

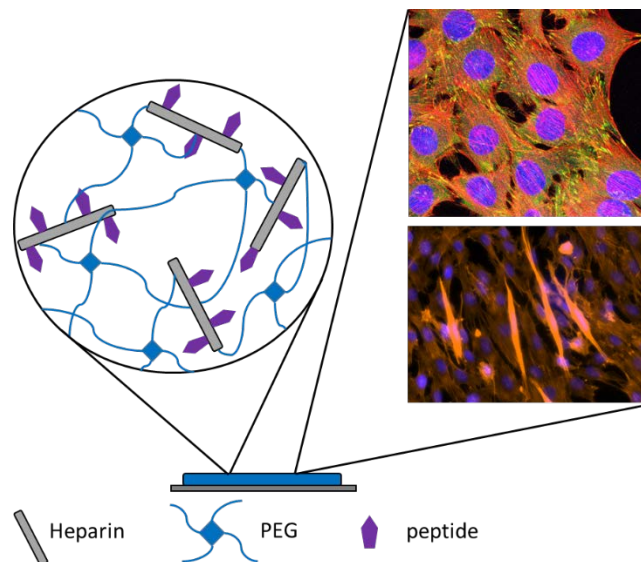
Master Thesis

Extracellular Matrix and mimics thereof regulate myoblast adhesion and differentiation

Institute for Chemistry and Biochemistry

Research group: Prof. Dr. Petra Knaus, Signal transduction

The Knaus group is interested in understanding molecular processes of tissue regeneration with the focus on BMP/TGF- β mediated signal transduction. In addition to the biochemical focus, we include aspects of mechanotransduction in our research objectives and developed methodologies to quantify biochemical and biomechanical signaling.



We are seeking for an ambitious candidate, eager to work with us on novel biomaterials to mimic *in vivo* regeneration processes in tissue culture. In this project, the candidate will produce synthetic biomaterials (StarPEG hydrogels) with varying mechanical and biochemical properties to study myoblast proliferation and differentiation. He/she will apply methodologies to investigate BMP signal transduction, such as Immunocytochemistry, qRT-PCR, quantitative Western blot and live cell imaging.

Please, send your application to Dr. Maria Reichenbach

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