

# Francisco García García

*I am a researcher working in the Computational Genomics Department of the Prince Felipe Research Center (CIPF) in Valencia, Spain, where our goal is to apply translational bioinformatics to personalized medicine integrating genomic and clinical data.*

## Research interests

Development of statistical **methods for the omics data analysis** and its **integration** from a perspective of Systems Biology.

**Software development** that allow converting data produced by the new high-throughput technologies (next generation sequencing, proteomics, metabolomics) into valuable, meaningful biomedical information that can be used for diagnostic, and prognostic purposes.

Characterization of **genetic variation in human populations** by high-throughput technologies.

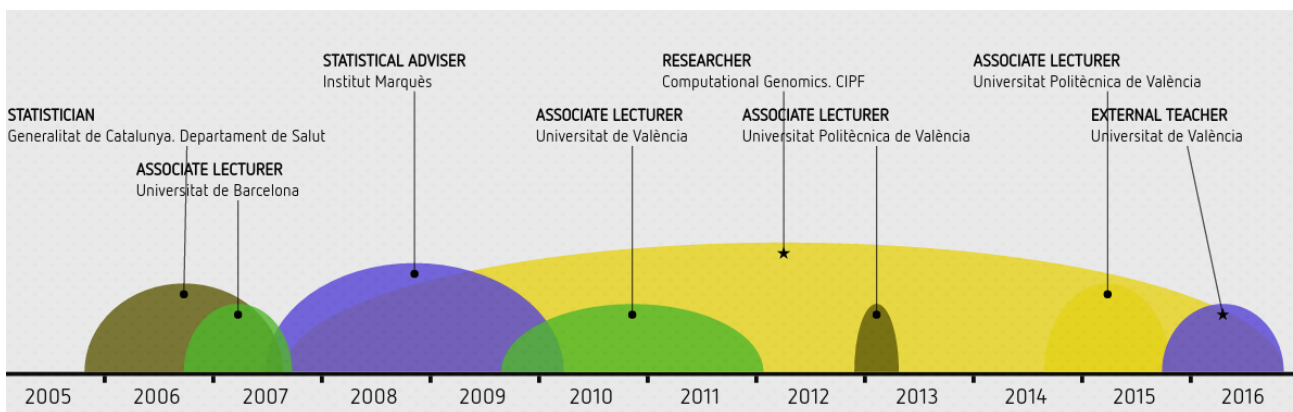
## Education

2016 **PhD in Biomedicine and Biotechnology**, *Universitat de València*, Spain.

2012 **Master in Biostatistics**, *Universitat de València*, Spain.

2005 **BSc in Statistical Techniques and Sciences**, *Universitat de València*, Spain.

## Experience



○ **Current:**

- Sep 2007 – **Researcher**, *Computational Genomics Department. Prince Felipe Research Centre (CIPF)*, Valencia, Spain.
- Oct 2015 – **External Lecturer**, *Master in Bioinformatics. University of Valencia*, Valencia, Spain.
- Feb 2005 – **Teaching collaborator**, *Valencian School for Health Studies (EVES). Generalitat Valenciana*, Valencia, Spain.

○ **Previous:**

- 2009–2012 **Associate Professor of Statistics**, *Statistics and Operations Research Department, Universitat de Valencia*, Spain.
- 2007–2010 **Statistical adviser**, *Institut Marquès*, Barcelona, Spain.
- 2006–2007 **Associate Professor of Statistics**, *Biostatistics Unit. Public Health Department, Universitat de Barcelona*, Spain.
- 2005–2007 **Statistician in the Mortality Registry**, *Health Department, Catalan Regional Government*, Barcelona, Spain.

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## Languages

- English **Professional working proficiency**
- French **Elementary proficiency**
- Catalan **Full professional proficiency**
- Spanish **Native**

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## Computer skills

- Programming: **R, LaTeX, Bash**
- Operating Systems: **Linux, Mac OS X, Windows**

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## Design and development of web tools for omics data analysis

- Babelomics** <http://babelomics.bioinfo.cipf.es>. Gene expression, genome variation and functional profiling analysis suite.
- BiERapp** <http://bierapp.babelomics.org/>. A web-based interactive framework to assist in the prioritization of disease candidate genes in whole exome sequencing studies.
- TEAM** <http://team.babelomics.org/>. Design and management of panels of genes for targeted enrichment and massive sequencing for clinical applications.
- CSVS** <http://csvs.babelomics.org/>. Database to provide information about the variability of the Spanish population to the scientific/medical community.

