

CURRICULUM VITAE

Beatriz Fernández-Gómez

Date of birth: 07/09/1982

Nationality: Spanish

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EDUCATION

2006-2012 PhD in Marine Microbiology, Marine Science Institute (ICM-CSIC), Barcelona, Spain.

2000-2005 BSc Biology, University of Barcelona, Spain

WORK EXPERIENCE

2020 Postdoctoral researcher, Instituto de Oceanografía y Cambio Global (IOCAG), Gran Canaria, España.

2016-2018 Postdoctoral researcher, Center of Genomic Regulation, Santiago de Chile.

2014-2015 Postdoctoral researcher, Pontificia Universidad Católica de Chile (PUC), Department of Molecular Genetics and Microbiology, Faculty of Biological Sciences, Santiago de Chile.

Apr-Oct 13 Postdoctoral researcher, Marine Science Institute (ICM-CSIC), Barcelona, Spain.

Mar 11-12 Scientist in charge of the Work Package 2 at the European Project Marine Genomics for Users (MG4U). Centre National de la Recherche Scientifique (CNRS), France.

Feb- Jun 05 Research assistant, Marine Science Institute (ICM-CSIC), Barcelona, Spain.

VISITING SCIENTIST

Sept-Dec 12 Scripps Institution of Oceanography, San Diego, USA.

May 2008 University of Montpellier, France.

Oct 06-Feb 07 Max Planck Institute (MPI) for Marine Microbiology, Bremen, Germany.

July 2005 Harvard Medical School, Boston, USA.

FIELD EXPERIENCE

Feb-Mar08 Circumpolar Flow Lead Study System, on board the Canadian Icebreaker CCGS *Amundsen* (Beaufort Sea, Western Arctic).

Jun10 ALOHA STATION (Hawaii), as part of a summer course at Manoa University, Hawaii, USA.

Dec11-Jan12 TARA OCEANS (Leg from Panama City in Panama to Savannah in Georgia).

Feb-Mar14 Antarctic expedition 50 (ECA50) at the Chilean naval base Arturo Prat (Greenwich Island, South Shetland Islands).

CONFERENCE CONTRIBUTIONS

Posters

1. Fernández-Gómez B, González JM, Pinhassi J, and Pedrós-Alió C. The genome of *Polaribacter* sp. A manual on how to survive in the surface Ocean. Marine Genomics International Conference. Sorrento (Italy). November 2006.
2. Fernández-Gómez, B, Richter, M, Schüler, Glöckner, FO, González, JM, Pedrós-Alió, C. 2008. Comparative genomics of marine Bacteroidetes: Ecological insights. Gordon Research Conference on Marine Microbes. Lucca (Italy), July 2008
3. Fernández-Gómez B, Richter M, Schüler M, Glöckner FO, González J, and Pedrós-Alió C. Comparative genomics of Marine Bacteroidetes: Ecological Insights. II Nacional Congress of Biodiversity, Aqua Hotel Ona Brava, Sta. Susanna, Girona, February 2009.
4. Fernández-Gómez B, Fernández-Guerra A, Casamayor EO, González JM, Pedrós-Alió C and Acinas, SG. 2010. Patterns in Marine Prokaryotic Genomic Islands: An array of opportunities for ecological fitness. Gordon Research Conference on Marine Microbes. Tilton School. New Hampshire, U.S.A., July 2010.
5. Schutte C, D'Ambrosio L, Altunkaya A, Bayindirli C, Bergauer K, Carpintero de Moraes P, Chen H, Edwards B, Fernández-Gómez B, Grote J, Hamisi M, Logares R, Nguyen D, Rii S, Saeck E, Widner B. Bloom Chasing: Biological response to mesoscale eddies in the North Pacific subtropical gyre. ASLO Aquatic Sciences Meeting. Puerto Rico, February 2011.
6. Fernández-Gómez B, Nguyen D, Sala MM, Maranger R, and Pedrós-Alió C. Seasonal changes in substrate utilization patterns by bacterioplankton in the Amundsen Gulf (Western Arctic). International Polar Year Workshop: From Knowledge to Careers. Montréal, Canada, April 2012.
7. Fernández-Gómez B, German Marchandon, Fernando D. Alfaro, Cynthia Sanhueza, Martin Polz, Laura Farías, Pauline Snoeijs, and Beatriz Díez. Salinity shapes bacterial composition in the ice brine and seawater communities in the Arctic Ocean. GRC

Marine Molecular Ecology. Hong Kong, August 2015.

8. Fernández-Gómez B, Maldonado J, Mandakovic, D., Gaete A., Gutiérrez RA., Maass A., Cambiazo V., and González M. Bacterial communities associated to Chilean altiplanic plants from the Andean grasslands soils. EMBO workshop, Integrative biology: From molecules to ecosystems in extreme environments. Santiago de Chile, April 2019.

