Freie Universität Berlin - Department of Biology, Chemistry, Pharmacy

Who We Are The DFG-funded international Research Training Group GRK2662 "Charging into the future: understanding the interaction of polyelectrolytes with biosystems" aims to gain a better understanding of the molecular interactions between polyelectrolytes such as DNA, proteins or heparin with complex biological systems. A special feature of the Research Training Group is the close, complementary cooperation between scientists from Freie Universität Berlin (Germany), McGill University, Montréal, and the University of British Columbia, Vancouver (Canada). The international research training group GRK2662 offers - Positions for research assistants with the possibility of a doctorate, - structured academic training in an international research environment, including participation in a variety of research-specific and career-enhancing training courses and events, - integration into an interdisciplinary international research network - and the opportunity for research stays in the laboratories of the Canadian partner institutions.

Research assistant (praedoc) (f/m/d) (DM-931)

Department: Department of Biology, Chemistry, Pharmacy contract duration: limited to 3 years Salary / pay grade: E 13 TV-L FU Working hours: 67 % Requisition ID: 931 Application deadline: 14.12.2026

City: Berlin; Starting date (earliest): At the earliest possible; Duration: limited to 3 years; Remuneration: Salary / pay grade: E 13 TV-L FU; Reference number: 931; Closing date: 14/12/26

Tasks

What You Can Expect in Your New Role

Position as a Research Assistant (Preadoc) (f/m/d) within the International Research Training Group (IRTG) GRK 2662, in the AG Elter, Project C1 (E13 TV-L, 67%, starting January 1, 2027, for 36 months)

Electrostatic interactions between biomacromolecules are essential for numerous biological processes, including blood coagulation. For many surgical procedures, temporary inhibition of the coagulation cascade is required. The anticoagulant heparin is commonly administered for this purpose. Following surgery, its anticoagulant activity should be reversed as rapidly as possible using an appropriate antidote. Heparin exerts its anticoagulant effect through electrostatic interactions with proteins of the coagulation cascade. This activity can be neutralized by positively charged macromolecules that complex heparin selectively. However, naturally occurring macromolecules may trigger immune responses, limiting their suitability for this application.

In Project C1, led by Dr. Johanna K. Elter, biocompatible, tailor-made cationic macromolecules will be synthesized using innovative methods such as Iterative Exponential Growth (IEG). Their interactions with heparin will first be investigated in model systems and by theoretical methods. Subsequently, their efficacy in whole blood will be evaluated in collaboration with the Kizhakkedathu Group at the University of

British Columbia.

Further project information can be found at www.grk2662.de.

Requirements

Key Requirements

Completed university degree (M.Sc. in chemistry or polymer science or equivalent, preferably with a focus on synthetic chemistry or related subjects).

Desirable

- Extensive experience in the synthesis, purification, and analysis of organic (macro)molecules
- Experience in interaction analysis using titration methods (e.g., ITC) and fluorescence-based techniques
- Experience with theoretical methods for investigating interactions between macromolecules, e.g., using molecular dynamics (MD) simulations
- Excellent written and spoken English proficiency
- Strong communication skills and a willingness to work collaboratively in interdisciplinary teams and research collaborations.

What we offer

- Modern workplace in the leafy suburb of Dahlem
- Salary in line with the collective agreement for the civil service at the state level (TV-L FU), plus additional one-off annual payment
- Flexible working hours and mobile working by arrangement, where possible
- The compatibility of work and family life
- Thirty days of vacation (based on a five-day working week)
- Office closed on December 24 and December 31
- Numerous training and continuing education options for professional and personal development
- Opportunity to participate in University Sports Center courses and the health promotion program
- Free parking close to the office and good public transportation connections
- Discounted “Job Ticket” for public transportation
- Free use of the Freie Universität library system
- Employee discount in the cafeteria
- Exclusive deals for products and services through Corporate Benefits

Application

We look forward to receiving your application, which must include the following documents:

- A one-page letter of motivation of why you want to work in Project C1, together with details of previous research experience and future goals
- Your CV (including a list of publications if applicable),

- Certificates of your academic education including copies of your Bachelor's and Master's degrees,
- Letter of support (optional)
- in one PDF document

If you are interested in what we have to offer,

then you can send your application materials to us directly. Simply submit your application exclusively via our career portal by clicking the “Apply now” button. Unfortunately, we cannot consider applications by post or by e-mail.

You can also get in touch with Johanna Elter (jelter@zedat.fu-berlin.de).

Please note

Freie Universität Berlin is an equal opportunity employer.

Closing date: 14/12/26
Reference number: 931
Contact person: Johanna Elter

By internet: https://jobs.fu-berlin.de/job/Research-assistant-%28praedoc%29-%28fmd%29-%28DM-931%29/1458774533/

More information at https://stellenticket.de/208948/BUA/
Offer visible until 14/12/26