

Technical University of Denmark (DTU) – Chemistry

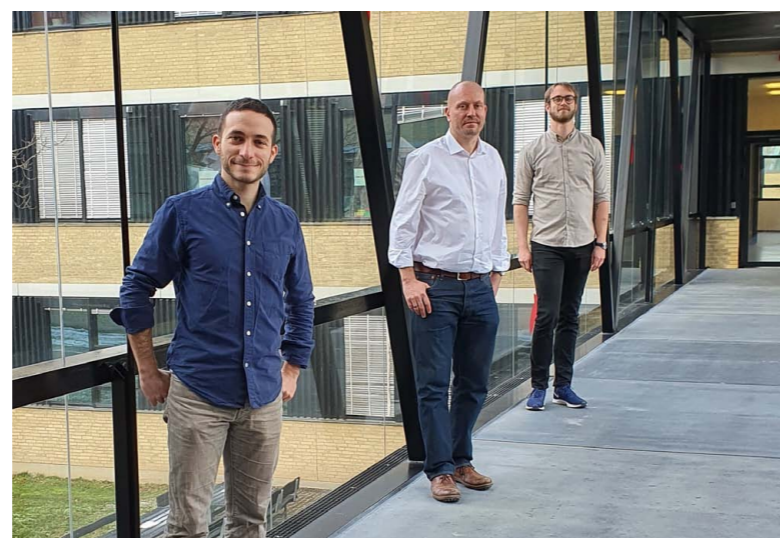
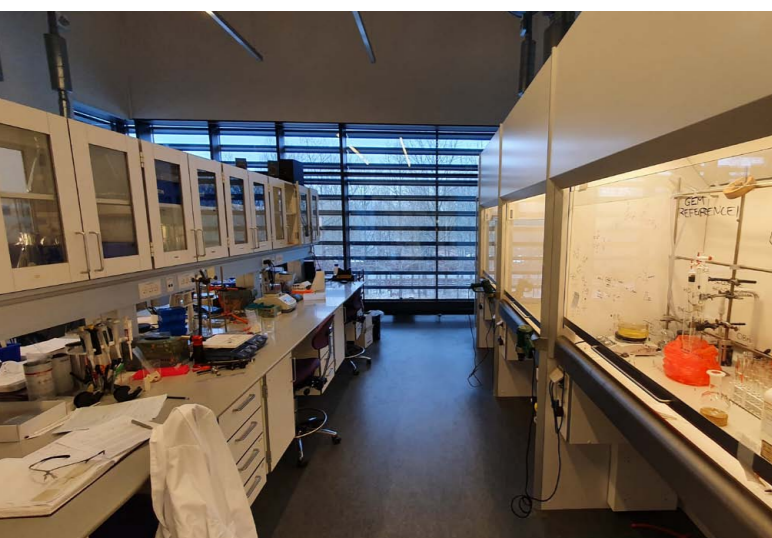
DTU Department of Chemistry, Building 207, 2800 Lyngby, Denmark

At a glance

- › Medicinal chemistry site with more than 15 years of experience and access to state of the art analytical equipment
- › Previous work is diverse and includes method development, analogue synthesis, structure based drug development (SBDD), and pro-drug synthesis
- › Can provide computational chemistry approaches including qSAR and virtual screening
- › Initial ADME profiling of analogues: Solubility, LogP, Caco-2, PAMPA, Microsomal stability, and toxicity

Infrastructure and technical focus

- › Modern research labs for both synthetic- and analytical chemistry with 600 MHz and 800 MHz NMR, GC-MS, UPLC-MS, and preparative HPLC-MS equipment.
- › Microwave synthesizer, parallel synthesis carousels and reaction blocks, automated peptide- and oligonucleotide synthesis, and photochemical reactors
- › Facilities with fully automated biochemical and cell-based assays for screening of analogues



Prof. Mads H. Clausen (Head of Unit)

„For DTU Chemistry, our membership of the Danish research infrastructure for chemical biology and being a medicinal chemistry partner site with EU-OPENSSCREEN enable us to interact with potential collaborators in chemical biology across Europe.“

Projects past and present

2020 | DZIF Blocking cholesterol production through specific protein degradation

2021 | ROS Reactive Oxygen Species in inflammatory disease [↗ Link](#)

2019 | Argonaut Immuno-oncology [↗ Link](#)

2018 | FBDD Design and screening of fluorinated fragments [↗ Link](#)

Our science in selected publications

The 3F library – Fluorinated, Fsp3-rich Fragments for Expedious 19F NMR Based Screening
[↗ Angewandte Chemie Int. Ed. \(2019\), 59, 2204-2210](#)

Image based morphological profiling identifies a lysosomotropic, iron sequestering autophagy inhibitor
[↗ Angewandte Chemie Int. Ed. \(2020\), 59, 5721-5729](#)

Auxiliary in vitro and in vivo biological evaluation of hydrogen peroxide sensitive prodrugs of methotrexate and aminopterin for the treatment of rheumatoid arthritis
[↗ Bioorganic & Medicinal Chemistry \(2020\), 28, 115247](#)

The cholesterol transfer protein GRAMD1A regulates autophagosome biogenesis
[↗ Nature Chemical Biology \(2019\), 15, 710-720](#)

Further info and site-contact

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