



4<sup>th</sup> European  
Conference on  
Pharmaceutics

# 4<sup>th</sup> European Conference on Pharmaceutics

Advanced technologies enabling new therapies

**Marseille** France  
20 - 21 March 2023



# 4<sup>th</sup> European Conference on Pharmaceutics

## Advanced technologies enabling new therapies

20 - 21 March 2023, Marseille, France

Dear Colleague,

Following the great success of the last three European Conferences, which were held in Reims, Krakow and Bologna it is our great pleasure to announce the fourth congress of this new series of international meetings, which will be held in Marseille, France, on 20 - 21 March 2023. It will be dedicated to „Advanced technologies enabling new therapies“.

The European Conferences on Pharmaceutics are held every two years (in March/April of the uneven years). They are jointly organized by the A.D.R.I.T.E.L.F. (“Italian Association of Pharmaceutical Technology and Law”), APGI (“International Society of Drug Delivery Sciences and Technology”) and APV (“International Association for Pharmaceutical Technology”).

The aim is to help bridging the gap between fundamental academic research and industrial applications, offering the opportunity to initiate fruitful exchange and cooperation between university and industry. The conference will be a perfect occasion for young as well as for established scientists from academia and industry from all over the world to present their work, network, discuss newest scientific findings and to share their experience with colleagues.

### Hot topic session

- Oral drug delivery
- In-silicio simulations
- Advanced therapies
- Personalised medicines

World-wide leading experts in the field will give plenary lectures and invited talks on hot topics. They will give overviews on the current state of the art in the respective domains and outlooks on future perspectives. In addition, latest research findings will be presented in the form of short talks, selected from submitted abstracts. Furthermore, poster presentations will give the opportunity to get an update on the most recent research in pharmaceutics and to personally exchange with the authors.

An industrial exhibition will accompany the conference and allow learning about the latest trends and newest products in the area of pharmaceutical ingredients, developing & processing equipment, analytical technologies, medicinal products, medical devices, contract manufacturing and many other fields.

All coffee and lunch breaks as well as the welcome reception will be included in the registration fees and be held in the industrial exhibition and poster presentation area in order to facilitate discussions between participants, exhibitors and presenters.

We are looking forward to seeing you at the 4<sup>th</sup> European Conference on Pharmaceutics in Marseille in 2023.



Paolo Calicetti  
President ADRITELF



Juergen Siepmann  
President APGI



Jörg Breitzkreutz  
President APV



### Programme committee

#### Chair of the programme committee

Amélie Bochot, Universit of Paris-Sud, France

#### Programme committee

Jörg Breitzkreutz, University of Duesseldorf, Germany

Anna-Maria Fadda, University of Cagliari, Italy

Paola Minghetti, University of Milan, Italy

Juergen Siepmann, University of Lille, France

Florian Unger, Bayer, Germany



# Programme

## Monday, 20 March 2023

09:00 – 09:30	opening session	posters exhibition
09:30 – 10:30	plenary lecture	
10:30 – 11:00	coffee break	
11:00 – 13:00	short talks    invited talks	
13:00 – 15:00	lunch	
15:00 – 17:00	short talks    invited talks	
17:00 – 19:00	welcome reception	

09:00 **Opening ceremony**

### Plenary lecture

09:30 **Digital health and treatments of the future**  
Saso Jezernik, Takeda, Zurich, Switzerland

10:30 **Coffee/exhibition/posters**

### Invited talks: Oral drug delivery

11:00 **GUT physiology is important for poorly soluble drugs**  
Patrick Augustijns, University of Leuven, Belgium

11:40 **How to formulate poorly soluble drugs?**  
Svetlana Ibric, University of Belgrade, Serbia

12:20 **Oral Peptide Delivery: A Realistic View**  
Stephen Buckley, Novo Nordisk, Copenhagen, Denmark

### Short talks: Nanoparticles and vesicles / Nucleic acid delivery / Controlled drug delivery

11:00 **Herbal-mediated synthesized zinc oxide nanoparticles versus plant extracts: a comparison between synthesis processes and antihyperglycemic activity**  
Espoir Kambale Kavungere, Catholic University of Louvain, Belgium

11:10 **Iron oxide nanoparticles face to Leishmania infected macrophages: food or poison for the parasites?**  
Carmen Palomino Cano, University of Navarra, Spain

11:20 **Development of Micro and Nanoemulsions for Intranasal Delivery of the neuroprotectant Nestorone to the brain**  
Adriana Santos, University of Beira Interior, Covilha, Portugal

11:30 **Bioactive Self-assembling Nanoparticles to Tackle Neurodegeneration**  
Valeria Nele, University of Naples Federico II, Italy

