.
- ▶ McGill University, Department of Medicine, Division of Endocrinology & Metabolism, Metabolic Day Centre and Antenatal Clinic. Montréal, Canada.
- ▶ University of Calgary, Departments of Medicine and Obstetrics & Gynaecology. Calgary, Canada.
- ▶ Charles H. Best Diabetes Centre. Ajax, Canada.
- ▶ Yale University. Diabetes Clinic. New Haven, US.
- ▶ Tel-Aviv University, Helen Schneider Hospital for Women; Rabin Medical Center. Israel

Endocrinology, Diabetes and Nutrition

Collaborations

- ▶ Universitat Autònoma de Barcelona. Hospital de la Santa Creu i Sant Pau. Servei d'Endocrinologia i Nutrició. Barcelona, Spain.
- ▶ Health and Social Secretariat. Assembly of First Nations. Ottawa, Canada.
- ▶ CIHR Institute of Aboriginal Peoples' Health. Ottawa, Canada.
- ▶ Community Programs Directorate First Nations and Inuit Health Branch. Ottawa, Canada.
- ▶ University of Western Ontario. Department of Epidemiology and Biostatistics and the Division of Endocrinology. London, Ontario, Canada.
- ▶ Royal University Hospital. Department of Medicine. Saskatoon, Canada.
- ▶ Sunnybrook Health Sciences Centre. Centre for Mother, Infant, and Child Research (CMICR). Toronto, Canada.
- ▶ Jaeb Center for Health Research. Tampa, US.
- ▶ University of Waterloo. Office of Research. Waterloo, Canada.
- ▶ Juvenile Diabetes Research Foundation (JDRF). Canada.
- ▶ Juvenile Diabetes Research Foundation International (JDRF). US.
- ▶ JDRF Lay Review Committee Members (LRC).
- ▶ JDRF Canadian Clinical Trial Network (CCTN).
- ▶ Recherche en Santé Lawson S.A. (LAWSON), Switzerland.
- ▶ Katholieke Universiteit Leuven (K.U. Leuven), Belgium.
- ▶ Copenhagen University Hospital (CUH), Denmark.
- ▶ Akademia Medyczna im Karola Marcinkowskiego (PUM), Poland.
- ▶ BAP Health Outcomes Research (S.L. BAP), Spain.
- ▶ Università degli studi di Padova (UNIPD), Italy.
- ▶ National University of Ireland (NUI), Ireland.
- ▶ Vrije Universiteit Medisch Centrum (VU), Netherlands.

Action LADA European Consortium

- ▶ David Leslie, Co-Ordinator, St. Bartholomew's Hospital, UK.
- ▶ Rhys Williams and Mark Airey, Nuffield Institute for Health, UK.
- ▶ Henning Beck-Nielsen, Odense University Hospital, Denmark.
- ▶ David Hadden and Stephen Hunter, Royal Victoria Hospital, UK.
- ▶ Umberto Di Mario, University of Rome "La Sapienza", Italy.
- ▶ Werner Scherbaum and Jochen Seissler, University of Dusseldorf, Germany.
- ▶ Hubert Kolb, Germany, University of Dusseldorf, Germany.
- ▶ Guntram Scherthaner, Rudolfstiftung Hospital, Austria.
- ▶ Jaakko Tuomilehto and Johan Eriksson, National Public Health Inst., Finland.
- ▶ Alberto de Leiva, Hospital de Sant Pau, Spain.
- ▶ Charles Thivolet, Hospital Edouard Herriot, France.
- ▶ Type 1 Diabet Genetics European Network (ET1DGC), Asia-Pacific, North America and United Kingdom.

Vitamin D and Lifestyle Intervention for Gestational Diabetes Mellitus (GDM) Prevention (DALI)

- ▶ Medizinische Universität Graz (MUG), Austria.
- ▶ Medical Research Council (MRC), United Kingdom.
- ▶ Medical University Vienna (MUV), Austria.
- ▶ University Central Hospital (HUCH), Finland.

*TIF: 117.6560 **MIF: 5.6027

Scientific Production

Aulinas A., Ramirez M.-J., Barahona M.-J., Vallasi E., Resmini E., Mato E., Santos A., Crespo I., Bell O., Surralles J., Webb S.M., Dyslipidemia and chronic inflammation markers are correlated with Telomere Length shortening in Cushing's syndrome. (2015) PLOS ONE, 10 (3).

IF: 3.0570

Aulinas A., Colom C., Garcia Patterson A., Ubeda J., Maria M.A., Orellana I., Adelantado J.M., de Leiva A., Corcoy R., Smoking affects the oral glucose tolerance test profile and the relationship between glucose and HbA1c in gestational diabetes mellitus. (2015) DIABETIC MED.

IF: 3.1520

Balsells M., Garcia-Patterson A., Sola I., Roque M., Gich I., Corcoy R., Glibenclamide, metformin, and insulin for the treatment of gestational diabetes: A systematic review and meta-analysis. (2015) BMJ-BRIT MED J, 350.

IF: 19.6970

Benhalima K., Mathieu C., Damm P., Van Assche A., Devlieger R., Desoye G., Corcoy R.,

Mahmood T., Nizard J., Savona-Ventura C., Dunne F., A proposal for the use of uniform diagnostic criteria for gestational diabetes in Europe: an opinion paper by the European Board & College of Obstetrics and Gynaecology (EBCOG). (2015) DIABETOLOGIA, 58 (7), 1422-1429.

IF: 6.2060

Cubedo J., Padro T., Garcia-Arguinzonis M., Vilahur G., Minambres I., Pou J.M., Ybarra J., Badimon L., A novel truncated form of apolipoprotein A-I transported by dense LDL is increased in diabetic patients. (2015) J LIPID RES, 56 (9), 1762-1773.

IF: 4.3680

de Wit L., Jelsma J.G.M., van Poppel M.N.M., Bogaerts A., Simmons D., Desoye G., Corcoy R., Kautzky-Willer A., Harreiter J., van Assche A., Devlieger R., Timmerman D., Hill D., Damm P., Mathiesen E.R., Wender-Ozegowska E., Zawiejska A., Rebollo P., Lapolla A., Dalfrà M.G., Del Prato S., Bertolotto A., Dunne F., Jensen D.M., Andersen L., Snoek F.J., Physical activity, depressed mood and

pregnancy worries in European obese pregnant women: Results from the DALI study. (2015) BMC PREGNANCY CHILDB, 15 (1).

IF: 2.1800

Feig D.S., Corcoy R., Jensen D.M., Kautzky-Willer A., Nolan C.J., Oats J.J.N., Sacks D.A., Caimari F., Mcintyre H.D., Diabetes in pregnancy outcomes: A systematic review and proposed codification of definitions. (2015) DIABETES-METAB RES, 31 (7), 680-690.

IF: 3.0640

Hernandez M., Mollo A., Marsal J.R., Esquerda A., Capel I., Puig-Domingo M., Pozzilli P., de Leiva A., Mauricio D., Insulin secretion in patients with latent autoimmune diabetes (LADA): Half way between type 1 and type 2 diabetes: ACTION LADA 9. (2015) BMC ENDOCR DISORD, 15 (1), 1-6.

IF: 1.7390

Lobos Bejarano J.M., Brotons Cuixart C., Galve E., Royo-Bordonada M.A., Alegria Ezquerro E., Armario P., Camafort Babkowski M., Cordero Fort A., Maiques Galan A., Man-

*TIF: 117.6560 **MIF: 5.6027

tilla Morato T., Perez Perez A., Pedro-Botet J., Villar Alvarez F., Gonzalez-Juanatey J.R., Spanish Interdisciplinary Committee for Cardiovascular Disease Prevention and the Spanish Society of Cardiology position statement on dyslipidemia management. Differences between the European and American guidelines. (2015) REV ESP SALUD PUBLICA, 89 (1), 15-26.

IF: 0.6060

Martinez-Bujidos M., Rull A., Gonzalez-Cura B., Perez-Cuellar M., Montoliu-Gaya L., Villegas S., Ordonez-Llanos J., Sanchez-Quesada J.L., Clusterin/apolipoprotein J binds to aggregated LDL in human plasma and plays a protective role against LDL aggregation. (2015) FASEB J, 29 (5), 1688-1700.

IF: 5.2990

Mato E., Barcelo-Batllori S., Orera I., Selva L., Corra M., Gonzalez C., Bell O., Lerma E., Moral A., Perez J.I., de Leiva A., The proteomic 2D-DIGE approach reveals the protein voltage-dependent anion channel 2 as a potential therapeutic target in epithelial thyroid tumours. (2015) MOL CELL ENDOCRINOL, 404, 37-45.

IF: 3.8590

Mato E., Puras G., Bell O., Agirre M., Hernández R.M., Igartua M., Moreno R., Gonzalez G., de Leiva A., Pedraz J.L. Selective Antitumoral Effect of Sorafenib Loaded PLGA Nanoparticles Conjugated with Cetuximab on Undifferentiated/ Anaplastic Thyroid Carcinoma Cells. (2015) J NANOMED NANOTECHNOL, 6, 3.

IF: 5.7200

Minambres I., Sanchez-Quesada J.L., Vinagre I., Sanchez-Hernandez J., Urgell E., De Leiva A., Perez A., Hypovitaminosis D in type 2 diabetes: Relation with features of the metabolic syndrome and glycemic control. (2015) ENDOCR RES, 40 (3), 160-165.

IF: 1.4760

Minambres I., Sanchez-Quesada J.L., Perez A., The association between hypovitaminosis D and metabolic syndrome: Current understanding. (2015) CLIN LIPIDOL, 10 (6), 513-524.

IF: 0.7690

Nazare J.A., Smith J., Borel A.L., Aschner P., Barter P., Van Gaal L., Tan C.E., Wittchen H.U., Matsuzawa Y., Kadowaki T., Ross R., Brulle-Wohlhueter C., Alméras N., Haffner S.M., Balkau B., Després J.P.; INSPIRE ME IAA Investigators (A. Pérez). Usefulness of Measuring Both Body Mass Index and Waist Circumference for the Estimation of Visceral Adiposity and Related Cardiometabolic Risk Profile (from the INSPIRE ME IAA Study). (2015) AM J CARDIOL, 115(3), 307-15.

IF: 3.2760

Onengut-Gumuscu S., Chen W.M., Burren O., Cooper N.J., Quinlan, A.R., Mychaleckyj J.C., Farber E., Bonnie J.K., Szpak M., Schofield E., Achuthan P., Guo H., Fortune M.D., Stevens H., Walker N.M., Ward L.D., Kundaje A., Kellis M., Daly M.J., Barrett J.C., Cooper J.D., Deloukas P., Todd J.A., Wallace C., Concannon P., Rich S.S., Type 1 Diabet Genetics Consortium (de Leiva, Alberto). Fine mapping of type 1 diabetes susceptibility loci and evidence for colocalization of causal variants with lymphoid gene enhancers. (2015) NATURE GENETICS. Volume 47; Issue 4: 381-UI99.

IF: 29.3520

Padro T., Vilahur G., Sanchez-Hernandez J., Hernandez M., Antonijoan R.M., Perez A., Badimon L., Lipidomic changes of LDL in overweight and moderately hypercholesterolemic subjects taking phytosterol- and omega-3-supplemented milk. (2015) J LIPID RES, 56 (5), 1043-1056.

IF: 4.3680

Revueña-Lopez E., Cal R., Julve J., Rull A., Martinez-Bujidos M., Perez-Cuellar M., Or-

donez-Llanos J., Badimon L., Sanchez-Quesada J.L., Llorente-Cortes V., Hypoxia worsens the impact of intracellular triglyceride accumulation promoted by electronegative low-density lipoprotein in cardiomyocytes by impairing perilipin 5 upregulation. (2015) INT J BIOCHEM CELL B, 65, 257-267.

IF: 3.9050

Rull A., Martinez-Bujidos M., Perez-Cuellar M., Perez A., Ordonez-Llanos J., Sanchez-Quesada J.L., Increased concentration of clusterin/apolipoprotein J (apoJ) in hyperlipemic serum is paradoxically associated with decreased apoJ content in lipoproteins. (2015) ATHEROSCLEROSIS, 241 (2), 463-470.

IF: 3.9420

Simmons D., Jelsma J.G.M., Galjaard S., Devlieger R., Van Assche A., Jans G., Corcoy R., Adelantado J.M., Dunne F., Desoye G., Harreiter J., Kautzky-Willer A., Damm P., Mathiesen E.R., Jensen D.M., Andersen L.L., Lapolla A., Dalfra M., Bertolotto A., Wender-Ozegowska E., Zawiejska A., Hill D., Rebollo P., Snoek F.J., Van Poppel M.N.M., Results from a European multicenter randomized trial of physical activity and/or healthy eating to reduce the risk of gestational diabetes mellitus: The DALI lifestyle pilot. (2015) DIABETES CARE, 38 (9), 1650-1656.

IF: 8.9340

Vilchez J.A., Perez-Cuellar M., Marin F., Gallego P., Manzano-Fernandez S., Valdes M., Vicente V., Noguera-Velasco J.A., Lip G.Y.H., Ordonez-Llanos J., Roldan V., sST2 levels are associated with all-cause mortality in anticoagulated patients with atrial fibrillation. (2015) EUR J CLIN INVEST, 45 (9), 899-905.

IF: 2.6870

Endocrinology, Diabetes and Nutrition

Other Publications

- ▶ Alcantara-Aragon V., Gonzalez C., Corcoy R., Ubeda J., Chico A. Carbohydrate-to-Insulin Ratio in a Mediterranean Population of Type 1 Diabetic Patients on Continuous Subcutaneous Insulin Infusion Therapy. (2015) JOURNAL OF DIABETES SCIENCE AND TECHNOLOGY, 9 (3), 588-92.
- ▶ Colom C., Chico A., Carreras G., Aulinas A., Pujol I., Pérez A. Control glucémico y complicaciones crónicas a 20 años del comienzo de la diabetes tipo 1. Resultados de una unidad especializada. (2015) AV DIABETOL, 31, 113-9.
- ▶ Grupo Español de Diabetes y Embarazo (GEDE). Sociedad Española de Diabetes (SED), España; Sociedad Española de Ginecología y Obstetricia (SEGO), España (Chico A., Corcoy R.). Asistencia a la gestante con diabetes. Guía de práctica clínica actualizada en 2014. (2015) AV DIABETOL, 31(2), 45-59.
- ▶ Lobos Bejarano J.M., Galve E., Royo-Bordonada M.A., Alegria Ezquerra E., Armario P., Brotons Cuixart C., Camafort Babkowski M., Cordero Fort A., Maiques Galán A., Mantilla Morató T., Pérez Pérez A., Pedro-Botet J., Villar Álvarez F., González-Juanatey J.R.; on behalf of Comité Español Interdisciplinario de Prevención Cardiovascular and Sociedad Española de Cardiología. Spanish Interdisciplinary Committee for Cardiovascular Disease Prevention and the Spanish Society of Cardiology Position Statement on Dyslipidemia management: differences between the European and American Guidelines. (2015) SEMERGEN; 41(3), 149-57.
- ▶ Lobos Bejarano J.M., Galve E., Royo-Bordonada M.A., Alegria Ezquerra E., Armario P., Brotons Cuixart C., Camafort Babkowski M., Cordero Fort A., Maiques Galán A., Mantilla Morató T., Pérez Pérez A., Pedro-Botet J., Villar Álvarez F., González-Juanatey J.R.; on behalf of Comité Español Interdisciplinario de Prevención Cardiovascular and Sociedad Española de Cardiología. Spanish Interdisciplinary Committee for Cardiovascular Disease Prevention and the Spanish Society of Cardiology Position Statement on Dyslipidemia management: differences between the European and American Guidelines. (2015) CLIN INVESTIG ARTERIOSCLER. 27(1):36-44.
- ▶ Lobos Bejarano J.M., Galve E., Royo-Bordonada M.A., Alegria Ezquerra E., Armario P., Brotons Cuixart C., Camafort Babkowski M., Cordero Fort A., Maiques Galán A., Mantilla Morató T., Pérez Pérez A., Pedro-Botet J., Villar Álvarez F., González-Juanatey J.R.; Spanish Interdisciplinary Committee for Cardiovascular Disease Prevention and the Spanish Society of Cardiology. Spanish Interdisciplinary Committee for Cardiovascular Disease Prevention and the Spanish Society of Cardiology Position Statement on Dyslipidemia Management. Differences Between the European and American Guidelines. (2015) HIPERTENS RIESGO VASC, 32(2), 83-91.
- ▶ Menéndez Torre E., Gaztambide S., Rica I., Castaño L., Salvador F.J., Escalada F.J., Grupo de trabajo MIPDI-1 (Chico A.I., González C.). Proyecto manejos integral en la DM tipo 1. el manejo integral del paciente con diabetes mellitus tipo 1. (2015) AV DIABETOL, 31(1), 13-23.
- ▶ Pérez A. Statin-centered treatment of dyslipidemia. New evidence-based paradigm, or only part of the evidence? (2015) ENDOCRINOL NUTR. Pii: S1575-0922(15)00225-9. Doi:10.1016/j.Endonu. 2015.08.005.
- ▶ Pérez A., Mezquita Raya P., Ramírez de Arellano A., Briones T., Hunt B., Valentine W.J. Cost-Effectiveness Analysis of Incretin Therapy for Type 2 Diabetes in Spain: 1.8mg Liraglutide Versus Sitagliptin. (2015) DIABETES THER, 6, 61-74.
- ▶ Salord N., Fortuna A.M., Monasterio C., Gasa M., Pérez A., Bon-signore M.R., Vilarrasa N., Montserrat J.M., Mayos M. A Randomized Controlled Trial of CPAP on Glucose Tolerance in Obese Patients with Obstructive Sleep Apnea. (2015) SLEEP. Pii: sp-00651-14. [Epub ahead of print].
- ▶ Vázquez F., Barrio R., Goñi M.J., Díaz-Soto G., Simón Muela I., González Blanco C., on behalf of Grupo de Nuevas Tecnologías de la Sociedad Española de Diabetes (SED). Documento de consenso sobre el tratamiento con infusión subcutánea continua de insulina en el medio hospitalario. (2015) AV DIABETOL, 31(3), 81-88.
- ▶ Zafón C., Puig-Domingo M., Biarnés J., Halperin I., Bella M.R., Castells I., González C., Megía A., Santos L., García-Pascual L., Reverter J.L., Pizarro E., Mauricio D., on behalf of Consorcio para el Estudio del Cáncer de Tiroides (CECaT). Registro CECaT. (2015) ENDOCRINOL NUTR, 62(6), 264-269.

Pituitary Gland Disorders

Coordinator

Webb Youdale, Susan
webb@santpau.cat

FGS

Members

Aulinas Maso, Anna

IR

Crespo, Iris

IR

Resmini, Eugenia

CIBERER

Roig Garcia, Olga

IR

Santos, Alicia

IR

Valassi, Elena

IR



Main Lines of Research

- ▶ Morbimortality, low-grade inflammation and cardiovascular risk in patients with acromegaly or Cushing syndrome.
- ▶ ERCUSYN: European Registry on Cushing syndrome. Initiated with funding from SANCO, EU Public Health Programme.
- ▶ Neuroradiological, neuropsychological and clinical study of endogenous hypercortisolism: comparison of Cushing syndrome and chronic major depressive disorder.
- ▶ Validation of psychological properties of specific questionnaires to evaluate health-related quality of life (HRQoL) in Cushing syndrome and acromegaly.
- ▶ 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.
- ▶ Aetiology of cardiopathy in acromegaly and its relation to body composition.
- ▶ Role of telomeres in endocrine diseases.

Challenges

- ▶ Investigate the neuropsychological, neuroradiological and clinical correlation of patients with endogenous hypercortisolism (due to Cushing syndrome or chronic major depressive disorder) or exogenous exposure to low-dose glucocorticoids (due to treatment of adrenal insufficiency or rheumatoid arthritis). Similar studies for acromegaly.
- ▶ Correlate neuropsychological status and circadian rhythm of cortisol in patients with hypercortisolism (Cushing syndrome) and without hypercortisolism (non-functioning pituitary adenomas) compared to normal controls.
- ▶ Evaluate long-term morbidity and mortality in patients who have had Cushing syndrome or acromegaly in the last 25 years.
- ▶ Analyse and update the European database of patients with Cushing syndrome (ERCUSYN), which at the end of 2013 included over 1100 patients from 57 centres in 36 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.
- ▶ Investigate correlations of telomere length and different clinical and biochemical parameters in patients with Cushing syndrome.
- ▶ Evaluate long-term morbidity and mortality in patients who have had Cushing syndrome or acromegaly in the last 25 years.

Theses

- ▶ Alicia Santos. Estudio neuropsicológico, neuroradiológico y clínico en el hipercortisolismo endógeno. Universitat de Barcelona. Date of defense: 15 December 2015.
- ▶ Anna Aulinas. Investigation of the telomere maintenance system in Cushing's syndrome: A contribution to the phenomena of early ageing and specific morbidity. Director: Dra. Susan Webb. Date of defense: 19 June 2015.

Active Grants

- ▶ Elena Valassi. Subprograma Juan de la Cierva 2012. JLC-2012-13447. Ministerio de Economía y Competitividad. Duration: 2013-2016. €86,400.
- ▶ Susana Webb Youdale. Grup de Recerca de Malalties de la Hipòfisi i Grup CIBERER 747 (CIBER de Malalties Rares). 2014 SGR 355. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016.
- ▶ Susana Webb Youdale. Estudio de microarquitectura y resistencia óseas y de factores que las determinan en el síndrome de

Cushing o acromegalia en remisión. Modelo para investigar la interacción hueso-grasa corporal. PI14/00194. Instituto de Salud Carlos III. Duration: 2015-2017. €91,500.

- ▶ Susan Webb Youdale. Etiopatogenia de la cardiopatía en la acromegalia y su relación con la composición corporal. Merck Serono 2012. Duration: 04/06/12-04/06/15. €16.667.

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

*TIF: 51.7690 **MIF: 3.5412

Scientific Production

Andela C.D., Van Haalen F.M., Ragnarsson O., Papakokkinou E., Johannsson G., Santos A., Webb S.M., Biermasz N.R., Van Der Wee N.J.A., Pereira A.M., Cushing's syndrome causes irreversible effects on the human brain: A systematic review of structural and functional magnetic resonance imaging studies. (2015) EUR J ENDOCRINOL, 173 (1), R1-R14.

IF: 3.8920

Aulinas A., Ramirez M.-J., Barahona M.-J., Valassi E., Resmini E., Mato E., Santos A., Crespo I., Bell O., Surrallés J., Webb S.M., Dyslipidemia and chronic inflammation markers are correlated with Telomere Length shortening in Cushing's syndrome. (2015) PLOS ONE, 10 (3).

IF: 3.0570

Aulinas A., Colom C., Garcia Patterson A., Ubeda J., Maria M.A., Orellana I., Adelantado J.M., de Leiva A., Corcoy R., Smoking affects the oral glucose tolerance test profile and the relationship between glucose and HbA1c in gestational diabetes mellitus. (2015) DIABETIC MED.

IF: 3.1520

Barahona M.-J., Resmini E., Vilades D., Fernandez-Real J.-M., Ricart W., Moreno-Navarrete J.-M., Pons-Llado G., Leta R., Webb S.M., Soluble TNF α -receptor 1 as a predictor of coronary calcifications in patients after long-term cure of Cushing's syndrome. (2015) PITUITARY, 18 (1), 135-141.

IF: 3.4070

Crespo I., Santos A., Valassi E., Pires P., Webb S.M., Resmini E., Impaired decision making and delayed memory are related with anxiety and depressive symptoms in acromegaly. (2015) ENDOCRINE, 50 (3), 756-763.

IF: 3.2790

Crespo I., Valassi E., Santos A., Webb S.M. Health-Related Quality of Life in Pituitary Diseases. (2015) ENDOCRINOL METAB CLIN NORTH AM, 44, 1, 161-170.

IF: 2.1300

Crespo I., Webb S.M., Santos A., Webb S.M., Quality of life in patients with hypopituitarism. (2015) CURR OPIN ENDOCRINOL, 22 (4), 306-312.

IF: 3.1190

Denes J., Swords F., Rattenberry E., Stals K., Owens M., Cranston T., Xekouki P., Moran L., Kumar A., Wassif C., Fersht N., Baldeweg S.E., Morris D., Lightman S., Agha A., Rees A., Grieve J., Powell M., Boguszewski C.L., Dutta P., Thakker R.V., Srirangalingam U., Thompson C.J., Druce M., Higham C., Davis J., Eeles R., Stevenson M., O'Sullivan B., Taniere P., Skordilis K., Gabrovska P., Barlier A., Webb S.M., Aulinas A., Drake W.M., Bevan J.S., Preda C., Dalantaeva N., Ribeiro-Oliveira A., Garcia I.T., Yordanova G., Iotova V., Evanson J., Grossman A.B., Trouillas J., Ellard S., Stratakis C.A., Maher E.R., Roncaroli F., Korbonits M., Heterogeneous genetic background of the association of pheochromocytoma/paraganglioma and pituitary adenoma: Results from a large patient cohort. (2015) J CLIN ENDOCR METAB, 100 (3), E531-E541.

IF: 5.5310

Graupera I., Webb S., Villanueva C., Pavel O., Hernandez-Gea V., Ardevol A., Webb S., Urgell E., Colomo A., Lloa J., Concepcion M., Relative adrenal insufficiency in severe acute variceal and non-variceal bleeding: Influence on outcomes. (2015) LIVER INT, 35 (8), 1964-1973.

IF: 4.4700

Minambres I., Sanchez-Quesada J.L., Vinagre I., Sanchez-Hernandez J., Urgell E., De Leiva A., Perez A., Hypovitaminosis D in type 2 diabetes: Relation with features of the metabolic syndrome and glycemic control. (2015) ENDOCR RES, 40 (3), 160-165.

IF: 1.4760

Pires P., Santos A., Vives-Gilbert Y., Webb S.M., Sainz-Ruiz A., Resmini E., Crespo I., De Juan-Delago M., Gomez-Anson B., White matter alterations in the brains of patients with active, remitted, and cured cushing

syndrome: A DTI study. (2015) AM J NEURORADIOLOG, 36 (6), 1043-1048.

IF: 3.1240

Santos A., Crespo I., Aulinas A., Resmini E., Valassi E., Webb S.M., Quality of life in Cushing's syndrome. (2015) PITUITARY, 18 (2), 195-200.

IF: 3.4070

Santos A., Resmini E., Gomez-Anson B., Crespo I., Granell E., Valassi E., Pires P., Vives-Gilbert Y., Martinez-Momblan M.A., De Juan M., Mataro M., Webb S.M., Cardiovascular risk and white matter lesions after endocrine control of Cushing's syndrome. (2015) EUR J ENDOCRINOL, 173 (6), 765-775.

IF: 3.8920

Vila G., Akerblad A.-C., Mattsson A.F., Riedl M., Webb S.M., Hana V., Nielsen E.H., Biller B.M.K., Luger A., Pregnancy outcomes in women with growth hormone deficiency. (2015) FERTIL STERIL, 104 (5), 1210-1217.e1.

IF: 4.4260

Yoshida K., Fukuoka H., Matsumoto R., Bando H., Suda K., Nishizawa H., Iguchi G., Ogawa W., Webb S.M., Takahashi Y., The quality of life in acromegalic patients with biochemical remission by surgery alone is superior to that in those with pharmaceutical therapy without radiotherapy, using the newly developed Japanese version of the AcroQoL. (2015) PITUITARY, 18 (6), 876-883.

IF: 3.4070

Digestive Diseases

Coordinator

Guarner Aguilar, Carlos FGS
cguarner@santpau.cat

Members

Alvarado Tapias, IR
Edilmar Auxiliadora IR
Ardevol Ribalta, Alba CIBEREHD
Colán-Hernández, Juan FGS
Escuredo Rodríguez, FGS
Bibiana FGS
Gallego Moya, Adolfo FGS
García Planella, Esther FGS
Gely Vila, Cristina IR
Gómez Oliva, Cristina FGS
González Juan, Dolores FGS
Gordillo Ábalos, Jorge FGS
Guarner Argente, Carlos FGS
Huelin Álvarez, Patricia FGS
Llao Guardia, Jordina IR
Lozano Martínez, Gloria Andrea SOL-LICITUD
Marín Sánchez, Laura IR
Poca Sans, Maria FGS
Román Abal, Eva María IR
Sainz Saenz-Torre, Sergio FGS
Sánchez Ardid, Elisabet CIBEREHD
Soriano Pastor, Germán FGS
Torrás Colell, Javier FGS
Villanueva Sánchez, Cándid 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.

Challenges

- ▶ Consolidate the CIBEREHD research group by studying complications in cirrhosis.
- ▶ Expand the hepatology research lab and develop new research.
- ▶ Consolidate the portal hypertension 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

- ▶ Carlos Guarner Argente. Beca per a la intensificació de la recerca de la Societat Catalana de Digestologia (2014-2015).

Active Grants

- ▶ Eva María Román Abal. Estudio del síndrome de fragilidad en los pacientes con cirrosis hepática: relación con las caídas, la calidad de vida y el pronóstico. PI12/00629. Instituto de Salud Carlos III. Duration: 2013-2016. €31,500.
- ▶ Càndid Villanueva Sánchez. Estudio randomizado y controlado para comparar el tratamiento con anticoagulación oral con antagonistas de la vitamina K *versus* heparina de bajo peso molecular (bemiparina) en pacientes con criterios de anticoagulación. Conveni Rovi. Laboratoris Farmacèutics Rovi. Duration: 2012-2016. €6,507.11.
- ▶ Càndid Villanueva Sánchez. Prevención de la descompensación de la cirrosis a largo plazo mediante el tratamiento de la hipertensión portal: Estudio multicéntrico a doble-ciego. PI13/02535. Instituto de Salud Carlos III. Duration: 2014-2016. €218,750.
- ▶ 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: 2014-2016. €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: 2015-2017. €81,500.

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

Grants Awarded in 2015

- ▶ Càndid Villanueva Sánchez. Convocatòria d'intensificació 2015. IR15-INT4. Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2015-2016. €30,000.

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

Theses

- ▶ Elisabet Sánchez Ardid. Modelos experimentales de peritonitis bacteriana inducida en ratas con cirrosis y nuevas estrategias terapéuticas. Director: Carlos Guarner. Date of defense: October 2015.

*TIF: 128.5290 **MIF: 6.1204

Scientific Production

Alonso A., Domenech E., Julia A., Panes J., Garcia-Sanchez V., Mateu P.N., Gutierrez A., Gomollon F., Mendoza J.L., Garcia-Planella E., Barreiro-De Acosta M., Munoz F., Vera M., Saro C., Esteve M., Andreu M., Chaparro M., Manye J., Cabre E., Lopez-Lasanta M., Tortosa R., Gelpi J.L., Garcia-Montero A.C., Bertranpetit J., Absher D., Myers R.M., Marsal S., Gisbert J.P., Identification of risk loci for crohn's disease phenotypes using a genome-wide association study. (2015) GASTROENTEROLOGY, 148 (4), 794-805.

IF: 18.1870

Buti M., Morillas R.M., Perez J., Prieto M., Sola R., Palau A., Diago M., Bonet L., Gallego A., Garcia-Samaniego J., Testillano M., Rodriguez M., Castellano G., Gutierrez M.L., Delgado M., Mas A., Romero-Gomez M., Calleja J.L., Gonzalez-Guirado A., Arenas J.I., Garcia-Buey L., Andrade R., Gila A., Almandoz E., Alonso M., Bungal M.A., Esteban R., Fernandez C., Gallego R., Vila C.G., Gimenez D., Gomez M., Garcia A.G., Gonzalez-Dieguez M.L., Madejon A., Manzano M.L., Herrera I.M., Navascues C.A., Planas R., Cubero J.C.P., Fernandez I.R., Salmeron J., Sanchez-Tapias J.M., Sotelo R., Vinaixa C., Entecavir has high efficacy and safety in white patients with chronic hepatitis B and comorbidities. (2015) EUR J GASTROEN HEPAT, 27 (1), 46-54.

IF: 2.0930

Buti M., Franco A., Carmona I., Sanchez-Ruano J.J., Sanso A., Berenguer M., Garcia-Buey L., Hernandez-Guerra M., Morillas R.M., Ledesma F., Esteban R., Aguilera V., Alonso M.J., Alonso S., Alonso-Burgal M., Andrade R., Anton S., Aparcero R., Artaza T., Barcena R., Barrera P., Berenguer M., Blas J.M., Buti M., Calleja J.L., Carmona I., Casas M., Casado M., Costan G., Cuaresma M., Cuenca F., Dalmau B., Daponte S., Vaquer P., Delgado M., De La Bandera M., De La Fuente E., De La Mata M., Devesa M.J., Diago M., Erana L.F., Escudero M., Estevez M., Fernandez-Bermejo M., Fernandez A., Fernandez-Castroagudin J., Fernandez I., Forn X., Fraga E., Gallego A., Gallego R., Garcia-Buey M.L., Garcia I., Garcia-Samaniego J., Gely C., Gila A., Gonzalez L., Gomez-Alonso M., Gomez-Rubio M., Gonzalez M., Gonzalez M.L., Gutierrez M.L., Hernandez-Guerra M., Hombrados M., Jimenez M., JorDan T., Jorquera F., Lens S., Linares P., Lopez G., Lopez-Cepero J., Lopez C., Lorente S., Manzano M.L., Maraver A., Mera J., Miquel M., Molina C., Molina E., Montero J.L., Montoliu S., Moreno J., Moreno I., Morillas R., Olcoz J.L., Oliveira A., Palau A., Pardo A., Pascasio J.M., Perez J., Pelaez G., Perez-Moreno J., Perez-Tristancho M.R., Planas R., Pons J.A., Porcel A., Povato A., Primo J., Puertas-Montenegro, Quer J.C., Rincon D., Rivas L., Rodriguez M., Romero

M., Romero M., Salmeron J., Sanchez J., Sanchez-Ruano J.J., Sanso A., Santamaria G., Serra M.A., Serrano T., Sola R., Torras J., Turnes J., Urquijo J.J., Vergara M., Vilella A., Vinolo C., Profiles and clinical management of hepatitis C patients in Spain: DisHCovery study. (2015) REV ESP QUIM, 28 (3), 145-153.

IF: 1.0140

Calleja J.L., Pascasio J.M., Ruiz-Antoran B., Gea F., Barcena R., Larrubia J.R., Perez-Alvarez R., Sousa J.M., Romero-Gomez M., Sola R., de la Revilla J., Crespo J., Navarro J.M., Arenas J.I., Delgado M., Fernandez-Rodriguez C.M., Planas R., Buti M., Forn X., Anton, Arenas, Barcena, Calleja, Castellote, Castillo, Castro-Iglesias, Cuenca-Moron, Delgado, Erdozain, Fernandez, Ferrer, Forn, Garcia-Bengochea, Garcia-Hoz, Garcia-Samaniego, Gea, Gomez-Garcia, Gonzalez, Crespo, Ladero-Quesada, Larrubia-Marfil, Lens, Manzano, Martinez-Sierra, Martinez, Miguel, Molina, Monge, Munoz, Narvaez, Navarro-Jarabo, Nunez, Oliveira, Pascasio, Planas, Portu, Perez-Alvarez, de la Revilla, Rodado, Romero, Ruiz-Antoran, Ryan, Salcedo I., Sanchez-Tapias, Serra, Sola, Sousa-Martin, Torras, Vergara, Safety and efficacy of triple therapy with peginterferon, ribavirin and boceprevir within an early access programme in Spanish patients with hepatitis C

Digestive Diseases

*TIF: 128.5290 **MIF: 6.1204

genotype 1 with severe fibrosis: SVRw12 analysis. (2015) LIVER INT, 35 (1), 90-100.

IF: 4.4700

Castaño-Milla C., Chaparro M., Saro C., Barreiro-de Acosta M., García-Albert A.M., Bujanda L., Martín-Arranz M.D., Carpio D., Muñoz F., Manceñido N., García-Planella E., Piqueras M., Calvet X., Cabriada J.L., Botella B., Bermejo F., Gisbert J.P. Effectiveness of adalimumab in perianal fistulas in crohn's disease patients naive to anti-TNF therapy. (2015) J CLIN GASTROENTEROL, 49(1), 34-40.

IF: 7.680

Cerini F., Gonzalez J.M., Torres F., Puente A., Casas M., Vinaixa C., Berenguer M., Ardevol A., Augustin S., Llop E., Senosiain M., Villanueva C., de la Pena J., Banares R., Genesca J., Sopena J., Albillos A., Bosch J., Hernandez-Gea V., Garcia-Pagan J.C., Impact of anticoagulation on upper-gastrointestinal bleeding in cirrhosis. A retrospective multicenter study. (2015) HEPATOLOGY, 62 (2), 575-583.

IF: 11.7110

Derikx M.H., Kovacs P., Scholz M., Masson E., Chen J.-M., Ruffert C., Lichtner P., Te Morsche R.H.M., Cavestro G.M., Ferec C., Drenth J.P.H., Witt H., Rosendahl J., Berg T., Bodeker H., Blüher M., Bruno M.J., Buch S., Bugert P., Cichoż-Lach H., Dabrowski A., Farre A., Frank J., Gasiorowska A., Geisz A., Goni E., Grothaus J., Grutzmann R., Haas S., Hampe J., Hellerbrand C., Hegyi P., Huster D., Ioana M., Iordache S., Jurkowska G., Keim V., Landt O., Di Leo M., Lerch M.M., Levy P., Lohr M.J., Macek M., Malats N., Malecka-Panas E., Mariani A., Martorana D., Mayerle J., Mora J., Mossner J., Muller S., Ockenga J., Paderova J., Pedrazzoli S., Pereira S.P., Pfitzer R., Real F.X., Rebours V., Ridinger M., Rietschel M., Rohde K., Sack S., Saftoiu A., Schneider A., Schulz H.-U., Soyka M., Simon P., Skipworth J., Stickel F., Stumvoll M., Testoni P.A., Tonjes A., Treiber M., Weiss F.U., Werner J., Wodarz N., Polymorphisms at PRSS1-PRSS2 and CLDN2-MORC4 loci associate with alcoholic and non-alcoholic chronic pancreatitis in a European replication study. (2015) GUT, 64 (9), 1426-1433.

IF: 14.9210

Fernandez J., Aracil C., Sola E., Soriano G., Cinta Cardona M., Coll S., Genesca J., Hombrados M., Morillas R., Martin-Llahi M., Pardo A., Sanchez J., Vargas V., Xiol X., Gines P., Evaluation and treatment of the critically ill cirrhotic patient. (2015) GASTROENT HEPAT-BARC.

IF: 0.8000

Gomez-Anson B., Roman E., De Bobadilla R.F., Pires-Encuentra P., Diaz-Manera J., Nuez F., Martinez-Horta S., Vives-Gilabert Y., Pagonabarraga J., Kulisevsky J., Cordoba J.,

Guarner C., Soriano G., Alterations in cerebral white matter and neuropsychology in patients with cirrhosis and falls. (2015) PLOS ONE, 10 (3).

IF: 3.0570

Gomez-Rubio P., Zock J.-P., Rava M., Marquez M., Sharp L., Hidalgo M., Carrato A., Ilzarbe L., Michalski C., Molero X., Farre A., Perea J., Greenhalf W., O'Rorke M., Tardon A., Gress T., Barbera V., Crnogorac-Jurcevic T., Dominguez-Munoz E., Munoz-Bellvis L., Alvarez-Urturi C., Balcells J., Barneo L., Costello E., Guillen-Ponce C., Kleeff J., Kong B., Lawlor R., Lohr M., Mora J., Murray L., O'Driscoll D., Peñalaz P., Poves I., Scarpa A., Real F.X., Malats N., Reduced risk of pancreatic cancer associated with asthma and nasal allergies. (2015) GUT.

IF: 14.9210

Gordillo J., Cabré E., Garcia-Planella E., Ricart E., Ber-Nieto Y., Márquez L., Rodríguez-Moranta F., Ponferrada A., Vera I., Gisbert J.P., Barrio J., Esteve M., Merino O., Muñoz F., Domènech E.; ENEIDA Project of the Spanish Working Group in Crohn's Disease and Ulcerative Colitis (GETECCU). Thiopurine Therapy Reduces the Incidence of Colorectal Neoplasia in Patients with Ulcerative Colitis. Data from the ENEIDA Registry. (2015) J CROHNS COLITIS, 9(12), 1063-70.

IF: 6.585

Graupera I., Webb S., Villanueva C., Pavel O., Hernandez-Gea V., Ardevol A., Webb S., Urgell E., Colomo A., Llao J., Concepcion M., Relative adrenal insufficiency in severe acute variceal and non-variceal bleeding: Influence on outcomes. (2015) LIVER INT, 35 (8), 1964-1973.

IF: 4.4700

Gustot T., Fernandez J., Garcia E., Morando F., Caraceni P., Alessandria C., Laleman W., Trebicka J., Elkrif L., Hopf C., Solis-Munoz P., Saliba F., Zeuzem S., Albillos A., Benten D., Montero-Alvarez J.L., Chivas M.T., Concepcion M., Cordoba J., McCormick A., Stauber R., Vogel W., de Gottardi A., Welzel T.M., Domenicali M., Risso A., Wendon J., Deulofeu C., Angeli P., Durand F., Pavesi M., Gerbes A., Jalan R., Moreau R., Gines P., Bernardi M., Arroyo V., Clinical Course of acute-on-chronic liver failure syndrome and effects on prognosis. (2015) HEPATOLOGY, 62 (1), 243-252.

IF: 11.7110

Lens S., Mensa L., Gambato M., Gonzalez P., Torras X., Soriano G., Costa J., Capon A., Londono M.-C., Marino Z., Navasa M., Perez-del-Pulgar S., Forns X., HEV infection in two referral centers in Spain; epidemiology and clinical outcomes. (2015) J CLIN VIROL, 63, 76-80.

IF: 2.6470

Margall N., March F., Espanol M., Torras X., Gallego A., Coll P., Two unusual hepatitis C virus subtypes, 2j and 2q, in Spain: Identification by nested-PCR and sequencing of a NS5B region. (2015) J VIROL METHODS, 223, 105-108.

IF: 1.5080

Masip M., Tuneu L., Pages N., Torras X., Gallego A., Guardiola J.M., Faus M.J., Mangues M.A., Prevalence and detection of neuropsychiatric adverse effects during hepatitis C treatment. (2015) INT J CLIN PHARM-NET, 37 (6), 1143-1151.

IF: 1.3390

Nieto J.C., Sanchez E., Romero C., Roman E., Poca M., Guarner C., Juarez C., Soriano G., Vidal S., Impaired innate immune response of leukocytes from ascitic fluid of patients with spontaneous bacterial peritonitis. (2015) J LEUKOCYTE BIOL, 98 (5), 819-825.

IF: 4.1650

Robles-Diaz M., Garcia-Cortes M., Medina-Caliz I., Gonzalez-Jimenez A., Gonzalez-Grande R., Navarro J.M., Castiella A., Zapata E.M., Romero-Gomez M., Blanco S., Soriano G., Hidalgo R., Ortega-Torres M., Clavijo E., Bermudez-Ruiz P.M., Lucena M.I., Andrade R.J., The value of serum aspartate aminotransferase and gamma-glutamyl transpeptidase as biomarkers in hepatotoxicity. (2015) LIVER INT, 35 (11), 2474-2482.

IF: 4.4700

Sanchez E., Nieto J.C., Boullosa A., Vidal S., Sancho F.J., Rossi G., Sancho-Bru P., Oms R., Mirelis B., Juarez C., Guarner C., Soriano G., VSL#3 probiotic treatment decreases bacterial translocation in rats with carbon tetrachloride-induced cirrhosis. (2015) LIVER INT, 35 (3), 735-745.

IF: 4.4700

Sanchez E., Soriano G., Mirelis B., Gonzalez B., Nieto J.C., Vidal S., Guarner-Argente C., Juarez C., Mones J., Guarner C., Effect of long-term acid gastric inhibition on bacterial translocation in cirrhotic rats. (2015) EUR J GASTROEN HEPAT, 27 (5), 570-576.

IF: 2.0930

Small A.J., Sutherland S.E., Hightower J.S., Guarner-Argente C., Furth E.E., Kochman M.L., Forde K.A., Bewtra M., Falk G.W., Ginsberg G.G., Comparative risk of recurrence of dysplasia and carcinoma after endoluminal eradication therapy of high-grade dysplasia versus intramucosal carcinoma in Barrett's esophagus. (2015) GASTROINTEST ENDOSC, 81 (5), 1158-1166.e4.

IF: 6.2170

**Other
Publications**

- ▶ Villanueva C. Gastrointestinal bleeding: Blood transfusion for acute upper gastrointestinal bleeding. *Nat Rev Gastroenterol Hepatol*. 2015 Aug;12(8):432-4.
- ▶ Guarner-Argente C., Colán-Hernández J., Concepción-Martín M., Martínez-Guillén M., Soriano G., Sainz S., Guarner C. Replacement of the same lumen-apposing metallic stent for multiple necrosectomy sessions. (2015) *ENDOSCOPY*, 47 Suppl 1, E447-8.

Microbiology and Infectious Diseases

Coordinator

Coll Figa, Pere FGS
pcoll@santpau.cat

Members

Canal Girol, Cristina F. Puigvert
Cortes Palacios, Ana Pilar FGS
Cotura Vidal, María Ángeles FGS
De Benito Hernández,
María Natividad FGS
Domingo Pedrol, Pere FGS
Español Fran, Montserrat IR
Espinal Marín, Paula Andrea IR
Facundo Molas,
Carme F. Puigvert
Fontanet Giralt, Àngels FGS
Gálvez Deltoro, María Luz FGS
Gil Olivas, Eva IR
Gómez Martínez, Laura IR
Guirado Perich, Lluís F. Puigvert
Gurgui Ferrer, Mercedes FGS
Lamarca Soria, Maria Karuna IR
López-Contreras
González, Joaquín FGS
March Vallverdú, Francesca FGS
Margall Coscojuela, Núria FGS
Martí Carrizosa, Mar IR
Martín Andrés, Esther FGS
Mirelis Otero, Beatriz FGS
Miró Cardona, Elisenda FGS
Muñoz Batet, Carmen FGS
Mur Arizon, Isabel FGS
Navarro Risueño, Ferran FGS
Pomar Solchaga, Virginia FGS
Prim Bosch, Núria FGS
Rabella García, Núria FGS
Rivera Martínez, María Alba FGS
Rubio Bueno, Marc IR
Sánchez Reus, Fernando FGS
Serra Cabañas, Núria F. Puigvert
Villarroya Terrade, Joan IR



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

- ▶ Vaccines in patients at high risk of CMV infection post-transplantation.
- ▶ Detection of patients IgG positive for CMV but with posttransplantation risk of CMV infection.

- ▶ Biomarkers for BKV in urine samples.
- ▶ Medical care projects.

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.

Challenges

Clinical Microbiology Resistance Mechanisms

- ▶ Study of increased resistance as a result of gene carrier-vector spread.
- ▶ Continuity of work in the context of the Spanish Network for Research into Infectious Pathologies (REIPI), heading certain projects (e.g., epidemiology of class C beta-lactamases in Spain) and cooperating with a project on the epidemiology of resistance to amoxicillin-clavulanic acid among others.
- ▶ Advancement of other research lines, both in-house and in cooperation with other centres, leading to two doctoral theses.

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 sup-

Challenges

port 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 prenat women with Chagas disease.

Kidney Surgery

- ▶ Vaccine in patients with high risk of CMV infection post- transplantation: Phase 2 randomized, double-blind, placebo-controlled trial of MCMV5322A/MCMV3068A for the prevention of cytomegalovirus disease in high-risk kidney allograft recipients, Clinical trial sponsored by Genetech.
- ▶ Detection of patients IgG positive for CMV with high or low risk of CMV infection post- transplantation: Translational study to assess the clinical utility of determination pre-transplant of IFN- γ secreted by CD8 + T-cell-specific guide for the prevention of CMV infection in patients of low risk of CMV infection. Clinical trial sponsored by Consejería de Sanidad y Bienestar Social de Andalucía, Spain.
- ▶ 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.

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.
- ▶ Observational, epidemiological and retrospective study of management of CMV infection in a cohort of patients receiving solid organ transplantation in Catalonia (Dr Canal, Dr Facundo and Dr Serra), sponsored by the Catalan Transplantation Society.

Theses

- ▶ Laura García Arroyo. Epidemiología de les infeccions respiratòries víriques a l'Hospital de la Santa Creu i Sant Pau: Estudi retrospectiu de 17 anys i avaluació de dos mètodes moleculars pel diagnòstic virològic. Directors: Núria Rabella, Ferran Navarro.
- ▶ Mar Martí Carrizosa. Cándida Parapsilosis, C. Orthopsilosis y C. Metapsilosis: Epidemiología de las candidemias, patrones de sensibilidad y mecanismos de resistencia a las equinocandidas. Director: Fernando Sánchez.

Microbiology and Infectious Diseases

Active Grants

- ▶ Pere Coll Figa. Conveni Departament de Salut - Dr. Coll (IR). Desenvolupar conjuntament funcions de vigilància epidemiològica de les infeccions nosocomials i la poliomièlitis (Vigilància de les paràlisis flàccides). Departament de Salut. Duration: 2011-2015. €89,671.55.
- ▶ Pere Coll Figa. Red Española de Investigación en Patología Infecciosa. RD12/0015/0017. Instituto de Salud Carlos III. Duration: 2013-2016. €212,100.41.
- ▶ Pere Domingo Pedrol. Red de sida (RIS). RD12/0017/0014. Instituto de Salud Carlos III. Duration: 2013-2016. €121,000.
- ▶ Ferran Navarro Risueño. Implicación de plásmidos y bacteriófagos en la difusión de las resistencias a antimicrobianos y factores de virulencia bacterianos en humanos. PI13/00329. Instituto de Salud Carlos III. Duration: 2014-2016. €50,300.
- ▶ Pere Coll Figa. Grup de Recerca en Patologia Infecciosa i Microbiologia Clínica. 2014 SGR 333. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016.

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

*TIF: 259.4560 **MIF: 4.7174

Scientific Production

- Alonso N., Miro E., Pascual V., Rivera A., Simo M., Garcia M.C., Xercavins M., Morera M.A., Espejo E., Gurgui M., Perez J., Rodriguez-Carballeira M., Garau J., Calbo E., Navarro F., Mirelis B., Coll P., Molecular characterisation of acquired and overproduced chromosomal bla AmpC in Escherichia coli clinical isolates. (2015) INT J ANTIMICROB AG. **IF: 4.0970**
- Arribas J.R., et al., Dual treatment with lopinavir-ritonavir plus lamivudine versus triple treatment with lopinavir-ritonavir plus lamivudine or emtricitabine and a second nucleos(t)ide reverse transcriptase inhibitor for maintenance of HIV-1 viral suppression (OLE): A randomised, open-label, non-inferiority trial. (2015) LANCET INFECT DIS, 15 (7), 785-792. **IF: 21.3720**
- Benito N., Garcia-Vazquez E., Horcajada J.P., Gonzalez J., Oppenheimer F., Cofan F., Ricart M.J., Rimola A., Navasa M., Rovira M., Roig E., Perez-Villa F., Cervera C., Moreno A., Clinical features and outcomes of tuberculosis in transplant recipients as compared with the general population: A retrospective matched cohort study. (2015) CLIN MICROBIOL INFEC, 21 (7), 651-658. **IF: 4.5750**
- Cabrerizo M., Trallero G., Pena M.J., Cilla A., Megias G., Munoz-Almagro C., Del Amo E., Roda D., Mensalvas A.I., Moreno-Docon A., Garcia-Costa J., Rabella N., Omenaca M., Romero M.P., Sanbonmatsu-Gamez S., Perez-Ruiz M., Santos-Munoz M.J., Calvo C., Comparison of epidemiology and clinical characteristics of infections by human parechovirus vs. those by enterovirus during the first month of life. (2015) EUR J PEDIATR, 174 (11), 1511-1516. **IF: 1.7910**
- Casadella M., Manzardo C., Noguera-Julian M., Ferrer E., Domingo P., Perez-Alvarez S., Podzamczek D., Plana M., Clotet B., Gatell J.B., Miro J.M., Paredes R., Clinical value of ultra-deep HIV-1 genotyping and tropism testing in late presenters with advanced disease. (2015) AIDS, 29 (12), 1493-1504. **IF: 4.4070**
- Casadella M., van Ham P.M., Noguera-Julian M., van Kessel A., et al., Primary resistance to integrase strand-transfer inhibitors in Europe. (2015) J ANTIMICROB CHEMOTH, 70 (10), 2885-2888. **IF: 4.9190**
- Catala A., Puig L., Roe E., Dalmau J., Pomar V., Munoz C., Yelamos O., Anti-tumour necrosis factor-induced visceral and cutaneous leishmaniasis: Case report and review of the literature. (2015) DERMATOLOGY, 230 (3), 204-207. **IF: 1.4490**
- Cereijo R., Gallego-Escuredo J.M., Moure R., Villarroya J., Domingo J.C., Fontdevila J., Martinez E., Del Mar Gutierrez M., Mateo M.G., Giralte M., Domingo P., Villarroya F., The molecular signature of HIV-1-associated lipomatosis reveals differential involvement of brown and beige/brite adipocyte cell lineages. (2015) PLOS ONE, 10 (8). **IF: 3.0570**
- Cuervo G., Puig-Asensio M., Garcia-Vidal C., Fernandez-Ruiz M., Peman J., Nucci M., Aguado J.M., Salavert M., Gonzalez-Romo F., Guinea J., Zaragoza O., Gudiol C., Carratala J., Almirante B., Padilla B., Munoz P., Guinea J., Pano J.R., Garcia J., Garcia C., Fortun J., Martin P., Gomez E., Ryan P., Campelo C., Santos I.D.L., Buendia B., Perez B., Alonso M., Sanz F., Aguado J.M., Merino P., Gonzalez F., Gorgolas M., Gadea I., Losa J.E., Delgado-Iribarren A., Ramos A., Romero Y., Sanchez I., Zaragoza O., Cuenca-Estrella M., Jesus Rodriguez-Bano, Suarez A.I., Loza A., Aller A.I., Martin-Mazuelos E., Ruiz M., Garnacho-Montero J., Ortiz C., Chavez M., Maroto F.L., Salavert M., Peman J., Blanquer J., Navarro D., Camarena J.J., Zaragoza R., Abril V., Gimeno C., Hernaez S., Ezpeleta G., Bereciartua E., Hernandez J.L., Montejo M., Rivas R.A., Ayarza R., Planes A.M., Ruiz-Camps I., Almirante B., Mensa J., Almela M., Gurgui M., Sanchez-Reus F., Martinez-Montauti J., Sierra M., Horcajada J.P., Sorli L., Gomez J., Gene A., Urrea M., Cuervo G., Garcia-Vidal C., Ayats J., Gudiol C., Carratala J., Nucci M., Obed M., Manzur A., A simple prediction score for estimating the risk of candidaemia caused by fluconazole non-susceptible strains. (2015) CLIN MICROBIOL INFEC, 21 (7), 684.e1-684.e9. **IF: 4.5750**
- Cuervo G., Camoez M., Shaw E., Dominguez M., Gasch O., Padilla B., Pintado V., Almirante B., Molina J., Lopez-Medrano F., Ruiz de Gopegui E., Martinez J.A., Bereciartua E., Rodriguez-Lopez F., Fernandez-Mazarrasa C., Goenaga M., Benito N., Rodriguez-Bano J., Espejo E., Pujol M., Methicillin-resistant Staphylococcus aureus (MRSA) catheter-related bacteraemia in haemodialysis patients. (2015) BMC INFECT DIS. **IF: 2.6900**
- Domingo P., Pomar V., Bacterial meningitis: The end of the beginning?. (2015) LANCET INFECT DIS. **IF: 21.3720**
- Espinel-Ingroff A., Alvarez-Fernandez M., Canton E., Carver P.L., Chen S.C.-A., Eschenauer G., Getsinger D.L., Gonzalez G.M., Govender N.P., Grancini A., Hanson K.E., Kidd S.E., Klinker K., Kubin C.J., Kus J.V., Lockhart S.R., Meletiadi J., Morris A.J., Pelaez T., Quindos G., Rodriguez-Iglesias M., Sanchez-Reus F., Shoham S., Wengenack N.L., Borrell Sole N., Echeverria J., Esperalba J., De La Pedrosa E.G.-G., Garcia Garcia I., Linares M.J., Marco F., Merino P., Peman J., Perez Del Molino L., Rosello Mayans E., Rubio Calvo C., Ruiz Perez De Pipaon M., Yague G., Garcia-Effron G., Guinea J., Perlin D.S., Sanguinetti M., Shields

*TIF: 259.4560 **MIF: 4.7174

R., Turnidge J., Multicenter Study of Epidemiological Cutoff Values and Detection of Resistance in *Candida* spp. to Anidulafungin, Caspofungin, and Micafungin Using the Sensititre YeastOne Colorimetric Method. (2015) *ANTIMICROB AGENTS CH*, 59 (11), 6725-6732.

IF: 4.4150

Fernandez-Martinez M., Miro E., Ortega A., Bou G., Gonzalez-Lopez J.J., Oliver A., Pascual A., Cercenado E., Oteo J., Martinez-Martinez L., Navarro F., Molecular identification of aminoglycoside-modifying enzymes in clinical isolates of *Escherichia coli* resistant to amoxicillin/clavulanic acid isolated in Spain. (2015) *INT J ANTIMICROB AG*, 46 (2), 157-163.

IF: 4.0970

Fernandez-Ruiz M., Gurgui M., Puig-Asensio M., Guinea J., Almirante B., Padilla B., Almela M., Diaz-Martin A., Rodriguez-Bano J., Cuenca-Estrella M., Aguado J.M., Munoz P., Pano Pardo J.R., Garcia-Rodriguez J., Cerrada C.G., Fortun J., Martin P., Gomez E., Ryan P., Campelo C., Gil I.S., Buendia V., Gorricho B.P., Alonso M., Sanz F.S., Merino P., Romo F.G., Gorgolas M., Gadea I., Losa J.E., Delgado-Iribarren A., Ramos A., Romero Y., Romero I.S., Zaragoza O., Rodriguez-Bano J., Suarez A.I., Loza A., Aller Garcia A.I., Martin-Mazuelos E., Perez de Pipaon M.R., Garnacho J., Ortiz C., Chavez M., Maroto F.L., Salavert M., Peman J., Blanquer J., Navarro D., Camarena J.J., Zaragoza R., Abril V., Gimeno C., Hernaez S., Ezpeleta G., Bereciartua E., Hernandez Almaraz J.L., Montejo M., Rivas R.A., Ayarza R., Planes A.M., Camps I.R., Mensa J., Gurgui M., Sanchez-Reus F., Martinez-Montauti J., Sierra M., Horcajada J.P., Sorli L., Gomez J., Gene A., Urrea M., Valerio M., Puchades F., Mularoni A., *Candida tropicalis* bloodstream infection: Incidence, risk factors and outcome in a population-based surveillance. (2015) *J INFECT*, 71 (3), 385-394.

IF: 4.3820

Gallego-Escuredo J.M., Gomez-Ambrosi J., Catalan V., Domingo P., Giral M., Fruhbeck G., Villarroya F., Opposite alterations in FGF21 and FGF19 levels and disturbed expression of the receptor machinery for endocrine FGFs in obese patients. (2015) *INT J OBESITY*, 39 (1), 121-129.

IF: 5.3370

Garcia-Cadenas I., Castillo N., Martino R., Barba P., Esquirol A., Novelli S., Orti G., Garrido A., Saavedra S., Moreno C., Granell M., Briones J., Brunet S., Navarro F., Ruiz I., Rabella N., Valcarcel D., Sierra J., Impact of Epstein Barr virus-related complications after high-risk allo-SCT in the era of pre-emptive rituximab. (2015) *BONE MARROW TRANSPL*, 50 (4), 579-584.

IF: 3.6360

Garin N., Velasco C., de Pourcq J.T., Lopez B., del Mar Gutierrez M., Haro J.M., Feliu A., Mangues M.A., Trilla A., Recreational drug use among individuals living with HIV in Europe: Review of the prevalence, comparison with the general population and HIV guidelines recommendations. (2015) *FRONT MICROBIOL*, 6 (JUN).

IF: 4.1650

Garriga C., Garcia de Olalla P., Miro J.M., Ocana I., Knobel H., Barbera M.J., Humet V., Domingo P., Gatell J.M., Ribera E., Gurgui M., Marco A., Cayla J.A., Gil S., Masdeu E., Simon P., Ros M., Clos R., Gorrindo P., Mateo M.G., Gutierrez M.M., Falco V., Vall M., Armengol P., Aranda M., Carbonell T., Manzardo C., Garcia F., Blanco J.L., Martinez E., Mallolas J., Vitaloni M., Mortality, causes of death and associated factors relate to a large HIV population-based cohort. (2015) *PLOS ONE*, 10 (12).

IF: 3.0570

Gonzalez V., Fernandez G., Dopico E., Margall N., Esperalba J., Munoz C., Castro E., Sulleiro E., Matas L., Evaluation of the Vitros Syphilis TPA chemiluminescence immunoassay as a first-line method for reverse syphilis screening. (2015) *J CLIN MICROBIOL*, 53 (4), 1361-1364.

IF: 3.6310

Grint D., Peters L., Rockstroh J.K., Rakmanova A., *et al*, Liver-related death among HIV/hepatitis C virus-co-infected individuals: Implications for the era of directly acting antivirals. (2015) *AIDS*, 29 (10), 1205-1215.

IF: 4.4070

Guembe M., *et al*, Nationwide study on the use of intravascular catheters in internal medicine departments. (2015) *J HOSP INFECT*, 90 (2), 135-141.

IF: 2.6550

Iribarren J.A., Rubio R., Aguirrebengoa K., Arribas J.R., Baraia-Etxaburu J., Gutierrez F., Lopez Bernaldo de Quiros J.C., Losa J.E., Miro J.M., Moreno S., Perez Molina J., Podzamczar D., Pulido F., Riera M., Rivero A., Sanz Moreno J., Amador C., Antela A., Arazo P., Arrizabalaga J., Bachiller P., Barros C., Berenguer J., Cayla J., Domingo P., Estrada V., Knobel H., Locutura J., Lopez Aldegue J., Llibre J.M., Lozano F., Mallolas J., Malmierca E., Miralles C., Miralles P., Munoz A., Ocampo A., Olalla J., Perez I., Perez Elias M.J., Perez Arellano J.L., Portilla J., Ribera E., Rodriguez F., Santin M., Sanz Sanz J., Tellez M.J., Torralba M., Valencia E., Von Wichmann M.A., Prevention and treatment of opportunistic infections and other coinfections in HIV-infected patients: May 2015. (2015) *ENFERM INFEC MICR CL*.

IF: 1.5300

Lopez-Dupla M., Maymo-Masip E., Martinez E., Domingo P., Leal M., Peraire J., Vilades C., Veloso S., Arnedo M., Ferrando-Martinez S.,

Beltran-Debon R., Alba V., Gatell J.M., Vendrell J., Vidal F., Chacon M.R., HIV-1/HAART-related lipodystrophy syndrome (HALS) is associated with decreased circulating stweak levels. (2015) *PLOS ONE*, 10 (12).

IF: 3.0570

Mansfeld M., *et al*, Major differences in organization and availability of health care and medicines for HIV/TB coinfecting patients across Europe. (2015) *HIV MED*, 16 (9), 544-552.

IF: 3.3410

Margall N., March F., Espanol M., Torras X., Gallego A., Coll P., Two unusual hepatitis C virus subtypes, 2j and 2q, in Spain: Identification by nested-PCR and sequencing of a NS5B region. (2015) *J VIROL METHODS*, 223, 105-108.

IF: 1.5080

Martinez E., Gonzalez-Cordon A., Ferrer E., Domingo P., Negro E., Gutierrez F., Portilla J., Curran A., Podzamczar D., Ribera E., Murillas J., Bernardino J.I., Santos I., Carton J.A., Peraire J., Pich J., Deulofeu R., Perez I., Gatell J.M., Arnaiz J.A., Beleta H., Garcia D., Pejenaute A., Ramos N., Arcaina P., Giner L., Moya S., Pampliega M., Portilla J., Barrera G., Podzamczar D., Rozas N., Saumoy M., Ferrer E., Asensi V., Carton J.A., Gatell J.M., Gonzalez-Cordon A., Perez I., Martinez E., Masia M., Padilla S., Ramos J.R., Robledano C., Gutierrez F., Puig J., Negro E., Arribas J.R., Castro J.M., Bernardino J.I., Sanz J., Santos I., Cairo M., Velli P., Dalmau D., Lamas A., Marti-Belda P., Drona F., Blanco J.R., Gutierrez M., Mateo M.G., Domingo P., Losada E., Prieto A., Antela A., Murillas J., Aguilar A., Peraire J., Vargas M., Vilades C., Vidal F., Crespo M., Curran A., Ribera E., Arnaiz J.A., Beleta H., Garcia D., Pejenaute A., Ramos N., Pich J., Differential body composition effects of protease inhibitors recommended for initial treatment of HIV infection: A randomized clinical trial. (2015) *CLIN INFECT DIS*, 60 (5), 811-820.

IF: 8.7360

Martinez-Castelao A., Cases A., Coll E., Bonal J., Galceran J.M., Fort J., Moreso F., Torregrosa J.-V., Guirado L., Ruiz P., Torguet P., Lauzurica R., Garcia R., Llibre J., Fulladosa X., Canas L., Bayes B., C.E.R.A. administered once monthly corrects and maintains stable hemoglobin levels in chronic kidney disease patients not on dialysis: The observational study MICE-NAS II. (2015) *NEFROLOGIA*, 35 (1), 80-86.

IF: 1.2070

Mico M., Navarro F., de Miniac D., Gonzalez Y., Brell A., Lopez C., Sanchez-Reus F., Mirelis B., Coll P., Efficacy of the filmarray blood culture identification panel for direct molecular diagnosis of infectious diseases from samples other than blood. (2015) *J MED MICROBIOL*, 64 (12), 1481-1488.

IF: 2.2690

Microbiology and Infectious Diseases

*TIF: 259.4560 **MIF: 4.7174

Monge S., *et al.* Use of cohort data to estimate national prevalence of transmitted drug resistance to antiretroviral drugs in Spain (2007-2012). (2015) CLIN MICROBIOL INFECT, 21 (1), 105.e1-105.e5.

IF: 4.5750

Moren C., Bano M., Gonzalez-Casacuberta I., Catalan-Garcia M., Guitart-Mampel M., Tobias E., Cardellach F., Pedrol E., Peraire J., Vidal F., Domingo P., Miro O., Gatell J.M., Martinez E., Garrabou G., Mitochondrial and apoptotic in vitro modelling of differential HIV-1 progression and antiretroviral toxicity. (2015) J ANTIMICROB CHEMOTH, 70 (8), 2330-2336.

IF: 4.9190

Munoz P., *et al.* Current epidemiology and outcome of infective endocarditis: A multicenter, prospective, cohort study. (2015) MEDICINE, 94 (43).

IF: 1.2060

Murray D.D., *et al.* Circulating microRNAs in sera correlate with soluble biomarkers of immune activation but do not predict mortality in ART treated individuals with HIV-1 infection: A case control study. (2015) PLOS ONE, 10 (10).

IF: 3.0570

Oteo J., Ortega A., Bartolome R., Bou G., Conejo C., Fernandez-Martinez M., Gonzalez-Lopez J.J., Martinez-Garcia L., Martinez-Martinez L., Merino M., Miro E., Mora M., Navarro F., Oliver A., Pascual A., Rodriguez-Bano J., Ruiz-Carrascoso G., Ruiz-Garabaja P., Zamorano L., Bautista V., Perez-Vazquez M., Campos J., Prospective multicenter study of carbapenemase-producing Enterobacteriaceae from 83 hospitals in Spain reveals high in vitro susceptibility to colistin and meropenem. (2015) ANTIMICROB AGENTS CH, 59 (6), 3406-3412.

IF: 4.4150

Pascual V., Ortiz G., Simo M., Alonso N., Garcia M.C., Xercavins M., Rivera A., Morera M.A., Miro E., Espejo E., Navarro F., Gurgui M., Perez J., Rodriguez-Carballeira M., Garau J., Calbo E., Epidemiology and risk factors for infections due to AmpC B-lactamase-producing Escherichia Coli. (2015) J ANTIMICROB CHEMOTH, 70 (3), 899-904.

IF: 4.9190

Pea C., Cabot G., Gomez-Zorrilla S., Zamorano L., Ocampo-Sosa A., Murillas J., Almirante B., Pomar V., Aguilar M., Granados A., Calbo E., Rodriguez-Bao J., Rodriguez-Lopez F., Tubau F., Martinez-Martinez L., Oliver A., Influence of virulence genotype and resistance profile in the mortality of pseudomonas aeruginosa bloodstream infections. (2015) CLIN INFECT DIS, 60 (4), 539-548.

IF: 8.7360

Pedrol E., Caro-Murillo A.M., Castano M.A., Riera M., Olalla J., Domingo P., Arazo P., Gomez-Sirvent J.L., Pulido F., Romero-Palacios A., Aguirrebengoa K., Vera F., Ferrer P., Blanco Ramos J.R., Renal safety of coformulated tenofovir/emtricitabine vs other nucleoside analogues in combination therapy in antiretroviral-naive patients aged 50 years or older in Spain: The TRIP study. (2015) HIV CLIN TRIALS, 16 (1), 43-48.

IF: 1.9510

Peraire J., Lopez-Dupla M., Alba V., Beltran-Debon R., Martinez E., Domingo P., Asensi V., Leal M., Vilades C., Inza M.-I., Escote X., Arnedo M., Mateo G., Valle-Garay E., Ferrando-Martinez S., Veloso S., Vendrell J., Gatell J., Vidal F., Aguilar A., Aguilar A., Alibalic A., Balana J., Ceausu A., Garcia M., Guillen G., Milian M., Munoz G., Vargas M., Fontanet A., Gutierrez M., Munoz J., Sambate M.A., Egana-Gorrone L., HIV/antiretroviral therapy-related lipodystrophy syndrome (HALS) is associated with higher RBP4 and lower omentin in plasma. (2015) CLIN MICROBIOL INFECT, 21 (7), 711.e1-711.e8.

IF: 4.5750

Perez-Molina J.A., *et al.* Dual treatment with atazanavir-ritonavir plus lamivudine versus triple treatment with atazanavir-ritonavir plus two nucleos(t)ides in virologically stable patients with HIV-1 (SALT): 48 week results from a randomised, open-label, non-inferiority trial. (2015) LANCET INFECT DIS, 15 (7), 775-784.

IF: 21.3720

Podlekareva D., *et al.* Changing utilization of Stavudine (d4T) in HIV-positive people in 2006-2013 in the EuroSIDA study. (2015) HIV MED, 16 (9), 533-543.

IF: 3.3410

Puig-Asensio M., Ruiz-Camps I., Fernandez-Ruiz M., Aguado J.M., Munoz P., Valerio M., Delgado-Iribarren A., Merino P., Bereciartua E., Fortun J., Cuenca-Estrella M., Almirante B., Padilla B., Munoz P., Guinea J., Pano J.R., Garcia J., Garcia C., Fortun J., Martin P., Gomez E., Ryan P., Campelo C., Santos I.D.L., Buendia B., Perez B., Alonso M., Sanz F., Aguado J.M., Merino P., Gonzalez F., Gorgolas M., Gadea I., Losa J.E., Delgado-Iribarren A., Ramos A., Romero Y., Sanchez I., Zaragoza O., Cuenca-Estrella M., Rodriguez-Bano J., Suarez A.I., Loza A., Aller A.I., Martin-Mazuelos E., Ruiz M., Garnacho-Montero J., Ortiz C., Chavez M., Maroto F.L., Salavert M., Peman J., Blanquer J., Navarro D., Camarena J.J., Zaragoza R., Abril V., Gimeno C., Hernaez S., Ezpeleta G., Bereciartua E., Hernandez J.L., Montejo M., Rivas R.A., Ayarza R., Planes A., Almirante B., Mensa J., Almela M., Gurgui M., Sanchez-Reus F., Martinez-Montauti J., Sierra M., Horcajada J.P., Sorli L., Gomez J., Gene A., Urrea M., Epi-

demiology and outcome of candidaemia in patients with oncological and haematological malignancies: RESULTS from a population-based surveillance in Spain. (2015) CLIN MICROBIOL INFECT, 21 (5), 491.e1-491.e10.

IF: 4.5750

Rivero A., Domingo P., Safety profile of dolutegravir. (2015) ENFERM INFECT MICR CL, 33 (S1), 9-13.

IF: 1.5300

Rubio M., March F., Garrigo M., Moreno C., Espanol M., Coll P., Inducible and acquired clarithromycin resistance in the mycobacterium abscessus complex. (2015) PLOS ONE, 10 (10).

IF: 3.0570

Ruiz-Morales J., *et al.* Left-sided infective endocarditis in patients with liver cirrhosis. (2015) J INFECTION, 71 (6), 627-641.

