Sergio Andreu Sánchez
Computational Biologist, MSc Bioformatics

About me Graduated in bioinformatics by the University of Copenhagen, with specialization in Computational Biology, BSc Biotechnology. I decided to pursue a career in bioinfomatics due to my great interest in omics and their applications. Currently PhD students at UMCG Genetics, Groningen, in integrative multiomics.

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Experience

January 20220 / , PhD candidate at University Medical Center Groningen Understanding the role of the human gut microbiome in physiology and pathology.

October 2019 / December 2019, Research assistant at Biodiversity genomics lab, Department of ecology and evolution, University of Copenhagen

August - Nov 2018 / February - September 2019, MSc student at Biodiversity genomics lab, Department of ecology and evolution, University of Copenhagen
Master thesis project working on the 10.000 bird genome project. Study of mitochondrial patterns of adaptation using whole genomes of over 360 bird species.

Oct 2018 - September 2019, Student Assistant at Center for Genomic Medicine, Rigshospitalet
Part-time position in clinical bioinformatics. Tasks: implementation of NGS pipelines and new routines, production and troubleshooting, ad-hoc bioinformatics analysis. Also worked in projects analyzing bacterial and metagenomic data, HLA typing or benchmarking.

Dec 2017 - Nov 2018, Student Assistant at Evaxion Biotech
Assistant at the bioinformatics division. Tasks: Intranet maintenance and development (Django), scripting and set up of documentation routines.

April - Sept 2018, Internship at Center For Protein Research, University of Copenhagen
MSc 7.5 ECTS project at translational disease systems biology group (Brunak's group). Genetic imputation on genotypes of over 86,000 individuals and study of associations with known comorbidities.

Feb - August 2017, Internship at Bioengineering Institute, Miguel Hernandez University
Internship at the genetic department (Micol-Ponce group). Development of mapping-by-sequencing software. User-friendly pipeline which allows to easily identify phenotype-causing candidate mutations from whole genome data.

Other undergraduate experiences
September 2016-January 2017 Tsinghua University (Jose Carlos Pastor-Pareja's group), image analysis and characterization of *Drosophila melanogaster's* wing disc.
February-June 2015 Jagiellonian university (Ewa K. Zuba-Surma's group) effecs of micorvesicles application on mesenchymal stem cells.
June-July 2014 Centro de Investigación Príncipe Felipe (CIPF) – (Janet Hoenicka's group), gene cloning.

Education

2017 - 2019, University of Copenhagen
MSc. Bioinformatics, 180 ECTs, Computational Biology specialization.

2012 - 2017, Technical University of Valencia
BSc. Biotechnology, Biomedical specialization (240 ECTS). Two years undertaken in the ARA group (high academic performance). Nine months Erasmus exchange at Jagiellonian University (54 ECTS), taking courses from the international master of Molecular Biotechnology. Five months exchange (PROMOE scolarship) at Tsinghua University developing the bachelor's thesis.

Skills

Programming
- Python
- R
- Bash
- Latex

Key words
- Genomics
- Variant calling
- Genetics
- NGS pipelines
- Metagenomics
- RNAseq
- Statistics
- Data Science

Other Skills

Experience working in shell and Unix environments. Programming experience with packages as Django, sklearn, Biopython and Snakemake in Python. Tidyverse R. Experience working in supercomputing clusters (Computerome, GenomeDk).
Hands-on cellular and molecular laboratory experience. Experienced in cell culturing, molecular biology applications (PCR, qPCR, gene cloning), *Drosophila melanogaster* and *Arabidopsis taliana,* FACS/MACS, confocal microscopy and image processing among others.