



**12<sup>th</sup> World Meeting on Pharmaceuticals,  
Biopharmaceutics and Pharmaceutical Technology**

# **VIRTUAL** MEETING

LIVE event from 11 - 14 May 2021

- interactive platform with match making and networking
- your advantage: content available on demand two months after the live meeting
- great scientific programme
- live Q&A sessions
- E-poster presentations
- virtual exhibition ResearchPharm®

**PBP**

**WORLD MEETING**

in combination with

**R**esearch**P**harm®  
*International Exhibition for R&D*

[www.worldmeeting.org](http://www.worldmeeting.org)

# Programme

## Tuesday, 11 May 2021

13:00 – 13:45	Opening Ceremony	Exhibition
13:45 – 14:45	Key note lecture	
14:45 – 15:15	Coffee break	
15:15 – 17:45	Hot topic lectures	

time zone  
CEST

### Key note lecture incl. Q&A

Chair: Duncan Craig, University College London

- 13:45 - Engineering cancer immunotherapy  
14:45 David J. Mooney, Harvard School of Engineering and Applied Sciences, Cambridge, USA

### 14:45 - 15:15 Coffee break/exhibition

### Hot topic session incl. Q&A

Chairs: Svetlana Ibric, University of Belgrade and Maïke Windbergs, University of Frankfurt

- 15:15 - Digital assistant to support drug product development  
16:00 Ferdinand Brandl, BASF, Ludwigshafen, German
- 16:05 - Overcoming challenges of biodegradable drug delivery systems  
16:50 Steven Schwendeman, Department of Pharmaceutical Sciences and the Biointerfaces Institute, University of Michigan, Ann Arbor, MI, USA
- 16:55 - Pfizer's „continuous“ journey - Implementing continuous manufacturing into a factory for solid dosage forms  
17:45 Clemens Stief, Pfizer, Freiburg, Germany

## Wednesday, 12 May 2021

08:45 – 11:15	Invited talks	Short talks	Posters	Exhibition
11:15 – 11:45	Coffee break			
11:45 – 12:15	Award session			
12:15 – 13:15	Plenary lecture			
13:15 – 14:45	Lunch			
14:45 – 17:15	Invited talks	Short talks		

time zone  
CEST

### Invited talks: Advanced therapeutic products incl. Q&A

Chairs: Karine Andrieux, University Prais Sud and Andreas Zimmer, University of Graz

- 08:45 - Formulation approaches for cell and gene therapies  
09:30 Chris Van der Walle, GlaxoSmithKline, Stevenage, United Kingdom
- 09:35 - Comparison of different chromatography-based purification strategies for AAV vectors  
09:50 Ruth Rieser, University of Munich, Germany

- 09:50 - Formulation of cationic liposomes enhances the immunogenicity of pDNA vaccine against SARS-COV-2  
10:05 Allegra Peletta, ISPSO, University of Geneva, Switzerland
- 10:05 - Question and answer session  
10:20 from the two short talks
- 10:25 - Biodrugs and advanced therapy medicinal products: a revolution in medicine  
11:10 Maria Luisa Nolli, NCNbio, Milan, Italy

### Invited talks: Solid dosage forms incl. Q&A

Chairs: Iris Ziegler, Cordon Pharma and Raphael Wiedey, University of Düsseldorf

- 08:45 - Adoption of the MCS concept in the pharmaceutical industry  
09:30 Michael Leane, Bristol-Myers Squibb, New York City, USA/Kendal Pitt, GlaxoSmithKline, Ware, UK
- 09:35 - Process design for innovative drug delivery systems  
10:20 Jukka Rantanen, Department of Pharmacy, University of Copenhagen, Denmark
- 10:25 - The importance of understanding the physical and chemical properties of APIs in the digital design of drug products  
11:10 Kevin Roberts, Faculty of Engineering, University of Leeds, United Kingdom

### Short talks: Controlled drug delivery

Chairs: Werner Weitschies, University of Greifswald and Julijana Kristl, University of Ljubljana

