

Curriculum Vitae **Francesc R. Garcia-Gonzalo, Ph.D.**

Born: June 10, 1976, Barcelona, Spain

Alberto Sols Biomedical Research Institute CSIC-UAM
Department of Biochemistry (Lab C-11), UAM School of Medicine
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Education and Professional Experience

- | | |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| November 2015 - present | Ramon y Cajal Investigator
Department of Biochemistry, School of Medicine, UAM & Alberto Sols Biomedical Research Institute CSIC-UAM (IIBM) & La Paz University Hospital Research Institute (IdiPAZ) |
| March 2008 – October 2015 | Postdoctoral Fellow (Associate Specialist since 03/2014)
Department of Biochemistry and Biophysics
University of California, San Francisco (UCSF)
Supervisor: Dr. Jeremy F. Reiter |
| September 2006 – February 2008 | Postdoctoral Fellow
Gene Expression Laboratory
The Salk Institute for Biological Studies (La Jolla, USA)
Supervisor: Dr. Juan Carlos Izpisua-Belmonte |
| July 2005 – September 2006 | Postdoctoral Fellow
Cell and Developmental Biology
University of California, San Diego (UCSD)
Supervisor: Dr. Vivek Malhotra |
| June 2005 | Ph.D. in Biochemistry (“Summa Cum Laude”)
Dissertation: “ <i>Functional Characterization of the HERC1 protein</i> ”
University of Barcelona |
| January 2001 – April 2001 | Visiting Ph.D. Student
Institute for Biochemistry and Endocrinology
Justus Liebig University (Giessen, Germany)
Supervisors: Dr. Erich Eigenbrodt & Dr. Sybille Mazurek |
| January 1999 – June 2005 | Ph.D. Student
Department of Physiological Sciences II
University of Barcelona
Supervisor: Dr. Jose Luis Rosa |
| September 1998 – January 1999 | Associate Researcher
Bellvitge University Hospital (Hospitalet, Spain)
Supervisors: Dr. Jose M. Caminal & Dr. Jose L. Rosa |
| June 1998 | Degree in Biochemistry with Highest Honors
Faculty of Sciences
Autonomous University of Barcelona |
| September 1997 – June 1998 | Undergraduate Research Assistant
Institute for Biotechnology and Biomedicine
Autonomous University of Barcelona
Supervisor: Dr. Enrique Querol |

Teaching Experience

- November 2015 - present Ramon y Cajal Investigator
Department of Biochemistry, School of Medicine, UAM
- I regularly participate in teaching the following subjects:
- Degree of Medicine:
 - Biochemistry & Molecular Biology (1st year)
 - Human Biochemistry & Biophysics (2nd year)
 - Introduction to Biomedical Research (3rd year)
 - Degree in Biochemistry:
 - Developmental Biology (4th year)
 - Experimental Design & Execution (4th year)
 - Final Degree Project (4th year)
 - Master in Molecular Biomedicine:
 - Critical Analysis of Scientific Literature
 - Master in Biotechnology:
 - Genetic & Protein Engineering
 - Final Master Project
 - Master in Biomolecules & Molecular Dynamics:
 - Final Master Project
- September 2008 – March 2013 Postdoctoral Fellow
Department of Biochemistry and Biophysics (UCSF)
- Mentor of three rotation students from TETRAD and BMS graduate programs at UCSF. Two of the three students (Laura Yee & Elle Roberson) completed their PhD's in our lab after their rotation. The third (Christina Hueschen) joined another UCSF lab.
- September 2003 – June 2004 Assistant Professor in Biochemistry (non-tenure track)
Department of Physiological Sciences II
School of Medicine and Dentistry, University of Barcelona
- September 2000 – June 2003 Assistant Organizer and Teacher of Lab Practicals
Department of Physiological Sciences II
School of Medicine and Dentistry, University of Barcelona

