



## Wednesday 7th September 2022 - Scientific Programme

1000 hours Registration, exhibition, poster viewing and refreshments

1045 hours Welcome - Prof Hannah Batchelor, APS Chair

1050 hours Opening Plenary - Prof Ryan Donnelly, Chair in Pharmaceutical Technology, Queens University Belfast

1135 hours Plenary Lecture - Prof Claire Thompson, Chief Executive Officer, Agility Life Sciences - "Milestone's Don't Move"

1220 - 1320 hours Lunch, exhibition and poster viewing

1320 - 1450 hours Parallel Science Session 1

This session is sponsored by  
Charles River Laboratories



### Emerging Technologies Focus Group - Microfluidic and BioMEMS Devices for Drug Delivery and Diagnostics

Chair: Prof Dimitrios Lamprou, Reader in Pharmaceutical Engineering, Queens University Belfast

### Biopharmaceutics Focus Group

Chair: Dr Nikoletta Fotaki, Centre of Therapeutic Innovation (CTI), Department of Pharmacy and Pharmacology, University of Bath

### Skin Focus Group

Chair: Professor Stuart Jones, Director of the Centre for Pharmaceutical Medicine Research, Chair in Pharmaceutical Medicine, Kings College London

### "Microfluidics Technology for the Production of Solid Lipid Nanoparticles"

Prof Nunzion Denora, Professor in Pharmaceutical Science, University of Bari "Aldo Moro"

### "Biopharmaceutics meets a TB Drug"

Dr Nico Holmstock, Senior Scientist Biopharmaceutics, Janssen

### "The Science of Wound Care"

Prof Barbara Conway, Professor in Pharmaceutics and Head of Pharmacy, University of Huddersfield

### "Integrated Lab on Chip Biomedical Diagnostic Chips: Printed Circuit Boards, Printing and beyond..."

Dr Despina Moschou, Lecturer in Electronics and Electronic Engineering, University of Bath

### "Investigating the Biopharmaceutics of an Anti Malarial Drug Product Intended for Use in Emerging Markets"

Dr Terry Ernest, GSK Senior Fellow, Director, GlaxoSmithKline

### "Micro-solutions for macro-problems - microneedles for transdermal therapeutic approaches"

Dr Sara Cordeiro, Senior Lecturer in Pharmaceutical Sciences, De Montfort University

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<b>"The Production of 3D-printed novel Microfluidic Chips for LNP Production"</b> Edward Weaver, PhD Researcher, Queen's University Belfast	<b>"Biopharmaceutics of an amorphous solid dispersion - bridging biopredictive testing and regulatory dissolution requirements"</b> Dr Mark McAllister, Global Head of Biopharmaceutics, Drug Product Design, Pfizer	<b>"Dissolving microarray patches loaded with colchicine-Soluplus® for acute gout treatment"</b> Qonita Anjani
<b>"3D Printed Progesterone Vaginal Rings for Managing Endometrial Hyperplasia"</b> Thi Phuong Nga Hoang, PhD, University of Huddersfield	<b>"Population PK modelling as an alternative route to bioequivalence"</b> Parmesh Gajjar, SEDA Pharmaceutical Development Services	<b>"Delivery of nucleic acid cargo by 3D printed of a PEG-Chitosan-PCL dressing for wound healing"</b> Ying Sun

1450 - 1520 hours Refreshments, exhibition and poster viewing

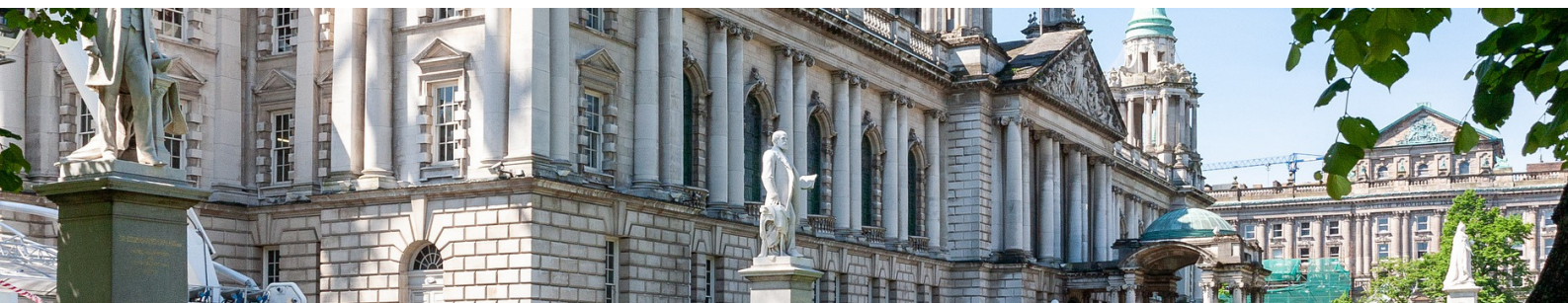
1520 hours Plenary Lecture - Prof Helen McCarthy, Chair of Nanomedicine and CEO of pHion Therapeutics - "Stealth Delivery of mRNA Vaccines"