- 08:45 - Design and control of a floating gastroretentive drug delivery system made by hot-melt tube extrusion  
09:00 Paul Bebernik, University of Bonn, Germany
- 09:00 - A new calcium oral-controlled-release system based on zeolite for prevention of osteoporosis  
09:15 Anna Maria Piras, University of Pisa, Italy
- 09:15 - Question and answer session  
09:30
- 09:35 - Spray dried microparticulate drug delivery systems for long-term local osteoarthritis treatment  
09:50 Carlota Salgado, University of Geneva, Switzerland
- 09:50 - Tuning the mechanical pore properties and release profile on an antimicrobial peptide from an injectable hydrogel using glycol chitosan  
10:05 James Flynn, University of Limerick, Ireland
- 10:05 - Question and answer session  
10:20
- 10:25 - Development of N-acetylcysteine-functionalized microcontainers for degradation of biofilm matrix  
10:40 Stine Egebro Birk, Technical University of Denmark, Lyngby, Denmark
- 10:40 - SymBiosys® based long acting injectable miroparticle formulations for large proteins  
10:55 Tanja Henzler, Merck, Darmstadt, Germany

# Programme

10:55 - Question and answer session  
11:10

## Short talks: Preformulation and bioavailability

Chairs: Catherine Herry, NextPharma and Lea Ann Dailey, University of Vienna

08:45 - In situ drug amorphization using laser irradiation  
09:00 Nele-Johanna Hempel, University of Copenhagen, Denmark

09:00 - Understanding the Release of ITZ:HPMCAS  
09:15 Amorphous Solid Dispersions  
Patrícia Nunes, Hovione, Portugal

09:15 - Question and answer session  
09:30

09:35 - Evaluation of different preprocessing methods of  
09:50 x-ray micro computed tomography images  
Sebastian Bollmann, University of Düsseldorf, Germany

09:50 - Experimental and numerical studies of input  
10:05 parameters calibration for the simulation of the  
wet granulation process for pharmaceutical use  
Maroua Rouabah, Claude Bernard University Lyon 1, France

10:05 - Question and answer session  
10:20

10:25 - The Comparison of Permeability Efficacy of  
10:40 Olmesartan Medoxomil Lipid Based Drug  
Delivery System and Olmesartan Medoxomil  
Suspension Formulations by Using Optimized  
HDM-PAMPA Model  
Yelda Komesli, University of Altinbas, Turkey

10:40 - Insight into amorphous solid dispersion  
10:55 dissolution behaviour: laser-diffraction and Raman  
spectroscopy holding hands  
Maria Paisana, Hovione FarmaCiencia, Lisbon, Portugal

10:55 - Question and answer session  
11:10

11:15 - 11:45 Coffee break/exhibition/posters

## 11:45 - 12:15 APGI award session

Maurice-Marie Janot Award: Robert Langer  
APGI Young Investigator Award: Raul Diaz Salmeron  
JDDST Best Paper 2020 Award

## Plenary lecture incl. Q&A

Chair: Juergen Siepmann, University of Lille

12:15 - Advances in nanotechnology  
13:15 Patrick Couvreur, Faculty of Pharmaceutical  
Sciences, Paris Sud University, France

13:15 - 14:45 Lunch break/exhibition/posters

## Invited talks: What's new in nanotechnology? incl. Q&A

Chairs: Elias Fattal, University Paris Sud and Heike Bunjes, University of Braunschweig

14:45 - What's needed in nanomedicine?  
15:30 Twan Lammers, Department Nanomedicines and  
Theranostics, RWTH, Aachen University, Germany

15:35 - Nanotechnologies for advanced imaging  
16:20 Nathalie Mignet, Chemical and Biological  
Technologies for Health, Université de Paris,  
France

16:25 - Hyperloaded polymeric micelles for chemo- and  
17:10 immunotherapy  
Alexander Kabanov, Eshelman School of Pharmacy  
at Chapel Hill, University of North Carolina, USA

