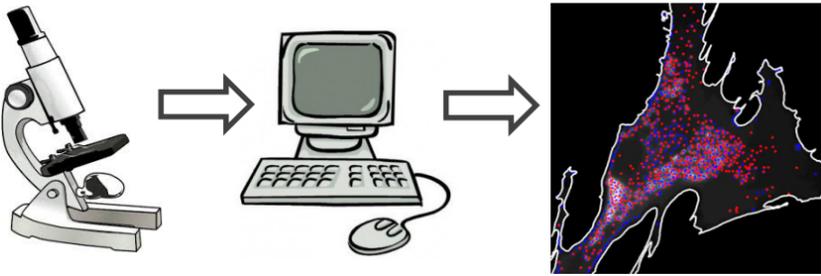


Fluorescence Imaging of Intracellular Transport and Dynamics

Forskningsleder Daniel Wüstner

Kerneforskningsområder

We are an interdisciplinary team using cutting-edge optical microscopy and spectroscopy techniques to study dynamic processes in living cells and their alteration in certain diseases.



Er du interesseret i at skrive projekt i gruppen, så kontakt :
wuestner@bmb.sdu.dk;
 Tlf: 6550-2405

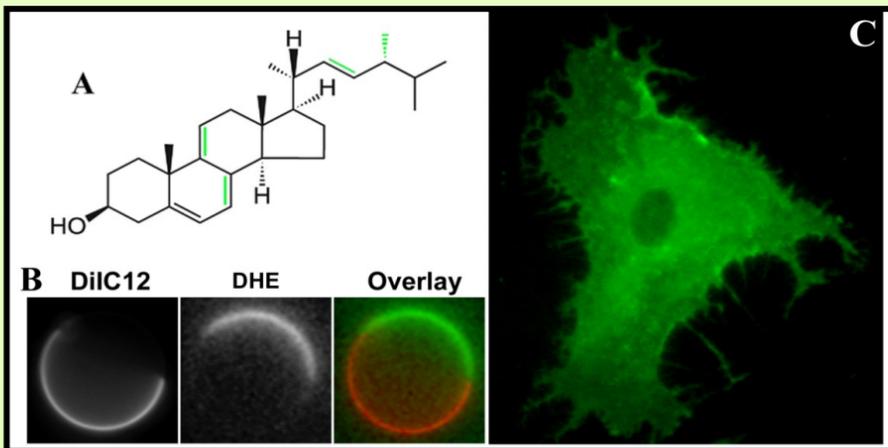
Beskæftigelse af tidligere Studerende.

Ane Landt Larsen, PhD student at Clinical Immunology, SDU
Lukasz M. Solanko, Senior Scientist at Orphazyme ApS, Copenhagen
Frederik W. Lund, Academic technical staff (A-TAP) at FKF, SDU
Selina Kruse Hansen, AC-Tekniker Miljøstyrelsen

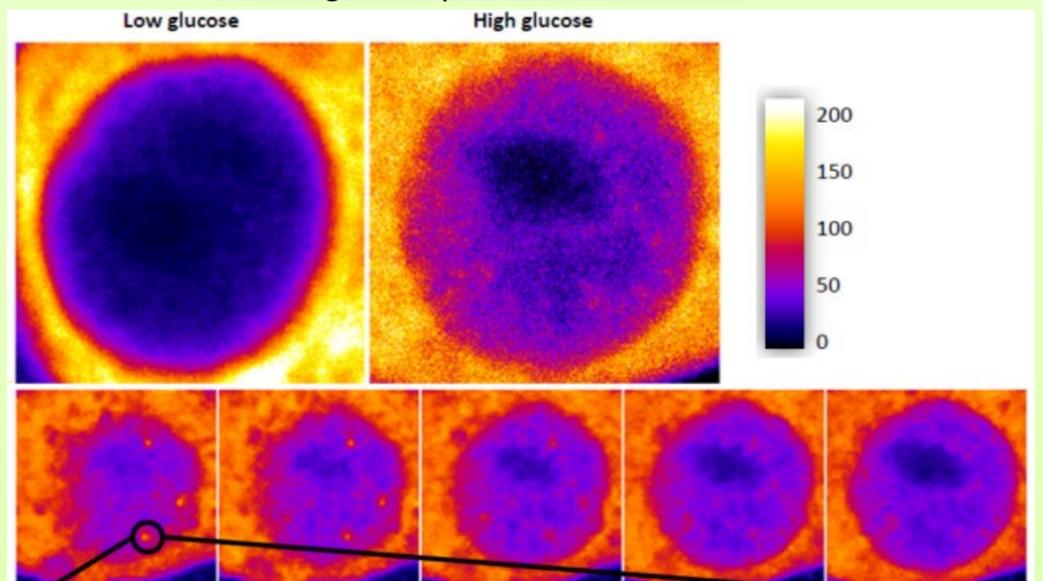
Nuværende PhD Studerende.

