

Job vacancy No. 144-2021

The Leibniz Institute of Polymer Research Dresden is a non-university research institute and a member of the Leibniz Association. It has gained world-wide reputation for its application-oriented basic research on new polymer materials for future technologies, e.g. in the fields of energy, mobility, health, sustainability, and communication, and it supports the transfer of research results into application. The research work is carried out on the basis of state-of-the-art technical equipment in interdisciplinary cooperation between the five institutes of the IPF and embedded in numerous national and international cooperations. The IPF promotes young scientists and is certified as a family-friendly employer according to the Audit berufundfamilie®. The institute currently employs around 500 persons. Further information at www.ipfdd.de.

The IPF-Institute of **Biofunctional Polymer Materials** is looking for a highly motivated

PhD student (m/f/d) with 26h/week

with interest in application-oriented research, synthesis of innovative hydrogel materials and physicochemical characterization thereof. The position is part of an interdisciplinary EU-funded research project M-ERA.NET Call 2020 with the title *"3D polymer matrix device for dual drug delivery and simultaneous treatment of acute malaria and malaria transmission"*.

The project aims to develop a novel injectable 3D polymer scaffold with controlled dual-drug release properties to sustainably provide therapeutic antimalarial drugs needed to treat acute malaria disease as well as to block the transmission of the malaria parasite to the vector mosquitoes. The device will be applied only once via an intradermal injection and will release two different drugs, each one encapsulated in a custom-made nanoparticle delivery system. The student will synthesize and process customized hydrogel materials for encapsulation of different drug-loaded nanoparticles and characterize the release properties of the different nanoparticles and drugs. She/he will characterize the materials utilizing a broad spectrum of analytical methods such as rheometry, fluorescence microscopy, HPLC. She/he will be involved in validating the optimized device in preclinical tests for biocompatibility.

We expect the student to develop a deep understanding of her/his research field, write academic publications, and participate at project meetings and international conferences.

Requirements:

- master's or diploma degree in the field of bioengineering, chemistry, material science or a closely related discipline
- reliability, diligence, independent way of working and motivation to learn new techniques
- good knowledge of written and spoken English
- team working skills

Ideal skills:

- polymer (especially hydrogel) chemistry and characterization
- microscopic techniques (e.g. SEM, CLSM)
- prior experience with cell culture/in vitro assays and/or statistical methods/design of experiments would be beneficial

The position is starting January 01, 2022 and is limited for 3 years.

Salary: According to German pay grade TV-L EG 13

The IPF Dresden strives for gender equality and diversity in all fields. Applications by people with severe disabilities will be given preference if they are equally qualified. Moreover, as the IPF would like to raise the proportion of women in fields where they are underrepresented, women in particular are invited to apply.

The personal data collected by the IPF relating to your application, as well as the evaluation thereof shall be processed exclusively for purposes of the application process on the basis of contractual measures under Art. 6 (1b) GDPR. These data shall not be transferred to third parties. Recipients shall comprise the employees responsible, the Works Council as well as, where applicable, the representative body for disabled employees and the equal opportunities officers of the IPF. Your application details provided to us shall be deleted by us 6 months after the end of the application process, i.e. either after the job advertised has been filled, or after we have decided not to fill the vacancy after all. For questions under data protection law and for exercising your rights, please contact: d.atenschutz@ipfdd.de (data protection officer). You have the right to complain to the supervisory authority. Expenses for the interview participation will not be refunded.

Application:

If you are interested, please send your CV together with a short description about your background and scientific interests to the IPF Human Resources Department, Susanne Otto: otto-susanne@ipfdd.de **Don't forget to indicate the number of the Job vacancy.**

For further information please contact Dr. Uwe Freudenberg: freudenberg@ipfdd.de

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