

PROGRAMME AT A GLANCE



MONDAY, 28 MARCH 2022

	Floor 3 ResearchPharm®	RTM Stage
13:00		Opening ceremony Jörg Breitzkreutz Paolo Caliceti Raymond M. Schiffelers Juergen Siepmann and Geert Verreck
13:45		Key note lecture: From drug delivery to drug discovery – Going backward on 25 years of pharmaceutical research Jean-Christophe Leroux
	14:45 - 15:30  <i>International Exhibition for R&D</i>	Floor 3: coffee break and ResearchPharm®
	Floor 3 ResearchPharm®	RTM Stage Invited talks: Hot topic session
15:30		Small RNA delivery at clinical stage Roel Schaapveld
16:10		Formulation approaches of RNA vaccines and drugs Andreas Zimmer
16:50		Digital health and 3D printing of medicines Abdul Basit, University College London
	17:30 - 19:00  <i>International Exhibition for R&D</i>	Floor 3: Welcome reception and ResearchPharm®

TUESDAY, 29 MARCH 2022

	Floor 3	RTM Stage	Port 1AB	Rotterdam BC	Port 1C
	Poster session and ResearchPharm®	Invited talks: Adjuvants and excipients for vaccine formulations	Invited talks: Engineering and robotics	Short talks: Oral delivery	Short talks: Dermal and transdermal delivery
09:00	ResearchPharm® International Exhibition for R&D	Designing and building the next generation of vaccine adjuvants Derek O'Hagan	Digitalisation of pharmaceutical processes Rok Sibanc	Poly(2-alkyl-2-oxazoline) as a polymer platform for highly drug-loaded sustained release tablets Aseel Samaro	Microparticles loaded dissolving microneedle patches for localised and sustained intradermal delivery of amphotericin B Ke Peng
09:20	Gene delivery Nucleotide delivery Cellular drug transport			Feasibility of nanocellulose/ pectin/ alginate composite hydrogels crosslinked with Ca ²⁺ and citric acid as a superabsorbent material Pichapar O-chongpian	3D-printed human hair follicle model to investigate topically administered nano-antibiotics Samy Aliyazdi
09:40	Pulmonary delivery Buccal and nasal delivery Protein formulation and aggregation	Formulation aspects: polymers Francesca Mastrotto	Lab automation and robotics Patrick Courtney	Regional bile salt and lipid concentrations in the rat small intestine: a comparison between the lumen and the mucus layer Mette Klitgaard	Novel bilayer microarray patch (MAP) assisted long acting intradermal delivery for HIV pre-exposure prophylaxis Lalitkumar K. Vora
10:00	Bioavailability and absorption enhancement/ Microbioma Dermal preparations			In-vitro reproduction of the small intestine considering essential intestinal components Scarlett Zeiringer	Confocal Raman microscopy for the investigation of drug delivery into biofilms depending on maturation and bacterial composition Pia Kaiser
10:20	Transdermal delivery Nanoparticles and vesicles	COVID vaccines: strategies for acceleration of drug product development Carmen Arigita	Establishing automated GMP production of ATMPs - hints and hurdles Christoph Peter	Processing of lipid nanodispersions into solid formulations by spray drying Denise Steiner	Transdermal delivery of cyclodextrin complexed olanzapine via hydrogel forming microneedle arrays Peter E. McKenna