1. *Genomic expression differences between cutaneous cells from red hair color individuals and black hair color individuals based on bioinformatic analysis.* P Gimenez-Xavier, A Visconti, J Nsengimana, **F García-García**, G Tell-Martí, MJ Escamez, J Newton-Bishop, V Bataille, M del Río, J Dopazo, M Falchi, Susanna Puig. *Oncotarget*. 2016 Dec. *Oncology*, rank: 36/213, Q1, IF: 5.008.
2. *Mutations in TRAPPC11 are associated with a congenital disorder of glycosylation.* L Matalonga, M Bravo, C Serra Peinado, E García-Pelegri, O Ugarteburu, S Vidal, M Llambrich, E Quintana, P Fuster-Jorge, MN Gonzalez-Bravo, S Beltran, J Dopazo, **F Garcia-Garcia**, F Foulquier, G Matthijs, P Mills, A Ribes, G Egea, P Briones, F Tort and M Girós. *Human Mutation*. 2016 Nov. DOI: 10.1002/humu.23145. *Genetics Heredity*, rank: 23/166, Q1, IF: 5.089.
3. *Dysfunctional mitochondrial fission impairs cell reprogramming.* J Prieto, M Leon, X Ponsoda, **F García-García**, R Bort, E Serna, M Barneo-Muñoz, F Palau, J Dopazo, C Lopez, J Torres. *Cell Cycle*. 2016 Oct 18:0. DOI: 10.1080/15384101.2016.1241930. *Cell Biology*, rank: 68/187, Q2, IF: 3.952.
4. *Identification of the Photoreceptor Transcriptional Co-Repressor SAMD11 as Novel Cause of Autosomal Recessive Retinitis Pigmentosa.* M. Corton, A. Avila-Fernández, L. Campello, M. Sánchez, B. Benavides, M. I. López-Molina, L. Fernández-Sánchez, R. Sánchez-Alcudia, L. R. J. da Silva, N. Reyes, E. Martín-Garrido, O. Zurita, P. Fernández-San José, R. Pérez-Carro, **F. García-García**, J. Dopazo, B. García-Sandoval, N. Cuenca C. Ayuso. *Scientific Reports* 6, Article number: 35370 (2016 Oct) doi:10.1038/srep35370. *Multidisciplinary Sciences*, rank: 7/63, Q1, IF: 5.228.
5. *Gender differences in the inflammatory cytokine and chemokine profiles induced by binge ethanol drinking in adolescence.* M Pascual, J Montesinos, M Marcos, JL Torres, P Costa-Alba, **F García-García**, FJ Laso, C Guerri. *Addiction Biology*. 2016 Oct. *Substance Abuse*, rank: 2/18, Q1, IF: 4.547.
6. *Integrated Gene Set Analysis for microRNA Studies.* **Garcia-Garcia F**, Panadero J, Dopazo J, Montaner D. *Bioinformatics* 2016 Jun; doi: 10.1093/bioinformatics/btw334. *Biotechnology applied Microbiology*, rank: 15/161, Q1, IF: 5.766.
7. *The transcriptomics of an experimentally evolved plant-virus interaction.* J Hillung, **F García-García**, J Dopazo, J Cuevas, S Elena. *Sci Rep*. 2016 Apr 26;6:24901. doi: 10.1038/srep24901. *Multidisciplinary Sciences*, rank:7/63, Q1, IF: 5.228.
8. *Serum metabolomic profiling facilitates the non-invasive identification of metabolic biomarkers associated with the onset and progression of non-small cell lung cancer.* Puchades-Carrasco, L., Jantus-Lewintre, E., Pérez-Rambla, C., **García-García, F.**, Lucas, R., Calabuig, S., Pineda-Lucena, A. *Oncotarget*. 2016 Feb 12. doi: 10.18632/oncotarget.7354. *Oncology*, rank: 36/213, Q1, IF: 5.008.
9. *267 Spanish exomes reveal population-specific differences in disease-related genetic variation.* Dopazo J, Amadoz A, Bleda M, Garcia-Alonso L, Alemán A, **García-García F**, Rodriguez JA, Daub JT, Muntané G, Rueda A, Vela-Boza A, López-Domingo FJ, Florido JP, Arce P, Ruiz-Ferrer M, Méndez-Vidal C, Arnold TE, Spleiss O, Alvarez-Tejado M, Navarro A, Bhattacharya SS, Borrego S, Santoyo-López J, Antiñolo G. *Mol Biol Evol*. 2016 Jan 13, doi: 10.1093/molbev/msw005.

