

Pharmaceutical innovations at the crossroads: Smart therapeutics, Al and manufacturing

Pre-conference workshop 16.6.2025 Tietoteknia Auditorium, UEF

> Conference 17.-18.6.2025 Scandic Kuopio

Programme

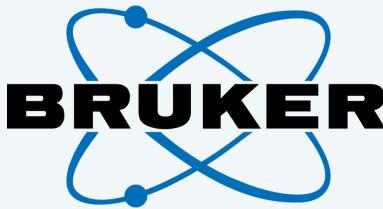
























Pre-conference workshop 16.6.2025

Tietoteknia Auditorium, University of Eastern Finland (UEF) Tietoteknia building, Savilahdentie 6, 70210 Kuopio

14:00-14:15 Welcoming and introductions, Professor Jarkko Ketolainen, School of Pharmacy, UEF & Dr Aled Jones, FinVector Oy

Chair: Dr Janne Weisell, FinVector Oy

14:15-14:45 Introduction to commercial manufacturing of viral vectors, Dr Aled Jones, FinVector Oy

14:45-15:05 Raman spectroscopy in biodrug development and manufacturing, CEO Mari Tenhunen, Timegate Instruments Oy

15:05-15:25 Protein engineering applications for biopharmaceutical development, Dr Vijay Saxena, School of Pharmacy, UEF

COFFEE BREAK

Chair: Dr Tatu Lajunen, School of Pharmacy, UEF

16:00-16:20 Zooming the process: Where biomanufacturing meets patient value, Professor Albert Mihranyan, Uppsala University

16:20-16:40 Does freeze-drying bring any added value to biodrug life cycle? Professor Ossi Korhonen, School of Pharmacy, UEF

16:40-17:00 Continuous freeze-drying, the next step in downstream processing of biodrugs, Professor Thomas de Beer, RheaVita BV / Ghent University, ONLINE

19:00-20:30 Welcome Get-Together - Scandic Hotel



Conference Programme 17.6.2025

Hotel Scandic Kuopio, Satamakatu 1, 70100 Kuopio

10:00-10:20 Welcoming and introductions

Professor Markus Forsberg, Dean, Faculty of Health Sciences, University of Eastern Finland

Professor Jarkko Ketolainen, Head of School of Pharmacy, University of Eastern Finland, EuPAT12 chair

Professor Jukka Rantanen, Head of Department of Pharmacy, University of Copenhagen, EUFEPS QbD and PAT network SC chair

Session 1 "Latest Approaches in Advanced Drug Delivery Systems"

Chair: Professor Jarkko Ketolainen

10:20-10:50

Dressing up to fool cancer: novel platforms for personalized cancer vaccines

Professor Vincenzo Cerullo, Valo Therapeutics / Helsinki University, Fl

10:50-11:20

Next-generation delivery systems for mRNA vaccines

Professor Camilla Foged, University of Copenhagen, DK

11:20-11:50

Understanding the structure-function of lipid nanoparticles for the delivery of mRNA

Professor Yvonne Perrie, University of Strathclyde, UK



Conference Programme 17.6.2025

Hotel Scandic Kuopio, Satamakatu 1, 70100 Kuopio

Short talks (selected from abstracts)

Chair: Professor Jarkko Ketolainen

11:50-12:05

Dr Arto Merivaara, University of Eastern Finland, FI: Sustainable *in vivo* screening of liposomes and lipid nanoparticles

12:05-12:20

David Zuza, University of Chemistry and Technology, CZ:

Device for simultaneous dissolution and permeation measurement on artificial and biological membranes

12:20-12:35

Fadak Howaili, Abo Akademi University, FI:

Real-time label-free sensing platforms for characterizing nanoparticle-based gene/drug delivery systems

12:35-13:40 LUNCH BREAK & POSTERS



Session 2: "Innovations in Manufacturing and Measurement Science"

Chair: Professor Jukka Rantanen

13:40-14:10

Revealing hidden microscale phenomena in pharmaceuticals with nonlinear optics

Professor Clare Strachan, Helsinki University, FI

14:10-14:40

Growing up or dying out? Pharmaceutical 3D printing in industry and clinics

Assistant Professor Julian Quodbach, Utrecht University, NL

14:40-15:10

The Mini-Batch concept - addressing the challenges of continuous direct compression

Dr Reto Maurer, Principal Scientist, F. Hoffmann - La Roche AG, Basel, CH

15:10-15:30

Sponsors' spot

Bruker BioSpin, CultiXCell, CurifyLabs, Timegate Instruments & Finnish Pharmaceutical Society

15:30-16:10 COFFEE BREAK & POSTERS

16:10-16:40

PAT in solid sosage form manufacturing - Current status and future perspectives

Dr Moritz Anuschek, NovoNordisk A/S, DK



Short talks (selected from abstracts)

Chair: Professor Jukka Rantanen

16:40-16:55

Simone Eder, Research Center Pharmaceutical Engineering GmbH, AT:

Sensor-Aided Vaginal Pessaries - Smart Treatment of Urinary

Incontinence

16:55-17:10

Dr Daniel Powell, University of Strathclyde, UK:

Combining Optical Coherence Tomography and UV-vis Imaging for Real-Time Monitoring of Amorphous Solid Dispersion Dissolution

18:00-19:30 DINNER - Scandic Hotel

20:00–22:00 Lake Cruise on M/S Queen

Enjoy the evening in the beautiful lake landscape of Kallavesi



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Session 3: "From Science to Sustainable Manufacturing Solutions"

Chair: Dr Aled Jones

9:00-9:30

Lab to commercialisation - Financing aspects

Dr Nigel Parker, GeneCellNano Flagship, Fl

9:30-10:00

Steering the pharmaceutical sector towards sustainability

Professor Jo Dewulf, Ghent University, BE

10:00-10:30

Industrialisation of adenoviral vector production in fixed bed bioreactor: A control strategy for a monoseptic process

Dr Piia Valonen, Lead Scientist, FinVector Oy, Fl

10:30-11:20 COFFEE BREAK & POSTERS

11:20-11:50 Some insights to continuous manufacturing guidelines

Dr Luther Gwaza, Team Lead, WHO, CH



Short talks (selected from abstracts)

Chair: Dr Aled Jones

11:50-12:05

Johannes Poms, Research Center Pharmaceutical Engineering GmbH, AT: Beyond Single Unit Operations: Controlling the Full API Manufacturing Chain

12:05-12:20

Theo Tait, CMAC, University of Strathclyde, UK:
Resource-sparing direct compression formulation optimizer to accelerate medicine development

12:20-12:35

Dr Mirella Miettinen, University of Eastern Finland, FI:

The impact of recent changes in EU chemicals legislation on sustainable manufacturing in the pharmaceutical sector: stakeholders' perspectives

12:35-12:50

Dr Kuldeep K. Bansal, Abo Akademi University, FI:

Unlocking the Potential of Poly(Jasmine Lactone): A Multifunctional

Drug Delivery Platform

12:50-13:00

Closing words

Professor Jarkko Ketolainen, Head of School of Pharmacy, University of Eastern Finland, EuPAT12 chair

Professor Jukka Rantanen, Head of Department of Pharmacy, University of Copenhagen, EUFEPS QbD and PAT network SC chair

13:00 **GRAB & GO LUNCH**