Research Grants

- January 2016 – December 2019 **MINECO/FEDER Research Grant**
Participation as: Principal Investigator
Source: Spanish Ministry of Economy and Competitiveness
Title: Regulation of Ciliary Function by Phosphoinositides
Reference: SAF2015-66568-R
Amount: 242,000 euros
- November 2015 – October 2020 **Ramón y Cajal Investigator Grant**
Participation as: Principal Investigator
Source: Spanish Ministry of Economy and Competitiveness
Title: Molecular Mechanisms of Primary Cilia Function
Reference: RYC-2013-14887
Amount: 40,000 euros (+salary)

Scholarships

November 2015 – October 2020	Ramon y Cajal Investigator Scholarship Ministry of Economy & Competitiveness Government of Spain
July 2006 – June 2008	Postdoctoral Grant Ministry of Education & Science Government of Spain
January 2003 – June 2005	Predocctoral Grant <i>Fundación Ramón Areces</i>
January 1999 – December 2002	Predocctoral Grant (FPU) Regional Government of Catalonia

Research Assessment

2017-2019	Reviewer National Assessment & Forecasting Agency (ANEP) Ministry of Economy, Industry & Competitiveness Government of Spain
2016-2017	Reviewer Clemente Estable Fund National Research Agency (ANII) Government of Uruguay

Scientific Memberships

American Society for Cell Biology (ASCB)	Since 2004
Spanish Society for Biochemistry and Molecular Biology (SEBBM)	Since 2004

Language Skills

English	Proficient	<i>Certificate of Proficiency in English</i> , Cambridge University, UK
Spanish	Proficient	Native language
Catalan	Proficient	Native language
German	Upper-intermediate	Level 5 of 6 (University of Barcelona, School of Modern Languages)
French	Intermediate	Level 2 of 6 (University of Barcelona, School of Modern Languages)

Publication List

2018

- Raleigh DR, Sever N, Choksi PK, Sigg MA, Hines KM, Thompson BM, Elnatan D, Jaishankar P, Bisignano P, **Garcia-Gonzalo FR**, Krup AL, Eberl M, Wong SY, Renslo AR, Grabe M, McDonald JG, Xu L, Beachy PA and Reiter JF (2018) *Cilia-associated oxysterols activate Smoothened*. Molecular Cell 72: 316-327.

2017

- **Garcia-Gonzalo FR** and Reiter JF (2017) *Open sesame: how transition fibers and the transition zone control ciliary composition*. Cold Spring Harb Perspect Biol 9:a028134.

2016

- Li C, Jensen VL, Park K, Kennedy J, **Garcia-Gonzalo FR**, Romani M, De Mori R, Bruel AL, Gaillard D, Doray B, Lopez E, Rivière JB, Faivre L, Thauvin-Robinet C, Reiter JF, Blacque OE, Valente EM and Leroux MR (2016) *MKS5 and CEP290 dependent assembly pathway of the ciliary transition zone*. PLoS Biology 14:e1002416.

2015

- Yee LE, **Garcia-Gonzalo FR (Co-First Author)**, Bowie RV, Li C, Kennedy J, Ashrafi K, Blacque OE, Leroux MR and Reiter JF (2015) *Conserved genetic interactions between ciliopathy complexes cooperatively support ciliogenesis*. PLoS Genetics 11:e1005627.
- **Garcia-Gonzalo FR**, Phua SC, Roberson EC, Garcia III G, Abedin M, Schurmans S, Inoue T and Reiter JF (2015) *Phosphoinositides regulate ciliary protein trafficking to modulate Hedgehog signaling*. Developmental Cell 34:400-409.
- Roberson EC, Dowdle WE, Ozanturk A, **Garcia-Gonzalo FR**, Li C, Halbritter J, Elkhartoufi N, Porath JD, Cope H, Ashley-Koch A, Gregory S, Thomas S, Sayer JA, Saunier S, Otto EA, Katsanis N, Davis EE, Attié-Bitach T, Hildebrandt F, Leroux MR and Reiter JF (2015) *TMEM231, mutated in orofacioidigital and Meckel syndromes, organizes the ciliary transition zone*. Journal of Cell Biology 209:129-142.