## Invited talks: 3D-printing incl. Q&A

Chairs: Alvaro Goyanes, FabRx and Julian Quodbach, University of Düsseldorf

14:45 - 3D-printing of medicines and implants:  
15:30 making the formulations work  
Clive Roberts, School of Pharmacy, University of  
Nottingham, United Kingdom

15:35 - Thermoplastic copolyesters: A promising  
15:50 3D-printing excipient for personalized vaginal  
inserts  
Martin Spoerk, RCPE, Graz, Austria

15:50 - Semi-Solid Extrusion 3D Printing of  
16:05 Orodispersible Films for Veterinary Use  
Erica Sjöholm, Abo Akademi University, Finland

16:05 - Question and answer session  
16:20 from the two short talks

16:25 - 3D-printing in an industrial GMP setting  
17:10 Jaedeok Yoo, Aprelia Pharmaceuticals, Blue Ash,  
OH, USA

## Short talks: Pulmonary, nasal and buccal delivery

Chairs: Ajit Narang, Genetech and Johannes Bartholomäus, PharmaKreativ

14:45 - High potency, brittle matrix tacrolimus powders  
15:00 for dry powder for inhalation by thin film freezing  
Sawitree Sahakijpijarn, University of Texas at  
Austin, USA

15:00 - Delivery of beclomethasone dipropionate  
15:15 nanosuspensions via electronic cigarette  
Luca Casula, University of Cagliari, Italy

15:15 - Question and answer session  
15:30

15:35 - P. aeruginosa biofilm infected bronchial  
15:50 epithelium as test-system for anti-infective  
aerosol formulations  
Claus-Michael Lehr, Saarland University,  
Saarbrücken, Germany

15:50 - Evaluation of a novel probiotic nasal spray in  
16:05 human volunteers  
Filip Kiekens, University of Antwerp, Belgium

16:05 - Question and answer session  
16:20

16:25 - Nanofibers with antibiotics and probiotics for the  
16:40 two-stage therapy of periodontal disease  
Spela Zupancic, University of Ljubljana, Slovenia

16:40 - Mucoadhesive films to elicit nanoparticle buccal  
16:55 permeation  
Javier Morales, University de Chile, Santiago, Chile

# Programme

16:55 - Question and answer session  
17:10

## Short talks: Tablets and coated tablets

Chairs: Kathrin Bartscher, NextPharma and Rok Dreu, University of Ljubljana

- 14:45 - Profiling the influence of process parameters on the interfacial properties of bilayer tablets  
15:00 Jan Hendrik Finke, Technical University of Braunschweig, Germany
- 15:00 - Evaluation of the performance of an external lubrication system implemented in a compaction simulator  
15:15 Cedrine de Backere, Ghent University, Ghent, Belgium
- 15:15 - Question and answer session  
15:30
- 15:35 - Influence of the unloading conditions on capping and lamination during tableting: numerical and experimental study  
15:50 Vincent Mazel, University of Bordeaux, France
- 15:50 - Development of Mini-Tablets with SSR-25  
16:05 Valentine Elezaj, University of Düsseldorf, Germany
- 16:05 - Question and answer session  
16:20
- 16:25 - High solids film coating systems: continuous vs. batch processing  
16:40 Christian Mühlenfeld, Ashland Industries Deutschland GmbH, Düsseldorf, Germany
- 16:40 - Effect of the compaction parameters on the final structure and properties of a press-coated tablet (Tab-in-Tab): experimental and numerical study of the influence of core and shell dimensions  
16:55 Léo Picart, University of Bordeaux, France
- 16:55 - Question and answer session  
17:10

## Thursday, 13 May 2021

08:45 – 11:15	Invited talks	Short talks	Posters	Exhibition
11:15 – 11:45	Coffee break			
11:45 – 12:15	Award session			
12:15 – 13:15	Plenary lecture			
13:15 – 14:45	Lunch			
14:45 – 17:15	Invited talks	Short talks		

time zone  
**CEST**

## Invited talks: Formulation issues for biotech drugs incl. Q&A

Chairs: Chris van der Walle, GSK and Karoline Bechtold-Peters, Novartis

08:45 - Pellet freeze-drying of biopharmaceuticals  
09:30 Stefan Schneid, Bayer, Wuppertal, Germany

- 09:35 - Please stay my dear: Interfacial adsorption as driving force for protein particle formation during peristaltic pumping  
09:50 Natalie Deiringer, University of Munich, Germany
- 09:50 - Creating Highest Quality L yophilisates With Low Oxygen and Water Content by Smart Polymer Packaging  
10:05 Nicole Hårdter, University of Munich, Germany
- 10:05 - Question and answer session  
10:20 from the two short talks
- 10:25 - Biologics drug product development: challenges at the interface of formulation, primary packaging and application  
11:10 Susanne Jörg, Lonza AG, Basel, Switzerland

## Invited talks: Localised drug delivery incl. Q&A

Chairs: Carmen Alvarez Lorenzo, University of Santiago de Compostella and Jean Christophe Leroux, ETH Zürich

- 08:45 - Jumping to the brain: tailored nanomedicines  
09:30 Giovanni Tosi, University of Modena and Reggio Emilia, Italy
- 09:35 - Development of a dissolution method for dosage forms administered into subtenon space  
09:50 Tobias Auel, University of Greifswald, Germany
- 09:50 - Impact of the in vitro release set-up on drug release from PLGA implants  
10:05 Celine Bassand, University of Lille, France
- 10:05 - Question and answer session  
10:20 from the two short talks
- 10:25 - Inhaled chemotherapy: a new modality for lung cancer treatment?  
11:10 Nathalie Wauthoz, Université Libre de Bruxelles, Belgium

## Short talks: Nanotechnology

Chairs: Guiseppe De Rosa, University of Naples and Niklas Sandler, Nanoform

- 08:45 - Heterotelechelic polymer prodrug nanoparticles for imaging and combination therapy  
09:00 Julien Nicolas, University Paris-Sud, France
- 09:00 - Comparison of Exosome Loading Methodologies – Development of Blood-Brain Barrier-Targeting Exosomes via Dual Asymmetric Centrifugation  
09:15 Anne Mahringer, University of Heidelberg, Germany
- 09:15 - Question and answer session  
09:30
- 09:35 - Antiangiogenic folate-targeted nanoparticles for docetaxel delivery in ovarian cancer  
09:50 Claudia Conte, University of Naples Federico II, Italy
- 09:50 - Cellular and subcellular targeting of TRAP1 as a new therapeutic approach for cancer treatment  
10:05 Clelia Mathieu, Institute Galien - Paris Sud, France
- 10:05 - Question and answer session  
10:20
- 10:25 - Effects of cytokines release in tissue regeneration and cancer treatments  
10:40 Slivia Pisani, University of Pavia, Italy
- 10:40 - Bacterial membrane vesicles as novel treatment avenue for intracellular infections  
10:55 Gregor Fuhrmann, HIPS, Saarbrücken, Germany

# Programme

10:55 - Question and answer session  
11:10

## Short talks: Continuous manufacturing / Modeling and simulation

Chairs: Joao Pinto, University of Lisbon and Martin Bornhöft, APV

08:45 - Characterization of a Continuous Small-Scale Solid-Liquid Separator for Filtration, Washing, and Drying of Pharmaceutical Suspensions  
09:00 Claas Steenweg, University of Dortmund, Germany

09:00 - Continuous production of cyclodextrin-based reconstitution powder from aqueous solution using scaled-up electrospinning  
09:15 Panna Vass, Budapest University of Technology and Economics, Hungary

09:15 - Question and answer session  
09:30

09:35 - An in-silico workflow for designing a continuous mixing process with DEM simulations  
09:50 Peter Toson, RCPE, Graz, Austria

09:50 - Visualization of solvent effects on crystal surfaces by chemical force mapping - a combined experimental and simulation approach  
10:05 Mikkel Herzberg, University of Copenhagen, Denmark

10:05 - Question and answer session  
10:20

10:25 - Predicting crystal breakage in pharmaceutical agitated dryers  
10:40 Francois Hallac, University of Leeds, UK

10:40 - Dissolution and re-crystallization of supersaturated indomethacin solutions  
10:55 Andreas Danzer, University of Dortmund, Germany

10:55 - Question and answer session  
11:10

11:15 - 11:45 Coffee break/exhibition/posters

## 11:45 - 12:15 APV award session

APV Research Award 2019/2020: Olivia Merkel  
APB Best Thesis Award 2019/2020: Flavia Fontana  
EJPB Best Paper Award 2020

## Plenary lecture incl. Q&A

Chair: Joerg Breitzkreutz, University of Düsseldorf

12:15 - Pharmacomicrobiomics: drugs meet the human microbiome  
13:15 Christine Moissl-Eichinger, Medical University of Graz, Austria

13:15 - 14:45 Lunch break/exhibition/posters

## Invited talks: Oral drug delivery incl. Q&A

Chairs: Robert O. Williams, University of Texas and Joerg Breitzkreutz, University of Düsseldorf

14:45 - Hydrophobic ion pairs: A game-changing approach for delivery of BCS class 3 drugs  
15:30 Andreas Bernkop-Schnürch, Faculty of Chemistry and Pharmacy, University of Innsbruck, Austria

15:35 - Biological barriers to oral delivery of macromolecules  
16:20 Caitriona O'Driscoll, School of Pharmacy, University of Cork, Ireland

16:25 - The virtual patient and the in-silico design of solid dosage forms  
17:10 Hans Leuenberger, College of Pharmacy, University of Florida, Lake Nona Medical Campus, Orlando, FL, USA

## Invited talks: Amorphous drug delivery systems incl. Q&A

Chairs: Susanne Page, Roche and Thomas Rades, University of Copenhagen

14:45 - Hybrid mixtures: A perspective on amorphous solid dispersions in food applications  
15:30 Lennart Fries, Nestlé Research Center, Vevey, Switzerland

15:35 - Rational selection of Amorphous Solid Dispersion (ASD) Compositions for Improving Drug Candidate Bio-performance  
16:20 David Lyon, Lonza, USA

16:25 - Monitoring drug crystallization from amorphous solid dispersions - a simultaneous DSC-approach  
17:10 Duncan Craig, University College London, United Kingdom

## Short talks: 2D- and 3D-printing

Chairs: Milen Dimitrov, University of Sofia and Natalja Genina, University of Copenhagen

14:45 - Direct powder extrusion 3D-printing: novel technology for manufacturing amorphous solid dispersions  
15:00 Alvaro Goyanes, FabRx, London, UK

15:00 - Semi-solid extrusion and alginate ionotropic gelation: a successful duo for the production of personalized floating formulations via 3D printing  
15:15 Paola Russo, University of Salerno, Fisciano, Italy

15:15 - Question and answer session  
15:30

15:35 - Selective laser sintering of solid oral dosage forms with copovidone and paracetamol using a CO<sub>2</sub> laser  
15:50 Yanis Abdelhamid Gueche, University of Montpellier, France

15:50 - Direct-ink writing of implantable hybrid PCL/PEO drug delivery systems  
16:05 Se Hun Chung, University College London, UK

16:05 - Question and answer session  
16:20

16:25 - Investigations on inkjet printed metoprolol tartrate orodispersible films for paediatric application  
16:40 Olga Kiefer, University of Düsseldorf, Germany

16:40 - Traceable personalized oral dosage forms containing cannabinoids  
16:55 Natalja Genina, University of Copenhagen, Finland

16:55 - Question and answer session  
17:10

# Programme

## Short talks: Skin delivery and protein formulations

Chairs: Nina Dragicevic, Singidenum University and Majella Lane, University College London