11:40 **Triglyceride-filled albumin nanocapsules: A new system to avoid discarding poorly-water soluble drug candidates?**  
Sarah Hester, University of Muenster, Germany

11:50 **Novel Brain-Targeted Nanoparticles Optimized for Cholesterol Delivery to Huntington's Disease Brain**  
Riccardo Caraffi, University of Modena and Reggio Emilia, Italy

12:00 **Comparing mixing technologies for the manufacturing of lipid nanoparticles**  
David Jung, Evonik Canada Inc, Burnaby, Canada

12:10 **Artificial lipopeptides for Cas9 ribonucleoprotein delivery**  
Ulrich Lächelt, University of Vienna, Austria

12:20 **Endosomal release and improved efficacy of protamine-based miRNA nanocarriers**  
Ivana Ruseska, University of Graz, Austria

12:30 **Self-assembly of small molecules into inflammatory-responsive microgels for treating osteoarthritis**  
Zhenyang Wei, University of Helsinki, Finland

12:40 **Development of tailored local treatments for the post-surgical microenvironment of glioblastoma**  
Chiara Bastiancich, University of Turin, Italy

12:50 **Hyaluronic acid-coated liposomes for targeting CD44 receptor on proinflammatory macrophages**  
Elias Fattal, University of Paris-Saclay, France

13:00 **Lunch/exhibition/posters**

### Invited talks: Advanced therapies

15:00 **Nanomedicine for RNA delivery: where are we?**  
Giuseppe de Rosa, University of Naples, Italy

15:40 **Current status of animal models to assess the effectiveness of novel regenerative therapies**  
Catherine Le Visage, University of Nantes, France

16:20 **Advances in bioprinting**  
Lutz Klok, Cellbricks, Berlin, Germany

### Short talks: Pharmaceutical manufacturing and engineering / Continuous manufacturing

15:00 **Quantification of free/loaded drug fractions and release kinetics from colloidal-based formulations**  
Massimiliano Pio di Cagno, University of Oslo, Norway

15:10 **Fibroin-based microspheres in periodontal bone-ligament-cementum regeneration**  
Marco Ruggeri, University of Pavia, Italy

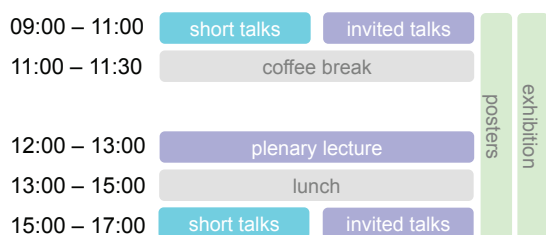
15:20 **On the Role of Internal Gradients and Stochastic Nucleation in Pharmaceutical Freezing and Freeze-drying**  
Andraz Kosir, ETH Zürich, Switzerland

- 15:30 **Electrostatic spray drying: alternative technology for bioactive compounds powder**  
Elodie Beaupeux, Fluid Air, Treillieres, France
- 15:40 **In-vial detection of protein denaturation using intrinsic fluorescence anisotropy**  
Khaled Elkassas, University College Cork, Ireland
- 15:50 **Development of long-acting injectable nanosuspension by continuous bottom-up crystallization and diafiltration process**  
Snehashis Nandi, Janssen R&D a division of Johnson & Johnson, Beerse, Belgium
- 16:00 **Continuous Manufacturing: Rheological Powder Characterisation of Excipients to understand their Behaving during the Feeding Step**  
Vanessa Havenith, SE Tylose, Wiesbaden, Germany
- 16:10 **Proof-of-concept: Control strategy for a semi-continuous fluidized-bed granulation process**  
Yasmin Suessenbach, Bayer, Wuppertal, Germany
- 16:20 **Role of polymer type and bile salts for sustained supersaturation of glibenclamide amorphous solid dispersions in biorelevant media**  
Vladimir Petkov, University of Sofia, Bulgaria
- 16:30 **Influence of water on co-amorphous systems with prilocaine as a cofomer**  
Xiaoyue Xu, University of Copenhagen, Denmark
- 16:40 **Development of Tristearin-based Formulations for Hot-Melt Coating: Effect of Additives on Polymorphic Transitions monitored by Raman Spectroscopy and Atomic Force Microscopy**  
Van-Trung-Tin Huynh, IMT Mines Albi, France
- 16:50 **Damaging Influences on Coated Pellets in Feeding and Compaction on Tableting Machines**  
Jan Henrik Finke, TU Braunschweig, Germany
- 17:00 **Welcome reception**
- 19:00 **End of first conference day**
- 09:40 **Modeling and simulation in support of drug product development**  
Nikoletta Fotaki, University of Bath, United Kingdom
- 10:20 **Using Digital Twins to create a virtual world to optimize designs, processes, equipment and operations**  
Andrew Whytock, Siemens, Germany