1605 - 1735 hours Parallel Science Session 2

<b>Emerging Tech Focus Group - Additive Manufacturing in Pharmaceuticals</b> Chair: Dr Martin Rowland, Senior Principal Scientist, Pfizer	<b>Drugs from Natural Sources Focus Group - From Traditional Medicine to Modern Healthcare</b> Chair: Prof Michael Heinrich, UCL School of Pharmacy, University London	<b>ATMPs</b> Chair: Dr Zahra Rattray, Senior Lecturer in Translational Pharmaceutics, Strathclyde Institute of Pharmacy and Biomedical Sciences, University of Strathclyde
<b>"Material and Processing Challenges for Pharmaceutical 3D Printing"</b> Prof Sheng Qi, Professor of Pharmaceutical Material Science and Technology, University of East Anglia	<b>"From Monograph to Metabolomics - Navigating Quality and Regulation of Herbal Medicines in the 21st Century"</b> Dr Helen Sheridan, Associate Professor of Natural Product Chemistry and Academic Director of NatPro, School of Pharmacy and Pharmaceutical Sciences, Trinity College Dublin	<b>"Interactions Between the Immune System and Nano(bio)materials - Linking PCC to Biological Effects"</b> Dr Neill Liptrott, Reader in Pharmacology, University of Liverpool
<b>"Extrusion based biofabrication: a snapshot on technologies, materials and biological functionalities"</b> Dr Jing Yang, Assistant Professor in the School of Pharmacy, University of Nottingham	<b>"Herbal Medicines - How Can We Ascertain Safe Use?"</b> Dr Sukvinder Kaur Bhamra, Clinical Lecturer in Pharmacy Practice, Medway School of Pharmacy, University of Kent	<b>"Bioprocess challenges associated with induced Pluripotent Stem Cell-based therapies"</b> Dr Chris van der Walle, Edinburgh Centre Director, Cell and Gene Therapy Catapult
<b>"Material-based strategy for the manufacturing of 3D printed vaginal meshes: new approaches to enhance cell-mesh interactions"</b> Francesca Corduas	<b>"Clean Label Excipients for an Emerging Modern Wellness Trend"</b> Dr Jason Teckoe and Dr Ali Rajabi-Siahboomi, Colorcon	<b>"Post-manufacturing purification of LNPs: the impact of hold-time and temperature"</b> Valeria Giacobbo
<b>"Felodipine bioavailability enhancement through polymeric-lipid extrusion 3D printing"</b> Doa'a Ismail	<b>"Reporting guidelines for medicinal plant extracts used in pharmacological and toxicological research: ConPhyMP"</b> Professor Michael Heinrich, UCL School of Pharmacy, University London	<b>"Does FDM technique preserve the extended-release behaviour compared to its conventional counterpart formulation? A new insight on 3D printing FDM"</b> Nour Nashed

# Wednesday 7th September 2022 - Scientific Programme

1800 hours Drinks Reception at City Hall



## Thursday 8th September 2022 - Scientific Programme

0830 hours Registration, exhibition, poster viewing and welcome refreshments

0900 hours APS Science Award Presentation - Prof Stuart Jones, Director of the Centre for Pharmaceutical Medicine Research, Chair in Pharmaceutical Medicine, Kings College London - "Integrating Pharmaceutical Medicine with Pharmaceutical Science and Clinical Pharmacology to Expedite Global Medicines Development"

0900 hours Plenary Lecture - Dr Mark McAllister, Global Head of Biopharmaceutics, Drug Product Design, Pfizer - "Reflections on 10 Years of Research Collaborations in Biopharmaceutics"

