

# SANT JOAN DE DÉU

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ANNUAL SCIENTIFIC  
**REPORT 2017**

research  
science  
innovation  
commitment

<b>1</b>	<b>FOREWORD</b>		
		1.1. Introduction	4
		1.2. Governing and advisory bodies	5
		1.3. Services and infrastructures	6
<b>2</b>	<b>FUNDACIÓ DE RECERCA SANT JOAN DE DÉU</b>		
		2.1. Global numbers 2017	8
		2.2. Financial resources management	9
		2.3. Publications	9
<b>3</b>	<b>RESEARCH</b>		
		<b>3.1. Institut de Recerca Sant Joan de Déu</b>	<b>11</b>
		Global numbers of area	12
		<b>3.2. Social Research</b>	<b>13</b>
		Research group on nursing, education and society	14
		<b>3.3. General Medicine Research</b>	<b>15</b>
		Clinical and epidemiologic research on high-prevalence disorders	16
		Research and innovation in surgery	17
		Patient safety	18

# 1 Foreword

1.1. Introduction

1.2. Governing and advisory bodies

1.3. Services and infrastructures

## 1.1. Introduction

The Sant Joan de Déu Research Foundation promotes and manages the research conducted at the Saint John of God centres of the Aragon-San Rafael Province.

Part of the research which is carried out under the umbrella of the San Juan de Déu Research Foundation is done at the Institut de Recerca Sant Joan de Déu (IRSJD), which comprises the research groups of the Hospital Sant Joan de Déu, the Parc Sanitari Sant Joan de Déu, the Institut de Neurociències - Universitat de Barcelona, the Institut de Biomedicina - Universitat de Barcelona, and the Centre de Recerca en Enginyeria Biomèdica – Universitat Politècnica de Catalunya.

The Sant Joan de Déu Research Foundation also supports the research conducted outside the framework of the IRSJD. This activity takes place in two different spheres: the Social Area, mainly involving researchers of the Campus Docent Sant Joan de Déu, and the General Medicine Area, formed by research groups of the Parc Sanitari Sant Joan de Déu.

This Report covers all the research activity conducted by the consolidated and emerging research groups over the course of 2017.

The overall figures for 2017 also include complete information on researchers, research projects, publications and clinical trials based at the Sant Joan de Déu centres, whether or not they form part of the aforementioned groups.

## 1.2. Governing and advisory bodies

### Board of trustees

Joaquim Erra Mas	<i>Superior of Hospital Sant Joan de Déu in Esplugues de Llobregat, President</i>
Manuel Del Castillo Rey	<i>General Manager, Hospital Sant Joan de Déu in Esplugues de Llobregat</i>
Enric Mangas Monge	<i>Director, Parc Sanitari Sant Joan de Déu</i>
Amèlia Guilera Roche	<i>Director, Campus Docent Sant Joan de Déu</i>
Natàlia Pérez Neira	<i>Financial Director, Hospital Sant Joan de Déu in Esplugues de Llobregat, Secretary</i>
Montserrat Esquerda Areste	<i>General Director, Institut Borja de Bioètica</i>
Didac Ramírez	<i>Rector, Universitat de Barcelona</i>
Jordi Alberch	<i>Research Vice-Rector, Universitat de Barcelona</i>
Esther Real Saladrigas	<i>Knowledge Transfer Vice-Rector, Universitat Politècnica de Catalunya</i>

### Scientific Advisory Council

Joaquín Arenas Barbero	<i>Instituto de Investigación Sanitaria Hospital 12 de Octubre</i>
Jordi Camí i Morell	<i>Parc Recerca Biomèdica de Barcelona. Fundació Pasqual Maragall. Universitat Pompeu Fabra</i>
Mara Dierssen Soto	<i>Genomic Regulation Centre of Barcelona</i>
Michael B. King	<i>London's Global University. Division of Psychiatry</i>
Romà Pallarès Giner	<i>Deputy Director, General Management of the Biomedical Research Institute of Bellvitge (IDIBELL)</i>
Carlos Rodríguez Galindo	<i>St. Jude Children's Research Hospital</i>
Montserrat Vendrell i Rius	<i>General Director, BIOCAT</i>
Susan Webb	<i>Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau. Universitat Autònoma de Barcelona</i>

### Governing Committee of Sant Joan de Déu Research Foundation

Emili Bargalló Angerri, *director*  
 Josep Maria Haro Abad  
 Jaume Pérez Payarols  
 Clara Goula Mallofrè  
 Roser Arnalte Olloquequi  
 Ana Maria Merino Márquez

