Paderborn University is a high-performance and internationally oriented university with approximately 18,000 students. Within interdisciplinary teams, we undertake forward-looking research, design innovative teaching concepts and actively transfer knowledge into society. As an important research and cooperation partner, the university also shapes regional development strategies. We offer our about 2,600 employees in research, teaching, technology and administration a lively, family-friendly, equal opportunity environment, a lean management structure and diverse opportunities. Join us to invent the future!

In the Faculty of Science the group of Organic and Macromolecular Chemistry of the Departments of Chemistry is seeking for applications for the position of

3 Research / PhD students (f/m/d)
(Salary level 13 TV-L)

starting from November 1st, 2023. The positions (50 % of regular working time) entail a fixed-term contract for the duration of the PhD project in the field of organic and macromolecular chemistry and is initially limited to three years. A prolongation to finish the PhD is possible in accordance with the rules of the Wissenschaftszeitvertragsgesetz (WissZeitVG).

Position Profiles:
A) Anti-microbial Hydrogel Layers with Self-cleaning Capabilities
Antibacterial polymers introduced to a hydrogel support are both readily accessible by straightforward synthetic procedures and allow the coating of arbitrary geometries by a simple dip coating and annealing or photo cross-linking. This concept can be expanded to also include an antifouling moiety. Suitable stimuli will alter the coatings from antibacterial to antifouling and vice versa.

B) Self-immolative Drug Delivery Systems
Colloidal drug delivery systems based on novel switchable polymers will be investigated allowing an effective drug transport into cells and tissues. As an example, the intracellular pH shift in endolysosomal compartments will be used to effectively degrade the polymer and release the drug.

C) Novel Colloidal Hydrogels
Colloidal hydrogels have recently gained considerable attention due to a regular shape, a high specific surface and designable functionalities. Novel hydrogel particles with defined size and functionality will be synthesized for applications in catalysis, drug delivery and tribology.

Your Profile:
A successful candidate should have a completed university degree in chemistry or any related subject (M.Sc. or comparable). Solid knowledge in the fields of organic chemistry as well as of modern methods for the synthesis and characterization of polymers is required. To successfully accomplish the PhD the candidate should be highly motivated, be an excellent team player with good communications skills and interested in experimental work.

Paderborn University is striving to increase the proportion of women and therefore encourages qualified female academics and researchers to apply. Female applicants with equal qualifications, skills, and achievements in the field will be given preferential consideration according to North Rhine-Westphalian Equal Opportunities Act (LGG), unless there are cogent reasons to give preference to another applicant. Part-time employment is generally possible. Applications from disabled people with appropriate suitability are explicitly welcome. This also applies to people with equal opportunities in accordance with the German social law SGB IX.

For any questions regarding the position contact Prof. Dr. Dirk Kuckling.

Applications (preferable as a single PDF-file) should be send with reference number 6046 to Prof. Dr. Dirk Kuckling via e-mail: dirk.kuckling@uni-paderborn.de until 15.08.2023.

Information regarding the processing of your person data can be located at: https://www.uni-paderborn.de/zv/personaldatenschutz.

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