Technische Universität Braunschweig

Ph.D. research position (f/m/d) in
2D/3D Cell Culture Models of Biological Barriers

The research: This position will focus on developing advanced in-vitro models of biological barriers (blood/brain, gut, …) to better understand disorders and predict pharmaceutical response, with neuropsychiatric disorders like schizophrenia a focus area. One aim is to establish and validate suitable cellular model systems (particularly induced pluripotent stem cell-derived). Another aim is to combine these with engineered biomaterials (hydrogels, membranes) and microfluidics (commercial or custom-made) to provide a more in-vivo-like biochemical and biophysical environment. This project is closely linked with a second Ph.D. position, to be filled in parallel, focusing on the microfluidics as well as on integration of real-time sensors.

Your qualifications include a Master's degree (awarded by the starting date) in a related field,* plus

- Practical experience with mammalian cell culture (ideally stem cell culture) and/or biomaterials
- Strong interest also in interdisciplinary work to combine these elements with microfluidics
- Excellent analytical skills, creativity, ability to work independently, and collaborative spirit
- Good communication skills, as well as fluency in oral & written English (German optional)

**e.g.* biology, neuroscience, bioengineering, biophysics, biochemistry, …

About us: We are starting a new research group with the goal of solving life science challenges using microsystems tools. As part of a small and dynamic team, you will be able to benefit from supportive and personalized supervision, to explore some of your own research ideas within the broader goals, and to help build and shape the lab's long-term research culture & direction.

The group will be based at the Center of Pharmaceutical Engineering (PVZ), where research focuses on inexpensive, tailor-made medicines and medical devices. It brings together around 100 scientists from diverse institutes & disciplines across the region in a state-of-the-art, collaborative environment.

The Technische Universität Braunschweig is home to an academic community of 20 000 students and 3 700 employees. It is situated at the heart of the Hannover-Braunschweig region, one of the most research-intensive in Europe, with a flair for scientists and their families.

Our offer: The position is to be filled by July 1st or as soon as possible thereafter. The initial contract will cover 12 months (with option for yearly renewal) with a salary according to the German public service pay scale up to TV-L E13 (75%), or approx. € 38 000 (gross) / year.

TU Braunschweig aims to increase the number of women in science and technology. Women are therefore strongly urged to apply. Moreover, severely disabled applicants with equal aptitude will be given preferential consideration (please attach supporting documents). The university is multicultural, and applications are expressly welcome from all nationalities.

How to apply: Application packages should be submitted as a single PDF file including

- a motivation letter (max. 2 pages)
- a full curriculum vitae
- available academic transcripts
- contact details for at least 2 references

to Dr. Thomas E. Winkler (applications@lab.winkler.site). Mailed applications are also accepted care of Sabine Kral-Aulich, Institut für Mikrotechnik, Alte Salzdahlumer Straße 203, D-38124 Braunschweig.

Evaluation of applicants will begin March 1 and continue on a rolling basis until May 15 or until the position is filled. We look forward to receiving your application!

pvz Zentrum für Pharmaverfahrenstechnik

Please note that personal data
and documents related to the application
process will be stored electronically.

imt Institut für Mikrotechnik