### Clinical Research Ethics Committee (CEIC)

Jesús Pineda Sánchez, <i>president</i>	Angel del Campo Escota	Iolanda Jordan Garcia
Pau Ferrer Salvans, <i>secretary</i>	Beatriz del Pino Gaya	Maria Eugènia Rey Abella
Fernando Aguiló Martínez	Rosa Maria Dueñas Herrero	Bernabé Robles del Olmo
Clara Chamorro Pérez	Sabel Gabaldón Fraile	Joan Vinent Genestar
Ofelia Cruz Martínez	Maria Teresa Giner Muñoz	
Ricardo Dasí Aranda	Encarna Gómez Gamboa	

## 1.3. Services and infrastructures

The Sant Joan de Déu Research Foundation makes available to its researchers a set of fundamental services and infrastructures for the performance of their Projects.

In order to facilitate high-level research, the Foundation offers its professionals technical, scientific and support services as well as the most suitable infrastructures required to carry out their work:

### **Scientific Core facilities**

- Clinical Trials Unit
- Sequencing Unit
- Confocal Microscopy Unit
- Animal housing facility
- Biobank
- Methodological and statistical support
- Methodological support in neuroimaging
- Scientific and technical evaluations service
- Library

### **Management support services**

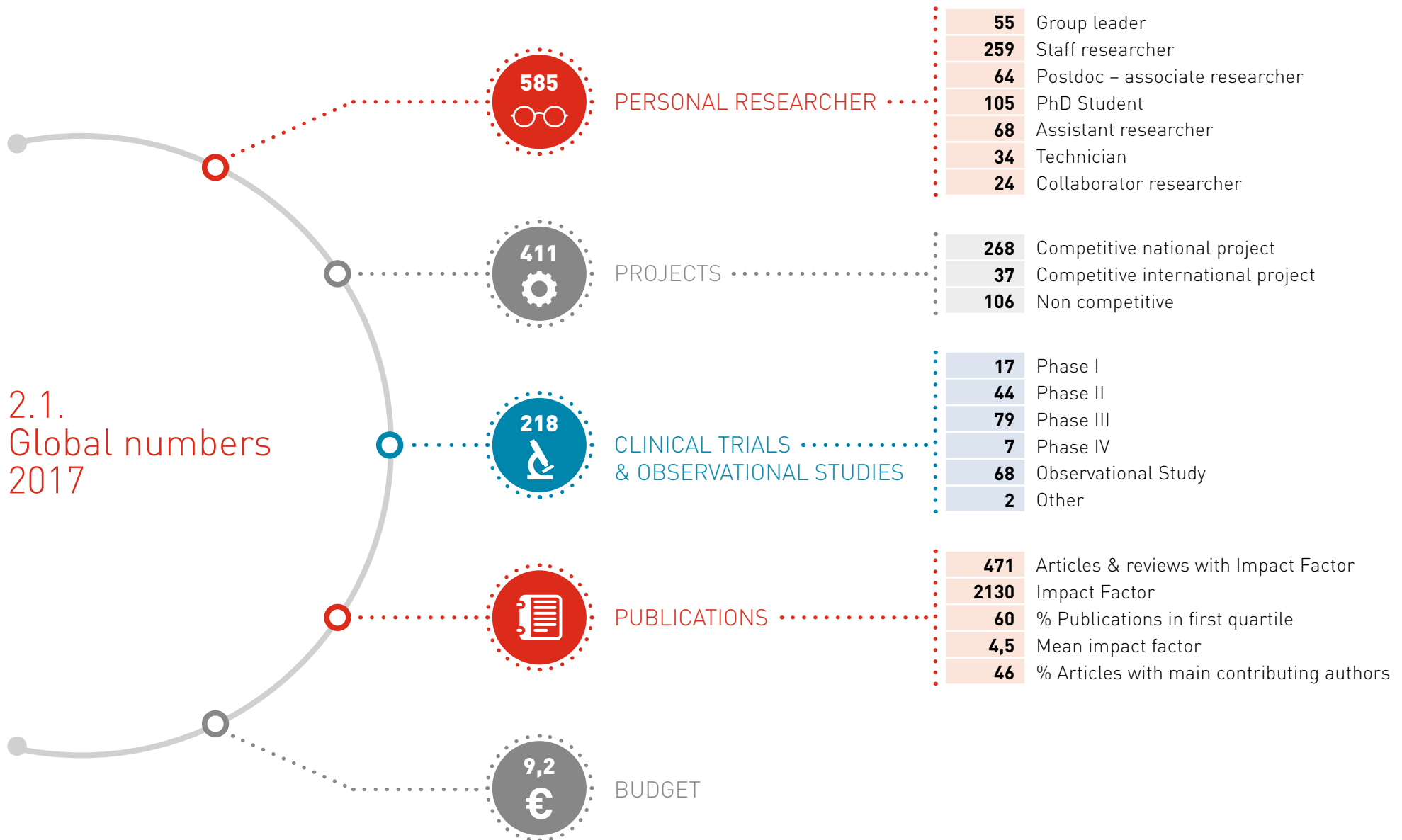
- Administration and human resources
- Clinical Research Ethics Committee
- Research management and Promotion
- Management of knowledge and Communication