Alice Dupont Kragelund
Brian Bjarke Jensen

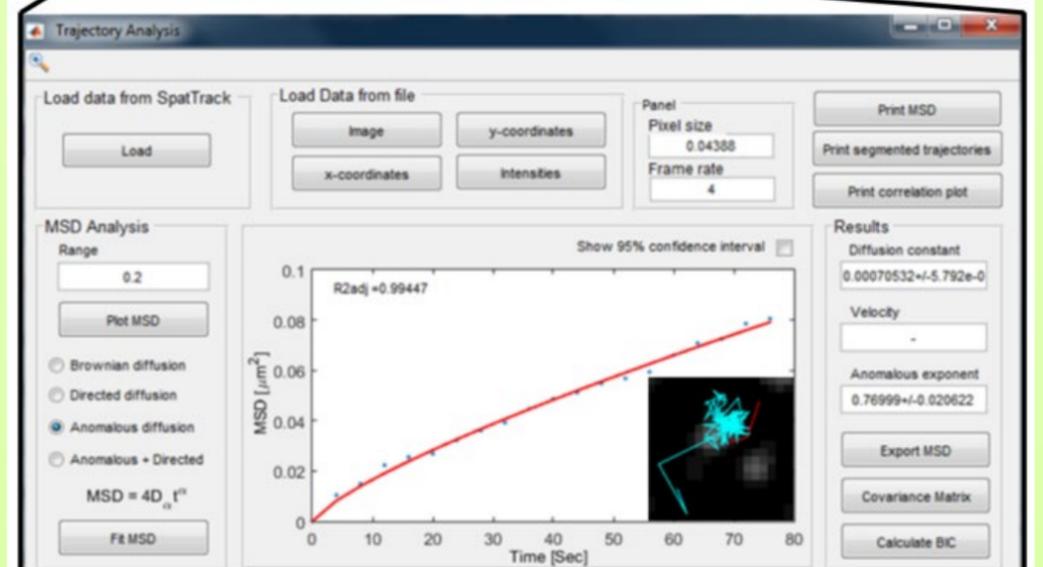
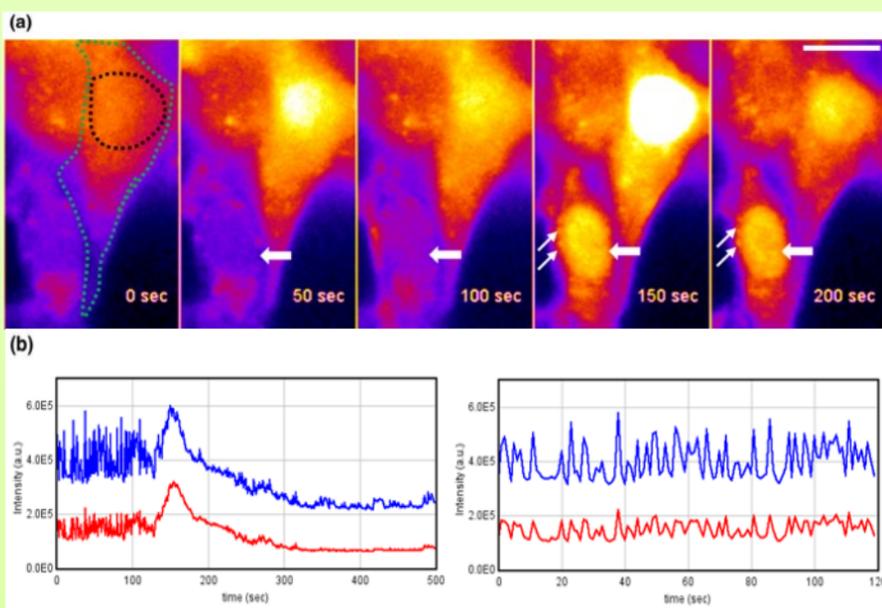
Dynamics of cholesterol in model and cell membranes



Watching transcription factors in action



Calcium signaling in fibroblasts and β cells



Projekter Beskrivelse

Dynamics of cholesterol in model and cell membranes

Using fluorescent sterols and quantitative fluorescence microscopy, we study, how cholesterol interacts with proteins and how it is transported in cells in health and disease states. We provided evidence for two different transport modes for sterols - vesicular and non-vesicular - from the plasma membrane to intracellular sites, like lysosomes, recycling endosomes or lipid droplets.

Watching transcription factors in action

Using quantitative fluorescence live-cell imaging we study the mechanisms by which selected transcription factors, like Carbohydrate Response Element Binding Protein (ChREBP) find their target site in the nucleus. This is a collaboration with the Mandrup group.

Calcium signaling in fibroblasts and β cells

Calcium is an important second messenger regulating a plethora of biological processes. We use quantitative fluorescence microscopy to study the dynamic connectivity between various intracellular calcium stores in living cells.