**Invited talks: Advanced drug delivery / Oral delivery**

- 09:00 **Hyaluronic Acid Nanogel for Protein Delivery System and Vaccine Application**  
Shogo Aso, Asahi Kasei Corporation, Fuji, Japan
- 09:10 **PLGA microparticles: impact of the type of drug on single microparticle behavior**  
Lise-Anne Lefol, University of Lille, France
- 09:20 **Dry powders for nasal administration of hyperimmune serum against SARS-CoV-2**  
Annalisa Bianchera, University of Parma, Italy
- 09:30 **Optimization of a method for analyzing the behavior of rapidly dissolving films in contact with water**  
Mathieu Reuther, Adhexpharma, Chenove, France
- 09:40 **Delivering biopharmaceuticals via buccal mucosa with an octopus-inspired suction patch**  
David Klein Cerrejon, ETH Zurich, Switzerland
- 09:50 **Design and development of chewable softgel capsules using a QbD approach**  
Fanny Quemeneur, NextPharma, Ploermel, France
- 10:00 **Enteric properties evaluation of an innovative functional capsule**  
Camille Dumont, Lonza Capsule & Health Ingredients, Colmar, France
- 10:10 **Compression-coated tablet for the determination of gastric water emptying: development and in vivo validation**  
Theodora Tzakri, University of Greifswald, Germany
- 10:20 **The trouble with polymorphism of oral lipid formulations: can we control it with crystal modifiers?**  
Serena Bertoni, University of Bologna, Italy
- 10:30 **Enzymatic drug degradation in the fasted and fed small intestine**  
Zahari Vinarov, University of Sofia, Bulgaria
- 10:40 **Evaluation of the effect of process and formulation on Catalase tablets**  
Ruben Martins Fraga, RCPE - Research Center Pharmaceutical Engineering, Graz, Austria
- 10:50 **In situ follow-up of pharmaceutical tablet dissolution by SR- $\mu$ CT**  
Danilo Rosa Nunes, Novitom, Grenoble, France
- 11:00 **Coffee/exhibition/posters**

**Tuesday, 21 March 2023**



**Invited talks: In-silico simulations**

- 09:00 **In-silico simulations from a regulatory perspective**  
Giulio Vistoli, University of Milan, Italy

## Plenary lecture

12:00 **The role of liposomes in clinical nanomedicine development**  
Gert Storm, University of Utrecht, The Netherlands

13:00 **Lunch/exhibition/posters**

## Invited talks: Personalised medicines

15:00 **title tbd**  
speaker tbc

15:40 **Economic impact of personalised medicine: the case of predictive biomarkers in immunotherapy**  
Enrica Menditto, University of Naples Federico II, Italy

15:50 **Impact of Coatings on Pellet dispensability in an innovative Drug Dosage Manager**  
Laura Sophie Steinecker, Tiefenbacher Group, Hamburg, Germany

16:00 **Spectroscopic investigation of the ink distribution after inkjet printing onto the personalized porous substrates**  
Ilari Ahola, University of Copenhagen, Denmark

16:10 **Novel 3D printed PCL and inulin-g-P(D,L) LA macroporous scaffolds for bone tissue engineering**  
Carmela Tommasino, University of Salerno, Italy

16:20 **Novel biodegradable subcutaneous implants manufactured via high-resolution 3D-printing**  
Bianca Brandl, RCPE - Research Center Pharmaceutical Engineering, Austria

16:30 **Preliminary safety assessment of intravesical drug delivery systems prepared by 4D printing**  
Marco Uboldi, University of Milan, Italy

16:40 **3D printed flavour-rich chewable paediatric tablets fabricated using micro-extrusion for point of care applications**  
Dennis Douroumis, University of Greenwich, United Kingdom

16:50 **3D printed capsules for colonic delivery of bacterial suspension**  
Marina Green Buzhor, ETH Zurich, Switzerland

## Short talks: Bioavailability / Topical and transdermal delivery / Technical innovations

15:00 **Enhancing the oral absorption of bevacizumab with a combined strategy based on sodium deoxycholate and albumin-based nanoparticles**  
Cristina Pangua, University of Navarra, Spain

15:10 **Acidic Drugs - Intestinal Solubility Correlation Fasted and Fed in vitro vs ex vivo**  
Gavin Halbert, University of Strathclyde, Glasgow, United Kingdom