IF: 4.3820

Sanchez E., Nieto J.C., Boulosa A., Vidal S., Sancho F.J., Rossi G., Sancho-Bru P., Oms R., Mirelis B., Juarez C., Guarner C., Soriano G., VSL#3 probiotic treatment decreases bacterial translocation in rats with carbon tetrachloride-induced cirrhosis. (2015) LIVER INT, 35 (3), 735-745.

IF: 4.4700

Sanchez E., Soriano G., Mirelis B., Gonzalez B., Nieto J.C., Vidal S., Guarner-Argente C., Juarez C., Mones J., Guarner C., Effect of long-term acid gastric inhibition on bacterial translocation in cirrhotic rats. (2015) EUR J GASTROEN HEPAT, 27 (5), 570-576.

IF: 2.0930

Sanchez-Infantes D., Gallego-Escuredo J.M., Diaz M., Aragones G., Sebastiani G., Lopez-Bermejo A., De Zegher F., Domingo P., Villarroya F., Ibanez L., Circulating FGF19 and FGF21 surge in early infancy from infra-to supra-adult concentrations. (2015) INT J OBESITY, 39 (5), 742-746.

IF: 5.3370

Schneider J.L., Villarroya J., Diaz-Carretero A., Patel B., Urbanska A.M., Thi M.M., Villarroya F., Santambrogio L., Cuervo A.M., Loss of hepatic chaperone-mediated autophagy accelerates proteostasis failure in aging. (2015) AGING CELL.

IF: 5.7600

Schneider J.L., Villarroya J., Diaz-Carretero A., Patel B., Urbanska A.M., Thi M.M., Villarroya F., Santambrogio L., Cuervo A.M., Loss of hepatic chaperone-mediated autophagy accelerates proteostasis failure in aging. (2015) AGING CELL, 14 (2), 249-264.

IF: 5.7600

Segura R., Prim N., Montemayor M., Valls M.E., Munoz C., Predominant virulent Iba10G2 subtype of Cryptosporidium hom-

*TIF: 259.4560 **MIF: 4.7174

inis in human isolates in barcelona: A five-year study. (2015) PLOS ONE, 10 (3).

IF: 3.0570

Shaw E., Benito N., Rodriguez-Bano J., Padilla B., Pintado V., Calbo E., Pallares M., Gozalo M., Ruiz-Garbajosa P., Horcajada J.P., Gomez J., Cercenado E., Bunshow E., Sanchez-Carrillo C., Xercavins M., Riera M.M., Mirelis B., Gammallo R., Martinez L., Farinas M.C., de Cueto M., Pascual A., Risk factors for severe sepsis in community-onset bacteraemic urinary tract infection: Impact of antimicrobial resistance in a large hospitalised cohort. (2015) J INFECTION, 70 (3), 247-254.

IF: 4.3820

Shaw E., Miro J.M., Puig-Asensio M., Pigrau C., Barcenilla F., Murillas J., Garcia-Pardo G., Espejo E., Padilla B., Garcia-Reyne A., Pasquau J., Rodriguez-Bano J., Lopez-Contreras J., Montero M., De La Calle C., Pintado V., Calbo E., Gasch O., Montejo M., Salavert M., Garcia-Pais M.J., Carratala J., Pujol M., Dapto-

mycin plus fosfomycin versus daptomycin monotherapy in treating MRSA: Protocol of a multicentre, randomised, phase III trial. (2015) BMJ OPEN, 5 (3).

IF: 2.5620

Sibila O., Suarez-Cuartin G., Rodrigo-Troyano A., Fardon T.C., Finch S., Mateus E.F., Garcia-Bellmunt L., Castillo D., Vidal S., Sanchez-Reus F., Restrepo M.I., Chalmers J.D., Secreted mucins and airway bacterial colonization in non-CF bronchiectasis. (2015) RESPIROLOGY, 20 (7), 1082-1088.

IF: 3.0780

Viciana-Fernandez P., Falco V., Castano M., De Los Santos-Gil I., Olalla-Sierra J., Hernando A., Deig E., Clotet B., Knobel H., Podzanczer D., Pedrol P.D., Barriers to ART initiation in HIV infected subjects and with treatment indication in Spain. Why don't they start their treatment? Bridgap Study. (2015) ENFERM INFECC MICR CL, 33 (6), 397-403.

IF: 1.5300

Villarroya J., Redondo-Angulo I., Iglesias R., Giralt M., Villarroya F., Planavila A., Sirt1 mediates the effects of a short-term high-fat diet on the heart. (2015) J NUTR BIOCHEM, 26 (11), 1328-1337.

IF: 4.6680

Zamorano L., Miro E., Juan C., Gomez L., Bou G., Gonzalez-Lopez J.J., Martinez-Martinez L., Aracil B., Conejo M.C., Oliver A., Navarro F., Mobile genetic elements related to the diffusion of plasmid-mediated AmpC β -lactamases or carbapenemases from enterobacteriaceae: Findings from a multicenter study in Spain. (2015) ANTIMICROB AGENTS CH, 59 (9), 5260-5266.

IF: 4.4150

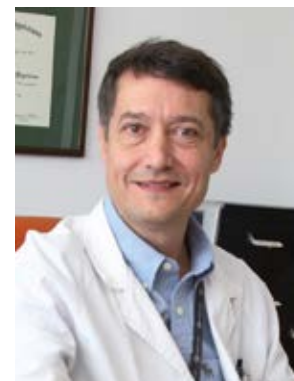
Multi-organ Damage

Coordinator

Casademont Pou, Jordi FGS
jcasademont@santpau.cat

Members

Acosta Pereira, Asunción IR
 Arroyo Díaz, Juan Antonio FGS
 Ballart Roig, Judith IR
 Barceló Trias, Montserrat FGS
 Benet Gusta, Maria Teresa IR
 Castella Rovira, Marta IR
 De Llobet Zubiaga, Josep Maria FGS
 Díaz Torné, César IR
 Filella Agulló, David FGS
 Francia Santamaria, Esther FGS
 Geli Ferrer, Carme FGS
 Herrera Bachs, Silvia IR
 Izquierdo Caeiro, Maria de los Angeles IR
 Laiz Alonso, Ana María FGS
 Magallares López, Berta Paula IR
 Malouf Sierra, Jorge IR
 Martín Marcuello, Jordi IR
 Mascaró Lamarca, Jordi FGS
 Matas Pericas, Laia FGS
 Monmany Roca, Jaume FGS
 Moya Alvarado, Patricia IR
 Pares Oliva, Mireia IR
 Ponte, Paola IR
 Rius Llorens, María Carmen IR
 Rodríguez de la Serna, Arturo FGS
 Ruiz Hidalgo, Domingo FGS
 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, re-admissions, etc).
- ▶ Perioperative medicine.
- ▶ Potentially inappropriate prescribing to older patients admitted to hospital.

Rheumatology and Rheumatoid Arthritis

- ▶ Immunomodulation due to anti-CD20 (rituximab) treatment and study of polymorphisms.

- ▶ Pharmacokinetics of methotrexate.
- ▶ Evaluation of baricitinib in patients with moderately to severely active rheumatoid arthritis who have had an inadequate response to methotrexate or antiTNF therapy.
- ▶ Evaluation of tofacitinib in patients with moderately to severely active rheumatoid arthritis with inadequate response to biologic DMARD.
- ▶ Evaluation of the JAK-STAT pathway in patients with rheumatoid arthritis treated with tocilizumab.

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.

Sjögren Syndrome

- ▶ Clinical and epidemiological findings in Spanish patients with primary Sjögren syndrome (in collaboration with Spanish Society of Rheumatology).

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, IIB-SP-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.
- ▶ Dr César Díaz Torné, panellist for the Guidelines to Clinical Practice for Gout (GuipClinGot), Spanish Rheumatology Society.

Active Grants

- ▶ Olga Herminia Torres Bonafonte. Estudio sobre la utilización inapropiada de medicamentos en pacientes de edad avanzada hospitalizados en servicios de medicina interna de diferentes hospitales españoles. EC10-077. Ministerio de Sanidad y Política Social. Duration: 2011-2016. €22,790.88.
- ▶ Jordi Casademont Pou. Estudio GAO: de los fenotipos intermedarios al análisis global del genoma. P114/01036. Instituto de Salud Carlos III. Duration: 2015-2017. €76,000.

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

*TIF: 207.5840 **MIF: 9.0254

Scientific Production

AlquezarArbe A., Rizzi M., Martin-Marcuello J., de Diego-Bustillos E., Comments about the status of oral anticoagulant treatment in patients with nonvalvular atrial fibrillation in Spain. (2015) REV CLIN ESP. **IF: 0.7600**

Blanco F.J., Moller I., Romera M., Rozadilla A., Sanchez-Lazaro J.A., Rodriguez A., Galvez J., Fores J., Monfort J., Ojeda S., Moragues C., Caracuel M.A., Clavaguera T., Valdes C., Soler J.M., Orellana C., Belmonte M.A., Martin F., Gimenez S., Ucar E., Pous J., Bartolome N., Artieda M., Szczypiorska M., Tejedor D., Martinez A., Montell E., Martinez H., Herrero M., Verges J., Climent A., Fernandez-Moreno M., Font P., Izquierdo M.A., Lozano L., Montanes F.J., Nunez M., Oreiro N., Saiz E., Soto-Hermida A., Tornero C., Improved prediction of knee osteoarthritis progression by genetic polymorphisms: The Arthrotest Study. (2015) RHEUMATOLOGY, 54 (7), 1236-1243. **IF: 4.5240**

Burbano Santos P., Miro O., Martin-Sanchez F.J., Fernandez Perez C., Casademont J., Scientific production and bibliometric impact of a representative group of Spanish inter-

nists with established research careers. (2015) REV CLIN ESP, 215 (7), 371-379.

IF: 0.7600

Castellvi I., Simeon-Aznar C.P., Sarmiento M., Fortuna A., Mayos M., Geli C., Diaz-Torne C., Moya P., De Llobet J.M., Casademont J., Association between nailfold capillaroscopy findings and pulmonary function tests in patients with systemic sclerosis. (2015) J RHEUMATOL, 42 (2), 222-227.

IF: 3.2360

Correction Naghavi M., *et al*, Global, regional, and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990-2013: A systematic analysis for the Global Burden of Disease Study 2013. (2015) LANCET, 385 (9963), 117-171.

IF: 44.0020

Cuesta F., Formiga F., Lopez-Soto A., Masanes F., Ruiz D., Artaza I., Salva A., Serra-Rexach J.A., I Luque X.R., Cruz-Jentoft A.J., Prevalence of sarcopenia in patients attending outpatient geriatric clinics: The ELLI study. (2015) AGE AGEING, 44 (5), 807-809.

IF: 4.2010

Diaz-Torne C., Perez-Herrero N., Perez-Ruiz F., New medications in development for the treatment of hyperuricemia of gout. (2015) CURR OPIN RHEUMATOL, 27 (2), 164-169.

IF: 4.2270

Elices M., Pascual J.C., Carmona C., Martin-Blanco A., Feliu-Soler A., Ruiz E., Goma-i-Freixanet M., Perez V., Soler J., Exploring the relation between childhood trauma, temperamental traits and mindfulness in borderline personality disorder. (2015) BMC PSYCHIATRY, 15 (1).

IF: 2.5760

Formiga F., Chivite D., Ruiz D., Navarro M., Perez-Castejon J.M., Duaso E., Montero A., Lopez-Soto A., Corbella X., Clinical evidence of diabetes mellitus end-organ damage as risk factor for falls complicated by hip fracture: A multicenter study of 1225 patients. (2015) DIABETES RES CLIN PR, 109 (2), 233-237.

IF: 3.0450

Guembe M., *et al*, Nationwide study on the use of intravascular catheters in internal medicine departments. (2015) J HOSP INFECT, 90 (2), 135-141.

IF: 2.6550

Multi-organ Damage

*TIF: 207.5840 **MIF: 9.0254

Scientific Production

Helena Ponte Marquez P, Jose Sole M, Arroyo J.A., Matas L., Benet M.T., Roca-Cusachs A., Differences in the reduction of blood pressure according to drug administration at activity hours or rest hours. (2015) MED CLIN-BARCELONA, 144 (2), 51-54.

IF: 1.2670

Julia A., Pinto J.A., Gratacos J., Queiro R., Ferlandiz C., Fonseca E., Montilla C., Torre-Alonso J.C., Puig L., Venegas J.J.P., Nebro A.F., Fernandez E., Munoz-Fernandez S., Dauden E., Gonzalez C., Roig D., Carazo J.L.S., Zarco P., Erra A., Estebanz J.L.L., Rodriguez J., Ramirez D.M., De La Cueva P., Vanaclocha F., Herrera E., Castaneda S., Rubio E., Salvador G., Diaz-Torne C., Blanco R., Dominguez A.W., Mosquera J.A., Vela P., Tornero J., Sanchez-Fernandez S., Corominas H., Ramirez J., Lopez-Lasanta M., Tortosa R., Palau N., Alonso A., Garcia-Montero A.C., Gelpi J.L., Codo L., Day K., Absher D., Myers R.M., Canete J.D., Marsal S., A deletion at adamts9-magi1 locus is associated with psoriatic arthritis risk. (2015) ANN RHEUM DIS, 74 (10), 1875-1881.

IF: 12.3840

Montes A., Perez-Pampin E., Navarro-Sarabia F., Moreira V., de la Serna A.R., Magallares B., Vasilopoulos Y., Sarafidou T., Fernandez-Nebro A., Ordonez M.C., Narvaez J., Canete J.D., Marquez A., Pascual-Salcedo D., Joven B., Carreira P., Moreno-Ramos M.J., Caliz R., Ferrer M.A., Garcia-Portales R., Blanco F.J., Magro C., Raya E., Valor L., Alegre-Sancho J.J., Balsa A., Martin J., Plant D., Isaacs J., Morgan A.W., Barton A., Wilson A.G., Gomez-Reino J.J., Gonzalez A., Rheumatoid arthritis response to treatment across IgG1 allotype - anti-TNF incompatibility: A case-only study. (2015) ARTHRITIS RES THER, 17 (1), 1-12.

IF: 3.9790

Montes A., Perez-Pampin E., Joven B., Carreira P., Fernandez-Nebro A., Del Carmen Ordonez M., Navarro-Sarabia F., Moreira V., Vasilopoulos Y., Sarafidou T., Caliz R., Ferrer M.A., Canete J.D., De La Serna A.R., Magallares B., Narvaez J., Gomez-Reino J.J., Gonzalez A., FCGR polymorphisms in the treatment of rheumatoid arthritis with Fc-containing TNF inhibitors. (2015) PHARMACOGENOMICS, 16 (4), 333-345.

IF: 2.7100

Murray C.J.L., *et al*, Global, regional, and national disability-adjusted life years (DALYs) for 306 diseases and injuries and healthy life expectancy (HALE) for 188 countries, 1990-2013: Quantifying the epidemiological transition. (2015) LANCET, 386 (10009), 2145-2191.

IF: 44.0020

Narvaez J., Diaz-Torne C., Magallares B., Hernandez M.V., Reina D., Corominas H., Sanmarti R., De La Serna A.R., Llobet J.M., Nolla J.M., Comparative effectiveness of tocilizumab with either methotrexate or leflunomide in the treatment of rheumatoid arthritis. (2015) PLOS ONE, 10 (4).

IF: 3.0570

Ortiz M.A., Diaz-Torne C., Hernandez M.V., Reina D., de la Fuente D., Castellvi I., Moya P., Ruiz J.M., Corominas H., Zamora C., Canto E., Sanmarti R., Juarez C., Vidal S., IL-6 blockade reverses the abnormal STAT activation of peripheral blood leukocytes from rheumatoid arthritis patients. (2015) CLIN IMMUNOL, 158 (2), 174-182.

IF: 4.0340

Pascual J.C., Palomares N., Ibanez A., Portella M.J., Arza R., Reyes R., Feliu-Soler A., Diaz-Marsa M., Saiz-Ruiz J., Soler J., Carrasco J.L., Efficacy of cognitive rehabilitation on psychosocial functioning in Borderline Per-

sonality Disorder: A randomized controlled trial. (2015) BMC PSYCHIATRY.

IF: 2.5760

Planavila A., Redondo-Angulo I., Ribas F., Garrabou G., Casademont J., Giralto M., Villarroya F., Fibroblast growth factor 21 protects the heart from oxidative stress. (2015) CARDIOVASC RES, 106 (1), 19-31.

IF: 5.4650

Rizzi M.A., Ruiz D., Torres Bonafonte O.H., Alquezar A., Herrera Mateo S., Pinera P., Puig M., Benito S., Prognostic Value and Risk Factors of Delirium in Emergency Patients With Decompensated Heart Failure. (2015) J AM MED DIR ASSOC, 16 (9), 799.e1-799.e6.

IF: 6.6160

Rizzi M.A., Alquezar A., Marcuello J.M., Ontiveros H.H., The Redin SCORE: Useful, but not for all. (2015) EUR J HEART FAIL.

IF: 5.1350

San-Jose A., Agusti A., Vidal X., Formiga F., Gomez-Hernandez M., Garcia J., Lopez-Soto A., Ramirez-Duque N., Torres O.H., Barbe J., Inappropriate prescribing to the oldest old patients admitted to hospital: Prevalence, most frequently used medicines, and associated factors. (2015) BMC GERIATR, 15 (1).

IF: 2.3710

Vos T., *et al*, Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990-2013: A systematic analysis for the Global Burden of Disease Study 2013. (2015) LANCET, 386 (9995), 743-800.

IF: 44.0020

Chronic Respiratory Diseases

Coordinator

Plaza Moral, Vicente FGS
vplaza@santpau.cat

Members

Anton Albisu, FGS
Pedro Antonio, FGS
Barril Farre, Silvia, FGS
Bigorra Rodríguez, Teresa, IR
Brienza, Sonia Nadia, IR
Burgués Mauri, Carmen, FGS
Calaf Sordo, Núria, FGS
Castellano Villarreal, Abilio, FGS
Castillo Villegas, Diego, FGS
Cisneros Antó, Josep Lluís, FGS
Feliu Roperó, Anna, IR
Fortuna Gutiérrez, Ana María, FGS
Giménez Palleiro, Ana María, FGS
Giner Donaire, Jordi, FGS
Granel Tena, Carme, FGS
Guell Rous, Maria Rosa, FGS
Martín Arroyo, Iñigo, FGS
Mayos Pérez, Mercedes, FGS
Miralda Galán, Rosa Maria, FGS
Morante Velez, Fátima, FGS
Muñoz Fernández, Ana Maria, IR
Paz del Río, Luis Daniel
Peiró Fabregas, Meritxell, FGS
Peñacoba Toribio, Patricia, IR
Puy Rion, Maria Carme, FGS
Ramos Barbón, David, FGS
Rodrigo Troyano, Ana María, FGS
Rubio Gil, Julio, FGS
Sánchez López, Ester, IR
Sauret Valet, Jesús Maria, FGS
Segura Medina, Macarena, FGS
Sibila Vidal, Oriol, FGS
Solanes García, Ingrid, FGS
Soto Retes, Lorena Concepción, FGS
Suárez Cuartin, Guillermo Rafael, IR
Torredemer Palau, Anna, IR
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.

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.

Awards

- ▶ Oriol Sibila Vidal. Premio Investigador Joven, for his line of research "Infección bronquial en pacientes con EPOC y agudizaciones frecuentes; papel de la inmunidad innata y utilidad de una nariz electrónica para su diagnóstico". Fundación Astra Zeneca.

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.
- ▶ Dr. D. Castillo Villegas, National Institute for Rare Diseases, Instituto 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

- ▶ David Ramos Barbón. The interaction between immune regulation and airway remodeling mechanisms in asthma: pathogenic outcomes versus therapeutic potencial. PI11/01001. Instituto de Salud Carlos III. Duration: 2012-2016. €129,372.
- ▶ Íngrid Solanes García. Conveni Fundació Catalana de Pneumologia (FUCAP). Astra Zeneca 2011 (FUCAP). Fundació Catalana de Pneumologia. Duration: 2011-2016. €10.555,56.
- ▶ Diego Castillo Villegas. Caracterización genética y funcional de la histiocitosis pulmonar de células de langerhans: implicaciones diagnósticas y terapéuticas. FMM 2013-2. Fundació Mutua Madrileña. Duration: 2013-2016. €23,161.
- ▶ Diego Castillo Villegas. Caracterización genética y funcional de la histiocitosis pulmonar de células de langerhans: Implicaciones diagnósticas y terapéuticas. EPID-FUTURO 2013. Sociedad Española de Pneumología y Cirugía Torácica. Duration: 2013-2016. €2,180.90.
- ▶ David Ramos Barbón. Grup de recerca en malalties respiratòries cròniques. 2014 SGR 1294. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016.
- ▶ Astrid del Carmen Crespo Lessmann. Caracterización fenotípica del asmático hipersecretor. Papel de las mucinas y de los receptores Toll-Like. Beca VIFOR PHARMA / FUCAP 2014. Fundació Catalana de Pneumologia. Duration: 2014-2016. €10,363.64.

- ▶ 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: 2015-2017. €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: 2015-2017. €121,500.
- ▶ Mercedes Mayos Pérez. Proyecto PASHOS: Plataforma avanzada para el estudio del síndrome de apnea hipopnea obstructiva del sueño (SAHS). SOCAP 2013-2014. Societat Catalana de Pneumologia. Duration: 2014-2016. €10,909.08.
- ▶ Oriol Sibila Vidal. Infección bronquial en pacientes con bronquiectasias NO-FQ; papel de los mecanismos de defensa pulmonar y utilidad de una nariz electrónica para su diagnóstico. SEPAR 2013-6. Sociedad Española de Pneumología y Cirugía Torácica. Duration: 2014-2016. €6,761.81.

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

Grants Awarded in 2015

- ▶ Oriol Sibila Vidal. Infección bronquial en pacientes con EPOC y agudizaciones frecuentes; papel de la inmunidad innata y utilidad de una nariz electrónica para su diagnóstico. ASTRAZENECA 2015-1. Fundació AstraZeneca. Duration: 2015-2016. €20,000.
- ▶ 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. Ramón Pla Armengol 2015. Fundació Ramón Pla Armengol. Duration: 2015-2018. €63,636.36.

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

Chronic Respiratory Diseases

Theses

- ▶ Diego M. Castillo Villegas. Rendimiento de un programa de estudio de casos de EPOC en usuarios de alto riesgo de la farmacia comunitaria. Universitat Autònoma de Barcelona. Directors: Pere Casan Clara, Mercedes Mayos. Date of defense: October 2015.
- ▶ Jordi Giner Donaire. Estàndards i qualitat en la determinació de la funció pulmonar (l'espirometria) a l'Atenció Primària. Directors: Joaquín Sanchís Aldas, Vicente Plaza Moral. Universitat Autònoma de Barcelona. Date of defense: 30 November 2015.
- ▶ Virginia Pajares Ruiz. Utilización de criosondas para la realización de la biopsia pulmonar transbronquial. Universitat Autònoma de Barcelona. Directors: Joaquín Sanchís Aldás, Vicente Plaza Moral. Date of defense: 12 February 2015.

*TIF: 128.4550 **MIF: 5.3523

Scientific Production

- Agusti A., Anto J.M., Auffray C., Barbe F., Barreiro E., Dorca J., Escarrabill J., Faner R., Furlong L.I., Garcia-Aymerich J., Gea J., Lindmark B., Monso E., Plaza V., Puhan M.A., Roca J., Ruiz-Manzano J., Sampietro-Colom L., Sanz F., Serrano L., Sharpe J., Sibila O., Silverman E.K., Sterk P.J., Sznajder J.I., Personalized respiratory medicine: Exploring the horizon, addressing the issues: Summary of a BRN-AJRCCM workshop held in Barcelona on June 12, 2014. (2015) *AM J RESP CRIT CARE*, 191 (4), 391-401.
IF: 13.1180
- Balcells E., Gimeno-Santos E., de Batlle J., Ramon M.A., Rodriguez E., Benet M., Ferrero E., Ferrer A., Guerra S., Ferrer J., Sauleda J., Barbera J.A., Agusti, Rodriguez-Roisin R., Gea J., Anto J.M., Garcia-Aymerich J., Anto J.M., Serra I., Donaire-Gonzalez D., Gayete A., Orozco-Levi M., Vollmer I., Barbera J.A., Gomez F.P., Pare C., Roca J., Freixa X., Rodriguez D.A., Portillo K., Andreu J., Pallissa E., Rodriguez E., Casan P., Guell R., Gimenez A., Monso E., Marin A., Morera J., Escarrabill J., Agusti A.G., Togores B., Galdiz J.B., Lopez L., Belda J., Characterisation and prognosis of undiagnosed chronic obstructive pulmonary disease patients at their first hospitalisation. (2015) *BMC PULM MED*, 15 (1).
IF: 2.3290
- Casanova C., Marin J.M., Martinez-Gonzalez C., De Lucas-Ramos P., Mir-Viladrich I., Cosio B., Peces-Barba G., Solanes-Garcia I., Agüero R., Feu-Collado N., Calle-Rubio M., Alfageme I., De Diego-Damia A., Irigaray R., Marin M., Balcells E., Lluell A., Galdiz J.B., Golpe R., Lacarcel C., Cabrera C., Marin A., Soriano J.B., Lopez-Campos J.L., Soler-Cataluna J.J., De-Torres J.P., Differential effect of modified Medical Research Council Dyspnea, COPD Assessment Test, and Clinical COPD Questionnaire for symptoms evaluation within the new GOLD staging and mortality in COPD. (2015) *CHEST*, 148 (1), 159-168.
IF: 5.9400
- Castellvi I., Simeon-Aznar C.P., Sarmiento M., Fortuna A., Mayos M., Geli C., Diaz-Torne C., Moya P., De Llobet J.M., Casademont J., Association between nailfold capillaroscopy findings and pulmonary function tests in patients with systemic sclerosis. (2015) *J RHEUMATOL*, 42 (2), 222-227.
IF: 3.2360
- Castillo D., Burgos F., Gascon M.P., The Role of Community Pharmacies in Respiratory Disease Control. (2015) *ARCH BRONCONEUMOL*, 51 (9), 429-430.
IF: 1.7710
- Escarrabill J., Torrente E., Esquinas C., Hernandez C., Monso E., Freixas M., Almagro P., Tresserras R., Escarrabill J., Jimenez J., Llauger M.A., Roger N., Rosas A., Salto E., Gilabert C.S., Madrigal R.C., Delgado O., Casals N.R., Batlles J.S., Lara B., Munoz M.R., Nieto C.S., Olive R.J., Vilaplana M.B., Moreno A., Seto L., Ruiz V.P., Moral V.P., Sola J.R., Perez S.S., Sargatal J.D., Sanchez C.P., Mateos N.P., Abos J.E., Jimenez N.C., Queraltó J.A.L., PalauBenavent M., Camarasa J.T., Colon Y.G., Sanchez E.B., Obradors L.L., Sancho-Munoz A., Pedreny R., Gea J., Medrano Y.L., Flores E.R., Salinas M.T., Barrio A., Bueno E., Rodriguez E., Molina S., Ramos C.C., Nunez C.A., Balana J.M.V., Casanovas A.L., Castiello C.V., Velasco J.A.M., Albo J.A., Milian E.S., Golpe E.S., Flix S.H., Bruguera A.M.T., Mendez L.F.C., Diez S.S., Perez R.C., Garrigos O.R., Vinas C., Company V.B., Vila J.C.T., Ysern E.C., Candelich C.J., del Pilar Ortega Castillo M., Iguacen M.J.C., Gomez E.T., Marquilles E., Bernadich O., Capsada A., Molina A., Domingo R., Seijas N., Soler N., Clinical audit of patients hospitalized due to COPD exacerbation. MAG-1 Study. (2015) *ARCH BRONCONEUMOL*, 51 (10), 483-489.
IF: 1.7710
- Gimenez S., Romero S., Alonso J.F., Mananas M.A., Pujol A., Baxarias P., Antonijooan R.M., Monitoring sleep depth: analysis of bispectral index (BIS) based on polysomnographic recordings and sleep deprivation. (2015) *J CLIN MONIT COMPUT*, 1-8.
IF: 1.8190
- Giner J., The American thoracic society/European respiratory society acceptability criteria for spirometry: Asking too much or not enough?. (2015) *RESP CARE*, 60 (5), e114-115.
IF: 1.9220
- Hsu C.-H., Reyes L.F., Orihuela C.J., Buitrago R., Anzueto A., Soni N.J., Levine S., Peters J., Hinojosa C.A., Aliberti S., Sibila O., Rodriguez A., Chalmers J.D., Martin-Loeches I., Bordon J., Blanquer J., Sanz F., Marcos P.J., Rello J., Sole-Violan J., Restrepo M.I., Chromogranin A levels and mortality in patients with severe sepsis. (2015) *BIOMARKERS*, 20 (3), 171-176.
IF: 2.0160
- Lessmann A.C., Giner J., Torrego A., Mateos E., Torrejon M., Belda A., Plaza V., Usefulness of the exhaled breath temperature plateau in asthma patients. (2015) *RESPIRATION*, 90 (2), 111-117.
IF: 2.6510
- Martinez-Garcia M.A., Chiner E., Hernandez L., Cortes J.P., Catalan P., Ponce S., Diaz J.R., Pastor E., Vigil L., Carmona C., Montserrat J.M., Aizpuru F., Lloberes P., Mayos M., Selma M.J., Cifuentes J.F., Munoz A., Sancho J.N., Landete P., Ferre A., Masdeu M.J., Dalmases M., Zamora L., Miranda-Serrano E., Obstructive sleep apnoea in the elderly: Role of continuous positive airway pressure treatment. (2015) *EUR RESPIR J*, 46 (1), 142-151.
IF: 8.3320
- Masa J.F., Duran-Cantolla J., Capote F., Cabello M., Abad J., Garcia-Rio F., Ferrer A., Fortuna A.M., Gonzalez-Mangado N., De La Pena M., Aizpuru F., Barbe F., Montserrat J.M., Larrateguy L.D., De Castro J.R., Garcia-Ledesma E., Corral J., Martin-Vicente M.J., Martinez-Null C., Egea C., Cancelo L., Garcia-Diaz E., Carmona-Bernal C., Sanchez-Armengol A., Mayos M., Miralda R.M., Troncoso M.F., Gonzalez M., Martinez-Martinez M., Cantalejo O., Pierola J., Vigil L., Embid C., Del Mar Centelles M., Prieto T.R., Rojo B., Lores V., Efficacy of home single-channel nasal pressure for recommending continuous positive airway pressure treatment in sleep apnea. (2015) *SLEEP*, 38 (1), 13-21.
IF: 4.7930
- Miravittles M., Alcazar B., Alvarez F.J., Bazus T., Calle M., Casanova C., Cisneros C., De-Torres J.P., Entrenas L.M., Esteban C., Garcia-Sidro P., Cosio B.G., Huerta A., Iriberry M., Izquierdo J.L., Lopez-Vina A., Lopez-Campos J.L., Martinez-Moragon E., de Llano L.P., Perpina M., Ros J.A., Serrano J., Soler-Cataluna J.J., Torrego A., Urrutia I., Plaza V., What pulmonologists think about the asthma-COPD overlap syndrome. (2015) *INT J CHRONIC OBSTR*, 10, 1321-1330.
IF: 3.0460
- Pajares V., Castillo D., Torrego A., Reply. (2015) *RESPIROLOGY*.
IF: 3.0780
- Plaza V., Peiro M., Torrejon M., Fletcher M., Lopez-Vina A., Ignacio J.M., Quintano J.A., Bardagi S., Gich I., A repeated short educa-

*TIF: 128.4550 **MIF: 5.3523

tional intervention improves asthma control and quality of life. (2015) EUR RESPIR J, 46 (5), 1298-1307.

IF: 8.3320

Plaza V., Crespo A., Giner J., Merino J.L., Ramos-Barbon D., Mateus E.F., Torrego A., Cosio B.G., Agusti A., Sibila O., Inflammatory asthma phenotype discrimination using an electronic nose breath analyzer. (2015) J INVEST ALLERG CLIN, 25 (6), 431-437.

IF: 2.1310

Rodrigo G.J., Soler-Cataluna J.J., Solanes I., Bolibar I., Llauger M.A., Plaza V., Assessment of the internal structure of GOLD 2011 system. (2015) PULM PHARMACOL THER, 30, 87-92.

IF: 2.9300

Serrano-Pariente J., Rodrigo G., Fiz J.A., Crespo A., Plaza V., Identification and characterization of near-fatal asthma phenotypes by cluster analysis. (2015) ALLERGY, 70 (9), 1139-1147.

IF: 6.3350

Shafiek H., Fiorentino F., Merino J.L., Lopez C., Oliver A., Segura J., De Paul I., Sibila O., Agusti A., Cosio B.G., Using the electronic nose to identify airway infection during COPD exacerbations. (2015) PLOS ONE, 10 (9).

IF: 3.0570

Sibila O., Laserna E., Maselli D.J., Fernandez J.F., Mortensen E.M., Anzueto A., Waterer G., Restrepo M.I., Risk factors and antibiotic therapy in Paeruginosa community-acquired pneumonia. (2015) RESPIROLOGY.

IF: 3.0780

Sibila O., Laserna E., Maselli D.J., Fernandez J.F., Mortensen E.M., Anzueto A., Waterer G., Restrepo M.I., Risk factors and antibiotic therapy in P. aeruginosa community-acquired pneumonia. (2015) RESPIROLOGY, 20 (4), 660-666.

IF: 3.0780

Sibila O., Soto-Gomez N., Restrepo M.I., The risk and outcomes of pneumonia in patients on inhaled corticosteroids. (2015) PULM PHARMACOL THER, 32, 130-136.

IF: 2.9300

Sibila O., Suarez-Cuartin G., Rodrigo-Troyano A., Fardon T.C., Finch S., Mateus E.F., Garcia-Bellmunt L., Castillo D., Vidal S., Sanchez-Reus F., Restrepo M.I., Chalmers J.D., Secreted mucins and airway bacterial colonization in non-CF bronchiectasis. (2015) RESPIROLOGY, 20 (7), 1082-1088.

IF: 3.0780

Torres A., Sibila O., Ferrer M., Polverino E., Menendez R., Mensa J., Gabarrus A., Sellares J., Restrepo M.I., Anzueto A., Niederman M.S.,

Agusti C., Effect of corticosteroids on treatment failure among hospitalized patients with severe community-acquired pneumonia and high inflammatory response: A randomized clinical trial. (2015) JAMA-J AM MED ASSOC, 313 (7), 677-686.

IF: 37.6840

Research Group in HIV and AIDS

Coordinator

Domingo, Pere IR

Members

Cadafalch Arpa, Josep FGS

Gutiérrez Macia,

Maria del Mar IR

Lamarca Soria, Maria Karuna IR

Mateo García, Gracia María IR

Muñoz Rodríguez, Jessica IR

Ponte Márquez, Paola Helena IR

Sambeat Domènech,

Maria Antònia 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.

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 grant-aided 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 research-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.

Challenges

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 treatment-dependent and non-treatment-dependent 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

- ▶ Pere Domingo Pedrol. El sistema FGF23/alpha-Klotho como mediador de las comorbilidades no directamente relacionadas con la infección por VIH en el eje cardio-osteo-renal. PI14/00700. Instituto de Salud Carlos III. Duration: 2015-2017. €116,500.

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

Grants Awarded in 2015

- ▶ Pere Domingo Pedrol. Convocatòria d'intensificació 2015. IR15-INT1. Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2015-2016. €30,000.

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

Research Group in HIV and AIDS

*TIF: 158.3990 **MIF: 5.8666

Scientific Production

Arribas J.R., *et al*, Dual treatment with lopinavir-ritonavir plus lamivudine versus triple treatment with lopinavir-ritonavir plus lamivudine or emtricitabine and a second nucleos(t)ide reverse transcriptase inhibitor for maintenance of HIV-1 viral suppression (OLE): A randomised, open-label, non-inferiority trial. (2015) LANCET INFECT DIS, 15 (7), 785-792.

IF: 21.3720

Casadella M., Manzardo C., Noguera-Julian M., Ferrer E., Domingo P., Perez-Alvarez S., Podzamczar D., Plana M., Clotet B., Gatell J.B., Miro J.M., Paredes R., Clinical value of ultra-deep HIV-1 genotyping and tropism testing in late presenters with advanced disease. (2015) AIDS, 29 (12), 1493-1504.

IF: 4.4070

Casadella M., *et al*, Primary resistance to integrase strand-transfer inhibitors in Europe. (2015) J ANTIMICROB CHEMOTH, 70 (10), 2885-2888.

IF: 4.9190

Cereijo R., Gallego-Escuredo J.M., Moure R., Villarroya J., Domingo J.C., Fontdevila J., Martinez E., Del Mar Gutierrez M., Mateo M.G., Giral M., Domingo P., Villarroya F., The molecular signature of HIV-1-associated lipomatosis reveals differential involvement of brown and beige/brite adipocyte cell lineages. (2015) PLOS ONE, 10 (8).

IF: 3.0570

Domingo P., Pomar V., Bacterial meningitis: The end of the beginning?. (2015) LANCET INFECT DIS.

IF: 21.3720

Gallego-Escuredo J.M., Gomez-Ambrosi J., Catalan V., Domingo P., Giral M., Fruhbeck G., Villarroya F., Opposite alterations in FGF21 and FGF19 levels and disturbed expression of the receptor machinery for endocrine FGFs in obese patients. (2015) INT J OBESITY, 39 (1), 121-129.

IF: 5.3370

Garin N., Velasco C., de Pourcq J.T., Lopez B., del Mar Gutierrez M., Haro J.M., Feliu A., Mangués M.A., Trilla A., Recreational drug use among individuals living with HIV in Europe: Review of the prevalence, comparison with the general population and HIV guidelines recommendations. (2015) FRONT MICROBIOL, 6 (JUN).

IF: 4.1650

Garriga C., Garcia de Olalla P., Miro J.M., Ocana I., Knobel H., Barbera M.J., Humet V., Domingo P., Gatell J.M., Ribera E., Gurgui M., Marco A., Cayla J.A., Gil S., Masdeu E., Simon P., Ros M., Clos R., Gorrindo P., Mateo M.G., Gutierrez M.M., Falco V., Vall M., Armengol P., Aranda M., Carbonell T., Manzardo C., Garcia F., Blanco J.L., Martinez E., Mallolas J., Vitaloni M., Mortality, causes of death and associated

factors relate to a large HIV population-based cohort. (2015) PLOS ONE, 10 (12).

IF: 3.0570

Grint D., *et al*, Liver-related death among HIV/hepatitis C virus-co-infected individuals: Implications for the era of directly acting antivirals. (2015) AIDS, 29 (10), 1205-1215.

IF: 4.4070

Helena Ponte Marquez P., Jose Sole M., Arroyo J.A., Matas L., Benet M.T., Roca-Cusachs A., Differences in the reduction of blood pressure according to drug administration at activity hours or rest hours. (2015) MED CLIN-BARCELONA, 144 (2), 51-54.

IF: 1.2670

Iribarren J.A., Rubio R., Aguirrebengoa K., Arribas J.R., Baraia-Etxaburu J., Gutierrez F., Lopez Bernaldo de Quiros J.C., Losa J.E., Miro J.M., Moreno S., Perez Molina J., Podzamczar D., Pulido F., Riera M., Rivero A., Sanz Moreno J., Amador C., Antela A., Arazo P., Arrizabalaga J., Bachiller P., Barros C., Berenguer J., Cayla J., Domingo P., Estrada V., Knobel H., Locutura J., Lopez Aldeguer J., Llibre J.M., Lozano F., Mallolas J., Malmierca E., Miralles C., Miralles P., Munoz A., Ocampo A., Olalla J., Perez I., Perez Elias M.J., Perez Arellano J.L., Portilla J., Ribera E., Rodriguez F., Santin M., Sanz Sanz J., Tellez M.J., Torralba M., Valencia E., Von Wichmann M.A., Prevention and treatment of opportunistic infections and other coinfections in HIV-infected patients: May 2015. (2015) ENFERM INFECC MICR CL.

IF: 1.5300

Lopez-Dupla M., Maymo-Masip E., Martinez E., Domingo P., Leal M., Peraire J., Vilades C., Veloso S., Arnedo M., Ferrando-Martinez S., Beltran-Debon R., Alba V., Gatell J.M., Vendrell J., Vidal F., Chacon M.R., HIV-1/HAART-related lipodystrophy syndrome (HALS) is associated with decreased circulating stweak levels. (2015) PLOS ONE, 10 (12).

IF: 3.0570

Mansfeld M., *et al*, Major differences in organization and availability of health care and medicines for HIV/TB coinfecting patients across Europe. (2015) HIV MED, 16 (9), 544-552.

IF: 3.3410

Martinez E., Gonzalez-Cordon A., Ferrer E., Domingo P., Negro E., Gutierrez F., Portilla J., Curran A., Podzamczar D., Ribera E., Murillas J., Bernardino J.I., Santos I., Carton J.A., Peraire J., Pich J., Deulofeu R., Perez I., Gatell J.M., Arnaiz J.A., Beleta H., Garcia D., Pejenaute A., Ramos N., Arcaina P., Giner L., Moya S., Pampliega M., Portilla J., Barrera G., Podzamczar D., Rozas N., Saumoy M., Ferrer E., Asensi V., Carton J.A., Gatell J.M., Gonzalez-Cordon A., Perez I., Martinez E., Masia M., Padilla S., Ramos J.R., Robledano C., Gutierrez F., Puig J., Negro E., Arribas J.R., Castro

J.M., Bernardino J.I., Sanz J., Santos I., Cairo M., Velli P., Dalmau D., Lamas A., Marti-Belda P., Drona F., Blanco J.R., Gutierrez M., Mateo M.G., Domingo P., Losada E., Prieto A., Antela A., Murillas J., Aguilar A., Peraire J., Vargas M., Vilades C., Vidal F., Crespo M., Curran A., Ribera E., Arnaiz J.A., Beleta H., Garcia D., Pejenaute A., Ramos N., Pich J., Differential body composition effects of protease inhibitors recommended for initial treatment of HIV infection: A randomized clinical trial. (2015) CLIN INFECT DIS, 60 (5), 811-820.

IF: 8.7360

Monge S., Diez M., Alvarez M., Guillot V., Iribarren J.A., *et al*, Use of cohort data to estimate national prevalence of transmitted drug resistance to antiretroviral drugs in Spain (2007-2012). (2015) CLIN MICROBIOL INFECC, 21 (1), 105.e1-105.e5.

IF: 4.5750

Moren C., Bano M., Gonzalez-Casacuberta I., Catalan-Garcia M., Guitart-Mampel M., Tobias E., Cardellach F., Pedrol E., Peraire J., Vidal F., Domingo P., Miro O., Gatell J.M., Martinez E., Garrabou G., Mitochondrial and apoptotic in vitro modelling of differential HIV-1 progression and antiretroviral toxicity. (2015) J ANTIMICROB CHEMOTH, 70 (8), 2330-2336.

IF: 4.9190

Murray D.D., *et al*, Circulating microRNAs in sera correlate with soluble biomarkers of immune activation but do not predict mortality in ART treated individuals with HIV-1 infection: A case control study. (2015) PLOS ONE, 10 (10).

IF: 3.0570

Pedrol E., Caro-Murillo A.M., Castano M.A., Riera M., Olalla J., Domingo P., Arazo P., Gomez-Sirvent J.L., Pulido F., Romero-Palacios A., Aguirrebengoa K., Vera F., Ferrer P., Blanco Ramos J.R., Renal safety of coformulated tenofovir/emtricitabine vs other nucleoside analogues in combination therapy in antiretroviral-naive patients aged 50 years or older in Spain: The TRIP study. (2015) HIV CLIN TRIALS, 16 (1), 43-48.

IF: 1.9510

Peraire J., Lopez-Dupla M., Alba V., Beltran-Debon R., Martinez E., Domingo P., Asensi V., Leal M., Vilades C., Inza M.-I., Escote X., Arnedo M., Mateo G., Valle-Garay E., Ferrando-Martinez S., Veloso S., Vendrell J., Gatell J., Vidal F., Aguilar A., Aguilar A., Alibalic A., Balana J., Ceausu A., Garcia M., Guillen G., Milian M., Munoz G., Vargas M., Fontanet A., Gutierrez M., Munoz J., Sambaet M.A., Egana-Gorrondo L., HIV/antiretroviral therapy-related lipodystrophy syndrome (HALS) is associated with higher BBP4 and lower omentin in plasma. (2015) CLIN MICROBIOL INFECC, 21 (7), 711.e1-711.e8.

IF: 4.5750

*TIF: 158.3990 **MIF: 5.8666

Perez-Molina J.A., *et al*, Dual treatment with atazanavir-ritonavir plus lamivudine versus triple treatment with atazanavir-ritonavir plus two nucleos(t)ides in virologically stable patients with HIV-1 (SALT): 48 week results from a randomised, open-label, non-inferiority trial. (2015) LANCET INFECT DIS, 15 (7), 775-784.

IF: 21.3720

Podlekareva D., *et al*, Changing utilization of Stavudine (d4T) in HIV-positive people in 2006-2013 in the EuroSIDA study. (2015) HIV MED, 16 (9), 533-543.

IF: 3.3410

Rivero A., Domingo P., Safety profile of do-lutegravir. (2015) ENFERM INFEC MICR CL, 33 (S1), 9-13.

IF: 1.5300

Sanchez-Infantes D., Gallego-Escuredo J.M., Diaz M., Aragonés G., Sebastiani G., Lopez-Bermejo A., De Zegher F., Domingo P., Villarroya F., Ibanez L., Circulating FGF19 and FGF21 surge in early infancy from infra-to supra-adult concentrations. (2015) INT J OBESITY, 39 (5), 742-746.

IF: 5.3370

Schneider J.L., Villarroya J., Diaz-Carretero A., Patel B., Urbanska A.M., Thi M.M., Villarroya F., Santambrogio L., Cuervo A.M., Loss of hepatic chaperone-mediated autophagy accelerates proteostasis failure in aging. (2015) AGING CELL.

IF: 5.7600

Schneider J.L., Villarroya J., Diaz-Carretero A., Patel B., Urbanska A.M., Thi M.M., Villarroya F., Santambrogio L., Cuervo A.M., Loss of hepatic chaperone-mediated autophagy accelerates proteostasis failure in aging. (2015) AGING CELL, 14 (2), 249-264.

IF: 5.7600

Viciano-Fernandez P., Falco V., Castano M., De Los Santos-Gil I., Olalla-Sierra J., Hernando A., Deig E., Clotet B., Knobel H., Podzanczer D., Pedrol P.D., Barriers to ART initiation in HIV infected subjects and with treatment indication in Spain. Why don't they start their treatment? Bridgap Study. (2015) ENFERM INFEC MICR CL, 33 (6), 397-403.

IF: 1.5300

Villarroya J., Redondo-Angulo I., Iglesias R., Giralt M., Villarroya F., Planavila A., Sirt1 mediates the effects of a short-term high-fat diet on the heart. (2015) J NUTR BIOCHEM, 26 (11), 1328-1337.

IF: 4.6680

AREA 3

Haematological and Oncological D

118 Clinical Oncology

122 Oncogenesis and Antitumour Drugs

126 Haematological Diagnosis

130 Molecular Pathology of Gynaecologic Cancer

132 Ear, Nose and Throat Cancers

134 Oncology/Haematology and Transplantation

iseases



Clinical Oncology

Coordinator

Barnadas Molins, Agustí FGS
abarnadasm@santpau.cat

Members

Albor Parada, Cecilia Verónica IR
Alfonso Ruiz, Rosa IR
Anguera Palacios, Georgia IR
Arroyo Solera, Irene IR
Calvo Vergés, Núria FGS
Castells Tello, Diana IR
Escuín Borràs, Daniel IR
Fisas Masferrer, David IR
Gallego Rubio, Óscar Salvador FGS
García Serrano, Sara IR
Lavèrnia Rosell, Laia IR
Lladó Jordan, Gina IR
Llobet Busquets, Mireia IR
López Pousa, Antonio FGS
Majem Tarruella, Margarita FGS
Maroto Rey, José Pablo FGS
Martín Lorente, Cristina FGS
Martín Richard, Marta FGS
Menéndez Cuervo, Dulce María IR
Merino Merino, Eva IR
Millet López, Maria Pilar IR
Murata Yonamine, Eleonor Paola IR
Paez López-Bravo, David FGS
Pallarès Curto, Maria Cinta FGS
Pérez Olabarria, Maitane IR
Pich Martínez, Olga IR
Quintana Aparicio, Maria IR
Ramon y Cajal Asensio, Teresa FGS
Ribas Carbonell, Romina IR
Sanz Cobos, Patricia IR
Sebio Garcia, Ana IR
Sullivan, Ivana Gabriela IR
Tibau i Martorell, Ariadna FGS
Tobeña Puyal, Maria FGS



Main Lines of Research

Clinical

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

Translational

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

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 Gynaecologic Cancer (Dr. Jaime Prat).
- ▶ Genetic Diseases (Dr. Montserrat Baiget).

- ▶ 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).

Active Grants

- ▶ Irene Arroyo Solera. Desenvolupament d'una signatura genètica per predir la resposta al tractament de quimioradioteràpia en pacients amb carcinoma escatós de cap i coll localment avançat. 2013FI00188. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2013-2016. €62,103.38.
- ▶ Daniel Escuín Borràs. Perfil de expresión de miRNAs en tumor primario de mama y sus ganglios linfáticos centinela: impli-

caciones en los mecanismos de invasión y su valor como marcadores metastásicos. PI13/00110. Instituto de Salud Carlos III. Duration: 2014-2016. €76,000.

- ▶ Ivana Gabriela Sullivan. Contratos Río Hortega 2013. CM13/00117. Instituto de Salud Carlos III. Duration: 2014-2016. €53,732.

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

Awards

- ▶ Ivana Sullivan. Identification of molecular abnormalities in Pulmonary Neuroendocrine Tumors through whole-exome, RNA sequencing and DNA methylation. Georges Mathé Translational Research Fellowship. European Society for Medical Oncology (ESMO).

- Bárbara Garcia-Valdecasas Vilanova. Cáncer de mama: estudio de focos neoplásicos invasores y no invasores de la expresión de Ki67 y su relación con la supervivencia. Universitat Autònoma de Barcelona. Director: Agustí Barnadas. Date of defense: 21 December 2015.

*TIF: 331.7160 **MIF: 8.5055

Alamo P., Gallardo A., Di Nicolantonio F., Pavon M.A., Casanova I., Trias M., Mangues M.A., Lopez-Pousa A., Villaverde A., Vazquez E., Bardelli A., Cespedes M.V., Mangues R., Higher metastatic efficiency of KRas G12V than KRas G13D in a colorectal cancer model. (2015) *FASEB J*, 29 (2), 464-476.

IF: 5.2990

Ales-Martinez J.E., Ruiz A., Chacon J.I., Lluç Hernandez A., Ramos M., Cordoba O., Aguirre E., Barnadas A., Jara C., Gonzalez S., Plazaola A., Florian J., Andres R., Sanchez Rovira P., Frau A., Preventive treatments for breast cancer: recent developments. (2015) *CLIN TRANSL ONCOL*, 17 (4), 257-263.

IF: 2.0750

Aulinas A., Ramirez M.-J., Barahona M.-J., Vallasi E., Resmini E., Mato E., Santos A., Crespo I., Bell O., Surrallés J., Webb S.M., Dyslipidemia and chronic inflammation markers are correlated with Telomere Length shortening in Cushing's syndrome. (2015) *PLOS ONE*, 10 (3).

IF: 3.0570

Blanco I., *et al*, Assessing associations between the AURKAHMMR-TPX2-TUBG1 functional module and breast cancer risk in BRCA1/2 mutation carriers. (2015) *PLOS ONE*, 10 (4).

IF: 3.0570

Blay J.-Y., Papai Z., Tolcher A.W., Italiano A., Cupissol D., Lopez-Pousa A., Chawla S.P., Bompas E., Babovic N., Penel N., Isambert N., Staddon A.P., Saada-Bouziid E., Santoro A., Franke F.A., Cohen P., Le-Guennec S., Demetri G.D., Ombrabulin plus cisplatin versus placebo plus cisplatin in patients with advanced soft-tissue sarcomas after failure of anthracycline and ifosfamide chemotherapy: A randomised, double-blind, placebo-controlled, phase 3 trial. (2015) *LANCET ONCOL*, 16 (5), 531-540.

IF: 26.5090

Choueiri T.K., Escudier B., Powles T., Mainwaring P.N., Rini B.I., Donskov F., Hammers H., Hutson T.E., Lee J.-L., Peltola K., Roth B.J., Bjarnason G.A., Geczi L., Keam B., Maroto P., Heng D.Y.C., Schmidinger M., Kantoff P.W., Borgman-Hagey A., Hessel C., Scheffold C., Schwab G.M., Tannir N.M., Motzer R.J., Cabozantinib versus everolimus in advanced renal-cell carcinoma. (2015) *NEW ENGL J MED*, 373 (19), 1814-1823.

IF: 59.5580

De Gonzalo-Calvo D., Lopez-Vilaro L., Nasarre L., Perez-Olabarria M., Vazquez T., Escuin D., Badimon L., Barnadas A., Lerma E.,

Llorente-Cortes V., Intratumor cholesteryl ester accumulation is associated with human breast cancer proliferation and aggressive potential: A molecular and clinicopathological study. (2015) *BMC CANCER*, 15 (1).

IF: 3.2650

De Quintana-Schmidt C., Alvarez-Holzappel M.J., Nomdedeu-Guinot J., Bague-Rosell S., Gallego-Rubio O., Leidingner A., Salgado-Lopez L., Molet-Teixido J., Isocitrate dehydrogenase type i mutation as a prognostic factor in glioblastoma and a literature review. (2015) *NEUROCIROGIA*, 26 (6), 276-283.

IF: 0.4100

Esteban E., Majem M., Martinez Aguillo M., Martinez Banaclocha N., Domine M., Gomez Aldaravi L., Juan O., Cajal R., Gonzalez Arenas M.C., Provencio M., Prevalence of EGFR mutations in newly diagnosed locally advanced or metastatic non-small cell lung cancer Spanish patients and its association with histological subtypes and clinical features: The Spanish REASON study. (2015) *CANCER EPIDEMIOLOG*, 39 (3), 291-297.

IF: 2.6440

Fernandez-Martos C., Garcia-Albeniz X., Pericay C., Maurel J., Aparicio J., Montagut C., Safont M.J., Salud A., Vera R., Massuti B., Escudero P., Alonso V., Bosch C., Martin M., Minsky B.D., Chemoradiation, surgery and adjuvant chemotherapy versus induction chemotherapy followed by chemoradiation and surgery: Long-term results of the Spanish GCR-3 phase II randomized trial. (2015) *ANN ONCOL*, 26 (8), 1722-1728.

IF: 9.2690

Fuentes-Raspall M.J., Caragol I., Alonso C., Ramon Y Cajal T., Fisas D., Seoane A., Carvajal N., Bonache S., Diez O., Gutierrez-Enriquez S., Apoptosis for prediction of radiotherapy late toxicity: Lymphocyte subset sensitivity and potential effect of TP53 Arg72Pro polymorphism. (2015) *APOPTOSIS*, 20 (3), 371-382.

IF: 3.5920

Gallego O., Nonsurgical treatment of recurrent glioblastoma. (2015) *CURR ONCOL*, 22 (4), e273-e281.

IF: 1.8290

Gaya J.M., Palou J., Rosales A., Maroto P., Sullivan I., Villavicencio H., Is there a limit for the laparoscopic approach of a retroperitoneal residual mass postchemotherapy?.

IF: 0.9640

Gaya J.M., Palou J., Pena J.A., Rosales A., Maroto P., Sullivan I., Villavicencio H., Is there a limit for the laparoscopic approach of a retroperitoneal residual mass postchemotherapy?.

IF: 0.9640

Geva R., Vecchione L., Kalogeras K.T., Jensen B.V., Lenz H.-J., Yoshino T., Paez D., Montagut C., Souglakos J., Cappuzzo F., Cervantes A., Frattini M., Fountzilias G., Johansen J.S., Hogdall E.V., Zhang W., Yang D., Yamazaki K., Nishina T., Papamichael D., Vincenzi B., Macarulla T., Loupakis F., De Schutter J., Spindler K.L.G., Pfeiffer P., Ciardiello F., Piessevaux H., Tejpar S., FCGR polymorphisms and cetuximab efficacy in chemorefractory metastatic colorectal cancer: An international consortium study. (2015) *GUT*, 64 (6), 921-928.

IF: 14.9210

Gil-Gil M.J., Bellet M., Morales S., Ojeda B., Manso L., Mesia C., Garcia-Martinez E., Martinez-Janez N., Mele M., Llombart A., Pernas S., Villagrana P., Blasco C., Baselga J., Pegylated liposomal doxorubicin plus cyclophosphamide followed by paclitaxel as primary chemotherapy in elderly or cardiotoxicity-prone patients with high-risk breast cancer: results of the phase II CAPRICE study. (2015) *BREAST CANCER RES TR*, 151 (3), 597-606.

IF: 4.0850

Gras-Cabrero J.R., Leon-Vintro X., Tarruella M.M., Sarria G.P., Gonzalez C.B., Montserrat-Gili J.R., Kolanczak K., Massegur-Solench H., Management of sinonasal mucosal melanomas and comparison of classification staging systems. (2015) *AM J RHINOL ALLERGY*, 29 (1), e37-e40.

IF: 1.9600

Guillem V., Climent M.A., Cassinello J., Esteban E., Castellano D., Gonzalez-Larriba J.L., Maroto P., Camps C., Controversies in the treatment of invasive urothelial carcinoma: A case report and review of the literature. (2015) *BMC UROL*, 1-6.

IF: 1.6060

Guillem V., Climent M.A., Cassinello J., Esteban E., Castellano D., Gonzalez-Larriba J.L., Maroto P., Camps C., Controversies in the treatment of invasive urothelial carcinoma: A case report and review of the literature Urological oncology. (2015) *BMC UROL*, 15 (1).

IF: 1.6060

Karachaliou N., Codony-Servat J., Teixido C., Pilotto S., Drozdowskyj A., Codony-Servat C., Gimenez-Capitan A., Molina-Vila M.A., Bertran-Alamillo J., Gervais R., Massuti B., Moran

Clinical Oncology

*TIF: 331.7160 **MIF: 8.5055

T., Majem M., Felip E., Carcereny E., Garcia-Campelo R., Viteri S., Gonzalez-Cao M., Morales-Espinosa D., Verlicchi A., Crisetti E., Chaib I., Santarpia M., Luis Ramirez J., Bosch-Barrera J., Felipe Cardona A., De Marinis F., Lopez-Vivanco G., Miguel Sanchez J., Vergnenegre A., Sanchez Hernandez J.J., Sperduti I., Bria E., Rosell R., BIM and mTOR expression levels predict outcome to erlotinib in EGFR-mutant non-small-cell lung cancer. (2015) SCI REP-UK, 5.

IF: 5.2280

Leon X., Aguero A., Lopez M., Garcia J., Farre N., Lopez-Pousa A., Quer M., Salvage surgery after local recurrence in patients with head and neck carcinoma treated with chemoradiotherapy or bioradiotherapy. (2015) AURIS NASUS LARYNX, 42 (2), 145-149.

IF: 1.0380

Lopez-Pousa A., Broto J.M., Garrido T., Vazquez J., Giant cell tumour of bone: new treatments in development. (2015) CLIN TRANS ONCOL, 17 (6), 419-430.

IF: 2.0750

Marquez-Rodas I., Gonzalez M.M., Nagore E., Gomez-Fernandez C., Aviles-Izquierdo J.A., Maldonado-Seral C., Soriano V., Majem-Taruella M., Palomar V., Maseda R., Martin-Carnicero A., Puertolas T., Godoy E., Cerezuela P., De Olza M.O., Campos B., Perez-Ruiz E., Soria A., Gil-Arnaiz I., Gonzalez-Cao M., Galvez E., Arance A., Belon J., De La Cruz-Merino L., Martin-Algarra S., Frequency and characteristics of familial melanoma in Spain: The FAM-GEM-1 study. (2015) PLOS ONE, 10 (4).

IF: 3.0570

Martin M., Simon A.R., Borrego M.R., Ribelles N., Rodriguez-Lescure A., Munoz-Mateu M., Gonzalez S., Vila M.M., Barnadas A., Ramos M., Del Barco Berron S., Jara C., Calvo L., Martinez-Janez N., Fernandez C.M., Rodriguez C.A., De Duenas E.M., Andres R., Plazaola A., De La Haba-Rodriguez J., Lopez-Vega J.M., Adrover E., Ballesteros A.I., Santaballa A., Sanchez-Rovira P., Baena-Canada J.M., Casas M., Del Carmen Camara M., Carrasco E.M., Lluch A., Epirubicin plus cyclophosphamide followed by docetaxel versus epirubicin plus docetaxel followed by capecitabine as adjuvant therapy for node-positive early breast cancer: Results from the GEICAM/2003-10 study. (2015) J CLIN ONCOL, 33 (32), 3788-3795.

IF: 20.9820

Martin-Richard M., Custodio A., Garcia-Giron C., Gravalos C., Gomez C., Jimenez-Fonseca P., Manzano J.L., Pericay C., Rivera F., Carrato A., Seom guidelines for the treatment of gastric cancer 2015. (2015) CLIN TRANS ONCOL, 17 (12), 996-1004.

IF: 2.0750

Mato E., Barcelo-Batlloiri S., Orera I., Selva L., Corra M., Gonzalez C., Bell O., Lerma E., Moral

A., Perez J.I., de Leiva A., The proteomic 2D-DIGE approach reveals the protein voltage-dependent anion channel 2 as a potential therapeutic target in epithelial thyroid tumours. (2015) MOL CELL ENDOCRINOL, 404, 37-45.

IF: 3.8590

Motzer R.J., Hutson T.E., Glen H., Michaelson M.D., Molina A., Eisen T., Jassem J., Zolnierok J., Maroto J.P., Mellado B., Melichar B., Tomasek J., Kremer A., Kim H.-J., Wood K., Dutcus C., Larkin J., Lenvatinib, everolimus, and the combination in patients with metastatic renal cell carcinoma: A randomised, phase 2, open-label, multicentre trial. (2015) LANCET ONCOL, 16 (15), 1473-1482.

IF: 26.5090

Palassini E., Ferrari S., Verderio P., Paoli A.D., Broto J.M., Quagliuolo V., Comandone A., Sangalli C., Palmerini E., Lopez-Pousa A., Sanctis R.D., Bottelli S., Libertini M., Picci P., Casali P.G., Gronchi A., Feasibility of preoperative chemotherapy with or without radiation therapy in localized soft tissue sarcomas of limbs and superficial trunk in the Italian sarcoma group/grupo español de investigación en sarcomas randomized clinical trial: Three versus five cycles of full-dose epirubicin plus ifosfamide. (2015) J CLIN ONCOL, 33 (31), 3628-3634.

IF: 20.9820

Pare-Brunet L., Sebio A., Salazar J., Berenguer-Llargo A., Rio E., Barnadas A., Baiget M., Paez D., Genetic variations in the VEGF pathway as prognostic factors in metastatic colorectal cancer patients treated with oxaliplatin-based chemotherapy. (2015) PHARMACOGENOMICS J, 15 (5), 397-404.

IF: 3.7840

Pavon M.A., Arroyo-Solera I., Tellez-Gabriel M., Leon X., Viros D., Lopez M., Gallardo A., Cespedes M.V., Casanova I., Lopez-Pousa A., Mangues M.A., Quer M., Barnadas A., Mangues R., Enhanced cell migration and apoptosis resistance may underlie the association between high SERPINE1 expression and poor outcome in head and neck carcinoma patients. (2015) ONCOTARGET, 6 (30), 29016-29033.

IF: 5.0080

Ramon y Cajal T., Chirivella I., Miranda J., Teule A., Izquierdo, Balmana J., Sanchez-Heras A.B., Llorca G., Fisas D., Lope V., Hernandez-Agudo E., Juan-Fita M.J., Tena I., Robles L., Guillen-Ponce C., Perez-Segura P., Luque-Molina M.S., Hernandez-Polo S., Salinas M., Brunet J., Salas-Trejo M.D., Barnadas A., Pollan M., Mammographic density and breast cancer in women from high risk families. (2015) BREAST CANCER RES, 17 (1).

IF: 5.2110

Rebbeck T.R., *et al*, Association of type and location of BRCA1 and BRCA2 mutations with risk of breast and ovarian cancer. (2015) JAMA-J AM MED ASSOC, 313 (13), 1347-1361.

IF: 37.6840

Rubio-Casadevall J., Martinez-Trufero J., Garcia-Albeniz X., Calabuig S., Lopez-Pousa A., del Muro J.G., Fra J., Redondo A., Lainez N., Poveda A., Valverde C., De Juan A., Sevilla I., Casado A., Andres R., Cruz J., Martin-Broto J., Maurel J., Role of Surgery in Patients with Recurrent, Metastatic, or Unresectable Locally Advanced Gastrointestinal Stromal Tumors Sensitive to Imatinib: A Retrospective Analysis of the Spanish Group for Research on Sarcoma (GEIS). (2015) ANN SURG ONCOL, 22 (9), 2948-2957.

IF: 3.6550

Sebio A., Barnadas A., Salazar J., Paez D., Berenguer-Llargo A., Del Rio E., Tobena M., Martin-Richard M., Sullivan I., Targarona E., Balart J., Baiget M., EGFR ligands and DNA repair genes: Genomic predictors of complete response after capecitabine-based chemoradiotherapy in locally advanced rectal cancer. (2015) PHARMACOGENOMICS J, 15 (1), 77-83.

IF: 3.7840

Sepulveda J.M., Belda-Iniesta C., Gil-Gil M., Perez-Segura P., Berrocal A., Reynes G., Gallego O., Capellades J., Ordóñez J.M., La Orden B., Balana C., A phase II study of feasibility and toxicity of bevacizumab in combination with temozolomide in patients with recurrent glioblastoma. (2015) CLIN TRANS ONCOL, 17 (9), 743-750.

IF: 2.0750

Sonnenblick A., Francis P.A., Azim H.A., De Azambuja E., Nordenskjold B., Gutierrez J., Quinaux E., Mastropasqua M.G., Ameye L., Anderson M., Lluch A., Gnant M., Goldhirsch A., Di Leo A., Barnadas A., Cortes-Funes H., Piccart M., Crown J., Final 10-year results of the Breast International Group 2-98 phase III trial and the role of Ki67 in predicting benefit of adjuvant docetaxel in patients with oestrogen receptor positive breast cancer. (2015) EUR J CANCER, 51 (12), 1481-1489.

IF: 6.1630

Stintzing S., Zhang W., Heinemann V., Neureiter D., Kemmerling R., Kirchner T., Jung A., Folwaczny M., Yang D., Ning Y., Sebio A., Stremtizer S., Sunakawa Y., Matsusaka S., Yamauchi S., Loupakis F., Cremolini C., Falcone A., Lenz H.-J., Polymorphisms in genes involved in EGFR turnover are predictive for cetuximab efficacy in colorectal cancer. (2015) MOL CANCER THER, 14 (10), 2374-2381.

IF: 5.5790

TIF: 331.7160 **MIF: 8.5055*Scientific
Production**

Suarez C., Puente J., Gallardo E., Mendez-Vidal M.J., Climent M.A., Leon L., Olmos D., Garcia del Muro X., Gonzalez-Billalabeitia E., Grande E., Bellmunt J., Mellado B., Maroto P., Gonzalez del Alba A., New advances in genitourinary cancer: evidence gathered in 2014. (2015) *CANCER METAST REV*, 34 (3), 443-464.

IF: 5.3160

Tibau A., Bedard P.L., Srikanthan A., Ethier J.-L., Vera-Badillo F.E., Templeton A.J., Ocana A., Seruga B., Barnadas A., Amir E., Author financial conflicts of interest, industry funding, and clinical practice guidelines for anticancer drugs. (2015) *J CLIN ONCOL*, 33 (1), 100-106.

IF: 20.9820

Oncogenesis and Antitumour Drugs

Coordinator

Mangues Bafalluy, Ramon IR
rmangues@santpau.cat

Members

Boullosa Goberna, Ana María CIBERBBN
Cabrera Rodríguez, María del Carmen CIBERBBN
Casanova Rigat, Isolda CIBERBBN
Céspedes Navarro, Virtudes CIBERBBN
Navas Jiménez, Luis Carlos IR
Sala Faig, Rita IR
Suárez Vasallo, Cristina IR
Turrado Rodríguez, Víctor FGS
Unzueta Elorza, Ugutz IR



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.

Challenges

- ▶ Obtain funding to ensure stable employment of senior researchers, attract post-doctoral 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 neoplasias.
- ▶ Enhance international collaboration and participation in EU networks and industrial projects.

Active Grants

- ▶ Ramon Mangues Bafalluy. Modelos de cáncer de colon metastásico para el estudio de la recidiva tumoral. PI12/01861. Instituto de Salud Carlos III. Duration: 2013-2016. €181,500.
- ▶ Ramon Mangues Bafalluy. Genotoxic nanoparticles targeting colorectal cancer stem cells. 20132030. Fundació La Marató de TV3. Duration: 2014-2017. €142,000.
- ▶ Ramon Mangues Bafalluy. Grup d'oncogènesi i antitumorals (GOA). 2014 SGR 1041. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016. €30,000.
- ▶ Ramon Mangues Bafalluy. Teràpia de nanoconjugados dirigida a cèlulas iniciadoras de metástasis en càncer colorectal. EUIIN2013-50829. Ministerio de Economía y Competitividad. Duration: 2014-2016. €22,000.
- ▶ Ugutz Unzueta Elorza. Contratos "Sara Borrell" 2014. CD14/00055. Instituto de Salud Carlos III. Duration: 2015-2018. €86,598.
- ▶ Ramon Mangues Bafalluy. Teràpia dirigida de Auristatina E o Ara-C a cèlulas de leucemia mieloide aguda que expresan CXCR4, receptor implicado en adhesión al estroma y quimiorresistencia. PI14/00450. Instituto de Salud Carlos III. Duration: 2015-2017. €172,000.

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

Theses

- ▶ Laia Estalella Mercadé. Estudio de factores clínico-patológicos y valor pronóstico de la expresión subcelular de E-cadherina en metástasis hepáticas de cáncer colorectal. Directores: María Virtudes Céspedes, Vicenç Artigas, Manuel Trias. Date of defense: 15 May 2015.

Grants
Awarded
in 2015

- ▶ Ramon Mangués Bafalluy. Desenvolupament d'un nanoconjugat antimetastàtic dirigit a cèl·lules mare metastàtiques CXCR4+. 2014 PROD 00055. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2015-2017. €89,500.
- ▶ Ramon Mangués Bafalluy. Estrategias para aumentar la eficiencia metastática de los modelos animales de cáncer colorrectal. IR15-P4. Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2015-2016. €33,000.
- ▶ Ramon Mangués Bafalluy. Targeted nanoconjugates for the selective elimination of stem cells in disseminated cancer. MINECO

2015. PIE15/00028. Instituto de Salud Carlos III. Duration: 2016-2018. €660,000.

- ▶ Ramon Mangués Bafalluy Nanoconjugados inteligentes para la terapia dirigida del cáncer colorrectal (CCR) metastático. PI15/00378. Instituto de Salud Carlos III. Duration: 2016-2018. €208,000.

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

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Irene Arroyo Solera (GOA). Beca AGAUR. Desenvolupament de models metastàtics de carcinoma de cap i coll i paper de Serpina1 en disseminació. AGAUR, Generalitat de Catalunya. FI DGR-2013. Duration: 2012-2015.

National Collaborations

- ▶ Eduard Batlle, Biomedical Research Institute (IRB) and Barcelona Scientific Park (PCB).
- ▶ Roger Gomis, Biomedical Research Institute (IRB) and Barcelona Scientific Park (PCB).
- ▶ CB06/01/1031. Centro de Investigación Biomédica en Red de Bioingeniería, Biomateriales y Nanomedicina (CIBER-BBN). Instituto de Salud Carlos III. 2010-2015. €80,000-117,000/year.
- ▶ ICTS 141007: NANBIOSIS. Recognition by MINECO as Infraestructura Científica y Técnica Singular (ICTS) en Ciencias de la Salud y Biotecnología (Producción y Caracterización de Nanomateriales, Biomateriales y Sistemas en Biomedicina), Unitat de Natotoxicologia, Institut d'Investigacions Biomèdiques Sant Pau and CIBER-BBN. Coordinators: Centro de Investigación Biomédica en Red (CIBER-BBN) y Centro de Cirugía Mínima Invasiva Jesús Usón (JUSMISC). Financing agency: MINECO. Grant date: 8/10/14.
- ▶ OncoCat. Member of the Catalan Cancer Research Network. Xarxa ConnectEU, Biocat, Generalitat de Catalunya.
- ▶ NanoBioMed. Member of the Catalan 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 Research and Treatment, Candioli, Turin (Italy).
- ▶ Arne Östman, Cancer Center Karolinska, Karolinska Institutet, Stockholm (Sweden).
- ▶ Alberto Bardelli, University of Torino, Medical School, Turin (Italy).
- ▶ COST Action CM1106. European Union. Chemical Approaches to Targeting Drug Resistance in Cancer Stem Cells. EU RTD Framework Programme. MC Member: Ramon Mangués. Management Committee Member & Biology and Pharmacology Working Group Member, Duration: 28/03/12-27/03/16.
- ▶ ATMP-EATRIS, European Union. Member of the Working Group on Advanced therapies and biologicals of ATMP (Advanced Therapy Medicinal Products), EATRIS (European Infrastructure for Translational Medicine) Network.
- ▶ ETP Nanomedicine, European Union, Member of the European Technology Platform on Nanomedicine.
- ▶ TME-AACR member. Member of the Tumor Microenvironment Working Group, American Association for Cancer Research (AACR).

Oncogenesis and Antitumour Drugs

*TIF: 64.5510 **MIF: 7.1723

Scientific Production

Alamo P, Gallardo A, Di Nicolantonio F, Pavon M.A., Casanova I, Trias M., Mangues M.A., Lopez-Pousa A, Villaverde A, Vazquez E., Bardelli A., Cespedes M.V., Mangues R., Higher metastatic efficiency of KRas G12V than KRas G13D in a colorectal cancer model. (2015) FASEB J, 29 (2), 464-476.

IF: 5.2990

De la Torre C, Casanova I, Acosta G, Coll C, Moreno MJ, Albericio F, Aznar E, Mangues R, Royo M, Sancenón F, Martínez-Máñez R. Gated Mesoporous Silica Nanoparticles Using a Double-Role Circular Peptide for the Controlled and Target-Preferential Release of Doxorubicin in CXCR4-expressing Lymphoma cells. (2015) ADV FUNCT MATER, 25(5), 687-695.

IF: 10.3000

Moreno M.J., Bosch R, Dieguez-Gonzalez R, Novelli S., Mozos A., Gallardo A., Pavon M.A., Cespedes M.V., Granena A., Alcoceba M., Blanco O., Gonzalez-Diaz M., Sierra J., Mangues R., Casanova I., CXCR4 expression enhances diffuse large B cell lymphoma dissemination and decreases patient survival. (2015) J PATHOL, 235 (3), 445-455.

IF: 7.3810

Pavon M.A., Arroyo-Solera I., Tellez-Gabriel M., Leon X., Viros D., Lopez M., Gallardo A., Cespedes M.V., Casanova I., Lopez-Pousa A., Mangues M.A., Quer M., Barnadas A., Mangues R., Enhanced cell migration and apoptosis resistance may underlie the association between high SERPINE1 expression and poor outcome in head and neck carcinoma patients. (2015) ONCOTARGET, 6 (30), 29016-29033.

IF: 5.0080

Rueda F., Cespedes M.V., Conchillo-Sole O., Sanchez-Chardi A., Seras-Franzoso J., Cubarsi R., Gallardo A., Pesarrodona M., Ferrer-Miralles N., Daura X., Vazquez E., Garcia-Fruitos E., Mangues R., Unzueta U., Villaverde A., Bottom-Up Instructive Quality Control in the Biofabrication of Smart Protein Materials. (2015) ADV MATER, 27 (47), 7816-7822.

IF: 18.9600

Targarona Soler E.M., Jover Navalon J.M., Gutierrez Saiz J., Turrado Rodriguez V., Parrilla Paricio P., Targarona E.M., Torres A.J., Gallego J.L., Pacheco D., Salvador-Sanchis J.L., Hernandez E., Lucena J.L., del Riego F.J., Jover J.M., Pina J., Saavedra D., The surgical experience of general surgery residents: An

analysis of the applicability of the specialty program in General and Digestive Surgery. (2015) CIR ESPAN, 93 (3), 152-158.

IF: 1.0000

Unzueta U., Cespedes M.V., Vazquez E., Ferrer-Miralles N., Mangues R., Villaverde A., Towards protein-based viral mimetics for cancer therapies. (2015) TRENDS BIOTECHNOL, 33 (5), 253-258.

IF: 12.0650

Xu Z., Cespedes M.V., Unzueta U., Alamo P, Pesarrodona M., Mangues R., Vazquez E., Villaverde A., Ferrer-Miralles N., Targeting low-density lipoprotein receptors with protein-only nanoparticles. (2015) J NANOPART RES, 17 (3).

IF: 2.1010

Xu Z., Unzueta U., Roldan M., Mangues R., Sanchez-Chardi A., Ferrer-Miralles N., Villaverde A., Vazquez E., Formulating tumor-homing peptides as regular nanoparticles enhances receptor-mediated cell penetrability. (2015) MATER LETT, 154, 140-143.

IF: 2.4370

Haematological Diagnosis

Coordinator

Nomdedéu Guinot,
Josep Francesc FGS
jnomdedeu@santpau.cat

Members

Aventín Artisan, Ana María FGS
Ayats Aubert, Ramon FGS
Bussaglia Petrillo,
Elena Mart FGS
Carricondo Morcillo, Maite
Espadaler Pare, Montserrat FGS
Estivill Riezu, María 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
Remacha Sevilla,
Ángel Francisco FGS
Rubio Olmos, Miguel Ángel IR
Sardà Vidal, Maria Pilar FGS
Serra Ferrer, Marta FGS
Úbeda Rodenas, José FGS



Main Lines of Research

Malignant Haemopathologies

- ▶ Diagnostic activities: morphological, immunophenotyping, cytogenetic and molecular characterization (particularly of acute leukaemias).
- ▶ Biological characteristics responding to therapy.
- ▶ New treatments using cell line models aimed at molecular targets.
- ▶ Genomic (microarrays) and proteomic platforms for diagnosis.
- ▶ Murine models development.

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.

Challenges

- ▶ Consolidate characterization of haematological tumours and complex, rare and genetic noncancerous haematopathologies.
- ▶ 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.
- ▶ Develop functional cell culture and animal (murine) models.
- ▶ 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 haematology, pathology, gastrointestinal, haemostasis 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 Group

- ▶ Oncology / Haematology and Transplantation (PI: Jordi Sierra).
- ▶ Genetic Diseases (PI: Montserrat Baiget).
- ▶ Molecular Bases of Disease (PI: Pablo Fuentes Prior).

External Collaborations

- ▶ Dr. Anna Bigas, IMIM Hospital del Mar.
- ▶ Dr. Pablo Menéndez, Josep Carreras Foundation (Hospital Clínic).
- ▶ Dr. Alberto Villanueva, IDIBELL-Bellvitge Biomedical Research Institute.

Active Grants

► Josep Francesc Nomdedéu Guinot. Niveles de ARNm de WT1 en neoplasias mieloides. Aplicación de los métodos de PCR digital en la estratificación pronóstica y en el manejo de las recaídas. PI13/02729. Instituto de Salud Carlos III. Duration: 2014-2016. €57,500.

► Josep Francesc Nomdedéu Guinot. Diagnostic Hematologic. 2014 SGR 383. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016. €30,000.

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

*TIF: 68.0700 **MIF: 3.7817

Scientific Production

Aulinas A., Colom C., Garcia Patterson A., Ubeda J., Maria M.A., Orellana I., Adelantado J.M., de Leiva A., Corcoy R., Smoking affects the oral glucose tolerance test profile and the relationship between glucose and HbA1c in gestational diabetes mellitus. (2015) DIABETIC MED.

IF: 3.1520

Baeza-Richer C., Arroyo-Pardo E., Blanco-Rojo R., Toxqui L., Remacha A., Vaquero M.P., Lopez-Parra A.M., Genetic contribution to iron status: SNPs related to iron deficiency anaemia and fine mapping of CACNA2D3 calcium channel subunit. (2015) BLOOD CELL MOL DIS, 55 (4), 273-280.

IF: 2.7310

Civaschi E., Pujol-Moix N., Klersy C., Melazzini F., Pujol-Moix N., Santoro C., Cattaneo M., Lavenu-Bombled C., Bury L., Minuz P., Nurdén P., Cid A.R., Cuker A., Latger-Cannard V., Favier R., Nichele I., Noris P., Analysis of 65 pregnancies in 34 women with five different forms of inherited platelet function disorders. (2015) BRIT J HAEMATOL, 170 (4), 559-563.

IF: 5.4010

De Quintana-Schmidt C., Alvarez-Holzapfel M.J., Nomdedeu-Guinot J., Bague-Rosell S., Gallego-Rubio O., Leidingner A., Salgado-Lopez L., Molet-Teixido J., Isocitrate dehydrogenase type I mutation as a prognostic factor in glioblastoma and a literature review. (2015) NEUROCIROGIA, 26 (6), 276-283.

IF: 0.4100

Diaz-Beya M., Brunet S., Nomdedeu J., Cordeiro A., Tormo M., Escoda L., Ribera J.M., Arnán M., Heras I., Gallardo D., Bargay J., Queipo De Llano M.P., Salamero O., Martí J.M., Sampol A., Pedro C., Hoyos M., Pratcorona M., Castellano J.J., Nomdedeu M., Risueno R.M., Sierra J., Monzo M., Navarro A., Esteve J., The expression level of BAALC-associated microRNA miR-3151 is an independent prognostic factor in younger patients with cytogenetic intermediate-risk acute myeloid leukemia. (2015) BLOOD CANCER J, 5, e352-.

IF: 4.4110

Diaz-Beya M., Brunet S., Nomdedeu J., Pratcorona M., Cordeiro A., Gallardo D., Escoda L., Tormo M., Heras I., Ribera J.M., Duarte R., de Llano M.P.Q., Bargay J., Sampol A., Nomde-

deu M., Risueno R.M., Hoyos M., Sierra J., Monzo M., Navarro A., Esteve J., The lincRNA HOTAIRM1, located in the HOXA genomic region, is expressed in acute myeloid leukemia, impacts prognosis in patients in the intermediate-risk cytogenetic category, and is associated with a distinctive microRNA signature. (2015) ONCOTARGET, 6 (31), 31613-31627.

IF: 5.0080

García-Dabrio M.C., Hoyos M., Brunet S., Tormo M., Ribera J.-M., Esteve J., Gallardo D., Duarte R.F., de Llano M.P., Bargay J., Martitutusaus J.M., Heras I., García A., Salamero O., Aventin A., Lecrevisse Q., Orfao A., Sierra J., Nomdedeu J.F., Complex measurements may be required to establish the prognostic impact of immunophenotypic markers in AML. (2015) AM J CLIN PATHOL, 144 (3), 484-492.

IF: 2.2780

Gonzalez-Gascon y Marin I., Hernandez-Sanchez M., Rodriguez-Vicente A.-E., Sanzo C., Aventin A., Puiggros A., Collado R., Heras C., Munoz C., Delgado J., Ortega M., Gonzalez M.-T., Marugan I., de la Fuente I., Recio I., Bosch F., Espinet B., Gonzalez M., Hernandez-Rivas J.-M., Hernandez J.-A., A high proportion of cells carrying trisomy 12 is associated with a worse outcome in patients with chronic lymphocytic leukemia. (2015) HEMATOL ONCOL.

IF: 3.4940

Larocca L.M., Heller P.G., Podda G., Pujol-Moix N., Glembotsky A.C., Pecci A., Alberelli M.A., Balduini C.L., Landolfi R., Cattaneo M., De Candia E., Megakaryocytic emperipolesis and platelet function abnormalities in five patients with gray platelet syndrome. (2015) PLATELETS, 26 (8), 751-757.

IF: 3.2130

Menendez J.A., Benboudjema L., Vellon L., Rubio M.A., Espinoza I., Campisi J., Lupu R., Heregulin, a new interactor of the telosome/shelterin complex in human telomeres. (2015) ONCOTARGET, 6 (37), 39408-39421.

IF: 5.0080

Menendez J.A., Rubio M.A., Campisi J., Lupu R., Heregulin, a new regulator of telomere length in human cells. (2015) ONCOTARGET, 6 (37), 39422-39436.

IF: 5.0080

Munoz Gomez M., Bisbe Vives E., Basora Macaya M., Garcia Erce J.A., Gomez Luque A., Leal-Noval S.R., Colomina M.J., Comin Colet J., Contreras Barbata E., Cuenca Espierrez J., Garcia de Lorenzo y Mateos A., Gomollon Garcia F., Izuel Rami M., Moral Garcia M.V., Montoro Ronsano J.B., Paramo Fernandez J.A., Pereira Saavedra A., Quintana Diaz M., Remacha Sevilla A., Salinas Argente R., Sanchez Perez C., Tirado Angles G., Torrabadella de Reinoso P., Forum for debate: Safety of allogeneic blood transfusion alternatives in the surgical/critically ill patient. (2015) MED INTENSIVA, 39 (9), 552-562.

IF: 1.1930

Oliveras V., Martin-Baranera M., Gracia M., Del Val J.L., Plans M., Pujol-Moix N., The relevance of the ankle-arm index to the reclassification of cardiovascular risk in asymptomatic hypertensive middle-aged males. (2015) MED CLIN-BARCELONA, 144 (10), 435-439.

IF: 1.2670

Pujol-Moix N., Vazquez-Santiago M., Morera A., Ziyatdinov A., Remacha A., Nomdedeu J.F., Fontcuberta J., Soria J.M., Souto J.C., Genetic determinants of Platelet Large-Cell Ratio, Immature Platelet Fraction, and other platelet-related phenotypes. (2015) THROMB RES, 136 (2), 361-366.

IF: 2.3200

Remacha A.F., Arrizabalaga B., Villegas A., Duran M.S., Hermosin L., de Paz R., Garcia M., Diez Campelo M., Sanz G., Evolution of iron overload in patients with low-risk myelodysplastic syndrome: iron chelation therapy and organ complications. (2015) ANN HEMATOL, 94 (5), 779-787.

IF: 3.0220

Remacha A.F., Wright I., Fernandez-Jimenez M.C., Toxqui L., Blanco-Rojo R., Moreno G., Vaquero M.P., Vitamin B12 and folate levels increase during treatment of iron deficiency anaemia in young adult woman. (2015) INT J LAB HEMATOL, 37 (5), 641-648.

IF: 2.4010

Ribera J., Morgades M., Zamora L., Montesinos P., Gomez-Segui I., Pratcorona M., Sarra J., Guardia R., Nomdedeu J., Tormo M., Martinez-Lopez J., Hernandez-Rivas J.-M., Gonzalez-Campos J., Barba P., Escoda L., Genesca E., Sole F., Milla F., Feliu E., Ribera J.-M., Prognostic significance of copy number alterations in adolescent and adult patients with

Haematological Diagnosis

*TIF: 68.0700 **MIF: 3.7817

Scientific Production

precursor B acute lymphoblastic leukemia enrolled in PETHEMA protocols. (2015) CANCER-AM CANCER SOC, 121 (21), 3809-3817.

IF: 5.6490

White H., Deprez L., Corbisier P., Hall V., Lin F., Mazoua S., Trapmann S., Aggerholm A., Andrikovics H., Akiki S., Barbany G., Boeckx N., Bench A., Catherwood M., Cayuela J.-M., Chudleigh S., Clench T., Colomer D., Daraio F.,

Dulucq S., Farrugia J., Fletcher L., Foroni L., Ganderton R., Gerrard G., Gineikiene E., Hayette S., El Housni H., Izzo B., Jansson M., Johnels P., Jurcek T., Kairisto V., Kizilors A., Kim D.-W., Lange T., Lion T., Polakova K.M., Martinelli G., Mccarron S., Merle P.A., Milner B., Mitterbauer-Hohendanner G., Nagar M., Nickless G., Nomdedeu J., Nymoed D.A., Leibundgut E.O., Ozbek U., Pajic T., Pfeifer H., Preudhomme C., Raudsepp K., Romeo G.,

Sacha T., Talmaci R., Touloumenidou T., Van Der Velden V.H.J., Waits P., Wang L., Wilkinson E., Wilson G., Wren D., Zadro R., Ziermann J., Zoi K., Muller M.C., Hochhaus A., Schimmel H., Cross N.C.P., Emons H., A certified plasmid reference material for the standardisation of BCR-ABL1 mRNA quantification by real-time quantitative PCR. (2015) LEUKEMIA, 29 (2), 369-376.

IF: 12.1040

Molecular Pathology of Gynaecologic Cancer

Coordinator

Prat Díaz de Losada, Jaime FGS
jprat@santpau.cat

Members

Bértolo Martín
de Rosales, Cristina IR
D'angelo, Emanuela FGS
Espinosa Mariscal, Íñigo FGS
García-Valdecasas
Vilanova, Bárbara FGS
González Vidal, Alan FGS
Lerma Puertas, Enrique FGS
Muñoz Beatove, Josefina FGS
Nagel Moyano, María Jesús IR
Pascual García, Mónica IR
Pau Colomer, Laia
Pons Pérez, Cristina FGS
Rodríguez Santas,
María del Valle FGS
Serrat Aymerich,
María Nieves IR
Szafranska, Justyna FGS
Vásquez Gámez,
Celina Paola FGS
Vázquez del Olmo, Tania IR



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.

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.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Experimental Immunology (Silvia Vidal).

External Collaborations

Molecular alterations related with progression in endometrial cancer (Spanish Association Against Cancer, AECC):

- ▶ Dr. Jaume Reventós, Vall d'Hebron Hospital Research Institute (VHIR), Barcelona, Spain.
- ▶ Dr. Xavier Matias-Guiu, Institute for Biomedical Research (IRB Lleida), Lleida, Spain.
- ▶ Dr. Miguel Abal, Santiago de Compostela University Hospital Complex (CHUS), Spain.
- ▶ Dr. Gema Moreno, Fundación MD Anderson Internacional, Madrid, Spain.

Active Grants

- ▶ Jaime Prat Díaz de Losada. Alteraciones moleculares relacionadas con la progresión tumoral en el cáncer de endometrio. AECC 2011. Asociación Española contra el Cáncer. Duration: 2011-2016. €262,000.
- ▶ Jaime Prat Díaz de Losada. Agreement ICO. ICO 2011. Duration: 2008-2016. €109,090.88.
- ▶ Íñigo Espinosa Mariscal. La importancia de la vía CSF1 en los leiomiomas uterinos. PI12/01645. Instituto de Salud Carlos III. Duration: 2013-2016. €70,000.
- ▶ Jaime Prat Díaz de Losada. Red Temática de Investigación Cooperativa en Cáncer (RTICC). RD12/0036/0011. Instituto de Salud Carlos III. Duration: 2013-2016. €160,000.

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

- Jaime Prat. Method to predict risk of recurrence in endometrial carcinoma. Application number: PCT/EP2015/053387.

*TIF: 61.9990 **MIF: 3.6470

Alonso-Alconada L., Santacana M., Garcia-Sanz P., Muinelo-Romay L., Colas E., Mirantes C., Monge M., Cueva J., Oliva E., Soslów R.A., Lopez M.A., Palacios J., Prat J., Valls J., Krakstad C., Salvesen H., Gil-Moreno A., Lopez-Lopez R., Dolcet X., Moreno-Bueno G., Reventos J., Matias-Guiu X., Abal M., Annexin-A2 as predictor biomarker of recurrent disease in endometrial cancer. (2015) INT J CANCER, 136 (8), 1863-1873.

IF: 5.5310

Auguste A, Bessièrè L, Todeschini AL, Caburet S, Sarnacki S, Prat J, D'Angelo E, de la Grange P, Ariste O, Lemoine F, Legois B, Sultan C, Zider A, Galmiche L, Kalfa N, Veitia RA. Molecular analyses of juvenile granulosa cell tumors bearing AKT1 mutations provide insights into tumor biology and therapeutic leads. (2015) Hum Mol Genet, 24, 6687-6698.

IF: 6.3930

Binder P.S., Prat J., Mutch D.G., Molecular staging of gynecological cancer: What is the future?. (2015) BEST PRACT RES CL OB, 29 (6), 776-789.

IF: 2.2910

Cortes-Vicente E., Delgado-Mederos R., Bellmunt S., Borrás X.F., Gomez-Anson B., Bague S., Camps-Renom P., Marti-Fabregas J., Stroke caused by a myxoma stenosing the common carotid artery. (2015) J STROKE CEREBROVASC, 24 (4), e87-e89.

IF: 1.5990

de Gonzalo-Calvo D., Lopez-Vilaro L., Nasarre L., Perez-Olabarria M., Vazquez T., Escuin D., Badimon L., Barnadas A., Lerma E., Llorente-Cortes V., Intratumor cholesteryl ester accumulation is associated with human breast cancer proliferation and aggressive potential: A molecular and clinicopathological study. (2015) BMC CANCER, 15 (1).

IF: 3.2650

De Quintana-Schmidt C., Alvarez-Holzapfel M.J., Nomdedeu-Guinot J., Bague-Rosell S., Gallego-Rubio O., Leidingger A., Salgado-Lopez L., Molet-Teixido J., Isocitrate dehydrogenase type I mutation as a prognostic factor in glioblastoma and a literature review. (2015) NEUROCIROGIA, 26 (6), 276-283.

IF: 0.4100

Espinosa I., Gallardo A., D'Angelo E., Mozos A., Lerma E., Prat J., Simultaneous carcino-

mas of the breast and ovary: Utility of Pax-8, WT-1, and GATA3 for distinguishing independent primary tumors from metastases. (2015) INT J GYNECOL PATHOL, 34 (3), 257-265.

IF: 1.4370

Guo X., Jo V.Y., Mills A.M., Zhu S.X., Lee C.-H., Espinosa I., Nucci M.R., Varma S., Forgo E., Hastie T., Anderson S., Ganjoo K., Beck A.H., West R.B., Fletcher C.D., Van De Rijn M., Clinically relevant molecular subtypes in leiomyosarcoma. (2015) CLIN CANCER RES, 21 (15), 3501-3511.

IF: 8.7380

Mancikova V., Castelblanco E., Pineiro-Yanez E., Perales-Paton J., De Cubas A.A., Inglada-Perez L., Matias-Guiu X., Capel I., Bella M., Lerma E., Riesco-Eizaguirre G., Santisteban P., Maravall F., Mauricio D., Al-Shahrour F., Robledo M., MicroRNA deep-sequencing reveals master regulators of follicular and papillary thyroid tumors. (2015) MODERN PATHOL, 28 (6), 748-757.

IF: 5.4850

Mato E., Barcelo-Batlloiri S., Orera I., Selva L., Corra M., Gonzalez C., Bell O., Lerma E., Moral A., Perez J.I., de Leiva A., The proteomic 2D-DIGE approach reveals the protein voltage-dependent anion channel 2 as a potential therapeutic target in epithelial thyroid tumours. (2015) MOL CELL ENDOCRINOL, 404, 37-45.

IF: 3.8590

Moreno M.J., Bosch R., Dieguez-Gonzalez R., Novelli S., Mozos A., Gallardo A., Pavon M.A., Cespedes M.V., Granena A., Alcoceba M., Blanco O., Gonzalez-Diaz M., Sierra J., Mangues R., Casanova I., CXCR4 expression enhances diffuse large B cell lymphoma dissemination and decreases patient survival. (2015) J PATHOL, 235 (3), 445-455.

IF: 7.3810

Perez-Balaguer A., Ortiz-Martinez F., Garcia-Martinez A., Pomares-Navarro C., Lerma E., Peiro G., FOXA2 mRNA expression is associated with relapse in patients with Triple-Negative/Basal-like breast carcinoma. (2015) BREAST CANCER RES TR, 153 (2), 465-474.

IF: 4.0850

Prat J., Belhadj H., Berek J., Bermudez A., Bhatla N., Cain J., Denny L., Fujiwara K., Hacker N., Avall-Lundqvist E., Mutch D.,

Odicino F., Pecorelli S., Prat J., Quinn M., Seoud M.A.-F., Shrivastava S.K., Figo's staging classification for cancer of the ovary, fallopian tube, and peritoneum: Abridged republication. (2015) J GYNECOL ONCOL, 26 (2), 87-89.

IF: 2.5220

Prat J., Abridged republication of FIGO's staging classification for cancer of the ovary, fallopian tube, and peritoneum. (2015) EUR J OBSTET GYN R B, 188, 133-135.

IF: 1.6620

Prat J., Belhadj H., Berek J., Bermudez A., Bhatla N., Cain J., Denny L., Fujiwara K., Hacker N., Avall-Lundqvist E., Mutch D., Odicino F., Pecorelli S., Prat J., Quinn M., Seoud M.A.-F., Shrivastava S.K., Abridged republication of FIGO's staging classification for cancer of the ovary, fallopian tube, and peritoneum. (2015) EUR J GYNAECOL ONCOL, 36 (4), 367-369.

IF: 0.5800

Prat J., Ovarian, fallopian tube and peritoneal cancer staging: Rationale and explanation of new FIGO staging 2013. (2015) BEST PRACT RES CL OB, 29 (6), 858-869.

IF: 2.2910

Sanchez E., Nieto J.C., Boullosa A., Vidal S., Sancho F.J., Rossi G., Sancho-Bru P., Oms R., Mirelis B., Juarez C., Guarner C., Soriano G., VSL#3 probiotic treatment decreases bacterial translocation in rats with carbon tetrachloride-induced cirrhosis. (2015) LIVER INT, 35 (3), 735-745.

IF: 4.4700

Ear, Nose and Throat Cancers

Coordinator

Quer Agustí, Miquel FGS
mquer@santpau.cat

Members

Bothe González, Carolina FGS
De Juan Beltran, Julia FGS
García Lorenzo, Jacinto FGS
Gras Cabrerizo, Juan Ramon FGS
Kolanczak, Katarzyna Alicja FGS
Leon Vintro, Xavier FGS
Lop Gros, Joan FGS
López Vilas, Montserrat FGS
Massegur Solench, Humbert
Montserrat Gili,
Joan Ramon FGS
Orús Dotu, César 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.

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 Leon Vintro. 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: 2015-2017. €71,500.

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

*TIF: 20.3950 **MIF: 4.0790

Camacho M., Pineiro Z., Alcolea S., Garcia J., Balart J., Terra X., Aviles-Jurado F.-X., Soler M., Quer M., Leon X., Vila L., Prostacyclin-synthase expression in head and neck carcinoma patients and its prognostic value in the response to radiotherapy. (2015) J PATHOL, 235 (1), 125-135.

IF: 7.3810

Gras-Cabrerizo J.R., Leon-Vintro X., Tarruella M.M., Sarria G.P., Gonzalez C.B., Montserrat-Gili J.R., Kolanczak K., Massegur-Solench H., Management of sinonasal mucosal melanomas and comparison of classification staging systems. (2015) AM J RHINOL ALLERGY, 29 (1), e37-e40.

IF: 1.9600

Leon X., Aguero A., Lopez M., Garcia J., Farre N., Lopez-Pousa A., Quer M., Salvage surgery after local recurrence in patients with head and neck carcinoma treated with chemoradiotherapy or bioradiotherapy. (2015) AURIS NASUS LARYNX, 42 (2), 145-149.

IF: 1.0380

Leon X., Bothe C., Garcia J., Parreno M., Alcolea S., Quer M., Vila L., Camacho M., Expression of IL-1 α correlates with distant metastasis in patients with head and neck squamous cell carcinoma. (2015) ONCOTARGET, 6 (35), 37398-37409.

IF: 5.0080

Pavon M.A., Arroyo-Solera I., Tellez-Gabriel M., Leon X., Viros D., Lopez M., Gallardo A., Cespedes M.V., Casanova I., Lopez-Pousa A., Mangues M.A., Quer M., Barnadas A., Mangues R., Enhanced cell migration and apoptosis resistance may underlie the association between high SERPINE1 expression and poor outcome in head and neck carcinoma patients. (2015) ONCOTARGET, 6 (30), 29016-29033.

IF: 5.0080

Oncology/Haematology and Transplantation

Coordinator

Sierra Gil, Jordi FGS
jsierra@santpau.cat

Members

Álvarez Fernández, Carmen IR
Ballarín Laliena, Gemma FGS
Barata Badiella, Anna IR
Borrell Gallardo, Silvia IR
Bosch Godia, Rosa Maria IR
Briones Meijide, Javier FGS
Brunet Mauri, Maria Salut FGS
Caballero González,
Ana Carolina FGS
Canaleta Ros, Cristina FGS
Corriguelas Armillas, Helena IR
Cortes Barba, Susana FGS
De Rueda Gamboa,
María Jéssica IR
Escriba García, Laura IR
Esquirol Sanfeliu, Albert IR
García Cadenas, Irene FGS
Garrido Díaz, Anna IR
Granell Gorrochategui,
Miguel FGS
Hoyos Colell, Montserrat IR
Martino Bofarull, Rodrigo FGS
Miqueleiz Álamos, Sara IR
Monter Rovira, Anna FGS
Mora Raya, Alba
Moreno Atanasio, Carolina FGS
Novelli Canales,
Silvana Ana Rina FGS
Pallares López, Manuel Víctor IR
Rosal Muntadas-Prim,
Maria Josefa IR
Rovira Brugués, Sandra IR
Saavedra Gerosa,
Silvana Daniela FGS
Sanz Cobos, Patricia IR
Vicente Pascual, Eva Puy IR
Vilalta Seto, Noelia 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.

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 pathophysiology and test new drugs (with the Oncogenesis and Antitumour Drugs group).
- ▶ Molecularly characterize and determine the prognostic significance of cell pathophysiology 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 Mangués).
- ▶ Haematological Diagnosis (Dr. Josep Nomdedéu).
- ▶ Microbiology and Infectious Diseases (Dr. Pere Coll).

External Collaborations

- ▶ Haematologic cancer programme groups, Carlos III Health Institute Cooperative Cancer Research Network (RTICC): J. Sierra, coordinator.

- ▶ 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: coordinator, S. Brunet.
- ▶ European Leukaemia Network of Excellence groups.

Active Grants

- ▶ Maria Salut Brunet Mauri. Tratamiento de la leucemia mieloide aguda de novo con la combinación de idarubicina en dosis creciente, citarabina y sensibilización (“priming”) con GCSF. Estudio prospectivo en fase I/II de toxicidad y eficacia. EC11-364. Ministerio de Sanidad y Política Social. Duration: 2012-2016. €93,135.
- ▶ Jordi Sierra Gil. Red Temática de Investigación Cooperativa en Cáncer (RTICC). RD12/0036/0071. Instituto de Salud Carlos III. Duration: 2013-2016. €321,500.
- ▶ Javier Briones Meijide. Memory stem T cells transduced with a chimeric antigen receptor targeting CD30 for the treatment of hodgkin lymphoma. 20130710. Fundació La Marató de TV3. Duration: 2014-2017. €153,970.
- ▶ Manuel Víctor Pallarés López. Contratos Sara Borrell 2013. CD13/00074. Instituto de Salud Carlos III. Duration: 2014-2017. €80,598.
- ▶ 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: 2015-2017. €19,500.

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

Grants Awarded in 2015

- ▶ Jordi Sierra Gil. Grup de diagnòstic i tractament de les neoplàsies hematològiques. 2014 SGR 1281. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2015-2016. €18,000.
- ▶ 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. €37,805.88.
- ▶ 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: 2015-2018. €112,138.60.
- ▶ 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: 2015-2017. €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: 2015-2017. €190,000.

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

*TIF: 184.5090 **MIF: 5.2717

Scientific Production

Arai S., Arora M., Wang T., Spellman S.R., He W., Couriel D.R., Urbano-Ispizua A., Cutler C.S., Bacigalupo A.A., Battiwalla M., Flowers M.E., Juckett M.B., Lee S.J., Loren A.W., Klumpp T.R., Prockup S.E., Ringden O.T.H., Savani B.N., Socie G., Schultz K.R., Spitzer T., Teshima T., Bredeson C.N., Jacobsohn D.A., Hayashi R.J., Drobyski W.R., Frangoul H.A., Akpek G., Ho V.T., Lewis V.A., Gale R.P., Koreth J., Chao N.J., Aljurf M.D., Cooper B.W., Laughlin M.J., Hsu J.W., Hematti P., Verdonck L.F., Solh M.M., Norkin M., Reddy V., Martino R., Gadalla S., Goldberg J.D., McCarthy P.L., Perez-Simon J.A., Khera N., Lewis I.D., Atsuta Y., Olsson R.F., Saber W., Waller E.K., Blaise D., Pidala J.A., Martin P.J., Satwani P., Bornhauser M., Inamoto Y., Weisdorf D.J., Horowitz M.M., Pavletic S.Z., Increasing Incidence of Chronic Graft-versus-Host Disease in Allogeneic Transplantation: A Report from the Center for International Blood and Marrow Transplant Research. (2015) BIOL BLOOD MARROW TR, 21 (2), 266-274. **IF: 3.9800**

Barba P., Martino R., Orti G., Esquirol A., Perez-Hoyos S., Sierra J., Valcarcel D., Validation of a new integrated prognostic score to predict non-relapse mortality in patients undergoing reduced-intensity conditioning allogeneic hematopoietic cell trans-

plantation. (2015) BONE MARROW TRANSPL. **IF: 3.6360**

Barba P., Martino R., Martinez-Cuadron D., Olga G., Esquirol A., Gil-Cortes C., Gonzalez J., Fernandez-Aviles F., Valcarcel D., Guardia R., Duarte R.F., Hernandez-Rivas J.M., Abella E., Montesinos P., Ribera J.M., Impact of transplant eligibility and availability of a human leukocyte antigen-identical matched related donor on outcome of older patients with acute lymphoblastic leukemia. (2015) LEUKEMIA LYMPHOMA, 56 (10), 2812-2818. **IF: 3.0930**

Baron F., Labopin M., Ruggeri A., Mohty M., Sanz G., Milpied N., Bacigalupo A., Rambaldi A., Bonifazi F., Bosi A., Sierra J., Yakoub-Agha I., Santasusana J.M.R., Gluckman E., Nagler A., Unrelated cord blood transplantation for adult patients with acute myeloid leukemia: Higher incidence of acute graft-versus-host disease and lower survival in male patients transplanted with female unrelated cord blood—a report from Eurocord, the Acute Leukemia Working Party, and the Cord Blood Committee of the Cellular Therapy and Immunobiology Working Party of the European Group for

Blood and Marrow Transplantation. (2015) J HEMATOL ONCOL. **IF: 6.2630**

Bernal T., Martinez-Cambolor P., Sanchez-Garcia J., De Paz R., Luno E., Nomdedeu B., Ardanaz M.T., Pedro C., Amigo M.L., Xicoy B., Del Canizo C., Tormo M., Bargay J., Valcarcel D., Brunet S., Benlloch L., Sanz G., Effectiveness of azacitidine in unselected high-risk myelodysplastic syndromes: Results from the Spanish registry. (2015) LEUKEMIA, 29 (9), 1875-1881. **IF: 12.1040**

Briones J., Heat-shock proteins: A c-Myc lymphoma target?. (2015) BLOOD, 125 (11), 1685-1686. **IF: 11.8410**

Castillo N., Garcia-Cadenas I., Garcia O., Barba P., Diaz-Heredia C., Martino R., Azqueta C., Ferra C., Canals C., Elorza I., Olive T., Badell I., Sierra J., Duarte R., Valcarcel D., Querol S., Few and nonsevere adverse infusion events using an automated method for diluting and washing before unrelated single cord blood transplantation. (2015) BIOL BLOOD MARROW TR, 21 (4), 682-687. **IF: 3.9800**

Castillo N., Garcia-Cadenas I., Barba P., Martino R., Azqueta C., Ferra C., Canals C., Sierra

*Total Impact Factor **Mean Impact Factor

Oncology/Haematology and Transplantation

*TIF: 184.5090 **MIF: 5.2717

J., Valcarcel D., Querol S., Post-Thaw Viable CD45+ Cells and Clonogenic Efficiency are Associated with Better Engraftment and Outcomes after Single Cord Blood Transplantation in Adult Patients with Malignant Diseases. (2015) BIOL BLOOD MARROW TR, 21 (12), 2167-2172.

IF: 3.9800

Diaz-Beya M., Brunet S., Nomdedeu J., Cordeiro A., Tormo M., Escoda L., Ribera J.M., Arnan M., Heras I., Gallardo D., Bargay J., Queipo De Llano M.P., Salamero O., Marti J.M., Sampol A., Pedro C., Hoyos M., Pratcorona M., Castellano J.J., Nomdedeu M., Risueno R.M., Sierra J., Monzo M., Navarro A., Esteve J., The expression level of BAALC-associated microRNA miR-3151 is an independent prognostic factor in younger patients with cytogenetic intermediate-risk acute myeloid leukemia. (2015) BLOOD CANCER J, 5, e352-.

IF: 4.4110

Diaz-Beya M., Brunet S., Nomdedeu J., Pratcorona M., Cordeiro A., Gallardo D., Escoda L., Tormo M., Heras I., Ribera J.M., Duarte R., de Llano M.P.Q., Bargay J., Sampol A., Nomdedeu M., Risueno R.M., Hoyos M., Sierra J., Monzo M., Navarro A., Esteve J., The lincRNA HOTAIRM1, located in the HOXA genomic region, is expressed in acute myeloid leukemia, impacts prognosis in patients in the intermediate-risk cytogenetic category, and is associated with a distinctive microRNA signature. (2015) ONCOTARGET, 6 (31), 31613-31627.

IF: 5.0080

Falantes J., Delgado R.G., Calderon-Cabrera C., Marquez-Malaver F.J., Valcarcel D., de Miguel D., Bailen A., Bargay J., Bernal T., Gonzalez-Porras J.R., Tormo M., Ramos F., Andreu R., Xicoy B., Nomdedeu B., Brunet S., Sanchez J., Jurado A.F., Bonanad S., Perez-Simon J.A., Sanz G., Multivariable time-dependent analysis of the impact of azacitidine in patients with lower-risk myelodysplastic syndrome and unfavorable specific lower-risk score. (2015) LEUKEMIA RES, 39 (1), 52-57.

IF: 2.6060

Garcia-Cadenas I., Castillo N., Martino R., Barba P., Esquirol A., Novelli S., Orti G., Garrido A., Saavedra S., Moreno C., Granell M., Briones J., Brunet S., Navarro F., Ruiz I., Rabella N., Valcarcel D., Sierra J., Impact of Epstein Barr virus-related complications after high-risk allo-SCT in the era of pre-emptive rituximab. (2015) BONE MARROW TRANSPL, 50 (4), 579-584.

IF: 3.6360

Garcia-Dabrio M.C., Hoyos M., Brunet S., Tormo M., Ribera J.-M., Esteve J., Gallardo D., Duarte R.F., de Llano M.P., Bargay J., Marti-Tutusaus J.M., Heras I., Garcia A., Salamero O.,

Aventin A., Lecrevisse Q., Orfao A., Sierra J., Nomdedeu J.F., Complex measurements may be required to establish the prognostic impact of immunophenotypic markers in AML. (2015) AM J CLIN PATHOL, 144 (3), 484-492.

IF: 2.2780

Garcia-Sanz R., Oriol A., Moreno M.J., De La Rubia J., Payer A.R., Hernandez M.T., Palomera L., Teruel A.I., Blanchard M.J., Giromella M., Ribas P., Bargay J., Abella E., Granell M., Ocio E.M., Ribera J.M., San Miguel J.F., Mateos M.V., Zoledronic acid as compared with observation in multiple myeloma patients at biochemical relapse: Results of the randomized AZABACHE Spanish trial. (2015) HAEMATOLOGICA, 100 (9), 1207-1213.

IF: 6.6710

Halter J.P., Michael W., Schupbach M., Mandel H., Casali C., Orchard K., Collin M., Valcarcel D., Rovelli A., Filosto M., Dotti M.T., Marotta G., Pintos G., Barba P., Accarino A., Ferra C., Illa I., Beguin Y., Bakker J.A., Boelens J.J., De Coo I.F.M., Fay K., Sue C.M., Nachbaur D., Zoller H., Sobreira C., Pinto Simoes B., Hammans S.R., Savage D., Marti R., Chinery P.F., Elhasid R., Gratwohl A., Hirano M., Barros Navarro G., Benoist J.F., Bierau J., Bucalossi A., Carluccio M.A., Coll-Canti J., Cotelli M.S., Diesch T., Di Fabio R., Donati M.A., Garvin J.H., Hill K., Kappeler L., Ku Hne T., Lara M.C., Lenoci M., Lucchini G., Marques W., Mattle H.P., Meyer A., Parini R., Passweg J.R., Pileri F., Rodriguez-Palmero A., Santus F., Scarpelli M., Schlessler P., Sicurelli F., Stern M., Stracieri A.B., Tonin P., Torres-Torronteras J., Voltarelli J.C., Zaidman I., Allogeneic haematopoietic stem cell transplantation for mitochondrial neurogastrointestinal encephalomyopathy. (2015) BRAIN, 138 (10), 2847-2858.

IF: 10.1030

Martino R., Bautista G., Parody R., Garcia I., Esquirol A., Rovira M., Cabrera J.R., Regidor C., Fores R., Garcia-Marco J.A., Serrano D., Barba P., Heras I., Marquez-Malaver F.J., Sanchez-Ortega I., Duarte R., Saavedra S., Sierra J., Vazquez L., Severe infections after single umbilical cord blood transplantation in adults with or without the co-infusion of CD34+ cells from a third-party donor: Results of a multicenter study from the Grupo Español de Trasplante Hematopoyético (GETH). (2015) TRANSPL INFECT DIS, 17 (2), 221-233.

IF: 1.4590

Menendez J.A., Benboudjema L., Vellon L., Rubio M.A., Espinoza I., Campisi J., Lupu R., Heregulin, a new interactor of the telosome/shelterin complex in human telomeres. (2015) ONCOTARGET, 6 (37), 39408-39421.

IF: 5.0080

Menendez J.A., Rubio M.A., Campisi J., Lupu R., Heregulin, a new regulator of telomere length in human cells. (2015) ONCOTARGET, 6 (37), 39422-39436.

IF: 5.0080

Millon Cano J.A., Vilalta Seto N., Mateo Aranz J., Souto Andres J.C., Importance of appropriate clinical management of direct oral anticoagulants. (2015) MED CLIN-BARCELONA.

IF: 1.2670

Moreno M.J., Bosch R., Dieguez-Gonzalez R., Novelli S., Mozos A., Gallardo A., Pavon M.A., Cespedes M.V., Granena A., Alcoceba M., Blanco O., Gonzalez-Diaz M., Sierra J., Manguera R., Casanova I., CXCR4 expression enhances diffuse large B cell lymphoma dissemination and decreases patient survival. (2015) J PATHOL, 235 (3), 445-455.

IF: 7.3810

Moreno C., Montillo M., Panayiotidis P., Dimou M., Bloor A., Dupuis J., Schuh A., Norin S., Geisler C., Hillmen P., Doubek M., Trneny M., Obtrlikova P., Laurenti L., Stilgenbauer S., Smolej L., Ghia P., Cymbalista F., Jaeger U., Stamatopoulos K., Stavroyianni N., Carrington P., Zouabi H., Leblond V., Gomez-Garcia J.C., Rubio M., Marasca R., Mursuraca G., Rigacci L., Farina L., Paolini R., Pospisilova S., Kimby E., Bradley C., Montserrat E., Ofatumumab in poor-prognosis chronic lymphocytic leukemia: A phase IV, non-interventional, observational study from the European research initiative on chronic lymphocytic leukemia. (2015) HAEMATOLOGICA, 100 (4), 511-516.

IF: 6.6710

Moreno C., Chronic lymphocytic leukemia and the Warburg effect. (2015) BLOOD, 125 (22), 3368-3369.

IF: 11.8410

Noriega V., Martinez-Laperche C., Buces E., Pion M., Sanchez-Hernandez N., Martin-Antonio B., Guillem V., Bosch-Vizcaya A., Bento L., Gonzalez-Rivera M., Balsalobre P., Kwon M., Serrano D., Gayoso J., De La Camara R., Brunet S., Rojas-Contreras R., Nieto J.B., Martinez C., Gonzalez M., Espigado I., Vallejo J.C., Sampol A., Jimenez-Velasco A., Urbano-Ispizua A., Solano C., Gallardo D., Diez-Martin J.L., Buno I., The genotype of the donor for the (GT)_n polymorphism in the promoter/enhancer of FOXP3 is associated with the development of severe acute GVHD but does not affect the GVL effect after myeloablative HLA-identical allogeneic stem cell transplantation. (2015) PLOS ONE, 10 (10).

IF: 3.0570

Novelli S., Sierra J., Briones J., New therapies in non-Hodgkin lymphoma. (2015) EXPERT REV ANTICANC, 15 (3), 349-359.

IF: 2.0940

*TIF: 184.5090 **MIF: 5.2717

Novelli S., Briones J., Flotats A., Sierra J., PET/CT assessment of follicular lymphoma and high grade B cell lymphoma - Good correlation with clinical and histological features at diagnosis. (2015) *ADV CLIN EXP MED*, 24 (2), 325-330.

IF: 1.1270

Ocio E.M., Herrera P., Olave M.-T., Castro N., Perez-Simon J.A., Brunet S., Oriol A., Mateo M., Sanz M.-A., Lopez J., Montesinos P., Chillón M.-C., Prieto-Conde M.-I., Diez-Campelo M., Gonzalez M., Vidriales M.-B., Mateos M.-V., San Miguel J.F., Panobinostat as part of induction and maintenance for elderly patients with newly diagnosed acute myeloid leukemia: Phase Ib/II panobidara study. (2015) *HAEMATOLOGICA*, 100 (10), 1294-1300.

IF: 6.6710

Orti G., Sanz J., Bermudez A., Caballero D., Martinez C., Sierra J., Cabrera Marin J.R., Espigado I., Solano C., Ferrá C., Garcia-Noblejas A., Jimenez S., Sampol A., Yanez L., Garcia-Gutierrez V., Pascual M.J., Jurado M., Moraleda J.M., Valcarcel D., Sanz M.A., Carreras E., Duarte R.F., Outcome of Second Allogeneic Hematopoietic Cell Transplantation after Relapse of Myeloid Malignancies following Allogeneic Hematopoietic Cell Transplantation: A Retrospective Cohort on Behalf of the Grupo Español de Trasplante Hematopoyetico. (2015) *BIOL BLOOD MARROW TR*.

IF: 3.9800

Parody R., Lopez-Corral L., Godino O.L., Cadenas I.G., Martinez A.P., Vazquez L., Martino R., Martinez C., Solano C., Barba P., Valcarcel D., Caballero-Velazquez T., Marquez-Malaver F.J., Sierra J., Caballero D., Perez-Simon J.A., GVHD prophylaxis with sirolimus-tacrolimus may overcome the deleterious effect on survival of HLA mismatch after reduced-intensity conditioning allo-SCT. (2015) *BONE MARROW TRANSPL*, 50 (1), 121-126.

IF: 3.6360

Pavon M.A., Arroyo-Solera I., Tellez-Gabriel M., Leon X., Viros D., Lopez M., Gallardo A., Cespedes M.V., Casanova I., Lopez-Pousa A., Mangues M.A., Quer M., Barnadas A., Mangues R., Enhanced cell migration and apoptosis resistance may underlie the association between high SERPINE1 expression and poor outcome in head and neck carcinoma patients. (2015) *ONCOTARGET*, 6 (30), 29016-29033.

IF: 5.0080

Ramos F., Thepot S., Pleyer L., Maurillo L., Itzykson R., Bargay J., Stauder R., Venditti A., Seegers V., Martinez-Robles V., Burgstaller S., Recher C., Deben G., Gaidano G., Gardin C., Musto P., Greil R., Sanchez-Guijo F., Fenaux P., Thepot S., Recher C., Raffoux E., Quesnel B., Delaunay J., Cluzeau T., Koka A.M., Stamatoullas A., Chaury M.-P., Gyan E., Cheze S., Banos A., Morel P., Plantier I., Taksin A.-L., Shanti A., Sanhes L., De Botton S., Marolleau J.P., Pautas C., Wattel E., Isnard F., Guerci A., Vey N., Dreyfus F., Ifrah N., Ades L., Martinez-Robles V., Deben G., Garrido A., Casano J., Salamero O., Bergua J.M., Colado E., Garcia R., Pedro C., Redondo S., Tormo M., Bonanad S., Diez-Campelo M., Perez-Encinas M., de la Fuente A., Xicoy B., Falantes J.F., Font P., Gonzalez-Lopez T.J., Martin-Nunez G., Montesinos P., Sanchez-Guijo F., Pleyer L., Burgstaller S., Schreder M., Tinchon C., Pfeilstoecker M., Steinkirchner S., Melchardt T., Mitrovic M., Girschikofsky M., Lang A., Krippel P., Sliwa T., Egle A., Linkesch W., Voskova D., Angermann H., Spagnoli A., Lunghi M., Pietrantonio G., Villani O., Azacitidine frontline therapy for unfit acute myeloid leukemia patients: Clinical use and outcome prediction. (2015) *LEUKEMIA RES*, 39 (3), 296-306.

IF: 2.6060

Rossi D., Terzi-Di-Bergamo L., De Paoli L., Cerri M., Ghilardi G., Chiarenza A., Bulian P., Visco C., Mauro F.R., Morabito F., Cortelezzi A., Zaja F., Forconi F., Laurenti L., Del Giudice I., Gentile M., Vincelli I., Motta M., Coscia M., Rigolin G.M., Tedeschi A., Neri A., Marasca R., Perbellini O., Moreno C., Del Poeta G., Maszaia M., Zinzani P.L., Montillo M., Cuneo A., Gattei V., Foa R., Gaidano G., Molecular prediction of durable remission after first-line fludarabine-cyclophosphamide-rituximab in chronic lymphocytic leukemia. (2015) *BLOOD*, 126 (16), 1921-1924.

IF: 11.8410

Ruggeri A., Labopin M., Sanz G., Piemontese S., Arcese W., Bacigalupo A., Blaise D., Bosi A., Huang H., Karakasis D., Koc Y., Michallet M., Picardi A., Sanz J., Santarone S., Sengelov H., Sierra J., Vincent L., Volt F., Nagler A., Gluckman E., Ciceri F., Rocha V., Mohty M., Comparison of outcomes after unrelated cord blood and unmanipulated haploidentical stem cell transplantation in adults with acute leukemia. (2015) *LEUKEMIA*, 29 (9), 1891-1900.

IF: 12.1040

Sanchez-Ortega I., Querol S., Encuentra M., Ortega S., Serra A., Sanchez-Villegas J.M., Grifols J.R., Pujol-Balaguer M.M., Pujol-Bosch M., Marti J.M., Garcia-Cerecedo T., Barba P., Sancho J.M., Esquirol A., Sierra J., Duarte R.F., Plerixafor in patients with lymphoma and multiple myeloma: Effectiveness in cases with very low circulating CD34+ cell levels and preemptive intervention vs remobilization. (2015) *BONE MARROW TRANSPL*, 50 (1), 34-39.

IF: 3.6360

Urbano-Ispizua A., Pavletic S.Z., Flowers M.E., Klein J.P., Zhang M.-J., Carreras J., Montoto S., Perales M.-A., Aljurf M.D., Akpek G., Bredeson C.N., Costa L.J., Dandoy C., Freytes C.O., Fung H.C., Gale R.P., Gibson J., Hamadani M., Hayashi R.J., Inamoto Y., Inwards D.J., Lazarus H.M., Maloney D.G., Martino R., Munker R., Nishihori T., Olsson R.F., Rizzieri D.A., Reshef R., Saad A., Savani B.N., Schouten H.C., Smith S.M., Socie G., Wirk B., Yu L.C., Saber W., The Impact of Graft-versus-Host Disease on the Relapse Rate in Patients with Lymphoma Depends on the Histological Subtype and the Intensity of the Conditioning Regimen. (2015) *BIOL BLOOD MARROW TR*, 21 (10), 1746-1753.

IF: 3.9800

Xicoy B., Germing U., Jimenez M.-J., Garcia O., Garcia R., Schemenau J., Pedro C., Luno E., Bernal T., Gonzalez B., Strupp C., Ardanaz M., Kuendgen A., Cedena M.-T., Neukirchen J., Calabuig M., Brunet S., Medina A., Amigo M.-L., Ramos F., Callejas M., Diez-Campelo M., Bailen A., Collado R., Vicente A., Arnan M., Valcarcel D., Arilla M.J., Zamora L., Benlloch L., Sanz G., Response to erythropoietic-stimulating agents in patients with chronic myelomonocytic leukemia. (2015) *EUR J HAEMATOL*.

IF: 2.5440

AREA 4

Neurological, Mental and Ageing

- 
- 140 Cerebrovascular Diseases
- 142 Neuromuscular Diseases
- 146 Parkinson Disease and Movement Disorders
- 150 Molecular Neuropharmacology
- 152 Pharmacological Research in Humans
- 154 Clinical Psychiatry
- 158 Genetics in Neurodegenerative Diseases
- | 08:34:11 | |
|--------------|------|
| Survey | |
| Ref. SIC_8 | Geo1 |
| + IMRI SABOR | Geo3 |
| + IMRI SABOR | Geo3 |
| + SOPANJEVA | Geo3 |

tal Disorders

162 Human Neuropsychopharmacology

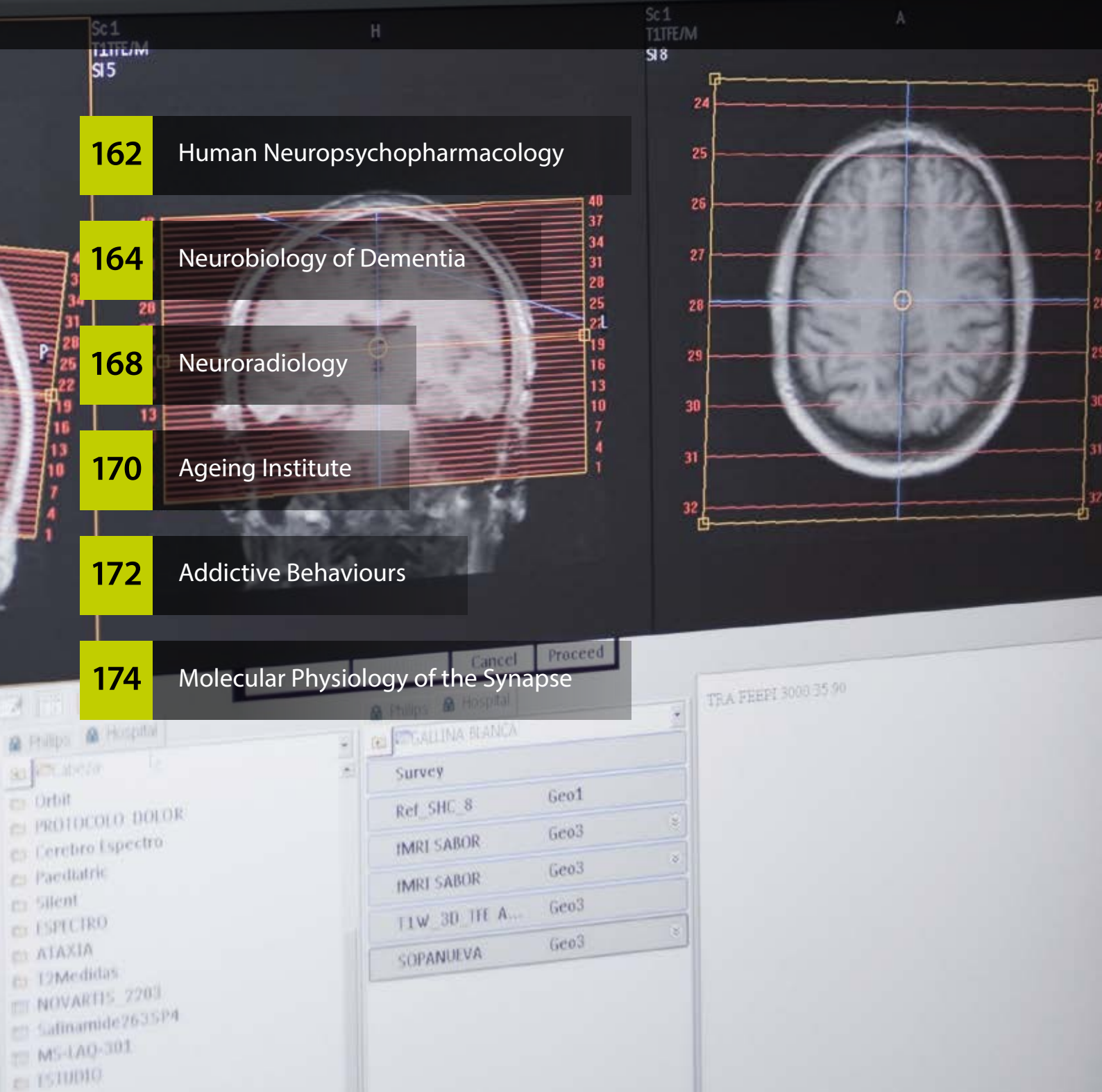
164 Neurobiology of Dementia

168 Neuroradiology

170 Ageing Institute

172 Addictive Behaviours

174 Molecular Physiology of the Synapse



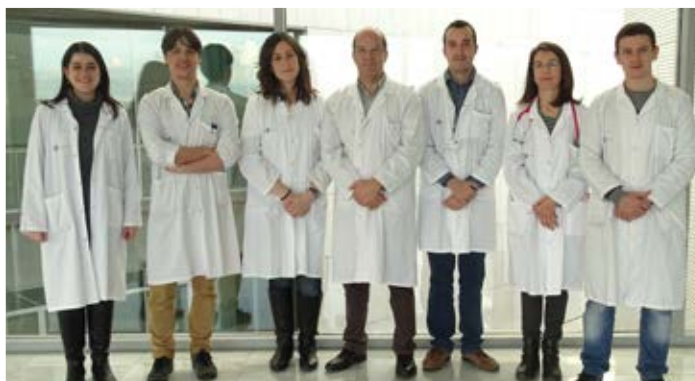
Cerebrovascular Diseases

Coordinator

Martí Fàbregas, Joan FGS
jmarti@santpau.cat

Members

Camps Renom, Pol FGS
Delgado Mederos, Raquel FGS
Jiménez-Xarrie, Elena
Marín Bueno, Rebeca IR
Martínez-Domeño, Alejandro
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.
- ▶ Sonothrombolysis.
- ▶ 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.

Challenges

- ▶ Enhance cooperation with other groups in the framework of Spanish stroke research.
- ▶ Network (RETICS/INVICTUS) and also intrahospital cooperation (the Catalan Institute of Cardiovascular Sciences and the Haemostasis-Thrombosis group) and extra-hospital cooperation (with groups managed by Dr. García-Verdugo in Valencia, Dr. Arús at the Autonomous University of Barcelona, Dr. Anna Planas at Hospital
- ▶ Clínic de Barcelona, Dr. Turgut Durduran at ICFO). To obtain funding from FIS, regional authorities and private companies.
- ▶ Increase the number of contracted and grant-aided researchers and professionally develop existing researchers.

Active Grants

- ▶ Joan Martí Fàbregas. INVICTUS. RD12/0014/0002. Instituto de Salud Carlos III. Duration: 2013-2016. €165,220.40.
 - ▶ Joan Martí Fàbregas. Malalties Vasculares Cerebrals. 2014 SGR 703. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016.
 - ▶ Joan Martí Fàbregas. REgenerative Stem cell therapy for STroke in Europe-RESTORE. PHC-15-2015. European Union. Duration: 2015-2020. €389.58.
- Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2015

- ▶ Joan Martí Fàbregas. Estudio de la progresión y la vulnerabilidad de la aterosclerosis carotídea: influencia del recuento de células progenitoras y del control de factores de riesgo vascular. Proyectos de Investigación en Salud 2015. PI15/00884. Duration: 01/01/2016-31/12/2018. € 45,000.

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

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.

External Collaborations

- ▶ Dr. García-Verdugo, Universidad de Valencia, Spain.
- ▶ Dr. Carles Arús, Facultat de Ciències, Universitat Autònoma de Barcelona, Spain.
- ▶ Dr. Turgut Durduran, Instituto de Ciencias Fotónicas, Castelldefels, Barcelona, Spain.
- ▶ Dr. Tomás Sobrino, Hospital General Universitario, Santiago de Compostela, Spain.
- ▶ Dr. Israel Fernández, Dr. Joan Montaner, Hospital Vall d'Hebron, Barcelona, Spain.
- ▶ Dr. Blanca Fuentes, Hospital La Paz, Madrid, Spain.
- ▶ Dr. Patricia Martínez, Hospital La Paz, Madrid, Spain.
- ▶ Dr. Antonio Gil. Hospital Gregorio Marañón, Madrid, Spain.
- ▶ Dr. Ángel Chamorro, Hospital Clínico de Barcelona, Spain.

- ▶ Dr. Antonio Dávalos, Hospital Germans Trias i Pujol, Badalona, Spain.
- ▶ Dr. Francesc Purroy, Hospital Arnau de Vilanova, Lleida, Spain.
- ▶ RETICS (cooperative health research network) / INVICTUS (ictus research)
- ▶ Clinical trials:
 - IMPACT-24b: Implant in the sphenopalatine ganglion to increase cerebral blood flow 24 hours after stroke onset.
 - IMPACT-24Bt: Implant in the sphenopalatine ganglion to increase cerebral blood flow 24 hours after stroke onset (rt-PA port).
 - CLEAR III: Evaluation of thrombolytic therapy in intraventricular haemorrhage.
 - LIFE: Multicentre, randomized, double-blind, parallel group, placebo-controlled study of the effect of treatment with F2695 (75 mg OD) in 3 months to improve functional capacity in patients with ischaemic stroke.
- ▶ Dra. Jennifer Linn (SUSPECT study), University of Rochester, New York
- ▶ Dr. David Werring (HERO study), National Hospital for Neurology and Neurosurgery, London.
- ▶ Dr. Peter Kelly (BIOVASC study), Mater University Hospital, Dublin.

*TIF: 27.6160 **MIF: 2.7616

Aracil-Bolanos I., Prats-Sanchez L., Gomez-Anson B., Querol-Gutierrez L., Nunez-Marin F., Marti-Fabregas J., Balo concentric sclerosis: A presentation mimicking ischaemic stroke. (2015) NEUROLOGIA.

IF: 1.7900

Camps-Renom P., Delgado-Mederos R., Martinez-Domeno A., Prats-Sanchez L., Cortes-Vicente E., Simon-Talero M., Arboix A., Ois A., Purroy F., Marti-Fabregas J., Clinical characteristics and outcome of the capsular warning syndrome: A multicenter study. (2015) INT J STROKE, 10 (4), 571-575.

IF: 3.0440

Cortes-Vicente E., Delgado-Mederos R., Bellmunt S., Borrás X.F., Gomez-Anson B., Bague S., Camps-Renom P., Marti-Fabregas J., Stroke caused by a myxoma stenosing the common carotid artery. (2015) J STROKE CEREBROVASC, 24 (4), e87-e89.

IF: 1.5990

Flores A., Tomasello A., Cardona P., De Miquel M.A., Gomis M., Bermejo P.G., Obach V., Urrea X., Marti-Fabregas J., Canovas D., Roquer J., Abilleira S., Ribo M., Endovascular treatment for M2 occlusions in the era of stentrievors: A descriptive multicenter experience. (2015) J NEUROSURG, 7 (4), 234-237.

IF: 2.9590

Jimenez-Xarrie E., Davila M., Gil-Perotin S., Jurado-Rodriguez A., Candiota A.P., Delgado-Mederos R., Lope-Piedrafita S., Garcia-Verdugo J.M., Arus C., Marti-Fabregas J., In vivo and ex vivo magnetic resonance spectroscopy of the infarct and the subventricular zone in experimental stroke. (2015) J CEREBR BLOOD F MET, 35 (5), 828-834.

IF: 4.9290

Kase C.S., Mohr J.P., Marti-Fabregas J., José Luis Martí Vilalta (1946-2014). (2015) CEREBROVASC DIS, 99-.

IF: 3.3590

Marti-Fabregas J., Delgado-Mederos R., Crespo J., Pena E., Marin R., Jimenez-Xarrie E., Fernandez-Arcos A., Perez-Perez J., Martinez-Domeno A., Camps-Renom P., Prats-Sanchez L., Casoni F., Badimon L., Circulating endothelial progenitor cells and the risk of vascular events after ischemic stroke. (2015) PLOS ONE, 10 (4).

IF: 3.0570

Martinez-Lizana E., Carmona-Iragui M., Alcolea D., Gomez-Choco M., Vilaplana E., Sanchez-Saudinos M.B., Clarimon J., Hernandez-Guillamon M., Munuera J., Gelpi E., Gomez-Anson B., De Juan-Delago M., Delgado-Mederos R., Montaner J., Ois A., Amaro S., Blesa R., Marti-Fabregas J., Lleo A., Fortea

J., Cerebral amyloid angiopathy-related atraumatic convexal subarachnoid hemorrhage: An ARIA before the tsunami. (2015) J CEREBR BLOOD F MET, 35 (5), 710-717.

IF: 4.9290

Urrea X., Abilleira S., Dorado L., Ribó M., Cardona P., Millán M., Chamorro A., Cobo E., Dávalos A., Jovin T.G., Gallofré M.; Catalan Stroke Code and Reperfusion Consortium. Mechanical Thrombectomy in and Outside the REVASCAT Trial: Insights From a Concurrent Population-Based Stroke Registry. (2015) STROKE, 46(12), 3437-42.

IF: 1.4200

Zapata-Wainberg G., Ximénez-Carrillo Rico Á., Benavente Fernández L., Masjuan Vallejo J., Gállego Culleré J., Freijó Guerrero M.M., Egidio J., Gómez Sánchez J.C., Martínez Domeño A., Purroy García F., Vives Pastor B., Blanco González M., Vivancos J.; representing the research team of the TAC Registry study. Epidemiology of Intracranial Haemorrhages Associated with Vitamin K Antagonist Oral Anticoagulants in Spain: TAC Registry. (2015) INTERV NEUROL, 4(1-2), 52-8.

IF: 0.5300

Neuromuscular Diseases

Coordinator

Illa Sendra, María Isabel FGS
iilla@santpau.cat

Members

Araque Palacios, Josefa CIBERER
Arribas Ibar, Elisabet IR
Belmonte, Izaskun FGS
De Luna Salva, Noemí CIBERER
Díaz Manera,
Jorge Alberto FGS
Gallardo Vigo, Eduard IR
Llauger Rosselló, Jaume FGS
Lleixa Rodríguez,
María Cinta IR
Ortiz Losada, Esther IR
Pedrosa Hernández, Irene FGS
Piñol Jurado, Patricia IR
Querol Gutiérrez,
Luis Antonio FGS
Rojas García, Ricardo FGS
Segovia Simon, Sonia IR
Siles Gómez, Ana María IR
Suárez Calvet, Xavier IR



Main Lines of Research

Autoimmune neuromuscular diseases

- ▶ Characterization of new target antigens in Myasthenia Gravis, and immune neuropathies (CIDP, GBS, MMN). Their use as diagnostic and therapeutic biomarkers.
- ▶ Pathogenesis of newly recognized paranodal antigens 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).
- ▶ 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.
- ▶ Study of miRNA profiles and muscle secretome in muscular dystrophies.
- ▶ Role of PDGF in muscular dystrophies fibrosis.
- ▶ Natural history of Dysferlinopathies. The international COS-study Jain Foundation.
- ▶ To evaluate the frequency of carriers of mutations in the dyferlin gene in normal population.

Amyotrophic lateral sclerosis

- ▶ Epidemiology of ALS in Catalonia.
- ▶ Gene profile of ALS patients in Spain.
- ▶ Biomarkers profile in different phenotypes of ALS.

Challenges

- ▶ Advance in the knowledge of the immunological mechanisms involved in the pathogenesis of autoimmune neuromuscular diseases (MG, CIDP, MMN).
- ▶ Advance in the knowledge of the pathogenetic mechanisms of inflammatory myopathies (DM, PM, IBM).
- ▶ 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 dystro-

phies resulting from dysferlinopathy and other myopathies research (biomarkers (miRNA, secretome), MRI, etc).

- ▶ Advance in the knowledge of the pathogenetic mechanisms involved in muscular dystrophy resulting from dysferlin deficiency and other muscular dystrophies.
- ▶ Cleanroom access to manipulate cells for use in humans.
- ▶ Use of the NMD.ES registry to perform research in different NMD.

Collaborations

External Collaborations

- ▶ Jerome Devaux, Marseilles, France.
- ▶ Silvere van der Maarel, Leiden, The Netherlands.
- ▶ Xavier Navarro, Departament de Medicina, Universitat Autònoma de Barcelona, Spain.
- ▶ R. Martí, Hospital Vall d'Hebron, Barcelona, Spain.

Awards

- ▶ Eugenia Martínez. Extraordinary award for the thesis Biomarcadores en el diagnóstico y tratamiento de la miastenia. Universitat Autònoma de Barcelona.
- ▶ Jordi Díaz. Extraordinary award for the thesis Dysferlin myopathy: new insights in diagnosis and therapy. Universitat Autònoma de Barcelona .

Theses

- ▶ Xavier Suárez. Nous aspectes fisiopatogènics en la dermatomiositis. Universitat Autònoma de Barcelona

Active Grants

- ▶ Maria Isabel Illa Sendra. Nuevas reactividades antigénicas y estudios de inmunidad innata en enfermedades neuromusculares autoinmunes. PI13/00937. Instituto de Salud Carlos III. Duration: 2014-2016. €160,250.
- ▶ Luis Antonio Querol Gutiérrez. Contratos Juan Rodés 2013. JR13/00014. Instituto de Salud Carlos III. Duration: 2014-2016. €135,000.
- ▶ Eduard Gallardo Vigo. Recerca en Malalties Neuromusculars. 2014 SGR 272. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016. €30,000.
- ▶ Ricardo Rojas García. Biomarkers profile in different phenotypes of Motor Neuron Disease. MARATÓ 20143710. Fundació La Marató de TV3. Duration: 2015-2018. €120,500.
- ▶ Xavier Suárez Calvet. New therapeutic targets in dermatomyositis. Research Grant Application 2014. The Myositis Association. Duration: 2015-2017. €63,136.98.
- ▶ Maria Isabel Illa Sendra. Paranodal autoimmunity in CIDP: diagnostic and therapeutic value rationale and objective. GBS/CIDP 2014. Foundation International Guillain-Barré syndrome chronic inflammatory demyelinating polyradiculopathy. Duration: 2014-2016. €39,720.

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

Grants Awarded in 2015

- ▶ Maria Isabel Illa Sendra. Danger signals promoting innate immunity in dermatomyositis. AFM TELETHON 18476. The French Muscular Dystrophy Association (AFM-Téléthon). Duration: 2015-2016. €34,166.
- ▶ Eduard Gallardo Vigo. Influencia de factores inmunológicos y no inmunológicos en la patogenia de las miopatías inflamatorias. Proyectos de Investigación en Salud. PI15/01597. Duration: 01/01/2016-31/12/2018. €30,000.

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

Neuromuscular Diseases

*TIF: 77.6120 **MIF: 3.2338

Aracil-Bolanos I, Prats-Sanchez L, Gomez-Anson B, Querol-Gutierrez L, Nunez-Marin F, Marti-Fabregas J, Balo concentric sclerosis: A presentation mimicking ischaemic stroke. (2015) *NEUROLOGIA*.

IF: 1.7900

Balasa M, Gelpi E, Martin I, Antonell A, Rey M.J., Grau-Rivera O, Molinuevo J.L., Sanchez-Valle R., Llado A., Boada Hernandez M., Mauleon A., Rosende M., Aguilar M., Rene R., Povedano M., Valldeoriola F., Sanz P., Lleo A., Blesa R., Rojas-Garcia R., Pena-Casanova J., Alvarez-Sabin J., Pujadas F., Roy P., Lopez-Pousa S., Turon A., Huerta M., Martinez-Yelamos A., Aspiazu P., Almenar C., Lopez-Villegas D., Abellan T., Otermin P., Pericot I., Pinol-Ripoll G., Robles B., Escrig A., Latorre P., Escabia F., Mira M.L., Ananos G., Collado I., Diagnostic accuracy of behavioral variant frontotemporal dementia consortium criteria (FTDC) in a clinicopathological cohort. (2015) *NEUROPATH APPL NEURO*, 41 (7), 882-892.

IF: 4.4830

Bladen C.L., Salgado D., Monges S., Foncuberta M.E., Kekou K., Kosma K., Dawkins H., Lamont L., Roy A.J., Chamova T., Guerguel-tcheva V., Chan S., Korngut L., Campbell C., Dai Y., Wang J., Barisic N., Brabec P., Lahdetie J., Walter M.C., Schreiber-Katz O., Karcagi V., Garami M., Viswanathan V., Bayat F., Buccella F., Kimura E., Koeks Z., van den Bergen J.C., Rodrigues M., Roxburgh R., Lusakowska A., Kostera-Pruszczyk A., Zimowski J., Santos R., Neagu E., Artemieva S., Rasic V.M., Vojinovic D., Posada M., Bloetzer C., Jeannet P.-Y., Joncourt F., Diaz-Manera J., Gallardo E., Karaduman A.A., Topaloglu H., El Sherif R., Stringer A., Shatillo A.V., Martin A.S., Peay H.L., Bellgard M.L., Kirschner J., Flanigan K.M., Straub V., Bushby K., Verschuuren J., Aartsma-Rus A., Beroud C., Lochmuller H., The TREAT-NMD DMD global database: Analysis of more than 7,000 duchenne muscular dystrophy mutations. (2015) *HUM MUTAT*, 36 (4), 395-402.

