

At the Institute of Bioengineering (IfB) in the Department of Medical Technology and Technomathematics at the FH Aachen on Campus Jülich, the following position is vacant at the earliest possible date:

## Scientific employee in the field of biomechanics

**(Kennziffer: 09-938)**

The research focus of the IfB lies in the field of soft tissues from cell to organ level. The IfB has developed the CellDrum technology for the biomechanical investigation of hiPSC-derived heart muscle cells. To simulate the beating frequency and amplitude, isotropic, electromechanically coupled (multiscale) models were implemented in a FEM program. In an interdisciplinary cooperation project with two companies, models for drug effect on heart muscle tissue are to be further developed and validated.

### Your tasks

- Further development of models of hiPSC cells and tissues
- Implementation of anisotropic material laws and reaction-diffusion equations
- Planning of CellDrum experiments with the project partners
- Validation of the models based on the measurements of the project partners
- Development of industrially usable prediction models

### Your profile

- Completed relevant scientific university studies, ideally with in-depth knowledge of mechanics and continuum mechanics
- Programming knowledge and experience with FEM
- Knowledge of cell physics and electrophysiology is advantageous but not a prerequisite.
- Ability to familiarize yourself with new topics in a focused and result-oriented way.

### We offer

- Working conditions and salaries according to the TV-L
- Grouping in compensation group E 13
- The position is initially limited until 31.10.2020.
- It is planned to apply for an extension of the position if a doctorate is desired.
- The possibility of part-time employment
- Support in reconciling work and family life (e.g. flexible working hours, holiday camps for children)
- Attractive and diverse opportunities for further education and training

Applications from suitable severely disabled persons are welcome. The FH Aachen intends to increase the proportion of women among its academic staff. Applications from women are therefore particularly welcome.



Have we aroused your interest?

Then we look forward to receiving your application with the usual documents by 26.10.2018 via our online application portal:

<https://stellen.fh-aachen.de/jobposting/b3bb2950dd8f493aa11798b1a024d2706e17522a>

Prof. Dr.-Ing. M. Staat, telephone: +49241 6009-53120 or [m.staat@fh-aachen.de](mailto:m.staat@fh-aachen.de), will be happy to answer any questions you may have.