

The Max Planck Institute for the Physics of Complex Systems (MPI-PKS) and the Max Planck Institute of Molecular Cell Biology and Genetics (MPI-CBG) in Dresden invite applications for a

**Max Planck Research Group Leader (W2) on
Systems Biology of Organoid Self-organisation
at the Center for Systems Biology Dresden**

Recent advances in biology allow the in vitro differentiation of stem cells into organ-like tissues which provide model systems for the formation of organs such as brains, liver, and pancreas. Such systems open new opportunities to unravel the physical laws of collective cell behaviour and provoke novel theories about how cells form tissues. We will establish a Max Planck Research Group at the Center for Systems Biology Dresden that develops theoretical and computational approaches to investigate how organ-like morphologies and function emerge from the properties and interactions of many cells.

Specific examples of theoretical or computational research questions include

- How do precise gene expression patterns arise robustly from heterogeneous stem cell populations?
- How do cells communicate and make decisions during organoid formation?
- How does shape emerge by mechano-chemical processes?
- How do networks for transport and secretion form and what determines their geometry?

We seek outstanding scientists early in their career with a strong track record in the theoretical study of cells and tissues and the motivation to establish a Max-Planck Research group at the Center for Systems Biology Dresden. Funds for post-docs and PhD students will be available and office space will be provided. Successful candidates will develop an independent research program in an interactive and cross-disciplinary environment. Cutting-edge projects that cross discipline boundaries are encouraged. The Center for Systems Biology Dresden, the MPI-PKS and the MPI-CBG provide a collaborative research environment with the aim to understand how cells form tissues.

The initial appointment of the group leader is for 5 years with the possibility of extension after international review. The salary is based on remuneration group W2 Federal Civil Service Remuneration Act.

Applications should include

- A cover letter explaining your motivation to apply for this position
- A Curriculum Vitae including publication list
- A statement of scientific achievements
- A two-page summary of your future research plans
- Up to three of your most important papers

Application documents should be merged into a single pdf and sent electronically to **mprgl-organoid@pks.mpg.de**. Please also arrange for three academic references to be sent to the same email address. **The deadline for applications including references is August 1, 2018.** Alternatively, the documents can also be sent through ordinary mail to

Max Planck Institute for the Physics of Complex Systems Visitors Program /
MPRGL-organoid
Nöthnitzer Str. 38
01187 Dresden
Germany

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. Furthermore, 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.

Successful applicants should be prepared to join a selection symposium held in Dresden, Germany on October 5, 2018.

Scientific inquiries can be sent to Frank Julicher (**julicher@pks.mpg.de**) or Gene Myers (**myers@mpi-cbg.de**).

For further information about the Center for Systems Biology Dresden and the Institutes see

www.csbdresden.de
www.pks.mpg.de
www.mpi-cbg.de