IF: 5.0890

Dillingham B.C., Benny Klimek M.E., Gernapudi R., Rayavarapu S., Gallardo E., Van Der Meulen J.H., Jordan S., Ampong B., Gordish-Dressman H., Spurney C.F., Nagaraju K., Inhibition of inflammation with celestrol fails to improve muscle function in dysferlin-deficient A/J mice. (2015) *J NEUROL SCI*, 356 (1-2), 157-162.

IF: 2.1260

Draak T.H., Pruppers M.H., van Nes S.I., Vanhoutte E.K., Bakkers M., Gorson K.C., Van der Pol W.L., Lewis R.A., Notermans N.C., Nobile-Orazio E., Léger J.M., Van den Bergh P.Y., Lauria G., Bril V., Katzberg H., Lunn M.P., Pouget J., van der Kooi A.J., van den Berg

L.H., van Doorn P.A., Cornblath D.R., Hahn A.F., Faber C.G., Merkies I.S., PeriNomS study group (Barreira A.A., Bennett D., Hadden R.D., Hughes R.A., Lunn M.P., Reilly M.M., van den Berg L.H., van Doorn P.A., Faber C.G., van der Kooi A.J., Merkies I.S., Notermans N.C., Raaphorts J., van Schaik I.N., de Visser M., Cats E.A., Van den Bergh P.Y., Bombelli F., Costa R., Franques J., Léger J.M., Pouget J., Bril V., Hahn A.F., Katzberg H., Campanella A., Devigili G., Gallia F., Lauria G., Nobile-Orazio E., Padua L., Cornblath D.R., Gorson K.C., Lewis R.A., Illa I., Querol L., van Nes S.I.). Grip strength comparison in immune-mediated neuropathies: Vigorimeter vs. Jamar. (2015) *J PERIPHER NERV SYST*, 20(3), 269-76.

IF: 2.7580

Draak T.H., Vanhoutte E.K., van Nes S.I., Gorson K.C., Van der Pol W.L., Notermans N.C., Nobile-Orazio E., Lewis R.A., Léger J.M., Van den Bergh P.Y., Lauria G., Bril V., Katzberg H., Lunn M.P., Pouget J., van der Kooi A.J., Hahn A.F., van den Berg L.H., van Doorn P.A., Cornblath D.R., Faber C.G., Merkies I.S., PeriNomS Study Group (Barreira A.A., Bennett D., Hadden R.D., Hughes R.A., Lunn M.P., Reilly M.M., van den Berg L.H., van Doorn P.A., Faber C.G., van der Kooi A.J., Merkies I.S., Notermans N.C., Raaphorts J., van Schaik I.N., de Visser M., Cats E.A., Van den Bergh P.Y., Bombelli F., Costa R., Franques J., Léger J.M., Pouget J., Bril V., Hahn A.F., Katzberg H., Campanella A., Devigili G., Gallia F., Lauria G., Nobile-Orazio E., Padua L., Cornblath D.R., Gorson K.C., Lewis R.A., Illa I., Querol L., van Nes S.I.). Comparing the NIS vs. MRC and INCAT sensory scale through Rasch analyses. (2015) *J PERIPHER NERV SYST*, 20(3), 277-88.

IF: 2.7580

Gomez-Anson B., Roman E., De Bobadilla R.F., Pires-Encuentra P., Diaz-Manera J., Nuez F., Martinez-Horta S., Vives-Gilbert Y., Pagonabarraga J., Kulisevsky J., Cordoba J., Guarner C., Soriano G., Alterations in cerebral white matter and neuropsychology in patients with cirrhosis and falls. (2015) *PLOS ONE*, 10 (3).

IF: 3.0570

Gutierrez-Rivas E., Bautista J., Vilchez J.J., Muelas N., Diaz-Manera J., Illa I., Martinez-Arroyo A., Olive M., Sanz I., Arpa J., Fernandez-Torron R., Lopez de Munain A., Jimenez L., Solera J., Lukacs Z., Targeted screening for the detection of Pompe disease in patients with unclassified limb-girdle muscular dystrophy or asymptomatic hyperCKemia using dried blood: A Spanish cohort. (2015) *NEUROMUSCULAR DISORD*, 25 (7), 548-553.

IF: 3.1070

Gutierrez-Rivas E., Illa I., Pascual-Pascual S.I., Perez-Lopez J., Vilchez-Padilla J.J., Bautista-Lorite J., Barrot E., de Munain A.L.,

Guidelines for monitoring late-onset Pompe disease. (2015) *REV NEUROLOGIA*, 60 (7), 321-328.

IF: 0.6840

Halter J.P., Michael W., Schupbach M., Mandel H., Casali C., Orchard K., Collin M., Valcarcel D., Rovelli A., Filosto M., Dotti M.T., Marotta G., Pintos G., Barba P., Accarino A., Ferra C., Illa I., Beguin Y., Bakker J.A., Boelens J.J., De Coo I.F.M., Fay K., Sue C.M., Nachbaur D., Zoller H., Sobreira C., Pinto Simoes B., Hammans S.R., Savage D., Marti R., Chinnery P.F., Elhasid R., Gratwohl A., Hirano M., Barros Navarro G., Benoit J.F., Bierau J., Bucalossi A., Carluccio M.A., Coll-Canti J., Cotelli M.S., Diesch T., Di Fabio R., Donati M.A., Garvin J.H., Hill K., Kappeler L., Ku Hne T., Lara M.C., Lenoci M., Lucchini G., Marques W., Mattle H.P., Meyer A., Parini R., Passweg J.R., Pieroni F., Rodriguez-Palmero A., Santus F., Scarpelli M., Schlessler P., Sicurelli F., Stern M., Stracieri A.B., Tonin P., Torres-Torronteras J., Voltarelli J.C., Zaidman I., Allogeneic haematopoietic stem cell transplantation for mitochondrial neurogastrointestinal encephalomyopathy. (2015) *BRAIN*, 138 (10), 2847-2858.

IF: 10.1030

Horga A., Cottenie E., Tomaselli P.J., Rojas-Garcia R., Salvado M., Villarreal-Perez L., Gamez J., Marquez-Infante C., Houlden H., Reilly M.M., Absence of HINT1 mutations in a UK and Spanish cohort of patients with inherited neuropathies. (2015) *J NEUROL*.

IF: 3.4080

Huijbers M.G., Querol L.A., Niks E.H., Plomp J.J., van der Maarel S.M., Graus F., Dalmau J., Illa I., Verschuuren J.J., The expanding field of IgG4-mediated neurological autoimmune disorders. (2015) *EUR J NEUROL*, 22 (8), 1151-1161.

IF: 3.9560

Lopez-Gongora M., Querol L., Escartin A., A one-year follow-up study of the Symbol Digit Modalities Test (SDMT) and the Paced Auditory Serial Addition Test (PASAT) in relapsing-remitting multiple sclerosis: An appraisal of comparative longitudinal sensitivity. (2015) *BMC NEUROL*, 15 (1).

IF: 1.9610

Lopez-Gongora M., Escartin A., Martinez-Horta S., Fernandez-Bobadilla R., Querol L., Romero S., Mananas M.A., Riba J., Neurophysiological evidence of compensatory brain mechanisms in early-stage multiple sclerosis. (2015) *PLOS ONE*, 10 (8).

IF: 3.0570

Nogales-Gadea G., Santalla A., Brull A., de Luna N., Lucia A., Pinos T., The pathogenomics of McArdle disease—genes, enzymes, models, and therapeutic implications. (2015) *J INHERIT METAB DIS*, 38 (2), 221-230.

IF: 3.5410

*TIF: 77.6120 **MIF: 3.2338

Osuna M.T., Querol L., Olivas-Chacon C.I., Lejarreta-Andres S., Robert J., Ailouti-Caballero N., Ramos-Duran L., Diaz-Manera J., Belvis R., Toxic demyelinating neuropathy and leukoencephalopathy in patients who take the slimming products Thermatrim[®] and Pura Alegría[®]. (2015) REV NEUROLOGIA, 61 (11), 527-528.

IF: 0.6840

Paco S., Casserras T., Rodriguez M.A., Jou C., Puigdelloses M., Ortez C.I., Diaz-Manera J., Gallardo E., Colomer J., Nascimento A., Kalko S.G., Jimenez-Mallebrera C., Transcriptome analysis of ullrich congenital muscular dystrophy fibroblasts reveals a disease extracellular matrix signature and key molecular regulators. (2015) PLOS ONE, 10 (12).

IF: 3.0570

Pruppers M.H., Draak T.H., Vanhoutte E.K., Van der Pol W.L., Gorson K.C., Léger J.M., Nobile-Orazio E., Lewis R.A., van den Berg L.H., Faber C.G., Merkies I.S., PeriNomS study group (Barreira A.A., Bennett D., Hadden R.D., Hughes R.A., Lunn M.P., Reilly M.M., van den Berg L.H., van Doorn P.A., Faber C.G., van der Kooi A.J., Merkies I.S., Notermans N.C., Raaphorts J., van Schaik I.N., de Visser M., Cats E.A., Van den Bergh P.Y., Bombelli F., Costa R., Franques J., Léger J.M., Pouget J., Bril V., Hahn A.F., Katzberg H., Campanella A., Devigili G., Gallia F., Lauria G., Nobile-Orazio E., Padua L., Cornblath D.R., Gorson K.C., Lewis R.A., Illa I., Querol L., van Nes S.I.). Outcome measures in MMN revisited: further improvement needed. (2015) J PERIPHER NERV SYST, 20(3): 306-18.

IF: 2.7580

Querol L., Illa I., Paranodal and other autoantibodies in chronic inflammatory neuropathies. (2015) CURR OPIN NEUROL, 28 (5), 474-479.

IF: 4.4690

Ramos-Fransi A., Rojas-Garcia R., Segovia S., Marquez-Infante C., Pardo J., Coll-Canti J., Jerico I., Illa I., Alberti Aguilo M.A., Bataller Alberola L., Berciano Blanco J., Casanovas Pons C., Diaz-Manera J., Fernandez Torron M.R., Garcia Sobrino T., Gomez Caravaca M.T., Guerrero Sola A., Gutierrez Gutierrez G., Lopez de Munain Arregui A., Martinez Pineiro A., Mendoza Grimon M.D., Munoz Blanco J.L., Pelayo Negro A.L., Querol L., Sevilla Mantecon T., Myasthenia gravis: Descriptive analysis of life-threatening events in a recent nationwide registry. (2015) EUR J NEUROL, 22 (7), 1056-1061.

IF: 3.9560

Suarez-Calvet X., Gallardo E., Illa I., Comment to "Role of Toll-like receptors and retinoic acid inducible gene I in endogenous production of type I interferon in dermatomyositis". (2015) J NEUROIMMUNOL.

IF: 2.5360

Vanhoutte E.K., Faber C.G., van Nes S.I., Cats E.A., Van der Pol W.L., Gorson K.C., van Doorn P.A., Cornblath D.R., van den Berg L.H., Merkies I.S., PeriNomS Study Group (Barreira A.A., Bennett D., Hadden R.D., Hughes R.A., Lunn M.P., Reilly M.M., van den Berg L.H., van Doorn P.A., Faber C.G., van der Kooi A.J., Merkies I.S., Notermans N.C., Raaphorts J., van Schaik I.N., de Visser M., Cats E.A., Van den Bergh P.Y., Bombelli F., Costa R., Franques J., Léger J.M., Pouget J., Bril V., Hahn A.F., Katzberg H., Campanella A., Devigili G., Gallia F., Lauria G., Nobile-Orazio E., Padua L., Cornblath D.R., Gorson K.C., Lewis R.A., Illa I., Querol L., van Nes S.I.). Rasch-built Overall Disability Scale for Multifocal motor neuropathy (MMN-RODS[®]). (2015) J PERIPHER NERV SYST, 20(3), 296-305.

IF: 2.7580

Vanhoutte E.K., Draak T.H., Gorson K.C., van Nes S.I., Hoeijmakers J.G., Van der Pol W.L.,

Notermans N.C., Lewis R.A., Nobile-Orazio E., Léger J.M., Van den Bergh P.Y., Lauria G., Bril V., Katzberg H., Lunn M.P., Pouget J., van der Kooi A.J., Hahn A.F., van Doorn P.A., Cornblath D.R., van den Berg L.H., Faber C.G., Merkies I.S., PeriNomS Study Group (Barreira A.A., Bennett D., Hadden R.D., Hughes R.A., Lunn M.P., Reilly M.M., van den Berg L.H., van Doorn P.A., Faber C.G., van der Kooi A.J., Merkies I.S., Notermans N.C., Raaphorts J., van Schaik I.N., de Visser M., Cats E.A., Van den Bergh P.Y., Bombelli F., Costa R., Franques J., Léger J.M., Pouget J., Bril V., Hahn A.F., Katzberg H., Campanella A., Devigili G., Gallia F., Lauria G., Nobile-Orazio E., Padua L., Cornblath D.R., Gorson K.C., Lewis R.A., Illa I., Querol L., van Nes S.I.). Impairment measures versus inflammatory RODS in GBS and CIDP: a responsiveness comparison. (2015) J PERIPHER NERV SYST, 20(3), 289-95.

IF: 2.7580

Vanhoutte E.K., Hermans M.C., Faber C.G., Gorson K.C., Merkies I.S., Thonnard J.L.; PeriNomS Study Group (Barreira A.A., Bennett D., Hadden R.D., Hughes R.A., Lunn M.P., Reilly M.M., van den Berg L.H., van Doorn P.A., Faber C.G., van der Kooi A.J., Merkies I.S., Notermans N.C., Raaphorts J., van Schaik I.N., de Visser M., Cats E.A., Van den Bergh P.Y., Bombelli F., Costa R., Franques J., Léger J.M., Pouget J., Bril V., Hahn A.F., Katzberg H., Campanella A., Devigili G., Gallia F., Lauria G., Nobile-Orazio E., Padua L., Cornblath D.R., Gorson K.C., Lewis R.A., Illa I., Querol L., van Nes S.I.). Rasch-ionale for neurologists. (2015) J PERIPHER NERV SYST, 20(3), 260-8.

IF: 2.7580

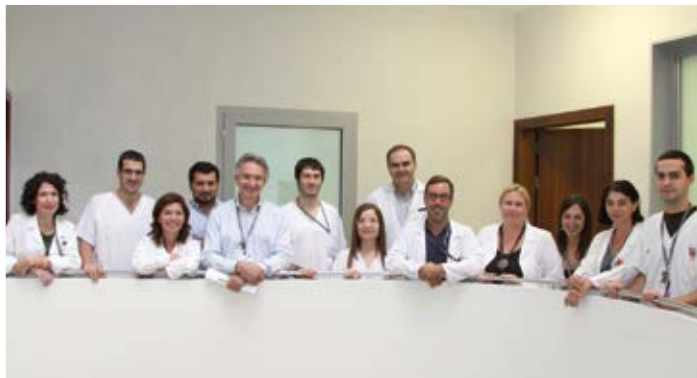
Parkinson Disease and Movement Disorders

Coordinator

Kulisevsky Bojarski, Jaime FGS
jkulisevsky@santpau.cat

Members

Arenas Ríos, Fabián Octavio IR
Belmonte Calderón, Sara IR
Campolongo Perillo, Antonia IR
Carceller Sindreu,
María del Mar IR
Castillejos Gallego, Laura IR
Fernández de Bobadilla
Martínez, José Ramón IR
García Sánchez, Carmen FGS
Gironell Carrero, Alexandre FGS
Horta Barba, Andrea IR
Marín Lahoz, Juan IR
Martínez Horta, Saul Indra IR
Pagonabarraga Mora,
Javier FGS
Parenti, Riccardo IR
Pascual Sedano,
Berta Marta FGS
Pérez Pérez, Jesús IR
Sosti Sosa,
María Victòria CIBERNED
Yarritu Corrales, Ion IR



Main Lines of Research

Cognitive Impairment and Behavioural Dysfunctions in Parkinson Disease

- ▶ Knowledge and detection of the neural correlates of cognitive performance in Parkinson disease using neurophysiological techniques (event-related brain cognitive potentials) and structural and functional neuroimaging (voxel-based morphometry, cortical thickness and spectroscopy).
- ▶ Development of more sensitive tools for cognitive and functional assessment in Parkinson disease to detect subtle changes in cognitive performance and treatment response.
- ▶ Prospective follow-up analysis of cognition and mood in patients with deep-brain stimulation of the subthalamic nucleus.
- ▶ Physiological correlates and pharmacological approach to apathy in Parkinson disease and other movement disorders.
- ▶ Neurophysiological and cognitive correlates of impulse control disorders in Parkinson disease and other movement disorders. Behavioral and pharmacological treatment.
- ▶ Surgery and treatments of continuous infusion in Parkinson disease.
- ▶ Follow-up and etiologic study of weight loss in patients treated with continuous infusion of intraduodenal levodopa.
- ▶ Follow-up and etiologic study of weight loss in patients treated with continuous infusion of intraduodenal levodopa.

Essential Tremor and Other Movement Disorders

- ▶ Molecular neuroimaging in essential tremor.
- ▶ Clinical, neurophysiological and neuroimaging assessment of patients with FXTAS (fragile X-associated tremor/ataxia syndrome).

Translational Research - Parkinsonian Animal Models

- ▶ Assessment of behavioural and cognitive modulations exerted by distinct antiparkinsonian drugs in murine models of Parkinson disease with lesions in particular neurotransmitter systems (dopaminergic and noradrenergic lesions).
- ▶ Assessment of behavioural and cognitive traits of murine models of HD.

Translational Research - Cell Models

- ▶ Assessment of cell cultures of neurons derived of induced pluripotent cells (iPSCs) obtained from skin fibroblast as in vitro model for the modulation of key factors associated to both cognitive and neurotransmitter disturbances in Parkinson disease.

Huntington Disease

- ▶ Study of the metabolic correlates (18-FDG PET) of disease progression from the pre-manifested to early-stages.
- ▶ Study of the metabolic correlates (18-FDG PET) of apathy and depression in pre-manifested gene carriers.
- ▶ Functional magnetic resonance imaging study of reward sensitivity in pre-manifested an early-stage Huntington's disease.
- ▶ Determination of the prevalence and clinical significance of neuropsychiatric features in Huntington's disease.
- ▶ Development of new instruments for cognitive and functional assessment in Huntington's disease.
- ▶ Prospective observational study of Huntington's disease in a European cohort (Registry Study).
- ▶ Molecular, clinical, behavioural and cognitive characterisation of the BACHD rat model of Huntington's disease.
- ▶ Collaboration in multicentre and Spanish

Main Lines of Research

- coordinated projects:
- Relationship between intermediate alleles and clinical manifestations (PI: Esther Cubo, Burgos).
 - Validation of the Spanish version of the Problem Behaviour Assessment Scale (PBA-S; PI: Jesús Ruiz, Barcelona).
 - Study of dietary intake in Huntington's disease (PI: Esther Cubo, Burgos).
 - A multimodal neuroimaging approach to delineate emotional, motor and cognitive cortico-striatal pathways. IDIBELL (PI: Ruth de Diego-Balaguer, Barcelona).

Progressive Supranuclear Palsy

- ▶ Development of a cognitive rating scale.
- ▶ Development of a standardized eye movement evaluation.

Challenges

Cognitive and Behavioural Dysfunctions in Parkinson Disease

- ▶ Study and understanding of the neural substrates of cognitive impairment in Parkinson disease so as to improve diagnostic and therapeutic approaches.
- ▶ Development of specific tools to assess and track cognitive changes in Parkinson disease.

Huntington's Disease

- ▶ Study of the dynamics of mutant Htt protein aggregation and related neural and cognitive correlates along disease stages in Huntington's disease.
- ▶ Validation of new instruments to assess and track subtle cognitive changes in pre-manifested and early-stage Huntington's disease population.

Essential Tremor and Other Movement Disorders

- ▶ Genetic studies and genotype-phenotype correlations in essential tremor.
- ▶ Development of new therapeutic interventions in essential tremor.
- ▶ Neurochemical and structural neuroimaging studies on the pathophysiological bases of essential tremor.

Translational Research - Animal Models of Parkinsonism

- ▶ Behavioural, physiological and pharmacological characterization of animal models of parkinsonism with combined dopaminergic and noradrenergic lesions.
- ▶ Physiopathology of motor, cognitive and behavioural complications linked to antiparkinsonian drugs in animal models of parkinsonism.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Active collaboration with the Research groups of Neuroradiology and Nuclear Medicine (Huntington's disease).

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 (Subcommittee 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).

Theses

- ▶ Eva Ruzafa Valiente. Comportamiento de la escala Parkinson's Disease - Cognitive Rating Scale (PD-CRS) en patologías diferentes a la enfermedad de Parkinson. Universitat Autònoma de Barcelona. Directors: Jaime Kulisevsky, Carmen García Sánchez. Date of defense: 17 December 2015. Development of specific tools to assess and track cognitive changes in Parkinson disease.

Parkinson Disease and Movement Disorders

Active Grants

- ▶ Jaime Kulisevsky Bojarski. Conveni amb Preparados Alimenticios, SA-CENIT (Gallina Blanca). Henufood. Duration: 2010-2016. €312,500.
- ▶ Jaime Kulisevsky Bojarski. Desarrollo, validación y estudio de la sensibilidad al cambio de una versión alternativa de la Parkinson's Disease-Cognitive Rating Scale. PI12/03005. Instituto de Salud Carlos III. Duration: 2013-2016. €23,500.
- ▶ Jaime Kulisevsky Bojarski. Huntington's Disease Network. EHDN. Duration: 2010-2021.
- ▶ Jesús Pérez Pérez. Contratos Río Hortega 2013. CM13/00284. Instituto de Salud Carlos III. Duration: 2014-2016. €53,732.
- ▶ Jaime Kulisevsky Bojarski. Grup de Trastorns del Moviment de l'Hospital de la Santa Creu i Sant Pau. 2014 SGR 1203. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016. €21,000.
- ▶ Jaime Kulisevsky Bojarski. Prediction of apathy and impulse control disorders in Parkinson's disease based on Feedback related negativity. MARATÓ 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. MARATÓ 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: 2015-2017. €54,500.

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

Grants Awarded in 2015

- ▶ 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: 01/01/2016- 31/12/2018. €61,500.

*TIF: 117.1620 **MIF: 6.1664

Scientific Production

- Buongiorno M., Antonelli F., Camara A., Puente V., de Fabregues-Nebot O., Hernandez-Vara J., Calopa M., Pascual-Sedano B., Campolongo A., Valldeoriola F., Tolosa E., Kulisevsky J., Marti M.J., Long-term response to continuous duodenal infusion of levodopa/carbidopa gel in patients with advanced Parkinson disease: The Barcelona registry. (2015) PARKINSONISM RELAT D, 21 (8), 871-876.
IF: 3.7940
- Carceller-Sindreu M., de Diego-Adelino J., Serra-Blasco M., Vives-Gilabert Y., Marti; n-Blanco A., Puigdemont D., Alvarez E., Perez V., Portella M.J., Volumetric MRI study of the habenula in first episode, recurrent and chronic major depression. (2015) EUR NEUROPSYCHOPHARM, 25 (11), 2015-2021.
IF: 4.4090
- Cattaneo G., Calabria M., Marne P., Gironell A., Abutalebi J., Costa A., The role of executive control in bilingual language production: A study with Parkinson's disease individuals. (2015) NEUROPSYCHOLOGIA, 66, 99-110.
IF: 2.9890
- Gomez-Anson B., Roman E., De Bobadilla R.F., Pires-Encuentra P., Diaz-Manera J., Nuez F., Martinez-Horta S., Vives-Gilabert Y., Pagonabarraga J., Kulisevsky J., Cordoba J., Guarnar C., Soriano G., Alterations in cerebral white matter and neuropsychology in patients with cirrhosis and falls. (2015) PLOS ONE, 10 (3).
IF: 3.0570
- Hor H., Francescato L., Bartesaghi L., Ortega-Cubero S., Kousi M., Lorenzo-Betancor O., Jimenez-Jimenez F.J., Gironell A., Clarimon J., Drechse O., Agundez J.A.G., Kenzelmann Broz D., Chiquet-Ehrismann R., Lleo A., Coria F., Garcia-Martin E., Alonso-Navarro H., Marti M.J., Kulisevsky J., Hor C.N., Ossowski S., Chrast R., Katsanis N., Pastor P., Estivill X., Missense mutations in TENM4, a regulator of axon guidance and central myelination, cause essential tremor. (2015) HUM MOL GENET, 24 (20), 5677-5686.
IF: 5.9850
- Lopez-Gongora M., Escartin A., Martinez-Horta S., Fernandez-Bobadilla R., Querol L., Romero S., Mananas M.A., Riba J., Neurophysiological evidence of compensatory brain mechanisms in early-stage multiple sclerosis. (2015) PLOS ONE, 10 (8).
IF: 3.0570
- Marti-Fabregas J., Delgado-Mederos R., Crespo J., Pena E., Marin R., Jimenez-Xarrie E., Fernandez-Arcos A., Perez-Perez J., Martinez-Domeno A., Camps-Renom P., Prats-Sanchez L., Casoni F., Badimon L., Circulating endothelial progenitor cells and the risk of vascular events after ischemic stroke. (2015) PLOS ONE, 10 (4).
IF: 3.0570
- Martin-Blanco A., Serra-Blasco M., Perez-Egea R., De Diego-Adelino J., Carceller-Sindreu M., Puigdemont D., Molet J., Alvarez E., Perez V., Portella M.J., Immediate cerebral metabolic changes induced by discontinuation of deep brain stimulation of subcallosal cingulate gyrus in treatment-resistant depression. (2015) J AFFECT DISORDERS, 173, 159-162.
IF: 3.5700
- Martinez-Horta S., Perez-Perez J., van Duijn E., Fernandez-Bobadilla R., Carceller M., Pagonabarraga J., Pascual-Sedano B., Campolongo A., Ruiz-Idiago J., Sampedro F., Landwehrmeyer G.B., Kulisevsky J., Neuropsychiatric symptoms are very common in premanifest and early stage HD. (2015) PARKINSONISM RELAT D.
IF: 3.7940
- Matias-Guiu J.A., Fernandez de Bobadilla R., Escudero G., Perez-Perez J., Cortes A., Morenas-Rodriguez E., Valles-Salgado M., Moreno-Ramos T., Kulisevsky J., Matias-Guiu J., Validation of the Spanish version of Addenbrooke's Cognitive Examination III for diagnosing dementia. (2015) NEUROLOGIA, 30 (9), 545-551.
IF: 1.7900
- Odin P., Ray Chaudhuri K., Slevin J.T., Volkman J., Dietrichs E., Martinez-Martin P., Krauss J.K., Henriksen T., Katzenschlager R., Antonini A., Rascol O., Poewe W., Brucke T., Pirker W., Ransmayr G., Schwingenschuh P., Tomantschger V., Volc D., Jespersen H., Kammal A., Karlsborg M., Ooppel L., Pedersen S., Avikainen S., Kaasinen V., Pekkonen E., Ruottinen H., Azulay J.-P., Corvol J.-C., Courbon C.B., Defebvre L., Durif F., Houeto J.-L., Krack P., Tison F., Andrich J., Ehret R., Klostermann

*TIF: 117.1620 **MIF: 6.1664

Scientific Production

F., Kruger R., Lingor P., Liszka R., Schwarz J., Timmermann L., Warnecke T., Bostantjopoulou S., Konitsiotis S., Papageorgiou S., Stathishens P., Stefanis L., Zikos P., Browne P., Healy D., Lynch T., O'Riordan S., O'Sullivan S., Walsh R., Abbruzzese G., Lopiano L., Modugno N., Tamma F., Holmberg B., Linder J., Nyholm D., Palhagen S., Matias Arbelo J., Bana R.Y., Castrillo J.C.M., Castro A., e Garcia Ruiz Espiga P.J., Kulisevsky J., Lezcano E., Luquin R., Mir P., Puente V., Valldeoriola F., Burn D., Clarke C., Foltynie T., Grosset D., Hindle J., Leake A., Lees A., Morris H., Stewart D., Walker R., Worth P., Collective physician perspectives on non-oral medication approaches for the management of clinically relevant unresolved issues in Parkinson's disease: Consensus from an international survey and discussion program. (2015) PARKINSONISM RELAT D, 21 (10), 1133-1144.

IF: 3.7940

Ortega-Cubero S., Lorenzo-Betancor O., Lorenzo E., Agundez J.A.G., Jimenez-Jimenez F.J., Ross O.A., Wurster I., Mielke C., Lin J.-J., Coria F., Clarimon J., Ezquerra M., Brighina L., Annesi G., Alonso-Navarro H., Garcia-Martin E., Gironell A., Marti M.J., Yueh K.-C., Wszolek Z.K., Sharma M., Berg D., Kruger R., Pastor M.A., Pastor P., TREM2 R47H variant and risk of essential tremor: A cross-sectional international multicenter study. (2015) PARKINSONISM RELAT D, 21 (3), 306-309.

IF: 3.7940

Pagonabarraga J., Kulisevsky J., Strafella A.P., Krack P., Apathy in Parkinson's disease: Clinical features, neural substrates, diagnosis, and treatment. (2015) LANCET NEUROL, 14 (5), 518-531.

IF: 23.4680

Pastor P., Moreno F., Clarimon J., Ruiz A., Combarros O., Calero M., De Munain A.L., Bullido M.J., De Pancorbo M.M., Carro E., Antonell A., Coto E., Ortega-Cubero S., Hernandez I., Tarraga L., Boada M., Lleo A., Dols-Icardo O., Kulisevsky J., Vazquez-Higuera J.L., Infante J., Rabano A., Fernandez-Blazquez M.A., Valenti M., Indakoetxea B., Barandiaran M., Gorostidi A., Frank-Garcia A., Sastre I., Lorenzo E., Pastor M.A., Elcoroaritzabal X., Lennarz M., Maier W., Ramirez A., Serrano-Rios M., Lee S.E., Sanchez-Juan P., MAPT H1 haplotype is associated with late-onset Alzheimer's disease risk in APOE ε 4 noncarriers: Results from the dementia genetics Spanish consortium. (2015) J ALZHEIMERS DIS, 49 (2), 343-352.

IF: 3.9200

Perez-Perez J., Pagonabarraga J., Martinez-Horta S., Fernandez-Bobadilla R., Sierra S., Pascual-Sedano B., Gironell A., Kulisevsky J., Head-to-Head Comparison of the Neuropsychiatric Effect of Dopamine Agonists in Parkinson's Disease: A Prospective, Cross-Sectional Study in Non-demented Patients. (2015) DRUG AGING, 32 (5), 401-407.

IF: 2.6100

Pagonabarraga J., Piñol G., Cardozo A., Sanz P., Puente V., Otermín P., Legarda I., Delgado T., Serrano C., Balaguer E., Aguirregomozcorta M., Álvarez R., Kulisevsky J.J. Transdermal Rotigotine Improves Sleep Fragmentation in Parkinson's Disease: Results of the Multicenter, Prospective SLEEP-FRAM Study. (2015) PARKINSONS DIS, 1-7.

IF: 1.7220

Puigdemont D., Portella M.J., Perez-Egea R., Molet J., Gironell A., de Diego-Adelino J., Martin A., Rodriguez R., Alvarez E., Artigas F.,

Perez V., A randomized double-blind crossover trial of deep brain stimulation of the subcallosal cingulate gyrus in patients with treatment-resistant depression: A pilot study of relapse prevention. (2015) J PSYCHIATR NEUROSCI, 40 (4), 224-231.

IF: 5.5700

Riba J., Valle M., Sampedro F., Rodriguez-Pujadas A., Martinez-Horta S., Kulisevsky J., Rodriguez-Fornells A., Telling true from false: Cannabis users show increased susceptibility to false memories. (2015) MOL PSYCHIATR, 20 (6), 772-777.

IF: 13.3140

Trenkwalder C., Chaudhuri K.R., Martinez-Martin P., Rascol O., Ehret R., Valis M., Satori M., Krygowska-Wajs A., Marti M.J., Reimer K., Oksche A., Lomax M., DeCesare J., Hopp M., Balaz M., Jech R., Kanovsky P., Pazdera L., Mach V., Roubcova D., Kuchar M., Classen J., Dressler D., Muhlack S., Polzer U., Schwarz J., Sommer M., Kassubek J., Kuhn A., Eggert K., Winkler C., Ceballos-Baumann A., Reichman H., Csanyi A., Folyovich A., Levai N., Lajtos J., Zsolnai M., Vecsei L., Polrola P., Szczepanska-Szerej A., Honczarenko A., Kaminska A., Potemkowski A., Opala G., Klimek A., Rudzinska M., Albu V., Enache C., Falup-Pecurariu C., Mitu C., Roceanu A., Balaguer E., Garcia Moreno J., Linzasoro G., Marti Domenech M., Vivancos F., Kulisevsky J., Sesar A., Rodriguez M., Chaudhuri K., Ellis S., Molloy S., Raw J., Amar K., Boothman B., Prolonged-release oxycodone-naloxone for treatment of severe pain in patients with Parkinson's disease (PANDA): A double-blind, randomised, placebo-controlled trial. (2015) LANCET NEUROL, 14 (12), 1161-1170.

IF: 23.4680

Other Publications

- ▶ Pérez-Pérez J., Martínez-Horta S., Pagonabarraga J., Carceller M., Kulisevsky J. Rasagiline for the treatment of parkinsonism in Huntington's disease. (2015) PARKINSONISM RELAT DISORD, 21(3), 340-2.
- ▶ Cubo E., Rivadeneyra J., Armesto D., Mariscal N., Martinez A., Camara R.J.; Spanish members of the European Huntington Disease Network.
- ▶ Relationship between Nutritional Status and the Severity of Huntington's Disease. A Spanish Multicenter Dietary Intake Study. (2015) J HUNTINGTONS DIS, 4(1), 78-85.
- ▶ Pérez-Pérez J., Martínez-Horta S., Pagonabarraga J., Carceller M., Kulisevsky J. Rasagiline for the treatment of parkinsonism in Huntington's disease. (2015) PARKINSONISM RELAT DISORD, 21(3), 340-2. Epub 2015 Jan 10.

- ▶ Krack P., Pagonabarraga J., Strafella A.P., Kulisevsky J. Apathy: who cares? (2015) LANCET NEUROL, 14(5), 465.
- ▶ Mild cognitive impairment in Parkinson's Disease. In: Neuropsychiatric Symptoms of Movement Disorders (p. 29-52). Editorial Springer.
- ▶ Functional Studies of Parkinson's Disease. In: Brain Mapping: An Encyclopedic Reference, 3 (p. 713-720). Editorial Elsevier.

*Total Impact Factor **Mean Impact Factor

Molecular Neuropharmacology

Coordinator

Pol Rigau, Olga
opol@santpau.cat

IR

Members

Grayston, Alba

UAB

Leánez Morilla, Sergi

Mac Donnell, Christina

UAB



Main Lines of Research

Chronic pain affects a high percentage of the adult population and is difficult to treat even with the most potent analgesic compounds, which represents one of the main challenges in the current research of pain. Our main objective is to investigate new strategies for the treatment of chronic pain using pharmacological, molecular and genetic approaches.

- ▶ Establish new strategies to improve the analgesic effects produced by opioids and cannabinoids in the treatment of chronic pain and avoiding the development of side effects.
- ▶ Identify new targets for the treatment of inflammatory, arthritic, and neuropathic pain by using different pharmacological approaches in several animal models of pain.
- ▶ Identify new approaches for treating diabetic neuropathy and oxidative stress, two of the main complications of diabetes, by evaluating the effects produced by several specific drug combinations in type I and II diabetic mice.
- ▶ Investigate the role played by nitric oxide-carbon monoxide systems in the modulation of the nociceptive and emotional responses induced by chronic pain in transgenic animals.

Challenges

- ▶ Identify new pharmacological compounds that effectively abolish chronic pain without side effects and which use can be transferred to clinical practice and/or patentable.
- ▶ Advance knowledge of the molecular mechanisms involved in the enhanced antinociceptive actions produced by opioids and cannabinoids combined with the heme oxygenase 1 signaling pathway inducer compounds.
- ▶ Develop new effective drug combinations for the treatment of neuropathic pain and oxidative stress associated with diabetes.
- ▶ Knowledge of the role played by gaseous neurotransmitters in the modulation of nociceptive and emotional responses induced by inflammatory pain.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Metabolic Bases of Cardiovascular Risk (PI: Francisco Blanco)

External Collaborations

- ▶ Prof. Christie 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.

- ▶ Pedro José Otaegui Goya. Equipos de Monitarización conductual. UNAB13-4E-1952. Ministerio de Economía y Competitividad. Duration: 2013-2015.

Active Grants

- ▶ Olga Pol Rigau. Nuevas estrategias en el tratamiento de la neuropatía diabética. PI14/00927. Instituto de Salud Carlos III. Duration: 2015-2017. €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: 2015-2017.

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

Awards

- ▶ Best UAB Neuroscience thesis of the year extraordinary award to Arnau Hervera's these, directed by Olga Pol, year 2012-13.

Pharmacological Research in Humans

Coordinator

Antonijoan Arbós,
Rosa María FGS
rantonijoana@santpau.cat

Members

Ballester Verneda,
María Rosa IR
Claramunt Giralt, Judit IR
Clos Batet, Susana IR
Coma Bolta, Sonia IR
Fernández Buján, Marta
Ferrero Cañero, Juan Manuel IR
Funes Ungria, María Àngels IR
García Gea, Consuelo IR
Garrido Sánchez,
María Teresa IR
Gich Saladich, Ignasi Josep FGS
Giménez Badia, Sandra IR
Gomis Pulgar, Ana María IR
González Cuadros, Mireia IR
Lillo Arsenal, Yolanda IR
Martínez Bonifacio, David IR
Martínez Colomer, Juan IR
Martínez Domínguez, Pura IR
Martínez Martínez,
María Isabel IR
Mercader Seguí, Esteve 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-time-in-humans, 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 studies that consider the 24-hour day/night cycle as the phenomenon under study cannot be evaluated without taking this interactivity into account.
- ▶ Develop psychomotor performance tests, subjective evaluation scales, neurophysiologic recordings (quantitative EEG, evoked-sensorial potentials and polysomnography), psychophysiological tests and pupillometric tests.

Challenges

- ▶ Consolidate and strengthen leadership in this field in Spain, conserve relationships with the pharmaceutical industry on a national level and strengthen and extend relations abroad with multinational enterprises and industries from other sectors.
- ▶ Broaden the range of questions to address in research projects 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

External Collaborations

- ▶ Phase I clinical trials for national and international pharmaceutical companies (12 in total).

Active Grants

- ▶ Rosa M. Antonijoan Arbós. Centre d'Investigació de Medicaments. 2014 SGR 386. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016.

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

Theses

- ▶ Savion Gropper Achitoov. Absorption, safety and tolerability of a Topical Quinolone. Universitat Autònoma de Barcelona. Director: Rosa Antonijoan. Date of defense: 2 December 2015.

*TIF: 62.8600 **MIF: 3.9288

Scientific Production

Alonso J.F., Romero S., Ballester M.R., Antonijoan R.M., Mananas M.A., Stress assessment based on EEG univariate features and functional connectivity measures. (2015) *PHYSIOL MEAS*, 36 (7).

IF: 1.5760

Alonso-Coello P., Montori V.M., Diaz M.G., Devereaux P.J., Mas G., Diez A.I., Sola I., Roura M., Souto J.C., Oliver S., Ruiz R., Coll-Vinent B., Gich I., Schunemann H.J., Guyatt G., Values and preferences for oral antithrombotic therapy in patients with atrial fibrillation: Physician and patient perspectives. (2015) *HEALTH EXPECT*, 18 (6), 2318-2327.

IF: 3.2070

Ballester M.R., Roig E., Gich I., Puntos M., Delgadillo J., Santos B., Antonijoan R.M., Randomized, open-label, blinded-endpoint, crossover, single-dose study to compare the pharmacodynamics of torasemide-PR 10 mg, torasemide-IR 10 mg, and furosemide-IR 40 mg, in patients with chronic heart failure. (2015) *DRUG DES DEV THER*, 9, 4291-4302.

IF: 2.8810

Balsells M., Garcia-Patterson A., Sola I., Roque M., Gich I., Corcoy R., Glibenclamide, metformin, and insulin for the treatment of gestational diabetes: A systematic review and meta-analysis. (2015) *BMJ-BRIT MED J*, 350.

IF: 19.6970

Barnadas M.A., Rubiales M.V., Gich I., Gelpi C., Usefulness of specific anti-desmoglein 1 and 3 enzyme-linked immunoassay and indirect immunofluorescence in the evaluation of pemphigus activity. (2015) *INT J DERMATOL*, 54 (11), 1261-1268.

IF: 1.4150

Bouso J.C., Palhano-Fontes F., Rodriguez-Fornells A., Ribeiro S., Sanches R., Crippa J.A.S., Hallak J.E.C., de Araujo D.B., Riba J., Long-term use of psychedelic drugs is associated with differences in brain structure and personality in humans. (2015) *EUR NEUROPSYCHOPHARM*, 25 (4), 483-492.

IF: 4.4090

Ferrero-Cañero J.M., Gich I., Puntos M., Martínez J., Ballester M.R., Coimbra J., Mathison Y., Tarre M., Font X., Antonijoan R.M., Ibuprofen

lysinate, quicker and less variable: Relative bioavailability compared to ibuprofen base in a pediatric suspension dosage form. (2015) *INT J CLIN PHARM TH*, 53 (11), 972-979.

IF: 1.1290

Gimenez S., Romero S., Alonso J.F., Mananas M.A., Pujol A., Baxarias P., Antonijoan R.M., Monitoring sleep depth: analysis of bispectral index (BIS) based on polysomnographic recordings and sleep deprivation. (2015) *J CLIN MONIT COMPUT*, 1-8.

IF: 1.8190

Gomez-Perez G.P., Legarda A., Munoz J., Sim B.K.L., Ballester M.R., Dobano C., Moncunill G., Campo J.J., Cistero P., Jimenez A., Barrios D., Mordmuller B., Pardos J., Navarro M., Zita C.J., Nhamuave C.A., Garcia-Basteiro A.L., Sanz A., Aldea M., Manoj A., Gunasekera A., Billingsley P.F., Aponte J.J., James E.R., Guinovart C., Antonijoan R.M., Kreamsner P.G., Hoffman S.L., Alonso P.L., Controlled human malaria infection by intramuscular and direct venous inoculation of cryopreserved *Plasmodium falciparum* sporozoites in malaria-naïve volunteers: effect of injection volume and dose on infectivity rates. (2015) *MALARIA J*, 14 (1).

IF: 3.0790

Hernandez D., Palou J., Sancho G., Salas D., Gimenez D., Buitrago P., Esquena S., de la Torre P., Pernas J., Gich I., de Segura G.G., Craven-Bartle J., Pelvic MRI findings in relapsed prostate cancer after radical prostatectomy. (2015) *RADIAT ONCOL*, 10 (1).

IF: 2.4660

Maqueda A.E., Valle M., Addy P.H., Antonijoan R.M., Puntos M., Coimbra J., Ballester M.R., Garrido M., Gonzalez M., Claramunt J., Barker S., Johnson M.W., Griffiths R.R., Riba J., Salvinorin-A induces intense dissociative effects, blocking external sensory perception and modulating interoception and sense of body ownership in humans. (2015) *INT J NEUROPSYCHOPH*, 18 (12), 1-14.

IF: 4.3330

Mordmuller B., Supan C., Sim K.L., Gomez-Perez G.P., Ospina Salazar C.L., Held J., Bolte S., Esen M., Tschan S., Joanny F., Lamsfus

Calle C., Lohr S.J.Z., Lalremruata A., Gunasekera A., James E.R., Billingsley P.F., Richman A., Chakravarty S., Legarda A., Munoz J., Antonijoan R.M., Ballester M.R., Hoffman S.L., Alonso P.L., Kreamsner P.G., Direct venous inoculation of *Plasmodium falciparum* sporozoites for controlled human malaria infection: A dose-finding trial in two centres. (2015) *MALARIA J*, 14 (1).

IF: 3.0790

Plaza V., Peiro M., Torrejon M., Fletcher M., Lopez-Vina A., Ignacio J.M., Quintano J.A., Bardagi S., Gich I., A repeated short educational intervention improves asthma control and quality of life. (2015) *EUR RESPIR J*, 46 (5), 1298-1307.

IF: 8.3320

Riba J., McIlhenny E.H., Bouso J.C., Barker S.A., Metabolism and urinary disposition of N,N-dimethyltryptamine after oral and smoked administration: A comparative study. (2015) *DRUG TEST ANAL*, 7 (5), 401-406.

IF: 2.8590

Robleda G., Roche-Campo F., Urrutia G., Navarro M., Sendra M.-A., Castillo A., Rodriguez-Arias A., Juanes-Borreo E., Gich I., Mancebo J., Banos J.-E., A randomized controlled trial of fentanyl in the pre-emptive treatment of pain associated with turning in patients under mechanical ventilation: RESEARCH protocol. (2015) *J ADV NURS*, 71 (2), 441-450.

IF: 1.9170

Robleda G., Roche-Campo F., Sanchez V., Gich I., Banos J.-E., Postoperative Discomfort After Abdominal Surgery: An Observational Study. (2015) *J PERIANESTH NURS*, 30 (4), 272-279.

IF: 0.6620

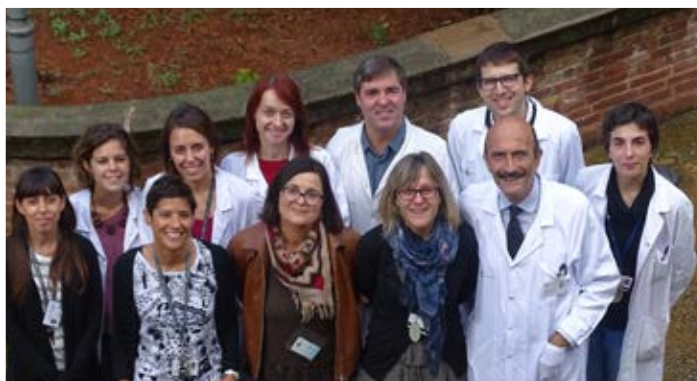
Clinical Psychiatry

Coordinator

Portella Moll, Maria Jesús IR
mportella@santpau.cat

Members

Allende, Saiko	CIBERSAM
Alonso, Anna	IR
Álvarez, Enric	FGS
Arranz, María Jesús	IR
Carceller, María del Mar	IR
Carmona Farrés, Cristina	FGS
Corripio, Iluminada	FGS
Díaz, Anna	FGS
De Diego, Francisco Javier	FGS
Duran-Sindreu, Santiago	FGS
Elices, Matilde	IR
Feliu, Albert	IR
Figueras, María	FGS
Grasa, Eva María	CIBERSAM
Jubero, Miriam	IR
Martín, Anna	IR
Pascual, Juan Carlos	FGS
Pérez, Josefina	FGS
Puigdemont, Dolors	FGS
Rabella, Mireia	IR
Serra, María	IR
Soler, Joaquín	FGS
Soriano, José	FGS
Tiana, Thais	FGS



Main Lines of Research

- ▶ Psychotic disorders (first episodes and persistent hallucinations).
- ▶ Affective disorders (major depression and validation of scales).
- ▶ Borderline personality disorder.

Challenges

- ▶ Foster research that reduces the health-care, 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 anti-psychotic 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.

Awards

- ▶ A. Fernández Vidal, E. Salagre, A. Ancochea, A. Feliu, D. Puigdemont, M.J. Portella, J. Trujols, E. Álvarez, V. Pérez, J. de Diego-Adeliño. Remissió en depressió: la felicitat i salut mental positiva del pacient hi tenen res a dir? Premi accésit a la millor comunicació de la Jornada de Cloenda de Psiquiatria 2014, Societat Catalana de Psiquiatria i Salut Mental. 5-6 June 2014.
- ▶ Joana Bauzà, Sara Vieira, Alexandra Roldán, Conrad Molins, Eva Grasa, Santiago Durán-Sindreu, Anna Díaz, María J. Portella, Enric Álvarez, Iluminada Corripio. Podríem preveure el perfil de remissió dels pacients psicòtics a través del seu rendiment neuropsicològic? Premi a la millor comunicació de la Jornada de Cloenda de Psiquiatria 2014, Societat Catalana de Psiquiatria i Salut Mental. 5-6 June 2014.

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

- ▶ Iluminada Corripio Collado. Determinantes clínicos y neurobiológicos de segundos episodios de esquizofrenia. Estudio longitudinal de primeros episodios psicóticos. PI11/00260. Instituto de Salud Carlos III. Duration: 2012-2016. €75,727.
- ▶ Maria Jesús Portella Moll. Contracte SNS Miguel Servet 2010. MS10/00393. Instituto de Salud Carlos III. Duration: 2011-2017. €151,875.
- ▶ Enric Álvarez Martínez. Estimulación Cerebral Profunda en el tratamiento de la esquizofrenia refractaria: estudio piloto aleatorizado, controlado y cruzado. PI12/00042. Instituto de Salud Carlos III. Duration: 2013-2017. €91,500.
- ▶ Francisco Javier de Diego Adeliño. Recerca farmacogenètica de la difusió sexual induïda per antidepressius. JPC 2013. Societat Catalana de Psiquiatria i Salut Mental. Duration: 2013-2016. €2,700.
- ▶ 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: 2014-2016. €56,300.
- ▶ Joaquín Soler Ribaudi. Efectos del Mindfulness en la Actividad y Conectividad Funcional de la Default Mode Network en Pacientes con Trastorno Límite de la Personalidad. PI13/00134. Instituto de Salud Carlos III. Duration: 2014-2016. €46,150.
- ▶ Enric Álvarez Martínez. Grup de Recerca en Trastorns Psiquiàtrics de Sant Pau. 2014 SGR 468. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016.
- ▶ Francisco Javier de Diego Adeliño. Papel de la microbiota en el origen y las consecuencias de la inflamación en depresión. Es-

tudio traslacional. PI13/01102-1 C. Instituto de Salud Carlos III. Duration: 2014-2016.

- ▶ Iluminada Corripio Collado. Mobile Therapeutic Attention for Patients with Treatment Resistant Schizophrenia (m-RESIST). PHC26-2014(2)-IR. European Union. Duration: 2015-2017. €126,474.19.
- ▶ 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: 2015-2017. €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.
- ▶ Eva Maria Grasa Bello. Eficacia del Entrenamiento Metacognitivo Individualizado (EMC+) en personas con psicosis de breve evolución. PI14/00044 C. Instituto de Salud Carlos III. Duration: 2015-2017.
- ▶ Iluminada Corripio Collado. Mobile Therapeutic Attention for Patients with Treatment Resistant Schizophrenia (m-RESIST). PHC26-2014(2)-FGS. European Union. Duration: 2015-2017. €152,667.81.

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

Grants Awarded in 2015

- ▶ Maria Jesús Portella Moll. Biomarkers of treatment resistance in major depressive disorders. IR15-P3. Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2015-2016. €33,000.
- ▶ Iluminada Corripio Collado, Mobile Therapeutic Attention for Patients with Treatment Resistant Schizophrenia: m-RESIST Proj-

ect H2020. IR15-INTH2020. Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2015-2016. €30,000.

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

Clinical Psychiatry

*TIF: 64.3960 **MIF: 3.0665

Aguado J., Luciano J.V., Cebolla A., Serrano-Blanco A., Soler J., Garcia-Campayo J., Bifactor analysis and construct validity of the five facet mindfulness questionnaire (FFMQ) in non-clinical Spanish samples. (2015) *FRONT PSYCHOL*, 6 (MAR).

IF: 2.4630

Alonso-Solis A., Vives-Gilabert Y., Grasa E., Portella M.J., Rabella M., Sauras R.B., Roldan A., Nunez-Marin F., Gomez-Anson B., Perez V., Alvarez E., Corripio I., Resting-state functional connectivity alterations in the default network of schizophrenia patients with persistent auditory verbal hallucinations. (2015) *SCHIZOPHR RES*, 161 (2-3), 261-268.

IF: 4.4530

Arranz B., Safont G., Corripio I., Ramirez N., Duenas R.M., Perez V., Alvarez E., San L., Substance use in patients with first-episode psychosis: Is gender relevant?. (2015) *J DUAL DIAGN*, 11 (3-4), 153-160.

IF: 0.8390

Atanes A.C.M., Andreoni S., Hirayama M.S., Montero-Marin J., Barros V.V., Ronzani T.M., Kozasa E.H., Soler J., Cebolla A., Garcia-Campayo J., Demarzo M.M.P., Mindfulness, perceived stress, and subjective well-being: A correlational study in primary care health professionals. (2015) *BMC COMPLEMENT M*, 15 (1).

IF: 1.9870

Carceller-Sindreu M., de Diego-Adelino J., Serra-Blasco M., Vives-Gilabert Y., Martiñ-Blanco A., Puigdemont D., Alvarez E., Perez V., Portella M.J., Volumetric MRI study of the habenula in first episode, recurrent and chronic major depression. (2015) *EUR NEUROPSYCHOPHARM*, 25 (11), 2015-2021.

IF: 4.4090

Cuesta M.J., Sanchez-Torres A.M., Cabrera B., Bioque M., Merchan-Naranjo J., Corripio I., Gonzalez-Pinto A., Lobo A., Bombin I., de la Serna E., Sanjuan J., Parellada M., Saiz-Ruiz J., Bernardo M., Mezquida G., Penades R., Calvo A., Arango C., Alonso-Solis A., Grasa E.M., de Azua S.R., Barbeito S., Gutierrez-Galve L., Barconesi F., Aguilar E.J., Berge D., Cortizo R., Torrent C., Vieta E., Baeza I., Castro-Fornieles J., Contreras F., Albacete A., Al-Halabi S., Bobes J., Zabala A., Rodriguez-Jimenez R., Usall J., Sarro S., Ibanez A., Moreno-Izco L., Balanza-Martinez V., Premorbid adjustment and clinical correlates of cognitive impairment in first-episode psychosis: The PEPsCog Study. (2015) *SCHIZOPHR RES*, 164 (1-3), 65-73.

IF: 4.4530

Elices M., Pascual J.C., Carmona C., Martin-Blanco A., Feliu-Soler A., Ruiz E., Goma-i-Freixanet M., Perez V., Soler J., Exploring the relation between childhood trauma, temperamental traits and mindfulness in bor-

derline personality disorder. (2015) *BMC PSYCHIATRY*, 15 (1).

IF: 2.5760

Forcada I., Mur M., Mora E., Vieta E., Bartres-Faz D., Portella M.J., The influence of cognitive reserve on psychosocial and neuropsychological functioning in bipolar disorder. (2015) *EUR NEUROPSYCHOPHARM*, 25 (2), 214-222.

IF: 4.4090

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). (2015) *REV PSIQUIATR SALUD*.

IF: 1.6500

Martin-Blanco A., Serra-Blasco M., Perez-Egea R., De Diego-Adelino J., Carceller-Sindreu M., Puigdemont D., Molet J., Alvarez E., Perez V., Portella M.J., Immediate cerebral metabolic changes induced by discontinuation of deep brain stimulation of subcallosal cingulate gyrus in treatment-resistant depression. (2015) *J AFFECT DISORDERS*, 173, 159-162.

IF: 3.5700

Martin-Blanco A., Ferrer M., Soler J., Arranz M.J., Vega D., Bauza J., Calvo N., Elices M., Sanchez-Mora C., Garcia-Martinez I., Salazar J., Ribases M., Carmona C., Prat M., Pascual J.C., An exploratory association study of the influence of noradrenergic genes and childhood trauma in Borderline Personality Disorder. (2015) *PSYCHIAT RES*, 229 (1-2), 589-592.

IF: 2.4660

Martinez-Horta S., Perez-Perez J., van Duijn E., Fernandez-Bobadilla R., Carceller M., Pagonabarraga J., Pascual-Sedano B., Campolongo A., Ruiz-Idiago J., Sampedro F., Landwehrmeyer G.B., Kulisevsky J., Neuropsychiatric symptoms are very common in premanifest and early stage HD. (2015) *PARKINSONISM RELAT D*.

IF: 3.7940

Mitjans M., Catalan R., Vazquez M., Gonzalez-Rodriguez A., Penades R., Pons A., Masana G., Munro J., Arranz M.J., Arias B., Hypothalamic-pituitary-adrenal system, neurotrophic factors and clozapine response: Association with FKBP5 and NTRK2 genes. (2015) *PHARMACOGENET GENOM*, 25 (5), 274-277.

IF: 2.8570

Olivares J.M., Alvarez E., Carrasco J.L., Paramo M.P., Lopez-Gomez V., Pregabalin for the treatment of patients with generalized anxiety disorder with inadequate treatment response to antidepressants and severe depressive symptoms. (2015) *INT CLIN PSYCHOPHARM*, 30 (5), 265-271.

IF: 2.4150

Pascual J.C., Palomares N., Ibanez A., Portella M.J., Arza R., Reyes R., Feliu-Soler A., Diaz-Marsa M., Saiz-Ruiz J., Soler J., Carrasco J.L., Efficacy of cognitive rehabilitation on psychosocial functioning in Borderline Personality Disorder: A randomized controlled trial. (2015) *BMC PSYCHIATRY*.

IF: 2.5760

Puigdemont D., Portella M.J., Perez-Egea R., Molet J., Gironell A., de Diego-Adelino J., Martin A., Rodriguez R., Alvarez E., Artigas F., Perez V., A randomized double-blind crossover trial of deep brain stimulation of the subcallosal cingulate gyrus in patients with treatment-resistant depression: A pilot study of relapse prevention. (2015) *J PSYCHIATR NEUROSCI*, 40 (4), 224-231.

IF: 5.5700

Ruiz M.A., Alvarez E., Carrasco J.L., Olivares J.M., Perez M., Rejas J., Modeling the longitudinal latent effect of pregabalin on self-reported changes in sleep disturbances in outpatients with generalized anxiety disorder managed in routine clinical practice. (2015) *DRUG DES DEV THER*, 9, 4329-4340.

IF: 2.8810

Serra-Blasco M., de Vita S., Rodriguez M.R., de Diego-Adelino J., Puigdemont D., Martin-Blanco A., Perez-Egea R., Molet J., Alvarez E., Perez V., Portella M.J., Cognitive functioning after deep brain stimulation in subcallosal cingulate gyrus for treatment-resistant depression: An exploratory study. (2015) *PSYCHIAT RES*, 225 (3), 341-346.

IF: 2.4660

Trujols J., Ballesteros J., Sola I., Portella M.J., Improving systematic reviews on psychometric properties of measurement instruments: A letter to the Editor commenting on Reilly et al's. (2015) review of the psychometric literature on QIDS. (2015) *J PSYCHIATR RES*.

IF: 4.4650

Trujols J., Ibraurgi I., Batlle F., Duran-Sindreu S., Perez de los Cobos J., Towards a genuinely user-centred evaluation of harm reduction and drug treatment programmes: A further proposal. (2015) *INT J DRUG POLICY*, 26 (12), 1285-1287.

IF: 3.1190

Villalta L., Arevalo R., Valdeperez A., Pascual J.C., de los Cobos J.P., Parental Bonding in Subjects with Pathological Gambling Disorder Compared with Healthy Controls. (2015) *PSYCHIAT QUART*, 86 (1), 61-67.

IF: 0.9780

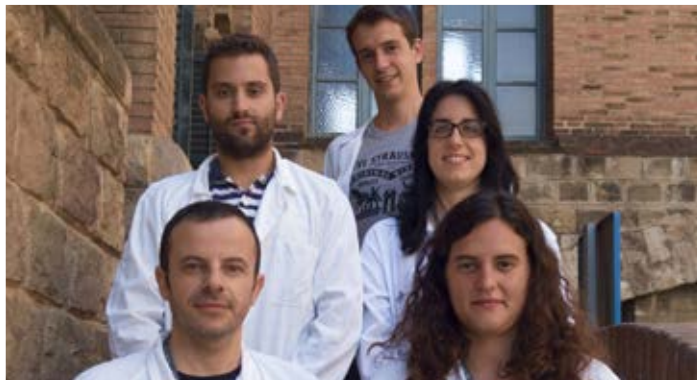
Genetics in Neurodegenerative Diseases

Coordinator

Clarimon Echavarría, Jordi IR
jclarimon@santpau.cat

Members

Cervera Carles, Laura IR
Dols Icardo, Oriol CIBERNED
Helgueta Romero, Sergui 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 neuromuscular disorders.
- ▶ 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.

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 (Alberto Lleó).
- ▶ Parkinson Disease and Movement Disorders (Jaime Kulisevsky).
- ▶ Neuromuscular Diseases (Isabel Illa).

External Collaborations

National and international consortiums

- ▶ European Early Onset Dementia Consortium (EU-EOD).
- ▶ European Alzheimer Disease Initiative (EADI).
- ▶ International Genomics of Alzheimer Project (IGAP).
- ▶ Dementia Genetics Spanish Consortium (DEGESCO).
- ▶ CIBER-Neurodegenerative Diseases (CIBERNED).

Collaborations with international centres

- ▶ Dr. John Hardy, University College of London, UK.
- ▶ Dr. Andrew Singleton, National Institutes of Health, USA.
- ▶ Dr. Coro Paisán-Ruiz, Mount Sinai School of Medicine, USA.
- ▶ 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. Philippe Amouyel, Institut Pasteur de Lille, France.
- ▶ Dr. Christine Van Broekhoven, University of Antwerp, Belgium.

Active Grants

- ▶ Jordi Clarimon Echavarria. Contratos Miguel Servet 2013 (II). MSII13/00005. Instituto de Salud Carlos III. Duration: 2014-2017. €101,250.
- ▶ Jordi Clarimon Echavarria. Grup de Recerca en Demècies. 2014 SGR 235. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016. €18,000.
- ▶ Jordi Clarimon Echavarria. A comprehensive genomic analysis of patients with motor neuron disease and frontotemporal dementia to disentangle the missing genetic architecture of amyotrophic lateral sclerosis. TODOS SOMOS RAROS 2014. Federación Española de Enfermedades Raras / Fundación Isabel Gemio / Federación Española de Enfermedades Neuromusculares. Duration: 2015-2017. €90,748.
- ▶ Jordi Clarimón Echevarria. Variantes genéticas raras y su implicación en la enfermedad de Alzheimer: uso de nuevas tecnologías de ultrasecuenciación para el estudio de genes implicados en la enfermedad de Alzheimer. PI12/01311. Instituto de Salud Carlos III. Duration: 2013-2016. €110,110.

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

Grants Awarded in 2015

- ▶ Jordi Clarimon Echavarria. Paper del gen CHCHD10 en el contínuum demència frontotemporal – esclerosi lateral amiotròfica. IR15-P6. Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2015-2016. €33,000.

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

*TIF: 111.0870 **MIF: 7.4058

Scientific Production

Alcolea D., Vilaplana E., Pegueroles J., Montal V., Sanchez-Juan P., Gonzalez-Suarez A., Pozueta A., Rodriguez-Rodriguez E., Bartres-Faz D., Vidal-Pineiro D., Gonzalez-Ortiz S., Medrano S., Carmona-Iragui M., Sanchez-Saudinos M., Sala I., Anton-Aguirre S., Sampedro F., Morenas-Rodriguez E., Clarimon J., Blesa R., Lleo A., Fortea J., Relationship between cortical thickness and cerebrospinal fluid YKL-40 in predementia stages of Alzheimer's disease. (2015) NEUROBIOL AGING, 36 (6), 2018-2023.

IF: 5.1530

Alcolea D., Martinez-Lage P., Sanchez-Juan P., Olazarán J., Antunez C., Izagirre A., Ecay-Torres M., Estanga A., Clerigüe M., Guisasaola M.C., Sanchez Ruiz D., Marin Munoz J., Calero M., Blesa R., Clarimon J., Carmona-Iragui M., Morenas-Rodriguez E., Rodriguez-Rodriguez E., Vazquez Higuera J.L., Fortea J., Lleo A., Amyloid precursor protein metabolism and inflammation markers in preclinical Alzheimer disease. (2015) NEUROLOGY, 85 (7), 626-633.

IF: 8.1660

Buñill E., Roura-Poch P., Sala-Matavera I., Anton S., Lleo A., Sanchez-Saudinos B., Tomas-Abadal L., Puig T., Abos J., Bernades S., Clarimon J., Blesa R., Reelin signaling pathway genotypes and Alzheimer disease in a Spanish population. (2015) ALZ DIS ASSOC DIS, 29 (2), 169-172.

IF: 2.5300

Cacace R., Van den Bossche T., Engelborghs S., Geerts N., Laureys A., Dillen L., Graff C., Thonberg H., Chiang H.-H., Pastor P., Ortega-Cubero S., Pastor M.A., Diehl-Schmid J., Alexopoulos P., Benussi L., Ghidoni R., Binetti G., Nacmias B., Sorbi S., Sanchez-Valle R.,

Llado A., Gelpi E., Almeida M.R., Santana I., Tsolaki M., Koutroumani M., Clarimon J., Lleo A., Fortea J., de Mendonca A., Martins M., Borroni B., Padovani A., Matej R., Rohan Z., Vandenbulcke M., Vandenbergh R., De Deyn P.P., Cras P., van der Zee J., Sleegers K., Van Broeckhoven C., Rare Variants in PLD3 Do Not Affect Risk for Early-Onset Alzheimer Disease in a European Consortium Cohort. (2015) HUM MUTAT, 36 (12), 1226-1235.

IF: 5.0890

Carmona-Iragui M., Fernandez-Arcos A., Alcolea D., Piazza F., Morenas-Rodriguez E., Anton-Aguirre S., Sala I., Clarimon J., Dols-Icardo O., Camacho V., Sampedro F., Munuera J., Nunez-Marin F., Lleo A., Fortea J., Gomez-Anson B., Blesa R., Cerebrospinal Fluid Anti-Amyloid-Beta; Autoantibodies and Amyloid PET in Cerebral Amyloid Angiopathy-Related Inflammation. (2015) J ALZHEIMERS DIS, 50 (1), 1-7.

IF: 3.9200

Cuyvers E., van der Zee J., Bettens K., Engelborghs S., Vandenbulcke M., Robberecht C., Dillen L., Merlin C., Geerts N., Graff C., Thonberg H., Chiang H.-H., Pastor P., Ortega-Cubero S., Pastor M.A., Diehl-Schmid J., Alexopoulos P., Benussi L., Ghidoni R., Binetti G., Nacmias B., Sorbi S., Sanchez-Valle R., Llado A., Gelpi E., Almeida M.R., Santana I., Clarimon J., Lleo A., Fortea J., de Mendonca A., Martins M., Borroni B., Padovani A., Matej R., Rohan Z., Ruiz A., Frisoni G.B., Fabrizio G.M., Vandenbergh R., De Deyn P.P., Van Broeckhoven C., Sleegers K., Genetic variability in SQSTM1 and risk of early-onset Alzheimer dementia: A European early-onset dementia consortium study. (2015) NEUROBIOL AGING, 36 (5), 2005.e15-2005.e22.

IF: 5.1530

Dols-Icardo O., Iborra O., Valdivia J., Pastor P., Ruiz A., de Munain A.L., Sanchez-Valle R., Alvarez V., Sanchez-Juan P., Lleo A., Fortea J., Blesa R., Cardona F., Baquero M., Alonso M.D., Ortega-Cubero S., Pastor M.A., Razquin C., Boada M., Hernandez I., Gorostidi A., Moreno F., Zulaika M., Llado A., Coto E., Combarros O., Perez-Tur J., Clarimon J., Assessing the role of TUBA4A gene in frontotemporal degeneration. (2015) NEUROBIOL AGING, 38, 215.e13-215.e14.

IF: 5.1530

Heilmann S., Dricchel D., Clarimon J., Fernandez V., Lacour A., Wagner H., Thelen M., Hernandez I., Fortea J., Alegret M., Blesa R., Mauleon A., Roca M.R., Kornhuber J., Peters O., Heun R., Frolich L., Hull M., Heneka M.T., Ruther E., Riedel-Heller S., Scherer M., Wiltfang J., Jessen F., Becker T., Tarraga L., Boada M., Maier W., Lleo A., Ruiz A., Nothen M.M., Ramirez A., PLD3 in non-familial Alzheimer's disease. (2015) NATURE, 520 (7545), E3-E5.

IF: 38.1380

Hor H., Francescato L., Bartesaghi L., Ortega-Cubero S., Kousi M., Lorenzo-Betancor O., Jimenez-Jimenez F.J., Gironell A., Clarimon J., Drechsel O., Agundez J.A.G., Kenzelmann Broz D., Chiquet-Ehrismann R., Lleo A., Coria F., Garcia-Martin E., Alonso-Navarro H., Marti M.J., Kulisevsky J., Hor C.N., Ossowski S., Chrast R., Katsanis N., Pastor P., Estivill X., Missense mutations in TENM4, a regulator of axon guidance and central myelination, cause essential tremor. (2015) HUM MOL GENET, 24 (20), 5677-5686.

IF: 5.9850

Jones L., et al, Convergent genetic and expression data implicate immunity in Alzheimer's

Genetics in Neurodegenerative Diseases

*TIF: 111.0870 **MIF: 7.4058

Scientific Production

mer's disease. (2015) *ALZHEIMERS DEMENT*, 11 (6), 658-671.

IF: 11.6190

Martinez-Lizana E., Carmona-Iragui M., Alcolea D., Gomez-Choco M., Vilaplana E., Sanchez-Saudinos M.B., Clarimon J., Hernandez-Guillamon M., Munuera J., Gelpi E., Gomez-Anson B., De Juan-Delago M., Delgado-Mederos R., Montaner J., Ois A., Amaro S., Blesa R., Marti-Fabregas J., Lleo A., Fortea J., Cerebral amyloid angiopathy-related atraumatic convexal subarachnoid hemorrhage: An ARIA before the tsunami. (2015) *J CEREBR BLOOD F MET*, 35 (5), 710-717.

IF: 4.9290

Ortega-Cubero S., Lorenzo-Betancor O., Lorenzo E., Agundez J.A.G., Jimenez-Jimenez F.J., Ross O.A., Wurster I., Mielke C., Lin J.-J., Coria F., Clarimon J., Ezquerra M., Brighina L., Annesi G., Alonso-Navarro H., Garcia-Martin E., Gironell A., Marti M.J., Yueh K.-C., Wszolek Z.K., Sharma M., Berg D., Kruger R., Pastor M.A., Pastor P., TREM2 R47H variant and risk of essential tremor: A cross-sectional inter-

national multicenter study. (2015) *PARKINSONISM RELAT D*, 21 (3), 306-309.

IF: 3.7940

Pastor P., Moreno F., Clarimon J., Ruiz A., Combarros O., Calero M., De Munain A.L., Bullido M.J., De Pancorbo M.M., Carro E., Antonell A., Coto E., Ortega-Cubero S., Hernandez I., Tarraga L., Boada M., Lleo A., Dols-Icardo O., Kulisevsky J., Vazquez-Higuera J.L., Infante J., Rabano A., Fernandez-Blazquez M.A., Valenti M., Indakoetxea B., Barandiaran M., Gorostidi A., Frank-Garcia A., Sastre I., Lorenzo E., Pastor M.A., Elcoroaritzabal X., Lennarz M., Maier W., Ramirez A., Serrano-Rios M., Lee S.E., Sanchez-Juan P., MAPT H1 haplotype is associated with late-onset Alzheimer's disease risk in APOE ε 4 noncarriers: Results from the dementia genetics Spanish consortium. (2015) *J ALZHEIMERS DIS*, 49 (2), 343-352.

IF: 3.9200

Sampedro F., Vilaplana E., de Leon M.J., Alcolea D., Pegueroles J., Montal V., Carmona-Iragui M., Sala I., Sanchez-Saudinos M.-B.,

Anton-Aguirre S., Morenas-Rodriguez E., Camacho V., Falcon C., Pavia J., Ros D., Clarimon J., Blesa R., Lleo A., Fortea J., APOE-by-sex interactions on brain structure and metabolism in healthy elderly controls. (2015) *ONCOTARGET*, 6 (29), 26663-26674.

IF: 5.0080

Suarez-Calvet M., Camacho V., Gomez-Anson B., Anton S., Vives-Gilabert Y., Dols-Icardo O., Clarimon J., Alcolea D., Blesa R., Fortea J., Lleo A., Early cerebellar hypometabolism in patients with frontotemporal dementia carrying the C9orf72 expansion. (2015) *ALZ DIS ASSOC DIS*, 29 (4), 353-356.

IF: 2.5300

Human Neuropsychopharmacology

Coordinator

Riba Serrano, Jordi
jrriba@santpau.cat

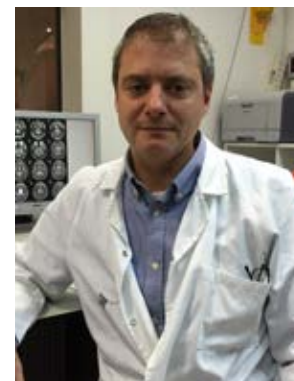
IR

Members

Roberto Herrero, Natalia
Yarritu, Ion

IR

IR



Main Lines of Research

General Neuropsychopharmacology

- ▶ Pharmacological modulation of the different neurotransmission systems to study the role of these systems in advanced cognitive functions (executive control) and emotions.

