Nature-Inspired Drug Delivery Concepts

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Baggrund:
Significant progress in drug delivery is expected from approaches which are based on cell mimicry. Artificial cells, much simpler in design than their biological counterparts, are expected to provide long term solutions, especially for chronic diseases. There are different approaches to assemble artificial cell mimics and to study their interaction with biological cells and tissue. A core technique involves the use of lab on a chip/microfluidic set ups which is suitable for a broad range of biomedical applications.

Teknikker/Metoder:
Microfabrication, Microfluidics
Liposomes, Hydrogels
Optical and electronic microscopy, AFM

Mulige projekter:
Production of Hydrogel Particles via Micro-Transfer Moulding
Microfluidics: Applications in Biomedical Research
Polymersomes: Assembly and Characterization

Relevant litteratur:
