Technische Universität Dresden (TUD), as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, today it is a globally oriented, regionally anchored top university as it focuses on the grand challenges of the 21st century. It develops innovative solutions for the world’s most pressing issues. In research and academic programs, the university unites the natural and engineering sciences with the humanities, social sciences and medicine. This wide range of disciplines is a special feature, facilitating interdisciplinarity and transfer of science to society. As a modern employer, it offers attractive working conditions to all employees in teaching, research, technology and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. TUD embodies a university culture that is characterized by cosmopolitanism, mutual appreciation, thriving innovation and active participation. For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

At the Center for Molecular Bioengineering (B CUBE), an Institute of the Center for Molecular and Cellular Bioengineering (CMCB), the Research Group of Micro- and Nano-Biosystems offers a position as

**Research Associate / PhD student (m/f/x)**
in **Experimental Biological Physics / Bio-engineering**
to work on **designing artificial and/or biohybrid cilia-based microsystems**
(subject to personal qualification employees are remunerated according to salary group E13 TV-L)

starting **February 1, 2023** which comprises 65% of the full-time weekly hours. The position is limited until January 31, 2026. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG). The position aims at obtaining further academic qualification (e.g. PhD).

**Tasks:** The successful applicant will work on the development of cilia-based microsystems, combining both artificial and biological cilia. Such microsystems will serve as a platform to study cellular and molecular motility, cilia synchronization, and cilia motility patterns upon local and global chemical and/or physical perturbations. Additionally, biomedical application of such microsystems will be explored in the process.

**Requirements:**
- university degree in biophysics or biomedical engineering; preferable, with experience in magnetic microrobotics, cell biology, ideally related to cilia and flagella.
- Experience on programming and interest on theoretical analysis of experimental data (desirable)
- Experience on confocal microscopy, UV-VIS spectroscopy, photolithography and microfabrication techniques (desirable).
- excellent communication skills in English are necessary (speaking and writing), as this is the colloquial language at the research center.

For further information about the institute and the research group see: [www.tu-dresden.de/bcube](http://www.tu-dresden.de/bcube), and [www.mnbe.org](http://www.mnbe.org).

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university and offers a Dual Career Service. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.
Please submit your comprehensive application including the usual documents by December 2, 2022 (stamped arrival date applies) preferably via the TU Dresden SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf document to katja.dornig@tu-dresden.de or to: TU Dresden, B CUBE, Forschungsgruppe Mikro- und Nano-Biosysteme, Frau Dr. Mariana Medina-Sánchez, Tatzberg 41, 01307 Dresden. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: https://tu-dresden.de/karriere/datenschutzhinweis.