*Biochemistry Molecular Biology*, rank: 5/289, Q1, IF: 13.649.

10. *Assessment of targeted next generation sequencing as a tool for the diagnosis of Charcot-Marie-Tooth disease and hereditary motor neuropathy*. V Lupo, **F García-García**, P Sancho, C Tello, M García-Romero, L Villarreal, A Alberti, R Sivera, J Dopazo, S Pascual-Pascual, C Márquez-Infante, C Casasnovas, T Sevilla, C Espinós. *The Journal of Molecular Diagnostics*. 2016 Jan. *Pathology*, rank: 7/79, Q1, IF: 5.201.
11. *Differential features between chronic skin inflammatory diseases revealed in new psoriasis and atopic dermatitis skin-humanized mouse models*. Authors: M Carretero, S Guerrero-Aspizua, N Illera, V Galvez, M Navarro, **F García-García**, J Dopazo, J L Jorcano, F Larcher and M del Rio. *Nucl. J Invest Dermatol*. 2016 Jan;136(1):136-45. doi: 10.1038/JID.2015.362. *Dermatology*, rank: 1/61, Q1, IF: 6.915.

*Full list of publications in PubMed.*

*ResearchGate, LinkedIn, ResearcherID (B-1929-2014).*

## Congress contributions in 2016

1. *BiER collaborative projects*. INB/ELIXIR-ES annual meeting, Barcelona, Spain. 10th-11th Oct 2016. Authors: Alejandro Alemán, Francisco Salavert-Torres, Mercedes Medina, **Francisco García-García**.
2. *Web tools for the analysis of genomic data and the discovery of new disease genes*. INB/ELIXIR-ES annual meeting, Barcelona, Spain. 10th-11th Oct 2016. Authors: Alejandro Alemán, Francisco Salavert-Torres, Mercedes Medina, **Francisco García-García**.
3. *Gender differences in the inflammatory cytokine and chemokine profiles induced by binge ethanol drinking in adolescence*. Suchtkongress 2016, Berlin. Germany. SUCHT 2016; 62: Suppl. 1. Authors: Montesinos J, Pascual M, Marcos M, **García-García F**, Torres JL, Costa-Alba P, Laso FJ, Guerri C.
4. *RNA-seq data analysis in the miR96 mutant mouse Diminuendo reveals the nasal epithelium as a target tissue to explore drug-based therapeutic approaches*. 10th Molecular Biology of Hearing and Deafness conference, Cambridge, UK, 17-20 May 2016. Authors: Morin, M., Lewis, M., **García-García, F.**, Borreguero, L., Barca, V., Ajenjo, M., Dopazo, J., Steel, K.P., Moreno-Pelayo, M.A.
5. *Spanish Population-Specific Differences in Disease-Related Genetic Variation*. XIII Symposium on Bioinformatics. May, 10th – 13th 2016, Valencia, Spain. Authors: Alicia Amadoz, Marta Bleda, Luz Garcia-Alonso, Alejandro Alemán, **Francisco García-García**, Juan A. Rodríguez, Josephine T. Daub, Gerard Muntané, Antonio Rueda, Alicia Vela-Boza, Francisco J. López-Domingo, Javier P. Florido, Pablo Arce, Arcadi Navarro, Salud Borrego, Javier Santoyo-López, Guillermo Antiñolo and Joaquín Dopazo.

