

BORSA DE CURRÍCULUMS VITAE PER A 4 positions at the Systems Pharmacology Lab.

S'OFEREIX:

We offer 4 positions of one-year contract, with possibility of extension, at the Systems Pharmacology Lab led by Prof. Jordi Mestres, at the Research Programme on Biomedical Informatics (GRIB) at the Barcelona Biomedical Research Park (PRBB). Salary will depend on the value and experience of the candidates.

We are looking for motivated scientists in the following areas:

- 1. Informatics** with knowledge/experience in:
 - software and tools packaging will leverage existing efforts around package managers (e.g. Bioconda) and containerization technology (e.g. Docker, Singularity) with reference to standards from the Open Containers Initiative.
 - workflow composition and execution based on adopted standards for workflow specification (e.g. Common Workflow Language).
 - an environment with a graphical user interface (e.g. based on Galaxy) to support end-users with little or no experience in the design, customization and implementation of software pipelines.
- 2. Data science** with knowledge/experience in:
 - managing and integrating biologically-relevant data from multiple sources.
 - workflows and FAIR data.
- 3. Chemoinformatics** with knowledge/experience in:
 - database management
 - chemoinformatics methods and tools
 - rare disease drug discovery
- 4. Molecular modeling** with knowledge/experience in:
 - structure-based drug design tools
 - fragment-based virtual screening
 - docking and molecular dynamics

Resum dels projectes:

DRIVE. EU-OPENSOURCE (EU-OS) is a Research Infrastructure (RI) of open screening and medicinal chemistry platforms, which enables small molecule related studies in Chemical Biology. The impact of chemical biology is felt all the way from the discovery of better medicines to treat humans and animals, through to the identification of safer pesticides to protect vital crops. EU-OS is a unique infrastructure, established by eight member states, which have joined forces to create a thriving research environment for chemical screening and associated activities in the field of medicinal chemistry in Europe. EU-OS aims at operating and further developing its European distributed RI in order to provide open access to its collection of 140,000 small chemical compounds as well as to its facilities, database and expertise — thereby facilitating high quality basic and applied research in the vibrant research field of chemical biology. The INFRADEV-3 project EU-OS-DRIVE will enhance the sustainability and operational excellence of EU-OS and its services. It will thereby underpin its mission to advance the understanding of human health, and the interconnection between a healthy environment and food supply by using small chemical molecules as a basis for the development of new innovative research tools

EOSC-Life. EOSC-Life brings together the 13 Biological and Medical ESFRI research infrastructures (BMS RIs) to create an open collaborative space for digital biology. It is our joint response to the challenge of analysing and reusing the prodigious amounts of data produced by life-science. Managing and integrating this data is beyond the capabilities of most individual end-users and institutes. By publishing data and tools in a Europe-wide cloud EOSC-Life aims to bring the capabilities of big science projects to the wider research community. Federated user access (AAI) will allow transnational resource access and authorisation. EOSC-Life establishes a novel access model for the BMS RI: through EOSC scientists would gain direct access to FAIR data and tools in a cloud environment available throughout the European Research Area. EOSC-Life will make BMS RIs data resources FAIR and publish them in the EOSC following guidelines and standards (e.g. EDML). Overall this will drive the evolution of the RI repository infrastructure for EOSC and integration of the BMS RI repositories. EOSC-Life will implement workflows that cross disciplines and RI boundaries and address the needs of interdisciplinary science. Through open hackathons and bring-your-own-data events we will co-create EOSC-Life with our user communities, providing a blueprint for how the EOSC supports wide-spread and excellent data-driven life science research. EOSC-Life will address the data policies needed for human research data under GDPR. Interoperable provenance information describe history of sample and data to ensure reproducibility and adherence to regulatory requirements. The goal of the EOSC-Life project is to make sure that life-scientists can find, access and integrate life-science data for analysis and reuse in academic and industrial research. EOSC-Life will transform European life-science by providing an open, continent-scale, collaborative and interdisciplinary environment for data science.

Per a més informació i presentació de currículum vitae i expedient acadèmic, contactar amb

carina.oliver@upf.edu, please **indicate the following REF.** depending on which offer you're interested.

- Informatics_SP
- Data Science_SP
- Chemoinformatics_SP
- Molecular modeling_SP

Data límit de presentació de CV: June 15th, 2020