- 14:45 - A new approach to predict in vitro-in vivo correlation for transdermal therapeutic systems
- 15:00 René Rietscher, LTS Lohmann Therapie-Systeme, Andernach, Germany
- 15:00 - Proliposomes for the production of deformable liposomes containing drug micelles
- 15:15 Silvia Franze, Univeristy of Milan, Italy
- 15:15 - Question and answer session
- 15:30
- 15:35 - EPR study of effect of ascorbic acid on hair and feather samples in relation to eumelanins and pheomelanins
- 15:50 Michael Lawson, University of Bratislava, Slovakia
- 15:50 -  $\alpha$ -relaxation studies to improve long term stability of lyophilized products from a thermodynamical point of view
- 16:05 Sebastial Groel, Univeristy of Munich, Germany
- 16:05 - Question and answer session
- 16:20
- 16:25 - Continuous alternative to freeze-drying: solid formulation of a monoclonal antibody using high-speed electrospinning
- 16:40 Júlia Domján, Budapest University of Technology and Economics, Hungary
- 16:40 - A holistic approach to develop a spray-drying method for CXCL8
- 16:55 Sonja Hartl, RCPE, Graz, Austria
- 16:55 - Question and answer session
- 17:10

- 09:35 - Digital Process Design
- 10:20 Sean Bermingham, Process System Enterprise (PSE), London, United Kingdom
- 10:25 - Study of the drying process in simulated pharmaceutical coatings: Model and experiment
- 10:40 Ondrej Navratil, University of Prague, Czech Republic
- 10:40 - In silico design of tablet microstructure by evolutionary algorithm
- 10:55 Frantisek Stepanek, University of Prague, Czech Republik
- 10:55 - Question and answer session
- 11:10 from the two short talks

## Invited talks: Nanofabrication technologies incl. Q&A

Chairs: Claus-Michael Lehr, University of Saarbrücken and Maria Carafa, University of Rome

- 08:45 - Novel manufacturing for healthcare: microbubbles, particles, capsules and fibres
- 09:30 Mohan Edirisinghe, Biomaterials Processing Laboratory, Department Mechanical Engineering, University College London, United Kingdom
- 09:35 - Advances in electrospinning
- 10:20 Nalin de Silva, Department of Chemistry, University of Colombo, Sri Lanka
- 10:25 - Advanced in vitro lung-on-chip platforms for inhalation assays
- 11:10 Josue Sznitman, Department of Biomedical Engineering, Israel Institute of Technology, Haifa, Israel

## Short talks: Gene delivery and ATMP

Chairs: Nathalie Mignet, University Paris Descards and Juan M. Irache, University of Navarra

- 08:45 - Formulation development to stabilize viral vectors
- 09:00 Julia Rabas, Leukocare, Munich, Germany
- 09:00 - Tablets of siRNA lipoplexes: impact of processes on structure and gene-silencing efficacy
- 09:15 Virgine Busignies, University of Bordeaux, France
- 09:15 - Question and answer session
- 09:30
- 09:35 - Anti-EGFR nanovector of siRNA - a theranostic tool for triple negative breast cancer active targeting
- 09:50 Phuoc Vinh Nguyen, Tours University, France
- 09:50 - siRNA in lung slices: knocking down fibrosis?
- 10:05 Mitchel Ruigrok, University of Groningen, The Netherlands
- 10:05 - Question and answer session
- 10:20
- 10:25 - mRNA based Skin Vaccination by intradermal application of lipid coated polymeric nanoparticles
- 10:40 Lena Kliesch, Helmholtz-Institute for Pharmaceutical Research Saarland, Germany
- 10:40 - MSC extracellular vesicles for treatment of alpha-1-antitrypsin deficiency pulmonary diseases
- 10:55 Elia Bari, University of Pavia, Italy
- 10:55 - Question and answer session
- 11:10

## Friday, 14 May 2021

08:45 – 11:15	Invited talks	Short talks	Posters	Exhibition
11:15 – 11:45	Coffee break			
11:45 – 12:15	Award session			
12:15 – 13:15	Plenary lecture			
13:15 – 14:45	Lunch			
14:45 – 17:15	Invited talks	Short talks		

time zone  
CEST

## Invited talks: In silico simulation for manufacturing processes incl. Q&A

Chairs: Pierre Tchoreloff, University of Bordeaux and Peter Kleinebudde, University of Düsseldorf

- 08:45 - Digitalization in pharmaceutical product and process design: from advanced simulations to virtual drug product development
- 09:30 Johannes Khinast, Graz University of Technology, Austria

# Programme

## Short talks: Advanced drug delivery

Chairs: Olivia Merkel, University of Munich and Hendrik von Büren, AbbVie

- 08:45 - Repurposing of cationic amphiphiles to promote cytosolic RNA delivery  
09:00 Koen Raemdonck, Ghent University, Belgium
- 09:00 - Alginate-spermidine microgels as filling matrix of multi-channel PLGA scaffolds for the treatment of peripheral nerve injuries  
09:15 Caterina Valentino, University of Pavia, Italy
- 09:15 - Question and answer session  
09:30
- 09:35 - Preparation and evaluation of anticancer agent nanocrystals  
09:50 Yohann Corvis, University of Paris, France
- 09:50 - Evaluation of in vivo efficacy of ferrocifen loaded lipid nanocapsules on ovarian cancer  
10:05 Elise Lepeltier, University of Angers, France
- 10:05 - Question and answer session  
10:20
- 10:25 - A novel polyethylene glycol-based linker platform for the development of hydrophilic antibody-drug conjugates  
10:40 Tommaso Tedeschini, University of Padova, Italy
- 10:40 - Dithiolane-crosslinked polymer micelles: reduction responsive drug release  
10:55 Cornelus van Nostrum, University of Utrecht, The Netherlands
- 10:55 - Question and answer session  
11:10

## 11:15 - 11:45 Coffee break/exhibition/posters

## 11:45 - 12:15 International ADRITELF Award 2020

Giuseppe De Rosa, University of Naples Federico II, Italy  
Chair: Anna-Maria Fadda, University of Cagliari and Paolo Caliceti, University of Padova

## Plenary lecture incl. Q&A

Chair: Anna-Maria Fadda, University of Cagliari and Paolo Caliceti, University of Padova

- 12:15 - Oral drug delivery systems: from irrelevance to top-selling products and ongoing challenges  
13:15 Andrea Gazzaniga, Biopharmaceuticals and Pharmaceutical Technology Laboratory, University of Milan, Italy

## 13:00 - 15:00 Lunch break/exhibition/posters

## Invited talks: Dermal and transdermal delivery incl. Q&A

Chairs: Paola Minghetti, University of Milan and Dominique Lunter, University of Tuebingen

- 14:45 - Skin permeation from Pickering emulsions  
15:30 Marie-Alexandrine Bolzinger, Claude Bernard University Lyon, France
- 15:35 - Microarray patches for high-dose drug delivery: targeting global healthcare challenges  
16:20 Ryan F. Donnelly, School of Pharmacy, Queen's University Belfast, United Kingdom

- 16:25 - Improved vaccine immunogenicity through microneedle delivery  
17:10 Michael Schrader, Vaxess, Boston, MA, USA

## Invited talks: Continuous manufacturing incl. Q&A

Chairs: Ali Rajabi-Siahboomi, Colorcon and Michael Repka, University of Mississippi

- 14:45 - Process development of the future: fully automated DoE process analysis in an integrated continuous manufacturing plant for solid oral dosage forms  
15:30 Victoria Pauli, Novartis, Basel, Switzerland
- 15:35 - Residence Time Distribution (RTD) concept as element in drug product quality control strategies for continuous manufacturing  
16:20 Bart Nitert, Janssen Pharmaceuticals, Beerse, Belgium
- 16:25 - Continuous manufacturing of solid dosage forms; opportunities and controversies  
17:10 Kendal Pitt, GlaxoSmithKline, Ware, United Kingdom

