

The Cluster of Excellence „Multiscale Bioimaging: From Molecular Machines to Networks of Excitable Cells (MBExC)“ at the university of Göttingen invites applications for a

### **Postdoctoral position in statistical optimal transport (f/m/d)**

starting from **January 1, 2022** or later for an initial duration of **two years** with the option to extend the contract for a **third year**. The salary is in accordance with the German public service salary scale (**E13 TV-L**) at **100%** of the regular working hours (currently 39.8 hours per week).

The Cluster of Excellence "Multiscale Bioimaging: from Molecular Machines to Networks of Excitable Cells" (MBExC) is an interdisciplinary, cross-faculty research center of the University of Göttingen and pursues a novel research approach with joint efforts in modern bioimaging, in particular photonics, molecular biosciences, neuroscience and cardiovascular research. The goal of MBExC is to decipher disease relevant nanoscale functional units in neurons, sensory cells and cardiomyocytes with the long-term goal to develop innovative therapeutic strategies for disorders affecting the heart and the brain, or both. By a multiscale bioimaging approach, MBExC aims at unraveling fundamental biological principles at an increasing level of complexity from molecular, nanoscale to network and organ levels. The MBExC research program covers gene expression and regulation, protein assembly and targeting,  $\text{Ca}^{2+}$  signaling and  $\text{Ca}^{2+}$  triggered membrane fusion as well as the development of innovative research techniques. The job is not part-time suitable.

The postdoc shall develop mathematical and statistical models, theory and computational tools based on optimal transport techniques relevant to MBExC. The postdoc will be integrated in a group of researchers who jointly will work on this ambitious task. This group aims to develop novel imaging techniques, e.g. relevant to magnetic resonance imaging and super resolution microscopy by means of novel and versatile methods of mathematical modeling. Other areas of application include the analysis of data from electrophysiology, gene expression and protein assembly. It is further expected that the candidate participates actively in the educational program of the department of mathematics and computer science with a reduced teaching load. The scientist will be hosted within the research group of Prof. Dr. Axel Munk at the department of Mathematics and Computer Science and the Max Planck Institute for Biophysical Chemistry. Computational, financial and scientific support will be provided by the Institute for Mathematical Stochastics and the Felix-Bernstein Institute for Mathematical Statistics in the Biosciences.

We are looking for excellent and highly motivated applicants with a strong and well-rounded background in statistical, mathematical and computational methodology and a broad knowledge of modern methods of data analysis. A Master degree and a PhD in Mathematics or a related area is required. The ability to work in an interdisciplinary (combining molecular, structural, physiological, and mathematical approaches) and international team of researchers is expected.

The University of Göttingen is an equal opportunities employer and places particular emphasis on fostering career opportunities for women. Qualified women are therefore strongly

encouraged to apply in fields in which they are underrepresented. The university has committed itself to being a family-friendly institution and supports their employees in balancing work and family life. The mission of the University is to employ a greater number of severely disabled persons. Applications from severely disabled persons with equivalent qualifications will be given preference.

Your application including also a **curriculum vitae, copies of your certificates and contact information of at least two references** should be submitted to the online application platform [https://lotus2.gwdg.de/uni/uzdv/perso/knr\\_100930.nsf](https://lotus2.gwdg.de/uni/uzdv/perso/knr_100930.nsf) by **October 17, 2021**. If you have any questions, please contact Anna Friedrich via e-mail ([anna.friedrich@uni-goettingen.de](mailto:anna.friedrich@uni-goettingen.de)) or Axel Munk ([munk@math.uni-goettingen.de](mailto:munk@math.uni-goettingen.de)). We look forward to receiving your application by **October 17th, 2021**.

Travel and application fees cannot be refunded or transferred.

Please note:

With submission of your application, you accept the processing of your applicant data in terms of data-protection law. Further information on the legal basis and data usage is provided in the Hinweisblatt zur Datenschutzgrundverordnung (DSGVO) <https://www.uni-goettingen.de/hinweisdsngo>