



PhD position

Bio-responsive polymers for diagnosis and controlled release

This PhD thesis will be performed within the framework of two international projects focusing on the one hand on diagnosis of wound infection and on the other hand on targeted drug delivery for the treatment of rheumatoid arthritis.

Drug release from pH- and temperature responsive nano-sized drug delivery systems will be studied as well as the release of indicator molecules from enzyme-responsive diagnostic systems. Biopolymers in the form of polysaccharides as well as protein-based polymers are the key materials for this research project.

A special focus will be laid on the characterization of biomaterials and analysis of release products with different analytic methods (HPLC, mass spectrometry, dynamic light scattering, electrophoresis techniques, circular dichroism techniques, SEM, differential scanning calorimetry).

Together with international co-operators profound insights into GMP production, animal models and clinical trials can be provided.

Students can expect an international research group, inspiring working conditions and fun with science!

Prerequisite

We are seeking for an ambitious candidate with a high interest in analytical questions and a background in protein and/or polysaccharide chemistry.

University/FH students whose studies are related to chemistry, biotechnology or material science.

Duration: 3 years

Start: as of now

Employment: according to FWF (Doctoral candidates salary)

Place: BOKU, IFA Tulln, Konrad-Lorenz Straße 20, 3430 Tulln

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