


Internship Program at Osnabrück University of Applied Sciences

Description of lab or research project

	Lab for Chemistry and Surface Modification
Head of the laboratory	Prof. Dr. Svea Petersen Faculty of Engineering and Computer Science Albrechtstr. 30, D-49076 Osnabrück E-Mail: s.petersen@hs-osnabrueck.de Phone.: +49 541 969-3182
Title of Project	Modification and characterization of polymers for medical applications
Abstract	Polymers have found widespread applications in biomedicine, in particular as implant bulk or coating material or as a carrier in drug delivery systems. In our lab, we focus on the establishment and characterization of surface modification reactions of polymers including the provision with a local drug delivery function and/or biofunctionalization in order to selectively control cell-implant interactions.
Tasks	<ul style="list-style-type: none">- Chemical surface modification and bio-functionalization of polymers for enhanced biocompatibility and their characterization via contact angle measurements, FTIR, electron microscopy, etc.- Establishment of polymer-based local drug delivery systems and performance of in vitro drug release studies via HPLC and fluorescence spectroscopy
Requirements	Lab skills are desired, as independent chemical work will be required. A basic understanding of polymers and surface chemistry is desired.

Language Skills	English: fluent German: basic knowledge useful, but not required
Duration and time period	3 – 6 months within either the summer semester (March – August) or the winter semester (September – February) Specific dates and duration to be agreed upon
Further information	The internship is part of a research or development project and will be supervised by a research assistant.