Neuropsychopharmacology of Abused Substances

- ▶ Effects on the central nervous system of psychodysleptic drugs such as ayahuasca, salvinorin A, dimethyltryptamine and THC.
- ▶ Assessment of the impact of long-term drug use on brain function (fMRI) and structure (VBM, DTI).

Challenges

- ▶ Consolidate and extend existing research lines through possible cooperation agreements with other groups and according to internal growth.
- ▶ Obtain emerging-group recognition.
- ▶ Obtain stable funding and supporting technical staff.
- ▶ Communicate activities.
- ▶ Maintain existing external cooperation agreements.
- ▶ Establish new cooperation agreements within HSCSP RI.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Pharmacokinetic/Pharmacodynamic Modelling and Simulation.
- ▶ Parkinson Disease and Movement Disorders.
- ▶ Clinical Psychiatry.

External Collaborations

- ▶ Cognition and Brain Plasticity Group (IDIBELL Bellvitge Biomedical Research Institute), Spain.
- ▶ Biomedical Engineering Research Centre, Universitat Politècnica de Catalunya (UPC), Spain.
- ▶ Brain Institute, Federal University of Rio Grande do Norte, Natal, Brazil.
- ▶ Neuroscience and Behaviour Department, Ribeirão Preto Medical School, University of São Paulo, Brazil.
- ▶ Psychiatry and Behavioral Sciences Department, Johns Hopkins School of Medicine, USA.
- ▶ Department of Comparative Biomedical Sciences, Louisiana State University, USA.

Active Grants

- ▶ Jordi Riba Serrano. Farmacología humana de la salvinorina-A: estudio farmacocinético, farmacodinámico y de mecanismo de acción mediante bloqueo farmacológico de los efectos. PI12/02758. Instituto de Salud Carlos III. Duration: 2013-2016. €66,500.

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

Grants Awarded in 2015

- ▶ Jordi Riba Serrano. Estudio de prueba de concepto de la estimulación adrenérgica en el tratamiento de los síntomas negativos y déficits cognitivos en la esquizofrenia. IR15-P2. Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2015-2016. €33,000.

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

*TIF: 41.7450 **MIF: 4.1745

Scientific Production

Alonso J.F., Romero S., Mananas M.A., Rojas M., Riba J., Barbanoj M.J., Evaluation of multiple comparison correction procedures in drug assessment studies using LORETA maps. (2015) MED BIOL ENG COMPUT, 53 (10), 1011-1023.
IF: 1.7970

Bouso J.C., Palhano-Fontes F., Rodriguez-Fornells A., Ribeiro S., Sanches R., Crippa J.A.S., Hallak J.E.C., de Araujo D.B., Riba J., Long-term use of psychedelic drugs is associated with differences in brain structure and personality in humans. (2015) EUR NEUROPSYCHOPHARM, 25 (4), 483-492.
IF: 4.4090

Francesc Alonso J., Romero S., Angel Mananas M., Riba J., Serotonergic psychedelics temporarily modify information transfer in humans. (2015) INT J NEUROPSYCHOPH, 18 (8), 1-9.
IF: 4.3330

Lopez-Gongora M., Escartin A., Martinez-Horta S., Fernandez-Bobadilla R., Querol L., Romero S., Mananas M.A., Riba J., Neurophysiological evidence of compensatory brain mechanisms in early-stage multiple sclerosis. (2015) PLOS ONE, 10 (8).
IF: 3.0570

Maqueda A.E., Valle M., Addy P.H., Antoni-joan R.M., Puntos M., Coimbra J., Ballester M.R., Garrido M., Gonzalez M., Claramunt J., Barker S., Johnson M.W., Griffiths R.R., Riba J.,

Salvinorin-A induces intense dissociative effects, blocking external sensory perception and modulating interoception and sense of body ownership in humans. (2015) INT J NEUROPSYCHOPH, 18 (12), 1-14.
IF: 4.3330

Osorio F.d.e L., Sanches R.F., Macedo L.R., Santos R.G., Maia-de-Oliveira J.P., Wichert-Ana L., Araujo D.B., Riba J., Crippa J.A., Hallak J.E., Antidepressant effects of a single dose of ayahuasca in patients with recurrent depression: A preliminary report. (2015) REV BRAS PSIQUIATR, 37 (1), 13-20.
IF: 2.1810

Pitol D.L., Siessere S., Dos Santos R.G., Rosa M.L.N.M., Hallak J.E.C., Scalize P.H., Pereira B.F., Iyomasa M.M., Semprini M., Riba J., Regalo S.C.H., Ayahuasca Alters Structural Parameters of the Rat Aorta. (2015) J CARDIOVASC PHARM, 66 (1), 58-62.
IF: 2.4620

Riba J., McIlhenny E.H., Bouso J.C., Barker S.A., Metabolism and urinary disposition of N,N-dimethyltryptamine after oral and smoked administration: A comparative study. (2015) DRUG TEST ANAL, 7 (5), 401-406.
IF: 2.8590

Riba J., Valle M., Sampedro F., Rodriguez-Pujadas A., Martinez-Horta S., Kulisevsky J., Rodriguez-Fornells A., Telling true from false: Cannabis users show increased susceptibil-

ity to false memories. (2015) MOL PSYCHIATR, 20 (6), 772-777.

IF: 13.3140

Sanches R.F., de Lima Osorio F., dos Santos R.G., Macedo L.R.H., Maia-de-Oliveira J.P., Wichert-Ana L., de Araujo D.B., Riba J., S. Crippa J.A., Hallak J.E.C., Antidepressant Effects of a Single Dose of Ayahuasca in Patients With Recurrent Depression: A SPECT Study. (2015) J CLIN PSYCHOPHARM.
IF: 3.0000

IF: 3.0000

Other Publications

- ▶ McKenna D., Riba J. New world tryptamine hallucinogens and the neuroscience of ayahuasca. In: Current Topics in Behavioral Neurosciences. (2015) Springer. DOI: 10.1007/7854_2015_368.
- ▶ Bouso J.C., Riba J., Barbanoj M.J. Drogas de abuso y sueño In: Tratado de Sueño (2015). Editorial Médica Panamericana. Chapter 25, pages 276-281.

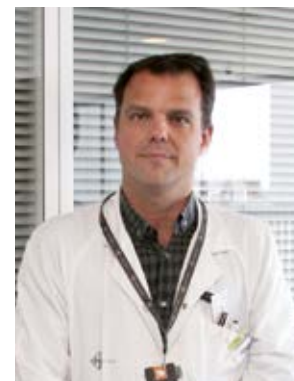
Neurobiology of Dementia

Coordinator

Lleó Bisa, Albert FGS
alleo@santpau.cat

Members

Alcolea Rodríguez, Daniel Andrés IR
Anton Aguirre, Susana Sofía IR
Belbin, Olivia IR
Blesa González, Rafael FGS
Carmona Iragui, María IR
Colom Cadena, Martí IR
Dols Icardo, Oriol CIBERNED
Fortea Ormaechea, Juan FGS
Illan Gala, Ignacio FGS
Morenas Rodríguez, Estrella IR
Núñez Llaves, Raúl IR
Sala Matavera, Isabel FGS
Sánchez Saudinos, María Belén IR
Vilaplana Martínez, Eduard IR



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 imaging in neurodegenerative dementias.
- Novel MRI markers in preclinical Alzheimer disease.
- ▶ Biomarkers of Alzheimer disease in Down syndrome.
- ▶ Molecular basis of neurodegenerative diseases.

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 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).
- ▶ Parkinson Disease and Movement Disorders (PI: Jaime Kulisevsky).
- ▶ Nuclear Medicine (PI: Ignasi Carrió).

External Collaborations

- ▶ Ellen Gelpi, José L Molinuevo, Hospital Clínic-IDIBAPS, Barcelona, Spain.
- ▶ Jordi Magrané, Cornell University, New York, USA.
- ▶ Tiago Outeiro, University Medical Centre, Goettingen, Germany.
- ▶ Martin Ingelsson, MD, PhD, Uppsala University, Sweden.
- ▶ Tara Spire-Jones, University of Edinburgh, UK.
- ▶ Kaj Blennow, Göteborg, Sweden.
- ▶ Pieter J Visser, Amsterdam University, The Netherlands.

Theses

- ▶ Daniel Andrés Alcolea Rodríguez. Cerebrospinal fluid biomarkers for the study of the pathophysiological pathways in Alzheimer's disease. Universitat Autònoma de Barcelona. Directors: Alberto Lleó Bisa, Rafael Blesa González. Date of defense: 30 November 2015.

Active Grants

- ▶ Juan Fortea Ormaechea. Estudios multimodales de líquido cefalorraquídeo y resonancia magnética en la enfermedad de Alzheimer preclínica. PI11/02425. Instituto de Salud Carlos III. Duration: 2012-2016. €93,009.
- ▶ Albert Lleó Bisa. Biomarkers for Alzheimer's disease and Parkinson's disease (BIOMARKAPD). PI11/03035. Instituto de Salud Carlos III. Duration: 2012-2016. €97,000.
- ▶ 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: 2014-2016. €107,500.
- ▶ Olivia Belbín. Contratos Miguel Servet 2013-Tipo I. MS13/00091. Instituto de Salud Carlos III. Duration: 2014-2019. €202,500.
- ▶ Olivia Belbín. Search for synaptic biomarkers of Alzheimer's disease. CP13/00091. Instituto de Salud Carlos III. Duration: 2014-2016. €121,500.
- ▶ Albert 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. MARATÓ 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: 2015-2017. €101,500.
- ▶ Albert Lleó Bisa. Marcadores sinápticos en la enfermedad de Alzheimer. PI14/01561. Instituto de Salud Carlos III. Duration: 2015-2017. €111,500.
- ▶ Maria Carmona Iragui. Ajuts per a contractes de formació Ríu Hortega 2014. CM14/00029. Instituto de Salud Carlos III. Duration: 2015-2017. €53,732.
- ▶ 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. €37,805.88.

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

Grants Awarded in 2015

- ▶ Albert Lleó Bisa, Convocatòria d'intensificació 2015. IR15-INT2. Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2015-2016. €30,000.

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

Awards

- ▶ Fortea J. Premio Joven Investigador Clínico CIBERNED 2014 (bi-annual award), for the publication Fortea J *et al*, Annals of Neurology 2014.

*TIF: 184.8850 **MIF: 6.8476

Scientific Production

Alcolea D., Vilaplana E., Pegueroles J., Montal V., Sanchez-Juan P., Gonzalez-Suarez A., Pozueta A., Rodriguez-Rodriguez E., Bartres-Faz D., Vidal-Pineiro D., Gonzalez-Ortiz S., Medrano S., Carmona-Iragui M., Sanchez-Saudinos M., Sala I., Anton-Aguirre S., Sampedro F., Morenas-Rodriguez E., Clarimon J., Blesa R., Lleo A., Fortea J., Relationship between cortical thickness and cerebrospinal fluid YKL-40 in predementia stages of Alzheimer's disease. (2015) NEUROBIOL AGING, 36 (6), 2018-2023.

IF: 5.1530

Alcolea D., Martinez-Lage P., Sanchez-Juan P., Olazarán J., Antunez C., Izagirre A., Ecay-Torres M., Estanga A., Clerigue M., Guisasola M.C., Sanchez Ruiz D., Marin Munoz J., Calero M., Blesa R., Clarimon J., Carmona-Iragui M., Morenas-Rodriguez E., Rodriguez-Rodriguez E., Vazquez Higuera J.L., Fortea J., Lleo A., Amyloid precursor protein metabolism and inflammation markers in preclinical Alzheimer disease. (2015) NEUROLOGY, 85 (7), 626-633.

IF: 8.1660

Balasa M., Gelpi E., Martin I., Antonell A., Rey M.J., Grau-Rivera O., Molinuevo J.L., Sanchez-Valle R., Llado A., Boada Hernandez M., Mauleon A., Rosende M., Aguilar M., Rene R., Povedano M., Valdeoriola F., Sanz P., Lleo A., Blesa R., Rojas-Garcia R., Pena-Casanova J., Alvarez-Sabin J., Pujadas F., Roy P., Lopez-Pousa S., Turon A., Huerta M., Martinez-Yelamos A., Aspiazu P., Almenar C., Lopez-Villegas D., Abellan T., Otermin P., Pericot I., Pinol-Ripoll G., Robles B., Escrig A., Latorre P., Escabia F., Mira M.L., Ananos G., Collado I., Diagnostic accuracy of behavioral variant frontotemporal dementia consortium criteria (FTDC) in a clinico-pathological cohort. (2015) NEUROPATH APPL NEURO, 41 (7), 882-892.

IF: 4.4830

Benejam B., Fortea J., Molina-Lopez R., Videla S., Patterns of performance on the modified Cued Recall Test in Spanish adults with down syndrome with and without dementia. (2015) AJIDD-AM J INTELLECT, 120 (6), 481-489.

IF: 1.8820

Bocchetta M., Galluzzi S., Kehoe P.G., Aguera E., Bernabei R., Bullock R., Ceccaldi M., Dartigues J.-F., De Mendonca A., Didic M., Eriksson M., Felician O., Frolich L., Gertz H.-J., Hallikainen M., Hasselbalch S.G., Hausner L., Heuser I., Jessen F., Jones R.W., Kurz A., Lawlor B., Lleo A., Martinez-Lage P., Mecocci P., Mehrabian S., Monsch A., Nobili F., Nordberg A., Rikkert M.O., Orgogozo J.-M., Pasquier F., Peters O., Salmon E., Sanchez-Castellano C., Santana I., Sarazin M., Traykov L., Tsolaki M., Visser P.J., Wallin A.K., Wilcock G., Wilkinson D., Wolf H., Yener G., Zekry D., Frisoni G.B., The use of biomarkers for the etiologic diagnosis of MCI in Europe: An EADC survey. (2015) ALZHEIMERS DEMENT, 11 (2), 195-206.e1.

IF: 11.6190

Buñill E., Roura-Poch P., Sala-Matavera I., Anton S., Lleo A., Sanchez-Saudinos B., Tomas-Abadal L., Puig T., Abos J., Bernades S., Clarimon J., Blesa R., Reelin signaling pathway genotypes and Alzheimer disease in a Span-

Neurobiology of Dementia

*TIF: 184.8850 **MIF: 6.8476

ish population. (2015) *ALZ DIS ASSOC DIS*, 29 (2), 169-172.

IF: 2.5300

Caçace R., Van den Bossche T., Engelborghs S., Geerts N., Laureys A., Dillen L., Graff C., Thonberg H., Chiang H.-H., Pastor P., Ortega-Cubero S., Pastor M.A., Diehl-Schmid J., Alexopoulos P., Benussi L., Ghidoni R., Binetti G., Nacmias B., Sorbi S., Sanchez-Valle R., Llado A., Gelpi E., Almeida M.R., Santana I., Tsolaki M., Koutroumani M., Clarimon J., Lleo A., Fortea J., de Mendonca A., Martins M., Borroni B., Padovani A., Matej R., Rohan Z., Vandenbulcke M., Vandenbergh R., De Deyn P.P., Cras P., van der Zee J., Sleegers K., Van Broeckhoven C., Rare Variants in *PLD3* Do Not Affect Risk for Early-Onset Alzheimer Disease in a European Consortium Cohort. (2015) *HUM MUTAT*, 36 (12), 1226-1235.

IF: 5.0890

Carmona-Iragui M., Fernandez-Arcos A., Alcolea D., Piazza F., Morenas-Rodriguez E., Anton-Aguirre S., Sala I., Clarimon J., Dols-Icardo O., Camacho V., Sampedro F., Munuera J., Nunez-Marin F., Lleo A., Fortea J., Gomez-Anson B., Blesa R., Cerebrospinal Fluid Anti-Amyloid-Beta; Autoantibodies and Amyloid PET in Cerebral Amyloid Angiopathy-Related Inflammation. (2015) *J ALZHEIMERS DIS*, 50 (1), 1-7.

IF: 3.9200

Cuyvers E., van der Zee J., Bettens K., Engelborghs S., Vandenbulcke M., Robberecht C., Dillen L., Merlin C., Geerts N., Graff C., Thonberg H., Chiang H.-H., Pastor P., Ortega-Cubero S., Pastor M.A., Diehl-Schmid J., Alexopoulos P., Benussi L., Ghidoni R., Binetti G., Nacmias B., Sorbi S., Sanchez-Valle R., Llado A., Gelpi E., Almeida M.R., Santana I., Clarimon J., Lleo A., Fortea J., de Mendonca A., Martins M., Borroni B., Padovani A., Matej R., Rohan Z., Ruiz A., Frisoni G.B., Fabrizi G.M., Vandenbergh R., De Deyn P.P., Van Broeckhoven C., Sleegers K., Genetic variability in *SQSTM1* and risk of early-onset Alzheimer dementia: A European early-onset dementia consortium study. (2015) *NEUROBIOL AGING*, 36 (5), 2005.e15-2005.e22.

IF: 5.1530

Dekker A.D., Strydom A., Coppus A.M.W., Nizetic D., Vermeiren Y., Naude P.J.W., Van Dam D., Potier M.-C., Fortea J., De Deyn P.P., Behavioural and psychological symptoms of dementia in Down syndrome: Early indicators of clinical Alzheimer's disease? (2015) *CORTEX*, 73, 36-61.

IF: 4.3140

Dols-Icardo O., Iborra O., Valdivia J., Pastor P., Ruiz A., de Munain A.L., Sanchez-Valle R., Alvarez V., Sanchez-Juan P., Lleo A., Fortea J., Blesa R., Cardona F., Baquero M., Alonso M.D.,

Ortega-Cubero S., Pastor M.A., Razquin C., Boada M., Hernandez I., Gorostidi A., Moreno F., Zulaika M., Llado A., Coto E., Combarros O., Perez-Tur J., Clarimon J., Assessing the role of *TUBA4A* gene in frontotemporal degeneration. (2015) *NEUROBIOL AGING*, 38, 215.e13-215.e14.

IF: 5.1530

Heilmann S., Driche D., Clarimon J., Fernandez V., Lacour A., Wagner H., Thelen M., Hernandez I., Fortea J., Alegret M., Blesa R., Mauleon A., Roca M.R., Kornhuber J., Peters O., Heun R., Frolich L., Hull M., Heneka M.T., Ruther E., Riedel-Heller S., Scherer M., Wiltfang J., Jessen F., Becker T., Tarraga L., Boada M., Maier W., Lleo A., Ruiz A., Nothen M.M., Ramirez A., *PLD3* in non-familial Alzheimer's disease. (2015) *NATURE*, 520 (7545), E3-E5.

IF: 38.1380

Hor H., Francescato L., Bartesaghi L., Ortega-Cubero S., Kousi M., Lorenzo-Betancor O., Jimenez-Jimenez F.J., Gironell A., Clarimon J., Drechsel O., Agundez J.A.G., Kenzelmann Broz D., Chiquet-Ehrismann R., Lleo A., Coria F., Garcia-Martin E., Alonso-Navarro H., Marti M.J., Kulisevsky J., Hor C.N., Ossowski S., Chrast R., Katsanis N., Pastor P., Estivill X., Missense mutations in *TENM4*, a regulator of axon guidance and central myelination, cause essential tremor. (2015) *HUM MOL GENET*, 24 (20), 5677-5686.

IF: 5.9850

Jones L., *et al*, Convergent genetic and expression data implicate immunity in Alzheimer's disease. (2015) *ALZHEIMERS DEMENT*, 11 (6), 658-671.

IF: 11.6190

Kruse N., Persson S., Alcolea D., Bahl J.M.C., Baldeiras I., Capello E., Chiasserini D., Bocchio Chiavetto L., Emersic A., Engelborghs S., Eren E., Fladby T., Frisoni G., Garcia-Ayllon M.-S., Genc S., Gkatzima O., Heegaard N.H.H., Janeiro A.M., Kovacech B., Kuiperij H.B., Leitao M.J., Lleo A., Martins M., Matos M., Mollergard H.M., Nobili F., Ohrfelt A., Parnetti L., de Oliveira C.R., Rot U., Saez-Valero J., Struyfs H., Tanassi J.T., Taylor P., Tsolaki M., Vanmechelen E., Verbeek M.M., Ziika N., Blennow K., Zetterberg H., Mollenhauer B., Validation of a quantitative cerebrospinal fluid alpha-synuclein assay in a European-wide interlaboratory study. (2015) *NEUROBIOL AGING*, 36 (9), 2587-2596.

IF: 5.1530

Lleo A., Cavado E., Parnetti L., Vanderstichele H., Herukka S.K., Andreasen N., Ghidoni R., Lewczuk P., Jeromin A., Winblad B., Tsolaki M., Mroczko B., Visser P.J., Santana I., Svenningsson P., Blennow K., Aarsland D., Molinuevo J.L., Zetterberg H., Mollenhauer B., Cerebrospinal fluid biomarkers in trials for

Alzheimer and Parkinson diseases. (2015) *NAT REV NEUROL*, 11 (1), 41-55.

IF: 18.4180

Martinez-Lizana E., Carmona-Iragui M., Alcolea D., Gomez-Choco M., Vilaplana E., Sanchez-Saudinos M.B., Clarimon J., Hernandez-Guillamon M., Munuera J., Gelpi E., Gomez-Anson B., De Juan-Delago M., Delgado-Mederos R., Montaner J., Ois A., Amaro S., Blesa R., Marti-Fabregas J., Lleo A., Fortea J., Cerebral amyloid angiopathy-related atraumatic convexal subarachnoid hemorrhage: An ARIA before the tsunami. (2015) *J CEREBR BLOOD F MET*, 35 (5), 710-717.

IF: 4.9290

Matias-Guiu J.A., Fernandez de Bobadilla R., Escudero G., Perez-Perez J., Cortes A., Morenas-Rodriguez E., Valles-Salgado M., Moreno-Ramos T., Kulisevsky J., Matias-Guiu J., Validation of the Spanish version of Addenbrooke's Cognitive Examination III for diagnosing dementia. (2015) *NEUROLOGIA*, 30 (9), 545-551.

IF: 1.7900

Olde Rikkert M.G.M., Verhey F.R., Blesa R., Von Arnim C.A.F., Bongers A., Harrison J., Sijben J., Scarpini E., Vandewoude M.F.J., Vellas B., Witkamp R., Kamphuis P.J.G.H., Scheltens P., Tolerability and safety of souvenaid in patients with mild Alzheimer's disease: Results of multi-center, 24-week, open-label extension study. (2015) *J ALZHEIMERS DIS*, 44 (2), 471-480.

IF: 3.9200

Pastor P., Moreno F., Clarimon J., Ruiz A., Combarros O., Calero M., De Munain A.L., Bullido M.J., De Pancorbo M.M., Carro E., Antonell A., Coto E., Ortega-Cubero S., Hernandez I., Tarraga L., Boada M., Lleo A., Dols-Icardo O., Kulisevsky J., Vazquez-Higuera J.L., Infante J., Rabano A., Fernandez-Blazquez M.A., Valenti M., Indakoetxea B., Barandiaran M., Gorostidi A., Frank-Garcia A., Sastre I., Lorenzo E., Pastor M.A., Elcoroaristizabal X., Lennarz M., Maier W., Ramirez A., Serrano-Rios M., Lee S.E., Sanchez-Juan P., *MAPT* H1 haplotype is associated with late-onset Alzheimer's disease risk in *APOE* ε 4 noncarriers: Results from the dementia genetics Spanish consortium. (2015) *J ALZHEIMERS DIS*, 49 (2), 343-352.

IF: 3.9200

Sala-Llonch R., Llado A., Fortea J., Bosch B., Antonell A., Balasa M., Bargallo N., Bartes-Faz D., Molinuevo J.L., Sanchez-Valle R., Evolving brain structural changes in *PSEN1* mutation carriers. (2015) *NEUROBIOL AGING*, 36 (3), 1261-1270.

IF: 5.1530

Sampedro F., Vilaplana E., de Leon M.J., Alcolea D., Pegueroles J., Montal V., Carmona-Iragui M., Sala I., Sanchez-Saudinos M.-B.,

*TIF: 184.8850 **MIF: 6.8476

Anton-Aguirre S., Morenas-Rodriguez E., Camacho V., Falcon C., Pavia J., Ros D., Clarimon J., Blesa R., Lleo A., Fortea J., APOE-by-sex interactions on brain structure and metabolism in healthy elderly controls. (2015) ONCOTARGET, 6 (29), 26663-26674.

IF: 5.0080

Sevlever D., Zou F., Ma L., Carrasquillo S., Crump M.G., Culley O.J., Hunter T.A., Bisceglia G.D., Younkin L., Allen M., Carrasquillo M.M., Sando S.B., Aasly J.O., Dickson D.W., Graff-Radford N.R., Petersen R.C., Morgan K., Belbin O., Genetically-controlled Vesicle-Associated Membrane Protein 1 expression may contribute to Alzheimer's pathophysiology and susceptibility. (2015) MOL NEURODEGENER, 10 (1).

IF: 6.5100

Sevlever D., Zou F., Ma L., Carrasquillo S., Crump M.G., Culley O.J., Hunter T.A., Bisceglia G.D., Younkin L., Allen M., Carrasquillo

M.M., Sando S.B., Aasly J.O., Dickson D.W., Graff-Radford N.R., Petersen R.C., Deak F., Belbin O., Erratum to: Genetically-controlled Vesicle-Associated Membrane Protein 1 expression may contribute to Alzheimer's pathophysiology and susceptibility. (2015) MOL NEURODEGENER.

IF: 6.5100

Spiegel J., Pirraglia E., Osorio R.S., Glodzik L., Li Y., Tsui W., Saint Louis L.A., Randall C., Butler T., Xu J., Zinkowski R.P., Zetterberg H., Fortea J., Fossati S., Wisniewski T., Davies P., Blennow K., De Leon M.J., Greater Specificity for Cerebrospinal Fluid P-tau231 over P-tau181 in the Differentiation of Healthy Controls from Alzheimer's Disease. (2015) J ALZHEIMERS DIS, 49 (1), 93-100.

IF: 3.9200

Suarez-Calvet M., Camacho V., Gomez-Anson B., Anton S., Vives-Gilabert Y., Dols-Icardo O., Clarimon J., Alcolea D., Blesa R., Fortea J.,

Lleo A., Early cerebellar hypometabolism in patients with frontotemporal dementia carrying the C9orf72 expansion. (2015) ALZ DIS ASSOC DIS, 29 (4), 353-356.

IF: 2.5300

Valech N., Mollica M.A., Olives J., Tort A., Fortea J., Lleo A., Belen S.-S., Molinuevo J.L., Rami L., Informant's Perception of Subjective Cognitive Decline Helps to Discriminate Pre-clinical Alzheimer's Disease from Normal Aging. (2015) J ALZHEIMERS DIS, 48 (S1), S87-S98.

IF: 3.9200

Neuroradiology

Coordinator

Gómez Ansón,

Beatriz María

FGS

bgomeza@santpau.cat

Members

Camacho Martí,

María del Valle

FGS

De Juan Delago, Manel

FGS

López Mora, Diego Alfonso

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).

Our main focus is the search for neuroimaging biomarkers in diseases involving the

central nervous system, including neurodegenerative and neuropsychiatric conditions.

A secondary focus is the implementation of automatic procedures and software tools to improve neuroradiological practice.

Challenges

- ▶ Achieve visibility for our research group and for neuroradiology –often considered by clinicians more a technical tool rather than a discipline in itself– as a defined field of knowledge.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Pituitary Gland Disorders.
- ▶ Clinical Psychiatry.
- ▶ Digestive Diseases.
- ▶ Parkinson Disease and Movement Disorders.
- ▶ Cerebrovascular Diseases.

External Collaborations

- ▶ PIC (Information Science Port) / IF AE (Institute for High Energy Physics), Universitat Autònoma de Barcelona, Spain.
- ▶ COST-Action in ASL (European project), National Hospital for Neurology and Neurosurgery, London, UK.

Grants Awarded in 2015

- ▶ Beatriz María Gómez Ansón. Estada formativa d'un investigador clínic a l'estranger 2015. IR15-E2. Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2015-2016. €3,500.

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

*TIF: 34.3020 **MIF: 3.4302

Alonso-Solis A., Vives-Gilabert Y., Grasa E., Portella M.J., Rabella M., Sauras R.B., Roldan A., Nunez-Marin F., Gomez-Anson B., Perez V., Alvarez E., Corripio I., Resting-state functional connectivity alterations in the default network of schizophrenia patients with persistent auditory verbal hallucinations. (2015) SCHIZOPHR RES, 161 (2-3), 261-268.

IF: 4.4530

Aracil-Bolanos I., Prats-Sanchez L., Gomez-Anson B., Querol-Gutierrez L., Nunez-Marin F., Marti-Fabregas J., Balo concentric sclerosis: A presentation mimicking ischaemic stroke. (2015) NEUROLOGIA.

IF: 1.7900

Carmona-Iragui M., Fernandez-Arcos A., Alcolea D., Piazza F., Morenas-Rodriguez E., Anton-Aguirre S., Sala I., Clarimon J., Dols-Icardo O., Camacho V., Sampedro F., Munuera J., Nunez-Marin F., Lleo A., Fortea J., Gomez-Anson B., Blesa R., Cerebrospinal Fluid Anti-Amyloid-Beta; Autoantibodies and Amyloid PET in Cerebral Amyloid Angiopathy-Related Inflammation. (2015) J ALZHEIMERS DIS, 50 (1), 1-7.

IF: 3.9200

Cortes-Vicente E., Delgado-Mederos R., Bellmunt S., Borrás X.F., Gomez-Anson B., Bague S., Camps-Renom P., Marti-Fabregas J., Stroke caused by a myxoma stenosing the common carotid artery. (2015) J STROKE CEREBROVASC, 24 (4), e87-e89.

IF: 1.5990

Gomez-Anson B., Roman E., De Bobadilla R.F., Pires-Encuentra P., Diaz-Manera J., Nuez F., Martinez-Horta S., Vives-Gilabert Y., Pagonabarraga J., Kulisevsky J., Cordoba J., Guarner C., Soriano G., Alterations in cere-

bral white matter and neuropsychology in patients with cirrhosis and falls. (2015) PLOS ONE, 10 (3).

IF: 3.0570

Martinez-Lizana E., Carmona-Iragui M., Alcolea D., Gomez-Choco M., Vilaplana E., Sanchez-Saudinos M.B., Clarimon J., Hernandez-Guillamon M., Munuera J., Gelpi E., Gomez-Anson B., De Juan-Delago M., Delgado-Mederos R., Montaner J., Ois A., Amaro S., Blesa R., Marti-Fabregas J., Lleo A., Fortea J., Cerebral amyloid angiopathy-related atraumatic convexal subarachnoid hemorrhage: An ARIA before the tsunami. (2015) J CEREBR BLOOD F MET, 35 (5), 710-717.

IF: 4.9290

Pires P., Santos A., Vives-Gilabert Y., Webb S.M., Sainz-Ruiz A., Resmini E., Crespo I., De Juan-Delago M., Gomez-Anson B., White matter alterations in the brains of patients with active, remitted, and cured cushing syndrome: A DTI study. (2015) AM J NEURORADIOL, 36 (6), 1043-1048.

IF: 3.1240

Sampedro F., Vilaplana E., de Leon M.J., Alcolea D., Pegueroles J., Montal V., Carmona-Iragui M., Sala I., Sanchez-Saudinos M.-B., Anton-Aguirre S., Morenas-Rodriguez E., Camacho V., Falcon C., Pavia J., Ros D., Clarimon J., Blesa R., Lleo A., Fortea J., APOE-by-sex interactions on brain structure and metabolism in healthy elderly controls. (2015) ONCOTARGET, 6 (29), 26663-26674.

IF: 5.0080

Santos A., Resmini E., Gomez-Anson B., Crespo I., Granell E., Valassi E., Pires P., Vives-Gilabert Y., Martinez-Momblan M.A., De Juan M., Mataro M., Webb S.M., Cardiovascular risk

and white matter lesions after endocrine control of Cushing's syndrome. (2015) EUR J ENDOCRINOL, 173 (6), 765-775.

IF: 3.8920

Suarez-Calvet M., Camacho V., Gomez-Anson B., Anton S., Vives-Gilabert Y., Dols-Icardo O., Clarimon J., Alcolea D., Blesa R., Fortea J., Lleo A., Early cerebellar hypometabolism in patients with frontotemporal dementia carrying the C9orf72 expansion. (2015) ALZ DIS ASSOC DIS, 29 (4), 353-356.

IF: 2.5300

Ageing Institute

Coordinator

Salvà Casanovas,
Antoni FSiE-UAB
antoni.salva@uab.es

Members

Coll Planas, Laura FSiE-UAB
Del Valle Fernández,
Gabriela FSiE-UAB
Domènech Pou, Sara FSiE-UAB
Domingo Riau,
Alexandre FSiE-UAB
González Guerra, Jordi FSiE-UAB
Rivero Fernández,
Antonio FSiE-UAB
Rojano Luque, Xavier FSiE-UAB
Roque Figuls,
Marta Cristina FSiE-UAB



Main Lines of Research

- ▶ Health research into ageing:
 - Healthy ageing: physical activity, nutrition and cognition.
 - Frequent health problems in older adults: falls, frailty and sarcopenia, functional loss, Alzheimer and other dementias, malnutrition and other geriatric syndromes.
 - Epidemiological studies.
- ▶ Health and social services research.
 - ▶ Research into caregivers of older adults.
 - ▶ Promotion of active ageing among older people.
 - ▶ ICT applications to health, social services and active ageing.

Challenges

Health Research Area

- ▶ Area mainly focused on health promotion and disability prevention to improve quality of life among older people.
- ▶ Clinical and epidemiological research undertaken includes both observational and intervention studies, with the main lines of research referring to mobility, nutrition and cognition.

- Comprehensive needs assessment.
- Care quality.
- Good caregiving practices.
- Assessment of dependence.
- Home care services.
- Analysis of economic costs.

Research into ICT Applications to Health, Social Services and Active Ageing

Health and Social Services Research

- ▶ Social care and healthcare as key for the maintenance of autonomy, with a focus on the following topics:
 - Models of social care and healthcare.
 - The organization of health and social services.

- ▶ Interest in this area mainly focuses on the following topics:
 - Social appropriation of ICTs.
 - e-Health development.
- ▶ Development of new technological products to promote active ageing.

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. During 2015 there were two collaborative projects in progress:
 - Profound
 - SAAPHO

- ▶ The Group belongs to the Global Research Network of the International Association of Geriatrics and Gerontology.
- ▶ Participation in european groups. Currently:
 - The group of nutrition and cognitive decline of the EUGMS (European Union Geriatric Medicine Society)
 - MOBEX group: about mobility and falls

*TIF: 16.409 **MIF: 1.8232

Scientific Production

Coll-Planas L., del Valle Gomez G., Bonilla P., Masat T., Puig T., Monteserin R., Promoting social capital to alleviate loneliness and improve health among older people in Spain. (2015) HEALTH SOC CARE COMM. **IF: 1.3690**

Cuesta F., Formiga F., Lopez-Soto A., Masanes F., Ruiz D., Artaza I., Salva A., Serra-Rexach J.A., I Luque X.R., Cruz-Jentoft A.J., Prevalence of sarcopenia in patients attending outpatient geriatric clinics: The ELLI study. (2015) AGE AGEING, 44 (5), 807-809. **IF: 3.6420**

Grotz C., Letenneur L., Bonsang E., Amieva H., Meillon C., Quertemont E., Salmon E., Adam S.; ICTUS/DSA group. Retirement age and the age of onset of Alzheimer's disease: results from the ICTUS study. (2015) PLOS ONE, 10(2). **IF: 3.2340**

Martinez N., Martorell C., Espinosa L., Marasigan V., Domenech S., Inzitari M., Impact of Qigong on quality of life, pain and depressive symptoms in older adults admitted to an intermediate care rehabilitation unit: a

randomized controlled trial. (2015) AGING CLIN EXP RES, 27 (2), 125-130. **IF: 1.2150**

Perez L.M., Inzitari M., Roque M., Duarte E., Valles E., Rodo M., Gallofre M., Change in cognitive performance is associated with functional recovery during post-acute stroke rehabilitation: a multi-centric study from intermediate care geriatric rehabilitation units of Catalonia. (2015) NEUROL SCI, 36 (10), 1875-1880. **IF: 1.4470**

Perez A., Roque M., Domenech S., Monteserin R., Soriano N., Blancafort X., Bosom M., Vidal C., Petit M., Hortal N., Gil C., Espelt A., Lopez M.J., Efficacy of memory training in healthy community-dwelling older people: Study protocol for a randomized controlled trial. (2015) BMC GERIATR, 15 (1). **IF: 1.6760**

Perez A., Roque M., Domenech S., Monteserin R., Soriano N., Blancafort X., Bosom M., Vidal C., Petit M., Hortal N., Gil C., Espelt A., Lopez M.J., Efficacy of memory training in healthy community-dwelling older people:

Study protocol for a randomized controlled trial Psychology, psychiatry and quality of life. (2015) BMC GERIATR, 15 (1). **IF: 1.6760**

Rojano i Luque X., Sanchez Ferrin P., Salva A., Hospital complications in the elderly. (2015) MED CLIN-BARCELONA. **IF: 1.4170**

Salva A., Roque M., Valles E., Bustins M., Bullich I., Sanchez P., Prognostic factors of functional status improvement in individuals admitted to convalescence care units. (2015) EUR GERIATR MED, 6 (4), 341-347. **IF: 0.7330**

Other Publications

- ▶ Ribera-Casado JM, González Montalvo JI, Sánchez del Corral F, Salvà A, Formiga F.[Half a century of Spanish journal of geriatrics and gerontology]. REVISTA ESPAÑOLA DE GERIATRÍA Y GERONTOLOGÍA. 2015 Jan-Feb;50(1):3-4.

Addictive Behaviours

Coordinator

Pérez de Los Cobos Peris,
José Carlos FGS
jperezc@santpau.cat

Members

Alcaraz Garcia, Saül FGS
Batlle Batlle, Francesca FGS
Costa Juste, Silvia María IR
Guàrdia Serecigni, Josep FGS
Pinet Ogué, María Cristina FGS
Ribalta Corona, Elisa FGS
Tejero Pociello, Antonio FGS
Trujols Albet, Joan FGS
Valdepérez Toledo, Ana FGS



Main Lines of Research

Alcohol

- ▶ Pharmacological, non-interventional, 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.

Smoking

- ▶ 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.

Opiates

- ▶ Patient satisfaction concerning maintenance treatment with opioid agonists (methadone and buprenorphine/naloxone).
- ▶ Satisfaction of the heroin-dependent patient regarding methadone and methadone pharmacogenetics.

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

- ▶ DeustoPsych, R+D+I in Psychology and Health, University of Deusto, Bilbao, Spain.
- ▶ Joan Trujols. Calidad de vida y satisfacción con el tratamiento en pacientes dependientes de opioides en mantenimiento con metadona: Desarrollo y estudio piloto de dos autoinformes centrados en la perspectiva del paciente (13BICIBE08). Internal call CIBERSAM. €4,050.

Active Grants

- ▶ José Carlos Pérez de los Cobos Peris. Hacia la identificación de los mecanismos que permiten inhibir el craving de cocaína: valoración de factores motivacionales y cognitivos potencialmente relacionados con la ausencia de craving. PI12/00105. Instituto de Salud Carlos III. Duration: 2013-2016. €74,500.
- ▶ Joan Trujols Albet. Satisfacción con el tratamiento de mantenimiento con agonistas opioides: Revisión sistemática de instrumentos de medida y síntesis cuantitativa de las diferencias en

los niveles de satisfacción en función del medicamento y de la escala. 2013I060. Ministerio de Sanidad y Política Social. Duration: 2014-2016. €15,630.

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

*TIF: 17.2780 **MIF: 2.1598

Scientific Production

Blanco C., García-Anaya M., Wall M., Pérez de Los Cobos J.C., Swierad E., Wang S., Petry NM., Should pathological gambling and obesity be considered addictive disorders? A factor analytic study in a nationally representative sample. (2015) DRUG ALCOHOL DEPEND, 150, 129-134.

IF: 3.4230

Guardia-Serecigni J., The reduction of alcohol consumption. A new treatment target for low severity alcoholism. (2015) ADICCIONES, 27 (1), 3-7.

IF: 1.7800

Marco A., Anton J.J., Trujols J., Saiz de la Hoya P., de Juan J., Faraco I., Cayla J.A., Personality disorders do not affect treatment outcomes for chronic HCV infection in Spanish prisoners: The Perseo study. (2015) BMC INFECT DIS, 15 (1).

IF: 2.6900

Marco A., Anton J.J., Saiz de la Hoya P., de Juan J., Faraco I., Cayla J.A., Trujols J., Personality disorders among Spanish prisoners

starting hepatitis C treatment: Prevalence and associated factors. (2015) PSYCHIAT RES, 230 (3), 749-756.

IF: 2.4660

Serecigni J.G., Opioid receptor antagonists in the treatment of alcoholism. (2015) ADICCIONES, 27 (3), 214-230.

IF: 1.7800

Trujols J., Ballesteros J., Sola I., Portella M.J., Improving systematic reviews on psychometric properties of measurement instruments: A letter to the Editor commenting on Reilly et al.'s. (2015) review of the psychometric literature on QIDS. (2015) J PSYCHIATR RES.

IF: 4.4650

Trujols J., Iraurgi I., Batlle F., Duran-Sindreu S., Perez de los Cobos J., Towards a genuinely user-centred evaluation of harm reduction and drug treatment programmes: A further proposal. (2015) INT J DRUG POLICY, 26 (12), 1285-1287.

IF: 3.1190

Villalta L., Arevalo R., Valdeperez A., Pascual J.C., de los Cobos J.P., Parental Bonding in Subjects with Pathological Gambling Disorder Compared with Healthy Controls. (2015) PSYCHIAT QUART, 86 (1), 61-67.

IF: 0.9780

Other Publications

- ▶ Trujols J., The brain disease model of addiction: challenging or reinforcing stigma? (2015). LANCET PSYCHIATRY, 2(4), 292.

Molecular Physiology of the Synapse

Coordinator

Bayés Puig, Alejandro
abayesp@santpau.cat

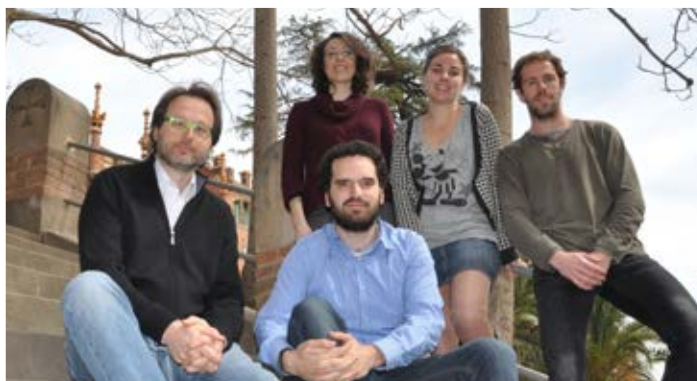
IR

Members

Gou Alsina, Gemma
Reig Viader, Rita

IR

IR



Main Lines of Research

- ▶ Molecular and cellular analyses of the vertebrate synapse.
- ▶ 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.

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
- ▶ Molecular Physiology of Synapse. (Alejandro Bayés. AGAUR 2014. SGR 297. Duration: 2014-2016. €19.200.)

External 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. Nael Nadif-Kasri. Radboud University, The Netherlands.
- ▶ Dr. Montserrat Milà. Hospital Clínic de Barcelona.
- ▶ Dr. Àngels García-Cazorla. Hospital Sant Joan de Déu, Barcelona.
- ▶ Dr. Mark Collins, University of Sheffield, UK.

Active
Grants

- ▶ Alejandro Bayés Puig. Molecular Analysis of Synaptic Dysfunctions Underlying Human Intellectual Disabilities. PCIG10-GA-2011-304111. European Union. Duration: 2012-2016. €100,000.
- ▶ Alejandro Bayés Puig. Subvenciones del Programa Ramón y Cajal. RYC-2011-08391. Ministerio de Economía y Competitividad. Duration: 2012-2017. €168,600.
- ▶ Alejandro Bayés Puig. Estudio de los mecanismos moleculares de la sinapsis implicados en procesos cognitivos y en la discapacidad cognitiva no sindrómica. BFU2012-34398. Ministerio de Economía y Competitividad. Duration: 2013-2016. €125,000.
- ▶ Gemma Gou Alsina. Contratos Predoctorales para la Formación de Doctores 2013. BES-2013-063720. Ministerio de Economía y Competitividad. Duration: 2013-2017. €83,900.
- ▶ Alejandro Bayés Puig. Grup de senyalització sinàptica. 2014 SGR 297-1 C. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016.
- ▶ Alejandro Bayés Puig. Red para el estudio de la sinapsis en el contexto de la disfunción cognitiva. SAF2014-52624-REDT. Ministerio de Economía y Competitividad. Duration: 2014-2016. €32,000.

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

AREA 5

Urology and Experimental S

178 General and Digestive Surgery

180 Neurosurgery

182 Nephrology

Surgery

A photograph of a surgical team in an operating room. The surgeons are wearing blue scrubs, white masks, and blue bouffant caps. They are focused on a procedure, with one surgeon in the foreground using a surgical instrument. The scene is dimly lit, with a red light source visible at the bottom of the frame. The word "Surgery" is overlaid in large white text on the top left.

General and Digestive Surgery

Coordinator

Trias Folch, Manel FGS
mtrias@santpau.cat

Members

Allende Honorato,
Luis Horacio
Artigas Raventos, Vicens FGS
Balagué Ponz,
María Carmen FGS
Bollo Rodríguez,
Jesús Manuel FGS
Caballero Mestres, Ferran FGS
Cerdan Riart, Gemma FGS
Clos Enríquez, Montserrat FGS
Garay Sola, Meritxell FGS
González López,
José Antonio FGS
Hernández Casanovas,
María Pilar FGS
Martín Arnau, Ana Belén FGS
Martínez Sánchez,
María del Carmen FGS
Medrano Caviedes,
Rodrigo Gustavo FGS
Moral Duarte, Antonio FGS
Pérez García, José Ignacio FGS
Rodríguez Blanco, Manuel FGS
Rofin Serra, Silvia FGS
Targarona Soler,
Eduardo María FGS



Main Lines of Research

Gastrointestinal Surgery

- ▶ Application of laparoscopic surgery in diseases of the spleen.
- ▶ Application of laparoscopic surgery in disorders of the oesophagogastric junction.
- ▶ Advanced application of colorectal laparoscopy.
- ▶ New stratification and treatment options in colorectal cancer.

Oncological and 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.
- ▶ Surgery for sarcomas: participation in GIST research through the Spanish Sarcoma Research Group (GEIS) and other entities.
- ▶ Surgery for sarcomas: participation in the development and results of surgery for retroperitoneal tumours.

Emergency Care

- ▶ Collaborative project on clinical safety for the introduction of safe practices for polytraumatized patients.

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.

*TIF: 21.9890 **MIF: 2.7486

Scientific Production

Alamo P., Gallardo A., Di Nicolantonio F., Pavon M.A., Casanova I., Trias M., Mangues M.A., Lopez-Pousa A., Villaverde A., Vazquez E., Bardelli A., Cespedes M.V., Mangues R., Higher metastatic efficiency of KRas G12V than KRas G13D in a colorectal cancer model (2015) FASEB J, 29 (2), 464-476.

IF: 5.2990

Ciga Lozano M.T., Codina Cazador A., Ortiz Hurtado H., Lujan J., Faccalvieri D., Biondo S., Sebastiano, Angel Ciga M., Espi A., Codina A., Ruiz M.D., Espin E., Palasi R., Parajo A., Camps I., Pinol M., Viciano V., Alonso E., Pera M., Garcia T., Casal E., Garcia J., Rodriguez M., Reina A., Roig J., Errasti J., Jose, Mugica J.A., Gomez J., Rada R., Oreligio M., Uribe N., de Dios Franco J., Sierra J.E., Hernandez P., Paredes J., Martinez G., Garcia M., Carreno G., Cifuentes J., Monzon J., Maseda O., Huerga D., Flores L., Gris F., Segura I., Palma P., Diaz J.G., Oncological results according to type of resection for rectal cancer (2015) CIR ESPAN, 93 (4), 229-235.

IF: 1.0000

Lopez J., Rodriguez K., Targarona E.M., Guzman H., Corral I., Gameros R., Reyes A., Systematic review of cyanoacrylate embolization for refractory gastrointestinal fistulae: A promising therapy (2015) SURG INNOV, 22 (1), 88-96.

IF: 1.3580

Luppi C.R.-O., Balague C., Targarona E.M., Mocanu S., Bollo J., Martinez C., Trias M., Laparoscopic sleeve gastrectomy in patients over 60 years: Impact of age on weight loss and co-morbidity improvement (2015) SURG OBES RELAT DIS, 11 (2), 296-302.

IF: 3.5400

Mato E., Barcelo-Batlloiri S., Orera I., Selva L., Corra M., Gonzalez C., Bell O., Lerma E., Moral A., Perez J.I., de Leiva A., The proteomic 2D-DIGE approach reveals the protein voltage-dependent anion channel 2 as a potential therapeutic target in epithelial thyroid tumours (2015) MOL CELL ENDOCRINOL, 404, 37-45.

IF: 3.8590

Sebio A., Barnadas A., Salazar J., Paez D., Berenguer-Llergo A., Del Rio E., Tobena M., Martin-Richard M., Sullivan I., Targarona E., Balart J., Baiget M., EGFR ligands and DNA repair genes: Genomic predictors of complete response after capecitabine-based chemoradiotherapy in locally advanced rectal cancer (2015) PHARMACOGENOMICS J, 15 (1), 77-83.

IF: 3.7840

Targarona Soler E.M., Jover Navalon J.M., Gutierrez Saiz J., Turrado Rodriguez V., Parrilla Paricio P., Targarona E.M., Torres A.J., Gallego J.L., Pacheco D., Salvador-Sanchis J.L., Hernandez E., Lucena J.L., del Riego F.J.,

Jover J.M., Pina J., Saavedra D., The surgical experience of general surgery residents: An analysis of the applicability of the specialty program in General and Digestive Surgery (2015) CIR ESPAN, 93 (3), 152-158.

IF: 1.0000

Villar-del-Moral J., Capela-Costa J., Jimenez-Garcia A., Sitges-Serra A., Casanova-Rituerto D., Rocha J., Martos-Martinez J.M., de la Quintana-Basarrate A., Rosa-Santos J., Guirao-Garriga X., Bravo-de-Lifante J.M., Vidal-Perez O., Moral-Duarte A., Polonia J., On Behalf Of The Iberpara Study Group, Compliance with recommendations on surgery for primary hyperparathyroidism—from guidelines to real practice: results from an Iberian survey (2015) LANGENBECK ARCH SURG, 1-11.

IF: 2.1490

Other Publications

- ▶ Garcia del Muro; Alava; Artigas; Bagué; Braña; Cubedo; Cruz; Mulet; Navaez; Martinez; Valverde; Vilals; Martin. Clinical practice guidelines for the diagnostic and treatment of patients with soft tissue sarcomas by Spanish group for research in sarcomas (GEIS). CANCER CHEMOTHER AND PHARMACOL. 12/11/2015. ISSN 0344-5704.
- ▶ V. Artigas, JA. Gonzalez. Cirugía de los sarcomas retroperitoneales. Ed. Nature Publishing grup. Madrid. In: J. Martin, J. Cruz, C. Valverde, R. Cubedo. Sarcomas partes blandas. ISBN:978-84-940238-4-2.

Neurosurgery

Coordinator

Molet Teixidó, Joan FGS
jmolet@santpau.cat

Members

Álvarez Holzapfel,
Maria Jesús FGS
Asencio Cortés, Carlos FGS
Català Antúnez,
Ignasi Eudald
De Quintana Schmidt,
Cristian José FGS
Montes Graciano,
Guillermo FGS
Muñoz Hernández,
Fernando FGS
Rodríguez Rodríguez,
Rodrigo FGS
Salgado López, Laura FGS
Tresserras Ribo, Pere FGS
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).

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.

Collaborations

- ▶ Joan Molet. MOBI-KITS study. Prospective multicentre worldwide study of the relationship between cell phone use and brain tumour development in the youth population, 7th Framework Programme ENV-2008-226873. Coordinators Spain: Carlos Díaz Acedo and Sandra Plans, Coordinator Catalonia: CREAL.
- ▶ Fernando Muñoz, Ignasi Català. IMPACT-24 study. Effects of pterygopalatine ganglion stimulation on cerebral perfusion in patients with stroke, Brainsgate. Principal researcher: Joan Martí (Neurology Group).
- ▶ Fernando Muñoz, Cristian de Quintana, Ignasi Català, Carlos Asencio. CLEAR III. Clot Lysis: Evaluating Accelerated Resolution of Intraventricular Hemorrhage Phase III. Johns Hopkins Hospital. Principal researcher: Joan Martí (Neurology Group).
- ▶ Joan Molet, Rodrigo Rodríguez. Estimulación Cerebral Profunda en el tratamiento de la esquizofrenia refractaria: Estudio piloto aleatorizado, controlado y cruzado. Fondo de Investigaciones Sanitarias PI12/00042. Duration: 2013-2015. Principal researcher: Enric Álvarez.
- ▶ Fernando Muñoz, Carlos Asencio. Estudio MISTIE III. Minimally Invasive Surgery Plus rt-PA for Intracerebral Hemorrhage Evacuation. Principal researcher: Joan Martí Fàbregas.

*TIF: 30.2030 **MIF: 6.0406

Alonso A., Domenech E., Julia A., Panes J., Garcia-Sanchez V., Mateu P.N., Gutierrez A., Gomollon F., Mendoza J.L., Garcia-Planella E., Barreiro-De Acosta M., Munoz F., Vera M., Saro C., Esteve M., Andreu M., Chaparro M., Manye J., Cabre E., Lopez-Lasanta M., Tortosa R., Gelpi J.L., Garcia-Montero A.C., Bertranpetit J., Absher D., Myers R.M., Marsal S., Gisbert J.P., Identification of risk loci for crohn's disease phenotypes using a genome-wide association study (2015) GASTROENTEROLOGY, 148 (4), 794-805.

IF: 18.1870

De Quintana-Schmidt C., Alvarez-Holzapfel M.J., Nomdedeu-Guinot J., Bague-Rosell S., Gallego-Rubio O., Leidinger A., Salgado-Lopez L., Molet-Teixido J., Isocitrate dehydrogenase type i mutation as a prognostic factor in glioblastoma and a literature review (2015) NEUROCIRUGIA, 26 (6), 276-283.

IF: 0.4100

Martin-Blanco A., Serra-Blasco M., Perez-Egea R., De Diego-Adelino J., Carceller-Sindreu M., Puigdemont D., Molet J., Alvarez E., Perez V., Portella M.J., Immediate cerebral metabolic changes induced by discontinuation of deep brain stimulation of subcallosal cingulate gyrus in treatment-resistant depression (2015) J AFFECT DISORDERS, 173, 159-162.

IF: 3.5700

Puigdemont D., Portella M.J., Perez-Egea R., Molet J., Gironell A., de Diego-Adelino J., Martin A., Rodriguez R., Alvarez E., Artigas F., Perez V., A randomized double-blind crossover trial of deep brain stimulation of the subcallosal cingulate gyrus in patients with treatment-resistant depression: A pilot study of relapse prevention (2015) J PSYCHIATR NEUROSCI, 40 (4), 224-231.

IF: 5.5700

Serra-Blasco M., de Vita S., Rodriguez M.R., de Diego-Adelino J., Puigdemont D., Martin-

Blanco A., Perez-Egea R., Molet J., Alvarez E., Perez V., Portella M.J., Cognitive functioning after deep brain stimulation in subcallosal cingulate gyrus for treatment-resistant depression: An exploratory study (2015) PSYCHIAT RES, 225 (3), 341-346.

IF: 2.4660

Nephrology

Coordinator

Ballarín Castán, José F. Puigvert
jballarin@fundaciopuigvert.es

Members

Ars Criach, Elisabeth F. Puigvert
Bardaji de Quixano, Beatriz F. Puigvert
Bover Sanjuan, Jordi F. Puigvert
Bullich Vilanova, Gemma F. Puigvert
Coll Piera, Elisabet F. Puigvert
Da Silva Santos, Iara Karlla F. Puigvert
Díaz Encarnación, María Montserrat F. Puigvert
Díaz Gómez, Joan Manel F. Puigvert
Eugui Anta, Estefanía Irene F. Puigvert
Fernández de la Llama, Patricia F. Puigvert
Guillén Gómez, Elena F. Puigvert
Sancho Morón, Olga F. Puigvert
Sanmiguel Amigo, Luz F. Puigvert
Silva Torres, Irene F. Puigvert
Torra Balcells, Roser F. Puigvert



Main Lines of Research

Proteomics Applied to Nephrology and Hypertension

- ▶ Water and sodium renal transport analysed from urinary exosomes, urinary proteomic characterization in diabetic nephropathy: evaluation of renal-angiotensin blockade.

Hereditary Kidney Diseases

- ▶ Genetic and clinical studies in cystic and glomerular inherited kidney diseases such as polycystic kidney disease, Alport, corticoid-resistant nephrotic syndrome, Fabry disease, tuberous sclerosis and familial nephropathies of uncertain origin.

Glomerular Disorders

- ▶ Molecular and clinical studies in disorders such as membranous glomerulopathy and vasculitis with renal involvement, among others.

Kidney Transplantation

- ▶ Protocol biopsies, chronic transplant nephropathy, kidney transplant and associated cardiovascular risk factors, pharmacogenetic and genomic studies.

Chronic Kidney Disease (CKD)

- ▶ Early diagnosis of CKD, epidemiological and clinical studies in CKD-related complications such as renal anaemia, CKD mineral and bone disorders (CKD-MBD) and associated cardiovascular risk; haemodialysis techniques and studies of genetic damage in patients with CKD.
- ▶ Mechanisms of epithelial-mesenchymal transition and renal fibrosis.

Challenges

- ▶ Maintain the level of national and international publication.
- ▶ Continue with both clinical and basic research in all the previously described areas.
- ▶ Participate in the elaboration of clinical nephrology guidelines.
- ▶ Continue with active collection of research samples from CKD and transplant patients.
- ▶ Maintain participation in national working groups and increase international cooperation.
- ▶ Engage in new pharmaceutical clinical studies, including clinical trials.

Awards

- ▶ Lluís Guirado Perich, clinical head of Renal Transplant of the Department of Nephrology. Award for Professional Excellence. Fundació Puigvert. 18 May 2015.
- ▶ Iara DaSilva, Edisson Rudas, Jackeline del Carpio, César Ruiz, Patricia Lescano, Pamela Chang, Cyntia Mercado, Nadia

Ayasreh, Montserrat Díaz-Encarnación, José Ballarín. Tratamiento con rituximab en el síndrome nefrótico idiopático corticodependiente. Best Oral Communication. XXXI Reunión Anual de la Societat Catalana de Nefrologia.

Collaborations with other IIB Sant Pau Groups**Active collaborations in basic and clinical research projects**

- ▶ Inflammatory Diseases Group: renal fibrosis.
- ▶ Anaesthesiology Group (in collaboration with the Catalan ANES-CARDIOCAT 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 prostate cancer and transplant.

Platforms

- ▶ Biobank platform.

External Collaborations**Other 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

- ▶ 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.
- ▶ 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.

Private national and international collaborations

- ▶ Participation in clinical studies including clinical trials and post-authorisation 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.

Other collaborations

- ▶ Patient organisations: inherited diseases (AIRG), lupus (ACLECA) and chronic kidney disease (ALCER).

- ▶ Elisabeth Ars Criach. Enfermedades renales hereditarias quísticas y glomerulares: secuenciación masiva de un panel de genes para mejorar su diagnóstico y del exoma para identificar nuevos genes. PI13/01731. Instituto de Salud Carlos III. Duration: 2014-2016. €68,000.
- ▶ Roser Torra Balcells. Contractes per a la intensificació de l'activitat investigadora en el SNS 2014. INT14/00214. Instituto de Salud Carlos III. Duration: 2015-2016. €30,000.
- ▶ José Ballarín Castán. Ajuts de suport als Grups de Recerca de Catalunya. Grup de Recerca en Nefrologia. AGAUR 2014. SGR 1441. Duration: January 2014-December 2016.
- ▶ José Ballarín Castán. Kidney Research Network. Instituto de Salud Carlos III. Duration: January 2013-December 2016. RD12/0021/0033. €92,250.
- ▶ Fernández-Llama P. Diabetic nephropathy: characterisation of urinary proteoma and evaluation of renin angiotensin blocker treatment. PI10/01261. Instituto de Salud Carlos III. Duration: January 2011-December 2015. €181,742.
- ▶ Torra R. Genomic study of familial nephropathies of uncertain etiology. PI12/01523. Instituto de Salud Carlos III. Duration: January 2013-December 2015. €109,505.
- ▶ Diaz M. Involvement of nucleoside transporter ENT1 in the modulation of macrophage-mediated renal fibrosis. PI12/01524. Instituto de Salud Carlos III. Duration: January 2013-December 2015. €41,745.
- ▶ Coll E. Prognostic biomarkers and strategies to decrease the morbimortality in chronic kidney disease patients. PI12/02559. Instituto de Salud Carlos III. Duration: January 2013-December 2015. €126,445.

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

Nephrology

Theses

► Laia Sans Atxer. Estudio del perfil cardiovascular, sistema renina-angiotensina-aldosterona, inflamación y disfunción endotelial en pacientes normotensos con poliquistosis renal autosómica dominante y sin insuficiencia renal. Directores: Patricia

Fernández-Llama, Julio Pascual. Date of defense: 10 September 2015.

*TIF: 71.0610 **MIF: 4.1800

Scientific Production

Anguiano L., *et al*, Circulating angiotensin-converting enzyme 2 activity in patients with chronic kidney disease without previous history of cardiovascular disease (2015) NEPHROL DIAL TRANSPL, 30 (7), 1176-1185.

IF: 4.0850

Arias-Rodríguez M., Fernández-Fresnedo G., Campistol J.M., Marin R., Franco A., Gómez E., Cabello V., Díaz J.M., Osorio J.M., Gallego R., Prevalence and clinical characteristics of renal transplant patients with true resistant hypertension (2015) J HYPERTENS, 33 (5), 1074-1081.

IF: 5.0620

Ariceta G., Camacho J.A., Fernández-Obispo M., Fernández-Polo A., Gamez J., García-Villoria J., Montecuma E.L., Leyes P., Martín-Begue N., Oppenheimer F., Perello M., Morell G.P., Torra R., Santandreu A.V., Guell A., Cystinosis in adult and adolescent patients: Recommendations for the comprehensive care of cystinosis (2015) NEFROLOGIA, 35 (3), 304-321.

IF: 1.2070

Bover J., Egido J., Fernández-Giraldez E., Praga M., Solozabal-Campos C., Torregrosa J.V., Martínez-Castelao A., Vitamin D, vitamin D receptor and the importance of its activation in patients with chronic kidney disease (2015) NEFROLOGIA, 35 (1), 28-41.

IF: 1.2070

Bover J., Evenepoel P., Urena-Torres P., Vervloet M.G., Brandenburg V., Mazzaferro S., Covic A., Goldsmith D., Massy Z.A., Cozzolino M., Pro: Cardiovascular calcifications are clinically relevant (2015) NEPHROL DIAL TRANSPL, 30 (3), 345-351.

IF: 4.0850

Bulich G., Trujillano D., Santin S., Ossowski S., Mendizabal S., Fraga G., Madrid A., Ariceta G., Ballarín J., Torra R., Estivill X., Ars E., Targeted next-generation sequencing in steroid-resistant nephrotic syndrome: Mutations in multiple glomerular genes may influence disease severity (2015) EUR J HUM GENET, 23 (9), 1192-1199.

IF: 4.5800

Cabrera-López C., Bulich G., Martí T., Català V., Ballarín J., Bissler J.J., Harris P.C., Ars E., Torra R. Insight into response to motor inhibition when *pkd1* and *tsc2* are mutated. (2015) BMC MED GENET, 16, 39.

IF: 3.3800

Chapman A.B., Devuyst O., Eckardt K.-U., Gansevoort R.T., Harris T., Horie S., Kasiske B.L., Odland D., Pei Y., Perrone R.D., Pirson Y., Schrier R.W., Torra R., Torres V.E., Watnick T., Wheeler D.C., Ahn C., Alam A., Aussilhou B., Bae K.T., Bennett W.M., Bergmann C., Bichet D.G., Budde K., Chauveau D., Cowley B., De Coninck B., Dell K.M., Drenth J.P.H., Ecker T., Emma F., Ferec C., Flamion B., Galletti F., Gitomer B., Grantham J.J., Harr N., Harris P.C., Higashihara E., Hodouchi E., Hogan M.C., Jha V., Korst U., Lagræfeuil C., Martin R.S., Mei C., Mrug M., Obrador G.T., Ong A.C.M., Onuchic L.F., Pavia L.S., Rangan G.K., Sandford R., Serra A.L., Steinman T.I., Strandgaard S., Walz G., Winearls C.G., Winston K.Y., Autosomal-dominant polycystic kidney disease (ADPKD): Executive summary from a Kidney Disease: Improving Global Outcomes (KDIGO) Controversies Conference (2015) KIDNEY INT, 88 (1), 17-27.

IF: 7.6830

Collado S., Coll E., Nicolau C., Pons M., Cruzado J.M., Pascual J., Cases A., Carotid atherosclerotic disease predicts cardiovascular events in hemodialysis patients: A prospective study (2015) PLOS ONE, 10 (6).

IF: 3.0570

Corredor Z., Stoyanova E., Rodríguez-Ribera L., Coll E., Silva I., Díaz J.M., Ballarín J., Marcos R., Pastor S., Genomic damage as a biomarker of chronic kidney disease status (2015) ENVIRON MOL MUTAGEN, 56 (3), 301-312.

IF: 3.3260

Fernández-Ruiz M., Arias M., Campistol J.M., Navarro D., Gómez-Huertas E., Gómez-Marquez G., Díaz J.M., Hernández D., Bernal-Blanco G., Cofan F., Jimeno L., Franco-Esteve A., González E., Moreso F.J., Gómez-Alamillo C., Mendiluce A., Luna-Huerta E., Aguado J.M., Cytomegalovirus prevention strategies in seropositive kidney transplant recipients: An insight into current clinical practice (2015) TRANSPL INT, 28 (9), 1042-1054.

IF: 2.8350

Gomiz J.L., Molina P., Cerveron M.J., Vila R., Bover J., Nieto J., Barril G., Martínez-Castelao A., Fernández E., Escudero V., Pínera C., Adrago T., Navarro-González J.F., Molinero L.M., Castro-Alonso C., Pallardo L.M., Jamal S.A., Vascular calcification in patients with Nondialysis CKD over 3 years (2015) CLIN J AM SOC NEPHRO, 10 (4), 654-666.

IF: 4.6570

Martínez-Castelao A., Cases A., Coll E., Bonal J., Galceran J.M., Fort J., Moreso F., Torregrosa J.-V., Guirado L., Ruiz P., Torguet P., Lauzurica R., García R., Llibre J., Fulladosa X., Canas L., Bayes B., C.E.R.A. administered once monthly corrects and maintains stable hemoglobin levels in chronic kidney disease patients not on dialysis: The observational study MICE-NAS II (2015) NEFROLOGIA, 35 (1), 80-86.

IF: 1.2070

Martínez-Castelao A., Gorostidi M., Gorritz J.L., Olmo R.S., Bover J., Segura J., Reflections on two consensus documents about chronic kidney disease (2015) NEFROLOGIA, 35 (2), 127-130.

IF: 1.2070

Moe S.M., *et al*, Cinacalcet, fibroblast growth factor-23, and cardiovascular disease in hemodialysis: The evaluation of cinacalcet HCl therapy to lower cardiovascular events (EVOLVE) trial (2015) CIRCULATION, 132 (1), 27-39.

IF: 17.0470

Parfrey P.S., *et al*, Evaluation of Cinacalcet HCL Therapy to Lower Cardiovascular Events (EVOLVE) Trial Investigators, The effects of cinacalcet in older and younger patients on hemodialysis: The evaluation of cinacalcet HCL therapy to lower cardiovascular events (EVOLVE) trial (2015) CLIN J AM SOC NEPHRO, 10 (5), 791-799.

IF: 4.6570

Rodríguez-Ribera L., Corredor Z., Sandoval S.B., Coll E., Silva I., Díaz J.M., Ballarín J., Marcos R., Pastor S., Radiosensitivity in patients suffering from chronic kidney disease (2015) INT J RADIAT BIOL, 91 (2), 172-178.

IF: 1.7790

Other Publications

- ▶ Pippias M., Stel V.S., Abad Diez J.M., Afentakis N., Herrero-Calvo J.A., Arias M., Tomilina N., Bouzas Caamaño E., Buturovic-Ponikvar J., Čala S., Caskey F.J., Castro de la Nuez P., Cernevskis H., Collart F., Alonso de la Torre R., García Bazaga M.L., De Meester J., Díaz J.M., Djukanovic L., Ferrer Alamar M., Finne P., Garneata L., Golan E., González Fernández R., Gutiérrez Avila G., Heaf J., Hoitsma A., Kantaria N., Kolesnyk M., Kramar R., Kramer A., Lassalle M., Leivestad T., Lopot F., Macário F., Magaz A., Martín-Escobar E., Metcalfe W., Noordzij M., Palsson R., Pechter Ü., Prütz K.G., Ratkovic M., Resić H., Rutkowski B., Santiuste de Pablos C., Spustová V., Süleymanlar G., Van Stralen K., Thereska N., Wanner C., Jager KJ. Renal replacement therapy in Europe: a summary of the 2012 ERA-EDTA Registry Annual Report. (2015) CLIN KIDNEY J, 8(3), 248-61.
- ▶ Fernández Llama P., Calero F. Hiperuricemia y riesgo cardiovascular: mito o realidad. (2015) HIPERTENSION, 32(4), 131-132.
- ▶ Campistol J.M., Arias M., Ariceta G., Blasco M., Espinosa I., Espinosa M., Grinyo J.M., Macia M., Mendizabal S., Praga M., Roman E., Torra R., Valdes F., Vilalta R., Rodriguez de Cordoba, S. Actualización en síndrome hemolítico urémico atípico: diagnóstico y tratamiento. Documento de consenso. (2015) NEFROLOGIA, 35(5), 421-447.
- ▶ Bover J., Evenepoel P., Ureña P., Vervloet M., Brandenburg V.M., Mazzaferro S., Covic A., Goldsmith D., Massy Z.A., Cozzolino M. OPPONENT'S COMMENT (Article: Zoccali C, London G. Vascular calcification is a surrogate marker, but not the cause of ongoing vascular disease, and it is not a treatment target in chronic kidney disease Nephrol. Dial. Transplant. (2015) 30 (3): 352-357). (2015) NEPHROL DIAL TRANSPLANT, 30(3), 357.

AREA T1

Epidemiology, Public Health and Healthcare Services

188 Clinical Epidemiology and Healthcare Services

192 Evaluation of Public Health Policies and Programmes

194 Transport and Health: Injuries and Mobility

196 Transmissible Diseases

200 Health Inequalities

204 Epidemiology of Addictions

206 Primary Care Research

Public Health and

S



Results

122 273 cases of acute facial palsy were identified. Of these, 2300 had not had any previous facial palsy and were included in the analysis. The proportion of acute facial palsy cases that were recurrent was 15%. The median age of onset was 4.5 years (range 0-14 years). The median duration of illness was 12 days (range 1-42 days). The median duration of illness was 12 days (range 1-42 days). The median duration of illness was 12 days (range 1-42 days).



Figure 2. The effect of population coverage on population incidence of acute facial palsy in Uttar Pradesh. The top chart shows the incidence per 1000 children aged 0-23 months for different population coverage levels (0%, 25%, 50%, 75%, 100%) and different vaccine types (Type 1, Type 2, Type 3, Type 4). The bottom chart shows the number of acute facial palsy cases per 1000 children aged 0-23 months for different population coverage levels (0%, 25%, 50%, 75%, 100%) and different vaccine types (Type 1, Type 2).

