A 36-month Post-doctoral position in Molecular Modelling and Design of Enzymes / Toulouse, France

A Post-doctoral position is available at the Toulouse Biotechnology Institute (TBI) located on the grounds of the INSA-Toulouse, France. The laboratory is affiliated to the French National Centre for Scientific Research (CNRS, UMR INSA-CNRS 5504) and the French National Institute for Agricultural Research (INRA, UMR INSA-INRAE 792).

Job description

The successful candidate will be a key member of a research project named Bactsqueez, funded by the French National Research Agency (ANR) and in collaboration with Gene&GreenTK, a spin-off company from Aix-Marseille University, and the Institute for integrative biology of the cell (I2BC, Saclay). The Bactsqueez project aims at developing new enzyme-based alternatives to biocides to fight bacterial virulence of major plan pathogens in a sustainable and environmentally friendly manner.

The candidate will be in charge of conducting molecular modelling studies to get a better understanding of molecular determinants involved in function and substrate recognition of targeted enzymes. The project will also aim at redesigning these enzymes to achieve the desired catalytic reaction and drive experimental construction of enzyme mutant libraries. This work will be carried out in tight interaction with our collaborators in charge of enzyme engineering and evaluation tasks.

We are looking for a highly motivated scientist who has research background and expertise in a number of areas of Computational Biology, including protein modelling, molecular docking, molecular dynamics simulations and experience in computational protein design would be a plus. A biology background and a sound understanding of protein modelling and protein-ligand interactions are required. Familiarity with UNIX and Linux is expected.

The candidate will be a key player in the project as He/She will ensure the tight interaction between the different academic and industrial partners. He/She will be based at TBI, Toulouse (31).

Qualifications

- PhD in Molecular Modelling, Structural biology, Biophysics or related field.
- Strong communication and organizational skills and enjoy working in a team-oriented environment.
- Good English skills are required and notions of French would be a plus.
- The position is available starting in January 2023 and for a duration of up to 36 months.

Applicants should send as soon as possible CV, summary of previous research and contact addresses of two references to:

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