



A POST-DOCTORAL POSITION IN MOLECULAR MODELLING & DESIGN

LABORATORY ENVIRONMENT

A Post-doctoral position in molecular modelling and design is available at the **Biosystems and Process Engineering Laboratory (LISBP-INSA)** in Toulouse, France. The laboratory is associated to the French National Centre for Scientific Research (CNRS, UMR INSA-CNRS 5504) and the French National Institute for Agricultural Research (INRA, UMR INSA-INRA 792).

The position is within the frame of a multidisciplinary project, CUSTOZYME, focused on the development and the validation of an innovative software for protein design. The project involves three partners that share their knowledge and expertise in: (i) computational structural biology, protein design and engineering (**LISBP-INSA**), (ii) exact artificial-intelligence-based combinatorial optimization and exhaustive sampling algorithms (**MIAT-INRA**), (iii) robotics-inspired algorithms for modelling and predicting large scale molecular motions (**LAAS-CNRS**). CUSTOZYME is funded by **Toulouse White Biotechnology Centre of Excellence (TWB, <http://www.toulouse-white-biotechnology.com>)**, a pre-industrial demonstrator in the field of industrial biotechnology.

SKILLS AND KNOWLEDGE REQUIRED

The candidate will be in charge of molecular modelling and protein design studies, led in close collaboration with computational protein design software developers and experimentalists in enzyme engineering, in order to assess and validate the developed protein design tool on two classes of enzymes of biotechnological or therapeutic interest.

We are looking for highly motivated scientist with research background and expertise in a number of areas of computational structural biology, including protein modelling, computational protein design, comparative protein modelling, structure-function relationship analysis, ligand-protein interaction, molecular dynamics simulations/conformational analysis. Familiarity with Linux OS is expected.

CONDITIONS

The perspective researcher will have the opportunity to work in a diverse and rich multidisciplinary environment, surrounded by both computational and experimental experts in the field of protein design and engineering. Applicants should enjoy teamwork and have very good communication skills.

The position is available from January 1st, 2019 and for a duration of 9 months.

CONTACTS

Applicants should send **as soon as possible** CV, summary of previous research and contact references to : **Sophie Barbe** (Sophie.Barbe@insa-toulouse.fr), **Thomas Schiex** (Thomas.Schiex@inra.fr) and **Juan Cortés** (juan.cortes@laas.fr).