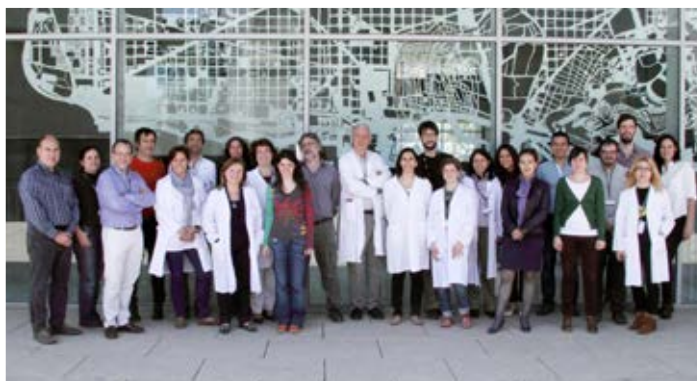
Clinical Epidemiology and Healthcare Services

Coordinator

Bonfill Cosp, Xavier FGS
xbonfill@santpau.cat

Members

Acosta Isaac, Francisco René	IR
Alonso Coello, Pablo Ignacio	IR
Álvarez Bustins, Gerard	ACCIB
Balasso, Valentina	IR
Ballesteros Silva, Mónica Patricia	ACCIB
Bolíbar Ribas, Ignasi	FGS
Cánovas Martínez, Leonor Esther	IR
Cervera Alepuz, Andrea	ACCIB
Gich Saladich, Ignasi Josep	FGS
Girós Boixadós, Meritxell	IR
Gorgues Sendra, Marta	FGS
Leo Rosas, María Victoria	ACCIB
Martínez García, Laura	IR
Martínez Zapata, María José	ACCIB
Mas Dalmau, Gemma	IR
Osorio Sánchez, Dimelza	FGS
Pardo Hernández, Héctor	CIBERESP
Pequeño Saco, Sandra	ACCIB
Popova, Ekaterina	IR
Posso Rivera, Margarita	FGS
Puchol Sanchez, Cristina	ACCIB
Puig Reixach, María Teresa	FGS
Quintana Ruiz, María Jesús	FGS
Requeijo Lorenzo, Carolina	FGS
Rígau Comas, David	IR
Roqué Fíguls, Marta Cristina	FSiE-UAB/IR
Salas Gama, Karla Rocio	FGS
Sanabria Uribe, Andrea Juliana	IR
Selva Olid, Anna	IR
Solà Arnau, Ivan	FGS
Sola Roca, Judit	ACCIB
Tzanova, Maroussia	ACCIB
Urrutia Cuchi, Gerard	FGS
Vernooij, Robin	
Whilhelmus Maria	ACCIB



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.

Challenges

- ▶ Become a reference group in Spain and Latin America regarding the preparation of systematic reviews on the effects of healthcare interventions, enhancing the group's capacity to provide technical and methodological support and increasing its scientific production in the framework of the Iberoamerican Cochrane Network.
- ▶ Promote greater use of scientific evidence and evidence-based medicine tools in clinical and healthcare decision making by means of stable agreements with governmental, academic and scientific entities and institutions, thereby ensuring the ongoing development and dissemination of these tools and the implementation of training in their use.

- ▶ Become a reference group for independent applied clinical research that fosters relevant and scientifically sound studies aimed at meeting the real needs of the national healthcare system, whether on the group's own initiative or through networked relationships with similar groups.
- ▶ The group is currently setting up clinical and epidemiological studies (phase 3/4 trials with non-commercial interests, research into healthcare services and results and studies of research methodologies) and applying for additional public funding for new projects aimed at consolidating these research lines.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Locomotor System Research
- ▶ Urology
- ▶ Palliative Care
- ▶ Angiology, Vascular Biology and Inflammation
- ▶ Anaesthesiology
- ▶ Public Health Agency of Barcelona
- ▶ Blood and Tissue Bank
- ▶ Ageing Institute
- ▶ EAP Sardenya

- ▶ Clinical and Translational Cardiology

External Collaborations

- ▶ Population Health Research Institute, McMaster 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
- ▶ Joint Research Centre - European Commission

Active Grants

- ▶ Pablo Ignacio Alonso Coello. Contracte SNS Miguel Servet 2009. MS09/00137. Instituto de Salud Carlos III. Duration: 2010-2016. €151,875.
- ▶ Maria Teresa Puig Reixach. Retos en salud pública: transferencia del conocimiento en obesidad, enfermedades cardiovasculares y consumo de alcohol. PI12/02257. Instituto de Salud Carlos III. Duration: 2013-2016. €51,500.
- ▶ Xavier Bonfill Cosp. Análisis y mejora del grado de adecuación de la cirugía programada del aneurisma de aorta abdominal. PI12/02530. Instituto de Salud Carlos III. Duration: 2013-2016. €48,500.
- ▶ Pablo Ignacio Alonso Coello. La toma de decisiones compartida en cáncer de pulmón. PROYECTOS SINGULARES 2013. Associació Espanyola Contra el Càncer. Duration: 2014-2017. €54,000.
- ▶ Gerard Urrutia Cuchi. Cohorte prospectiva internacional de evaluación de los eventos vasculares en pacientes sometidos a cirugía cardíaca (estudio CardioVISION). PI13/00502. Instituto de Salud Carlos III. Duration: 2014-2016. €20,600.
- ▶ Xavier Bonfill Cosp. Grup de Recerca Clínica i Sanitària Aplicada. 2014 SGR 673. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016. €21,000.
- ▶ Pablo Ignacio Alonso Coello. Retos metodológicos en la elaboración de guías de práctica clínica (GPC) del Sistema Nacional de Salud. PI14/02006. Instituto de Salud Carlos III. Duration: 2015-2017. €36,500.
- ▶ Xavier Bonfill Cosp. Mapeo de la evidencia para mejorar las decisiones terapéuticas en pacientes con sarcomas de partes blandas. Jose M. Buesa 2014. Grupo Español de Investigación en Sarcomas. Duration: 2015-2017. €14,000.
- ▶ M. José Martínez Zapata. Prevención del sangrado postoperatorio: Ensayo clínico, multicéntrico, aleatorizado, controlado, paralelo, que evalúa la eficacia del ácido tranexámico y la cola de fibrina fracturas subcapitales de fémur. EC11-341. Ministerio de Sanidad y Servicios Sociales e Igualdad. Duration: 2012-2015. €57,010.
- ▶ Pablo Alonso Coello. Developing and Evaluating Communication strategies to support Informed Decisions and practice based on Evidence. DECIDE. 258583 FP7-HEALTH-2010. Duration: 2011-2015 €215,649.16.
- ▶ Xavier Bonfill Cosp. Multicentric, controlled, randomized clinical trial to assess the efficacy and cost-effectiveness of urinary catheters with silver alloy coating versus conventional catheters in spinal cord injured patients. 112210. Fundació La Marató de TV3. Duration: 2012-2015.

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

*TIF: 230.9110 **MIF: 4.1984

Scientific Production

Agoritsas T., Heen A.F., Brandt L., Alonso-Coello P., Kristiansen A., Akl E.A., Neumann I., Tikkinen K.A.O., Van Der Weijden T., Elwyn G., Montori V.M., Guyatt G.H., Vandvik P.O., Decision aids that really promote shared decision making: The pace quickens (2015) *BMJ-BRIT MED J*, 350.

IF: 19.6970

Aguilera X., Martínez-Zapata M.J., Hinarejos P., Jordan M., Leal J., Gonzalez J.C., Monllau J.C., Celaya F., Rodriguez-Arias A., Fernandez J.A., Pelfort X., Puig-Verdie L., Topical and intravenous tranexamic acid reduce blood loss compared to routine hemostasis in total knee arthroplasty: a multicenter, randomized, controlled trial (2015) *ARCH ORTHOP TRAUM SU*, 135 (7), 1017-1025.

IF: 1.4960

Akl E.A., Carrasco-Labra A., Brignardello-Petersen R., Neumann I., Johnston B.C., Sun X., Briel M., Busse J.W., Ebrahim S., Granados C.E., Iorio A., Irfan A., Garcia L.M., Mustafa R.A., Ramirez-Morera A., Selva A., Sola I., Sanabria A.J., Tikkinen K.A.O., Vandvik P.O., Vernooij R.W.M., Zazueta O.E., Zhou Q., Guyatt G.H., Alonso-Coello P., Reporting, handling and assessing the risk of bias asso-

ciated with missing participant data in systematic reviews: A methodological survey (2015) *BMJ OPEN*, 5 (9).

IF: 2.5620

Akl E.A., Shawwa K., Kahale L.A., Agoritsas T., Brignardello-Petersen R., Busse J.W., Carrasco-Labra A., Ebrahim S., Johnston B.C., Neumann I., Sola I., Sun X., Vandvik P., Zhang Y., Alonso-Coello P., Guyatt G.H., Reporting missing participant data in randomised trials: Systematic survey of the methodological literature and a proposed guide (2015) *BMJ OPEN*, 5 (12).

IF: 2.5620

Almirall J., Serra-Prat M., Bolibar I., Palomera E., Roig J., Boixeda R., Bartolome M., de la Torre M., Parra O., Torres A., Professions and Working Conditions Associated With Community-Acquired Pneumonia (2015) *ARCH BRONCONEUMOL*, 51 (12), 627-631.

IF: 1.7710

Alonso-Coello P., Montori V.M., Diaz M.G., Devereaux P.J., Mas G., Diez A.I., Sola I., Roura M., Souto J.C., Oliver S., Ruiz R., Coll-Vinent B., Gich I., Schunemann H.J., Guyatt G., Values and preferences for oral antithrombotic therapy in patients with atrial fibrillation:

Physician and patient perspectives (2015) *HEALTH EXPECT*, 18 (6), 2318-2327.

IF: 3.2070

Alvarez G., Cerritelli F., Urrutia G., Using the template for intervention description and replication (TIDieR) as a tool for improving the design and reporting of manual therapy interventions (2015) *MANUAL THER*, 24, 85-89.

IF: 1.8690

Alvarez-Garcia J., Ferrero-Gregori A., Puig T., Vazquez R., Delgado J., Pascual-Figal D., Alonso-Pulpon L., Gonzalez-Juanatey J.R., Rivera M., Worner F., Bardaji A., Cinca J., Hove-Madsen L., A simple validated method for predicting the risk of hospitalization for worsening of heart failure in ambulatory patients: The Redin-SCORE (2015) *EUR J HEART FAIL*, 17 (8), 818-827.

IF: 5.1350

Alvarez-Garcia J., Ferrero-Gregori A., Puig T., Cinca J., The Redin SCORE: useful, but not for all: Reply (2015) *EUR J HEART FAIL*.

IF: 5.1350

Arevalo-Rodriguez I., Roque I Figuls M., Smailagic N., Ciapponi A., Sanchez-Perez E., Giannakou A., Pedraza O.L., Bonfill Cosp X.,

Clinical Epidemiology and Healthcare Services

*TIF: 230.9110 **MIF: 4.1984

Cullum S., Mini-Mental State Examination (MMSE) for the detection of Alzheimer's disease and other dementias in people with mild cognitive impairment (MCI) (2015) COCHRANE DB SYST REV, 3, CD010783.

IF: 6.0350

Ballester M.R., Roig E., Gich I., Puntos M., Delgadillo J., Santos B., Antonijoan R.M., Randomized, open-label, blinded-endpoint, crossover, single-dose study to compare the pharmacodynamics of torasemide-PR 10 mg, torasemide-IR 10 mg, and furosemide-IR 40 mg, in patients with chronic heart failure (2015) DRUG DES DEV THER, 9, 4291-4302.

IF: 2.8810

Balsells M., Garcia-Patterson A., Sola I., Roque M., Gich I., Corcoy R., Glibenclamide, metformin, and insulin for the treatment of gestational diabetes: A systematic review and meta-analysis (2015) BMJ-BRIT MED J, 350.

IF: 19.6970

Barnadas M.A., Rubiales M.V., Gich I., Gelpi C., Usefulness of specific anti-desmoglein 1 and 3 enzyme-linked immunoassay and indirect immunofluorescence in the evaluation of pemphigus activity (2015) INT J DERMATOL, 54 (11), 1261-1268.

IF: 1.4150

Bellmunt-Montoya S., Escribano J.M., Dilme J., Martinez-Zapata M.J., CHIVA method for the treatment of chronic venous insufficiency (2015) COCHRANE DB SYST REV, 6, CD009648.

IF: 6.0350

Bessissow A., Khan J., Devereaux P.J., Alvarez-Garcia J., Alonso-Coello P., Postoperative atrial fibrillation in non-cardiac and cardiac surgery: An overview (2015) J THROMB HAE-MOST, 13 (S1), S304-S312.

IF: 5.5650

Boardman H.M., Bonfill Cosp X., Hartley L., Eisinga A., Main C., Roque I Figus M., Bonfill Cosp X., Gabriel Sanchez R., Knight B., Hormone therapy for preventing cardiovascular disease in post-menopausal women (2015) COCHRANE DB SYST REV, 3, CD002229.

IF: 6.0350

Bonfill X., Martinez-Zapata M.J., Vernooij R.W., Sanchez M.J., Suarez-Varela M.M., De la Cruz J., Emparanza J.J., Ferrer M., Pijoan J.J., Ramos-Goni J.M., Palou J., Schmidt S., Abraira V., Zamora J., Clinical intervals and diagnostic characteristics in a cohort of prostate cancer patients in Spain: A multicentre observational study (2015) BMC UROL, 15 (1).

IF: 1.6060

Bonfill X., Osorio D., Posso M., Sola I., Rada G., Torres A., Garcia Dieguez M., Pina-Pozas M., Diaz-Garcia L., Tristan M., Gandarilla O., Rincon-Valenzuela D.A., Marti A., Hidalgo R., Si-

mancas-Racines D., Lopez L., Correa R., Rojas-De-Arias A., Loza C., Gianneo O., Pardo H., Identification of biomedical journals in Spain and Latin America (2015) HEALTH INFO LIBR J, 32 (4), 276-286.

IF: 0.7120

Buñil E., Roura-Poch P., Sala-Matavera I., Anton S., Lleo A., Sanchez-Saudinos B., Tomas-Abadal L., Puig T., Abos J., Bernades S., Clarimon J., Blesa R., Reelin signaling pathway genotypes and Alzheimer disease in a Spanish population (2015) ALZ DIS ASSOC DIS, 29 (2), 169-172.

IF: 2.5300

Carles M., Brosa M., Souto J.C., Garcia-Alamino J.M., Guyatt G., Alonso-Coello P., Cost-effectiveness analysis of dabigatran and anticoagulation monitoring strategies of vitamin K antagonist (2015) BMC HEALTH SERV RES.

IF: 1.6060

Carles M., Brosa M., Souto J.C., Garcia-Alamino J.M., Guyatt G., Alonso-Coello P., Cost-effectiveness analysis of dabigatran and anticoagulation monitoring strategies of Vitamin K antagonist Utilization, expenditure, economics and financing systems (2015) BMC HEALTH SERV RES, 15 (1).

IF: 1.6060

Carrasco-Labra A., Brignardello-Petersen R., Santesso N., Neumann I., Mustafa R.A., Mbuagbaw L., Ikobaltzeta I.E., De Stio C., McCullagh L.J., Alonso-Coello P., Meerpohl J.J., Vandvik P.O., Brozek J.L., Akl E.A., Bossuyt P., Churchill R., Glenton C., Rosenbaum S., Tugwell P., Welch V., Guyatt G., Schunemann H., Comparison between the standard and a new alternative format of the Summary-of-Findings tables in Cochrane review users: Study protocol for a randomized controlled trial (2015) TRIALS, 16 (1).

IF: 1.8590

Coll-Planas L., del Valle Gomez G., Bonilla P., Masat T., Puig T., Monteserin R., Promoting social capital to alleviate loneliness and improve health among older people in Spain (2015) HEALTH SOC CARE COMM.

IF: 1.5570

Delgado-Noguera M.F., Calvache J.A., Bonfill Cosp X., Kotanidou E.P., Galli-Tsinopoulou A., Supplementation with long chain polyunsaturated fatty acids (LCPUFA) to breastfeeding mothers for improving child growth and development (2015) COCHRANE DB SYST REV, 7, CD007901.

IF: 6.0350

Eckman M.H., Alonso-Coello P., Guyatt G.H., Ebrahim S., Tikkinen K.A.O., Lopes L.C., Neumann I., McDonald S.D., Zhang Y., Zhou Q., Akl E.A., Jacobsen A.F., Santamaria A., Anichino-Bizzacchi J.M., Bitar W., Sandset P.M., Bates S.M., Women's values and preferences

for thromboprophylaxis during pregnancy: A comparison of direct-choice and decision analysis using patient specific utilities (2015) THROMB RES, 136 (2), 341-347.

IF: 2.3200

Ferrero-Cafiero J.M., Gich I., Puntos M., Martinez J., Ballester M.R., Coimbra J., Mathison Y., Tarre M., Font X., Antonijoan R.M., Ibuprofen lysinate, quicker and less variable: Relative bioavailability compared to ibuprofen base in a pediatric suspension dosage form (2015) INT J CLIN PHARM TH, 53 (11), 972-979.

IF: 1.1290

Hernandez D., Palou J., Sancho G., Salas D., Gimenez D., Buitrago P., Esquena S., de la Torre P., Pernas J., Gich I., de Segura G.G., Craven-Bartle J., Pelvic MRI findings in relapsed prostate cancer after radical prostatectomy (2015) RADIAT ONCOL, 10 (1).

IF: 2.4660

Kang D., Han J., Neuberger M.M., Moy M.L., Wallace S.A., Alonso-Coello P., Dahm P., Transurethral radiofrequency collagen denaturation for the treatment of women with urinary incontinence (2015) COCHRANE DB SYST REV, 3, CD010217.

IF: 6.0350

Kristiansen A., Brandt L., Alonso-Coello P., Agoritsas T., Akl E.A., Conboy T., Elbarbary M., Ferwana M., Medani W., Murad M.H., Rigau D., Rosenbaum S., Spencer F.A., Treweek S., Guyatt G., Vandvik P.O., Development of a novel, multilayered presentation format for clinical practice guidelines (2015) CHEST, 147 (3), 754-763.

IF: 5.9400

Lopez-Alcalde J., Mateos-Mazon M., Guevara M., Conterno L.O., Sola I., Cabir Nunes S., Bonfill Cosp X., Gloves, gowns and masks for reducing the transmission of methicillin-resistant Staphylococcus aureus (MRSA) in the hospital setting (2015) COCHRANE DB SYST REV, 7, CD007087.

IF: 6.0350

Marti-Carvajal A.J., Anand V., Sola I., Janus kinase-1 and Janus kinase-2 inhibitors for treating myelofibrosis (2015) COCHRANE DB SYST REV, 4, CD010298.

IF: 6.0350

Marti-Carvajal A.J., Sola I., Antifibrinolytic amino acids for upper gastrointestinal bleeding in people with acute or chronic liver disease (2015) COCHRANE DB SYST REV, 6, CD006007.

IF: 6.0350

Marti-Carvajal A.J., Anand V., Sola I., Treatment for disseminated intravascular coagulation in patients with acute and chronic leukemia (2015) COCHRANE DB SYST REV, 6, CD008562.

IF: 6.0350

*TIF: 230.9110 **MIF: 4.1984

Marti-Carvajal A.J., Sola I., Vitamin K for upper gastrointestinal bleeding in people with acute or chronic liver diseases (2015) COCHRANE DB SYST REV, 6, CD004792-.

IF: 6.0350

Martinez Garcia L., Sanabria A.J., Araya I., Lawson J., Sola I., Vernooij R.W.M., Lopez D., Garcia Alvarez E., Trujillo-Martin M.M., Etxeandia-Ikobaltzeta I., Kotzeva A., Rigau D., Louro-Gonzalez A., Barajas-Nava L., Diaz Del Campo P., Estrada M.D., Gracia J., Salcedo-Fernandez F., Haynes R.B., Alonso-Coello P., Alvarez Ariza M., Argente Oliver J., Armario Garcia P., Arrieta Anton E., Balaguer Santamaria A., Borque Fernando A., Bunuel Alvarez J.C., Cervera Alvarez A., De Las Heras Linero M.E., Dopico L., Eddy Ives L.S., Esco Baron R., Ferreira Gonzalez I., Ferrer F., Gil Sanz M.J., Lago Deibe F.I., Marti Canales J.C., Martinez Rubio A., Martos Moreno G.A., Mejuto Marti T., Morales Ortiz A., Rioja Sanz L.A., Rioja Zuazu J., Rodriguez Gonzalez A., Rodriguez-Arias Palomo J.L., Saenz Cusi A., Efficiency of pragmatic search strategies to update clinical guidelines recommendations (2015) BMC MED RES METHODOL, 15 (1).

IF: 3.0590

Mcalister F.A., Jacka M., Graham M., Youngson E., Cembrowski G., Bagshaw S.M., Pannu N., Townsend D.R., Srinathan S., Alonso-Coello P., Devereaux P.J., The prediction of postoperative stroke or death in patients with preoperative atrial fibrillation undergoing non-cardiac surgery: A VISION sub-study (2015) J THROMB HAEMOST, 13 (10), 1768-1775.

IF: 5.5650

Meerpohl J.J., Schell L.K., Bassler D., Gallus S., Kleijnen J., Kulig M., Vecchia C.L., Marusic A., Ravaut P., Reis A., Schmucker C., Streh D., Urrutia G., Wager E., Antes G., Evidence-informed recommendations to reduce dissemination bias in clinical research: Conclusions from the OPEN (Overcome failure to Publish nEgative fiNdings) project based on an international consensus meeting (2015) BMJ OPEN, 5 (5).

IF: 2.5620

Plaza V., Peiro M., Torrejon M., Fletcher M., Lopez-Vina A., Ignacio J.M., Quintano J.A., Bardagi S., Gich I., A repeated short educational intervention improves asthma control and quality of life (2015) EUR RESPIR J, 46 (5), 1298-1307.

IF: 8.3320

Revez L., Chapman E., Asial S., Munoz S., Bonfill X., Alonso-Coello P., Risk of bias of randomized trials over time (2015) J CLIN EPIDEMIOL, 68 (9), 1036-1045.

IF: 4.7030

Rios Castellanos E., Bonfill Cosp X., Seron P., Gisbert J.P., Bonfill Cosp X., Endoscopic injection of cyanoacrylate glue versus other endoscopic procedures for acute bleeding gastric varices in people with portal hypertension (2015) COCHRANE DB SYST REV, 5, CD010180-.

IF: 6.0350

Robleda G., Roche-Campo F., Urrutia G., Navarro M., Sendra M.-A., Castillo A., Rodriguez-Arias A., Juanes-Borrejo E., Gich I., Mancebo J., Banos J.-E., A randomized controlled trial of fentanyl in the pre-emptive treatment of pain associated with turning in patients under mechanical ventilation: RESEARCH protocol (2015) J ADV NURS, 71 (2), 441-450.

IF: 1.9170

Robleda G., Roche-Campo F., Sanchez V., Gich I., Banos J.-E., Postoperative Discomfort After Abdominal Surgery: An Observational Study (2015) J PERIANESTH NURS, 30 (4), 272-279.

IF: 0.6620

Rodrigo G.J., Soler-Cataluna J.J., Solanes I., Bolibar I., Llauger M.A., Plaza V., Assessment of the internal structure of GOLD 2011 system (2015) PULM PHARMACOL THER, 30, 87-92.

IF: 2.9300

Rueda J.-R., Guillen V., Ballesteros J., Tejada M.-I., Sola I., L-acetylcarnitine for treating fragile X syndrome (2015) COCHRANE DB SYST REV, 5, CD010012-.

IF: 6.0350

Sala Farre M.R., Osorio Sanchez D., Arias Varela C., Simo Sanahuja M., Recasens Recasens A., Perez Jove J., Campylobacter and Salmonella acute gastroenteritis: Epidemiology and health care utilization (2015) MED CLIN-BARCELONA, 145 (7), 294-297.

IF: 1.2670

Sanabria A.J., Rigau D., Rotaecche R., Selva A., Marzo-Castillejo M., Alonso-Coello P., GRADE: Methodology for formulating and grading recommendations in clinical practice (2015) ATEN PRIM, 47 (1), 48-55.

IF: 1.0980

Schmidt S., Frances A., Lorente Garin J.A., Juanpere N., Lloreta Trull J., Bonfill X., Martinez-Zapata M.J., Morales Suarez-Varela M., de la Cruz J., Emparanza J.I., Sanchez M.-J., Zamora J., Pijoan J.I., Alonso J., Ferrer M., Quality of life in patients with non-muscle-invasive bladder cancer: One-year results of a multicentre prospective cohort study (2015) UROL ONCOL-SEMIN ORI, 33 (1), 19.e7-19.e15.

IF: 2.9210

Seron P., Lanas F., Rios E., Bonfill X., Alonso-Coello P., Evaluation of the quality of clinical guidelines for cardiac rehabilitation: A critical review (2015) J CARDIOPULM REHABIL, 35 (1), 1-12.

IF: 1.6320

Seron P., Pardo H., Lanas F., Cochrane corner: Exercise for people with high cardiovascular risk (2015) HEART, 101 (9), 663-664.

IF: 5.6930

Serra-Grima R., Donate M., Alvarez-Garcia J., Barradas-Pires A., Ferrero A., Carballeira L., Puig T., Rodriguez E., Cinca J., Long-term follow-up of early repolarization pattern in elite athletes (2015) AM J MED, 128 (2), 192.e1-192.e9.

IF: 5.6100

Sitja-Rabert M., Martinez-Zapata M.J., Fort Vanmeerhaeghe A., Rey Abella F., Romero-Rodriguez D., Bonfill X., Effects of a Whole body vibration (WBV) exercise intervention for institutionalized older people: A randomized, multicentre, parallel, clinical trial (2015) J AM MED DIR ASSOC, 16 (2), 125-131.

IF: 6.6160

Tew G.A., Posso M.C., Arundel C.E., McDaid C.M., Systematic review: Height-adjustable workstations to reduce sedentary behaviour in office-based workers (2015) OCCUP MED-OXFORD, 65 (5), 357-366.

IF: 1.1280

Trujols J., Ballesteros J., Sola I., Portella M.J., Improving systematic reviews on psychometric properties of measurement instruments: A letter to the Editor commenting on Reilly et al.'s (2015) review of the psychometric literature on QIDS (2015) J PSYCHIATR RES.

IF: 4.4650

Turrillas M., Sitja-Rabert M., Pardo H., Vilari Casamitjana J., Fort-Vanmeerhaeghe A., Morral Fernandez A., Cebria i Iranzo M.A., Bonfill Cosp X., Identification and description of controlled clinical trials published in Physiotherapy journals in Spain (2015) J EVAL CLIN PRACT.

IF: 1.0530

Walitt B., Urrutia G., Nishishinya M.B., Cantrell S.E., Hauser W., Selective serotonin reuptake inhibitors for fibromyalgia syndrome (2015) SAO PAULO MED J, 133 (5), 454.

IF: 0.9550

Evaluation of Public Health Policies and Programmes

Coordinator

Ariza Cardenal, Carles ASPB
cariza@aspb.cat

Members

Centrich Escarpenter, Francesc ASPB
 Continente García, Xavier ASPB
 García Altés, Anna ASPB
 Leon Pujades, Gabriel ASPB
 López Medina, María José ASPB
 Muñoz Guzmán, Gloria ASPB
 Pérez Giménez, Anna ASPB
 Puigpinós Riera, Rosa ASPB
 Sánchez Martínez, Francesca ASPB
 Serral Cano, Gemma ASPB
 Villalbí Hereter, Joan Ramon ASPB



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 (school-

based prevention programmes for obesity, smoking, alcohol and cannabis consumption, breast cancer screening programmes and memory training workshops for elderly people).

- ▶ Evaluation of ICT innovation in public health.
- ▶ Evaluation of food contaminants.

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 undergraduate and postgraduate teaching regarding the design and evaluation of risk prevention and health promotion interventions.

Awards

- ▶ Xavier Continente, Carles Ariza, Francesca Sánchez, Anna Pérez, M. José López, Olga Juárez. Consumo de tabaco y cannabis en adolescentes de Barcelona. Best oral communication. VI Jornada de Prevenció i Control del Tabaquisme del CNPT. 22 April 2015.
- ▶ Agència de Salut Pública de Barcelona. POIBA, Proyecto de Prevención de la Obesidad en Barcelona. Primer accèssit. VIII "Estrategia NAOS" Awards of the Agencia Española de Consumo, Seguridad Alimentaria y Nutrición (AECOSAN). 28 April 2015.

- ▶ POIBA, Projecte de Prevenció de l'Obesitat Infantil en escolars a Barcelona. Premi Ramon de Tesserach 2015 a l'actuació cívica d'entitats per a la promoció de la salut. 5 May 2015.

- ▶ M. José López. Impact of the Spanish smoke-free legislation on adult, non-smoker exposure to secondhand smoke: cross-sectional surveys before (2004) and after (2012) legislation. XXII Premio de la Sociedad Española de Epidemiología al mejor artículo original en epidemiología. 3 September 2015.

Theses

- ▶ Núria Obradors. Factors individuals i contextuals associats al consum de risc d'alcohol en joves de Catalunya Central. Director: Carles Ariza. Date of defense: 3 December 2015.

- ▶ Olga Juárez. Programas de prevención del embarazo, las infecciones de transmisión sexual, incluida la infección por el VIH/SIDA entre jóvenes escolarizados de Barcelona ciudad (1992-2014). Director: Carles Ariza. Date of defense: 16 December 2015.

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).
- ▶ 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.
- ▶ 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: 2014-2016. €64,470. Transport and Health: Injuries and Mobility (PI: Catherine Pérez).

*TIF: 37.8190 **MIF: 2.5213

Scientific Production

Alvarez-Bruned L., Garcia-Continente X., Gotsens M., Perez A., Perez G., Trends in Inequalities in the Use of Condom by Urban Teenagers in Spain. (2015) J URBAN HEALTH, 92 (6), 1065-1080.

IF: 2.0460

Ariza C., Ortega-Rodriguez E., Sanchez-Martinez F., Valmayor S., Juarez O., Pasarin M.I., Childhood obesity prevention from a community view (2015) ATEN PRIM, 47 (4), 246-255.

IF: 1.0980

Bosque-Prous M., Espelt A., Borrell C., Bartroli M., Guitart A.M., Villalbi J.R., Brugal M.T., Gender differences in hazardous drinking among middle-aged in Europe: The role of social context and women's empowerment. (2015) EUR J PUBLIC HEALTH, 25 (4), 698-705.

IF: 2.7510

Cequier A., Garcia-Altes A., Transparency and benchmarking for sustainability of the health system. (2015) MED CLIN-BARCELONA, 144 (10), 449-451.

IF: 1.2670

Garcia-Altes A., Pinilla J., Mari-Dell'Olmo M., Fernandez E., Lopez M.J., Economic impact of smoke-free legislation: Did the Spanish tobacco control law affect the economic activity of bars and restaurants? (2015) NICOTINE TOB RES, 17 (11), 1397-1400.

IF: 3.8110

Garcia-Continente X., Allue N., Perez-Gimenez A., Ariza C., Sanchez-Martinez F., Lopez M.J., Nebot M., Eating habits, sedentary behaviors and overweight and obesity among adoles-

cents in Barcelona (Spain). (2015) AN PEDIATR, 83 (1), 3-10.

IF: 0.7730

Guitart A.M., Espelt A., Castellano Y., Suelves J.M., Villalbi J.R., Brugal M.T., Injury-Related Mortality Over 12 Years in a Cohort of Patients with Alcohol Use Disorders: Higher Mortality Among Young People and Women. (2015) ALCOHOL CLIN EXP RES, 39 (7), 1158-1165.

IF: 2.8290

Perez A., Roque M., Domenech S., Monteserin R., Soriano N., Blancafort X., Bosom M., Vidal C., Petit M., Hortal N., Gil C., Espelt A., Lopez M.J., Efficacy of memory training in healthy community-dwelling older people: Study protocol for a randomized controlled trial. (2015) BMC GERIATR, 15 (1).

IF: 2.3710

Perez A., Roque M., Domenech S., Monteserin R., Soriano N., Blancafort X., Bosom M., Vidal C., Petit M., Hortal N., Gil C., Espelt A., Lopez M.J., Efficacy of memory training in healthy community-dwelling older people: Study protocol for a randomized controlled trial Psychology, psychiatry and quality of life. (2015) BMC GERIATR, 15 (1).

IF: 2.3710

Perez-Rios M., Fernandez E., Schiaffino A., Nebot M., Lopez M.J., Changes in the prevalence of tobacco consumption and the profile of Spanish smokers after a comprehensive smoke-free policy. (2015) PLOS ONE, 10 (6).

IF: 3.0570

Rubies A., Antkowiak S., Granados M., Company R., Centrich F., Determination of avermec-

tins: A QuEChERS approach to the analysis of food samples. (2015) FOOD CHEM, 181, 57-63.

IF: 4.0520

Rubies A., Munoz E., Gibert D., Cortes-Francisco N., Granados M., Caixach J., Centrich F., New method for the analysis of lipophilic marine biotoxins in fresh and canned bivalves by liquid chromatography coupled to high resolution mass spectrometry: A quick, easy, cheap, efficient, rugged, safe approach. (2015) J CHROMATOGR A, 1386, 62-73.

IF: 3.9260

Rubies A., Sans G., Kumar P., Granados M., Company R., Centrich F., High-throughput method for the determination of nitroimidazoles in muscle samples by liquid chromatography coupled to mass spectrometry. (2015) ANAL BIOANAL CHEM, 407 (15), 4411-4421.

IF: 3.1250

Sureda X., Fernandez E., Martinez-Sanchez J.M., Fu M., Lopez M.J., Martinez C., Salto E., Secondhand smoke in outdoor settings: Smokers' consumption, non-smokers' perceptions, and attitudes towards smoke-free legislation in Spain. (2015) BMJ OPEN, 5 (4).

IF: 2.5620

Villalbi J.R., Bartroli M., Bosque-Prous M., Guitart A.M., Serra-Batiste E., Casas C., Brugal M.T., Enforcing regulations on alcohol sales and use as universal environmental prevention (2015) ADICCIONES, 27 (4), 288-293.

IF: 1.7800

Transport and Health: Injuries and Mobility

Coordinator

Pérez González, Catherine ASPB
c Perez@aspb.cat

Members

Novoa Pardo, Ana ASPB
Olabarria Saenz
De Viguera, Marta ASPB
Santamariña Rubio, Elena ASPB



Main Lines of Research

- ▶ Public health injury surveillance.
- ▶ Evaluation of road safety strategies at the urban level.
- ▶ Evaluation of road safety strategies in Spain.
- ▶ 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).

Research Projects in the Planning and Design Phase

- ▶ Record linkage of health and police registers to study road traffic injury determinants.
- ▶ Inter-sector policies in transport: impact on sustainable environment, health and equity.

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)
- ▶ Safety indicators for cities IRTAD Cities (Joint Transport Research Centre of the OECD and the International Transport Forum (JTRC)).

External Collaborations

- ▶ All members of the group are members of the Working Group for Health Impact Evaluation of Injuries in Spain (Sociedad Española de Epidemiología), which is led by the IP of the group (Catherine Pérez).
- ▶ All members of the group are members of the group of Social Inequalities of CIBERESP (Consortio 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).
- ▶ Partners of the SafetyCube (Safety CaUsation, Benefits and Efficiency) (H2020 N.633485), a research project funded by the European Commission under the Horizons 2020, the EU Framework Programme for Research and Innovation, in the domain of Road Safety.

*TIF: 17.0830 **MIF: 2.8471

Scientific Production

Basagana X., Escalera-Antezana J.P., Davand P., Llatje O., Barrera-Gomez J., Cunillera J., Medina-Ramon M., Perez K., High ambient temperatures and risk of motor vehicle crashes in Catalonia, Spain (2000–2011): A time-series analysis. (2015) ENVIRON HEALTH PERSP, 123 (12), 1309-1316.

IF: 8.4430

Novoa A.M., Ward J., Malmusi D., Diaz F., Darnell M., Trilla C., Bosch J., Borrell C., How substandard dwellings and housing affordability problems are associated with poor health in a vulnerable population during the economic recession of the late 2000s. (2015) INT J EQUITY HEALTH, 14 (1).

IF: 2.3780

Olabarria M., Perez K., Santamarina-Rubio E., Novoa A.M., Racioppi F., Effect of neighbourhood motorization rates on walking levels. (2015) EUR J PUBLIC HEALTH, 25 (4), 740-747.

IF: 2.7510

Olabarria M., Santamarina-Rubio E., Mari-Dell'Olmo M., Gotsens M., Novoa A.M., Borrell C., Perez K., Head-on crashes on two-way interurban roads: A public health concern in road safety. (2015) GAC SANIT, 29, 16-23.

IF: 1.5090

Perez K., Lardelli P., Ramirez R., Gonzalez-Luque J.C., Road traffic injuries: An example of public health. (2015) GAC SANIT, 29, 2-3.

IF: 1.5090

Rocha K.B., Perez K., Rodriguez-Sanz M., Muntaner C., Alonso J., Borrell C. Inequalities in mental health in the spanish autonomous communities: a multilevel study. SPAN J PSYCHOL, 2015, 18, E27.

IF: 0.493

Transmissible Diseases

Coordinator

Caylà Buqueras,
Joan Arturo ASPB
jcayla@aspb.cat

Members

Casals Toquero, Martí ASPB
De Benito Langa, Javier ASPB
García de Olalla Rizo,
Patricia ASPB
Gil Simon, Sonia ASPB
Horna Campos, Olivia ASPB
Manzanares, Sandra ASPB
Martín Sánchez, Vicente ASPB
Martín Valle, Silvia ASPB
Millet Vilanova, Joan Pau ASPB
Monedero Recuero,
Ignacio ASPB
Moreno Martínez,
Antonio ASPB
Orcau Palau, Àngels ASPB
Pañella Noguera, Helena ASPB
Rius Gibert, Cristina ASPB
Rodrigo Sanz,
María Teresa ASPB



Main Lines of Research

Application of New Technologies to Tuberculosis Control

- ▶ International diffusion of the new technologies. Google Analytics offers a highly effective system for analysing website visits that enables us to profile visitors (2007, 13,429 visitors, 21% from Latin America).
- ▶ Production of scientific knowledge of relevance on the control, diagnosis, treatment and prevention of tuberculosis (key role in Spain and South America).

Clinical Trials for Tuberculosis Prevention and Treatment

- ▶ Our centre, which is the only such centre in Europe, is part of a network of international centres (in Canada, Brazil, South Africa and Uganda) associated with the Tuberculosis Trials Consortium of the CDCs, promoting international involvement in laying the therapeutic and strategic bases for the treatment of tuberculosis and tubercular infection. Preliminary results have recently been presented at the ICAAC and other important international conferences e.g., the American Thoracic Society (the article with definitive study data is pending publication). A major research line aims to fix the bases for shortening treatment times for tubercular infection and, by extension, ensure compliance and control over the disease.

Community Health Worker's and Notifiable Disease Control

- ▶ The experiment regarding the community health worker's role in the control of notifiable diseases has been presented at tuberculosis and primary care conferences and workshops and in journals (Emerging Infectious Diseases; Ethnicity and Health). Results of a comparative study have recently been presented as a thesis in fulfilment of the master in public health of Pompeu Fabra University and the Autonomous University of Barcelona (an article is undergoing final review before publication).
- ▶ The inclusion of community health workers in tuberculosis programme teams has led to the creation of new tuberculosis consensus protocols. Institute of Health studies are under development with sponsorship from the authorities and we are participating as instructors and students in the first intercultural mediation course in the healthcare arena. The concept of the community health worker has been included in the framework Tuberculosis Prevention and Control Plan for Spain. The short- to medium-term objective is for community health workers to continue working with us and for these professionals to be included in other public health areas.

Challenges

- ▶ Prevent sexually transmitted infections and other transmissible diseases.
- ▶ Evaluate HIV screening programmes in gay saunas.
- ▶ Improve detection and research into causes of hepatitis C.
- ▶ Improve detection and control measures of outbreaks.

Collaborations

External Collaborations

- ▶ CDC.
- ▶ CASCADE.
- ▶ GEMES.
- ▶ SANCO.
- ▶ COHERE.

Awards

- ▶ Jacques C., García de Olalla P., Diez E., Martins, Cayla J.A. ¿Cómo se explican las prácticas sexuales de riesgo? Estudio cualitativo en un grupo de hombres que tienen sexo con hombres. XVII Congreso Nacional sobre el Sida e Infecciones de Transmisión Sexual. Best oral communication. San Sebastián, 6-8 May 2015.

Active Grants

- ▶ Joan Artur Caylà Buqueras. Cribado de las enfermedades transmisibles en población inmigrante de un barrio con bajo nivel socio-económico: comparación de dos estrategias. PI12/02573. Instituto de Salud Carlos III. Duration: 2013-2016. €43,500.

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

Grants Awarded in 2015

- ▶ Joan Artur Caylà Buqueras. Convocatòria d'intensificació 2015. IR15-INT3, Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2015-2016. €30,000.

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

*TIF: 59.2640 **MIF: 2.3706

Scientific Production

Arias-de la Torre J., Artazcoz L., Molina A.J., Fernandez-Villa T., Martin V., Inequalities in mental health in the working population of Spain: A National Health Survey-based study. (2015) GAC SANIT.

IF: 1.5090

Besoain F., Perez-Navarro A., Cayla J.A., Avino C.J., de Olalla P.G., Prevention of sexually transmitted infections using mobile devices and ubiquitous computing. (2015) INT J HEALTH GEOGR, 14 (1).

IF: 2.2700

Blanquer R., Rodrigo T., Casals M., Ruiz Manzano J., Garcia-Garcia J.M., Calpe J.L., Valencia E., Pascual T., Mir I., Jimenez M.T., Canas F., Vidal R., Penas A., Cayla J.A., Resistance to First-Line Antituberculosis Drugs in Spain, 2010-2011. RETUBES Study. (2015) ARCH BRONCONEUMOL, 51 (1), 24-30.

IF: 1.7710

Carnicer-Pont D., Barbera-Gracia M.J., Fernandez-Davila P., Garcia de Olalla P., Munoz R., Jacques-Avino C., Saladie-Marti M.P., Gosch-Elcoso M., Arellano Munoz E., Casabona J., Use of new technologies to notify possible contagion of sexually-transmitted infections among men. (2015) GAC SANIT, 29 (3), 190-197.

IF: 1.5090

Casals M., Langohr K., Carrasco J.L., Ronnegard L., Parameter estimation of poisson generalized linear mixed models based on three different statistical principles: A simulation

study. (2015) SORT-STAT OPER RES T, 39 (2), 281-308.

IF: 0.4140

Crespo I., Broner S., Soldevila N., Martinez A., Godoy P., Sala-Farre M.-R., Company M., Rius C., Dominguez A., Characteristics of pertussis outbreaks in Catalonia, Spain, 1997 to 2010. (2015) HUM VACC IMMUNOTHER, 11 (1), 231-235.

IF: 2.1460

Crespo I., Toledo D., Soldevila N., Jordan I., Solano R., Castilla J., Cayla J.A., Godoy P., Munoz-Almagro C., Dominguez A., Hozbor D.F., Characteristics of hospitalized cases of pertussis in Catalonia and Navarra, two regions in the North of Spain. (2015) PLOS ONE, 10 (10).

IF: 3.0570

Culqui D.R., Garcia-De-Olalla-Rizo P., Alva-Chavez K.P., Lafuente S., Rius C., De Simon M., Sabater S., Cayla J.A., Analysis of the epidemiological pattern of Shigellosis in Barcelona between 1988 and 2012: Is it an emerging sexually transmitted infection?. (2015) ENFERM INFECC MICR CL, 33 (6), 379-384.

IF: 1.5300

De Olalla P.G., Molas E., Barbera M.J., Martin S., Arellano E., Gosch M., Saladie P., Carbonell T., Knobel H., Diez E., Cayla J.A., Effectiveness of a pilot partner notification program for new HIV cases in Barcelona, Spain. (2015) PLOS ONE, 10 (4).

IF: 3.0570

Dominguez A., Godoy P., Toledo D., Soldevila N., Garcia-Cenoz M., Farrus G., Crespo I., Cayla J.A., Sala M.R., Camps N., Barrabeig I., Alvarez J., Importance of enhanced surveillance for prevention of pertussis in children. (2015) PEDIATR INFECT DIS J, 34 (7), 729-733.

IF: 2.5870

Efsen A.M.W., Schultze A., Post F.A., Panteleev A., Furrer H., Miller R.F., Losso M.H., Toibaro J., Skrahin A., Miro J.M., Cayla J.A., Girardi E., Bruyand M., Obel N., Podlekareva D.N., Lundgren J.D., Mocroft A., Kirk O., Major challenges in clinical management of TB/HIV coinfecting patients in Eastern Europe compared with Western Europe and Latin America. (2015) PLOS ONE, 10 (12).

IF: 3.0570

Garriga C., Garcia de Olalla P., Miro J.M., Ocana I., Knobel H., Barbera M.J., Humet V., Domingo P., Gatell J.M., Ribera E., Gurgui M., Marco A., Cayla J.A., Gil S., Masdeu E., Simon P., Ros M., Clos R., Gorrindo P., Mateo M.G., Gutierrez M.M., Falco V., Vall M., Armengol P., Aranda M., Carbonell T., Manzardo C., Garcia F., Blanco J.L., Martinez E., Mallolas J., Vitaloni M., Mortality, causes of death and associated factors relate to a large HIV population-based cohort. (2015) PLOS ONE, 10 (12).

IF: 3.0570

Godoy P., Broner S., Manzanera-Laya S., Martinez A., Parron I., Planas C., Sala-Farre M.-R., Minguell S., de Olalla P.G., Jane M., Dominguez A., Outbreaks of hepatitis A as-

Transmissible Diseases

*TIF: 59.2640 **MIF: 2.3706

sociated with immigrants travelling to visit friends and relatives. (2015) *J INFECTION*.

IF: 4.3820

Jacques Avino C., Garcia de Olalla P., Diez E., Martin S., Cayla J.A., Explanation of risky sexual behaviors in men who have sex with men. (2015) *GAC SANIT*, 29 (4), 252-257.

IF: 1.5090

Jarrin I., Pantazis N., Dalmau J., Phillips A.N., Olson A., Mussini C., Boufassa F., Costagliola D., Porter K., Blanco J., Del Amo J., Martinez-Picado J., Chene G., Sabin C., Walker S., Fisher M., Kelleher T., Cooper D., Finlayson R., Bloch M., Ramacciotti T., Gelgor L., Smith D., Zangerle R., Gill J., Lutsar I., Dabis F., Thiebaut R., Guiguet M., Vanhems P., Chaix M.-L., Ghosn J., Meyer L., Hamouda O., Kucherer C., Bartmeyer B., Antoniadou A., Chrysos G., Daikos G.L., Touloumi G., Katsarou O., Rezza G., Dorrucci M., Monforte A.D., De Luca A., Prins M., Geskus R., Van Der Helm J., Schuitemaker H., Sannes M., Brubakk O., Kran A.-M.B., Rosinska M., Muga R., Tor J., De Olalla P.G., Cayla J., Moreno S., Monge S., Del Romero J., Perez-Hoyos S., Sonnerborg A., Bucher H.C., Gunthard H., Rickenbach M., Maljuta R., Murphy G., Johnson A., Babiker A., Pillay D., Morrison C., Salata R., Mugerwa R., Chipato T., Amornkul P.N., Gilmour J., Kamali A., Karita E., Burns F., Giaquinto C., Grarup J., Kirk O., Bailey H., Anne A.V., Panteleev A., Thorne C., Aboulker J.-P., Albert J., Asandi S., De Wit S., Reiss P., Gatell J., Karpov I., Ledergerber B., Lundgren J., Moller C., Rakhmanova A., Rockstroh J., Sandhu M., Dedes N., Fenton K., Pizzuti D., Vitoria M., Faggion S., Fradette L., Frost R., Cartier A., Raben D., Schwimmer C., Scott M., Does rapid HIV disease progression prior to combination antiretroviral therapy hinder optimal CD4 + T-cell recovery once HIV-1 suppression is achieved?. (2015) *AIDS*, 29 (17), 2323-2333.

IF: 4.4070

Mansfeld M., Skrahina A., Shepherd L., Schultze A., Panteleev A., Miller R., Miro J., Zeltina I., Tetrarov S., Furrer H., Kirk O., Grzeszczuk A., Bolokadze N., Matteelli A., Post F., Lundgren J., Mocroft A., Efsen A., Podlekareva D., Losso M.H., Toibaro J.J., Palmero D., Bartoletti B.J., E.Warley, Gear O., Messina O.G., Michans M., Laplume H., David D., Marson C., Scapellato F.P., Dalessandro D., Lupo S., Costilla Campero G., Herbst M., Remondegui C., Elias

C., Karpov I., Vassilenko A., Skrahina E., Skrahin A., Zalutskya A., Kondratenko O., Mitsura V., Bondarenko V., Suetnov O., Paduto D., Dewit S., Payen M.C., Noscoi C., Kabeya K., M.Wolff, Cortes C., Obel N., Kronborg G., Kirk O., Iljina V., Kummik T., Bryand M., Dabis F., Bolokadze N., Lanchava N., Bablishvili N., Goginashvili L., Mikiashvili L., Mshvidobadze K., Girardi E., Di Biagio A., Matteelli A., Apostoli A., Barzoni S., Lapadula G., Purgatorio M., Carbonara S., Rozentale B., Zeltina I., Janushkevich I., Caplinskas S., Kancauskienne Z., Caplinskienne I., Crabtree B., Pina A., Madero J.S., Mosqueda J., Villanueva J.A., Grzeszczuk A., Bura M., Garlicki A., Inglot M., Knysz B., Kozłowska J., Loster J., Mularska E., Podlasin R., Thompson M., Wiercinska-Drapalo A., Duiculescu D., Tetrarov S., Rakhmanova A., Yakovlev A., Panteleev A., Turkalova A., Vlasova Y., Trotimora T., Borodulina E., Chumanova L., Mashkova Y., Miro J.M., Cayla J.A., Moreno A., Millet J.P., Orcau A., Fina L., del Bano L., Roldan L.L., Romero A., Martinez J.A., Manzardo C., Gonzalez J., Tundo G., Knobel H., Sanchez F., Salvado M., Curran A., Tortola M.T., Pozamczar D., Saumoy M., Alcaide F., Martinez-Lacasa X., Cuchi E., Sambeat M.A., Pomar V., Coll P., Miralles P., Moreno S., Iribarren J.A., Ibarguren M., Aldamiz T., Furrer H., Rickenbach M., Sagette M., Post F.A., Miller R.F., Chapman A., Dockrell D., Wilkins E., Cooke G., Ainsworth J., Macallen D., Dhar J., Vora N., Mullaney S., Kegg S., Kyselyova G., Major differences in organization and availability of health care and medicines for HIV/TB coinfecting patients across Europe. (2015) *HIV MED*, 16 (9), 544-552.

IF: 3.3410

Marco A., Anton J.J., Trujols J., Saiz de la Hoya P., de Juan J., Faraco I., Cayla J.A., Personality disorders do not affect treatment outcomes for chronic HCV infection in Spanish prisoners: The Perseo study. (2015) *BMC INFECT DIS*, 15 (1).

IF: 2.6900

Marco A., Anton J.J., Saiz de la Hoya P., de Juan J., Faraco I., Cayla J.A., Trujols J., Personality disorders among Spanish prisoners starting hepatitis C treatment: Prevalence and associated factors. (2015) *PSYCHIAT RES*, 230 (3), 749-756.

IF: 2.4660

Morales-Garcia C., Rodrigo T., Garcia-Clemente M.M., Munoz A., Bermudez P., Casas F.,

Somoza M., Mila C., Penas A., Hidalgo C., Casals M., Cayla J.A., Alvarez F., Barron M., Bermudez P., Bustamante A., Casals M., Casas F., Casas X., Cayla J.A., Delgado A.E., Garcia-Clemente M.M., Garcia-Garcia J.M., Garros F.J., Gullon J.A., Hidalgo C., Jimenez G., Marin M., Mila C., Morales-Garcia C., Moreno V., Munoz A., Penas A., Rodriguez J., Rodrigo T., Somoza M., Valencia M.E., Villanueva M.A., Factors associated with unreported tuberculosis cases in Spanish hospitals. (2015) *BMC INFECT DIS*, 15 (1).

IF: 2.6900

Moreno A., Manzanares-Laya S., Razquin E., Guix S., Dominguez A., De Simon M., Norovirus outbreaks in geriatric centers: Importance of an early detection. (2015) *MED CLIN-BARCELONA*, 144 (5), 204-206.

IF: 1.2670

Moreno-Martinez A., Casals M., Orcau A., Gorrindo P., Masdeu E., Cayla J.A., Factors associated with diabetes mellitus among adults with tuberculosis in a large European city, 2000-2013. (2015) *INT J TUBERC LUNG D*, 19 (12), 1507-1512.

IF: 2.1480

Mozalevskis A., Manzanares-Laya S., Garcia De Olalla P., Moreno A., Jacques-Avino C., Cayla J.A., Can we rely on the antiretroviral treatment as the only means for human immunodeficiency virus prevention? A Public Health perspective. (2015) *ENFERM INFECC MICR CL*, 33 (9), e63-e68.

IF: 1.5300

Reyes-Uruena J.M., Garcia De Olalla P., Vall-Mayans M., Arando M., Caballero E., Cayla J.A., Lymphogranuloma venereum in Barcelona, 2007-2012: The role of seroadaptation in men who have sex with men. (2015) *EPIDEMIOL INFECT*, 143 (1), 184-188.

IF: 2.5150

Reyes-Uruena J., Brugal M.T., Majo X., Domingo-Salvany A., Cayla J.A., Cross sectional study of factors associated to self-reported blood-borne infections among drug users. (2015) *BMC PUBLIC HEALTH*.

IF: 2.2090

Turner N., Solano R., Rius C., Dominguez A., Implication of health care personnel in measles transmission. (2015) *HUM VACC IMMUNOTHER*, 11 (1), 288-292.

IF: 2.1460

Health Inequalities

Coordinator

Borrell Thió, Carme ASPB
cborrell@aspb.cat

Members

Altimira Ávalos, Patricia ASPB
Artazcoz Lazcano, Lucía ASPB
Bartoll Roca, Xavier ASPB
Cortés Franch, Immaculada ASPB
Díez David, Elia ASPB
Gotsens Miquel, Mercè ASPB
Mari Dell'Olmo, Marc ASPB
Palència Fernández, Laia ASPB
Pasarín Rua, María Isabel ASPB
Pérez Albarracín, Glòria ASPB
Rodríguez Sanz, Maica ASPB
Salvador Peral, Joaquín ASPB



Main Lines of Research

- ▶ In-depth 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.

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).

Active Grants

- ▶ Carme Borrell Thió. Evaluating the impact of structural policies on health inequalities and their social determinants and fostering change. SOPHIE. Agència de Salut Pública de Barcelona. Duration: 2013-2016. €27,200.
- ▶ Gloria Pérez Albarracín. El efecto de la crisis económica en la salud sexual y reproductiva y en las desigualdades sociales y económicas en España y sus Comunidades Autónomas. PI13/02292. Instituto de Salud Carlos III. Duration: 2014-2016. €26,875.
- ▶ Carme Borrell Thió. Efectos de la crisis en la salud de la población y sus determinantes en España. PI13/00897. Instituto de Salud Carlos III. Duration: 2014-2016. €58,564.
- ▶ Carme Borrell Thió. Evaluación de efectos en salud del programa "Treball als Barris". RecerCaixa. Duration: 2015-2017. €78,359.69.

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

*TIF: 98.5500 **MIF: 2.5269

Scientific Production

- Alvarez-Bruned L., Garcia-Continente X., Gotsens M., Perez A., Perez G., Trends in Inequalities in the Use of Condom by Urban Teenagers in Spain. (2015) J URBAN HEALTH, 92 (6), 1065-1080.
IF: 2.0460
- Arias-de la Torre J., Artazcoz L., Molina A.J., Fernandez-Villa T., Martin V., Inequalities in mental health in the working population of Spain: A National Health Survey-based study. (2015) GAC SANIT.
IF: 1.5090
- Ariza C., Ortega-Rodriguez E., Sanchez-Martinez F., Valmayor S., Juarez O., Pasarin M.I., Childhood obesity prevention from a community view. (2015) ATEN PRIM, 47 (4), 246-255.
IF: 1.0980
- Bartoll X., Toffolutti V., Malmusi D., Palencia L., Borrell C., Suhrcke M., Health and health behaviours before and during the Great Recession, overall and by socioeconomic status, using data from four repeated cross-sectional health surveys in Spain (2001-2012). (2015) BMC PUBLIC HEALTH, 15 (1).
IF: 2.2090
- Borrell C., Dominguez-Berjon M.F., Alvarez-Dardet C., Bermudez-Tamayo C., Godoy P., Lopez M.J., Negrin M.T., Perez G., Perez-Farinos N., Ruano A., Cases C.V., Garcia A.M., Gaceta Sanitaria in 2014. (2015) GAC SANIT, 29 (2), 84-87.
IF: 1.5090
- Borrell C., Vives-Cases C., Dominguez-Berjon M.F., Alvarez-Dardet C., Gender inequalities in science: Gaceta Sanitaria takes a step forward. (2015) GAC SANIT, 29 (3), 161-163.
IF: 1.5090
- Borrell C., Palencia L., Bartoll X., Ikram U., Malmusi D., Perceived discrimination and health among immigrants in Europe according to national integration policies. (2015) INT J ENV RES PUB HE, 12 (9), 10687-10699.
IF: 2.0350
- Bosque-Prous M., Espelt A., Borrell C., Bartroli M., Guitart A.M., Villalbi J.R., Brugal M.T., Gender differences in hazardous drinking among middle-aged in Europe: The role of social context and women's empowerment. (2015) EUR J PUBLIC HEALTH, 25 (4), 698-705.
IF: 2.7510
- Cayuela A., Malmusi D., Lopez-Jacob M.J., Gotsens M., Ronda E., The Impact of Education and Socioeconomic and Occupational Conditions on Self-Perceived and Mental Health Inequalities Among Immigrants and Native Workers in Spain. (2015) J IMMIGR MINOR HEALTH, 17 (6), 1906-1910.
IF: 1.5790
- Cornejo-Ovalle M., Paraje G., Vasquez-Lavin F., Perez G., Palencia L., Borrell C., Changes in socioeconomic inequalities in the use of dental care following major healthcare reform in Chile, 2004-2009. (2015) INT J ENV RES PUB HE, 12 (3), 2823-2836.
IF: 2.0350
- De Moortel D., Palencia L., Artazcoz L., Borrell C., Vanroelen C., Neo-Marxian social class inequalities in the mental well-being of employed men and women: The role of European welfare regimes. (2015) SOC SCI MED, 128, 188-200.
IF: 2.8140
- Espelt A., Domingo-Salvany A., Sanchez-Niubo A., Mari-Dell'Olmo M., Brugal M.T., Estimating trends in the prevalence of problematic cocaine use (1999-2008). (2015) GAC SANIT, 29 (5), 353-357.
IF: 1.5090
- Garcia-Altes A., Pinilla J., Mari-Dell'Olmo M., Fernandez E., Lopez M.J., Economic impact of smoke-free legislation: Did the Spanish tobacco control law affect the economic activity of bars and restaurants?. (2015) NICOTINE TOB RES, 17 (11), 1397-1400.
IF: 3.8110
- Garcia-Calvente M.M., Ruiz-Cantero M.T., del Rio-Lozano M., Borrell C., Lopez-Sancho M.P., Gender inequalities in research in public health and epidemiology in Spain (2007-2014). (2015) GAC SANIT, 29 (6), 404-411.
IF: 1.5090
- Gotsens M., Malmusi D., Villarroya N., Vives-Cases C., Garcia-Subirats I., Hernandez C., Borrell C., Health inequality between immigrants and natives in Spain: The loss of the healthy immigrant effect in times of economic crisis. (2015) EUR J PUBLIC HEALTH, 25 (6), 923-929.
IF: 2.7510
- Hollmann M., Borrell C., Garin O., Fernandez E., Alonso J., Factors influencing publication of scientific articles derived from masters theses in public health. (2015) INT J PUBLIC HEALTH, 60 (4), 495-504.
IF: 2.7540
- Ikram U.Z., Malmusi D., Juel K., Rey G., Kunst A.E., Association between integration policies and immigrants' mortality: An explorative study across three European countries. (2015) PLOS ONE, 10 (6).
IF: 3.0570
- Jacques Avino C., Garcia de Olalla P., Diez E., Martin S., Cayla J.A., Explanation of risky sexual behaviors in men who have sex with men. (2015) GAC SANIT, 29 (4), 252-257.
IF: 1.5090
- Larrea S., Palencia L., Perez G., Medical abortion provided by telemedicine to women in Latin America: Complications and their treatment. (2015) GAC SANIT, 29 (3), 198-204.
IF: 1.5090
- Lopez-Ruiz M., Artazcoz L., Martinez J.M., Rojas M., Benavides F.G., Informal employment and health status in Central America Health behavior, health promotion and society. (2015) BMC PUBLIC HEALTH, 15 (1).
IF: 2.2090
- Mackenbach J.P., Kulhanova I., Bopp M., Deboosere P., Eikemo T.A., Hoffmann R., Kulik M.C., Leinsalu M., Martikainen P., Menvielle G., Regidor E., Wojtyniak B., Ostergren O., Lundberg O., Biggeri A., Borrell C., Brown L., Costa, Esnaola S., Klotz J., Kovacs K., Lange A., Rodriguez-Sanz M., Strand B.H., White C., Variations in the relation between education and cause-specific mortality in 19 European populations: A test of the "fundamental causes" theory of social inequalities in health. (2015) SOC SCI MED, 127, 51-62.
IF: 2.8140
- Mackenbach J.P., Kulhanova I., Menvielle G., Bopp M., Borrell C., Costa G., Deboosere P,

Health Inequalities

*TIF: 98.5500 **MIF: 2.5269

Scientific Production

Esnaola S., Kalediene R., Kovacs K., Leinsalu M., Martikainen P., Regidor E., Rodriguez-Sanz M., Strand B.H., Hoffmann R., Eikemo T.A., Ostergren O., Lundberg O., White C., Brown L., Andersen O., Lange A., Trends in inequalities in premature mortality: A study of 3.2 million deaths in 13 European countries. (2015) J EPIDEMIOL COMMUN H, 69 (3), 207-217.

IF: 3.8650

Mackenbach J.P., Kulhanova I., Bopp M., Borrell C., Deboosere P., Kovacs K., Looman C.W.N., Leinsalu M., Makela P., Martikainen P., Menvielle G., Rodriguez-Sanz M., Rychtarikova J., de Gelder R., Inequalities in Alcohol-Related Mortality in 17 European Countries: A Retrospective Analysis of Mortality Registers. (2015) PLOS MED, 12 (12).

IF: 13.5850

Malmusi D., Immigrants' health and health inequality by type of integration policies in European countries. (2015) EUR J PUBLIC HEALTH, 25 (2), 293-299.

IF: 2.7510

Malmusi D., Vives A., Benach J., Borrell C., Gender inequalities in health: Exploring the contribution of living conditions in the intersection of social class. (2015) GLOBAL HEALTH ACTION, 8 (1).

IF: 1.8960

Mari-Dell'Olmo M., Gotsens M., Palencia L., Burstrom B., Corman D., Costa G., Deboosere P., Diez E., Dominguez-Berjon F., Dzurova D., Gandarillas A., Hoffmann R., Kovacs K., Martikainen P., Demaria M., Pikhart H., Rodriguez-Sanz M., Saez M., Santana P., Schwierz C., Tarkiainen L., Borrell C., Socioeconomic inequalities in cause-specific mortality in 15 European cities. (2015) J EPIDEMIOL COMMUN H, 69 (5), 432-441.

IF: 3.8650

Mari-Dell'Olmo M., Martinez-Beneito M.A., A multilevel regression model for geographical studies in sets of non-adjacent cities. (2015) PLOS ONE, 10 (8).

IF: 3.0570

Mehdipanah R., Manzano A., Borrell C., Malmusi D., Rodriguez-Sanz M., Greenhalgh J., Muntaner C., Pawson R., Exploring complex causal pathways between urban renewal, health and health inequality using a theory-driven realist approach. (2015) SOC SCI MED, 124, 266-274.

IF: 2.8140

Merino-Salazar P., Artazcoz L., Campos-Serna J., Gimeno D., Benavides F.G., National working conditions surveys in Latin America: Comparison of methodological characteristics. (2015) INT J OCCUP ENV HEAL, 21 (3), 266-274.

IF: 1.5540

Monge S., Ronda E., Pons-Vigues M., Vives Cases C., Malmusi D., Gil-Gonzalez D., Methodological limitations and recommendations in publications on migrant population health in Spain. (2015) GAC SANIT, 29 (6), 461-463.

IF: 1.5090

Morrison J., Pons-Vigues M., Diez E., Pasarin M.I., Salas-Nicas S., Borrell C., Perceptions and beliefs of public policymakers in a Southern European city. (2015) INT J EQUITY HEALTH, 14 (1).

IF: 2.3780

Nolasco A., Moncho J., Quesada J.A., Melchor I., Pereyra-Zamora P., Tamayo-Fonseca N., Martinez-Beneito M.A., Zurriaga O., Ballesta M., Daponte A., Gandarillas A., Dominguez-Berjon M.F., Mari-Dell'Olmo M., Gotsens M., Izco N., Moreno M.C., Saez M., Martos C., Sanchez-Villegas P., Borrell C., Trends in socioeconomic inequalities in preventable mortality in urban areas of 33 Spanish cities, 1996-2007 (MEDEA project). (2015) INT J EQUITY HEALTH, 14 (1).

IF: 2.3780

Novoa A.M., Ward J., Malmusi D., Diaz F., Darnell M., Trilla C., Bosch J., Borrell C., How substandard dwellings and housing affordability problems are associated with poor health in a vulnerable population during the economic recession of the late 2000s. (2015)

INT J EQUITY HEALTH, 14 (1).

IF: 2.3780

Olabarria M., Santamarina-Rubio E., Mari-Dell'Olmo M., Gotsens M., Novoa A.M., Borrell C., Perez K., Head-on crashes on two-way interurban roads: A public health concern in road safety. (2015) GAC SANIT, 29, 16-23.

IF: 1.5090

Perez G., Marti-Pastor M., Gotsens M., Bartoll X., Diez E., Borrell C., Health and health-related behaviors according to sexual attraction and behavior. (2015) GAC SANIT, 29 (2), 135-138.

IF: 1.5090

Perez G., Potential risks of the use of big data in research in public health and epidemiology. (2015) GAC SANIT.

IF: 1.5090

Ruano-Ravina A., Alvarez-Dardet C., Dominguez-Berjon M.F., Fernandez E., Garcia A.M., Borrell C., Externalities and article citations: Experience of a national public health journal (Gaceta Sanitaria). (2015) ANN EPIDEMIOL.

IF: 2.3350

Santana P., Costa C., Mari-Dell'Olmo M., Gotsens M., Borrell C., Mortality, material deprivation and urbanization: Exploring the social patterns of a metropolitan area. (2015) INT J EQUITY HEALTH, 14 (1).

IF: 2.3780

Vandenheede H., Deboosere P., Espelt A., Bopp M., Borrell C., Costa G., Eikemo T.A., Gnavi R., Hoffmann R., Kulhanova I., Kulik M., Leinsalu M., Martikainen P., Menvielle G., Rodriguez-Sanz M., Rychtarikova J., Mackenbach J.P., Educational inequalities in diabetes mortality across Europe in the 2000s: the interaction with gender. (2015) INT J PUBLIC HEALTH, 60 (4), 401-410.

IF: 2.7540

Epidemiology of Addictions

Coordinator

Brugal Puig, María Teresa ASPB
tbrugal@aspb.cat

Members

Bartroli Checa, Montse ASPB
Bosque Prous, Marina ASPB
Bruguera Guitart, Anna Maria ASPB
Espelt Fernández, Albert ASPB
Guitart García, Anna ASPB
Jiménez Dueñas, Miriam ASPB
Moreno España, José ASPB
Pérez Guitart, Aina ASPB
Sanz Asín, Pedro ASPB
Serrano Jordan, Jaime ASPB
Vázquez Vázquez, José María ASPB



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.

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.

*TIF: 33.6290 **MIF: 2.2419

Scientific Production

Bosque-Prous M., Espelt A., Borrell C., Bartroli M., Guitart A.M., Villalbi J.R., Brugal M.T., Gender differences in hazardous drinking among middle-aged in Europe: The role of social context and women's empowerment. (2015) EUR J PUBLIC HEALTH, 25 (4), 698-705. **IF: 2.7510**

Bosque-Prous M., Espelt A., Sordo L., Guitart A.M., Brugal M.T., Bravo M.J., Job loss, unemployment and the incidence of hazardous drinking during the late 2000s recession in Europe among adults aged 50-64 years. (2015) PLOS ONE, 10 (10). **IF: 3.0570**

Chahua M., Sanchez-Niubo A., Torrens M., Sordo L., Bravo M.J., Brugal M.T., Domingo-Salvany A., Quality of life in a community sample of young cocaine and/or heroin users: the role of mental disorders. (2015) QUAL LIFE RES, 24 (9), 2129-2137. **IF: 2.4290**

de Araujo Pernambuco L., Espelt A., Balata P.M.M., de Lima K.C., Prevalence of voice disorders in the elderly: a systematic review of population-based studies. (2015) EUR ARCH OTO-RHINO-L, 272 (10), 2601-2609. **IF: 1.6270**

De Araujo Pernambuco L., Espelt A., Morais Costa E.B.D., de Lima K.C., Screening for Voice Disorders in Older Adults (Rastreamento de Alterações Vocais em Idosos-RAVI)-Part II: Validity Evidence and Reliability. (2015) J VOICE. **IF: 1.1130**

Espelt A., Barrio G., Alamo-Junquera D., Bravo M.J., Sarasa-Renedo A., Vallejo F., Molist G., Brugal M.T., Lethality of opioid

overdose in a community cohort of young heroin users. (2015) EUR ADDICT RES, 21 (6), 300-306. **IF: 2.3670**

Espelt A., Domingo-Salvany A., Sanchez-Niubo A., Mari-Dell'Olmo M., Brugal M.T., Estimating trends in the prevalence of problematic cocaine use (1999-2008). (2015) GAC SANIT, 29 (5), 353-357. **IF: 1.5090**

Guitart A.M., Espelt A., Castellano Y., Suelves J.M., Villalbi J.R., Brugal M.T., Injury-Related Mortality Over 12 Years in a Cohort of Patients with Alcohol Use Disorders: Higher Mortality Among Young People and Women. (2015) ALCOHOL CLIN EXP RES, 39 (7), 1158-1165. **IF: 2.8290**

Perez A., Roque M., Domenech S., Monteserin R., Soriano N., Blancafort X., Bosom M., Vidal C., Petit M., Hortal N., Gil C., Espelt A., Lopez M.J., Efficacy of memory training in healthy community-dwelling older people: Study protocol for a randomized controlled trial. (2015) BMC GERIATR, 15 (1). **IF: 2.3710**

Perez A., Roque M., Domenech S., Monteserin R., Soriano N., Blancafort X., Bosom M., Vidal C., Petit M., Hortal N., Gil C., Espelt A., Lopez M.J., Efficacy of memory training in healthy community-dwelling older people: Study protocol for a randomized controlled trial Psychology, psychiatry and quality of life. (2015) BMC GERIATR, 15 (1). **IF: 2.3710**

Pernambuco L.D.A., Espelt A., Magalhaes Junior H.V., Cavalcanti R.V.A., Lima K.C.D.,

Screening for Voice Disorders in Older Adults(Rastreamento de Alterações Vocais em Idosos-RAVI)-Part I: Validity Evidence Based on Test Content and Response Processes. (2015) J VOICE. **IF: 1.1130**

Reyes-Uruena J., Brugal M.T., Majo X., Domingo-Salvany A., Cayla J.A., Cross sectional study of factors associated to self-reported blood-borne infections among drug users. (2015) BMC PUBLIC HEALTH. **IF: 2.2090**

Sarasa-Renedo A., Sordo L., Pulido J., Guitart A., Gonzalez-Gonzalez R., Hoyos J., Bravo M.J., Barrio G., Effect of immigration background and country-of-origin contextual factors on adolescent substance use in Spain. (2015) DRUG ALCOHOL DEPEND, 153, 124-134. **IF: 3.3490**

Vandenheede H., Deboosere P., Espelt A., Bopp M., Borrell C., Costa G., Eikemo T.A., Gnavi R., Hoffmann R., Kulhanova I., Kulik M., Leinsalu M., Martikainen P., Menvielle G., Rodriguez-Sanz M., Rychtarikova J., Mackenbach J.P., Educational inequalities in diabetes mortality across Europe in the 2000s: the interaction with gender. (2015) INT J PUBLIC HEALTH, 60 (4), 401-410. **IF: 2.7540**

Villalbi J.R., Bartroli M., Bosque-Prous M., Guitart A.M., Serra-Batiste E., Casas C., Brugal M.T., Enforcing regulations on alcohol sales and use as universal environmental prevention. (2015) ADICCIONES, 27 (4), 288-293. **IF: 1.7800**

Primary Care Research

Coordinator

Brotos Cuixart,
Carles EAP Sardenya
cbrotos@eapsardenya.cat

Members

Aguado Jódar,
María Alba EAP Sardenya
Agustí Roca, Berta EAP Sardenya
Balagué Galito,
Enriqueta EAP Sardenya
Blasi Codinach, Anna EAP Sardenya
Casasa Plana, Albert EAP Sardenya
Coderch Aris, Marta EAP Sardenya
Cuixart Costa, Lluís EAP Sardenya
De la Figuera Von
Wichmann, Mariano EAP Sardenya
Delgado Álvarez,
Beatriz EAP Sardenya
Galán Díez,
María Luisa EAP Sardenya
Gallego Francisco,
Rut EAP Sardenya
Gil Calvo, Joan Josep EAP Sardenya
Ichazo Tobella,
Begoña EAP Sardenya
Martí Braso, Agnès EAP Sardenya
Martínez Gil, Mireia EAP Sardenya
Monteserín Nadal,
Rosa EAP Sardenya
Moral Peláez, Irene EAP Sardenya
Muñoz Pena, Aser EAP Sardenya
Palasí Bargalló,
Carme EAP Sardenya
Pedro Pijoan,
Anna Maria EAP Sardenya
Peix Sambola,
María Amor EAP Sardenya
Puig Palma, Mireia EAP Sardenya
Rayo Martínez,
Elisabet EAP Sardenya
Reyes Reyes, Carles EAP Sardenya
Sellarès Sallas,
Jaume EAP Sardenya
Serrano Pons,
Helena EAP Sardenya
Soteras Prat, Anna EAP Sardenya
Verdú Arnal,
Montserrat EAP Sardenya
Vila García, Judit EAP Sardenya
Zamora Mestre,
Silvia EAP Sardenya



Main Lines of Research

- ▶ Cardiovascular prevention in primary care settings.
- ▶ Health promotion in primary care settings.
- ▶ Ageing.
- ▶ Hypertension.
- ▶ Diabetes.
- ▶ Paediatric immunization.

