Convocatoria: MELIS-PSR-INDF-2024-55

Job title: Computational scientist for protein design ref. MELIS-PSR-INDF-2024-55

Date of publication of the job offer: 23/09/2024

Research line: Genome Editing

Project and Institution that finance the contract:

PLEC2023-010243 finançat per MICIU/AEI/10.13039/501100011033 (TransMisiones 2023).

"Diseño de proteinas basado en IA unido a tecnologías moleculares avanzadas para el desarrollo, investgación y mejora de VLPs denueva generación para terapias avanzadas"

Job description:

The vast expansion of gene editing technologies and therapeutic enzymes holds substantial promise in disease treatment via a new class of genetic drugs. However, the challenge of how to efficiently deliver those tools to specific cell types and tissues remains to be solved. In our group, we have developed a synthetic evolution platform that uses molecular biology and machine learning frameworks to drive evolution of delivery vehicles with the potential to target any desired cell type with unprecedented precision.

We are seeking a passionate, impact-motivated scientist and problem solver who wishes to participate in a fast-paced, dynamic research environment. The developed work will involve computational bioprospecting and design of viral envelopes with targeted immune cell specificities. The candidate is expected to implement state of the art tools such as inverse folding, diffusion, and protein language generative models to design safe and efficient delivery vectors.

The project will involve Interactions with industry and Key opinion leaders in the field, in a vibrant ecosystem of translation projects and spin-off companies in the Translational Synthetic Biology Lab at the MELIS department.

Information on the minimum requirements:

- Demonstrable experience in structural biology equivalent relevant experience
- Strong bioinformatics background
- Previous experience with structure guided protein design
- Previous experience with implementation of ML frameworks
- Fluent in English

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Other requirements:

- Bachelor's degree or MSc in bioinformatics, computational biology, or equivalent relevant experience

Expected remuneration: annual gross salary of 29.590,66 – 33.442,18€.

Group and complement*:* PSR 3 level Q – L.

Dedication and working time: 35 hours/week (full time)

Type of contract: Indefinida, segons el previst al RD 32/2021 de 28 de desembre de 2021; i a l'article 23 bis de la Llei 14/2011 d'1 de juny, de la Ciència, la Tecnologia i la Innovació.

Selection criteria:

1. Academic background: 0-20 points.
2. Professional experience/Appropriateness to the proposed profile: 0-60 points.
3. Other achievements: 0-20 points.

Minimum score to pass the selection process: 80 points.

Selection Committee:

President: MARC GÜELL CARGOL

Member 1: LAURA FORT AZNAR

Member 2: BERTA ALSINA ESPAÑOL

Information on the application process: send an email with a copy of the candidate's curriculum vitae, indicating the **reference MELIS-PSR-INDF-2024-55** in the subject line.

Contact: recruitment.melis@upf.edu

Deadline to submit applications: 07/10/2024