

Luiz Felipe Piochi

Master in Cell and Molecular Biology, Bioinformatics

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SKILLS

- **Computational:** Python, R, Linux, HPC Environments, MS Office
- **Research Technologies:** cell culture systems, microbiology, qPCR, WB, Lab Safety, GCP
- **Languages:** Portuguese (native), English (fluent), Spanish (C1), German (A1)

EXPERIENCE

ERBEL & UPV/EHU | Applied Genomics and Bioinformatics Lab

Bioinformatician

Feb. 2024 – present

- Bioinformatics processing of NGS sequences and integration of omics and metadata
- Standardized and optimized DNA storage and sequencing ()
- Metagenomics analysis

UC Biotech | Data-driven Molecular Design Lab

Bioinformatician

Nov. 2021 – Dec. 2023

- Developed and published a deep learning tool for drug-resistance prediction in a high impact bioinformatics journal
- Processed and analyzed multi-omics data from over 10 public datasets and hundreds of cell lines
- Awarded a highly competitive Fundación La Caixa-funded research grant (LCF/PR/HP20/52300003)
- Established a pipeline for the virtual screening of over 300 compounds against proteins of interest in neurodevelopment
- Primary mentor for one undergraduate and one master's thesis student

University of Coimbra | MitoLab

Undergraduate Researcher

Oct. 2019 – July 2020

- Implemented multiple metabolic assays and characterized the dynamics and patterns of different cancer cell lines
- Developed a brief inhouse Python pipeline for the analysis and visualization of different data types, contributing to a 30% reduction in time spent on repetitive tasks by different project members
- Compiled and published project perspectives in review format on a high impact ageing journal

University of Coimbra | Environmental Microbiology Lab

Research Intern

Mar. 2018 – Aug. 2019

- Assisted in the design and construction of reactors for heavy metal bioaccumulation and bioleaching assays
- Contributed to the extraction, sequencing and annotation of tens of bacterial genomes
- Screened genomic data for the identification of heavy metal-resistance genes using mathematical modelling
- Contributed to the organization the international microbiology congress Microbiotec19
- Hosted a round table between former ASM President Dr. Michele Swanson and over one hundred University of Coimbra students and researchers

EDUCATION

University of Coimbra | Master of Science, Cell and Molecular Biology - Biomedicine

Sep. 2020 – Feb. 2023

- **Final grade: 19/20 (GPA: 3.9)**
- Top 10% scores in Biostatistics, Research Innovation and Scientific Writing courses

University of Coimbra | Bachelor of Science, Biochemistry

Sep. 2017 – June 2020

- **Final grade: 17/20 (GPA: 3.6)**
- Top 10% scores in Statistics, Biostatistics and Molecular Biology courses

São Paulo State Technological School | **EQF 4 Degree in Business Administration**

Jan. 2014 – Dec. 2016

- Final project: “The Importance of HR within Companies: Teamwork and Divergences”

PUBLICATIONS

- Amorim, A. M., **Piochi, L. F.**, Gaspar, A. T., Preto, A. J., Moreira, I. S. (2024). Advancing Drug Safety in Drug Development: Bridging Computational Predictions for Enhanced Toxicity Prediction. In Chemical Research in Toxicology.
- **Piochi, L. F.**, Preto, A. J., Moreira, I. S. (2023). DELFOS: multi-omics-based prediction of cancer drug sensitivity with scRNA-seq data. In Bioinformatics.
- **Piochi, L. F.**, Gaspar, A. T., Rosário-Ferreira, N., Preto, A. J., Moreira, I. S. (2022). In Protein Interaction Networks (Vol. 131, pp. 45–83).
- **Piochi, L. F.**, Machado, I. F., Palmeira, C. M. & Rolo, A. P. (2021). Sestrin2 and mitochondrial quality control: Potential impact in myogenic differentiation. In Ageing Research Reviews.

AWARDS AND ACHIEVEMENTS

- Awarded a highly competitive PhD Studentship, ranking **among the top 10 recipients**, by the Portuguese Foundation for Science and Technology.
- Recognized by the **Merit Board for Top 5% Students** at the University of Coimbra in **2019/2020 and 2021/2022** for outstanding academic performance.
- Received a Faculty of Sciences and Technology of the University of Coimbra (FCTUC) Student grant for **outstanding academic performance** to attend an international symposium in 2019.
- Achieved **second place overall** in the national competition "Science at School Awards" in 2018, in association with the University of Coimbra, by the Ilídio Pinho Foundation.