## **2** Fundació de Recerca Sant Joan de Déu

2.1. Global numbers 2017

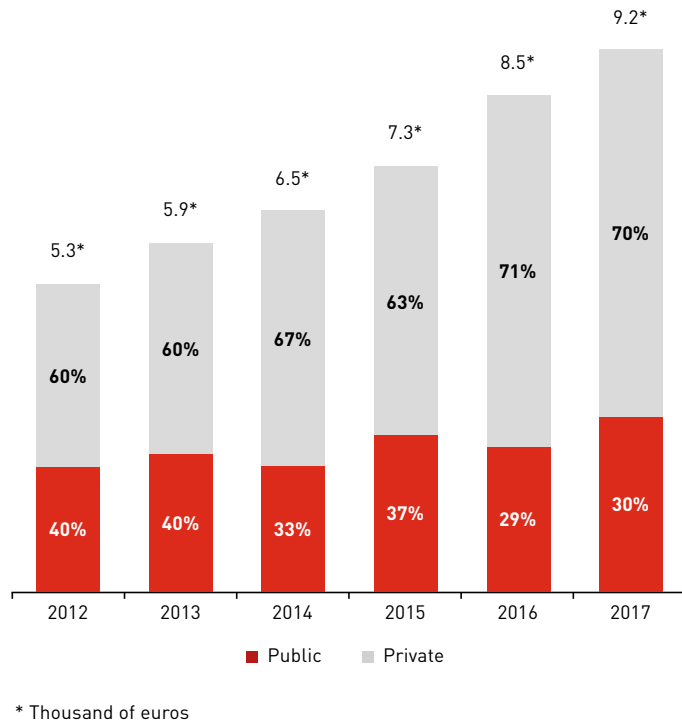
2.2. Financial resources management

2.3. Publications

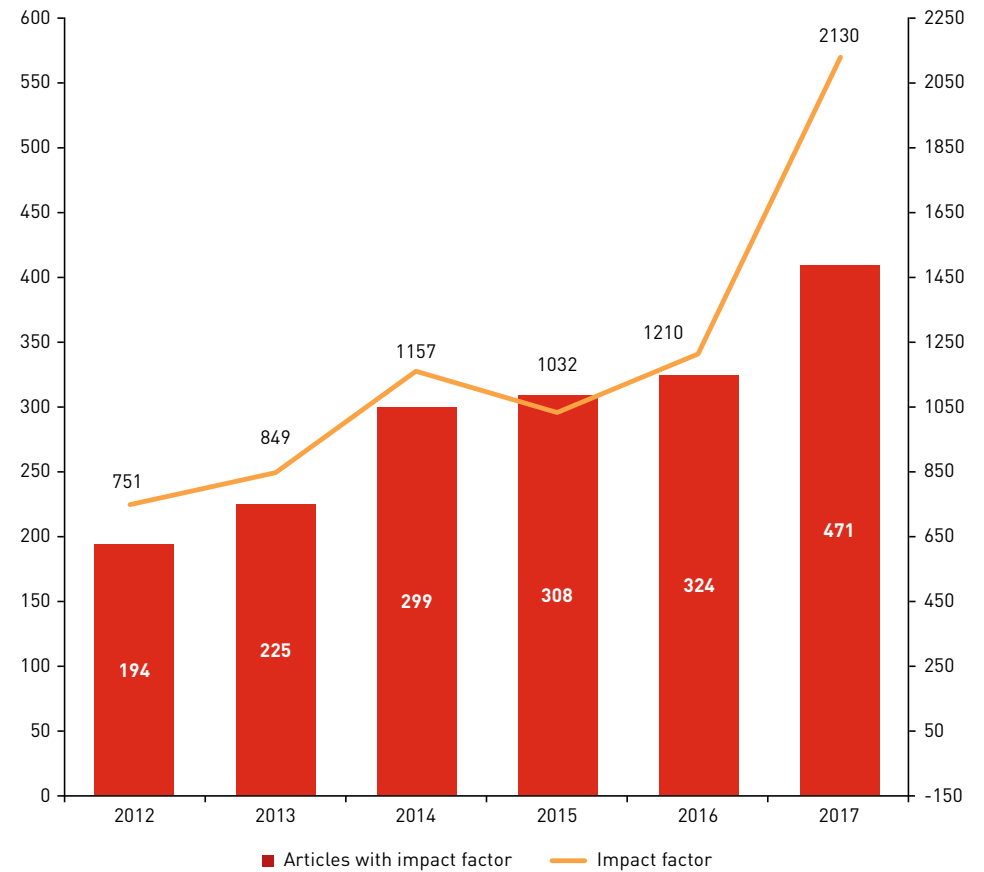




