

PhD-position in Synthetic Array Technologies: Laser-based synthesis of synthetic peptide libraries

The “Synthetic Array Technologies” group at the Max-Planck-Institute of Colloids and Interfaces in Potsdam-Golm is looking for a motivated and ambitious PhD candidate, holding a Diploma/MSc in Chemistry, Biochemistry, or related subjects.

Pharmaceutical industry invests heavily to generate and screen huge libraries of several million chemical compounds. Screening these compounds for molecular interactions is the key to finding **novel diagnostics** and **therapeutics**. A much more efficient approach would be to synthesize minute amounts of chemical compounds on demand and perform miniaturized and highly parallelized screens. Therefore, our highly **interdisciplinary team** develops new technologies, which offer unprecedented flexibility and miniaturization for the combinatorial synthesis of chemical compound libraries. These tailor-made on-demand synthesized molecule libraries can then be used in biomedical research and diagnostics. To achieve these goals, we develop a novel method that allows for high-precision deposition of tiny amounts of all kinds of chemical substances.

In particular, the laser-assisted synthesis of glyco-peptides and peptides with other post-translational modifications in the microarray format will be investigated.

What is expected?

- The candidate is expected to be a motivated team worker, who fits into a highly interdisciplinary and multinational research environment. Confidence in spoken and written English is a requirement.
- Strong experimental skills in synthetic organic chemistry, as well as basic bio- or surface chemistry are required. A general understanding of protein-protein interactions is essential. Interest in polymer chemistry, biology, and engineering are helpful.

We offer:

The “Synthetic Array Technologies” group is a newly established research group, funded by the NanoMatFutur Program of the Bundesministerium für Bildung und Forschung (BMBF). The group is embedded in the Department of Biomolecular Systems, led by Prof. Dr. Peter H. Seeberger. The department has a well-equipped research facility providing stimulating grounds for scientific progress in an international, multidisciplinary research environment. A comprehensive repertoire of instruments stands alongside high-profile collaborators in a fruitful research spectrum covering synthetic organic chemistry, engineering, biochemistry, glycobiology, nanotechnology, immunology, and biophysics.

The Max Planck Society is an equal opportunity employer: Handicapped individuals are strongly encouraged to apply, as are women in areas in which they are underrepresented.

Contact:

Please submit your electronic application to Dr. Felix Löffler (Felix.Loeffler@mpikg.mpg.de) comprising a curriculum vitae (including scientific publications, posters and talks), your high school, BSc, and Diploma/MSc certificates. Also provide at least one scientific reference such as your Diploma/MSc thesis advisor plus a short summary of your thesis or project work. Applications not fulfilling these requirements will not be considered. The position is available from March 2018.

Please also visit: <http://www.mpikg.mpg.de/SAT>