PROJECTS

1. GEMMA. Genómica y ecología de los microorganismos marinos 2008-2010. Funding agency: Ministerio de Educación y Ciencia (CTM2007-63753-C02-01/MAR). PI: Carlos Pedrós-Alió, Institut de Ciències del Mar (CSIC), Spain.

2. Pyrosequencing of 16 bacterial samples from the Blanes bay Microbial Observatory 2007-2009. Funding agency: Keck Foundation. Project coordinator: Dr. Mitchell Sogin, International Census of Marine Microbes. MBO PI: Carlos Pedrós-Alió.

3. Marine Gems 2011-2013. Ecology of marine microorganisms through environmental and functional genomics. Funding agency: Ministerio de Educación y Ciencia (CTM2010-20361). PI: Carlos Pedrós-Alió.

4. MALASPINOMICS 2012-2013. Funding agency: Complementaria de Referencia CTM2011-15461-E (subprogram MAR) Project Coordinator: Dr. Carlos M. Duarte.

5. The metagenomes and metatranscriptomes of microbial communities at the Arctic and Antarctic Ocean surfaces: which metabolic processes and principal actors drive these ecosystems and how will climate change modify them? 2013- 2015. Funding agency: Fondo Nacional de Desarrollo Científico y Tecnológico.

6. Shifts in marine Antarctic microbial community structure and function in response to deglaciation and sea ice melting accelerated by climate change 2015- 2017. Funding agency: Comisión Nacional de Investigación Científica y Tecnológica.

7. Center for Genome Regulation. AFONDAP Center of Excellence 2011-2020. Funding agency: Comisión Nacional de Investigación Científica y Tecnológica de Chile.

8. TRIATLAS “Tropical and South Atlantic- climate-based marine ecosystem predictions for sustainable management”. Funding agency: European Union Horizon 2020 research and innovation program. PI: Heino Fock.

PUBLICATIONS

Published papers

1. González JM, Fernández-Gómez B, Fernández-Guerra A, Gómez-Consarnau L, Sánchez O, Coll-Lladó M, del Campo J, Escudero L, Rodríguez-Martínez R, Alonso-Sáez L, Latasa M, Paulsen I, Nedashkovskaya O, Lekunberri I, Pinhassi J, and Pedrós-Alió C. Genome analysis of the proteorhodopsin-containing marine bacterium *Polaribacter* sp. MED152 (Flavobacteria). *Proceedings of the National Academy of Sciences of*

the United States of America 2008, 105(25):8724-9.

2. González JM, Pinhassi J, Fernández-Gómez B, Coll-Lladó M, González-Vázquez M, Puigbó P, Jaenicke S, Gómez-Consarnau L, Fernández-Guerra A, Goesemann A, and Pedrós-Alió C. Genomics of the proteorhodopsin-containing marine flavobacterium *Dokdonia* sp. MED134. *Applied and Environmental Microbiology*, 2011, doi:10.1128/AEM.06152-11.

3. Fernández-Gómez B, Fernández-Guerra A, Casamayor EO, González JM, Pedrós-Alió C, and Acinas SG. Patterns and architecture of marine prokaryotic genomic islands. *BMC Genomics* 13:347,2012.

4. Grote J, Bayindirli C, Bergauer K, Carpintero de Moraes P, Chen H, D'Ambrosio L, Edwards B, Fernández-Gómez B, Hamisi M, Logares R, Nguyen D, Rii S, Saek E, Schutte C, Widner B, Church MJ, Steward GF, Karl DM, DeLong EF, Eppley JM, Schuster, Kyrpides NC, Rappé MS. Complete genome sequence of strain HIMB100, a cultured representative of the SAR116 clade of marine Alphaproteobacteria. *Standards in Genomic Sciences*, 2011, doi:10.4056/sigs.1854551.

5. Fernández-Gómez B, Richter M, Schüler M, Pinhassi J, Acinas SG, González JM, and Pedrós-Alió C. Ecology of marine Bacteroidetes: a comparative genomics approach. *The ISME Journal*, doi:10.1038/ismej.2012.169,2013

6. Crespo BG, Pommier T, Fernández-Gómez B, and Pedrós-Alió C. Taxonomic composition of the particle attached and free-living bacterial assemblages in the NW Mediterranean Sea analyzed by pyrosequencing of the 16S rRNA. *Microbiology Open*, 2013.

7. Zaparter C, Chauvigné F, Fernández-Gómez B, Finn RN, and Cerdà J. Alternative splicing of the nuclear progesterin receptor in a perciform teleost generates novel mechanisms of dominant-negative transcriptional regulation. *General and Comparative Endocrinology*, 182:24-40,2013.