## 2.2. Financial resources management



## 2.3. Publications

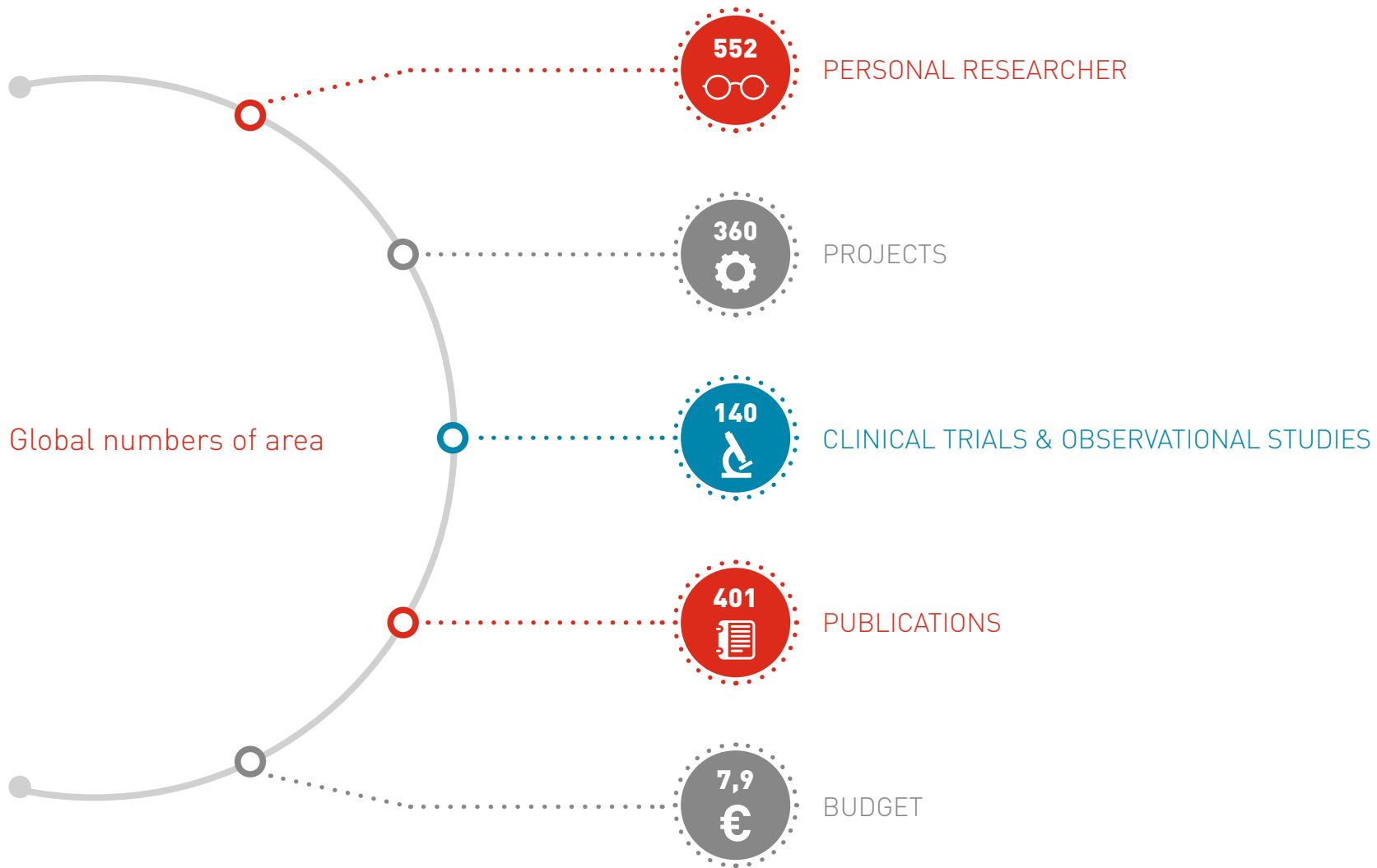


## **3** Research

- 3.1. Institut de Recerca Sant Joan de Déu
- 3.2. Social Research
- 3.3. General Medicine Research



