



Postdoctoral Position in Development of DNA-based Clusters of Nanocompartments for Regenerative Medicine

We invite candidates to submit applications for a **PostDoc position** in the Biointerfacing nanomaterials group of Professor C. Palivan, Department of Chemistry, at the **University of Basel, Switzerland**. The position is for one year, with possible prolongation up to two years.

Job description:

The overall aim of this project is the development of interconnected nanocompartments to serve as a platform for regenerative medicine. Synthetic compartments decorated with single strands DNA will be self-organized in clusters via DNA hybridization and loaded with specific biomolecules to trigger a bio-reply in cells. A particularly important part of the project will intend to decorate the clusters with different DNA strands and evaluate their overall architecture and interaction with cell lines. In addition, structural characterization and functionality assays of the biomolecules encapsulated in the nanocompartments represent a prerequisite for development of such functional platform for regenerative medicine.

This is an interdisciplinary project within the National Centers of Competence in Research “Molecular Systems Engineering” from which you will gain valuable experience in the domain of nanoscience, physical chemistry, biochemistry, and regenerative medicine approaches. Your role will be to self-assemble the compartments, load them with biomolecules and control them to form stable clusters that specifically interact with cells. More information on the topics of the group in which you will be working can be found at <http://www.chemie1.unibas.ch/~palivan/>

Your profile:

- you will ideally have a PhD in chemistry, biochemistry or biochemical engineering;
- experience with colloidal chemistry systems is a must;
- experience in DNA is desirable;
- basic knowledge of molecular biology techniques (e.g. PCR, DNA purification);
- basic knowledge of protein biochemistry techniques (e.g. gel electrophoresis, protein purification);
- high records of publications in internationally refereed scientific journals
- proficiency in English; German is an advantage.

Application: For further information, please contact Prof. Dr. Cornelia Palivan, (Cornelia.Palivan@unibas.ch, phone: +41.61.2073839). Interested candidates will send, by 5.07.2019: i. letter of motivation, ii. curriculum vitae, iii. names and contact details for two referees.

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