10:40				Tableted freeze-dried siRNA-lipoplexes – evaluation of the stability in gastro-intestinal environment Asad Ur Rehman	Skin microbiota: set up of a protocol to evaluate a correlation between the microbial flora and skin parameters Paola Perugini
11:00 - 11:30 Floor 3: Coffee break with poster session and ResearchPharm®					
RTM 11:30 - 12:00 APV Awards					
RTM 12:00 - 13:00 Plenary lecture: Accelerated and cost-effective biosimilar introduction with an innovative manufacturing process and lean non-clinical and clinical development, Jaap Wieling, Biosana Pharma, Leiden, The Netherlands					
13:00 - 15:00 Floor 3: Lunch break with poster session and ResearchPharm®					
	Floor 3	RTM Stage	Port 1AB	Rotterdam BC	Port 1C
	Poster session and ResearchPharm®	Invited talks: Poorly soluble drugs	Invited talks: Oligonucleotide delivery	Short talks: Pharmaceutical manufacturing and engineering	Short talks: Advanced drug delivery systems
15:00	ResearchPharm® International Exhibition for R&D	Formulating poorly soluble drugs - the general and the specific Korbinian Löbmann	Lipid and dendrimer-based nanomedicine for nucleic acid delivery Elias Fattal	Compaction properties of dry granulated particles prepared from microcrystalline cellulose and lactose powder particles Maryam Tofiq	Chitosan based nanoparticles containing saffron extract for ocular administration of crocin Ylenia Zambito
15:20	Gene delivery Nucleotide delivery Cellular drug transport			Unraveling the role of the solvent during spray drying of amorphous solid dispersions of fenofibrate Sien Dedroog	Contact lenses for ocular administration of statins: design and in vitro, ex vivo and in vivo evaluation Carmen Alvarez-Lorenzo
15:40	Pulmonary delivery Buccal and nasal delivery Protein formulation and aggregation	In vitro dissolution conditions René Holm	Spray-drying siRNA-loaded LNPs for inhalation and improved storage and transport conditions Olivia Merkel	Oral solid dosage formulation of API - ionic liquids via spray drying Evangelia Tsolaki	Novel soluble mesoporous dialdehyde cellulose beads for improving the solubility and supersaturation of poorly water-soluble drugs Fan Xie
16:00	Bioavailability and absorption enhancement/ Microbioma Dermal preparations			Model development for die filling of different formulations on rotary presses Ann Kathrin Schomberg	Pericardial delivery of therapeutics via thermosensitive hydrogel for cardiac regeneration Cristina Casadidio
16:20	Transdermal delivery Nanoparticles and vesicles	New development strategies for oral application of nanomilled drugs Elisabeth Kersten	Natural vs. synthetic lipid nanoparticles for the delivery of RNA Raymond M. Schiffelers	Lamination of pharmaceutical tablets: classification and influence of process parameters Vincent Mazel	Near-infrared light-responsive injectable hydrogel containing bismuth nanoparticles for cancer photo-chemo-immunotherapy Mohammad-Ali Shahbazi
16:40				Frozen Quality by Design: Towards rational design of pharmaceutical freezing processes in vials at production scale Leif-Thore Deck	Microfluidic production of protein-lipid nanoaggregates to boost T-cell activation Michele Schlich