## 3.1. Institut de Recerca Sant Joan de Déu



Information about Paediatric Research Groups and Mental Health Research Groups includes in **Institut de Recerca Sant Joan de Déu's Annual Scientific Report 2017**  
You can consult in IRSJD's website: [http://fsjd.org/ca/mem%C3%B2ries\\_1773](http://fsjd.org/ca/mem%C3%B2ries_1773)



## 3.2. Social Research

## RESEARCH GROUP ON NURSING, EDUCATION AND SOCIETY

Nuria Roca Capara, PhD & Juan Francisco Roldán Merino, PhD

*In the course of 2017 the GIES Research Group has taken part in 18 research projects, acting as principal investigator/s (PI) in six of them. The projects deal with the promotion of health and new technologies; studies addressed to validating measuring instruments; and research on identity and values. It may be noted that members of the GIES group directed 9 doctoral dissertations which were defended in the course of 2017. One of them obtained a European Mention and another was named Best Thesis of the Doctoral Department of Nursing Sciences of the University of Barcelona (UB).*

### Members

#### Staff researcher

Mariona Farrés Tarafa, Amèlia Guilera Roche, Bàrbara Hurtado Pardos, Esther Insa Calderon, David Lorenzo Izquierdo, Laura Martínez Rodríguez, Dolors Miguel Ruiz, Maria José Morera Pomareda, Carlos Nebot Bergua, Anna Ramió Jofre, Olga Rodrigo Pedrosa

### Selected projects

- Promotion of research on nursing in mental health. Campus Docent Sant Joan de Déu- Fundació Privada. PCP00132. PI: Juan Francisco Roldán Merino. 01/09/2014 – 31/12/2018.
- Adaptation into the Spanish language and reliability and validity study of the scoring scale for nursing skills in Creighton Simulation (C-SEI). Col·legi Oficial d'Infermeria de Barcelona. Projectes Recerca. PR-1923-14. PI: Mariona Farrñes Tarrafa. 01/01/2015 – 11/10/2018.
- Implementation of the primary or reference nurse in a paediatric haematology-oncology unit through participative action research. Fundació Infermeria i Societat. Ajudes a la Recerca en Infermeria. PR-008-16. PI: Núria Roca Capara. 01/01/2017 – 31/12/2018.

### Selected publications

- Hurtado B, Casas I, Lluch-Canut T, Moreno-Arroyo C, Nebot C and Roldan-Merino J. Psychometric evaluation of a new instrument in Spanish to measure the wellness of university nursing faculty. ARCH ENVIRON OCCUP H 2017. 73: 29-37. FI: 1,347(Q3).

- Rodrigo O, Cais J and Monforte-Royo C. Transfer of nurse education to universities under a model of person-centred care: A consequence of changes in Spanish society during the democratic transition. NURS EDUC TODAY 2017. 54: 21-27. FI: 2,533(Q1).
- Urpí-Fernández AM, Zabaleta-Del-Olmo E, Montes-Hidalgo J, Tomás-Sábado J, Roldan-Merino J and Lluch-Canut T. Instruments to assess self-care among healthy children: A systematic review of measurement properties. J ADV NURS 2017. 73: 2832-2844. FI: 1,998(Q1).
- Zuriguel-Pérez E, Falcó Pegueroles A, Roldan-Merino J, Agustino-Rodríguez S, Gómez-Martín MD and Lluch-Canut T. Development and Psychometric Properties of the Nursing Critical Thinking in Clinical Practice Questionnaire. Worldviews Evid Based Nurs 2017. 14: 257-264. FI: 2,103(Q1).

### Networks

- REICESMA. Red Española de Investigación en Cuidados de Salud Mental y Adicciones. Asociación Nacional de Enfermería de Salud Mental.
- Xarxa de Recerca d'Infermeria de Salut Mental i Addiccions. Universitat de Barcelona.



