

Post-doctoral Position in Computational Biology in the Laboratory of Protein and Cell Engineering

The Laboratory of Protein and Cell Engineering at the Institute of Bioengineering of the Ecole Polytechnique Federale de Lausanne (<http://bioengineering.epfl.ch/welcome>) is looking for a talented and motivated post-doctoral fellow with a strong background in computational biology and computer programming.

Our laboratory (<http://barth-lab.epfl.ch>):

We belong to the Institute of Bioengineering at EPFL and are also part of the Ludwig Institute for Cancer Research (LICR) in Lausanne. While EPFL provides a world class environment for basic science and engineering, the LICR fosters translational applications of basic discoveries to cancer medicine at the highest level. Our laboratory benefits from this dual exciting environment and interdisciplinary approaches are essential to our research. We work at the interface of biophysics, chemical, structural, computational and cell biology to uncover the molecular principles that regulate protein and cellular signaling. Using this understanding, we (1) design protein systems with novel biosensing and signaling functions for synthetic biology and engineered cell therapeutic applications; (2) predict the effects of genetic variations on protein structure/function for personalized cancer medicine applications.

Project:

This specific project involves (1) the analysis of genome sequences and protein structure databases to uncover novel structure/function principles of membrane receptors, and (2) combining this knowledge with protein modeling approaches based on the software Rosetta developed in the laboratory to predict the effects of genetic variations on membrane protein structure/function for personalized cancer medicine applications. This position is open immediately.

Skills:

Candidates must have a strong background in bioinformatics, data mining, machine learning, strong programming skills in C/C++ and python, and have a good knowledge of cell and structural biology. In addition, candidates should have a record of relevant publications in peer-reviewed international journals, the ability to speak and write effectively, strong team skills, be self-motivated, and creative.

EPFL provides state-of-the-art facilities and is one of the leading technical universities worldwide. A competitive salary is offered. Interested applicants should send a curriculum vitae, a statement of research interests, and names of three references in one pdf-file to patrick.barth@epfl.ch (subject: post-doc position).