

Saioa Manzano-Morales

PHD STUDENT · COMPARATIVE GENOMICS

Barcelona Supercomputing Center, Plaça d'Eusebi Güell, 1-3, 08034 Barcelona, Spain
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Education

University of Barcelona (UB)

Barcelona, Spain

PHD GENETICS

September 2022 - present

- Comparative Genomics - Barcelona Supercomputing Center, Life Sciences Department
- Advisor: Dr. Toni Gabaldón

Technical University of Madrid (UPM)

Madrid, Spain

MS COMPUTATIONAL BIOLOGY

September 2020 - September

2021

- Specializations: Computational-Systems Biology and Genomics, Computational Biology and Data Science
- Master's Thesis in Evolutionary Dynamics of Genomes, Viruses and Microbial Populations Group
- Advisors: Dr. Jaime Iranzo, Dr. Jaime Huerta-Cepas

University of the Basque Country (UPV-EHU)

Leioa, Spain

BS BIOCHEMISTRY AND MOLECULAR BIOLOGY

September 2015 - July 2019

- Bachelor's Thesis in Bacterial and Fungal Biomimicry Group
- Advisor: Dr. Aitor Rementería

Research Experience

Barcelona Supercomputing Center - Comparative Genomics Group

Barcelona, Spain

ADVISOR: DR. TONI GABALDÓN

2022 - Present

- Dissertation: "Relative Timing and Modularity in The Path to the Last Eukaryotic Common Ancestor"

Centro de Investigaciones Biológicas Margarita Salas - Biotechnology for

Madrid, Spain

Lignocellulosic Biomass

ADVISOR: DR. JORGE BARRIUSO

2021 - 2022

- JAE Intro Fellowship awarded by Consejo Superior de Investigaciones Científicas (CSIC)
- Project: Degradation of conventional plastics by microbial consortia

Centre for Plant Biotechnology and Genomics - Evolutionary Dynamics of Genomes, Viruses and Microbial Populations

Madrid, Spain

CO-ADVISORS: DR. JAIME IRANZO, DR. JAIME HUERTA-CEPAS

2021

- Master's Thesis: "Inference and Comparison of Prokaryotic Pangenomes: Orthology vs Sequence Identity. Comparing the PanX, EggNog-mapper and Roary Pipelines"

University of The Basque Country - Dept of Immunology, Microbiology and

Leioa, Spain

Parasitology

ADVISOR: DR. AITOR REMENTERÍA

2017-2019

- Ikasiker Fellowship awarded by the Basque Government
- Bachelor's Thesis: "Phenotypic Characterization of strains of *Aspergillus fumigatus*: effect of fmaA mutations on growth and stress response"

Publications

Manzano-Morales, S, Liu Y, González-Bodí S, Huerta-Cepas, J, Iranzo, J, 2023;24(1):250. *Comparison of gene clustering criteria reveals intrinsic uncertainty in pangenome analyses*. Genome Biology

IN REVIEW

Bernabeu, M, **Manzano-Morales, S**, Gabaldón, T. 2023. *On the impact of incomplete taxon sampling on the relative timing of gene transfer events*. PLOS Biology

Awards, Fellowships, & Grants

- 2022 **Predoctoral Grant**, Gobierno Vasco - Government of the Basque Country
- 2022 **IV Bioinformatics Datathon: Award to the best Master's Thesis in Bioinformatics (Finalist)**, University of Granada
- 2021 **JAЕ Intro Fellowship**, Consejo Superior de Investigaciones Científicas - CSIC
- 2018 **Ikasiker Fellowship**, Gobierno Vasco - Government of the Basque Country

Presentations

CONTRIBUTED PRESENTATIONS

Manzano-Morales, S, Gabaldón, T., 17-19 January 2024. *Horizontal Gene Transfer in Asgard Archaea*: SESBE, Málaga (Spain). **Poster**

Manzano-Morales, S, Gabaldón, T., 22-27 July 2023. *Horizontal Gene Transfer in Asgard Archaea*: SMBE, Ferrara (Italy). **Poster**

Manzano-Morales, S, Gabaldón, T., 5 July 2023. *Horizontal Gene Transfer in Asgard Archaea*: XXII Jornada de Biología Evolutiva, Barcelona (Spain). **Oral Presentation**

Guerrero, J; Crespo, D; **Manzano, S**; Prieto, A; Barriuso, J., 25-28 June 2023. *Análisis transcriptómico de un consorcio mixto hongo-bacteria para la valorización de un residuo lignocelulósico*: XXI Congreso de la Sociedad Española de Microbiología, Burgos (Spain). **Poster**

Manzano-Morales, S, Gabaldón, T., 9-10 May 2023. *Horizontal Gene Transfer in Asgard Archaea*: 10th BSC Doctoral Symposium, Barcelona (Spain). **Oral Presentation**

Manzano-Morales, S, Gabaldón, T., 3-7 October 2022. *A pan-genome view of the Asgard archaea, the closest relatives of eukaryotes*: ERGA Biodiversity Genomics, Online. **Poster & Lightning talk**

Manzano-Morales, S, Gabaldón, T., 17-18 September 2022. *A pan-genome view of the Asgard archaea, the closest relatives of eukaryotes*: Quest for Orthologs 7, Sitges (Spain). **Poster**

Manzano-Morales, S, Gabaldón, T., 12-17 September 2022. *A pan-genome view of the Asgard archaea, the closest relatives of eukaryotes*: EMBO Workshop. Comparative genomics of unicellular eukaryotes: Interactions and symbioses, Sant Feliu de Guixols (Spain). **Poster**

Teaching Experience

Spring 2023	Comparative and Functional Genomics, BS Bioinformatics, Universitat Pompeu Fabra (UPF) , Teaching Assistant	Barcelona, Spain
Fall 2022	Bioinformatics, BS Biology, Universitat Pompeu Fabra (UPF) , Teaching Assistant	Barcelona, Spain
Spring 2022	Comparative and Functional Genomics, BS Bioinformatics, Universitat Pompeu Fabra (UPF) , Teaching Assistant	Barcelona, Spain

Outreach & Professional Development

SERVICE AND OUTREACH

April 2023	Crazy about HPC - Fundació Catalunya La Pedrera, Volunteer Teacher	<i>Barcelona, Spain</i>
2022- Present	Bioinfo4Women - Barcelona Supercomputing Center, Member	<i>Barcelona, Spain</i>
May 2022	Women's Health Awareness Week- Barcelona Supercomputing Center, Volunteer	<i>Barcelona, Spain</i>
May 2022	9th BSC Doctoral Symposium- Barcelona Supercomputing Center, Volunteer	<i>Barcelona, Spain</i>
September 2022	BSC Open House - Barcelona Supercomputing Center, Volunteer	<i>Barcelona, Spain</i>
February 2023	Life Sciences Open Day - Barcelona Supercomputing Center, Volunteer and Presenter	<i>Barcelona, Spain</i>

DEVELOPMENT

Scientific Outreach, Laniakea Management & Communication, 2021, 120h.

PROFESSIONAL MEMBERSHIPS

Societat Catalana de Biologia (SCB) - Catalan Society for Biology

Society for Molecular Biology and Evolution (SMBE)

Spanish Regional Student Group (RSG-Spain) - International Society for Computational Biology (ISCB)