12  
PERSONAL  
RESEARCHER



7  
PROJECTS



11  
PUBLICATIONS  
WITH IF



27%  
FIRST QUARTILE  
PUBLICATIONS

### 3.3. General Medicine Research

## CLINICAL AND EPIDEMIOLOGIC RESEARCH ON HIGH-PREVALENCE DISORDERS

Luis Lores Obradors, MD, PhD

*The group is formed by a multidisciplinary team of researchers, all of whom work with high-prevalence diseases. These are disorders with a high morbidity and mortality which represent a steadily growing percentage of all hospitals' activity. The group is formed by specialists with long clinical experience who regularly work with such diseases. The group's common goal is clinical research, seeking to expand clinical knowledge in order to improve and simplify diagnostic and/or therapeutic techniques. It also seeks to increase the epidemiological research conducted in our area to contribute to the acquisition of knowledge on these diseases' incidence, prevalence and risk factors. During this year a specific line focused on ageing that will work in coordination with primary care researchers has been started up, and the Group's consolidated status has been recognised.*

### Members

#### Group leader

Vicens Diaz de Brito

#### Staff researcher

Elisabeth Arellano Marcuello, Nuria Berrocal Izquierdo, Antonio Callen Soto, Anna Capellà Llovera, Alejandra Fernández Trujillo, M<sup>a</sup> Araceli Gonzalez Cuevas, Rosana Hernando Salvador, Jaime Llopis Cañameras, Pablo Marchena Iglesias, Juan Manuel Nicolas Valero, Xoel Pena Perez, M<sup>a</sup> Teresa Pascual Pape, Bernabé Robles del Olmo, Júlían Rodríguez Larrea, César Romero Menor, Elisabet Rovira Prat, Estefania Sánchez Martínez

#### Assistant researchers

Esmaeil Alibakhshi, Edwin Percy Pesantes Sangay

### Selected projects

- Impact of ageing on expression of key genes in mitochondria in the skeletal muscle. Fundació Privada per a la Recerca i la Docència Sant Joan de Déu. PARR1501. PI: Luis Lores Obradors. 2016 - 2017.
- Development of analysis methods for early detection of lung cancer in urine. Continuity proposal. Sociedad Española de Neumología y Cirugía Torácica. Ayudas a proyectos de investigación. Becas SEPAR 2016. PI: Maria Teresa Pascual Pape. 2017 - 2019.

- Development of a computational app suited to the microbial ecosystem of each hospital centre to improve antibiotic prescription. Parc Sanitari de Sant Joan de Déu. Beca PSSJD 2014. PI: V. Diaz de Brito. 2015 - 2018.

### Selected clinical trials & Observational studies

- LTS12551. Fase II. Open label extension study to evaluate the long-term safety and tolerability of dupilumab in patients with asthma who participated in previous dupilumab asthma clinical study. Codi EUDRACT: 2013-003856-19. Promotor: Sanofi-Aventis S.A. PI: Luis Lores Obradors. 2014 -
- PT009003-0. Fase III. A Randomized, Double-Blind, Parallel Group, Multi-Center Study to Assess the Efficacy and Safety of PT009 compared to PT005 in Subjects With Moderate to Very Severe COPD. Codi EUDRACT: 2016-000155-28. Promotor: Pearl Therapeutics, Inc. PI: Luis Lores Obradors. 2016 -
- RIVAROXACS2002. Fase III: A Randomized, Double-blind, Double-dummy, Active-controlled, Parallel-group, Multicenter Study to Compare the Safety of Rivaroxaban versus Acetylsalicylic Acid in Addition to Either Clopidogrel or Ticagrelor Therapy in Subjects with Acute Coronary Syndrome. Codi EUDRACT: 2014-004266-26. Promotor: Janssen-Cilag International NV. PI: César Romero Menor. 2015 -

