

Ph.D. research position (f/m/d) in Sensor Integration for Lab- & Organ-on-Chip

The research: This position will focus on developing sensors and microfluidics as tools to better understand disorders and predict pharmaceutical response, with neuropsychiatric disorders like schizophrenia a focus area. One aim is to engineer microfluidic systems that can serve as advanced in-vitro models of biological barriers (blood/brain, gut, ...). By integrating electrochemical sensors (*e.g.* metabolites, reactive species), these systems will allow for continuous monitoring of biological responses. Another aim is to explore clinical point-of-care applications of such sensors towards diagnosis and treatment management. This project is closely linked with a second Ph.D. position, to be filled in parallel, focusing on the cells and biomaterials.

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

- Practical experience with microfluidics and/or electrochemical sensors
- Strong interest also in interdisciplinary work to combine these elements with cells and biomaterials
- 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.* microtechnology, electrical engineering, biomedical engineering, physics, materials science, ...

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)
- available academic transcripts
- a full curriculum vitae
- 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!**