

## 2 PhD positions (m/f)

Two PhD positions in the area of quantitative stem cell biology are available in the laboratory of Christian Schröter at the MPI for Molecular Physiology in Dortmund.

### Our research

The aim of our research is to understand how pluripotent cells receive, process and integrate signals to take lineage decisions. Pluripotent cells have the remarkable potential to differentiate into all specialized cell types of the adult body. Now that the major signals and pathways that control differentiation along specific lineages have been identified, we can ask mechanistic questions such as: How do cells measure and encode different quantities of extracellular signals? How are different signals integrated? How are fate decisions coordinated in cell populations to form tissues?

Successful candidates will address these questions using mouse embryonic stem cells, organoid systems and the mouse embryo as model systems, and apply a combination of genetic engineering, molecular biology, immunohistochemistry and live cell imaging to investigate the dynamics of decision-making processes in single cells. The ultimate goal of our work is to develop data-based, predictive mathematical models of information processing and decision-making in pluripotent cells.

### Your profile

We are looking for highly motivated PhD candidates with an M. Sc. degree in biological sciences or a related discipline, and a strong interest in quantitative cell- and developmental biology. Applicants should have excellent organizational skills and be proficient in English. Previous laboratory experience, especially in cell culture and molecular biology techniques is desirable.

### The position

The position is available from April 2016 (payment according to the guidelines of the Max Planck Society for PhD students) for the expected duration of a PhD (3-4 years). The successful applicant will join a dynamic research group and work in a small team under the direct supervision of a research group leader. The candidate will have access to the state-of-the-art infrastructure of the MPI for Molecular Physiology.

### Your application

The Max Planck Society is committed to increasing the number of individuals with disabilities in its workforce and therefore encourages applications from such qualified individuals.

The Max Planck Society seeks to increase the number of women in those areas where they are underrepresented and therefore explicitly encourages women to apply.

Please send your complete application documents (cover letter, CV, certificates, contact details of at least two referees and summary of undergraduate work) to Dr. Christian Schröter ([schroeterlab@mpi-dortmund.mpg.de](mailto:schroeterlab@mpi-dortmund.mpg.de)). Further information is available under [http://www.mpi-dortmund.mpg.de/3257493/Dr\\_C\\_Schroeter](http://www.mpi-dortmund.mpg.de/3257493/Dr_C_Schroeter)