Challenges

- ▶ Enlarge the research team by linking up with other primary care centres associated with the ACEBA Family Medicine Teaching Unit.
- ▶ 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

External Collaborations

- ▶ FATE project (fall detection in the elderly): Universitat Politècnica de Catalunya, Sistema d'Emergències Mèdiques, TicSalut. Project number: 297178, European Commission, ICT-PSP. Duration: 2011-2015.
- ▶ Carles Brotos. Calibratge i discriminació del model SCORE (Systematic Coronary Risk Evaluation) per a països de baix risc i de la nova equació de risc de la US American College of Cardiology (ACC)/American Heart Association. Fundació La Marató de TV3.

Active Grants

- ▶ Carles Brotos Cuixart. Desarrollo de una ecuación de riesgo cardiovascular de por vida en población laboral. PI14/01177. Instituto de Salud Carlos III. Duration: 2015-2017. €45,500.

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

Grants Awarded in 2015

- ▶ Carles Brotos Cuixart, Avaluació del risc cardiovascular en la gen gran. Premi Mutuam Conviure 2015. Fundació Mutuam Conviure. Duration: 2015-2016. €6,000.

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

- ▶ Carles Brotons Cuixart, Irene Moral Peláez, Lluís Cuixart Costa, Mireia Puig Palma. *Avaluació del risc cardiovascular en la gran.* Premis de Recerca de la Fundació Mutuam Conviure 2015.
- ▶ Albert Casasa Plana. Award for professional excellence . Col·legi Oficial de Metges de Barcelona.

*TIF: 39.0710 **MIF: 3.0055

Benitez-Camps M., Vinyoles-Bargallo E., Rebagliato-Nadal O., Morros-Pedros R., Pera-Pujadas H., Dalfo-Baque A., Lopez-Pavon I., Roca-Sanchez C., Coma-Carbo R.M., De La Figuera Von Wichmann M., Mengual-Martinez L., Yuste-Marco C., Teixido-Colet M., Pepio i Vilaubi J.M., Ciurana-Tost R., Pou-Vila R., Vila-Coll M.A., Bordas-Julve J.M., Aragones-Fores R., Pelegrina-Rodriguez F.J., Agudo-Ugena J., Blanco-Mata C., de la Iglesia Berrojalbiz J., Burgos-Alonso N., Gomez-Fernandez M.C., Evaluation of the relationship between effervescent paracetamol and blood pressure: Clinical trial. (2015) BMC CARDIOVASC DISOR, 15 (1).

IF: 1.9160

Brotons C., Benamouzig R., Filipiak K.J., Limmroth V., Borghi C., A Systematic Review of Aspirin in Primary Prevention: Is It Time for a New Approach?. (2015) AM J CARDIOVASC DRUG, 15 (2), 113-133.

IF: 2.2330

Carratala-Munuera C., Gil-Guillen V.F., Orozco-Beltran D., Maiques-Galan A., Lago-Deibe F., Lobos-Bejarano J.M., Brotons-Cuixart C., Martin-Rioboo E., Alvarez-Guisasola F., Lopez-Pineda A., Barriers to improved dyslipidemia control: Delphi survey of a multi-disciplinary panel. (2015) FAM PRACT, 32 (6), 672-680.

IF: 2.0220

Coll-Planas L., del Valle Gomez G., Bonilla P., Masat T., Puig T., Monteserin R., Promoting social capital to alleviate loneliness and improve health among older people in Spain. (2015) HEALTH SOC CARE COMM.

IF: 1.5570

Gabriel R., Brotons C., Tormo M.J., Segura A., Rigo F., Elosua R., Carbayo J.A., Gavrila D., Moral I., Tuomilehto J., Muniz J., The ERICe-score: The new native cardiovascular score for the low-risk and aged Mediterranean population of Spain. (2015) REV ESP CARDIOL, 68 (3), 205-215.

IF: 4.5960

Lobos Bejarano J.M., Brotons Cuixart C., Galve E., Royo-Bordonada M.A., Alegria Ezquerro E., Armario P., Camafort Babkowski M., Cordero Fort A., Maiques Galan A., Mantilla Morato T., Perez Perez A., Pedro-Botet J., Villar Alvarez F., Gonzalez-Juanatey J.R., Spanish Interdisciplinary Committee for Cardiovascular Disease Prevention and the Spanish Society of Cardiology position statement on dyslipidemia management. Differences between the European and American guidelines. (2015) REV ESP SALUD PUBLIC, 89 (1), 15-26.

IF: 0.6060

Perez A., Roque M., Domenech S., Monteserin R., Soriano N., Blancafort X., Bosom M., Vidal C., Petit M., Hortal N., Gil C., Espelt A., Lopez M.J., Efficacy of memory training in healthy community-dwelling older people: Study protocol for a randomized controlled trial. (2015) BMC GERIATR, 15 (1).

IF: 2.3710

Perez A., Roque M., Domenech S., Monteserin R., Soriano N., Blancafort X., Bosom M., Vidal C., Petit M., Hortal N., Gil C., Espelt A., Lopez M.J., Efficacy of memory training in healthy community-dwelling older people: Study protocol for a randomized controlled trial Psychology, psychiatry and quality of life. (2015) BMC GERIATR, 15 (1).

IF: 2.3710

Reyes C., Garcia-Gil M., Elorza J.M., Fina-Aviles F., Mendez-Boo L., Hermosilla E., Coma E., Carbonell C., Medina-Peralta M., Ramos R., Bolibar B., Diez-Perez A., Prieto-Alhambra D., Socioeconomic status and its association with the risk of developing hip fractures: A region-wide ecological study. (2015) BONE, 73, 127-131.

IF: 3.7360

Reyes C., Garcia-Gil M., Elorza J.M., Mendez-Boo L., Hermosilla E., Javaid M.K., Cooper C., Diez-Perez A., Arden N.K., Bolibar B., Ramos R., Prieto-Alhambra D., Socio-economic status and the risk of developing hand, hip or

knee osteoarthritis: A region-wide ecological study. (2015) OSTEOARTHRTH CARTILAGE, 23 (8), 1323-1329.

IF: 4.5350

Rizzi M.A., Ruiz D., Torres Bonafonte O.H., Alquezar A., Herrera Mateo S., Pinera P., Puig M., Benito S., Prognostic Value and Risk Factors of Delirium in Emergency Patients With Decompensated Heart Failure. (2015) J AM MED DIR ASSOC, 16 (9), 799.e1-799.e6.

IF: 6.6160

Roffi M., Patrono C., Collet J.-P., Mueller C., Valgimigli M., Andreotti F., Bax J.J., Borger M.A., Brotons C., Chew D.P., Gencer B., Hasenfuss G., Kjeldsen K., Lancellotti P., Landmesser U., Mehilli J., Mukherjee D., Storey R.F., Windecker S., Baumgartner H., Gaemperli O., Achenbach S., Agewall S., Badimon L., Baigent C., Bueno H., Bugiardini R., Carerj S., Casselman F., Cuisset T., Erol C., Fitzsimons D., Halle M., Hamm C., Hildick-Smith D., Huber K., Iliodromitis E., James S., Lewis B.S., Lip G.Y.H., Piepoli M.F., Richter D., Rosemann T., Sechtem U., Steg P.G., Vrints C., Zamorano J.L., Guía ESC 2015 sobre el tratamiento de los síndromes coronarios agudos en pacientes sin elevación persistente del segmento ST: Grupo de Trabajo de la Sociedad Europea de Cardiología (ESC) para el tratamiento de los síndromes coronarios agudos en pacientes sin elevación persistente del segmento ST. (2015) REV ESP CARDIOL, 68 (12), 1125e1-1125e64.

IF: 4.5960

Vinyoles E., Soldevila N., Torras J., Olona N., de la Figuera M., Prognostic value of non-specific ST-T changes and left ventricular hypertrophy electrocardiographic criteria in hypertensive patients: 16-year follow-up results from the MINACOR cohort. (2015) BMC CARDIOVASC DISOR.

IF: 1.9160

AREA T2

Molecular, Genomic Kinetic-Dynamic Bases and their Treatment

210 Genomics of Complex Diseases

212 Molecular Bases of Disease

214 Pharmacokinetic/Pharmacodynamic Modelling and Simulation

216 Generation of Advanced Therapy Medicines

ic, Cellular and ases for Diseases nt



Genomics of Complex Diseases

Coordinator

Soria Fernández, José Manuel IR
jsoria@santpau.cat

Members

Brunel, Helena IR
Cárdenas Yebra, Antonio IR
Gavidia Bovadilla,
Giovana Elisabeth IR
López Moreno, Sonia IR
Martín Fernández, Laura IR
Martínez Perez, Ángel IR
Pérez Calleja, Raquel IR
Ziyatdinov, Andrey IR



Main Lines of Research

Genetic Epidemiology and Bioinformatics

- ▶ Algorithms to risk assessment.

Genomics of Complex Diseases

- ▶ Genetic analysis of idiopathic thrombophilia (GAIT).
- ▶ Genetic analysis of osteoporosis (GAO).
- ▶ Genetics of chronic venous insufficiency.
- ▶ Genetics of abdominal aortic aneurysms (TAGA).

- ▶ Modelling Individuals Risk of Thrombosis in Oncology (MIRTO, ONCOTHROMB).

Epigenomics

- ▶ miRNAs as a novel biomarkers in thromboembolic diseases.

Pharmacogenomics

- ▶ Markers of genetic susceptibility and pharmacogenomics of cardiovascular diseases.

Challenges

- ▶ Consolidate the epigenomic, genetic epidemiology and bioinformatics research lines.
- ▶ Increase human and material resources to achieve the goals defined for the different projects in which we are involved.

- ▶ Coordinate an international cardiovascular genomic project.
- ▶ Continue the current agreements with biopharmaceutical companies and get new ones.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Thrombosis and Haemostasis: Projects: GAIT, MIRTO, RETROVE.
- ▶ Multiorgan Damage – Internal Medicine: Project GAO.
- ▶ Angiology, Vascular Biology and Inflammation: Projects TAGA and GAIT.
- ▶ Inflammation and Vascular Remodelling: Project TAGA.
- ▶ Metabolic Bases of Cardiovascular Risk: Project GAIT.
- ▶ Haematological Diagnosis: Project GAIT.

External Collaborations

- ▶ Clinical Oncology Department, Hospital Gregorio Marañón, Madrid. Project Oncothomb.
- ▶ Centre de Recerca en Enginyeria Biomèdica, Universitat Politècnica de Catalunya, Barcelona. Project SUMMIT.
- ▶ Laboratory Haematology, Hospital Timone Marseille, France. Project GAIT.
- ▶ Department of Genetic, University of Genève, Switzerland. Project GAIT.
- ▶ Department of Cardiology, Karolinska Institut, Sweden. Project GAIT.
- ▶ INSERN UMRS 937, Université Pierre et Marie Curie, Paris. Project GAIT.
- ▶ Haematology Department, Karolinska Hospital, Sweden. Project VEREMA.

Active Grants

- ▶ Laura Martín Fernández. Contracte FIS Pre-Doc Formació. FI12/00322. Institut de Salut Carlos III. Duration: 2012-2016. €85,200.
- ▶ 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: 2015-2017. €111,500.

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

Grants Awarded in 2015

- ▶ José Manuel Soria Fernández. Proyecto Oncothromb Estimación del Riesgo Individual de Enfermedad Tromboembólica en Pacientes con Cáncer. IR15-P1. Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Duration: 2015-2016. €33,000.
- ▶ José Manuel Soria Fernández. Modeling the Individual Risk of Thrombosis in Oncology (MIRTO). ESC Medical Research 2015. €268,253.

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

*TIF: 63.2430 **MIF: 6.6243

Scientific Production

Arribas J.R., *et al.*, Dual treatment with lopinavir-ritonavir plus lamivudine versus triple treatment with lopinavir-ritonavir plus lamivudine or emtricitabine and a second nucleos(t)ide reverse transcriptase inhibitor for maintenance of HIV-1 viral suppression (OLE): A randomised, open-label, non-inferiority trial. (2015) LANCET INFECT DIS, 15 (7), 785-792.

IF: 21.3720

Frånberg M., Gertow K., Hamsten A.; PRO-CARDIS consortium, Lagergren J., Sennblad B. Discovering Genetic Interactions in Large-Scale Association Studies by Stage-wise Likelihood RatioTests. (2015) PLOS GENET, 24, 11(9).

IF: 3.2340

Garcia-Dabrio M.C., Hoyos M., Brunet S., Tormo M., Ribera J.-M., Esteve J., Gallardo D., Duarte R.F., de Llano M.P., Bargay J., Marti-Tutusaus J.M., Heras I., Garcia A., Salamero O., Aventin A., Lecrevisse Q., Orfao A., Sierra J., Nomdedeu J.F., Complex measurements may be required to establish the prognostic impact of immunophenotypic markers in AML. (2015) AM J CLIN PATHOL, 144 (3), 484-492.

IF: 2.2780

Herrero R., Real L.M., Rivero-Juarez A., Pineda J.A., Camacho A., Macias J., Laplana M., Konieczny P., Marquez F.J., Souto J.C., Soria J.M., Saulle I., Lo Caputo S., Biasin M., Rivero A., Fibla J., Caruz A., Association of complement receptor 2 polymorphisms with innate resis-

tance to HIV-1 infection. (2015) GENES IMMUN, 16 (2), 134-141.

IF: 2.4720

Olson N.C., Butenas S., Lange L.A., Lange E.M., Cushman M., Jenny N.S., Walston J., Souto J.C., Soria J.M., Chauhan G., Debette S., Longstreth W.T., Seshadri S., Reiner A.P., Tracy R.P., Coagulation factor XII genetic variation, ex vivo thrombin generation, and stroke risk in the elderly: Results from the Cardiovascular Health Study. (2015) J THROMB HAE-MOST, 13 (10), 1867-1877.

IF: 5.5650

Pedrol E., Llibre J.M., Tacias M., Curran A., Guardiola J.M., Deig E., Guelar A., Martinez-Madrid O., Tikhomirova L., Ramirez R., Pedrol E., Tacias M., Ramirez R., Tikhomirova L., Ruiz S., Delegido A., Clotet B., Llibre J.M., Curran A., Guardiola J.M., Deig E., Guelar A., Montero M.M., Garcia I., Cortes C., Javaloyas M., Force L., Barrufet P., Valero S., Massabeu A., Chamarro E., Escrich C., Orti A., Gomez-Sirvent J., Ocampo A., Rodriguez Arrondo F., Martinez Madrid O., Marino A., Reparaz J., Amiguet J.A., Crusells M.J., Orihuela F., Lopez Ruz M.A., Pasquau J., Marco A., Lopez S., Castro A., Santos J., Cuadrado J.M., Aguirrebengoa K., Antela A., Oteo J.A., Blanco J.R., Gil D., Arazo P., Flores J., Outcome of neuropsychiatric symptoms related to an antiretroviral drug following its substitution by nevirapine: The RELAX study. (2015) HIV MED, 16 (10), 628-634.

IF: 3.3410

Perez-Molina J.A., *et al.*, Dual treatment with atazanavir-ritonavir plus lamivudine versus triple treatment with atazanavir-ritonavir plus two nucleos(t)ides in virologically stable patients with HIV-1 (SALT): 48 week results from a randomised, open-label, non-inferiority trial. (2015) LANCET INFECT DIS, 15 (7), 775-784.

IF: 21.3720

Pujol-Moix N., Vazquez-Santiago M., Morera A., Ziyatdinov A., Remacha A., Nomdedeu J.F., Fontcuberta J., Soria J.M., Souto J.C., Genetic determinants of Platelet Large-Cell Ratio, Immature Platelet Fraction, and other platelet-related phenotypes. (2015) THROMB RES, 136 (2), 361-366.

IF: 2.3200

Soler G., Bernal-Vicente A., Anton A.I., Torregrosa J.M., Caparros-Perez E., Sanchez-Serrano I., Martinez-Perez A., Sanchez-Vega B., Vicente V., Ferrer-Marin F., The JAK2 46/1 haplotype does not predispose to CALR-mutated myeloproliferative neoplasms. (2015) ANN HEMATOL, 94 (5), 789-794.

IF: 3.0220

Soria J.M., Lopez S., The genetics of thrombosis in cancer. (2015) MED CLIN-BARCELONA, 144 (S1), 26-30.

IF: 1.2670

Molecular Bases of Disease

Coordinator

Fuentes Prior, Pablo IR
pfuentes@santpau.cat

Members

Anton López, Rosa IR
Dorca Arévalo, Jonatan IR
Nadal Rovira, Marta IR
Vencesla García, Adoración IR



Main Lines of Research

Thrombosis and Haemostasis

- ▶ Structural and functional investigations of blood coagulation factors, with emphasis on thrombin generation by the prothrombinase complex and on thrombin interactions with both physiological substrates (factor V, factor VIII and protease-activated receptors) and with exogenous inhibitors from haematophagous animals (e.g. anophelin from *Anopheles* mosquitoes).

Lipid Metabolism and Dyslipidemias

- ▶ Structural and functional analysis of mutant apoA-V proteins identified in individuals with hypertriglyceridaemia.

Neurodegenerative Diseases

- ▶ Analysis of mutations that affect the SMN genes, whose deficiency results in spinal muscular atrophy.
- ▶ Structural and functional investigations of proteins associated with inherited forms of Parkinson disease (PINK1, DJ-1 and Parkin).

Cancer and Innate Immune Responses

- ▶ Structural and functional analysis of innate immune responses mediated by toll-like receptors (TLRs) and, in particular, the role of the major adaptor MyD88.
- ▶ Analysis of mutations and SNPs that affect the TET2 gene and implications for acute myeloid leukaemia.
- ▶ Structural and functional analysis of the microsomal prostaglandin E synthase (mPGES-1) as a target for the generation of novel anti-inflammatory drugs with fewer side effects.

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	<p>Collaborations with other IIB Sant Pau Groups</p> <ul style="list-style-type: none"> ▶ Metabolic Bases of Cardiovascular Risk ▶ Parkinson Disease and Movement Disorders ▶ Haematological Diagnosis ▶ Genetic Diseases ▶ Angiology, Vascular Biology and Inflammation 	<p>External Collaborations</p> <ul style="list-style-type: none"> ▶ Dr. Pereira. Institute of Molecular and Cellular Biology, Porto, Portugal. ▶ Dr. Paul E. Bock. Vanderbilt University, Nashville, Tennessee, USA. ▶ Dr. Ricardo Gutiérrez-Gallego. IMIM-UPF, Barcelona, Spain.
-----------------------	--	---

Active Grants	<ul style="list-style-type: none"> ▶ Pablo Fuentes Prior. Bases Estructurals de Processos Fisiopatològics Fonamentals. 2014 SGR 1214. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016. ▶ Pablo Fuentes Prior. Modulating SMN2 splicing with dual inhibitors of Sam68 and hnRNP A1: A novel therapeutic approach for 	<p>Spinal Muscular Atrophy. SMA Europe. Spinal Muscular Atrophy (SMA Europe). Duration: 2014-2016. €117,500.</p> <p>Note: Total amount granted to PI. It does not include indirect costs.</p>
----------------------	---	---

Grants Awarded in 2015	<ul style="list-style-type: none"> ▶ 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. Ministerio de Economía y Competitividad. Duration: 2015-2017. €100,000. <p>Note: Total amount granted to PI. It does not include indirect costs.</p>	
-------------------------------	--	--

*TIF: 7.6330 **MIF: 3.8165		
Scientific Production	<p>Costales P., Fuentes-Prior P., Castellano J., Revuelta-Lopez E., Corral-Rodriguez M.A., Nasarre L., Badimon L., Llorente-Cortes V., K domain CR9 of low density lipoprotein (LDL) receptor-related protein 1 (LRP1) is critical for aggregated LDL-induced foam cell formation from human vascular smooth muscle cells. (2015) J BIOL CHEM, 290 (24), 14852-14865.</p> <p>IF: 4.2580</p> <p>Martinez-Martinez L., Martinez-Saavedra M.T., Fuentes-Prior P., Barnadas M., Rubiales M.V., Noda J., Badell I., Rodriguez-Gallego C.,</p>	<p>de la Calle-Martin O., A novel gain-of-function STAT1 mutation resulting in basal phosphorylation of STAT1 and increased distal IFN-γ-mediated responses in chronic mucocutaneous candidiasis. (2015) MOL IMMUNOL, 68 (2), 597-605.</p> <p>IF: 3.3750</p>

Pharmacokinetic/Pharmacodynamic Modelling and Simulation

Coordinator

Valle Cano, Marta
mvallec@santpau.cat

IR

Members

Estévez Gómez,
Javier Alejandro

IR



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.

Challenges

- ▶ Obtain recognition as an emerging group.
- ▶ 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.
- ▶ Pharmacological Research in Humans.
- ▶ Pharmacy.
- ▶ HIV and AIDS.
- ▶ Epidemiology and Traumatology Services.

External Collaborations

- ▶ Lluita Contra la SIDA Foundation, Germans Trias i Pujol Hospital, Badalona, Spain.
- Eficacia y seguridad de la vacuna HIV-consv más romidepsina en la reducción del reservorio y el control viral tras la interrupción del cART. Análisis PK/PD poblacional y estudio de predictores, Hospital Germans Trias i Pujol.

- Ensayo clínico para evaluar la eficacia, la seguridad y el impacto económico de la reducción de la dosis de darunavir en pacientes infectados por el VIH en tratamiento con darunavir/ritonavir una vez al día. Hospital Germans Trias i Pujol.
- ▶ Pharmacy Service, Hospital Quiron, Mallorca, Spain.
- ▶ Department of Pharmacology, Liverpool University, UK.
- ▶ Anaesthesiology Service, Hospital del Mar, Barcelona, Spain.

Active
Grants

- ▶ Marta Valle Cano. Grup d'Investigació en Farmacologia Humana. 2014 SGR 828. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016.

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

Grants
Awarded in
2015

- ▶ Ramon Mangues Bafalluy. Targeted nanoconjugates for the selective elimination of stem cells in disseminated cancer. PIE15/00028. Instituto de Salud Carlos III. Duration: 01/01/2016-31/12/2018. €600,000.

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

*TIF: 17.6470 **MIF: 8.8235

Scientific
Production

Maqueda A.E., Valle M., Addy P.H., Antoni-joan R.M., Puntos M., Coimbra J., Ballester M.R., Garrido M., Gonzalez M., Claramunt J., Barker S., Johnson M.W., Griffiths R.R., Riba J., Salvinorin-A induces intense dissociative effects, blocking external sensory perception and modulating interoception and sense of body ownership in humans. (2015) INT J NEUROPSYCHOPH, 18 (12), 1-14.
IF: 4.3330

Riba J., Valle M., Sampedro F., Rodriguez-Pujadas A., Martinez-Horta S., Kulisevsky J., Rodriguez-Fornells A., Telling true from false: Cannabis users show increased susceptibility to false memories. (2015) MOL PSYCHIATR, 20 (6), 772-777.
IF: 13.3140

Generation of Advanced Therapy Medicines

Coordinator

García López, Joan BST
joangarcia@bst.cat

Members

Bartolome Torcal, Davinia BST
Blanco García, Margarita BST
Caminal Bobet, Marta BST
Codinach Creus, Margarita BST
Coll Bonet, Ruth BST
Medina Marrero, Laura BST
Oliver Vila, Irene BST
Pla Calvet, Arnau BST
Pujals Fonts, Noèlia BST
Querol Giner, Sergio Luis BST
Reyes Moreno, Blanca BST
Rodríguez Gómez, Luciano BST
Vives Armengol, Joaquim BST



Main Lines of Research

- ▶ Bioprocessing for cell and tissue production.
- ▶ Regeneration of locomotor systems.
- ▶ Stem cell therapy for the lymphohaematopoietic system.
- ▶ Stem cell therapy for multiple sclerosis.

Challenges

- ▶ Create a section within the Blood and Tissue Bank (BST) with the structure of a pharmaceutical enterprise, capable of developing, trialling, registering and commercializing advanced therapeutic drugs.

Collaborations

- ▶ Màrius Aguirre Canyadell (PI, Hospital Vall d'Hebron), Arnau Pla Calvet (BST). Tractament de l'osteonecrosi del cap femoral amb teràpia cel·lular avançada i biomaterials en un model experimental ovi. Fundació La Marató de TV3. 61/C/2012. Duració: 2013-2015.

***TIF: 2.6670 **MIF: 2.6670**

Scientific Production

Milian E., Prats E., Cairo J.J., Godia F., Vives J., BHRF1 exerts an antiapoptotic effect and cell cycle arrest via Bcl-2 in murine hybridomas. (2015) J BIOTECHNOL, 209, 58-67.

IF: 2.6670

*Total Impact Factor **Mean Impact Factor

Associated Groups

220 Emerging Processes in Prevalent Diseases

222 Radiophysics and Radioprotection

224 Paediatrics

226 Ophthalmology

228 Nuclear Medicine

230 Intensive Medicine

232 Pharmacy

234 Dermatology

238 Anaesthesiology

240 Plastic Surgery

242 Palliative Care



244 Andrology

246 Urology

250 Radiation Oncology

252 Locomotor System Research

254 Multiple Sclerosis and Epilepsy Research

256 Pain and Neurosciences

258 Nursing Care Research

260 Reproductive Health

262 Translational Molecular Oncology

264 Cardiac Surgery

Emerging Processes in Prevalent Diseases

Coordinator

Benito Vales, Salvador FGS
sbenito@santpau.cat

Members

Agra Montava, Iván FGS
Alquézar Arbe, Aitor FGS
Álvarez Albarran, María Teresa FGS
Barcons Pujol, Miquel FGS
Blázquez Andion, Marta FGS
Caballero Flores, Francisco FGS
Ceresuela Lobera, Andrés FGS
Díaz Rodríguez, Iván FGS
Díez Díez, Verónica FGS
Guardiola Tey, José María FGS
Hernández Ontiveros, Héctor FGS
Herrera Mateo, Sergio Antonio FGS
Higa Sansone, Jorge Leopoldo FGS
Lozano Polo, Laura FGS
Mateo Roca, Miriam FGS
Mauri Plana, Albert FGS
Montiel Dacosta, Josep Antoni FGS
Moreno Pinillos, Rosa FGS
Puig Campmany, Mireia FGS
Ris Romeu, Josep FGS
Santaló Bel, Miquel FGS
Serradell Arranz, Sonia FGS
Trejo Gutiérrez, Olga María 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. Guargiola.
- ▶ 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: Miquel 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.

Collaborations

- ▶ Programa ACCORD (Achieving Comprehensive Coordination on Organ Donation throughout the European Union). Prácticas clínicas al final de la vida en pacientes fallecidos con daño cerebral catastrófico y donación de órganos – Accord España. Organización Nacional de Trasplantes and Comisión de Trasplantes del Consejo Interterritorial de Salud.

*TIF: 46.6280 **MIF: 2.5904

Scientific Production

Aldamiz-Echevarria T, Gonzalez-Garcia J, Von Wichmann M.A., Crespo M., Lopez-Aldeguer J., Quereda C., Tellez M.J., Galindo M.J., Sanz J., Santos I., Guardiola J.M., Bellon J.M., Montes M., Berenguer J., Association of baseline CD4+ cell count and HIV-RNA on sustained virologic response to interferon-ribavirin in HIV/HCV coinfecting patients. (2015) ANN HEPATOL, 14 (4), 464-469.

IF: 1.8110

Alquezar Arbe A., Mateo Roca M., de Diego Bustillos E., Agra Montava I., Bullet points of emergency attendances for cocaine-users in Spain. (2015) MED CLIN-BARCELONA.

IF: 1.2670

Alquezar Arbe A., Trejo Gutierrez O., Turbau Valls M., Barcons Pujol M., Comments on predictors of the use of the early invasive strategy in women with non-ST-elevation acute coronary syndrome. (2015) MED INTENSIVA.

IF: 1.1930

Alquezar Arbe A., Santalo Bel M., Sionis A., Clinical interpretation of high sensitivity troponin T. (2015) MED CLIN-BARCELONA, 145 (6), 258-263.

IF: 1.2670

Alquezar Arbe A., Seres Roig M., Sansone L., Blazquez Andion M., Dificultades para la colaboración en investigación entre cardiólogos y médicos de urgencias. (2015) AN SIST SANIT NAVAR, 38 (1), 139-140.

IF: 0.7830

AlquezarArbe A., Rizzi M., Martin-Marcuello J., de Diego-Bustillos E., Comments about the status of oral anticoagulant treatment in patients with nonvalvular atrial fibrillation in Spain. (2015) REV CLIN ESP.

IF: 0.7600

Alquezar-Arbe A., Ordóñez-Llanos J., Quo vadis, troponin. (2015) REV ESP CARDIOL, 68 (6), 457-459.

IF: 4.5960

Arcentales A., Caminal P., Diaz I., Benito S., Giraldo B.F., Classification of patients undergoing weaning from mechanical ventilation using the coherence between heart rate variability and respiratory flow signal. (2015) PHYSIOL MEAS, 36 (7), 1439-1452.

IF: 1.5760

Azzalini L., Sole E., Sans J., Vila M., Duran A., Gil-Alonso D., Santalo M., Garcia-Moll X., Sionis A., Feasibility and safety of an early discharge strategy after low-risk acute myocardial infarction treated with primary percutaneous coronary intervention: The ED-AMI pilot trial. (2015) CARDIOLOGY, 130 (2), 120-129.

IF: 1.9940

Dieterich D., Nelson M., Soriano V., Arasteh K., Guardiola J.M., Rockstroh J.K., Bhagani S., Laguno M., Tural C., Ingiliz P., Jain M.K., Stern J.O., Manero M., Vinisko R., Kort J., STARTVerso4: faldaprevir and pegylated interferon α -2a/ribavirin in individuals co-infected with hepatitis C virus genotype-1 and HIV. (2015) AIDS.

IF: 4.4070

Dieterich D., Nelson M., Soriano V., Arasteh K., Guardiola J.M., Rockstroh J.K., Bhagani S., Laguno M., Tural C., Ingiliz P., Jain M.K., Stern J.O., Manero M., Vinisko R., Kort J., Faldaprevir and pegylated interferon α -2a/ribavirin in individuals co-infected with hepatitis C virus genotype-1 and HIV. (2015) AIDS, 29 (5), 571-581.

IF: 4.4070

Jacob J., Miro O., Herrero P., Martin-Sanchez F.J., Gil V., Tost J., Aguirre A., Escoda R., Alquezar A., Andueza J.A., Llorens P., Predicting short-term mortality in patients with acute exacerbation of chronic heart failure: The EAHFE-3D scale. (2015) MED INTENSIVA.

IF: 1.1930

Masip M., Tuneu L., Pages N., Torras X., Gallego A., Guardiola J.M., Faus M.J., Mangues M.A., Prevalence and detection of neuropsychiatric adverse effects during hepatitis C treatment. (2015) INT J CLIN PHARM-NET, 37 (6), 1143-1151.

IF: 1.3390

Miro O., Escoda R., Martin-Sanchez F.J., Herrero P., Jacob J., Alquezar A., Aguirre A., Gil V., Andueza J.A., Llorens P., Aguirre A., Pedragosa M.A., Alonso M.I., Sancho H., Ruiz F., Gimenez A., Franco J.M., Pardo S., Mecina A.B., Tost J., Fabregat J., Epelde F., Sanchez S., Pinera P., Garate R.T., Alquezar A., Rizzi M.A., Cabello I., Richard F., Lucas J., Patients' perception of quality of emergency depart-

ment care for acute heart failure: The CALP-ERICA study. (2015) EMERGENCIAS, 27 (3), 161-168.

IF: 2.9170

Miro O., A. Rizzi M., Herrero P., Jacob J., Martin-Sanchez F.J., Gil V., Alquezar A., Escoda R., Llorens P., OBESICA study: relationship between BMI and acute heart failure outcome. (2015) EUR J EMERG MED.

IF: 2.0260

Pedrol E., Llibre J.M., Tacias M., Curran A., Guardiola J.M., Deig E., Guelar A., Martinez-Madrid O., Tikhomirova L., Ramirez R., Pedrol E., Tacias M., Ramirez R., Tikhomirova L., Ruiz S., Delegido A., Clotet B., Llibre J.M., Curran A., Guardiola J.M., Deig E., Guelar A., Montero M.M., Garcia I., Cortes C., Javaloyas M., Force L., Barrufet P., Valero S., Massabeu A., Chamarro E., Escrich C., Orti A., Gomez-Sirvent J., Ocampo A., Rodriguez Arrondo F., Martinez Madrid O., Marino A., Reparaz J., Amiguet J.A., Crusells M.J., Orihuela F., Lopez Ruz M.A., Pasquau J., Marco A., Lopez S., Castro A., Santos J., Cuadrado J.M., Aguirrebengoa K., Antela A., Oteo J.A., Blanco J.R., Gil D., Arazo P., Flores J., Outcome of neuropsychiatric symptoms related to an antiretroviral drug following its substitution by nevirapine: The RELAX study. (2015) HIV MED, 16 (10), 628-634.

IF: 3.3410

Rizzi M.A., Ruiz D., Torres Bonafonte O.H., Alquezar A., Herrera Mateo S., Pinera P., Puig M., Benito S., Prognostic Value and Risk Factors of Delirium in Emergency Patients With Decompensated Heart Failure. (2015) J AM MED DIR ASSOC, 16 (9), 799.e1-799.e6.

IF: 6.6160

Rizzi M.A., Alquezar A., Marcuello J.M., Ontiveros H.H., The Redin SCORE: Useful, but not for all. (2015) EUR J HEART FAIL.

IF: 5.1350

Other Publications

- Puig M., Ris J., Benito S. Nuevas herramientas frente a la saturación en los servicios de urgencias hospitalarios: gestión de la estancia, toma de decisiones y flexibilidad operativa. New Tools for coping with hospital emergency department overcrowding: managing throughput, decision making, and operational flexibility. EMERGENCIAS 2015;27:425-426.

Radiophysics and Radioprotection

Coordinator

Ribas Morales, Montserrat FGS
mribas@santpau.cat

Members

Eudaldo Puell, Teresa FGS
Jordi Ollero, Olivia FGS
Jornet Sala, Nuria FGS
Latorre Musoll, Arthur FGS
Lizondo Gisbert, Maria FGS
Pallerol Pinzano, Rosa M. 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).
- ▶ Validation of dose calculation algorithms for external beam radiotherapy planning systems.
- ▶ Optimization of QA procedures for IMRT, stereotactic body radiation therapy (SBRT) and gating respiratory treatments.
- ▶ Skin dose in IMRT and SBRT techniques.

Computed tomography dosimetry

- ▶ Index dose assessment for multislice CT.

Collaborations

External Collaborations

- ▶ Grup d'estudis citogenètics i moleculars dels efectes de les radiacions ionitzants i del càncer. 2014 SGR 534. Montserrat Ribas, Pablo Carrasco, Teresa Eudaldo, Núria Jornet, Artur Latorre, Agustín Ruiz. 2014-2016.
- ▶ Institut de Tècniques Energètiques de Catalunya (INTE), UPC. Ongoing research and knowledge transfer projects: development of thermoluminescence 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. Estudis Citogenètics i Moleculars dels efectes de les radiacions ionitzants i del càncer. 2014 SGR 534-2 C. Agència de Gestió d'Ajuts Universitaris i de Recerca. Duration: 2014-2016.
- ▶ Montserrat Ribas Morales. Impacto dosimétrico del movimiento respiratorio durante la administración del tratamiento de IMRT dinámica. FIS Project 2012. PI12/00521. Duration: 01/01/13-31/12/15. €16,500.

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

Grants Awarded in 2015

- ▶ Pablo Carrasco de Fez. Dosimetría en piel en técnicas de IMRT y SBRT. Proyectos Singulares 2015, Asociación Española contra el Cáncer. Duration: 2015-2017. €25,500.

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

*TIF: 14.6260 **MIF: 3.6565

Scientific
Production

Carrasco P, Jornet N, Jordi O, Lizondo M, Latorre-Musoll A, Eudaldo T, Ruiz A, Ribas M., Characterization of the Exradin W1 scintillator for use in radiotherapy. (2015) MED PHYS, 42 (1), 297-304.
IF: 2.4960

Fiorino C., Muren L.P., Clark C.H., van Elmp W., Jornet N., Expanding the scientific role of medical physics in radiotherapy: Time to act. (2015) RADIOTHER ONCOL.
IF: 4.8170

Hernandez V, Abella R., Calvo J.F, Jurado-Bruggemann D., Sancho I, Carrasco P, Determination of the optimal tolerance for MLC positioning in sliding window and VMAT techniques. (2015) MED PHYS, 42 (4), 1911-1916.
IF: 2.4960

Muren L.P., Jornet N., Georg D., Garcia R., Thwaites D.I., Improving radiotherapy through medical physics developments. (2015) RADIOTHER ONCOL, 117 (3), 403-406.
IF: 4.8170

Other
Publications

- ▶ P. Carrasco, N. Jornet, O. Jordi, M. Lizondo, A. Latorre-Musoll, T. Eudaldo, A. Ruiz, and M. Ribas. "Response to "Comment on 'Characterization of the Exradin W1 scintillator for use in radiotherapy' ". MED PHYS 2015; 47, 4417-9.

Paediatrics

Coordinator

Carreras González, Eduard FGS
ecarrerasg@santpau.cat

Members

Álvarez Pérez, Roser FGS
Amat Giménez, María Isabel FGS
Badell Serra, Isabel FGS
Betancourt Castellanos, Jocelyn Cristina FGS
Carreras González, Gemma FGS
Coca Fernández, Elisabet FGS
Curbelo, Madai FGS
Febles González, Patricia FGS
Fraga Rodríguez, Gloria María FGS
García Borau, María José FGS
Ginovart Galiana, Gemma FGS
López Bernal, Ester FGS
Moliner Calderón, Elisenda FGS
Pardo Garcia, Núria FGS
Sisinni, Luisa FGS
Tirado, Mireia FGS
Torrent Español, Montserrat FGS
Valle, Josep M. FGS
Turón Viñas, Eulalia FGS
Verd Vallespir, Sergi FGS



Main Lines of Research

- ▶ Erythropoietin as an alternative to transfusion in paediatrics.
- ▶ Clinical application of peritoneal drainage in the treatment of enterocolitis in infants.
- ▶ Chronic functional constipation: treatment with PEG.
- ▶ Creation of a Catalan diagnostic and clinical monitoring network for rare anaemias due to major haemoglobinopathies.
- ▶ Minimal residual disease in risk assessment in the treatment of children with acute lymphoblastic leukaemia in the SHOP protocol (in collaboration with the HSCSP Haematology Department).

Challenges

- ▶ Transplant haematopoietic progenitor cells from alternative donors.
- ▶ Make pre-implant genetic diagnoses.
- ▶ Transplant haematopoietic progenitor cells in congenital immunodeficiencies.
- ▶ Transplant haematopoietic progenitor cells in congenital metabolic pathologies.
- ▶ Research congenital immunodeficiencies.
- ▶ Research 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.
- ▶ Implement a multidisciplinary institutional massive transfusion protocol in the HSCSP.

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).
- ▶ Workgroup of the Guía de Práctica Clínica sobre Manejo del Paciente con Reflujo Vesicoureteral primario o esencial. Guía de Práctica Clínica. Manejo del Paciente con Reflujo Vesicoureteral primario o esencial.
- ▶ Actualización. Asociación Española de Nefrología Pediátrica. 2014.
- ▶ 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. Resultats de la vigilància estandaritzada de la incidència de bacterièmia relacionada amb catèter venós central (BRCVC) a les Unitats de Cures Intensives Pediàtriques (UCIP) i Neonatals (UCIN) dels Hospitals de Catalunya.

*TIF: 29.1700 **MIF: 3.2411

Armangue T., Moris G., Cantarin-Extremera V., Conde C.E., Rostasy K., Erro M.E., Portilla-Cuenca J.C., Turon-Vinas E., Malaga I., Munoz-Cabello B., Torres-Torres C., Llufrui S., Gonzalez-Gutierrez-Solana L., Gonzalez G., Casado-Naranjo I., Rosenfeld M., Graus F., Dalmau J., Autoimmune post-herpes simplex encephalitis of adults and teenagers. (2015) *NEUROLOGY*, 85 (20), 1736-1743.

IF: 8.1660

Avila-Alvarez A., Carbajal R., Courtois E., Pertega-Diaz S., Muniz-Garcia J., Anand K.J.S., Viana H., Lopez Ortego P., Saenz Gonzalez P., Escrig R., Bargallo Ailagias E., Carles C., San Feliciano L., Belen Mateo A., Esteban Diez I., Gonzalez Crespo R., Gonzalez Carrasco E., De La Nogal Tagarro I., Elorza Fernandez M.D., Benito Guerra N., Luna Lagares S., Jimenez Parrilla P., Botet F., Ciurana A., Tarjuelo R., Garcia Borau M.J., Ibanez N., Diane Vega G., Arriaga Redondo M., Herranz G., De La Fuente Iglesias V., Perez Ocon A., Santiago Aguinaga S., Martin Parra B., Valero Cardona A., Sanchez-Redondo M.D., Arroyos Plana A., Galve Pradel Z., Clavero Montanes N., Ripalda Crespo M.J., Nogales Juarez R., Euba Lopez A., Fernandez De Retana S., Vergeli M.R., Vidal R., Fernandez-Trisac J.L., Taboada M., Montoro Exposito A., Camba Longueira F., Solis Sanchez G., Ventura Faci M.P., Mallen M., Crespo Suarez P., De Sola E., Tapia Collados C., De Las Cuevas I., Martin B., Couce Pico M.L., Perez Munuzuri A., Quintans S., Melgar Bonis A., Bodas E., Concheiro Guisan A., Perez Costas B., Sedation and analgesia practices among Spanish neonatal intensive care units. (2015) *AN PEDIATR*, 83 (2), 75-84.

IF: 0.7730

Bullich G., Trujillano D., Santin S., Ossowski S., Mendizabal S., Fraga G., Madrid A., Ariceta G., Ballarin J., Torra R., Estivill X., Ars E., Targeted next-generation sequencing in steroid-resistant nephrotic syndrome: Mutations in multiple glomerular genes may influence disease severity. (2015) *EUR J HUM GENET*, 23 (9), 1192-1199.

IF: 4.5800

Castillo N., Garcia-Cadenas I., Garcia O., Barba P., Diaz-Heredia C., Martino R., Azqueta C., Ferra C., Canals C., Elorza I., Olive T., Badell I., Sierra J., Duarte R., Valcarcel D., Querol S., Few and nonsevere adverse infusion events using an automated method for diluting and washing before unrelated single cord blood transplantation. (2015) *BIOL BLOOD MARROW TR*, 21 (4), 682-687.

IF: 3.9800

Flores-Gonzalez J.C., Jordan-Garcia O., Turon-Vinas E., Montero-Valladares C., Tellez-Gonzalez C., Fernandez-Carrion F., Garcia-Iniguez J.P., Onate-Vergara E., Rodriguez-Nunez A., Etiology, clinical presentation and outcome of severe viral acute childhood encephalitis (ECOVE study). (2015) *REV NEUROLOGIA*, 61 (1), 7-13.

IF: 0.6840

Hladun R., Badell I., Gonzalez M., Martinez A.M., Sanchez De Toledo J., Olive M.T., Gonzalez M.E., Elorza I., Diaz De Heredia C., Survival analysis of hematopoietic stem cell transplantation in children with primary immunodeficiency in Spain. (2015) *AN PEDIATR*, 82 (2), 62-67.

IF: 0.7730

Martinez-Martinez L., Martinez-Saavedra M.T., Fuentes-Prior P., Barnadas M., Rubiales M.V., Noda J., Badell I., Rodriguez-Gallego C., de la Calle-Martin O., A novel gain-of-function STAT1 mutation resulting in basal phosphorylation of STAT1 and increased distal IFN- γ -mediated responses in chronic mucocutaneous candidiasis. (2015) *MOL IMMUNOL*, 68 (2), 597-605.

IF: 3.3750

Tucunduva L., Volt F., Cunha R., Locatelli F., Zecca M., Yesilipek A., Caniglia M., Gungor T., Aksoylar S., Fagioli F., Bertrand Y., Addari M.C., de la Fuente J., Winiarski J., Biondi A., Sengeloev H., Badell I., Mellgren K., de Heredia C.D., Sedlacek P., Vora A., Rocha V., Ruggeri A., Gluckman E., Combined cord blood and bone marrow transplantation from the same human leucocyte antigen-identical sibling donor for children with malignant and non-malignant diseases. (2015) *BRIT J HAEMATOL*, 169 (1), 103-110.

IF: 5.4010

Verd S., Porta R., Botet F., Gutierrez A., Ginovart G., Barbero A.H., Ciurana A., Plata I.I., Hospital outcomes of extremely low birth weight infants after introduction of donor milk to supplement mother's milk. (2015) *BREASTFEED MED*, 10 (3), 150-155.

IF: 1.4380

Ophthalmology

Coordinator

Buil Calvo, José Antonio FGS
jbuil@santpau.cat

Members

Bassaganyas Vilarrasa,
María Francisca IR
Bruix Tudó, Anna María FGS
Cancino, Reinaldo FGS
Conte Visus, Maria Àngels FGS
Crespi Vilimelis, Jaume FGS
Del Campo Carrasco,
Zoraida FGS
Díaz Cascajosa, Jesús FGS
García Parés, Eva FGS
Gil Arnal, Miguel Ángel FGS
Luna Marine, María Sabina FGS
Marieges Jubany,
Maria Teresa FGS
Mingorance Moya, Ester IR
Rodríguez Álvarez,
Fernando FGS
Sánchez Espallargas,
Fernando FGS
Sánchez Jayussi, Saskia FGS
Solans Barri, Teresa FGS
Téllez Vázquez, Jesús María FGS
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.
- ▶ Comparison of the effectiveness and safety of intravitreal injection of ranibizumab vs laser photocoagulation in patients with visual alteration due to diabetic macular edema.
- ▶ Ocular repercussions of allogeneic medullary transplants and evaluation of the different clinical manifestations and response to treatment in graft-versus-host disease.

Theses

- ▶ José Ignacio Vela Segarra. Estudio de las lesiones paravasculares en el paciente alto miope mediante OCT de dominio espectral. Directors: José Antonio Buil Calvo, José García-Arumí. Date of defense: 19 November 2015.
- ▶ Jaume Crespi Vilimelis. New gens involved in rare diseases in Ophthalmology. Directors: José Antonio Buil Calvo, José García-Arumí. Date of defense: 4 December 2015.

*TIF: 3.4270 **MIF: 3.4270

Scientific Production

Vega F., Alba-Bueno F., Millan M.S., Varon C., Gil M.A., Buil J.A., Halo and through-focus performance of four diffractive multifocal intraocular lenses. (2015) INVEST OPHTH VIS SCI, 56 (6), 3967-3975.
IF: 3.4270

*Total Impact Factor **Mean Impact Factor

Nuclear Medicine

Coordinator

Carrió Gasset, Ignasi FGS
icarrio@santpau.cat

Members

Achury Murcia, Carlos FGS
Domènech Vilardell, Anna FGS
Duch Renom, Joan FGS
Estorch Cabrera, Montserrat FGS
Fernández León, Alejandro FGS
Flotats Giral, Albert FGS
Jaller Vanegas, Rafael Enrique FGS
Jiménez Kockar, Marcelo Fabián FGS
Montes Graciano, Alberto FGS
Moustafa, Abdel Hakim FGS



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.

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 technologies 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).

Active Grants

- Ignasi Carrió Gasset. Desarrollo e implementación de nuevas tecnologías de imagen para valorar los tumores neuroendocrinos y las enfermedades neurodegenerativas (IMANEDS). BARNATRON (IMANEDS). Duration: 2013-2016. €41,666.67.

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

*TIF: 25.7900 **MIF: 2.5790

Scientific Production

Arbizu J., Garcia-Ribas G., Carrio I., Garrastachu P., Martinez-Lage P., Molinuevo J.L., Recommendations for the use of PET imaging biomarkers in the diagnosis of neurodegenerative conditions associated with dementia: SEMNIM and SEN consensus. (2015) REV ESP MED NUCL IMA, 34 (5), 303-313.

IF: 0.9830

Carrio I., Chiti A., Why New Journals? The Growth of the EJNMMI Family. (2015) EUR J NUCL MED MOL I, 42 (11), 1625-1626.

IF: 5.5370

Montes A., Perez-Pampin E., Navarro-Sarabia F., Moreira V., de la Serna A.R., Magallares B., Vasilopoulos Y., Sarafidou T., Fernandez-Nebro A., Ordonez M.C., Narvaez J., Canete J.D., Marquez A., Pascual-Salcedo D., Joven B., Carreira P., Moreno-Ramos M.J., Caliz R., Ferrer M.A., Garcia-Portales R., Blanco F.J., Magro C., Raya E., Valor L., Alegre-Sancho J.J., Balsa A., Martin J., Plant D., Isaacs J., Morgan A.W., Barton A., Wilson A.G., Gomez-Reino J.J., Gonzalez A., Rheumatoid arthritis response to treatment across IgG1 allotype - anti-TNF incompatibility: A case-only study. (2015) ARTHRITIS RES THER, 17 (1), 1-12.

IF: 3.9790

Montes A., Perez-Pampin E., Joven B., Carreira P., Fernandez-Nebro A., Del Carmen Ordonez M., Navarro-Sarabia F., Moreira V., Vasilopoulos Y., Sarafidou T., Caliz R., Ferrer

M.A., Canete J.D., De La Serna A.R., Magallares B., Narvaez J., Gomez-Reino J.J., Gonzalez A., FCGR polymorphisms in the treatment of rheumatoid arthritis with Fc-containing TNF inhibitors. (2015) PHARMACOGENOMICS, 16 (4), 333-345.

IF: 2.7100

Novelli S., Briones J., Flotats A., Sierra J., PET/CT assessment of follicular lymphoma and high grade B cell lymphoma - Good correlation with clinical and histological features at diagnosis. (2015) ADV CLIN EXP MED, 24 (2), 325-330.

IF: 1.1270

Sampedro F., Escalera S., Domenech A., Carrio I., Automatic tumor volume segmentation in whole-body PET/CT scans: A supervised learning approach. (2015) J MED IMAG HEALTH IN, 5 (2), 192-201.

IF: 0.8770

Sampedro F., Domenech A., Escalera S., Carrio I., Deriving global quantitative tumor response parameters from 18F-FDG PET-CT scans in patients with non-Hodgkin's lymphoma. (2015) NUCL MED COMMUN.

IF: 1.4530

Sampedro F., Domenech A., Escalera S., Carrio I., Deriving global quantitative tumor response parameters from 18F-FDG PET-CT scans in patients with non-Hodgkin's lym-

phoma. (2015) NUCL MED COMMUN, 36 (4), 328-333.

IF: 1.4530

Verberne H.J., Acampa W., Anagnostopoulos C., Ballinger J., Bengel F., De Bondt P., Buechel R.R., Cuocolo A., van Eck-Smit B.L.F., Flotats A., Hacker M., Hindorf C., Kaufmann P.A., Lindner O., Ljungberg M., Lonsdale M., Manrique A., Minarik D., Scholte A.J.H.A., Slart R.H.J.A., Tragardh E., de Wit T.C., Hesse B., EANM procedural guidelines for radionuclide myocardial perfusion imaging with SPECT and SPECT/CT: 2015 revision. (2015) EUR J NUCL MED MOL I, 42 (12), 1929-1940.

IF: 5.5370

Zhang H., Tian M., Carrio I., Civelek A.C., Fujibayashi Y., Molecular image-guided theranostic and personalized medicine 2014. (2015) BIOMED RES INT, 2015.

IF: 2.1340

Intensive Medicine

Coordinator

Mancebo Cortés, Jordi FGS
jmancebo@sanpau.cat

Members

Aguirre Bermeo, Hernán Marcelo FGS
Betbesé Roig, Antoni Jordi FGS
Marruecos Sant, Luis FGS
Moran Chorro, Indalecio FGS
Quintana Tort-Martorell, Elisabet FGS
Roche Campo, Ferran FGS
Roglan Piqueras, Antoni FGS
Sánchez Segura, Juan FGS
Santos Rodríguez, José Alberto FGS
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.

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

Collaboration with other IIB Sant Pau Groups

- ▶ Pharmacological Research in Humans.

Theses

- ▶ Gemma Robleda Font. Relevancia clínica del dolor asociado con los procedimientos en el paciente crítico. Universitat de Barcelona. Directors: Josep Eladi Baños Díez, Jordi Mancebo Cortés. Date of defense: 21 December 2015.
- ▶ Mercedes García. Neutrophil gelatinase-associated lipocalin (NGAL) como marcador predictivo de fracaso renal agudo en pacientes postoperados de cirugía cardíaca. Universitat Autònoma de Barcelona. Directors: Antoni-Jordi Betbesé Roig, Jorge Ordóñez Llanos, Alfonso Martínez López. Date of defense: 23 September 2015.

Awards

- ▶ Beduneau G., Pham T., Schortgen F., Piquilloud L., Zogheib E., Jonas M., Grelon F., Runge I., Terzi N., Grange S., Barberet G., Guitard P.G., Frat J.P., Mancebo J., Mercat A., Ricard J.C.M., Brochard L. Nouvelle classification du sevrage de la ventilation mécanique : résultat de l'étude multicentrique WIND (Weaning according New Definition). Best communication. 43th International Congress of the SRLF 2015.

*TIF: 40.6590 **MIF: 4.5177

Scientific Production

- Aguirre-Bermeo H., Tomasa T., Navas A., Xirgu J., Catalan-Ibars R.M., Morillas J., Cuartero M., Mancino J.M., Roglan A., Renal replacement therapy in Intensive Care Units in Catalonia (Spain). (2015) MED INTENSIVA, 39 (5), 272-278.
IF: 1.1930
- Ballus J., Lopez-Delgado J.C., Sabater-Riera J., Perez-Fernandez X.L., Betbese A.J., Roncal J.A., Surgical site infection in critically ill patients with secondary and tertiary peritonitis: Epidemiology, microbiology and influence in outcomes. (2015) BMC INFECT DIS, 15 (1).
IF: 2.6900
- Beitler J.R., Guerin C., Ayzac L., Mancebo J., Bates D.M., Malhotra A., Talmor D., PEEP titration during prone positioning for acute respiratory distress syndrome. (2015) CRIT CARE, 19 (1).
IF: 4.9500
- Dizier S., Forel J.-M., Ayzac L., Richard J.-C., Hraiech S., Lehingue S., Loundou A., Roch A., Guerin C., Papazian L., Gainnier M., Guervilly C., Albanese J., Leone M., P G., Michelet P., S J., Azoulay E., P D., Capellier G., C J.M., C P., Baudot J., A J.M., Durand-Gasselin J., Beuret P., G A., L J.Y., Arich C., Richard J.C., Hilbert G., J S., B G., L'Her E., Leroy C., Pereira C., Scwebel C., Zeni F., B F., B G., L V., B L., Reignier J., B P., G A., B T., M E., B M., M A., B O., C M., C D., J S., R S., S M., H G., B C., Richecoeur J., G M., G R., A L., M J., Early Hepatic Dysfunction Is Associated with a Worse Outcome in Patients Presenting with Acute Respiratory Distress Syndrome: A Post-Hoc Analysis of the ACURASYS and PROSEVA Studies. (2015) PLOS ONE, 10 (12).
IF: 3.0570
- Guerin C., Mancebo J., Prone positioning and neuromuscular blocking agents are part of standard care in severe ARDS patients: yes. (2015) INTENS CARE MED.
IF: 10.1250
- Guerin C., Mancebo J., Prone positioning and neuromuscular blocking agents are part of standard care in severe ARDS patients: yes. (2015) INTENS CARE MED, 41 (12), 2195-2197.
IF: 10.1250
- Rittayamai N., Katsios C.M., Beloncle F., Friedrich J.O., Mancebo J., Brochard L., Pressure-controlled vs volume-controlled ventilation in acute respiratory failure: A physiology-based narrative and systematic review. (2015) CHEST, 148 (2), 340-355.
IF: 5.9400
- Robleda G., Roche-Campo F., Urrutia G., Navarro M., Sendra M.-A., Castillo A., Rodriguez-Arias A., Juanes-Borrejo E., Gich I., Mancebo J., Banos J.-E., A randomized controlled trial of fentanyl in the pre-emptive treatment of pain associated with turning in patients under mechanical ventilation: RESEARCH protocol. (2015) J ADV NURS, 71 (2), 441-450.
IF: 1.9170
- Robleda G., Roche-Campo F., Sanchez V., Gich I., Banos J.-E., Postoperative Discomfort After Abdominal Surgery: An Observational Study. (2015) J PERIANESTH NURS, 30 (4), 272-279.
IF: 0.6620

Pharmacy

Coordinator

Mangues Bafalluy,
 Maria Antònia FGS
 mmangues@santpau.cat

Members

Berga Garrote, Núria IR
 Cardenete Ornaque, Juana FGS
 Cardona Pera, Daniel FGS
 Casanovas Navarro,
 María Rosa IR
 Castro Cels, Maria Isabel FGS
 De Pourcq, Jan Thomas FGS
 Fernández de Gamarra
 Martínez, Edurne FGS
 Gallardo Alcañiz,
 Alberto
 Garín Escrivà, Noé FGS
 Gomis Pastor, Mar FGS
 Juanes Borrego, Ana María FGS
 Masip Torné, Montserrat
 Moreno Martínez,
 María Estela FGS
 Pagès Puigdemont, Neus IR
 Riera Armengol, Pau FGS
 Rodríguez-Arias Pal, Ainhoa IR
 Ruano Romero, Pilar IR
 Sala Esteban, María Luisa FGS
 Tuneu Valls, Laura FGS



Main Lines of Research

- ▶ Pharmaceutical care.
- ▶ Artificial nutrition.
- ▶ Oncohaematology.
- ▶ Independent clinical trials.

Challenges

- ▶ Evaluate the impact on effectiveness and safety of pharmacological treatments in different pharmaceutical care programmes: clinical pharmacokinetics, health education for outpatients, medicine reconciliation and identification and prevention of medication-related problems.
- ▶ Evaluate the impact of artificial nutrition on the clinical evolution of patients.
- ▶ Study the stability of cytostatics in different conditions of use.
- ▶ Predict response to anti-tumour treatment in a number of tumoural processes.
- ▶ Develop focal adhesion inhibitors, e.g., antitumour agents.
- ▶ Actively cooperate in independent clinical trials performed in the HSCSP.

Collaborations

Collaboration with other IIB Sant Pau Groups

- ▶ Oncogenesis and Antitumour Drugs.
- ▶ Spanish Hospital Pharmacy Society (SEFH).
- ▶ Intensive Medicine.
- ▶ Clinical Haematology.
- ▶ Dermatology.
- ▶ Orthopaedics and Traumatology.
- ▶ Digestive Diseases.

- ▶ Edurne Fernández de Gamarra (PI), Drug interactions in patients in an intensive medical service of a university hospital, HSCSP Intensive Care Group, started 2013 (non-funded).

External Collaborations

- ▶ Delgado O., Genúa M.I., Ibarra O., Morillo R. Madrid (coordinators), Montse Masip (collaborator), SEFH model for the selection and pharmaceutical care of chronic patients, Spanish Hospital Pharmacy Society (SEFH), started 2013.

Grants Awarded in 2015

- ▶ Anna Feliu Ribera. Impacte assistencial de la incorporació de la Salut Mòbil (mHealth) en la pràctica clínica del pacient trasplantat cardíac. Beques Col·legials 2015, Col·legi de Farmacèutics de Barcelona. Duration: 2015-2016. €8,181.81.

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

- ▶ Noé Garin Escrivà. Distribution of multiple chronic conditions and their impact on the Spanish population. Universitat de Barcelona. Director: M. Antònia Mangues. Date of defense: 17 April 2015..

*TIF: 27.6810 **MIF: 2.7681

Aguilera X., Martinez-Zapata M.J., Hinarejos P., Jordan M., Leal J., Gonzalez J.C., Monllau J.C., Celaya F., Rodriguez-Arias A., Fernandez J.A., Pelfort X., Puig-Verdie L., Topical and intravenous tranexamic acid reduce blood loss compared to routine hemostasis in total knee arthroplasty: a multicenter, randomized, controlled trial. (2015) ARCH ORTHOP TRAUM SU, 135 (7), 1017-1025.

IF: 1.4960

Alamo P., Gallardo A., Di Nicolantonio F., Pavon M.A., Casanova I., Trias M., Mangues M.A., Lopez-Pousa A., Villaverde A., Vazquez E., Bardelli A., Cespedes M.V., Mangues R., Higher metastatic efficiency of KRas G12V than KRas G13D in a colorectal cancer model. (2015) FASEB J, 29 (2), 464-476.

IF: 5.2990

Baena Parejo M.I., Borrego A.M.J., Ruiz J.A., Monjo M.C., Garcia-Pelaez M., Hernanz B.C., Hernandez M.A.C., Fernandez M.I.C., Riera M.P., Sanchez R.G., Sanchez L.G., Lopez C.V., Echeverria M.D.M., Serrano P.M., Medication list assessment in Spanish hospital emergency departments. (2015) J EMERG MED, 48 (4), 416-423.

IF: 1.0480

Garin N., Velasco C., de Pourcq J.T., Lopez B., del Mar Gutierrez M., Haro J.M., Feliu A., Mangues M.A., Trilla A., Recreational drug use among individuals living with HIV in Europe: Review of the prevalence, comparison with the general population and HIV guidelines recommendations. (2015) FRONT MICROBIOL, 6 (JUN).

IF: 4.1650

Koyanagi A., Moneta M.V., Garin N., Olaya B., Ayuso-Mateos J.L., Chatterji S., Leonardi M.,

Sainio P., Galas A., Haro J.M., The association between obesity and severe disability among adults aged 50 or over in nine high-income, middle-income and low-income countries: A cross-sectional study. (2015) BMJ OPEN, 5 (4).

IF: 2.5620

Masip M., Tuneu L., Pages N., Torras X., Gallego A., Guardiola J.M., Faus M.J., Mangues M.A., Prevalence and detection of neuropsychiatric adverse effects during hepatitis C treatment. (2015) INT J CLIN PHARM-NET, 37 (6), 1143-1151.

IF: 1.3390

Pavon M.A., Arroyo-Solera I., Tellez-Gabriel M., Leon X., Viros D., Lopez M., Gallardo A., Cespedes M.V., Casanova I., Lopez-Pousa A., Mangues M.A., Quer M., Barnadas A., Mangues R., Enhanced cell migration and apoptosis resistance may underlie the association between high SERPINE1 expression and poor outcome in head and neck carcinoma patients. (2015) ONCOTARGET, 6 (30), 29016-29033.

IF: 5.0080

Robleda G., Roche-Campo F., Urrutia G., Navarro M., Sendra M.-A., Castillo A., Rodriguez-Arias A., Juanes-Borrego E., Gich I., Mancebo J., Banos J.-E., A randomized controlled trial of fentanyl in the pre-emptive treatment of pain associated with turning in patients under mechanical ventilation: RESEARCH protocol. (2015) J ADV NURS, 71 (2), 441-450.

IF: 1.9170

Tyrovolas S., Koyanagi A., Garin N., Olaya B., Ayuso-Mateos J.L., Miret M., Chatterji S., Tobiasz-Adamczyk B., Koskinen S., Leonardi M.,

Haro J.M., Diabetes mellitus and its association with central obesity and disability among older adults: A global perspective. (2015) EXP GERONTOL, 64, 70-77.

IF: 3.3500

Wanden-Berghe C., Hernandez J.A., Pelaez R.B., Compes C.C., Martin P.M., Perez L.M.L., Candela C.G., De La Cruz A.P., Fernandez A.C., Olmos M.A.M., Gonzalez L.L., Martin C.C., Garcia P.L., Rocamora J.A.I., Llanos J.P.S., Pera D.C., Marin M.G., Lazaro M.A.P., Sancez C.B., Soler A.R., Orbaiz C.G., Gaillemine B.C., Villares J.M.M., Del Olmo Garcia M.D., Perez F.C., Iriyoyen C.A., Mauri S., Burdiel O.S.-V., Casas N.V., Aranda N.M., Celaya A.A., Soto M.A.P., Gonzalez M.A.P., A home enteral nutrition (HEN); Spanish registry of NADYA-SENPE group; for the year 2013. (2015) NUTR HOSP, 31 (6), 2518-2522.

IF: 1.4970

Dermatology

Coordinator

Puig Sanz, Luis FGS
lpuig@santpau.cat

Members

Alegre Fernández, Marta FGS
Barnadas Andinach, Maria Assumpció FGS
Baselga Torres, Eulàlia FGS
Dalmau Arias, Joan FGS
Díaz-Salazar Monreal, Maria IR
Fuentes Finkelstein, Paulina Andrea FGS
Garcés Gatnau, Joan Ramon FGS
García Muret, Maria Pilar FGS
López Ferrer, Anna IR
Margarit de Miguel, Esther FGS
Mir Bonafe, Juan Francisco FGS
Morales Munera, Caridad Elena IR
Roe Crespo, Esther FGS
Ros Abarca, Sandra IR
Ruiz Salas, Verònica FGS
Salvador Figuerola, Laura IR
Serra Baldrich, Esther FGS
Spertino, Jorge Luis IR
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 immunologically-mediated dermatological.

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.

*TIF: 216.5080 **MIF: 6.9841

Arriola E., Reguart N., Artal A., Cobo M., Garcia-Campelo R., Esteban E., Rodriguez M.C., Garcia-Muret M.P., Management of the adverse events of afatinib: A consensus of the recommendations of the Spanish expert panel. (2015) *FUTURE ONCOL*, 11 (2), 267-277.

IF: 2.1290

Barnadas M.A., Rubiales M.V., Gich I., Gelpi C., Usefulness of specific anti-desmoglein 1 and 3 enzyme-linked immunoassay and indirect immunofluorescence in the evaluation of pemphigus activity. (2015) *INT J DERMATOL*, 54 (11), 1261-1268.

IF: 1.4150

Baselga Torres E., Bernabeu Wittel J., van Esso Arbolave D.L., Febrer Bosch M.I., Carrasco Sanz A., de Lucas Laguna R., del Pozo Losada J., Hernandez Martin A., Jimenez Montanes L., Lopez Gutierrez J.C., Martin-Santiago A., Redondo Bellon P., Ruiz-Canela Caceres J., Torrello Fernandez A., Vera Casano A., Vicente Villa M.A., Spanish consensus on infantile haemangioma. (2015) *AN PEDIATR*.

IF: 0.7730

Belinchon I., Vanaclocha F., De La Cueva-Dobao P., Coto-Segura P., Labandeira J., Herranz P., Taberner R., Julia B., Cea-Calvo L., Puig L., Metabolic syndrome in Spanish patients with psoriasis needing systemic therapy: Prevalence and association with cardiovascular disease in PSO-RISK, a cross-sectional study. (2015) *J DERMATOL TREAT*, 26 (4), 318-325.

IF: 1.8570

Catala A., Puig L., Roe E., Dalmau J., Pomar V., Munoz C., Yelamos O., Anti-tumour necrosis factor-induced visceral and cutaneous leishmaniasis: Case report and review of the literature. (2015) *DERMATOLOGY*, 230 (3), 204-207.

IF: 1.4490

Chamlin S.L., Mancini A.J., Lai J.-S., Beaumont J.L., Cella D., Adams D., Drolet B., Baselga E., Frieden I.J., Garzon M., Holland K., Horii K.A., Lucky A.W., McCuaig C., Metry D., Morel K.D., Newell B.D., Nopper A.J., Powell J., Siegel D., Haggstrom A.N., Development and validation of a quality-of-life instrument for infantile hemangiomas. (2015) *J INVEST DERMATOL*, 135 (6), 1533-1539.

IF: 6.9150

Fernandez-Figueras M.T., Carrato C., Saenz X., Puig L., Musulen E., Ferrandiz C., Ariza A., Actinic keratosis with atypical basal cells (AK I) is the most common lesion associated with invasive squamous cell carcinoma of the skin. (2015) *J EUR ACAD DERMATOL*, 29 (5), 991-997.

IF: 3.0290

Girolomoni G., Griffiths C.E.M., Krueger J., Nestle F.O., Nicolas J.-F., Prinz J.C., Puig L.,

Stahle M., Van De Kerkhof P.C.M., Allez M., Emery P., Paul C., Early intervention in psoriasis and immune-mediated inflammatory diseases: A hypothesis paper. (2015) *J DERMATOL TREAT*, 26 (2), 103-112.

IF: 1.8570

Gyulai R., Bagot M., Griffiths C.E.M., Luger T., Naldi L., Paul C., Puig L., Kemeny L., Current practice of methotrexate use for psoriasis: Results of a worldwide survey among dermatologists. (2015) *J EUR ACAD DERMATOL*, 29 (2), 224-231.

IF: 3.0290

Hoeger P.H., Harper J.I., Baselga E., Bonnet D., Boon L.M., Atti M.C.D., El Hachem M., Oranje A.P., Rubin A.T., Weibel L., Leaute-Labreze C., Treatment of infantile haemangiomas: recommendations of a European expert group. (2015) *EUR J PEDIATR*, 174 (7), 855-865.

IF: 1.7910

Huijbers M.G., Querol L.A., Niks E.H., Plomp J.J., van der Maarel S.M., Graus F., Dalmau J., Illa I., Verschuuren J.J., The expanding field of IgG4-mediated neurological autoimmune disorders. (2015) *EUR J NEUROL*, 22 (8), 1151-1161.

IF: 3.9560

Julia A., Ferrandiz C., Dauden E., Fonseca E., Fernandez-Lopez E., Sanchez-Carazo J.L., Vanaclocha F., Puig L., Moreno-Ramirez D., Lopez-Esteban J.L., Herrera E., De La Cueva P., Avila G., Alonso A., Tortosa R., Lopez-Lasanta M., Marsal S., Association of the PDE3A-SLCO1C1 locus with the response to anti-TNF agents in psoriasis. (2015) *PHARMACOGENOMICS J*, 15 (4), 322-325.

IF: 3.7840

Julia A., Pinto J.A., Gratacos J., Queiro R., Ferrandiz C., Fonseca E., Montilla C., Torre-Alonso J.C., Puig L., Venegas J.J.P., Nebro A.F., Fernandez E., Munoz-Fernandez S., Dauden E., Gonzalez C., Roig D., Carazo J.L.S., Zarco P., Erra A., Esteban J.L.L., Rodriguez J., Ramirez D.M., De La Cueva P., Vanaclocha F., Herrera E., Castaneda S., Rubio E., Salvador G., Diaz-Torne C., Blanco R., Dominguez A.W., Mosquera J.A., Vela P., Tornero J., Sanchez-Fernandez S., Corominas H., Ramirez J., Lopez-Lasanta M., Tortosa R., Palau N., Alonso A., Garcia-Montero A.C., Gelpi J.L., Codo L., Day K., Absher D., Myers R.M., Canete J.D., Marsal S., A deletion at adamts9-magi1 locus is associated with psoriatic arthritis risk. (2015) *ANN RHEUM DIS*, 74 (10), 1875-1881.

IF: 12.3840

Kavanaugh A., Puig L., Gottlieb A.B., Ritchlin C., Li S., Wang Y., Mendelsohn A.M., Song M., Zhu Y., Rahman P., McInnes I.B., Maintenance of Clinical Efficacy and Radiographic Benefit Through Two Years of Ustekinumab Therapy

in Patients with Active Psoriatic Arthritis: Results from a Randomized, Placebo-Controlled Phase III Trial. (2015) *ARTHRIT CARE RES*, 67 (12), 1739-1749.

