

Dissecting cellular uptake mechanisms. A novel pharmaceutical nano drug delivery formulation.

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Summary: Are you a motivated student who would like to work in an interdisciplinary team of pharmacists, biologists and nanoscientists? Then we are a perfect match for you. We are looking for one (optionally two) master students who will do their work at the department of Pharmaceutical Sciences, Group Prof. Dr. Jörg Huwyler in the field of nano-drug delivery.

The projects are shared between either Dept. of Phys Chemistry (Schwerpunkt Physik) and Dept. of Biology (Schwerpunkt Biologie), but are executed at the Department of Pharmaceutical Sciences – Group Pharmaceutical Technology of Prof. Dr. Jörg Huwyler.

Preferable start date: Beginning / end of march.

Project supervisors: Tomaz Einfalt MPharm and Claudio Alter.

“**Projektarbeiten**” for shorter terms (2-3 months) are also possible.

The projects will include investigation of the mechanisms involved in the cellular uptake of modified extracellular nano vesicles (apoptotic bodies and exosomes) and delivery of chemotherapeutic agents and DNA.

What we offer to you: A state of the art education in work with various nano vesicles, extracellular vesicles, independent work in cell culture under aseptic conditions, investigation of mechanisms of cellular uptake of the respective nanoassemblies by confocal laser scanning microscopy, fluorescence correlation spectroscopy, western-blotting and fluorescence activated cell sorting, proteomics. Other experimental techniques can also so be included and adapted on the wish of the candidate.

We have recently had great experience in our group with Nanoscience students doing their Master thesis at our department. For alumni information contact Claudio.alter@unibas.ch or f.wyss@unibas.ch, matej.siketanc@unibas.ch, r.schefer@stud.unibas.ch.

