

PostDoc position in Structural Glycobiology: Decoding the Glycan Code

The “Structural Glycobiology” group at the Max-Planck-Institute of Colloids and Interfaces in Potsdam is looking for a motivated and ambitious candidate for a postdoc position with a background in Theoretical Physics or Bioinformatics.

Background: The surface of every living cell is covered with a dense matrix of glycans. Its particular composition and structure codes important messages in cell-cell communication, influencing development, differentiation, and immunological processes. The matrix is formed by highly complex, branched biopolymers whose compositions vary from cell to cell, even between genetically identical cells. Cells can communicate with their environment using these glycans. But the variability inherently associated with cell surface glycans gives rise to noise such cell-cell communication. Moreover, glycan-based communication is characterized by a high redundancy of both glycans and their receptors. Thus, noise and redundancy emerge as key properties of glycan-based cell-cell communication, but their extent and function are poorly understood.

This is a five-years project funded by the ERC (‘GLYCONOISE’) and embeds you into a multidisciplinary research team of chemists, biochemists and biologist.

What is expected?

- The candidate is expected to be a motivated team player who fits into a multinational and multidisciplinary research environment.
- Confidence in spoken and written English is a requirement.
- A background in information science or coding theory with a focus on the application to questions in biology is a prerequisite.
- The candidate should be interested in the biology of carbohydrates and willing to learn about basic cell biology.

We offer:

The “Structural Glycobiology” group is an independent research group, funded by the ERC starting grant GLYCONOISE. The group is embedded in the Department of Biomolecular Systems with a strong emphasis on carbohydrate chemistry and biology, led by Prof. Dr. Peter H. Seeberger. The institute is a well-equipped research facility, providing stimulating grounds for scientific progress in an international, multidisciplinary research environment. A comprehensive repertoire of instruments (Computer cluster, NMR, SPR, FACS, FPLC, confocal microscopy, etc.) stands alongside with high-profile collaborators in a fruitful research spectrum covering synthetic organic chemistry, biochemistry, glycobiology, nanotechnology, immunology and biophysics.

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

Contact:

Please submit your electronic application to Dr. Christoph Rademacher (Christoph.Rademacher@mpikg.mpg.de) comprising a curriculum vitae (including scientific publications, posters and talks), your high school, BSc and MSc certificates/transcripts. Also provide at least one scientific reference plus a short summary of the PhD and MSc thesis work and a motivation letter. Application not fulfilling these requirements will not be considered. The position is available now.

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