IF: 3.2290

Leaute-Labreze C., Hoeger P., Mazer-euw-Hautier J., Guibaud L., Baselga E., Posiunas G., Phillips R.J., Caceres H., Lopez Gutierrez J.C., Ballona R., Friedlander S.F., Powell J., Perek D., Metz B., Barbarot S., Maruani A., Szalai Z.Z., Krol A., Boccara O., Foelster-Holst R., Febrer Bosch M.I., Su J., Buckova H., Torrello A., Cambazard F., Grantzow R., Wargon O., Wyrzykowski D., Roessler J., Bernabeu-Wittel J., Valencia A.M., Przewratil P., Glick S., Pope E., Birchall N., Benjamin L., Mancini A.J., Vabres P., Souteyrand P., Frieden I.J., Berul C.I., Mehta C.R., Prey S., Boralevi F., Morgan C.C., Heritier S., Delarue A., Voisard J.-J., A randomized, controlled trial of oral propranolol in infantile hemangioma. (2015) *NEW ENGL J MED*, 372 (8), 735-746.

IF: 59.5580

Lebwohl M., Strober B., Menter A., Gordon K., Weglowska J., Puig L., Papp K., Spelman L., Toth D., Kerdel F., Armstrong A.W., Stingl G., Kimball A.B., Bachelez H., Wu J.J., Crowley J., Langley R.G., Blicharski T., Paul C., Lacour J.-P., Tying S., Kircik L., Chimenti S., Duffin K.C., Bagel J., Koo J., Aras G., Li J., Song W., Milmont C.E., Shi Y., Erondy N., Klekotka P., Kotzin B., Nirula A., Phase 3 studies comparing brodalumab with ustekinumab in psoriasis. (2015) *NEW ENGL J MED*, 373 (14), 1318-1328.

IF: 59.5580

Lopez-Ferrer A., Vilarrasa E., Puig L., Secukinumab (AIN457) for the treatment of psoriasis. (2015) *EXPERT REV CLIN IMMUNOL*, 11 (11), 1177-1188.

IF: 2.5960

Marques L., Nunez-Cordoba J.M., Aguado L., Pretel M., Boixeda P., Nagore E., Baselga E., Redondo P., Topical rapamycin combined with pulsed dye laser in the treatment of capillary vascular malformations in Sturge-Weber syndrome: Phase II, randomized, double-blind, intraindividual placebo-controlled clinical trial. (2015) *J AM ACAD DERMATOL*, 72 (1), 151-158.e1.

IF: 5.6210

Martinez-Martinez L., Martinez-Saavedra M.T., Fuentes-Prior P., Barnadas M., Rubiales M.V., Noda J., Badell I., Rodriguez-Gallego C., de la Calle-Martin O., A novel gain-of-function STAT1 mutation resulting in basal phosphorylation of STAT1 and increased distal IFN- γ -mediated responses in chronic mucocutaneous candidiasis. (2015) *MOL IMMUNOL*, 68 (2), 597-605.

IF: 3.3750

Dermatology

*TIF: 216.5080 **MIF: 6.9841

Scientific Production

Puig L., Ruiz-Salas V., Long-term efficacy, safety and drug survival of ustekinumab in a spanish cohort of patients with moderate to severe plaque psoriasis. (2015) DERMATOLOGY, 230 (1), 46-54.

IF: 1.4490

Puig L., Strohal R., Husni M.E., Tsai T.-F., Nop-pakun N., Szumski A., Yang S., Robertson D., Boggs R., Koenig A.S., Cardiometabolic profile, clinical features, quality of life and treatment outcomes in patients with moderate-to-severe psoriasis and psoriatic arthritis. (2015) J DERMATOL TREAT, 26 (1), 7-15.

IF: 1.8570

Puig S., Marcoval J., Paradelo C., Azon A., Bartralot R., Bel S., Bigata X., Boada A., Campoy A., Carrera C., Curco N., Dalmau J., Ferrandiz C., Ferreres J.R., Formigon M., Gallardo F., Gonzalez A., Just M., Llistosella E., Marti R.M., Nogues M.E., Pedragosa R., Pujol J.A., Roldan-Marin R., Sabat M., Salleras M., Sman-dia J.A., Zaballos P., Plana E., Malveyh J., Mel-anoma incidence increases in the elderly of Catalonia but not in the younger population: Effect of prevention or consequence of immigration. (2015) ACTA DERM-VENEREOL, 95 (4), 422-426.

IF: 3.6380

Puig L., PASI90 response: The new standard in therapeutic efficacy for psoriasis. (2015) J EUR ACAD DERMATOL, 29 (4), 645-648.

IF: 3.0290

Puig L., Camacho F., Garcia-Patos V., Fernandez-Diaz M.L., Marquina A., Garcia-Calvo C., Long-term (1 year) efficacy of etanercept in

moderate-to-severe psoriasis. Results of a multicentric observational study in Spain. (2015) EUR J DERMATOL, 25 (5), 410-417.

IF: 2.0690

Reich K., Zschocke I., Bachelez H., De Jong E.M.G.J., Gisondi P., Puig L., Warren R.B., Mrowietz U., Efficacy of a fixed combination of calcipotriol/betamethasone dipropionate topical gel in adult patients with mild to moderate psoriasis: Blinded interim analysis of a phase IV, multicenter, randomized, controlled, prospective study. (2015) J EUR ACAD DERMATOL, 29 (6), 1156-1163.

IF: 3.0290

Sandoval J., Diaz-Lagares A., Salgado R., Ser-vitje O., Climent F., Ortiz-Romero P.L., Perez-Ferriols A., Garcia-Muret M.P., Estrach T., Garcia M., Nonell L., Esteller M., Pujol R.M., Espinet B., Gallardo F., MicroRNA Expression Profiling and DNA Methylation Signature for Deregulated MicroRNA in Cutaneous T-Cell Lymphoma. (2015) J INVEST DERMATOL, 135 (4), 1128-1137.

IF: 6.9150

Spence-Shishido A.A., Good W.V., Baselga E., Frieden I.J., Hemangiomas and the eye. (2015) CLIN DERMATOL, 33 (2), 170-182.

IF: 2.3670

Stander S., Zeidler C., Riepe C., Steinke S., Fritz F., Bruland P., Soto-Rey I., Storck M., Agner T., Augustin M., Blome C., Dalgard F., Evers A.W.M., Garcovich S., Goncalo M., Lambert J., Legat F.J., Leslie T., Misery L., Raap U., Reich A., Savk E., Streit M., Serra-Baldrich E., Szepietowski J., Wallengren J., Weisshaar E.,

Dugas M., European EADV network on assessment of severity and burden of Pruritus (PruNet): First meeting on outcome tools. (2015) J EUR ACAD DERMATOL.

IF: 3.0290

Van De Kerkhof P.C.M., Reich K., Kavanaugh A., Bachelez H., Barker J., Girolomoni G., Langley R.G., Paul C.F., Puig L., Lebwohl M.G., Physician perspectives in the management of psoriasis and psoriatic arthritis: Results from the population-based Multinational Assessment of Psoriasis and Psoriatic Arthritis survey. (2015) J EUR ACAD DERMATOL, 29 (10), 2002-2010.

IF: 3.0290

Wassef M., Blei F., Adams D., Alomari A., Baselga E., Berenstein A., Burrows P., Frieden I.J., Garzon M.C., Lopez-Gutierrez J.-C., Lord D.J.E., Mitchel S., Powell J., Prendiville J., Vikkula M., Vascular anomalies classification: Recommendations from the international society for the study of vascular anomalies. (2015) PEDIATRICS, 136 (1), e203-e214.

IF: 5.1960

Yelamos O., Puig L., Systemic methotrexate for the treatment of psoriasis. (2015) EXPERT REV CLIN IMMUNO, 11 (5), 553-563.

IF: 2.5960

Anaesthesiology

Coordinator

Moral García, María Victoria FGS
vmoralg@santpau.cat

Members

Argilaga, Marta
Azparren, Gonzalo
Baños, Victoria
Bastitta, Micaela
Batalla, Astrid
Bausili Ribera, Marc FGS
Bolaños, Jorge Javier
Bueno, Ana
Campos Suárez, Juan Manuel FGS
Cartrillo, Agustín
Casas Vila, Joan Ignasi FGS
Castrillón Restrepo, Sebastian FGS
Cegarra, Virginia
Cueva, Luisa
Díaz, Rubén
Espinosa López Davalillo,
Nieves FGS
Felipe Correoso, Mar
Fernández Nuñez,
José Antonio FGS
Ferrándiz Mach, Marta FGS
Font Gual, Adrià FGS
Galán Serrano, Josefa FGS
García Álvarez,
María Mercedes FGS
García Muret, Albert
Genové Cortada,
María Mercè FGS
Gil de Bernabé Sala,
María Àngels FGS
Gil Sánchez, Josep M.
Giné, Marta
Gómez Caro, Ana M.
González Carrasco,
Francisco Javier FGS
González Rodríguez, Raúl FGS
Gonzalez Turmo, Anna M.
Hoffmann, Rolf Dieter FGS
Illa, Susana
India Aldana, Inmaculada FGS
Italiano, Stefano
Koller, Tobías Bernhard FGS
Maestre Hittinger, María Luz FGS
Martín Huerta, María Beatriz FGS
Melo Cruz, Martha Cristina FGS
Merten, Alfredo R. FGS
Miralles, Jordi
Moreno Bueno, Marisa FGS
Muñoz, Rolando
Pablo, Rosa
Paniagua Iglesias, Pilar FGS
Parera, Ana



Peláez Vaamonde, Xavier FGS	Santacana, Esther	Unzueta Merino, María Carmen FGS
Perona, Judith	Santaeularia Verges, María Teresa FGS	Vila Bou, Jordi FGS
Piñol Sapena, Santiago FGS	Serra Seguí, Rafael	Villamor Vázquez, José María FGS
Revuelta Rizo, Miren Eli FGS	Solans, José Ramón	Villanueva, José Antonio
Rivilla Lizano, María Teresa FGS		
Rodríguez Prieto, Mireia FGS		

Main Lines of Research

Critical analysis of new clinical technologies

- ▶ Anaconda-inhaled sedation in patients undergoing postoperative mechanical ventilation.
- ▶ New monitoring systems for anaesthesia depth and cerebral oxygen status.

Perioperative medicine

- ▶ Epidemiological study of perioperative morbidity and mortality in collaboration with the epidemiology department of the HSCSP (Iberoamerican Cochrane Centre) and the European Society of Anesthesiology.

Rationalization of perioperative fluid therapy and blood products

- ▶ Institutional protocolization of massive transfusions.
- ▶ Monitoring of critical perioperative coagulopathy.

- ▶ Identification and recovery from preoperative anaemia.
- ▶ Study of the Prevalence of perioperative transfusions.
- ▶ Monitoring of perioperative fluid therapy.

New health service delivery systems

- ▶ Professional team preoperative evaluations.
- ▶ Zero preoperative stay.

Physiology, pharmacology and anaesthetic techniques

- ▶ Intraoperative respiratory physiology.
- ▶ Peripheral nerve blocking for postoperative analgesia in CMA.
- ▶ Lipid Rescue due systemic complications after ALR.

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

- ▶ MANAGE (Management of myocardial injury alter non cardiac surgery): Randomized clinical trial. Centro Cochrane. ClinicalTrials.gov: NCT01661101.

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.

Active Grants

- ▶ Maria Carmen Unzueta Merino. Reducción de las complicaciones postoperatorias y de la estancia hospitalaria con una estrategia perioperatoria individualizada de ventilación de protección pulmonar. Estudio comparativo, prospectivo, multicéntrico, aleator-

izado y controlado. PI14/00829 C. Instituto de Salud Carlos III. Duration: 2015-2017.

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

Theses

- ▶ M. L. Maestre Hittinger. Valoración de los factores de riesgo asociados a la transfusión en pacientes de cirugía cardíaca mediante análisis de partición recursiva. Universitat Autònoma de Barcelona. Directors: Xavier Rius Cornadó, Xavier Borràs Pérez, Josep M. Padró Fernández. Date of defense: 6 November 2015.
- ▶ Pilar Paniagua Iglesias. Lesión miocárdica tras la cirugía no cardíaca: Análisis de la cohorte española del estudio VISION. Universitat Autònoma de Barcelona. Directors: Xavier León Vintró, Pablo Alonso Coello. Date of defense: 14 Decembre 2015.

- ▶ Rodríguez Prieto, Mireia. Eficacia del bloqueo ecoguiado de nervios periféricos en el control del dolor postoperatorio en cirugía ambulatoria de rizartrosis. Universitat Autònoma de Barcelona. Directors: Xavier Rius Cornadó, Claudia Lamas Gómez, Albert García Muret. Date of defense: 30 April 2015.

- ▶ Mercedes García Álvarez. NGAL como biomarcador de disfunción renal aguda en pacientes postoperados de Cirugía Cardíaca. Universitat Autònoma de Barcelona. Directors: Antoni Jordi Betbesé Roig, Alfonso Martínez López, Jordi Ordóñez. Date of defense: 10 July 2015.

*TIF: 9.5090 **MIF: 2.3773

Scientific Production

Ferrando C., et al., Rationale and study design for an individualized perioperative open lung ventilatory strategy (iPROVE): Study protocol for a randomized controlled trial. (2015) TRIALS, 16 (1).

IF: 1.8590

Llau J.V., Acosta F.J., Escolar G., Fernandez-Mondejar E., Guasch E., Marco P., Paniagua P., Paramo J.A., Quintana M., Torradadella P., Multidisciplinary consensus document on the management of massive haemorrhage (HEMOMAS document). (2015) MED INTENSIVA, 39 (8), 483-504.

IF: 1.1930

Munoz Gomez M., Bisbe Vives E., Basora Macaya M., Garcia Erce J.A., Gomez Luque A., Leal-Noval S.R., Colomina M.J., Comin Colet J., Contreras Barbeta E., Cuenca Espierrez J.,

Garcia de Lorenzo y Mateos A., Gomollon Garcia F., Izuel Rami M., Moral Garcia M.V., Montoro Ronsano J.B., Paramo Fernandez J.A., Pereira Saavedra A., Quintana Diaz M., Remacha Sevilla A., Salinas Argente R., Sanchez Perez C., Tirado Angles G., Torradadella de Reinoso P., Forum for debate: Safety of allogeneic blood transfusion alternatives in the surgical/critically ill patient. (2015) MED INTENSIVA, 39 (9), 552-562.

IF: 1.1930

Serpa Neto A., Hemmes S.N.T., Barbas C.S.V., Beiderlinden M., Biehl M., Binnekade J.M., Canet J., Fernandez-Bustamante A., Futier E., Gajic O., Hedenstierna G., Hollmann M.W., Jaber S., Kozian A., Licker M., Lin W.-Q., Maslow A.D., Memtsoudis S.G., Reis Miranda D., Moine P., Ng T., Paparella D., Putensen C.,

Ranieri M., Scavonetto F., Schilling T., Schmid W., Selmo G., Severgnini P., Sprung J., Sundar S., Talmor D., Treschan T., Unzueta C., Weingarten T.N., Wolthuis E.K., Wrigge H., Gama De Abreu M., Pelosi P., Schultz M.J., Protective versus Conventional Ventilation for Surgery: A Systematic Review and Individual Patient Data Meta-analysis. (2015) ANESTHESIOLOGY, 123 (1), 66-78.

IF: 5.2640

Plastic Surgery

Coordinator

Masià Ayala, Josep Jaume FGS
jmasia@santpau.cat

Members

Bernárdez, Débora FGS
Fernández Garrido, Manuel FGS
Liuzza, Clàudia FGS
López Fernández, Susana FGS
Olivares, Leyre FGS
Pons Playá, Gemma FGS
Rodríguez Bauza,
Elena María FGS
Sánchez-Porro, Lidia FGS
Vega García,
María del Carmen FGS



Main Lines of Research

- ▶ Application of imaging techniques to intraoperative studies of perforators with the aim to improve the design of flaps, evaluate the suitability and viability of perfusion avoiding secondary postoperative complications and vascular complications.
- ▶ Anatomical studies of the variability of perforators 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 post-vascular balance post dissection of 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 autologous stem cells, stem cell transplantation autologous bone marrow, lymphatic-venous anastomosis flap free vascularised autologous lymph node.

Challenges

- ▶ Consolidate and optimize preoperative management techniques for locating perforating vessels suitable 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 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 nodes).
- ▶ Identification by indocyanine green angiography for those patients affected with breast cancer with a major risk of developing secondary lymphedema.

Active Grants

- ▶ Josep Jaume Masià Ayala. Modelo experimental comparativo entre trasplante de células madre de tejido adiposo/médula ósea, anastomosis linfático-venosas, trasplante de ganglios vascularizados en el linfedema. PI13/02793. Instituto de Salud Carlos III. Duration: 2014-2016. €29,000.

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

Theses

- ▶ Gemma Pons Playá. Planificación preoperatoria de anastomosis linfático-venosas mediante ICG y linfoRMN. Universitat Autònoma de Barcelona. Directors: Jaume Masià, Xavier Rius, Xavier León. Date of defense: November 2015.

Scientific
Production

*TIF: 9.6770 **MIF: 1.9354

Masia J., Bordoni D., Pons G., Liuzza C., Castagnetti F., Falco G., Oncological safety of breast cancer patients undergoing free-flap reconstruction and lipofilling. (2015) *EJ-SO-EUR J SURG ONC*, 41 (5), 612-616.

IF: 2.9400

Masia J., Pons G., Loschi P., Sanchez Porro-Gil L., Nardulli M.L., Olivares L., Autologous Reconstruction of a Complex Form of Poland

Syndrome Using 2 Abdominal Perforator Free Flaps. (2015) *ANN PLAS SURG*, 74 (5), 580-583.

IF: 1.5350

Masia J., Pons G., Nardulli M.L., Combined Surgical Treatment in Breast Cancer-Related Lymphedema. (2015) *J RECONSTR MICRO-SURG*, 32 (1), 16-27.

IF: 1.7340

Masia J., Surgical Treatment for Lymphedema: State of the Art. (2015) *J RECONSTR MICRO-SURG*.

IF: 1.7340

Masia J., Surgical Treatment for Lymphedema: State of the Art. (2015) *J RECONSTR MICRO-SURG*, 32 (1), 1.

IF: 1.7340

Palliative Care

Coordinator

Pascual López, Antonio
apascual@santpau.cat FGS

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.

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.

*TIF: 8.0050 **MIF: 2.6683

Scientific Production

Guell E., Ramos A., Zertuche T., Pascual A., Verbalized desire for death or euthanasia in advanced cancer patients receiving palliative care. (2015) PALLIAT SUPPORT CARE, 13 (2), 295-303.
IF: 1.2110

Porta-Sales J., Nabal-Vicuna M., Vallano A., Espinosa J., Planas-Domingo J., Verger-Fransoy E., Julià-Torras J., Serna J., Pascual-López A., Rodríguez D., Grimau I., Morlans G., Sala-Rovira C., Calsina-Berna A., Borrás-Andrés J.M., Gomez-Batiste X. Have We Improved Pain Control in Cancer Patients? A Multicenter

Study of Ambulatory and Hospitalized Cancer Patients. (2015) J PALLIAT MED, 18(11), 923-32.
IF: 3.685

Sanso N., Galiana L., Oliver A., Pascual A., Sinclair S., Benito E., Palliative care professionals' inner life: Exploring the relationships among awareness, self-care, and compassion satisfaction and fatigue, burnout, and coping with death. (2015) J PAIN SYMPTOM MANAG, 50 (2), 200-207.
IF: 2.6490

*Total Impact Factor **Mean Impact Factor

Andrology

Coordinator

Ruiz Castañe, Eduard F. Puigvert
 eruiz@fundacio-puigvert.es

Members

Bassas Arnau, Lluís F. Puigvert
 Chianese, Chiara F. Puigvert
 Krausz, Csilla Gabriella F. Puigvert
 Lo Giacco, Deborah Grazia F. Puigvert
 Martínez Pasarell, Olga F. Puigvert
 Rajmil Marqueson, Osvaldo F. Puigvert



Main Lines of Research

- ▶ Genetics applied to male infertility.
- ▶ Optimisation of preimplantation genetics diagnosis and in vitro fertilization techniques.
- ▶ Clinical research into new surgical procedures, drugs and medical devices applied

to andrological diseases and conditions (male sexual dysfunction, hypogonadism, Peyronie disease, premature ejaculation, sexually transmitted diseases).

Challenges

Our multidisciplinary team of professionals develops translational research in the field of diagnosis and treatment of andrological disorders. 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 interna-

tional publications, train professionals and enhance collaboration with hospital and university groups inside and outside the IIB Sant Pau.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Nephrology.

External Collaborations

National

- ▶ Medical and Molecular Genetics Centre (RI)-IDIBELL: genetics applied to infertility.
- ▶ Cellular Biology and Medical Genetics Unit-UAB: preimplantation 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: hypogonadism.
- ▶ 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: 2015-2017. €86,500.

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

Awards

- ▶ O. López, A. Mata, A. García, O. Martínez, R. Gustá, J. Sánchez, MJ. Saiz, C. Chianese, D. Lo Giacco, O. Bogle, C. Attardo, R. Oliva, Ll. Bassas. Caracterización funcional de patrones específicos de teratozoospermia severa. Best communication. 17 Congreso Nacional de Andrología, Medicina Sexual y Reproductiva. La Pineda (Vila-Seca, Tarragona), 8-10 May 2015.
- ▶ O. López, A. Mata, A. García, O. Martínez, R. Gustá, J. Sánchez, MJ. Saiz, C. Chianese, D. Lo Giaco, O. Bogle, C. Attardo, R. Oliva, Ll. Bassas. Caracterización funcional de patrones específicos de teratozoospermia severa. Best poster. XVII Congreso Nacional de Andrología, Medicina Sexual y Reproductiva. Gran Canaria, 14-16 May 2015.

Theses

- ▶ Chiara Chianese. Genetic and Epigenetic Aspects of Male Infertility. Università degli studi di Firenze. Director: C. Krausz. Date of defense: 27 March 2015.

*TIF: 26.0510 **MIF: 3.2564

Scientific Production

Chianese C., Fino M.G., Riera Escamilla A., Lopez Rodrigo O., Vinci S., Guarducci E., Daquin F., Muratori M., Tamburrino L., Lo Giacco D., Ars E., Bassas L., Costa M., Pisatauro V., Noci I., Coccia E., Provenzano A., Ruiz-Castane E., Giglio S., Piomboni P., Krausz C., Comprehensive investigation in patients affected by sperm macrocephaly and globozoospermia. (2015) ANDROLOGY-US, 3 (2), 203-212.

IF: 2.5150

Cosentino M., Sarquella J., Ruiz-Castane E., Priapism secondary to tamsulosin: A case report. (2015) REV INT ANDROL, 13 (1), 37-39.

IF: 0.2380

Daina G., Ramos L., Obradors A., Rius M., del Rey J., Martinez-Pasarell O., Pujol A., Benet J., Navarro Ferrete J., Double-factor preimplantation genetic diagnosis: Monogenic and cytogenetic diagnoses analyzing a single blastomere. (2015) PRENATAL DIAG, 35 (13), 1301-1307.

IF: 3.0430

Gimenez C., Sarasa J., Arjona C., Vilamajo E., Martinez-Pasarell O., Wheeler K., Valls G., Garcia-Guixe E., Wells D., Karyomapping allows preimplantation genetic diagnosis of a de-novo deletion undetectable using conventional PGD technology. (2015) REPROD BIOMED ONLINE, 31 (6), 770-775.

IF: 2.7960

Krausz C., Escamilla A.R., Chianese C., Genetics of male infertility: From research to clinic. (2015) REPRODUCTION, 150 (5), R159-R174.

IF: 3.1840

Munoz X., Mata A., Bassas L., Larriba S., Altered miRNA Signature of Developing Germcells in Infertile Patients Relates to the Severity of Spermatogenic Failure and Persists in Spermatozoa. (2015) SCI REP-UK, 5.

IF: 5.2280

Ramos L., Daina G., Del Rey J., Ribas-Maynou J., Fernandez-Encinas A., Martinez-Pasarell O., Boada M., Benet J., Navarro J., Comprehensive preimplantation genetic screening and sperm deoxyribonucleic acid fragmen-

tation from three males carrying balanced chromosome rearrangements. (2015) FERTIL STERIL, 104 (3), 681-687.e2.

IF: 4.4260

Urduinguio R.G., Bayón G.F., Dmitrijeva M., Toraño E.G., Bravo C., Fraga M.F., Bassas L., Larriba S., Fernández A.F. Aberrant DNA methylation patterns of spermatozoa in men with unexplained infertility. (2015) HUM REPROD, 30(5), 1014-28.

IF: 4.621

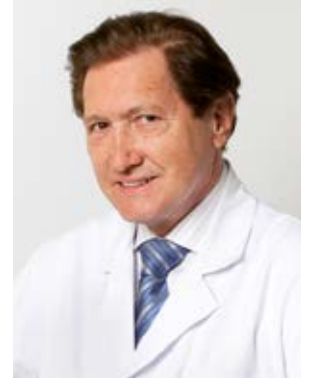
Urology

Coordinator

Villavicencio Maverich,
Humberto F. Puigvert
hvillavicencio@fundaciopuigvert.es

Members

Algaba Arrea, Fernando F. Puigvert
Arce Terroba, Yolanda F. Puigvert
Breda, Alberto F. Puigvert
Bujons Tur, Ana F. Puigvert
Caffaratti Sfulcini, Jorge F. Puigvert
Millán Rodríguez, Fèlix F. Puigvert
Palou Redorta, Juan F. Puigvert
Rodríguez Faba, Óscar F. Puigvert



Main Lines of Research

- ▶ Tissue engineering applied to urological oncology and congenital urogenital malformations.
- ▶ Genetic and immunohistochemistry analyses applied to urological cancers (diagnostic and prognostic biomarkers in urine, blood and tissues).
- ▶ Clinical research of new surgical procedures, drugs and medical device products applied to urological oncology, kidney transplantation and benign urogenital pathology (e.g. incontinence, benign hyperplasia of the prostate, lithiasis).

Challenges

Translational research in the field of diagnosis and treatment of urological disorders. We seek to continue active projects, develop new lines of investigation, increase the number of international publications, train professionals and increase collaboration with hospital and university groups to improve our knowledge about kidney disorders and thereby improve healthcare for patients.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Nephrology: genetic predisposition to prostate cancer.
- ▶ Clinical Epidemiology and Healthcare: epidemiological studies of urological cancers.
- ▶ Clinical Oncology: detection of prognosis biomarkers for drug response in kidney cancer.

External Collaborations

National academic

- ▶ IDIBELL Molecular Genetics Laboratory: cystine lithiasis.
- ▶ CNIO: biomarkers in bladder cancer.
- ▶ National scientific societies (Spanish Urology Association, etc): clinical studies.

International academic

- ▶ Aarhus University Molecular Genetics Department: bladder cancer.
- ▶ International Robotic Cystectomy Consortium: robotic cystectomy.
- ▶ International Renal Cell Carcinoma-Venous Thrombus Consortium: renal-cava thrombus in kidney cancer.

Private national and international collaborations

- ▶ Clinical trials and postauthorization studies promoted by national and international pharmaceutical companies.

Awards

- ▶ Humberto Villavicencio. EAU Frans Debruyne Life Time Achievement Award. 30th Annual Congress of the European Association of Urology. Madrid, 20-24 March 2015.
- ▶ Department of Pediatric Urology. Quality of life in bladder extrophy-epispadias in female patients. Best poster. 30th Annual Congress of the European Association of Urology. Madrid, 20-24 March 2015.
- ▶ A. Bujons, C. Centeno, *et al.* Calidad de vida en varones con extrofia vesical. Seguimiento a largo plazo. Best communication. III Congrés Català d'Urologia. Meloneras (Gran Canaria), 14-16 May 2015.
- ▶ Department of Pediatric Urology. Calidad de vida en pacientes varones con extrofia vesical. Best communication. XXVI Reunión Nacional del Grupo de Uropediatria. Salamanca, 12 June 2015.
- ▶ Humberto Villavicencio. Creation of the Premio al Mérito Urológico Dr. Humberto Villavicencio of the Sociedad Boliviana de Urología. Cochabamba (Bolivia), 12 September 2015.
- ▶ Humberto Villavicencio. Medalla Shlomo Raz. Confederación Americana de Urología (CAU). XXXIV Congreso CAU. LXVI Congreso Nacional de Urología. XX Congreso SIUP. Cancún (México), 10-14 November 2015.
- ▶ Lluís Gausa, Alberto Breda. First complete kidney transplant with robotic surgery in Europe. Premi Diario Médico a Las Mejores Ideas. 16 November 2015.
- ▶ C. Gutiérrez, C. Errando-Smet, J.M. López-Martínez, C. Isalt-Lemonche, P. Arañó Bertrán, H. Villavicencio-Mavric. Efficacy and safety of botulinum toxin a bladder injection in the treatment of painful bladder syndrome/ic. Best Poster. III Annual Meeting MIPS. Ljubljana (Slovenia), 10-12 December 2015.

Theses

- ▶ Carlos Errando. Valoración funcional y de la calidad de vida tras implante de cabestrillo reajutable tipo remeex® en incontinencia de orina femenina recidivada o insuficiencia esfinteriana intrínseca. Directors: A. Gelabert, F. Millán, J. Palou. Date of defense: 30 November 2015.

*TIF: 178.9570 **MIF: 4.9710

Scientific Production

Abrate A., Lazzeri M., Lughezzani G., Buffi N., Bini V., Haese A., De La Taille A., McNicholas T., Redorta J.P., Gadda G.M., Lista G., Kinzi-keeva E., Fossati N., Larcher A., Dell'Oglio P., Mistretta F., Freschi M., Guazzoni G., Clinical performance of the Prostate Health Index (PHI) for the prediction of prostate cancer in obese men: Data from the PROMetheuS project, a multicentre European prospective study. (2015) BJU INT, 115 (4), 537-545.

IF: 4.3870

Ahmed K., Khan R., Mottrie A., Lovegrove C., Abaza R., Barret E., Cathelineau X., Challacombe B., Khan M.S., Montorsi F., Palou J., Van Poppel H., Sanchez-Salas, R., Stolzenburg J.U., Volpe A., Wagner C., Wiklund P., Wilson T., Wirth M.P., Witt J., Dasgupta P. Development of a standardised training curriculum for robotic surgery: a consensus statement from an international multidisciplinary group of experts. (2015) BJU INT, 116(1), 93-101.

IF: 4.387

Albers P., Albrecht, W., Algaba F., Bokemeyer C., Cohn-Cedermark G., Fizazi K., Horwich A., Laguna P., Nicolai N., Oldenburg J. Guidelines on testicular cancer: 2015 update. (2015) EUR UROL, 68(6), 1054-1068.

IF: 14.976

Algaba F., Trias I., Mimickers of prostate cancer in needle biopsies. (2015) ANAL QUANT CYTOPATHO, 37 (1), 57-64.

IF: 0.9180

Algaba F., Value of frozen sections in uropathology. (2015) ANAL QUANT CYTOPATHO, 37 (1), 23-28.

IF: 0.9180

Amin M.B., Smith S.C., Reuter V.E., Epstein J.I., Grignon D.J., Hansel D.E., Lin O., Mckenny J.K., Montironi R., Paner G.P., Al-Ahmadie H.A., Algaba F., Ali S., Alvarado-Cabrero I., Bubendorf L., Cheng L., Cheville J.C., Kristiansen G., Cote R.J., Delahunt B., Eble J.N., Genega E.M., Gulmann C., Hartmann A., Langner C., Lopez-Beltran A., Magi-Galluzzi C., Merce J., Netto G.J., Oliva E., Rao P., Ro J.Y., Srigley J.R., Tickoo S.K., Tsuzuki T., Umar S.A., Van Der Kwast T., Young R.H., Soloway M.S., Update for the practicing pathologist: The International Consultation On Urologic Disease-European association of urology consultation on bladder cancer. (2015) MODERN PATHOL, 28 (5), 612-630.

IF: 5.4850

Avila M., Becerra V., Guedea F., Suarez J.F., Fernandez P., Macias V., Marino A., Hervas A., Herruzo I., Ortiz M.J., De Leon J.P., Sancho G., Cunillera O., Pardo Y., Cots F., Ferrer M., Alonso J., Garin O., Pont A., Boladeras A., Ferrer F., Martinez E., Pera J., Ventura M., Aguilo F., Castells M., Villavicencio H., Craven-Bratle J., De Paula B., Guix B., Hernandez H., Munoz V., Ramos A., Prada P.J., Estimating preferences for treatments in patients with localized prostate cancer. (2015) INT J RADIAT ONCOL, 91 (2), 277-287.

IF: 4.4950

Bach T., Muschter R., Herrmann T.R., Knoll T., Scoffone C., Laguna P., Skolarikos A., Rischmann P., Janetschek G., De la Rossette J., Nagele U., Malavaud B., Breda A., Palou J., Bachmann A., Frede T., Geavlete P., Liatsikos E., Stenz I., Brausi M., Rassweiler J.J. Technical solutions to improve the management of non muscle invasive transitional cell carcinoma: summary of a european association of urology section for uro-oncology(esou) expert meeting and current and future perspectives. (2015) BJU INT, 115(1), 14-23.

IF: 4.387

Berney D.M., Algaba F., Amin M., Delahunt B., Comperat E., Epstein J.I., Humphrey P., Idrees M., Lopez-Beltran A., Magi-Galluzzi C., Mikuz G., Montironi R., Oliva E., Srigley J., Reuter V.E., Trpkov K., Ulbright T.M., Varma M., Verrill C., Young R.H., Zhou M., Egevad L., Handling and reporting of orchidectomy specimens with testicular cancer: Areas of consensus and variation among 25 experts and 225 European pathologists. (2015) HISTOPATHOLOGY, 67 (3), 313-324.

IF: 3.4250

Bonfill X., Martinez-Zapata M.J., Vernooij R.W., Sanchez M.J., Suarez-Varela M.M., De la Cruz J., Emparanza J.I., Ferrer M., Pijoan J.I., Ramos-Goni J.M., Palou J., Schmidt S., Abraira V., Zamora J., Clinical intervals and diagnostic characteristics in a cohort of prostate cancer patients in Spain: A multi-

Urology

*TIF: 178.9570 **MIF: 4.9710

centre observational study. (2015) BMC UROL, 15 (1).

IF: 1.6060

Breda A., Lucarelli G., Rodriguez-Faba O., Guirado LL., Facundo C., Bettocchi C., Gesualdo L., Castellano G., Grandaliano G., Battaglia M., Palou J., Ditunno P., Villavicencio H. Clinical and pathological outcomes of renal cell carcinoma(rcc) in native kidneys of patients with end-stage renal disease: a long-term comparative retrospective study with rcc diagnosed in the general population. (2015) WORLD J UROL, 33(1), 1-7.

IF: 2.3970

Breda A., Schwartzmann I., Emiliani E., Rodriguez-Faba O., Gausa L., Caffaratti J., de Leon X.P., Villavicencio H. Mini-laparoscopic live donor nephrectomy with the use of 3-mm instruments and laparoscope. (2015) WORLD J UROL, 33 (5), 707-712.

IF: 2.3970

Bujons A., Saldana L., Caffaratti J., Garat J.M., Angerri O., Villavicencio H. Can endoscopic balloon dilation for primary obstructive megareter be effective in a long-term follow-up. (2015) J PEDIATR UROL, 11 (1), 37.e1-37.e6.

IF: 1.1700

Cozar J.M., Minana B., Palou-Redorta J., Medina R.A., De La Rosa-Kehrmann F., Lozano-Palacio F., Ribal-Caparros M.J., Hernandez-Fernandez C., Castineiras-Fernandez J.J., Requena M.J., Moreno-Sierra J., Carballido-Rodriguez J., Baena-Gonzalez V. Análisis comparativo de la incidencia de cáncer de vejiga en las comunidades de Andalucía, Cataluña y Comunidad de Madrid en el año 2011. (2015) ACTAS UROL ESP, 39 (7), 420-428.

IF: 0.9640

Emiliani E., Herrmann T.R.W., Breda A., Thulium laser for the treatment of upper urinary tract carcinoma (UTUC)? Are we there, yet. (2015) WORLD J UROL.

IF: 2.3970

Emiliani E., Breda A., Laser endoureterotomy and endopyelotomy: an update. (2015) WORLD J UROL, 33 (4), 583-587.

IF: 2.3970

Fossati N., Lazzeri M., Haese A., McNicholas T., De La Taille A., Buffi N.M., Lughezzani G., Gadda G.M., Lista G., Larcher A., Abrate A., Mistretta F., Bini V., Redorta J.P., Graefen M., Guazzoni G. Clinical performance of serum isoform [-2]proPSA (p2PSA), and its derivatives %p2PSA and the Prostate Health Index, in men aged <60 years: Results from a multicentric European study. (2015) BJU INT, 115 (6), 913-920.

IF: 4.3870

Fossati N., Buffi N.M., Haese A., Stephan C., Larcher A., McNicholas T., De La Taille A.,

Freschi M., Lughezzani G., Abrate A., Bini V., Redorta J.P., Graefen M., Guazzoni G., Lazzeri M., Preoperative prostate-specific antigen isoform p2PSA and its derivatives, %p2PSA and prostate health index, predict pathologic outcomes in patients undergoing radical prostatectomy for prostate cancer: Results from a multicentric european prospective study. (2015) EUR UROL, 68 (1), 132-138.

IF: 14.9760

Gaya J.M., Palou J., Rosales A., Maroto P., Sullivan I., Villavicencio H., Is there a limit for the laparoscopic approach of a retroperitoneal residual mass postchemotherapy. (2015) ACTAS UROL ESP.

IF: 0.9640

Gaya J.M., Lopez-Martinez J.M., Karni-Schmidt O., Bonal D.M., Algaba F., Palou J., Villavicencio H., Benson M.C., Cordon-Cardo C., Castillo-Martin M., Δnp63 expression is a protective factor of progression in clinical high grade T1 bladder cancer. (2015) J UROLOGY, 193 (4), 1144-1150.

IF: 4.7000

Gaya J.M., Palou J., Pena J.A., Rosales A., Maroto P., Sullivan I., Villavicencio H., Is there a limit for the laparoscopic approach of a retroperitoneal residual masspostchemotherapy. (2015) ACTAS UROL ESP, 39 (4), 264-267.

IF: 0.9640

Gaya J.M., Palou J., Palazzetti A., Novoa R., Fernandez M., Gausa L., Pena J.A., Villavicencio H., Endoscopic bladder neck incision as first step in radical prostatectomy: An aid for patients previously treated for bladder outlet obstruction. (2015) ARCH ESP UROL, 68 (7), 587-594.

IF: 0.3070

Hernandez D., Palou J., Sancho G., Salas D., Gimenez D., Buitrago P., Esquena S., de la Torre P., Pernas J., Gich I., de Segura G.G., Craven-Bartle J., Pelvic MRI findings in relapsed prostate cancer after radical prostatectomy. (2015) RADIAT ONCOL, 10 (1).

IF: 2.4660

Martinez-Piñero L., Portillo J.A., Fernandez J.M., Zabala J.A., Cadierno I., Moyano J.L., Solsona E., Unda M., Beardo P., Rodriguez-Molina J., Chantada V., Palou J., Muntañola P., Alonso J.M., Perez-Garcia F.J., Silva J.M., Chesa N., Montesinos M., Ojea A., Madero R., Martínez-Piñero J.A. Maintenance therapy with 3-monthly bacillus calmette-guerin for 3 years is not superior to standard induction therapy in high-risk non-muscle-invasive urothelial bladder carcinoma: final results of randomised cueto study 98013. (2015) EUR UROL, 68(2), 256-262.

IF: 14.976

Millan-Rodriguez F., Gavrilo P., Gracia-Garcia S., Angerri-Feu O., Sanchez-Martin F.M., Villavicencio-Mavrich H., Implications of vitamin D deficiency in lithiasic patient and in general population. (2015) ACTAS UROL ESP, 39 (4), 245-252.

IF: 0.9640

Nguyen H.G., Tilki D., Dall'Era M.A., Durbin-Johnson B., Carballido J.A., Chandrasekar T., Chromecki T., Ciancio G., Daneshmand S., Gontero P., Gonzalez J., Haferkamp A., Hohenfellner M., Huang W.C., Espinos E.L., Mandel P., Martinez-Salamanca J.I., Master V.A., McKiernan J.M., Montorsi F., Novara G., Pahrenik S., Palou J., Pruthi R.S., Rodriguez-Faba O., Russo P., Scherr D.S., Shariat S.F., Spahn M., Terrone C., Vergo D., Wallen E.M., Xylinas E., Zigeuner R., Libertino J.A., Evans C.P., Cardiopulmonary Bypass has No Significant Impact on Survival in Patients Undergoing Nephrectomy and Level III-IV Inferior Vena Cava Thrombectomy: Multi-Institutional Analysis. (2015) J UROLOGY.

IF: 4.7000

Palou J., Rodriguez O., Gaya J.M., Urothelial Carcinoma In Situ: Concerns About Daily Practice. (2015) EUR UROL.

IF: 14.9760

Palou J., Rodriguez O., Gaya J.M., Urothelial carcinoma in situ: Concerns about daily practice. (2015) EUR UROL, 67 (5), 889-890.

IF: 14.9760

Palou J., Hernandez C., Solsona E., Abascal R., Burgos J.P., Rioja C., Cabrera J.A., Gutierrez C., Rodriguez O., Iborra I., Herranz F., Abascal J.M., Conde G., Oliva J., Effectiveness of hexaminolevulinat fluorescence cystoscopy for the diagnosis of non-muscle-invasive bladder cancer in daily clinical practice: A Spanish multicentre observational study. (2015) BJU INT, 116 (1), 37-43.

IF: 4.3870

Palou-Redorta J., Solsona E., Angulo J., Fernandez J.M., Madero R., Unda M., Martinez-Pineiro J.A., Portillo J., Chantada V., Moyano J.L., Retrospective study of various conservative treatment options with bacille Calmette-Guérin in bladder urothelial carcinoma T1G3: Maintenance therapy. (2015) ACTAS UROL ESP.

IF: 0.9640

Rodriguez Faba O., Breda A., Gausa L., Palou J., Villavicencio H., De novo urologic tumors in kidney transplant patients. (2015) ACTAS UROL ESP, 39 (2), 122-127.

IF: 0.9640

Rodriguez Faba O., Comment to "residency in urology and training in Kidney transplantation. Result of a national survey". (2015) ACTAS UROL ESP, 39 (5), 310-.

IF: 0.9640

*TIF: 178.9570 **MIF: 4.9710

Scientific Production

Rodriguez-Faba O., Palou J., Rosales A., De La Torre P., Marti J., Palazzetti A., Villavicencio H., Prospective study of ultrasound-guided percutaneous renal cryotherapy: Case selection as an optimization factor for a technique. (2015) ACTAS UROL ESP, 39 (1), 8-12.

IF: 0.9640

Roupret M., Babjuk M., Comperat E., Zigeuner R., Sylvester R.J., Burger M., Cowan N.C., Bohle A., Van Rhijn B.W.G., Kaasinen E., Palou J., Shariat S.F., European association of urology guidelines on upper urinary tract urothelial cell carcinoma: 2015 update. (2015) EUR UROL, 68 (5), 868-879.

IF: 14.9760

Sanchez-Martin F.M., Millan Rodriguez F., In reference to paper «Prevalence of renal stones in andalusian population: Results of PreLiRenA study». (2015) ACTAS UROL ESP.

IF: 0.9640

Tilki D., Hu B., Nguyen H.G., Dall'Era M.A., Bertini R., Carballido J.A., Chandrasekar T., Chromecki T., Ciancio G., Daneshmand S., Gontero P., Gonzalez J., Haferkamp A., Hohenfellner M., Huang W.C., Koppie T.M., Lin-

ares E., Lorentz C.A., Mandel P., Martinez-Salamanca J.I., Master V.A., Matloob R., McKiernan J.M., Mlynarczyk C.M., Montorsi F., Novara G., Pahernik S., Palou J., Pruthi R.S., Ramaswamy K., Rodriguez Faba O., Russo P., Shariat S.F., Spahn M., Terrone C., Thieu W., Vergho D., Wallen E.M., Xylinas E., Zigeuner R., Libertino J.A., Evans C.P., Impact of synchronous metastasis distribution on cancer specific survival in renal cell carcinoma after radical nephrectomy with tumor thrombectomy. (2015) J UROLOGY, 193 (2), 436-442.

IF: 4.7000

Yuh B., Wilson T., Bochner B.H., Chan K., Palou J., Stenz L., Montorsi F., Thalmann G., Guru K.A., Catto J., Wiklund P., Novara G. Systematic review and cumulative analysis of oncologic and functional outcomes after robot-assisted radical cystectomy. (2015) EUR UROL, 67(3), 402-422.

IF: 14.976

Other Publications

► Fernandez Ibieta M., Bujons A., Caffaratti J., Ayuso I., Villavicencio H. La larga marcha de los traumatismos uretrales. (2015) AN PEDIATR (BARC), 82(3), 192-193.

► Ricciardulli S., Ding Q., Zhang X., Li H., Tang Y., Yang G., Wang X.M.A., Breda A., Celia A. Evaluation of laparoscopic vs robotic partial nephrectomy using the margin, ischemia and complications score system: a retrospective single center analysis. (2015) ARCH ITAL UROL ANDROL, 87(1), 49-55.

► Fernandez Ibieta M., Bujons A., Caffaratti J., Alberola J., Bonnin D., Jimenez R., Villavicencio H. Litotricia extracorporea en pacientes pediátricos. (2015) CIR PEDIATR, 28(2), 59-66.

► Mostafid H., Palou J., Sylvester R., Witjes A. Therapeutic options in high-risk non-muscle-invasive bladder cancer during the current worldwide shortage of bacille calmette-guerin. (2015) EUR UROL, 67(3), 359-360.

► Wilson T, Guru K.A., Rosen R.C., Wiklund P., Annerstedt M., Bochner B.H., Chan K., Montorsi F., Mottrie A., Murphy D., Novara G., Peabody J., Palou J., Skinner E.C., Thalmann G., Stenz I., Yuh B.,

Catto J. Best practices in robot-assisted radical cystectomy and urinary reconstruction: recommendations of the pasadena consensus panel. (2015) EUR UROL, 67(3), 363-375.

► Orsola A., Palou J., Solsona E. High-risk nonmuscle invasive bladder cancer. (2015) HEMATOL ONCOL CLIN NORTH AM, 29(2), 227-236.

► Palou J. Chemo -and radiotherapy- induced urinary side effects: the role of glycosaminoglycans. (2015) UROLOGIA, 82(S3), S1.

► Ricciardulli S., Ding Q., Xu Z., Xin M, Hongzhao L., del Biondo D., Zeccolini G., Breda A., Celia A. Use of UCSF-CAPRA score as a predictor of positive surgical margins after robotassisted radical prostatectomy. (2015) UROLOGIA, 82(3), 168-173.

Radiation Oncology

Coordinator

Craven-Bartle Lamote
de Grignon, Jordi
jcraven@santapu.cat

FGS

Members

Balart Serra, Josep
Benítez Rodríguez,
José Fernando

FGS

FGS



Main Lines of Research

Research is partially conducted on the premises of the Translational Research Laboratory of the Catalan Oncology Institute (ICO)-Bellvitge Biomedical Research Institute (IDIBELL) under a framework agreement between the HSCSP and the ICO.

Modulation of Radiosensitivity

- ▶ Modulation of radiosensitivity by SRC protein inhibitors in combination with anti-EGFR.
- ▶ Modulation of radiosensitivity by HMG-CoA reductase inhibitors in combination with anti-EGFR.

SBRT for Patients with Lung Cancer and with Oligometastases

- ▶ Stereotactic body radiotherapy techniques in radical treatment of patients with early-stage non-surgical lung cancer and selected patients with non-surgical oligometastases.

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.

Challenges

- ▶ Establish relatively radioresistant cell lines compared with the parental cells from which they derive (by clonal selection).
- ▶ Determine the resistant phenotype in cultures and xenografts.
- ▶ Determine molecular radioresistance.
- ▶ Evaluate the effect on carcinomas of SRC and HMG-CoA reductase inhibitors in combination with anti-EGFR.
- ▶ Explore signal transduction changes in the EGFR-MAPK pathway and SRC-EGFR/SRC-STAT3 cooperation induced by SRC and HMG-CoA reductase inhibitors.

*TIF: 22.1550**MIF: 3.6925

Avila M., Becerra V., Guedea F., Suarez J.F., Fernandez P., Macias V., Marino A., Hervas A., Herruzo I., Ortiz M.J., De Leon J.P., Sancho G., Cunillera O., Pardo Y., Cots F., Ferrer M., Alonso J., Garin O., Pont A., Boladeras A., Ferrer F., Martinez E., Pera J., Ventura M., Aguilo F., Castells M., Villavicencio H., Craven-Bratle J., De Paula B., Guix B., Hernandez H., Munoz V., Ramos A., Prada P.J., Estimating preferences for treatments in patients with localized prostate cancer. (2015) *INT J RADIAT ONCOL*, 91 (2), 277-287.

IF: 4.4950

Camacho M., Pineiro Z., Alcolea S., Garcia J., Balart J., Terra X., Aviles-Jurado F.-X., Soler M., Quer M., Leon X., Vila L., Prostacyclin-synthase expression in head and neck carcinoma patients and its prognostic value in the response to radiotherapy. (2015) *J PATHOL*, 235 (1), 125-135.

IF: 7.3810

Henriquez-Hernandez L.A., Valenciano A., Foro-Arnalot P., Alvarez-Cubero M.J., Cozar J.M., Suarez-Novo J.F., Castells-Esteve M.,

Fernandez-Gonzalo P., De-Paula-Carranza B., Ferrer M., Guedea F., Sancho-Pardo G., Craven-Bartle J., Ortiz-Gordillo M.J., Cabrera-Roldan P., Rodriguez-Melcon J.I., Herrera-Ramos E., Rodriguez-Gallego C., Lara P.C., Genetic variations in genes involved in testosterone metabolism are associated with prostate cancer progression: A Spanish multicenter study. (2015) *UROL ONCOL-SEMIN ORI*, 33 (7), 331.e1-331.e7.

IF: 2.9210

Henriquez-Hernandez L.A., Valenciano A., Foro-Arnalot P., Alvarez-Cubero M.J., Cozar J.M., Suarez-Novo J.F., Castells-Esteve M., Fernandez-Gonzalo P., De-Paula-Carranza B., Ferrer M., Guedea F., Sancho-Pardo G., Craven-Bartle J., Ortiz-Gordillo M.J., Cabrera-Roldan P., Herrera-Ramos E., Rodriguez-Gallego C., Lara P.C., Intraethnic variation in steroid-5-alpha-reductase polymorphisms in prostate cancer patients: a potential factor implicated in 5-alpha-reductase inhibitor treatment. (2015) *J GENET*, 94 (2), 335-341.

IF: 1.1080

Hernandez D., Palou J., Sancho G., Salas D., Gimenez D., Buitrago P., Esquena S., de la Torre P., Pernas J., Gich I., de Segura G.G., Craven-Bartle J., Pelvic MRI findings in relapsed prostate cancer after radical prostatectomy. (2015) *RADIAT ONCOL*, 10 (1).

IF: 2.4660

Sebio A., Barnadas A., Salazar J., Paez D., Berenguer-Llgero A., Del Rio E., Tobena M., Martin-Richard M., Sullivan I., Targarona E., Balart J., Baiget M., EGFR ligands and DNA repair genes: Genomic predictors of complete response after capecitabine-based chemoradiotherapy in locally advanced rectal cancer. (2015) *PHARMACOGENOMICS J*, 15 (1), 77-83.

IF: 3.7840

Locomotor System Research

Coordinator

Crusi Sererols, Xavier FGS
xcrusi@santpau.cat

Members

Aguilera Roig, Xavier FGS
 Bascuñana Ambrós, Helena FGS
 Calvo Oyon, Rafael FGS
 Celaya Ibáñez, Fernando FGS
 De Caso Rodríguez, Julio FGS
 Gelber Ghertner, Pablo Eduardo FGS
 González Lucena, Gemma Maria FGS
 González Rodríguez, José Carlos FGS
 Gracia Alegria, Isidre FGS
 Ibáñez Aparicio, Natàlia Maria FGS
 Lamas Gómez, Clàudia Maria FGS
 Monllau García, Joan Carles FGS
 Nadal Castells, Maria Josefa FGS
 Peiró Ibáñez, Ana FGS
 Proubasta Renart, Ignacio FGS
 Soria Villegas, Laura FGS
 Torrades Solé, Maria Teresa 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 peritrochanteric hip fractures.

Cartilage

- ▶ Regeneration of cartilage defects using tissue engineering and a matrix seeded with characterized allogeneic chondrocytes.

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.

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.

Theses

- ▶ Mireia Rodríguez Prieto. Eficacia del bloqueo ecoguiado de nervios periféricos en el control del dolor postoperatorio en cirugía ambulatoria de rizartrosis. Director: Xavier Rius Cornadó, Claudia Mariana Lamas Gómez, Albert Garcia Muret. Date of defense: 30 April 2015.
- ▶ Jordi Álvarez San Nicolás. Cirugía de salvamento de extremidad en sarcoma de Ewing: supervivencia, complicaciones y factores

de riesgo. Director: Claudia Mariana Lamas Gómez. Date of defense: 13 July 2015.

- ▶ Francisco Javier Aguilera Roig. Ácido tranexámico en cirugía protésica de rodilla. Universitat Autònoma de Barcelona. Director: Claudia Mariana Lamas Gómez. Date of defense: 12 November 2015.

*TIF: 13.4990 **MIF: 2.2498

Aguilera X., Martinez-Zapata M.J., Hinarejos P., Jordan M., Leal J., Gonzalez J.C., Monllau J.C., Celaya F., Rodriguez-Arias A., Fernandez J.A., Pelfort X., Puig-Verdie L., Topical and intravenous tranexamic acid reduce blood loss compared to routine hemostasis in total knee arthroplasty: a multicenter, randomized, controlled trial. (2015) ARCH ORTHOP TRAUM SU, 135 (7), 1017-1025.

IF: 1.4960

Castellvi I., Simeon-Aznar C.P., Sarmiento M., Fortuna A., Mayos M., Geli C., Diaz-Torne C., Moya P., De Llobet J.M., Casademont J., Association between nailfold capillaroscopy findings and pulmonary function tests in patients with with systemic sclerosis. (2015) J RHEUMATOL, 42 (2), 222-227.

IF: 3.2360

Gelber P.E., Petrica A.M., Isart A., Mari-Molina R., Monllau J.C., The magnetic resonance aspect of a polyurethane meniscal scaffold is worse in advanced cartilage defects without deterioration of clinical outcomes after a minimum two-year follow-up. (2015) KNEE, 22 (5), 389-394.

IF: 1.4460

Gomez C.L., Renart I.P., Perez M.L., Relationship between wrist motion and capitulum reduction in four-corner arthrodesis. (2015) ORTHOPEDICS, 38 (11), e1040-e1045.

IF: 1.1270

Monllau J.C., Masferrer-Pino A., Ginovart G., Perez-Prieto D., Gelber P.E., Sanchis-Alfonso V., Clinical and radiological outcomes after a quasi-anatomical reconstruction of medial patellofemoral ligament with gracilis ten-

don autograft. (2015) KNEE SURG SPORT TR A, 1-7.

IF: 3.0970

Perez-Prieto D., Capurro B., Gelber P.E., Ginovart G., Reina F., Sanchis-Alfonso V., Monllau J.C., The anatomy and isometry of a quasi-anatomical reconstruction of the medial patellofemoral ligament. (2015) KNEE SURG SPORT TR A, 1-4.

IF: 3.0970

Multiple Sclerosis and Epilepsy Research

Coordinator

Escartín Siquier,
Antonio Eduardo FGS
aescartin@santpau.cat

Members

Figuroa Bonaparte,
Sebastian Ariel IR
López Góngora, Mariana IR
Navas Madroñal, Miquel IR
Querol Gutiérrez,
Luis Antonio FGS
Simon-Talero Horga, Manuel IR
Vidal Fernández, María Núria IR



Main Lines of Research

- ▶ Neuropsychological impairment in patients with multiple sclerosis.
- ▶ Pharmacogenetics in epilepsy.
- ▶ Neuropsychological impairment in juvenile myoclonic epilepsy.
- ▶ Basic research line.

Challenges

- ▶ Study cognitive evoked potentials in early detection of cognitive impairment in patients with radiologically isolated syndrome, clinically isolated syndrome and newly diagnosed multiple sclerosis.
- ▶ Study the effects of immunomodulatory and immunosuppressive treatments on the cognitive functions of patients with multiple sclerosis.
- ▶ Determine pharmacogenetic variations involving different responses to antiepileptic treatment.
- ▶ Study neuropsychological alterations in patients diagnosed with juvenile myoclonic epilepsy.

*TIF: 32.0030 **MIF: 2.9094

Aracil-Bolanos I., Prats-Sanchez L., Gomez-Anson B., Querol-Gutierrez L., Nunez-Marin F., Marti-Fabregas J., Balo concentric sclerosis: A presentation mimicking ischaemic stroke. (2015) NEUROLOGIA.

IF: 1.7900

Camps-Renom P., Delgado-Mederos R., Martinez-Domeno A., Prats-Sanchez L., Cortes-Vicente E., Simon-Talero M., Arboix A., Ois A., Purroy F., Marti-Fabregas J., Clinical characteristics and outcome of the capsular warning syndrome: A multicenter study. (2015) INT J STROKE, 10 (4), 571-575.

IF: 3.0440

Carmona-Iragui M., Fernandez-Arcos A., Alcolea D., Piazza F., Morenas-Rodriguez E., Anton-Aguirre S., Sala I., Clarimon J., Dols-Icardo O., Camacho V., Sampedro F., Munuera J., Nunez-Marin F., Lleo A., Fortea J., Gomez-Anson B., Blesa R., Cerebrospinal Fluid Anti-Amyloid-Beta; Autoantibodies and Amyloid PET in Cerebral Amyloid Angiopathy-Related Inflammation. (2015) J ALZHEIMERS DIS, 50 (1), 1-7.

IF: 3.9200

Huijbers M.G., Querol L.A., Niks E.H., Plomp J.J., van der Maarel S.M., Graus F., Dalmau J., Illa I., Verschuuren J.J., The expanding field of IgG4-mediated neurological autoimmune disorders. (2015) EUR J NEUROL, 22 (8), 1151-1161.

IF: 3.9560

Lopez-Gongora M., Querol L., Escartin A., A one-year follow-up study of the Symbol Digit Modalities Test (SDMT) and the Paced

Auditory Serial Addition Test (PASAT) in relapsing-remitting multiple sclerosis: An appraisal of comparative longitudinal sensitivity. (2015) BMC NEUROL, 15 (1).

IF: 1.9610

Lopez-Gongora M., Escartin A., Martinez-Horta S., Fernandez-Bobadilla R., Querol L., Romero S., Mananas M.A., Riba J., Neurophysiological evidence of compensatory brain mechanisms in early-stage multiple sclerosis. (2015) PLOS ONE, 10 (8).

IF: 3.0570

Marti-Fabregas J., Delgado-Mederos R., Crespo J., Pena E., Marin R., Jimenez-Xarrie E., Fernandez-Arcos A., Perez-Perez J., Martinez-Domeno A., Camps-Renom P., Prats-Sanchez L., Casoni F., Badimon L., Circulating endothelial progenitor cells and the risk of vascular events after ischemic stroke. (2015) PLOS ONE, 10 (4).

IF: 3.0570

Osuna M.T., Querol L., Olivas-Chacon C.I., Lejarreta-Andres S., Robert J., Ailouti-Caballero N., Ramos-Duran L., Diaz-Manera J., Belvis R., Toxic demyelinating neuropathy and leukoencephalopathy in patients who take the slimming products Thermatrim[®] and Pura Alegria[®]. (2015) REV NEUROLOGIA, 61 (11), 527-528.

IF: 0.6840

Querol L., Illa I., Paranodal and other autoantibodies in chronic inflammatory neuropathies. (2015) CURR OPIN NEUROL, 28 (5), 474-479.

IF: 4.4690

Ramos-Fransi A., Rojas-Garcia R., Segovia S., Marquez-Infante C., Pardo J., Coll-Canti J., Jerico I., Illa I., Alberti Aguiló M.A., Bataller Alberola L., Berciano Blanco J., Casasnovas Pons C., Diaz-Manera J., Fernandez Torron M.R., Garcia Sobrino T., Gomez Caravaca M.T., Guerrero Sola A., Gutierrez Gutierrez G., Lopez de Munain Arregui A., Martinez Pineiro A., Mendoza Grimon M.D., Munoz Blanco J.L., Pelayo Negro A.L., Querol L., Sevilla Mantecon T., Myasthenia gravis: Descriptive analysis of life-threatening events in a recent nationwide registry. (2015) EUR J NEUROL, 22 (7), 1056-1061.

IF: 3.9560

Zadeh W.W., Escartin A., Byrnes W., Tennigkeit F., Borghs S., Li T., Dedeken P., De Backer M., Efficacy and safety of lacosamide as first add-on or later adjunctive treatment for uncontrolled partial-onset seizures: A multicentre open-label trial. (2015) SEIZURE-EUR J EPILEP, 31, 72-79.

IF: 2.1090

Pain and Neurosciences

Coordinator

Català Puigbò, Elena
ecatala@santpau.cat

FGS

Members

Castillo Pérez, Carmen
Díaz Jover, Rubén
Ferrándiz Mach, Marta
Genové Cortada, Mercè
Melo Cruz, Martha
Moral Garcia, M. Victoria
Parera Ruiz, Ana
Revuelta Rizo, Miren
Rius Llorens, Carme
Santeularia Vergès, M. Teresa
Serrano Alienza, Isabel



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 different approach on the effectiveness of the radicular pain due to herniated lumbar disc.
- ▶ Profile in terms of demographics, comorbidities, kind of pain, physical and mental status and disability of patient.
- ▶ Look for a local and non pharmacological treatment for elderly patients with pain.

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 relieve 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 recommended opioid dose to start a treatment and how to remove them.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Psychiatry
- ▶ Anesthesiology
- ▶ Neurosurgery
- ▶ Neuroradiology

Theses

- ▶ M. Mercè Genové Cortada. Impacte de les alteracions cerebrals en la percepció del dolor per herpes zòster i neuràlgia postherpètica. Universitat Autònoma de Barcelona. Directors: Xavier Rius Cornadó, Elena Català Puigbò, Maria J. Portella Moll. Date of defense: 8 October 2015.
- ▶ Miren Revuelta Rizo. Efectividad de la respuesta al tratamiento intervencionista en la Unidad del Dolor sobre la radiculargia secundaria a hernia discal. Directores: Xavier León Vintró, Elena Català Puigbò. Date of defense: December 2015.

TIF: 3.827 **MIF: 3.827*Scientific
Production**

Montes A, Roca G, Sabate S, Lao JI, Navarro A, Cantillo J, Canet J; GENDOLCAT Study Group. Genetic and Clinical Factors Associated with Chronic Postsurgical Pain after Hernia Repair, Hysterectomy, and Thoracotomy: A Two-year Multicenter Cohort Study. (2015) ANESTHESIOLOGY, 122, 1123-41.
IF: 3.827

**Other
Publications**

- ▶ Melo M.C., Revuelta M.E., Santeularia T., Genové M., Català E. Management of transient radicular pain after receiving an epidural blood patch for headaches due to spontaneous intracranial hypotension. (2015) REV ESP ANESTESIOLOG REANIM, 62, 533-5.
- ▶ Català E., Ferrándiz M., Genové M., Revuelta M., Santeularia T., Parera A., Melo M., Diaz R., Rius C. Manual de Tratamiento del dolor. Tercera edición. Editorial Permanyer. 2015.

Nursing Care Research

Coordinator

López Ortega, Laura FGS
llopez@santpau.cat

Members

Berga Congost, Gemma FGS
Cebrià Morales, Maria Queralt FGS
Jover Sancho, Carmen FGS
Ricart Basagaña, Maria Teresa FGS
Robleda Font, Gemma FGS
Sillero Sillero, Amàlia 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 qualitative methods, text analysis and discourse analysis.
- ▶ Patient satisfaction with nursing care.
- ▶ Attention to the family.
- ▶ Pain.

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

External Collaborations

- ▶ Gemma Robleda. Estudio multicéntrico de validez y fiabilidad de la Escala de Conductas Indicadoras de Dolor (ESCID) para medir el dolor en pacientes críticos, no comunicativos y sometidos a ventilación mecánica. Instituto de Investigación Clínica, Hospital Universitario Puerta de Hierro Majadahonda. Madrid. PI11-00766. Duration: 2012-15.

Grants Awarded in 2015

- ▶ Gemma Robleda Font. Evaluación del dolor en personas adultas sin capacidad de comunicación, un análisis bioético en las unidades de hospitalización de pacientes críticos. GRI-FOLS 2015, Fundació Víctor Grífols i Lucas. Duration: 2015-2016. €4,545.46.

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

Awards

- ▶ Gemma Robleda Font, Josep Eladi Baños Díez. Premio de Investigación Fundación Grifols. 2014-2016.

Theses

- ▶ M. Teresa Ricart Basagaña. Proceso de alta de una unidad de cuidados intensivos: medición de la ansiedad y factores relacionados. Universitat Rovira i Virgili. Director: Mar Lleixà Fortuño. Date of defense: November 2015.
- ▶ Gemma Robleda Font. Relevancia clínica del dolor asociado con los procedimientos del paciente crítico. Universitat de Barcelona. Directors: Josep Eladi Baños Díez, Jordi Mancebo Cortés. Date of defense: December 2015.

*TIF: 2.5790 **MIF: 1.2895

Scientific Production

Robleda G., Roche-Campo F., Urrutia G., Navarro M., Sendra M.-A., Castillo A., Rodríguez-Arias A., Juanes-Borrejo E., Gich I., Mancebo J., Banos J.-E., A randomized controlled trial of fentanyl in the pre-emptive treatment of pain associated with turning in patients under mechanical ventilation: RESEARCH protocol. (2015) J ADV NURS, 71 (2), 441-450.
IF: 1.9170

Robleda G., Roche-Campo F., Sanchez V., Gich I., Banos J.-E., Postoperative Discomfort After Abdominal Surgery: An Observational Study. (2015) J PERIANESTH NURS, 30 (4), 272-279.
IF: 0.6620

Reproductive Health

Coordinator

Calaf Alsina, Joaquim FGS
jcalaf@santpau.cat

Members

Adelantado Pérez,
Juan María FGS
Alejos Abad, Obdulia FGS
Armengol Santacreu, Josep FGS
Bordas Serrat,
Josep Ramon F. Puigvert
Espinós Gómez, Juan José FGS
Estadella Tarriel,
Josep Ramon FGS
Guinot Gasull, Misericordia FGS
Medina Mallen,
María del Carmen FGS
Pares Baulenas, Pere F. Puigvert
Parra Roca, Juan FGS
Polo Ramos,
Ana María F. Puigvert
Porta Roda, Josep Oriol FGS
Rams Llop, Noelia FGS
Rovira Negre, Ramon FGS
Saiz Eslava,
María Jesús F. Puigvert
Senosiain Echarte, Raquel FGS
Simó González, Marta FGS
Trilla Sola, Cristina 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.

Challenges

- ▶ Consolidate a line of work with the HSCSP genetics department concerning possible early clinical manifestations detectable using 2D and 4D ultrasound in foetuses affected by genetic diseases, particularly neuromuscular disorders, given that the HSCSP 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.

Active Grants

- ▶ Juan José Espinós Gómez. Impacto de la dieta hipocalórica y ejercicio en mujeres con obesidad que se sometan a un ciclo de FIV. PI11/02816. Instituto de Salud Carlos III. Duration: 2012-2016. €42,909.

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

Patents

- ▶ Ramon Rovira. Dispositivo para simular una operación endoscópica vía orificio natural. Application number: P201531796.

*TIF: 13.5210**MIF: 4.5070

Scientific Production

Aulinas A., Colom C., Garcia Patterson A., Ubeda J., Maria M.A., Orellana I., Adelantado J.M., de Leiva A., Corcoy R., Smoking affects the oral glucose tolerance test profile and the relationship between glucose and HbA1c in gestational diabetes mellitus. (2015) DIABETIC MED.

IF: 3.1520

Bitzer J., Heikinheimo O., Nelson A.L., Calaf-Alsina J., Fraser I.S., Medical management of heavy menstrual bleeding: A comprehensive review of the literature. (2015) OBSTET GYNECOL SURV, 70 (2), 115-130.

IF: 1.4350

Simmons D., Jelsma J.G.M., Galjaard S., Devlieger R., Van Assche A., Jans G., Corcoy R., Adelantado J.M., Dunne F., Desoye G., Harreiter J., Kautzky-Willer A., Damm P., Mathiesen E.R., Jensen D.M., Andersen L.L., Lapolla A., Dalfrà M., Bertolotto A., Wender-Ozegowska E., Zawiejska A., Hill D., Rebollo P., Snoek F.J., Van Poppel M.N.M., Results from a European multicenter randomized trial of physical activity and/or healthy eating to reduce the risk of gestational diabetes mellitus: The DALI lifestyle pilot. (2015) DIABETES CARE, 38 (9), 1650-1656.

IF: 8.9340

Translational Molecular Oncology

Coordinator

Parreño Gómez, Matilde IR
mparreno@santpau.cat

Members

Blanco, Maria Laura EGS



Main Lines of Research

- ▶ In vitro and in vivo studies by genetic manipulation of putative biomarkers of prognosis in squamous cell carcinoma (SCC) in tumour progression and as potential therapeutic targets.
- ▶ Preclinical cancer models to study alternative strategy of treatments in leukemia.

Challenges

- ▶ Evaluate survival pathways and epithelial-mesenchymal transition involving the studied genes.
- ▶ Reinforce and encourage translational research in tumour progression through collaboration with internal and external research groups.
- ▶ Improve a mouse model of cancer, based on implantation of human primary tumour.

Collaborations

Collaborations with other IIB Sant Pau Groups

- ▶ Haematological Diagnosis (Josep Nomdedéu):
 - Establishment of "in vivo" model of leukomogenesis.
 - Ajuts de suport als Grups de Recerca de Catalunya. Grup de Diagnòstic Hematològic. AGAUR 2014. 2014-SGR-383. Duration: 2014- 2016. €30,000.
- ▶ Ear, Nose and Throat Cancers (Xavier Leon): studies of HNSCC.

- ▶ Angiology, Vascular Biology and Inflammation (Luis Vila, Mercedes Camacho): studies of HNSCC.

External Collaborations

- ▶ Translational Research Laboratory, Institut Català d'Oncologia (ICO) - IDIBELL (Alberto Villanueva): studies of orthotopic tumor models.
- ▶ Cell signalling and checkpoints, Faculty of Medicine, IDIBAPS (Neus Agell and Montserrat Jaumot).

*TIF: 5.0080 **MIF: 5.0080

Scientific Production

Leon X., Bothe C., Garcia J., Parreno M., Alcolea S., Quer M., Vila L., Camacho M., Expression of IL-1 α correlates with distant metastasis in patients with head and neck squamous cell carcinoma. (2015) ONCOTARGET, 6 (35), 37398-37409.
IF: 5.0080

*Total Impact Factor **Mean Impact Factor

Cardiac Surgery

Coordinator

Padro Fernández,
Josep Maria
jpadro@santpau.cat

FGS

Members

Cuevas Herreros,
Óscar Andrés
Julia, Ignasi
Montiel Serrano, José
Muñoz Guijosa, Christian
Roselló Díez, Elena

FGS

FGS

FGS

FGS

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: electrophysiologic 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.

Challenges

- ▶ Consolidation as a research group in different cardiac surgery-related fields, specific sutureless 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, ICCS-CSIC.
- ▶ 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.
- ▶ Elena Roselló Díez. Follow-up of sutureless aortic valve prosthesis Perceval S. Palex Medical, June 2014-September 2015.

*TIF: 10.0610 **MIF: 5.0305

Scientific Production

Herraiz-Martinez A., Alvarez-Garcia J., Llach A., Molina C.E., Fernandes J., Ferrero-Gregori A., Rodriguez C., Vallmitjana A., Benitez R., Padro J.M., Martinez-Gonzalez J., Cinca J., Hove-Madsen L., Ageing is associated with deterioration of calcium homeostasis in isolated human right atrial myocytes. (2015) CARDIOVASC RES, 106 (1), 76-86.

IF: 5.4650

Vilades Medel D., Munoz Guijosa C., Carreras Costa F., Padro Fernandez J.M., Pons Llado G., Leta Petracca R., Assessment of Radial Artery Graft Patency Through 256-slice Cardiac Computed Tomography, and the Mid-term Prognostic Impact of Graft Occlusion. (2015) REV ESP CARDIOL.

IF: 4.5960

*Total Impact Factor **Mean Impact Factor



Sant Pau
Biomedical Research Institute

Sant Antoni Maria Claret, 167
08025 Barcelona
iib@santpau.cat



Institut de Recerca



© Sant Pau Biomedical Research Institute (IIB Sant Pau), 2016
Hospital de la Santa Creu i Sant Pau
Sant Antoni Maria Claret, 167
08025 Barcelona
Spain

Design
Santi Porta

Coordination and Edition
Corporate Communications and Public Relations Department
Hospital de la Santa Creu i Sant Pau

Photography
Hospital de la Santa Creu i Sant Pau Image bank
Alfonso García
David Cuní
iStockphoto