## Short talks: Oral drug delivery / Pediatric formulations

Chairs: Sandra Klein, University of Greifswald and Luigi Boltri, Adare

- 14:45 - The Use of Partially Hydrolysed Polyvinyl Alcohol for The Production of High Drug-Loaded Sustained Release Pellets via Extrusion-Spheronization and Coating: In Vitro and In Vivo Evaluation  
15:00 Valerie Vanhoome, University of Ghent, Belgium
- 15:00 - X-ray imaging of microrcontainers used for oral drug delivery  
15:15 Rolf B. Kjeldsen, Technical University of Denmark, Lyngby, Denmark
- 15:15 - Question and answer session  
15:30
- 15:35 - Controlled permeability enhancement with short peptide inhibitors of protein kinase C zeta  
15:50 Joel Brunner, University of Geneva, Switzerland
- 15:50 - A toolbox for mimicking gastrointestinal conditions in children: S(imulated) P(aediatric) B(reakfast) M(edia) for addressing the variability of gastric contents after typical paediatric breakfasts  
16:05 Lisa Freerks, University of Greifswald, Germany
- 16:05 - Question and answer session  
16:20
- 16:25 - Design and evaluation of self-emulsifying drug delivery system for pediatric use  
16:40 Xiaona Liu, University of Copenhagen, Denmark
- 16:40 - Acceptability of antibiotics in pediatrics: findings from an international observational study  
16:55 Thibault Vallet, ClinSearch, Malakoff, France
- 16:55 - Question and answer session  
17:10

## Short talks: Processing and PAT

Chairs: Javier O. Morales, University of Chile and Francisco Otero Espinar, University of Santiago de Compostella

- 14:45 - Improving flowability and reducing storage agglomeration of metformin hydrochloride through QESD crystallization  
15:00 Jerome Hansen, University of Düsseldorf, Germany

## Programme

- 15:00 - Production and downstream-processing of API-nanosuspensions  
15:15 Arno Kwade, Technical University of Braunschweig, Germany
- 15:15 - Question and answer session  
15:30
- 15:35 - Improving particle size distributions in a conical mill through new impeller air flow optimization comparisons utilizing computational fluid dynamics (CFD) analysis and empirical DoE  
15:50 Wilf Sanguesa, Quadro Engineering, Ontario, Canada
- 15:50 - Innovative preparation of API salt coated on particles using fluidised bed  
16:05 Jakub Muzik, University of Prague, Czech Republik
- 16:05 - Question and answer session  
16:20
- 16:25 - Insight into the impact of compaction process variations on tablet disintegration by non-destructive at-line terahertz porosity sensing  
16:40 Prince Bawuah, University of Cambridge, United Kingdom
- 16:40 - NIR as an in-line PAT tool to study desorption kinetics in spin freeze-dried formulations  
16:55 Laurens Leys, Ghent University, Belgium
- 16:55 - Question and answer session  
17:10
- 17:15 End of conference

## Poster sessions

### Wednesday, 12 May 2021

Nanoparticles and vesicles  
Dermal preparations  
Transdermal delivery  
Protein formulation and aggregation  
Gene delivery  
Cellular drug transport  
Parenteral delivery  
Quality control and PAT  
Quality assurance  
Green and sustainable pharma

### Thursday, 13 May 2021

Oral delivery  
Controlled drug delivery  
Advanced drug delivery systems  
Advance therapy medicinal products  
Technical innovations  
Pediatric and geriatric drug delivery  
Veterinary medicine  
Packaging  
Regulatory affairs

### Friday, 14 May 2021

Pharmaceutical manufacturing and engineering  
Bioavailability and absorption enhancement  
In-vitro/In-vivo correlations  
Stability testing  
Preformulation  
Physical pharmacy  
Starting materials  
Pulmonary delivery  
Buccal and nasal delivery

## Chairs and committees

### Chair of the conference

Eva Roblegg, University of Vienna/University of Graz, Austria

### Co-chairs of the conference

Jörg Breitzkreutz, University of Düsseldorf, Germany  
Anna Maria Fadda, University of Cagliari, Italy  
Jürgen Siepmann, University of Lille, France

### Chair of the programme committee

Duncan Craig, University College London, UK

### Programme committee members

Dorothee Ambrosius, Boehringer Ingelheim, Germany  
Maria Carafa, Sapienza University Rome, Italy  
Simon Geissler, Merck, Darmstadt, Germany  
Catherine Herry, NextPharma, France  
Alessandro Regola, Italy

Many thanks to  
our sponsors