8. Fernández-Gómez B, Sala MM, and Pedrós-Alió C. Seasonal changes in substrate utilization patterns by bacterioplankton in the Amundsen Gulf (western Arctic). *Polar Biology*, 37 (9): 1321-1329,2014

9. Adriana Alberti et al. Viral to metazoan marine plankton nucleotide sequences from the *Tara* Oceans expedition. *Scientific data* (4): doi:10.1038/sdata.2017.93,2017

10. Dinka Mandakovic, Claudia Rojas, Jonathan Maldonado, Mauricio Latorre, Dante Travisany, Erwan Delage, Audrey Bihouée, Géraldine Jean, Francisca P. Díaz, Beatriz Fernández-Gómez, Pablo Cabrera, et al. Structure and co-occurrence patterns in microbial communities under acute environmental stress reveal ecological factors fostering resilience. *Scientific Reports* 8:5875(2018)

11. Fernández-Gómez B, Beatriz Díez, Martín Polz, José Ignacio Arroyo, Fernando D. Alfaro, German Marchandon, Cynthia Sanhueza, Laura Farías, Nicole Trefault, Pablo A. Marquet, Marco A. Molina-Montenegro, Peter Sylvander, and Pauline Snoeijs. Bacterial community structure in a sympagic habitat expanding with global warming: brackish ice brine at 85–90 °N. <https://doi.org/10.1038/s41396-018-0268-9>

12. Fernández-Gómez B, Maldonado J., Mandakovic, D., Gaete A., Gutiérrez RA., Maass

A., Cambiazo V., and González M. Bacterial communities associated to high altitude native plants from the Andean grasslands soils. *Scientific Reports* 9:1042(2019)

13.Llanillo, P.J., Aiken, C.M., Cordero, R.R., Damiani, A., Sepulveda, E and Fernández-Gómez, B.: Oceanographic Variability induced by Tides, the Intraseasonal Cycle and Warm Subsurface Water intrusions in Maxwell Bay, King George Island (West-Antarctica). *Scientific Reports* 9:18571 (2019).

Book chapters

1. Erin R. Graham, Huan Chen, Claudia Dziallas, Beatriz Fernández-Gómez, and John B. Kirkpatrick. A more inclusive loop: Examining the contribution of five bacterial specialists to nutrient cycling and the microbial loop In: *Eco-DAS X Symposium Proceedings* (Association for the Sciences of Limnology and Oceanography). Chapter 5, 2014, 61–81.

COURSES, WORKSHOPS AND SCIENTIFIC SPREADING EVENTS

- 2004 XV Advanced Course in Microbial Ecology in La Camarga (France)
Organized by the Catalan Society of Biology
- 2004 I Life Origin and Evolution Symposium
Faculty of Biology, University of Barcelona
- 2005 II Life Origin and Evolution Symposium
Faculty of Biology, University of Barcelona
- 2006 Course in Bioinformatics (Genome Annotation by GenDB)
Marine Science Institute (ICM-CSIC)
Organized by The Developers of the GenDB System
- 2006 Introduction to ARB software and phylogenetic analysis of ribosomic genes.
Centro de Estudios Avanzados de Blanes (CEAB-CSIC).
- 2006 International ARB workshop
Max Planck Institute for Marine Microbiology (Bremen, Germany)
- 2007 Bioinformatics I course
Max Planck Institute for Marine Microbiology & the Ribocon GmbH
- 2007 Marine Evolutionary & Ecological Genomics
Station Biologique de Roscoff, France
- 2007 D.E.A (Diploma Estudios Avanzados): Marked as Excellent
- 2010 Hawai'i Summer Course on "Microbial Oceanography: Genomes to Biomes"
Organized by AGOURON INSTITUTE AND C-MORE
University on Hawai'i at Manoa, Honolulu, HI, U.S.A.
- 2012 X Eco-DAS Symposium (Ecological Dissertation in Aquatic Sciences)
Organized by C-MORE and ASLO
University on Hawai'i at Manoa, Honolulu, HI, U.S.A.

2013 EU-US Theoretical and Practical Training Course on Marine Bioinformatics
Delaware Biotechnology Institute, Newark, Delaware, U.S.A

2014 Analysis and Manipulation of data using R software
Department of Ecology, Pontificia Universidad Católica de Chile.

MENTORING

2011 Undergraduate student Claudia EgasEgas. Duration: 4 months.

2015 Undergraduate students Alejandro Aravena and LuisCid.

COMMISSIONS OF TRUST:

- Reviewer of National Science Foundation(NSF, USA).
- Reviewer of Marine and Freshwater Research Journal.

LANGUAGES AND OTHER SKILLS:

- Spanish:Native.
- Catalan:Native.
- English:Advance.
- French:Basic.

MISCELLANEOUS:

- Driving license (car and motorbike).
- 8 SCUBA dive license (ACUC).

