The Center for Molecular Bioengineering (B CUBE), an institute of the Center for Molecular and Cellular Bioengineering (CMCB), offers in a collaborative project between the Chair of BioNano-Tools (Prof. Stefan Diez) and the Chair of Biomimetic Materials (Research Associate Dr. Nicole Poulsen) a position as

**Research Associate (m/f/x)**

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting as soon as possible. The position is limited for two years. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz-WissZeitVG). The position offers the chance to obtain further academic qualification. The application for and acquisition of follow-up funding is envisioned. Balancing family and career is an important issue. The position is generally suitable for candidates seeking part-time employment. Please indicate your request in your application.

**Tasks:** The interdisciplinary project aims to understanding the acto-myosin cooperativity and regulation underlying gliding motility of diatoms within the scientific context of the Cluster of Excellence Physics of Life (PoL). Diatoms are unicellular eukaryotic microalgae found in almost all aquatic ecosystems. Intriguingly, pennate raphid diatoms are able to adhere to and move across almost any substratum with high velocities (up to 10 µm/s and higher) and rapid changes in the directionality. This research project will include designing strategies to quantify and describe the movement of diatoms using optical microscopy with high spatial and temporal resolution; measuring and applying controlled forces, e.g. with optical or magnetic tweezers; investigating the influence of physical and chemical parameters of the environment on the behavior of gliding; generating and phenotypical characterizing targeted mutant cell lines; scientific documentation, evaluation and publication of the experimental results; supervision of students in the context of the underlying research in the project; active participation in scientific conferences and presentation of own research work.

**Requirements:** The successful candidate needs to have a university degree (MSc or equivalent) and, if applicable, an additional PhD degree, preferably in the fields physics, biophysics, molecular biotechnology or related fields. Prior experience in optical microscopy and quantitative image processing is highly desired but not essential. The candidate will work with an interdisciplinary team of cell biologists, physicists, chemists and computer scientists. Strong writing skills with a proven track record of successful research are essential. Excellent communication skills in English are necessary as this is the colloquial language at the research center.

The B CUBE ([www.tu-dresden.de/bcube](http://www.tu-dresden.de/bcube)) is an interdisciplinary research center focusing on research and education in the areas of Bioprospecting, BioNano Tools and Biomimetic Materials. The B CUBE its partner institutions are equipped with state-of-the-art facilities for Molecular Bioscience research: [https://tu-dresden.de/cmcb/technologie-plattform](https://tu-dresden.de/cmcb/technologie-plattform). The PoL ([https://physics-of-life.tu-dresden.de/en](https://physics-of-life.tu-dresden.de/en)) is an interdisciplinary research center for biology, biophysics and computer science, which is funded by the German Research Foundation (DFG) and offers a wide range of support structures. Successful PhD applicants will have the possibility to join the Dresden International Graduate School for Biomedicine and Bioengineering ([https://www.digs-bb.de/](https://www.digs-bb.de/)). The successful applicant will join a vibrant, diverse, and international research environment, and will have the opportunity to develop co-teaching and co-supervision skills within the project.

For further information please feel free to contact Prof. Stefan Diez ([stefan.diez@tu-dresden.de](mailto:stefan.diez@tu-dresden.de)) and/or Dr. Nicole Poulsen ([nicole.poulsen@tu-dresden.de](mailto:nicole.poulsen@tu-dresden.de)).
TU Dresden is a certified family-friendly employer and strives for gender and diversity equality. We welcome applications from all backgrounds. In case of equal suitability, people with severe disabilities or those with equivalence to the German Social Code IX (SGB IX) will be preferred for employment.

Please submit your complete applications (letter of motivation, CV, list of publications, and certificates of qualifications) by **March 4, 2022** (stamped arrival date applies) via the TU Dresden SecureMail Portal [https://securemail.tu-dresden.de](https://securemail.tu-dresden.de) by sending it as a single pdf document to diez_office@tu-dresden.de or to: **TU Dresden, B CUBE, z.Hd. Frau Lindemann, Tatzberg 41, 01307 Dresden, Germany.** 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](https://tu-dresden.de/karriere/datenschutzhinweis).