Job posting

Type of position
☒ scientific
☐ administrative

Target group
☒ graduates
☐ post docs
☐ other

Title
Nanoporous Shape-Customized Glass Monoliths as Depot Systems for Active Pharmaceutical Ingredients (APIs) for Drug Targeting in Dentistry

Institution
School of Biology and Chemistry, Universität Osnabrück

Position
Applications are invited for a funded PhD position in the group of Martin Steinhart (School of Biology and Chemistry, University of Osnabrück). The successful candidate will be involved in the validation project “Nanoporous Shape-Customized Glass Monoliths as Depot Systems for Active Pharmaceutical Ingredients (APIs) for Drug Targeting in Dentistry” funded by the German Federal Ministry of Education and Research. Project partners are the Fraunhofer Institute for Microstructure of Materials and Systems IMWS as well as the Institute of Chemical Technology and the dental clinic of the University of Leipzig. Aim of the project is the development of novel dental implants based on nanoporous glasses for local, targeted delivery of APIs inhibiting peri-implant inflammations at the interfaces implant-gingiva and implant-bone. Please find further information on this project under the following link:

https://www.chemie.uni-osnabrueck.de/index.php?id=2392

The position is funded according to the pay scale of the State of Lower Saxony (68 % TV-L E13) until September 30, 2025. It is aimed to extend the contract duration to overall three years. The start date is as soon as possible. There are no tuition fees. The University of Osnabrück is a family-friendly university and is committed to helping working/studying parents balance their family and working lives. The University of Osnabrück seeks to guarantee equality of opportunity for women and men and strives to correct any gender imbalance in its schools and departments. If two candidates are equally qualified, preference will be given to the candidate with disability status.
Responsibilities

Crystallinity, crystal modification and crystal orientation of the APIs embedded into the porous glasses will be customized to tailor the release kinetics of the APIs for the targeted applications. To correlate crystallization management with release kinetics, automatized release experiments will be conducted as close as possible to industry standards using a specifically designed test apparatus. Since the research is embedded into a validation project, there will be close contact to enterprises towards the end of the project. The tasks of the successful candidate will comprise the planning, execution, documentation and evaluation of scientific experiments, writing of reports and publications, project management, collaboration with the project partners as well as dissemination of the project results. The research will be conducted in close collaboration with the project partners so that business trips to the project partners will take place on a regular basis.

Requirements

Applicants should hold a Master degree or an equivalent degree in chemistry, pharmacy, materials science or similar subjects.

Application procedure (deadline etc.)

Applications should comprise a CV, copies of Master and Bachelor degree certificates including supplements as well as copies of other relevant documents (if applicable). Please provide English transcripts if the language of the original documents is other than English or German. If you are interested, upload your application as PDF file to:

https://myshare.uni-osnabrueck.de/u/d/39f481a553434578860f/

Contact

For informal enquiries please contact Martin Steinhart (martin.steinhart@uos.de, +49-541-969-2817).