15:20 **Effect of lipid molecular structure on aggregate formation and drug solubilization in simulated intestinal fluids**  
Liliya Vinarova, University of Sofia, Bulgaria

15:30 **In situ gelling powders for skin repairing: alginate/pectin/chitosan with sodium hyaluronate as a potential wound dressing**  
Chiara Amante, University of Salerno, Italy

15:40 **Liposomes-nanofibers composite system with simvastatin for chronic wounds therapy**  
Luca Casula, University of Cagliari, Italy

15:50 **An assessment of the potential use of a 1cm<sup>2</sup> hydrogel-forming microneedle patch for the weekly treatment of osteoporosis**  
Anastasia Ripolin, Queen's University of Belfast, United Kingdom

16:00 **Dissolvable Bilayer Microneedles Produced by Combining Inkjet Printing and Micromolding**  
Lukas Lammerding, University of Dusseldorf, Germany

16:10 **What level of structural similarity is necessary to demonstrate equivalence of semisolid drug products?**  
Umberto Musazzi, University of Milan, Italy

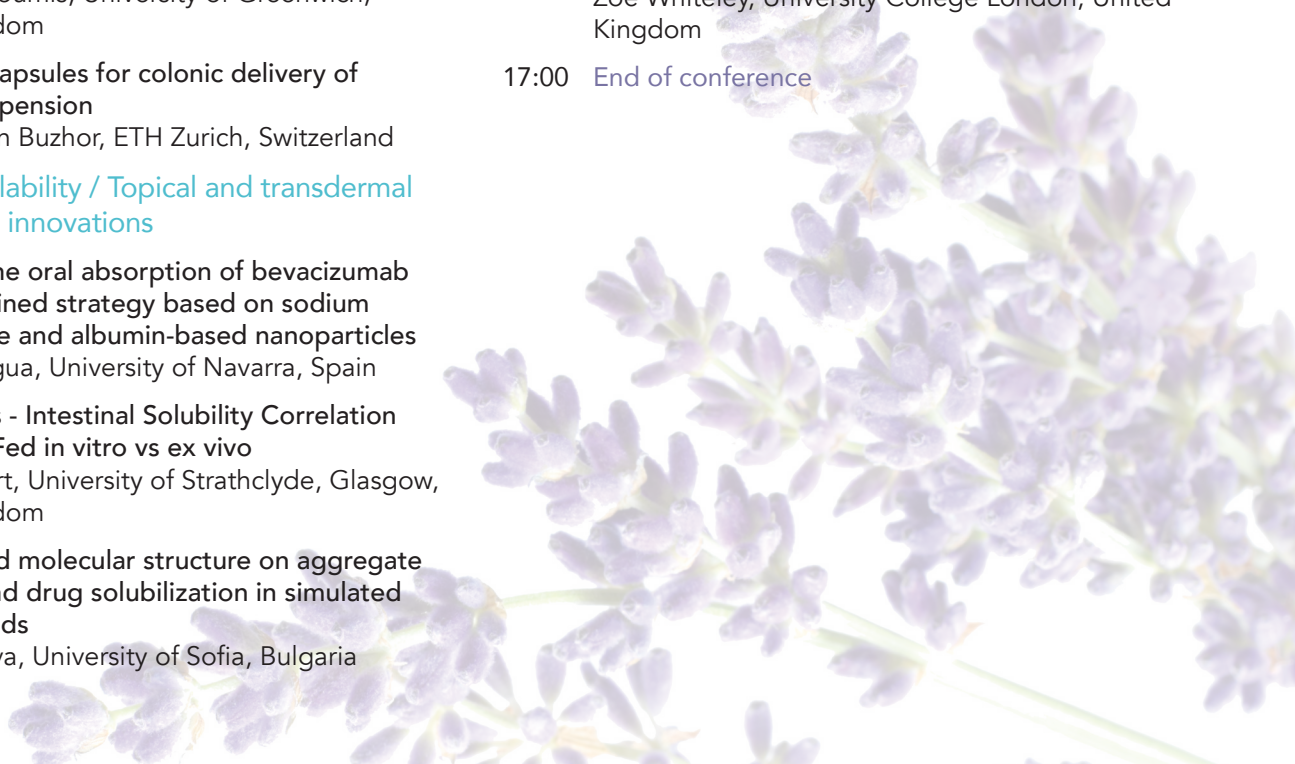
16:20 **Bioinspired, low-cost device for minimally invasive blood sampling**  
Nicole Zoratto, ETH Zurich, Switzerland