### Selected publications

- Carmona-Bayonas A, Jiménez-Fonseca P, Font C, Fenoy F, Otero R, Beato C, Plasencia JM, Biosca M, Sánchez M, Benegas M, Calvo-Temprano D, Varona D, Faez L, de la Haba I, Antonio M, Madridano O, Solís MP, Ramchandani A, Castañón E, Marchena P, Martín M, Ayala de la Peña F and Vicente V. Predicting serious complications in patients with cancer and pulmonary embolism using decision tree modelling: the EPIPHANY Index. Br J Cancer 2017. 116: 994-1001. FI: 6,176(Q1)
- Gomila A, Badia JM, Carratalà J, Serra-Aracil X, Shaw E, Diaz de Brito Fernandez V, Castro A, Espejo E, Nicolás C, Piriz M, Brugués M, Obradors J, Lérída A, Cuquet J, Limón E, Gudiol F, Pujol M and VINCat colon surgery group. Current outcomes and predictors of treatment failure in patients with surgical site infection after elective colorectal surgery. A multicentre prospective cohort study. J Infect 2017. 74: 555-563. FI: 4,201(Q1)
- Guardo AC, Gómez CE, Diaz de Brito Fernandez V, Pich J, Arnaiz JA, Perdiguero B, García-Arriaza J, González N, Sorzano C, Jiménez L, Jiménez JL, Muñoz-Fernández MÁ, Gatell JM, Alcamí J, Esteban M, López Bernaldo de Quirós JC, García F, Plana M and RISVAC02boost study. Safety and vaccine-induced HIV-1 immune responses in healthy volunteers following a late MVA-B boost 4 years after the last immunization. PLoS One 2017. 12: e0186602. FI: 2,806(Q1)



21  
PERSONAL  
RESEARCHER



7  
PROJECTS



16  
CLINICAL TRIALS  
& OBSERVATIONAL  
STUDIES



6  
PUBLICATIONS  
WITH IF



29%  
FIRST QUARTILE  
PUBLICATIONS



## RESEARCH AND INNOVATION IN SURGERY

Oscar Izquierdo Corres, MD, PhD

*This research group focuses on disorders in which surgical treatment is involved at some point in the care process. It is a multidisciplinary group, formed by people from various fields of medicine who work in coordination in the different areas of study, including specialists in general and digestive surgery, traumatologists, gynaecologists, urologists, and experts in diagnostic imaging, endocrinology and nutrition, among others. The scope of the group's research is quite broad, comprising physiopathologic and epidemiologic factors, the study of risk factors and the critical analysis of the various aspects of surgical treatment.*

### Members

#### Staff researcher

Maria Rosa Cambra Martí, Manel Carreras Martínez, Juan Castellanos Robles, Manuel Céspedes Pérez, Jordi Comajuncosas Camp, Raul De Diego Burillo, Laia Estalella Mercadé, Luis Font Vizcarra, Laura García De Miguel, Pere J. Gris Garriga, Judit Hermoso Bosch, Jaime Jimeno Fraile, Jose Luís López Negre, Eva Maria Martínez Franco, Josep Ramón Mendez Paredes, Rolando Anastasio Orbeal Saenz, Joan Urgellés, Helena Vallverdú Cartié

### Selected projects

- Patients with residual lesions after an obstetric lesion of the anal sphincter complex: influence of functionality of pelvic floor muscles on incidence of anal incontinence symptoms. Parc Sanitari de Sant Joan de Déu -Serveis de Salut Mental. Beques Recerca PSSJD. AR201507. PI: Eva Maria Martínez Franco. 2016 - 2018.
- Relation between serum levels of progesterone, estradiol and relaxin and the appearance of faecal incontinence symptoms during pregnancy and the postpartum period. Instituto de Salud Carlos III (ISCIII). FIS. PI13/00623. PI: Eva Maria Martínez Franco. 2014 - 2018.
- SGR 2014\_Grup de Recerca i innovació en cirurgia. Agaur - Agència de Gestió d'Ajuts Universitaris i de Recerca. SGR. 2014 SGR 1309. PI: David Parés Martínez. 2014 - 2017.

### Selected publications

- Ros C, Martínez Franco E, Wozniak MM, Cassado J, Santoro GA, Elías N, López M, Palacio M, Wieczorek AP and Espuña-Pons M. Postpartum two- and three-dimensional ultrasound evaluation of anal sphincter complex in women with obstetric anal sphincter injury. *Ultrasound Obstet Gynecol* 2017. 49: 508-514. FI: 4,710(Q1).

- Stephan-Otto C, Siddi S, Carl Senior, Cuevas-Esteban J, Cambra-Martí MR, Ochoa S and Brebion G. Remembering verbally-presented items as pictures: Brain activity underlying visual mental images in schizophrenia patients with visual hallucinations. *Cortex* 2017. 94: 113-122. FI: 4,279(Q1).
- Comajuncosas J, Hermoso J, Jimeno J, Gris P, Orbeal R, Cruz A and Parés D. Effect of bag extraction to prevent wound infection on umbilical port site wound on elective laparoscopic cholecystectomy: a prospective randomised clinical trial. *Surg Endosc* 2017. 31: 249-254. FI: 3,747(Q1).
- Fernandez-Gonzalez S, Martínez Franco E, Lin Miao X and Amat Tardiu L. Contasure-needleless® compared with Monarc® for the treatment of stress urinary incontinence. *Int Urogynecol J* 2017. 28: 1077-1084. FI: 1,937(Q3).
- Cerro CR, Martínez Franco E, Santoro GA, Palau MJ, Wieczorek P and Espuña-Pons M. Residual defects after repair of obstetric anal sphincter injuries and pelvic floor muscle strength are related to anal incontinence symptoms. *Int Urogynecol J* 2017. 28: 455-460. FI: 1,937(Q3).