WEDNESDAY, 30 MARCH 2022

	Floor 3	RTM Stage	Port 1AB	Rotterdam BC	Port 1C
	Poster session and ResearchPharm®	Invited talks: Oral delivery of novel modalities	Short talks: Nanoparticles 1	Short talks: Drug printing	Invited talks: Protein delivery and biosimilars
09:00	ResearchPharm® International Exhibition for R&D	Nanoformulations for oral delivery: Process point of view Stéphanie Briançon	Development of innovative grafted lipoplexes using PNPV derivatives polymers as a PEG alternative to treat cancer Manon Berger	3D Printed fenofibrate tablets using direct powder printing Maria Ines Barreiros	Challenges for the delivery of fragile molecules: focus on injectable formulations from an industrial perspective Joël Richard
09:20			Glabrescione B-loaded liposomes for medulloblastoma treatment: a formulative study Raffaella Daniele	Production of personalized medicines within seconds with volumetric 3D printing Alvaro Goyanes Goyanes	
09:40	Controlled drug delivery Drug printing Oral delivery	BIONDDTM: capsule for oral delivery of biologics Karsten Lindhardt	In vitro and in vivo anti-tumoral evaluation of co-encapsulated fisetin and cisplatin into liposomes Karine Andrieux	Semi-solid extrusion 3D-printing for the manufacture of HPMC based fast disintegratin Pattaraporn Panraksa	Oral delivery of peptides: from permeation enhancers to devices David Brayden
10:00	Pharmaceutical manufacturing and engineering		Lyotropic liquid crystal drug delivery system: cubosomes encapsulate cromolyn sodium for oral delivery Linh Dinh	Pre-crosslinked alginate hydrogels: physico-chemical requirements for high 3D-printing performance Giovanni Falcone	
10:20		Modulation of tight junction properties for the oral delivery of biologics Alistair Taverner	New nanoparticle formulation for cyclosporin a: in vitro assessment Amandine Gendron	Cocrystal formation enables 3D printing of high melting drugs via combined HME and FDM processing Marta Kozakiewicz-Latala	Microfluidic technology and machine learning approaches for the development of biopharmaceutical products Paolo Arosio
10:40			Ionic liquids as solubilizing agents and stabilizers, for antimicrobial eye drops containing diacerein Brunella Grassiri	Advanced melt drop deposition: a promising technology for additive manufacturing of oral dosage forms Thomas Kipping	
11:00 - 11:30	Floor 3: Coffee break with poster session and ResearchPharm®				
RTM 11:30 - 12:00	ADRITELF Award session: International ADRITELF Award 2022				
RTM 12:00 - 13:00	Plenary lecture Extracellular vesicles: boosting clinical translation of nanomedicine, Paolo Ciana, University of Milan, Italy				
13:00 - 15:00	Floor 3: Lunch break with poster session and ResearchPharm®				
	Floor 3	RTM Stage	Port 1AB	Rotterdam BC	Port 1C
	Poster session and ResearchPharm®	Invited talks: Continuous manufacturing	Short talks: Nanoparticles 2	Invited talks: Local delivery to the ear, eye and lung	Short talks: Nucleotide delivery
15:00	ResearchPharm® International Exhibition for R&D	QbCon 1: a new continuous manufacturing concept Robin Meier	Immunomodulatory nanoparticles for sepsis treatment Younes Louaguenouni	Drug delivery to the inner ear and periodontal pocket Florence and Juergen Siepmann	In vitro and ex vivo delivery of siRNA via VIPER polymer system as a potential treatment for COVID-19 Domizia Baldassi
15:20			Development and optimization of a new nanocarrier system for lipophilic drugs: human serum albumin nanocapsules with a triglyceride core Sarah Hester		Hybrid lipid/polymer nanoparticles to tackle the cystic fibrosis mucus barrier in siRNA delivery to the lungs Gemma Conte
15:40	Controlled drug delivery Drug printing Oral delivery	J&J experience: continuous manufacturing from equipment qualification to regulatory submission Alessandro Cassetti and Domenico Annese	Rational design and microfluidic transposition of Lipid Nanocapsules for the encapsulation of poorly water-soluble molecules Kevin Matha	Polymeric micelles for ocular drug delivery Sara Nicoli	Microfluidic production of plasmid DNA-loaded nanogels for non-viral gene delivery Zoe Whiteley
16:00	Pharmaceutical manufacturing and engineering		Anticancer thermo-sensitive polymer prodrug nanoparticles prepared by an all-water nanoprecipitation process Léa Guerassimoff		Dual Loaded Core-Shell mRNA and pDNA Nanocarriers for co-delivery of NA-encoded antigens and adjuvants Sarah S. Nasr
16:20		Early drug product development approaches for continuous manufacturing Valérie Vanhoorne	Strategies to decorate polymeric nanoparticles with NGR peptides to target cancer cells Claudia Conte	Repurposing of cationic amphiphiles for the local delivery of RNA therapeutics Koen Raemdonck	Targeted delivery of CRISPR/Cas9 plasmid system for cancer immunotherapy approaches Hasan Akbaba
16:40			Silk fibroin nanoparticles to redirect immunity against different cancers: proof of concept in a murine model Elia Bari		Development of lipoplexes with enhanced crossing of cell barriers Busra Arpac,

