JÜLICH
Forschungszentrum

Conducting research for a changing society: This is what drives us at Forschungszentrum Jülich. As a member of the Helmholtz Association, we aim to tackle the grand societal challenges of our time and conduct research into the possibilities of a digitized society, a climate-friendly energy system, and a resource-efficient economy. Work together with around 7,500 employees in one of Europe's biggest research centres and help us to shape change!

Our interdisciplinary team of physicists, chemists, biologists and electrical engineers at the Institute of Biological Information Processing - Bioelectronics (IBI-3) studies and develops functional assemblies of biological components and electronic devices. In the Neuroelectronic Interfaces (NEI) group in particular, we focus on the design and engineering of electronic materials and micro-devices that can interface with the brain. One of the potential applications of such devices is the study and treatment of neurodegenerative diseases. We are investigating various techniques, fabrication processes, biohybrid platforms, and, last but not least, neuromorphic approaches that bring us closer to implementing in vitro platforms that would allow us to study and characterize neurodegenerative processes involving synaptic plasticity loss.

We are looking to recruit a

Master Thesis - Engineering neurohybrids with 3D glass micropillars for the formation of neuronal-derived supported lipid bilayers

Your Job:

- You will conduct research on neuronal culture and to derive functional supported lipid bilayers.
- You will analyze the formation of the SLBs through microscopy.
- You will study the interaction/interface between the neurons and the bilayer.
- You will evaluate the neuronal behavior through image and data analysis.
- You will communicate with internal and external as well as national and international project partners.

Further information on the project is available at:
https://www.fz-juelich.de/en/ibi/ibi-3/organization/neuroelectronic-interfaces-nei

The job will be advertised until the position has been successfully filled. You should therefore submit your application as soon as possible. We look forward to receiving your application via our **Online-Recruitment-System!**

Questions about the vacancy?
Get in touch with us by using **our contact form.**
Please note that for technical reasons we cannot accept applications via email.
www.fz-juelich.de

Your Profile:

- Enrolled in a master degree in the field of Biology, Chemistry, Biomedical Engineering, Chemical Engineering, Physics or a comparable course of study.
- Professional competence: knowledge in cell culture, artificial membranes, synaptic biology
- Interest in neural interfacing, biomembranes, neuroelectronics
- Willingness to familiarize yourself with new methods, technologies and environment.
- Fluent English in writing and speaking.

If applicable, further desirable qualifications:

- Interest in bioelectronics and fabrication technologies.
- High degree of independence, motivation and reliability
- Excellent ability to cooperate and work in a team
- Curiosity and fast learning is a plus

Please feel free to apply for the position even if you do not have all the required skills and knowledge. We may be able to teach you missing skills during your induction.

Our Offer:

We work on the very latest issues that impact our society and are offering you the chance to actively help in shaping the change! We support you in your work with:

- An interesting and socially relevant topic for your thesis with future-oriented themes
- Ideal conditions for gaining practical experience alongside your studies
- An interdisciplinary collaboration on projects in an international, committed and collegial team
- Excellent technical equipment and the newest technology
- Qualified support through your scientific colleagues
- The chance to independently prepare and work on your tasks
- Flexible working hours as well as a reasonable remuneration
- The possibility of (location-) flexible working, e.g. home office
- A large research campus with green spaces, offering the best possible means for networking with colleagues and pursuing sports alongside work

In addition to exciting tasks and a collaborative working atmosphere at Jülich, we have a lot more to offer: https://go.fzj.de/benefits

We welcome applications from people with diverse backgrounds, e.g. in terms of age, gender, disability, sexual orientation / identity, and social, ethnic and religious origin. A diverse and inclusive working environment with equal opportunities in which everyone can realize their potential is important to us.

Further information on diversity and equal opportunities: https://go.fzj.de/equality