

DRA symposium

22nd and 23rd of April 2025 (09:00 – 18:30)

Advances in Pharmaceutical Development

University of Copenhagen, Faculty of Health and Medical Sciences, PharmaSchool, Universitetsparken 2,
2100 Copenhagen Ø, Auditorium A4

Programme

22nd of April

Advances in the Formulation (Chair: Inês C. B. Martins)

- 09:00 **Coffee/tea, croissants & fruits**
- 09:30 **Introduction / welcome**
Inês C. B. Martins and Thomas Rades, Department of Pharmacy, University of Copenhagen, Denmark
- 09:40 **Talk 1 (25 min + 5 min QA)**
Anette Müllertz, Department of Pharmacy, University of Copenhagen, Denmark
“Advances in lipid-based drug delivery”
- 10:10 **Talk 2 (25 min + 5 min QA)**
Thomas Rades, Department of Pharmacy, University of Copenhagen, Denmark
“Order and disorder in pharmaceutical solids – Advances in solid-state drug delivery”
- 10:40 **Talk 3 (25 min + 5 min QA)**
Regina Scherliess, Department of Pharmaceutics, Kiel University, Germany
“Advances in nasal drug delivery”
- 11:10 **Coffee break, scientific discussions & poster session**
- 11:40 **Talk 4 (25 min + 5 min QA)**
Andrea Heinz, Department of Pharmacy, University of Copenhagen, Denmark
“Electrospun dressings for the treatment of psoriasis”
- 12:10 **Talk 5 (25 min + 5 min QA)**
Daniel Treffer, Meltprep GmbH, Graz, Austria
“ASD and implant development made easy”
- 12:40 **Lunch**

Advances in the Characterization (Chair: Markus Lubda)

- 14:00 **Talk 6 (25 min + 5 min QA)**
Karlis Berzins, Department of Pharmacy, University of Copenhagen, Denmark
“Introduction to Brillouin and low-frequency Raman spectroscopy for pharmaceutical applications”
- 14:30 **Talk 7 (25 min + 5 min QA)**
Clare Strachan, Faculty of Pharmacy, University of Helsinki, Finland
“Elucidating structural heterogeneities of pharmaceuticals with stimulated Raman scattering microscopy”
- 15:00 **Talk 8 (25 min + 5 min QA)**
Inês C. B. Martins, Department of Pharmacy, University of Copenhagen, Denmark
“From crystalline to amorphous solid forms: which tools can we use for their structural characterization?”
- 15:30 **Coffee break, scientific discussions & poster session**
- 16:00 **Talk 9 (25 min + 5 min QA)**
Leonard Siebert, Department of Material Science, Faculty of Engineering, Kiel University, Germany
“Additive Manufacturing in Drug Formulation Characterization”
- 16:30 **Talk 10 (25 min + 5 min QA)**
Pirjo Tajarobi, Astra Zeneca, Gothenburg, Sweden
“Characterisation in Early Product Development”
- 17:00 **Lab tour, Merck & MeltPrep innovation showcase**
- 18:30 **Get together with finger food and drinks**
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23rd of April

Advances in Pharmaceutical Manufacturing (Chair: Clare Strachan)

- 09:30 **Coffee and croissants**
- 10:00 **Talk 1 (25 min + 5 min QA)**
Natalja Genina, Department of Pharmacy, University of Copenhagen, Denmark
“Tailor-Made doses of pharmaceuticals by tunable modular design”
- 10:30 **Talk 2 (25 min + 5 min QA)**
Mateusz Kurek, Faculty of Pharmacy, Jagiellonian University Medical School, Poland
“Technological challenges for the adoption of FDM 3D printing in pharmaceutical practice”

- 11:00 **Talk 3 (25 min + 5 min QA)**
Korbinian Löbmann, Zerion, Copenhagen, Denmark
"Make poorly soluble drugs great again"
- 11:30 **Coffee break, scientific discussions & poster session**
- 12:00 **Talk 4 (25 min + 5 min QA)**
Markus Lubda, Merck, Darmstadt, Germany
"Enhancing Solubility of Small and Large Molecules with Polyvinyl Alcohol"
- 12:30 **Talk 5 (25 min + 5 min QA)**
Thomas Kipping, Merck, Darmstadt, Germany
"Latest advancements in additive manufacturing for solubility enhancement"
- 13:00 **Lunch**
- Advances in the Computational methods (Chair: Daniel Treffer)**
- 14:30 **Talk 6 (25 min + 5 min QA)**
Philip Hans, Department of Pharmacy, University of Copenhagen, Denmark
"New and advanced approaches for sample characterization by X-rays and electrons"
- 15:00 **Talk 7 (25 min + 5 min QA)**
Stine Rønholt, Department of Pharmacy, University of Copenhagen, Denmark
Mark Jones, Molecular Quantum Solutions ApS, Copenhagen, Denmark
"Experimental and digital formulation development for ionic liquid based cutaneous drug delivery systems"
- 15:30 **Talk 8 (25 min + 5 min QA)**
Michael Devlin, Center for Continuous Manufacturing and Crystallisation, University of Strathclyde, Glasgow, UK
"Effect of simulation box size and shear on the structure of amorphous hydrochlorothiazide"
- 16:00 **Coffee break, scientific discussions & poster session**
- 16:30 **Talk 9 (25 min + 5 min QA)**
Mitali Bhagwat, Merck, Darmstadt, Germany
"Artificial Intelligence based Co-crystal Prediction Tool"
- 17:00 **Talk 10 (25 min + 5 min QA)**
Alex Bunker, Faculty of Pharmacy, University of Helsinki, Finland
"Computationally assisted design (CAD) for lipid and polymer based drug delivery systems"
- 17:30 **Talk 11 (25 min + 5 min QA)**
Anders Larsen, Department of Pharmacy, University of Copenhagen, Denmark
"Solving crystal structures using a neural network"
- 18:00 **Conclusion and closing remarks**

The symposium is organized on behalf of the graduate programme in pharmaceutical sciences, Drug Research Academy, by Assoc. Prof. Inês C. B. Martins and Prof. Dr. hc. hc. Thomas Rades, Department of Pharmacy, Faculty of Health and Medical Sciences, University of Copenhagen.

The symposium is free of charge and open for attendance by all interested parties. It is not necessary to pre-register.