

TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. 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 **Faculty for Chemistry and Food Chemistry**, the **Chair of Technical Biochemistry** offers, a position as

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

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

in Chemical Glycobiology starting **at the earliest possible date**. The position is initially limited to 36 months, with option for extension subject to the availability of resources. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG). The position comprises 65% of the full-time weekly hours and aims at obtaining further academic qualification (usually PhD).

We are looking for an outstanding candidate to help us on our mission to develop novel “precision tools” to understand the role of glycans in biological processes in detail (Curr Opin Struct Biol, 2021). We have pioneered the tactic of glycosyltransferase “bump-and-hole engineering”, generating reporter tools for the activity of individual glycosyltransferases in the living cell (JACS 2024, RSC Chem Biol 2024, ACS Chem Biol 2021, Mol Cell 2020; PNAS 2020). For this work, we have been awarded the 2021 RSC Horizon Prize in Chemical Biology. We are expanding the bump-and-hole tactic to new glycosyltransferases and probe cellular glycobiology through the development of new chemical tools, which is the purpose of this post. These studies are essential to develop new disease biomarkers and glycan-based therapies.

**Tasks:**

- you will contribute to the cutting-edge research in the Schumann lab to generate chemical tools that probe and investigate glycosylation, the most complex cellular enzymatic process
- chemical or chemoenzymatic synthesis of glycan-based reporter molecules and small molecule inhibitors
- contribution to scientific primary publications, reviews, and organization e. g. of conferences and meetings
- supervision of undergraduate and project (e. g. Msc) students
- contribution to teaching courses and laboratories in undergraduate degrees
- contribution to general aspects of lab organization

**Requirements:**

- university degree (Master or equivalent) in Chemistry, Chemical Biology or Biochemistry
- background in chemical or chemoenzymatic synthesis, or medicinal chemistry
- enthusiasm to contribute to and lead cutting-edge research in the fascinating world of glycosciences (should be reflected in cover letter)
- accurate note-keeping through electronic notebooks
- adherence to principles of good scientific practice, integrity and laboratory safety at all times
- integration into a dynamic, international team
- excellent research communication skills in English

**Optional requirements:**

- background or experience in protein biochemistry and molecular cell biology
- research communication skills in German (can, alternatively, be learnt on the post)

**We offer:**

- integration into a dynamic, international and multidisciplinary team
- attractive working conditions with an interesting, varied and challenging area of responsibility
- the opportunity to research an entirely new aspect of the glycosciences in international collaboration
- creative freedom in your area of responsibility
- flexible working hours
- participation in the university's health management program and in the additional public service pension scheme via VBL

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. 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 detailed application including cover letter with motivation, CV and the names of two academic referees by **July 8, 2025** (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies), preferably via the TUD SecureMail Portal <https://securemail.tu-dresden.de> by sending it as a single pdf file to [benjamin.schumann@mailbox.tu-dresden.de](mailto:benjamin.schumann@mailbox.tu-dresden.de) or to: **TU Dresden, Chair of Technical Biochemistry, Prof. Benjamin Schumann, Helmholtzstr. 10, 01069 Dresden, Germany**. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

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**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>.