

Postgraduate Fellowship in Bioinformatics and Computational Biology at the University of Coimbra

We are looking for a highly motivated **postgraduate researcher** to join the SenDrug project which aims to identify novel therapeutic strategies targeting cellular senescence, a key driver of aging and age-related diseases. By integrating advanced bioinformatics and artificial intelligence with experimental validation, SenDrug will enable the discovery of senolytic and senomorphic compounds with unprecedented cell-type specificity.

The successful candidate will play a central role in the collection, integration, and analysis of large-scale omics data, contributing to the development of innovative, data-driven strategies for drug repurposing. The position offers a unique opportunity to work at the forefront of AI-based biomedicine, gaining strong expertise in cutting-edge computational methods and contributing to research with considerable translational potential.

Key Tasks for the Research Fellow:

- Data collection, curation, and integration from public repositories (e.g., GEO, DrugBank, CellAge)
- Transcriptomic analysis to characterize senescence across cell types
- Expression-based and network-based drug repurposing to identify and prioritize candidate compounds
- Preparation of results for publication and participation in dissemination activities

The position is based at the Centre for Innovative Biomedicine and Biotechnology (CiBB) at the University of Coimbra, one of Portugal's leading biomedical research environments. The candidate will join the Bioinformatics and Data Analysis Unit (<https://cibb.uc.pt/en/bioinformatics-and-data-analytics>), led by Matthias Futschik, which specializes in omics data analysis, machine learning, and systems biology, with access to state-of-the-art computational infrastructure, including high-performance computing resources, and work in collaboration with the Advanced Therapies Group (<https://cnc.uc.pt/en/research-group/advanced-therapies>).

Required Qualifications:

- Master's degree holders, in the scientific area of Bioinformatics, Computational Biology, Molecular Biology, Biochemistry, Biology, Computer Sciences and related areas

Essential Qualifications and Skills:

- Knowledge in scientific programming (R and/or Python)
- Knowledge of molecular biology
- Knowledge in applied statistics
- Capacity of communication in English (written and spoken)
- Interest in data analysis

Advantageous Skills:

- Knowledge in omics data analysis, particularly quantitative data-
- Knowledge in machine learning or AI approaches applied to biological data
- Knowledge in biology of aging or of human diseases

Further Fellowship Details:

- **Duration:** 12 months (with potential extension up to 18 months)
- **Start Date:** July 2026
- **Selection process:** Details can be found at <https://euraxess.ec.europa.eu/jobs/442187> and <https://www.apply.uc.pt/> (Procedure code IT137-26-267)

Interested candidates are encouraged to contact Matthias Futschik (matthias.futschik@uc.pt) for more information about the project and to consult the project web-site: <http://www.sysbiolab.eu/sendrug.html>.

Application Instructions:

Applicants should submit

- A motivation letter (including contact details of two referees and covering the essential and optionally desirable qualifications)
- Curriculum Vitae (CV) dated and signed
- academic degree certificates
- optionally other supporting documents

Application Deadline: 26 June 2026

Apply via the UC platform: <https://www.apply.uc.pt/>