6. *PanelMaps: a web tool for detection and visualization of altered regions for targeted sequencing*. XIII Symposium on Bioinformatics. May, 10th – 13th 2016 Valencia, Spain. Authors: José M. Juanes, **Francisco García-García**, Joaquin Dopazo and Vicente Arnau.
7. *Functional Meta-Analysis for Genomic Studies*. XIII Symposium on Bioinformatics. May, 10th – 13th 2016 Valencia, Spain. Authors: **Francisco García-García**, Iván Ansari Toledano, Cristina Escribano, Joaquin Dopazo and David Montaner.
8. *Web tools for the analysis of genomic data and the discovery new disease genes*. XIII Symposium on Bioinformatics. May, 10th – 13th 2016 Valencia, Spain. Authors: Alejandro Alemán, Francisco Salavert-Torres, Mercedes Medina, **Francisco García-García**, José Carbonell, Marta Hidalgo, Alicia Amadoz, Cankut Çubuk, Asunción Gallego and Joaquín Dopazo.
9. *BiER: Bioinformatics Platform for Rare Diseases*. I Congress Translational Research on Rare Diseases, 25,26 Feb 2016, Valencia, Spain. Authors: **García-García F.**
10. *Bioinformatics solutions for diagnostic using gene panels and discovering new variants in diseases*. IX CIBERER (Rare Diseases) Annual Meeting, 7-8 Mar 2016, Castelldefels, Barcelona, Spain. Authors: Alemán, A., Salavert, F., **García-García, F.**, Dopazo, J.
11. *CIBERER Spanish Variant Server and the importance of local genetic variability in Rare Diseases research*. IX CIBERER (Rare Diseases) Annual Meeting, 7-8 Mar 2016, Castelldefels, Barcelona, Spain. Authors: Alemán, A., Salavert, F., **García-García, F.**, Dopazo, J.
12. *Collaborative activity from Bioinformatics Rare Diseases*. IX CIBERER (Rare Diseases) Annual Meeting, 7-8 Mar 2016, Castelldefels, Barcelona. Authors: **García-García F.**, Alemán A., Salavert F., Dopazo J.

*Full list of 77 congress contributions.*

## Teaching in 2016

1. *In silico studies in Biomedicine*. Master in Bioinformatics. Universitat de València. Spain. 2016, Sep-Dec.
2. *Basics on Bioinformatics and Genomics*. Master in Bioinformatics. Universitat de València. Spain. 2016, Feb-Jul.
3. *Personalized Medicine in Clinical Practice: Genomic Big Data Management*. Master's Degree in Biomedical Biotechnology. Universitat Politècnica de València. Valencia, Spain. 2016, 12-15 Dec.
4. *Epidemiology and Statistics in Reproductive Health*. Teaching Unit for Midwives. Valencian School for Health Studies. Valencia, Spain. 2016 Nov.
5. *Massive Data Analysis course on Next Generation Sequencing Data Analysis*. Computational Genomics Department. Prince Felipe Research Center (CIPF). Valencia, Spain. 2016, 28-30 Sep.

6. *Statistical methods applied to Health Surveillance data analysis*. Work-Related Medicine Unit.Valencian School for Health Studies. Valencia, Spain. 2016 Jul-Sep.
7. *Genomic and Transcriptomic Data Analysis*. Instituto Gulbenkian de Ciência (IGC). Oeiras, Portugal. 2016, 18-20 May.
8. *Statistical Graphs*. Research Development Programme. Prince Felipe Research Center (CIPF). Valencia, Spain. 2016 Abril.
9. *Transcriptomics Data Analysis and Functional Profiling*. Master in Bioinformatics and Computational Biology National School of Health - ISCIII. Madrid, Spain. 2016, 16-17 Mar.
10. *Genomic Data Analysis (GDA 2016)*. Computational Genomics Department. Prince Felipe Research Center (CIPF). Valencia, Spain. 2016, 29 Feb - 4 Mar.
11. *Next Generation Sequencing Applications in Transcriptomics*. Master in Biomedical Technologies Management and Development. Universidad Carlos III de Madrid, Spain. 2016, 24 Feb.

***Full list of 55 teaching activities.***

