Baggrund: We are aiming to use nature inspired approaches to address biomedical challenges. Cell mimicry and microfluidic set ups are promising concepts in this regards for enzyme replacement therapy or artificial motility and mimics of the dynamic in vivo environment, respectively.

Teknikker/Metoder: We are using tools from surface science, cell biology, polymer chemistry, droplet microfluidics to metal colloid science. Their combination is often required for our interdisciplinary projects.

Mulige projekter:
- Self-assembly of cholesterol-modified polymers into drug delivery carriers
- Assembly of self-propelled nanoswimmers
- Gold nanoclusters as drug carrier labels
- Encapsulated catalysis
- Poly(dopamine)/liposome hybrid films in substrate-mediated drug delivery

Eksempler på tidligere bachelorprojekter:
- Polydopamine coating for liposomes
- One step polymersome assembly and characterization
- Film assembly of polydopamine mixed with a low-fouling polymer
- Liposome containing polyelectrolyte multilayers towards surface-mediated drug delivery

For more details pls see the group homepage:
http://inano.au.dk/organization/research-groups/bio-microfluidics-brigitte-stadler/

Relevant literature: