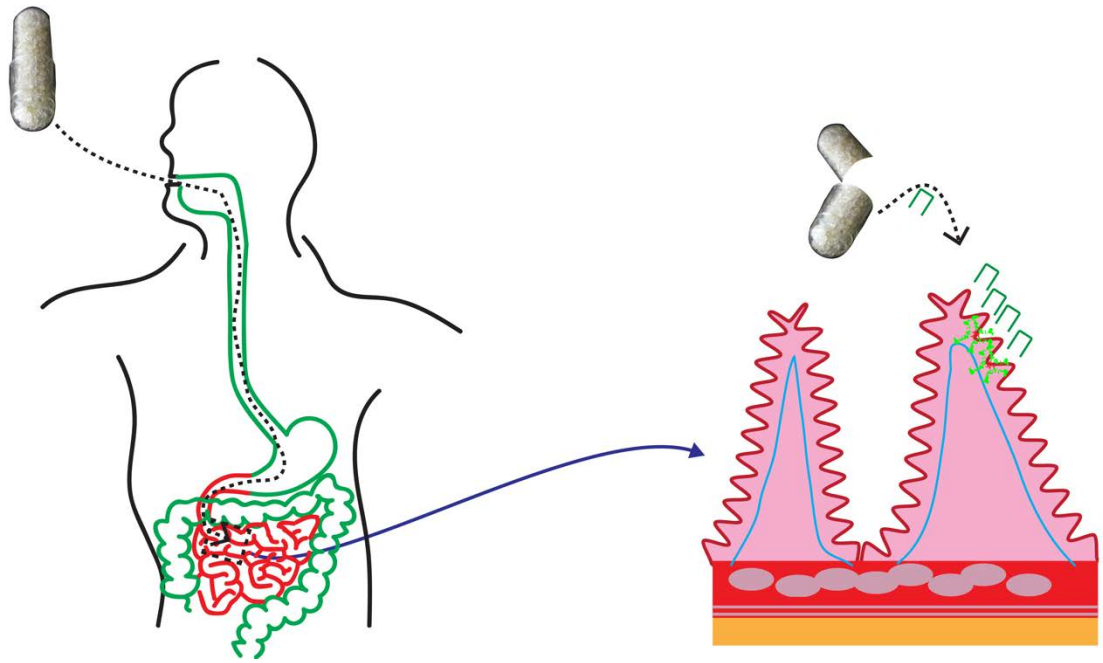
MSc-project

Title: *In vitro* transport of insulin from microcontainers

Description:
The oral route of drug administration is preferred due to convenience, low cost and high patient compliance. Absorption of drugs in the gastrointestinal tract takes primarily place in the small intestine. It is a challenge to deliver proteins (such as insulin) via the oral route as they need protection through the harsh environment of the stomach and they have difficulties getting across the small intestinal barrier. Microcontainers are 300 µm sized cylindrical reservoirs and they can protect proteins through the stomach and release them in the small intestine. This project revolves around creating a biorelevant small intestinal cell model and testing protein-filled microcontainers to investigate the drug transport over the intestinal model.



The focus of the project is to make *in vitro* models of insulin transport across the small intestine

Required qualifications:
Bachelor in Medicine and technology

Responsible institution:
DTU Nanotech

Contact information:
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Allowed no of students per report: 1

Suggested KU supervisor: PhD student Jacob Rune Jørgensen

Suggested DTU supervisor:
PhD students Morten Leth Jepsen, Line Hagner Nielsen, Martin Dufva