2012

- **Garcia-Gonzalo FR** and Reiter JF (2012) *Scoring a backstage pass: mechanisms of ciliogenesis and ciliary access*. Journal of Cell Biology 197:697-709.

2011

- **Garcia-Gonzalo FR**, Corbit KC, Sirerol-Piquer MS, Ramaswami G, Otto EA, Noriega TR, Seol AD, Bennett CL, Robinson JF, Josifova DJ, Garcia-Verdugo JM, Katsanis N, Hildebrandt F and Reiter JF (2011) *A Transition Zone Complex Regulates Mammalian Ciliogenesis and Ciliary Membrane Composition*. Nature Genetics. 43: 776-784.
- Sang L, Miller JJ, Corbit KC, Giles R, Brauer M, Otto EA, Baye LM, Wen X, Scales SJ, Kwong M, Huntzicker EG, Sfakianos MK, Sandoval W, Bazan JF, Kulkarni P, **Garcia-Gonzalo FR**, Seol AD, O'Toole JF, Held S, Reuther HM, Lane WS, Rafiq MA, Noor A, Ansar M, Rama Devi AR, Sheffield VC, Slusarski DC, Vincent JB, Doherty DA, Hildebrandt F, Reiter JF and Jackson PK (2011) *Mapping the NPHP-JBTS-MKS Protein Network Reveals Ciliopathy Disease Genes and Pathways*. Cell 145:513-528.

2008

- **Garcia-Gonzalo FR** and Izpisúa Belmonte JC (2008) *Albumin-associated lipids regulate human embryonic stem cell self-renewal*. PLoS One 3(1):e1384.
- Hadjebi O, Casas-Terradellas E, **Garcia-Gonzalo FR** and Rosa JL (2008) *The RCC1 superfamily: from genes, to function, to disease*. Biochimica et Biophysica Acta 1783: 1467-1479.

2006

- Casas E, **Garcia-Gonzalo FR**, Hadjebi O, Bartrons R, Ventura F and Rosa JL (2006) *Simultaneous electrophoretic analysis of proteins of very high and low molecular weights*. Electrophoresis 27:3935-3938 (see associated patent below).
- Chong-Kopera H, Inoki K, Li Y, Zhu T, **Garcia-Gonzalo FR**, Rosa JL and Guan KL (2006) *TSC1 stabilizes TSC2 by inhibiting the interaction between TSC2 and the HERC1 ubiquitin ligase*. Journal of Biological Chemistry 281:8313-8316.

2005

- **Garcia-Gonzalo FR** and Rosa JL (2005) *The HERC proteins: functional and evolutionary insights*. Cellular and Molecular Life Sciences 62:1826-1838.
- **Garcia-Gonzalo FR**, Bartrons R, Ventura F and Rosa JL (2005) *Requirement of phosphatidylinositol-4,5-bisphosphate for HERC1-mediated guanine nucleotide dissociation from ARF proteins*. FEBS letters 579:343-348.

2004

- **Garcia-Gonzalo FR**, Muñoz P, González E, Casaroli-Marano RP, Vilaró S, Bartrons R, Ventura F and Rosa JL (2004) *The giant protein HERC1 is recruited onto aluminum fluoride-induced actin-rich surface protrusions in HeLa cells*. FEBS letters 559:77-83.

2003

- **Garcia-Gonzalo FR**, Cruz C, Muñoz P, Mazurek S, Eigenbrodt E, Ventura F, Bartrons R and Rosa JL (2003) *Interaction between HERC1 and M2-type pyruvate kinase*. FEBS letters 539:78-84.

Book Chapters

2017

- **Garcia-Gonzalo FR** and Reiter JF (2017) *Open sesame: how transition fibers and the transition zone control ciliary composition*. Cilia (pp. 91-110). Edited by W. Marshall & R. Basto. Cold Spring Harbor Laboratory Press, New York.

1998

- Querol E, Pons J, Cedano J, Vallmitjana M, **Garcia F**, Bonet C, Pérez-Pons J, Planas A and Mozo-Villariás A (1998) *Protein engineering for thermostabilisation of proteins: some theoretical rules and application to a β -glucanase*. Stability and Stabilization of Biocatalysts (Progress in Biotechnology, Vol. 15, pp. 303-310). Edited by A. Ballesteros, F.J. Plou, J.L. Iborra, P.J. Halling. Elsevier, Amsterdam.

Patents

2006

- Casas-Terradellas E, **Garcia-Gonzalo FR**, Hadjebi O, Bartrons R, Ventura F, Rosa JL. *Gel for the electrophoretic separation of very high molecular weight proteins*. Application number: 0300E-41054, Priority date: 09/22/2006, University of Barcelona.

Invited Talks

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| 2017 | Bellvitge Institute of Biomedical Research (IDIBELL)
University of Barcelona
Hospitalet, Spain |
| 2014 | Institute of Biomedicine in Valencia (IBV-CSIC)
Spanish National Research Council (CSIC)
Valencia, Spain |
| 2014 | Alberto Sols Biomedical Research Institute (IIBM)
Spanish National Research Council (CSIC) & UAM
Madrid, Spain |
| 2014 | Institute of Cellular Physiology (IFC)
National Autonomous University of Mexico (UNAM)
Mexico City, Mexico |
| 2013 | Developmental and Stem Cell Biology Retreat
University of California, San Francisco
Tomales Bay, USA |
| 2013 | FASEB Meeting on the Biology of Cilia and Flagella
Federation of American Societies for Experimental Biology (FASEB)
Niagara Falls, USA |
| 2013 | Departments of Physiology and Cell Biology
School of Biological Sciences, Pontifical Catholic University of Chile
Santiago, Chile |
| 2012 | 52nd ASCB Meeting
American Society for Cell Biology (ASCB)
San Francisco, USA |
| 2011 | Department of Physiological Sciences II
School of Medicine and Dentistry, University of Barcelona
Hospitalet, Spain |
| 2011 | Cardiovascular Research Institute
University of California, San Francisco
San Francisco, USA |
| 2010 | Developmental Biology Retreat
University of California, San Francisco
Tomales Bay, USA |

- 2004 12th Joint Seminars of the Catalan Society of Biology
 Institute for Catalan Studies
 Barcelona, Spain
- 2001 Institute for Biochemistry and Endocrinology
 Justus Liebig University
 Giessen, Germany

Poster Presentations

- 2018 Title: *Htr6 contains a second ciliary targeting sequence in its C-terminal tail.*
Authors: Barbeito P, Moreno P, Martin-Morales R, Sierra-Rodero MB, Mykytyn K & **Garcia-Gonzalo FR**
Meeting: EMBO Workshop Cilia 2018
Venue: Copenhagen, Denmark
- 2017 Title: *Regulation of INPP5E ciliary localization by phosphorylation.*
Authors: Sierra-Rodero MB, Cilleros-Rodriguez D, Martin-Morales R, Barbeito P & **Garcia-Gonzalo FR**
Meeting: ASCB/EMBO 2017 Meeting
Venue: Philadelphia, USA
- 2016 Title: *Hsd11 β 2 is enriched in medulloblastoma and generates ciliary oxysterols to stimulate Hedgehog signaling.*
Authors: Raleigh D, Sever N, Sigg MA, **Garcia-Gonzalo FR**, Choksi PK, Hines KM, Choksi SP, Krup AL, McDonald JG, Xu L, Beachy PA & Reiter JF
Meeting: Annual Meeting of the American Society for Radiation Oncology (ASTRO)
Venue: Boston, USA
- 2015 Title: *Keeping out the ruffles: Inpp5e depletes PI(4,5)P2 in primary cilia to eliminate F-actin dynamics and achieve cilia stability.*
Authors: Phua SC, **Garcia-Gonzalo FR**, Reiter JF & Inoue T
Meeting: Biology of Cilia and Flagella (FASEB meeting)
Venue: Snowmass, CO, USA
- 2013 Title: *Is Phosphatidylinositol-4-phosphate involved in mammalian Hedgehog signaling?*
Authors: **Garcia-Gonzalo FR**, Reiter JF
Meeting: Biology of Cilia and Flagella (FASEB meeting)
Venue: Niagara Falls, NY, USA
- 2011 Title: *A transition zone complex of MKS and JBTS proteins regulates ciliogenesis and ciliary traffic*
Authors: **Garcia-Gonzalo FR**, Corbit K, Sierrol-Piquer MS, Yee L, Ramaswami G, Otto E, Noriega T, Seol A, Robinson J, Bennet C, Josifova D, Geimer S, Garcia-Verdugo JM, Katsanis N, Hildebrandt F, Reiter JF
Meeting: 51st ASCB Meeting
Venue: Denver, CO, USA
- 2010 Title: *Tectonic1 is required for ciliary membrane protein targeting*
Authors: **Garcia-Gonzalo FR**, Corbit K, Sierrol MS, Garcia-Verdugo JM, Katsanis N, Reiter JF
Meeting: FASEB Meeting on the Biology of Cilia and Flagella
Venue: Saxton Rivers, VT, USA
- 2006 Title: *Interaction between HERC1 and the TSC1/TSC2 complex*
Authors: Casas E, Hadjebi O, **Garcia-Gonzalo FR**, Bartrons R, Ventura F, Rosa JL
Meeting: 46th ASCB Meeting
Venue: San Diego, CA, USA