19  
PERSONAL  
RESEARCHER



3  
PROJECTS



5  
PUBLICATIONS  
WITH IF



50%  
FIRST QUARTILE  
PUBLICATIONS

## PATIENT SAFETY

Ramón Mir Abellan, MD, PhD

*The paper entitled "Impact of the use of a risk warning vest" was presented by Mir Abellan Ramon at the 35th Congress of the Spanish Society for Quality of Care and won second prize in the express communication category.*

### Members

#### Staff researcher

Antonio Cruz Antolin, Maria Luisa de la Puente Martorell, Montserrat Escute Amat, Jose Miguel Ortiz Moreno

#### Collaborator researcher

Anna Falcó Pegueroles

### Selected projects

- Impact of implementing a quality strategy on the culture of patient safety. Ajuts recerca PSSJD - Parc Sanitari de Sant Joan de Déu - Serveis de Salut Mental. AR201605. PI: Ramón Mir Abellan. 01/01/2017 - 31/12/2018.

### Selected publications

- Gomila A, Carratalà J, Camprubí D, Shaw E, Badia JM, Cruz Antolín A, et al. Risk factors and outcomes of organ-space surgical site infections after elective colon and rectal surgery. *Antimicrob Resist Infect Control* 2017. 6: 40-0. FI: 2,989(Q1).
- Serrano-Blanco A, Rubio-Valera M, Aznar-Lou I, Baladon L, Gibert K, Gracia Canales A, et al. In-patient costs of agitation and containment in a mental health catchment area. *BMC Psychiatry* 2017. 17: 212-0. FI: 2,613(Q2).
- Zuriguel-Pérez E, Falcó-Pegueroles A, Roldan-Merino J, Agustino-Rodriguez S, Gómez-Martín MD and Lluch-Canut T. Development and Psychometric Properties of the Nursing Critical Thinking in Clinical Practice Questionnaire. *Worldviews Evid Based Nurs* 2017. 14: 257-264. FI: 2,103(Q1).
- Mir Abellan Ramón, Falcó-Pegueroles A and Maria Luisa de la Puente Martorell. Actitudes frente a la cultura de seguridad del paciente en el ámbito hospitalario y variables correlacionadas. *Gac Sanit* 2017. 31: 145-149. FI: 1,768(Q2).

- Roldan-Merino J, Lluch-Canut T, Casas I, Sanromà-Ortíz M, Ferré-Grau C, Sequeira C, et al. Reliability and validity of the Positive Mental Health Questionnaire in a sample of Spanish university students. *J Psychiatr Ment Health Nurs* 2017. 24: 123-133. FI: 1,131(Q3).
- Benito-Aracil, L.; Lluch-Canut, M.T.; Falco-Pegueroles, A.; Garcia, M.; Puig-Llobet, M. Identifying nursing interventions in a cancer screening program using NIC taxonomy. *En International Journal of Nursing Knowledge*. Volum 28. Número 2. 2017(Q3).

### Networks

Anna Falcó-Pegueroles is member in:

- Grup de Recerca Consolidat reconegut per la Generalitat de Catalunya, GTEAAP Grup de Tècniques Estadístiques avançades aplicades a la psicologia.
- Xarxa Catalana de recerca infermera de salut mental i addicions.
- ISMENTAL – GR Grup d'infermeria de salut mental.



PERSONAL RESEARCHER



PROJECTS



PUBLICATIONS WITH IF



FIRST QUARTILE PUBLICATIONS

The **team members** of areas and groups presents all information of the group including external collaborators. The global numbers of the institution does not include external collaborators.

The number of **projects** shows the total number of projects managed and active during 2017.

**Clinical trials** and **observational studies** correspond to all those actives during 2017.

**Publications** include original articles and reviews published during 2017 (with assigned pagination) and authored by members of research groups during their membership. The impact factor and quartile assigned corresponds to the Journal Citation Reports of the Web of Science of 2016.

The **Budget** is the total resources managed by the Sant Joan de Déu Rearch Foundation.