

The Junior Research Group *Cell Fate Engineering and Disease Modeling* is offering a

Postdoctoral Position in Neurological Disease Modeling

(Ref.-No. 2020-0263)

The German Cancer Research Center is committed to increase the percentage of female scientists and encourages female applicants to apply.

Among candidates of equal aptitude and qualifications, a person with disabilities will be given preference.

To apply for a position please use our online application portal (<https://www.dkfz.de/en/stellenangebote/index.php>).

We ask for your understanding that we cannot return application documents that are sent to us by post (Deutsches Krebsforschungszentrum, Personalabteilung, Im Neuenheimer Feld 280, 69120 Heidelberg) and that we do not accept applications submitted via email. We apologize for any inconvenience this may cause.

The Mall laboratory combines animal models, pluripotent stem cells, and genetic engineering to reconstruct and investigate human development and disease (Mall and Wernig, JMM 2017). Our mission is to understand the mechanisms that determine and maintain cell fate with the goal to treat diseases associated with loss of cell identity (Mall, Nature 2017; Lee and Mall, Nature Cell Bio 2020). Embedded within the Hector Institute of Translational Brain Research (HITBR) at the German Cancer Research Center (DKFZ) in Heidelberg our lab offers the unique opportunity to be part of our energetic and ERC-funded research team to work at the interface of stem cell biology, cancer and neuroscience at Germany's largest biomedical research center.

Please visit <https://www.dkfz.de/en/cell-fate-engineering> for more information on our lab. We strive to provide an inclusive and supportive environment including:

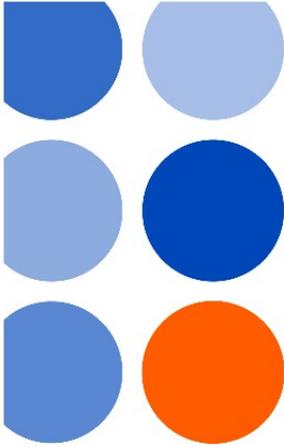
- Fellowship support
- State-of-the-art infrastructure
- International and inclusive team
- Comprehensive training and mentoring
- Exciting research projects and environment
- Collaborative and interdisciplinary workplace

Job description:

One of the most exciting concepts in biology is the plasticity of cell fate that allows cellular identity to be reset. Strikingly, this plasticity is essential for normal development, but several human diseases, such as cancer or neurological disorders, are also associated with unwanted changes in cell identity.

This postdoctoral project aims to push the boundaries of mental disease research by understanding the role of genetic mutations and epigenetic changes on cell identity during induction and progression of brain disorders that affect patients worldwide and are a major medical and economic challenge. We believe that combining classical mouse models with novel genetic engineering and stem cell technologies has great potential to better understand complex human brain disorders and to identify strategies to treat these diseases in the future.

The successful candidate will be able to develop a research project using cutting-edge technologies such as stem cell-based in vitro neurological disease modeling. The tasks include genetic engineering, stem cell culture and differentiation as well as functional analysis of induced human neurons using a wide range of innovative technologies and research infrastructure.



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The major goals are outline below:

- Design and develop cutting-edge research projects
- Generate and characterize new mouse brain disease models
- Optimize human stem cell culture and genetic engineering approaches
- Develop novel 2 and 3D neurological disease models using human stem cells
- Create and analyze next-generation proteomics and functional genomics data

Your profile:

We are looking for a highly motivated recently graduated top-level PhD with a strong background in molecular cell biology and/or neurobiology. Research experience in neurological disease modeling using animal and/or human pluripotent stem cells are desired. Skills in functional analysis of neurons using optogenetics, electrophysiology and/or multielectrode array is meriting. The ambitious candidate should be driven to develop a research project using cutting-edge technologies and have the following qualifications:

- Demonstrated scientific productivity
- Excellent written and oral communication skills
- Reliable team-player with very good organization skills
- Functional genomics data generation and analysis skills
- Hands-on CRISPR/Cas9 gene editing experience
- Extensive (neuronal) cell culture practice

Applications should include a cover letter and a CV with a complete list of publications as well as contact details of 3 references.

Contract period:

The position is limited to 2 years with the possibility of prolongation.

The position can in principle be part-time.

Remuneration:

E13 TV-L

Contact:

Herr Dr. Moritz Mall, phone +49(0)6221/42-3195

Please note that we do not accept applications submitted via email.

Application Deadline:

