Post-doc position in peptide engineering, phage display and drug development

A post-doc position is available in the group of Prof. Christian Heinis at the EPFL in Lausanne (https://lppt.epfl.ch). The goal of the post-doc project is the development of highly stable cyclic peptides binding therapeutic targets that can be applied orally, which has been a longstanding goal of the pharmaceutical industry. The post-doctoral student will apply a phage display-based technique that was recently developed in the host lab. In brief, large combinatorial libraries of phage-displayed double-bridged peptides will be sequentially subjected to proteolytic sections (to enrich stable peptides) and affinity selections (to isolate peptides binding therapeutic targets). The project involves in vitro evolution, phage display, NGS, automated peptide synthesis, ligand characterization and biological evaluation.

Applicants need to be highly motivated and able to lead a project independently. They should have an education in chemistry, biochemistry or a related subject. Entrance date: May 2019 - September 2019

To apply for the positions, please send a letter of motivation, a CV and a list of references to Prof. Christian Heinis (christian.heinis@epfl.ch).

Chemical structure of a bicyclic peptide (left) and crystal structure of a bicyclic peptide antagonist bound to a protein target (right)

Literature:
Kale, S., et al., Nature Chemistry, 10(7), 715-23, 2018
Zorzi, A., et al., Nature Communications, 8, 16091, 2017
Chen, S., et al., Nature Chemistry, 6(11), 1009-16, 2014