

International Conference & Galenus Workshop

## Exploring the Future of Inhalation Drug Delivery

Parma, Italy, 11<sup>th</sup>-13<sup>th</sup> September 2024

TUESDAY September 10		
<i>Activity</i>		<i>Time</i>
Registration Placing of the poster on the board Setting up the exhibitors' tables		16:00-19:00
WEDNESDAY September 11		
<i>Speaker</i>	<i>Title</i>	<i>Time</i>
Prof. Paolo Martelli (University Rector) Cornelia Désirée Sonntag (Galenus Foundation) Francesca Buttini (University of Parma)	Conference Opening: Welcome and Introduction	9:00-9:25
New Paradigms in Lung Delivery		
Chairs: Ruggero Bettini & Jayne Hastedt		
Keynote 1: David Edwards (Harvard University, US)	Global warming is dehydrating human airways: rehydrating with hypertonic divalent salt aerosols treats chronic cough	9:25-10:00
Michael Hindle (Virginia Commonwealth University, US)	Development of a lung surfactant powder aerosol product for babies with respiratory distress syndrome	10:00-10:25
Pavan Muttill (University of New Mexico, US)	Formulation development and preclinical evaluation of aerosol vaccines: challenges, opportunities and lessons learnt	10:25-10:50
COFFEE BREAK + POSTER SESSION		

Chairs: John Patton & Anna Maria Piras

Nicolas Tsapis (Paris-Saclay University, France)	Nanomedicines and microparticles for the treatment of pulmonary diseases	11:30-11:55
David Cipolla (Insmmed, US)	Preclinical and CMC development of treprostinil palmitil inhalation powder	11:55-12:20
Paul Hagedoorn (University of Groningen, Netherlands)	The development of pulmonary levodopa applications for patients with Parkinson's disease	12:20-12:45

LIGHT LUNCH + POSTER SESSION

## Respiratory Tree as a Site for Novel Therapeutic Approaches

Chairs: Robert Price & Ayca Yildiz Peköz

Tomaso Guidi (Chiesi Farmaceutici, Italy)	Inhaled biologics: current trends in the industry	14:30-14:55
Francesca Buttini (University of Parma, Italy)	The formulation of protein and probiotics in dry powder inhalers	14:55-15:20
Mirjam Kobler (H&T Presspart, Germany)	The Sunriser – achieving high performance in challenging formulations	15:20-15:35
Andreas Boeckl (Flurry Powders, US)	Dry powder inhalation as an alternative to smoked and vaped cannabis	15:35-15:50

COFFEE BREAK + POSTER SESSION

Chairs: Fabio Sonvico & Daniela Traini

Regina Scherließ (Kiel University, Germany)	Nasal vaccine technology	16:30-16:55
Ben Forbes (King's College London, UK)	Nose-to-brain delivery of biopharmaceuticals and other drugs	16:55-17:20
Antonella Grigoletto (University of Padova, Italy)	Therapeutic potential of a long-acting form of rhDNAse for the treatment of cystic fibrosis	17:20-17:35
Carolina Dantas (Pulmotree, Germany)	Assessing the impact of using realistic breathing profiles for regional lung deposition models	17:35-17:50



WELCOME RECEPTION

18:00-19:30

THURSDAY September 12		
<i>Speaker</i>	<i>Title</i>	<i>Time</i>
<b>Biologics Love Lungs</b>		
Chairs: Gaia Colombo & Ulf Krüger		
Keynote 2: Hugh Smyth (University of Texas at Austin, US)	Developing inhaled mAbs and nucleic acids for therapeutic success	9:00-9:35
Jenny Lam (University College London, UK)	How to make antibodies formulation stable and inhalable	9:35-10:00
Chiara Migone (University of Pisa, Italy)	Repurposing of plasminogen based eyedrops for ARDS inhalable treatment: stability enhancement in O <sub>2</sub> with HPβCD	10:00-10:15
<b>Environmental Protection Becomes a Reality in the Development of pMDI</b>		
Chairs: David Lewis & Geraldine Venthoye		
Paul Young (OzUK, UK)	Breathing green: navigating the transition from HFAs to low GWP propellants in inhalation products	10:15-10:40
<b>COFFEE BREAK + POSTER SESSION</b>		
Simon Gardner (Bespak, UK)	Navigating the green propellant transition - strategies for the development & commercialisation of low global warming potential pMDIs	11:20-11:35
Angelo Maturro (Chiesi Farmaceutici, Italy)	Innovative drug development approach to address the transition to low GWP propellant using HFA 152a, for triple combination pMDI product targeting small airways	11:35-11:50
Chris Baron (Aptar Pharma, France)	Key learnings and pathways forward. Circumnavigating the challenges of your low GWP pMDI transition programs	11:50-12:05
Sergio Monti (RxPack, Italy)	Shifting tides: pMDI market scenarios into the low GWP propellant transition	12:05-12:20
David Lechuga (AstraZeneca, US)	Engineered excipient particles facilitate transition to low global warming potential propellants in a combination pMDI product	12:20-12:45