- 2004 Title: *HERC1 is a phosphatidylinositol-3-phosphate-binding protein*
Authors: **Garcia-Gonzalo FR**, Casas E, Hadjebi O, Bartrons R, Ventura F, Rosa JL
Meeting: ELSO Meeting
Venue: Nice, France
- 2004 Title: *HERC1 is recruited onto actin protrusions induced by ARF6 activation*
Authors: **Garcia-Gonzalo FR** and Rosa JL
Meeting: 4th Dubrovnik Signaling Conference
Venue: Dubrovnik, Croatia
- 2003 Title: *HERC1 recruitment onto actin protrusions upon aluminum fluoride treatment*
Authors: **Garcia-Gonzalo FR**, Muñoz P, González E, Casaroli-Marano RP, Vilaró S, Ventura F and Rosa JL
Meeting: ELSO Meeting
Venue: Dresden, Germany
- 2002 Title: *Interaction between the HECT and RCC1-like domain containing protein HERC1 and pyruvate kinase type M2*
Authors: **Garcia-Gonzalo FR**, Cruz C, Ventura F, Bartrons R, Mazurek S, Eigenbrodt E and Rosa JL
Meeting: ELSO Meeting
Venue: Nice, France
- 2001 Title: *Identification and characterization of interacting proteins with the HECT domain of HERC1*
Authors: **Garcia-Gonzalo FR**, Cruz C, Ventura F, Bartrons R, Eigenbrodt E, Rosa JL
Meeting: 27th FEBS Meeting
Venue: Lisbon, Portugal
- 1999 Title: *Involvement of p532/HERC1 protein in fluid phase endocytosis*
Authors: Casaroli-Marano RP, Cruz C, **Garcia-Gonzalo FR**, Ventura F, Bartrons R, Vilaró S and Rosa JL
Meeting: International Meeting on Protein and Membrane Transport
Venue: Göttingen, Germany

Science & Economics Courses

- 2017 Virtual Mises University
Mises Institute
Online course
- 2016 Summer University
Instituto Juan de Mariana
Lanzarote, Spain
- 2013 Scientific Leadership and Management
University of California, San Francisco
San Francisco, USA
- 2007 Molecular Embryology of the Mouse
Cold Spring Harbor Laboratory
New York, USA
- 2004 FEBS Lecture Course on Cellular Signaling
Federation of European Biochemical Societies (FEBS)
Dubrovnik, Croatia
- 2003 Innovation and Entrepreneurship
University of Barcelona
Barcelona, Spain