ENZYMATIC NANOREACTORS TO SERVE AS ARTIFICIAL ORGANELLES INSIDE CELLS

Candidates are invited to apply for a PhD position in physical chemistry in the Department of Chemistry of the University of Basel.

The PhD project is highly interdisciplinary and has as aim the design and development of nanoreactors based on a combination of proteins/mimics and supramolecular polymer assemblies. We aim to study enzymatic cascade reactions inside nanometer-range polymer vesicles in order to support their medical application as artificial organelles. The PhD will combine physical-chemistry methods to generate supramolecular assemblies and biological molecules (structure and interactions with the polymer assemblies) and to characterize them using biochemistry assays of activity, both in bulk and upon up-take by cells, as necessary steps for the development of artificial organelles. For more information on the topics of the group with which you will work, see: http://www.chemie.unibas.ch/~palivan/

Your profile:
- you have an MS degree in chemistry, biochemistry or material science.
- knowledge of physical chemistry methods (e.g. IR and electronic spectroscopy, fluorescence spectroscopy, NMR, FCS, light/neutron scattering)
- experience with enzymatic kinetics and cells assays desirable
- citizenship of Switzerland or one EU country
- proficiency in English, and preferably German
- great social and communication skills for integration into an international research team

Application:
For further information please contact Prof. Dr. Cornelia Palivan, (Cornelia.Palivan@unibas.ch, phone: +41.61.2673839). Interested candidates will send, by 10.02.2016: i. letter of motivation, ii. curriculum vitae, and iii. names and contact details for two referees.

The University of Basel is an Equal Opportunity Employer.