LIGHT LUNCH + POSTER SESSION

Last Frontiers in Lung Infection

Chairs: Paolo Colombo & Mercedes Gonzales Juarrero

Keertan Dheda (University of Cape Town, South Africa)	Challenges in the prevention and management of drug-sensitive and drug-resistant Tuberculosis	14:15-14:40
Lea Ann Dailey (University of Vienna, Austria)	A liposomal formulation strategy for inhaled bedaquiline: in vivo pharmacodynamics and pharmacokinetics	14:40-15:05
Francesca Ungaro (University of Naples Federico II, Italy)	Novel formulation approaches to tackle lung barriers to inhaled antimicrobials	15:05-15:30
COFFEE BREAK + POSTER SESSION		
Award Committee: Jayne Hastedt, Anthony Hickey, John Patton		
PhD Students Contest Seven7th	Seven talks of 10 minutes selected from abstract submission	16:00-17:15
Heba Banat (University of Szeged)	Enhancing pulmonary delivery of ketoprofen: comparative study of spray drying approaches	
Susy Brusco (University of Napoli Federico II)	PEI-engineered lipid@PLGA hybrid nanoparticles for multimodal delivery of antigens and immune adjuvants to the respiratory mucosa	
Laure-Anne Bya (University of Liege)	Formulation of a dry powder for inhalation combining ciclesonide and indacaterol	
Alexandre Caumon (Paris-Saclay University)	Formulation of antiviral Succinate-based analogues into dry powders for lung administration	
Lore Herman (Ghent University)	Exploring the interface between pulmonary surfactant and RNA-based nanomedicines	
Alexandra Hübl (Goethe University Frankfurt)	Development and characterization of spray-dried nano-in-microparticles for asthma treatment	
Alessandra Sorano (University of Florence)	Effects of a novel inhaled lidocaine powder formulation on cough threshold to nebulised distilled water in humans	

FRIDAY September 13		
<i>Speaker</i>	<i>Title</i>	<i>Time</i>
New Research		
Chairs: Irene Rossi & Alan Watts		
Federico Lavorini (University of Florence, Italy)	Physiological and technological barriers in the treatment of obstructive airway diseases	9:15-9:40
Jan de Backer (FLUIDDA, US)	The role of digital twins and in-silico trials as regulatory tools for the authorization of orally inhaled drugs	9:40-10:05
Carsten Ehrhardt (Trinity College, Ireland)	Uptake mechanisms of molecules released into the lungs	10:05-10:30
Yannick Baschung (Solvias AG, Switzerland)	Enhancing respiratory therapy with digital inhalers: Insights from multi-modal experimental and in-vitro analysis	10:30-10:45
Announcement of PhD Student Award COFFEE BREAK + POSTER SESSION		
Chairs: Ben Forbes & Anthony Hickey		
Daniela Traini & Julie Suman (Macquarie University, Australia & Aptar, US)	Non-clinical tests in the evaluation of inhaled pharmaceuticals	11:15-11:40
Per Bäckmann (Emmace, Sweden)	Physiologically-based biopharmaceutical models- a tool to understand local and systemic exposure of inhaled medicines	11:40-12:05
Sharareh Salar-Behzadi (RCPE, Austria)	Lipid-based drug delivery for inhaled therapeutics	12:05-12:30
Noémi Stefánia Csaba (University of Santiago de Compostela, Spain)	A multi-stage pulmonary drug delivery system based on sporopollenin	12:30-12:55
Francesca Buttini	CLOSING REMARKS	12:55-13:00

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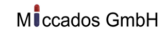
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