16:30 **Oral cell culture in flow using a Lab-on-a-Disc platform to study pathogenic interactions in periodontitis**  
Juliane Fjelrad Christfort, University of Cote d'Azur, France

16:40 **How to improve long-term storage of therapeutic cells? Impact of cell encapsulation on survival during cryopreservation**  
Natalia Ortiz-Silva, University of Paris-Saclay, France

16:50 **Microfluidic production of nanogels as alternative triple transfection reagents for the manufacture of adeno-associated virus vectors**  
Zoe Whiteley, University College London, United Kingdom

17:00 **End of conference**

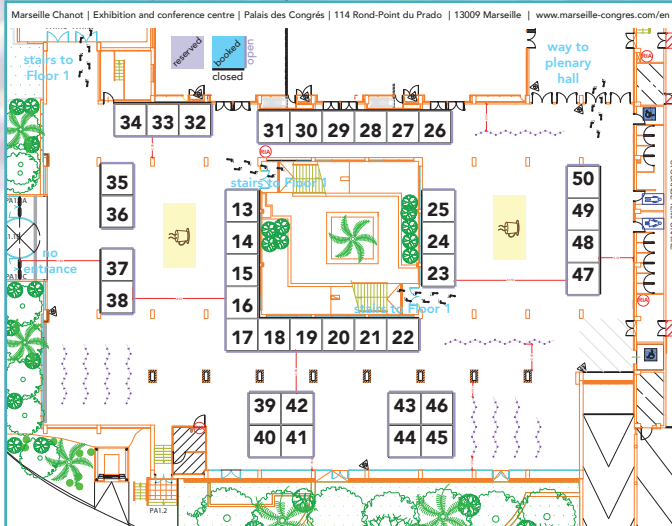


## Accompanying exhibition

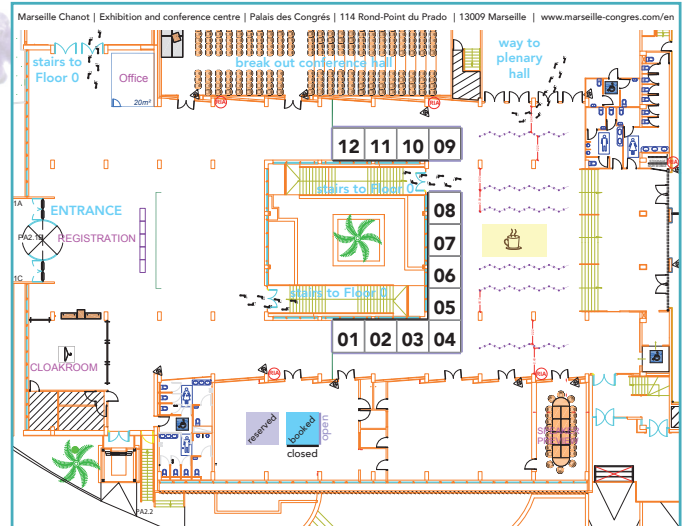
We invite you to join this state-of-the-art industrial exhibition

Take advantage of this great event to showcase your company and your products to a very versatile and international audience!

Coffee and lunch breaks as well as the welcome reception are included in the registration fee and will be integrated in the exhibition/poster area to create as much networking opportunities around the booths as possible.



Floor 0



Floor 1

Current floorplan with available booths can be downloaded as a pdf file on our website: [www.europeanmeeting.org/home/exhibition-sponsoring](http://www.europeanmeeting.org/home/exhibition-sponsoring) or get in touch with:

Valentina Marinkova



phone: +49 6131 9769 40



vm@apv-mainz.de

## Sponsoring

The European Conference gives young researchers a perfect stage to present their work. Poster presentations, lectures and discussions help to promote their research findings and careers. Therefore we would highly appreciate if your company could contribute to the meeting as a sponsor. The attractive sponsorship packages spotlight your company and your products.

Our support structure offers you a variety of packages starting from 500.00 € and can be customised by choosing different options. More information on our sponsoring opportunities can be found on our website: [www.europeanmeeting.org/home/exhibition-sponsoring](http://www.europeanmeeting.org/home/exhibition-sponsoring).

If you wish to know more about the sponsorship opportunities or if you desire to book an advertising possibility tailored to your specification, please do not hesitate to contact:

Anna-Maria Pötzl



phone: +49 6131 9769 10



ap@apv-mainz.de



Crédits Marseille Chanot/ASSUIED

## Venue

Marseille Chanot

Exhibition and convention centre  
Palais des Congrès  
114 Rond-Point du Prado  
13008 Marseille

[www.marseille-congress.com/en](http://www.marseille-congress.com/en)