THURSDAY, 31 MARCH 2022

	Floor 3	RTM Stage	Port 1AB	Rotterdam BC	Port 1C
	Poster session and ResearchPharm®	Invited talks: Nanoparticles	Invited talks: 3D printing technologies	Short talks: Bioavailability and microbioma	Short talks: Mucosal, nasal and pulmonary delivery
09:00	ResearchPharm® International Exhibition for R&D Stability testing Advances therapy medicinal products	Novel biohybrid nanomedicines for cancer therapy: from nanoformulation design to the in vivo validation Helder Santos	The power of 3D-printing of drugs - perspective of patients and health care professionals Elisabeth Ruijgrok	Improving dissolution behavior and oral absorption of weakly basic drugs using pH modifiers: a physiologically realistic mass transport analysis Jozef Al-Gousous	Development of an anti-infective formulation platform by plant extract loaded electrospun fibers - translational perspectives for nonsurgical periodontitis therapy Viktoria Planz
09:20	In-vitro/In-vivo correlations Starting materials			Towards the design of mucus-penetrating and permeation enhancer albumin-based nanoparticles for the oral delivery of therapeutic proteins Cristina Pangua	Open Flow Microperfusion to Evaluate Drug Penetration in the Buccal Mucosa Laura Wiltschko
09:40	Quality control and PAT Pediatric and geriatric drug delivery	Nanomedicine in the treatment of cancer and neurodegenerative diseases is impacted by patient sex Avi Schroeder	New 3D-printed oral dosage forms Dimitris Fatouros	Excipients modulate drug bioavailability, transporter expression, endogenous hormones and nuclear receptors in a sex and concentration dependent manner Christine M. Madla	Optimisation of Nose-to-Brain Delivery for Patient with or without Septum Perforation Laura Deruyver
10:00	Physical pharmacy Preformulation			Fluidized-bed granulation and tableting of living microorganisms Karl Vorländer	Inflamed model of the human alveolus on a breathing lung-on-chip Claus-Michael Lehr
10:20	Advanced drug delivery Parenteral delivery	Nanomedicines: tracking their fate from site of administration to site of action Simona Mura	Polyprint: 3D printing with a GMP-ready FDM printer Simon Geisler and Julian Quodbach	Direct compression: increased viability of probiotics and importance of excipients for soft-tableting Susanne Florin-Muschert	Spray-dried pneumococcal membrane vesicles Vaccine for Pulmonary Immunization Mina Mehanny
10:40	Continuous manufacturing and PAT			Active machine learning for delivery of precision probiotics Laura E. McCoubrey	Liposomal encapsulation of carbon quantum dots designed to treat coronavirus infections modifies their fate after pulmonary delivery Maud Taulen
11:00 - 11:30	Floor 3: Coffee break with poster session and ResearchPharm®				
RTM 11:30 - 12:00	APGI Award: Marie Maurice Janot Award				
RTM 12:00 - 13:00	Plenary lecture: Lipids, lipid nanoparticles and Covid-19 mRNA vaccines Pieter Cullis, University of British Columbia, Vancouver, Canada				
13:00 - 15:00	Floor 3: Lunch break with poster session and ResearchPharm®				
	Floor 3	RTM Stage	Port 1AB	Rotterdam BC	Port 1C
	Poster session and ResearchPharm®	Invited talks: Controlled drug delivery	Short talks: Continuous manufacturing and PAT	Short talks: Bioprinting and protein formulation	Invited talks: Topical formulations and transdermal delivery
15:00	ResearchPharm® International Exhibition for R&D Stability testing Advances therapy medicinal products	Multicompartment 3D cell-based bioengineered mucosal models in drug delivery Bruno Sarmento	Identification of biopharmaceuticals drug substances using non-destructive and non-invasive approach Mahendra Kumar Shukla	In-vial direct dosing and drying of biologics by inkjet printing Daniela Fiedler	Topical formulation development - the application of confocal raman spectroscopy Majella Lane
15:20	In-vitro/In-vivo correlations Starting materials		Inline nanoparticle sizing and process control for nanomedicine manufacturing processes Rut Besseling	Carvacrol-loaded 3D printed PLA scaffolds for antibiofilm performance Xián Farto-Vaamonde	
15:40	Quality control and PAT Pediatric and geriatric drug delivery	Oral colon delivery of drugs based on intestinal transit time Alessandra Maroni	Dry amorphization of itraconazole using continuous twin-screw technology at low temperatures Margarethe Richter	A machine learning and machine vision pipeline for ODF development Colm O'Reilly	Dermal/transdermal delivery by nanocarriers: formulation in a regulatory perspective Carlotta Marianecchi
16:00	Physical pharmacy Preformulation		A novel continuous coating process for pellets Anna Pennemann	Protein integrity in highly loaded melt extrudates processed by small scale ram and twin screw extrusion Katharina Dauer	
16:20	Advanced drug delivery Parenteral delivery	Oral gut-targeted delivery of immunomodulatory proteins and antibodies Silvia Matiz	Continuous direct compression: challenges and solutions related to feeding Bram Bekaert	The viscosity reduction platform: enabling subcutaneous delivery Tobias Rosenkranz	Strategies for wound healing Maïke Windbergs
16:40	Continuous manufacturing and PAT		Inter-tablet porosity variation across large sample size measured by at-line terahertz analysis Prince Bawuah	In-process stabilization of a protein drug by saccharides Johanna Dieplinger	