



## Postdoctoral Position in Development of Smart Surfaces for Biosensing Applications

We invite candidates to submit applications for a **PostDoc position** in the biointerfaces-oriented 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 project has as aim the design and development of “smart surfaces” with high potential for biosensing applications in medicine, water purification or electronics. The “smart surfaces” are based on synthetic membranes and nanoparticles that are combined with biomolecules serving as “reporting” compounds. First, either amphiphilic block copolymers will generate soft planar membranes on surfaces or nanoparticles will be attached on solid support. Then, biomolecules will be inserted on the planar membranes or entrapped inside the nanoparticles. The overall functionality of the biomolecules in artificial environment will be evaluated to estimate the biosensing efficiency. As this will be an interdisciplinary project, the PostDoc will combine surface techniques with colloidal chemistry and bio-assays serving to obtain information regarding the overall functionality and efficiency of such smart surfaces for biosensing applications.

This highly interdisciplinary project will allow you gaining valuable experience in the domain of surface technologies, colloidal chemistry, bio-assays for medical or ecological applications and biosensing approaches. Your role will be to obtain the planar membranes and nanoparticles on solid support, combine them with biomolecules and characterize them in various conditions to optimize the resulting smart surfaces for specific applications. More information on the topics of the groups in which you will be working can be found at <https://palivan.chemie.unibas.ch/en/>.

Your profile:

- you will ideally have a PhD in chemistry or material science;
- experience to combine colloidal systems with biomolecules and characterize them by physical chemistry methods is a must;
- experience with surface-oriented physical chemistry methods (AFM, SPR, QCMD) is an advantage;
- 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](mailto:Cornelia.Palivan@unibas.ch), phone: +41.61.2073839). Interested candidates will send by 15.03.2023: i. letter of motivation, ii. curriculum vitae, iii. names and contact details for two referees.

**The University of Basel is an Equal Opportunity Employer**