

Bio responsive hydrogels for wound treatment

Infection of wounds constitutes a global problem and is furthermore one of the most common reasons for the non-healing of wounds. Especially medical facilities struggle with the consequences of postoperative wound infections. In order to combat an undesired course of wound healing, the application of antimicrobial agents on fresh wounds constitutes a well-established therapeutic method. A plenty of substances are known to possess antimicrobial activity, however only a short list of them is integrated in routine therapeutic items.

Amongst alternative wound healing strategies, hydrogel based wound dressings constitute a promising material exhibiting superior properties.

Within this master thesis, a novel concept for the preparation of antimicrobial hydrogel wound dressings is investigated based on polysaccharide scaffolds. The work encompasses biochemical methods including biomaterial chemistry and enzymology.

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

Prerequisite

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

Duration: 6-8 months

Start: as of now

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

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