1100 hours Refreshments, exhibition and poster viewing

1130 - 1300 hours Parallel Science Session 1

### **Theranostics - United Kingdom and Ireland Controlled Release Society (UKICRS)**

Chair: Dr Clare Hoskins, Reader in Bionanotechnology, Department of Pure and Applied Chemistry, Technology Innovation Centre (602a), University of Strathclyde

### **Nanomedicines - Nanomedicines in the era of COVID**

Chair: Dr Philipp Seib, Reader in Pharmaceutical Materials, Strathclyde Institute of Pharmacy and Biomedical Sciences, University of Strathclyde

### **Process Engineering and Formulation - Green Chemistry and Sustainability**

Chair: Dr Stuart Charlton, Associate Scientific Director, Bristol Myers Squibb and Dr Jason Crooks, Team Director, Drug Product Development, Oral and Inhaled, GlaxoSmithKline

### **"Cancer Detection and Drug/Gene Delivery with Biocompatible Graphene Quantum Dots"**

Dr Anton Naumov, Associate Professor, Department of Physics and Astronomy and TCU School of Medicine at Texas Christian University

### **"Optimising the next generation of LNPs"**

Prof Yvonne Perrie, Head of Institute and Professor in Drug Delivery within the Strathclyde Institute of Pharmacy and Biomedical Sciences, University of Strathclyde

### **"Computer aided solvent design to minimise solvent use in integrated synthesis, purification & isolation for sustainable pharmaceutical manufacturing"**

Prof Chris Price, Professor of Industrial Crystallization and Isolation, Department of Chemical and Process Engineering, University of Strathclyde

### **"Inorganic/Organic Nanocomposite Particles (I/O-NP): A Platform Technology for Future Healthcare Applications"**

Dr Marco Giardiello, University of Liverpool

### **"Nanomedicine: Shaping Precision Medicine"**

Prof Moein Moghimi, Newcastle University

### **"Packaging and Recycling"**

Mr Conor O'Neill, Director, Head, Packaging Development and Design, GlaxoSmithKline

### **"Ensuring Pharmaceutical Product Success through Excipient QbD Efforts"**

Mohammad Qadir

### **"Establishing a UK LNP Centre of Excellence - Building on the Covid Legacy"**

Dr Juliana Haggerty, Head of Centre of Excellence, Lipid Nanoparticle, CPI

### **"Harnessing Continuous Processing to Improve Speed and Sustainability"**

Dr Gavin Reynolds, Senior Principal Scientist - Process Engineering and Digital, AstraZeneca

# Thursday 8th September 2022 - Scientific Programme

(Continued)

**"Development of multifunctional thermo-responsive theranostic mesoporous silica nanoparticles for hepatocellular carcinoma"**  
t.b.c.

1300 hours Lunch, exhibition and poster viewing

1400 - 1530 hours Parallel Science Session 2

## **Bridging the Gap: 3D models in Drug Development**

Chair: Dr Katie Ryan, Lecturer in Pharmaceutics, School of Pharmacy, University College Cork

## **JPAG**

Chair: Prof Laura Waters, Professor of Pharmaceutical Analysis, School of Applied Sciences, University of Huddersfield

## **Materials Science Focus Group - Material Science in the Post Covid World**

Chair: Dr Elaine Harrop Stone and Dr Dave Berry

## **"Innovative Advanced Cell Technologies to Bioengineer Human Tissues In Vitro for Use in R&D and Modelling Human Disease"**

Prof Stefan Przyborski, Professor of Cell Technology, Durham University

## **"Current analytical trends and developments for in-vitro in-vivo correlation of respiratory products"**

Dr Mark Parry, Technical Director, Intertek Melbourn, Intertek Melbourn

## **"Enhanced crystallisation success using high throughput methods - a modern tool for increasingly complex systems"**

Dr Michael Probert, Senior Lecturer in Inorganic Chemistry, Head of Crystallography, Newcastle University

## **"A new tool for a kinder yet more predictive testing of drugs against Non-Small-Cell Lung Cancer "**

Dr Dania Movia, Senior Research Fellow, Laboratory for Biological Characterisation of Advanced Materials (LBCAM), Trinity Translational Medicine Institute and Department of Clinical Medicine, Trinity College Dublin

## **"Preparation of spray dried solid dispersions with modified solubility and enhanced inhalation properties"**

Thomas Hibbard

## **"Material science of nano particles for mRNA delivery"**

Dr Emily Port, Team Leader - Nanopharmaceuticals, Centre for Process Innovation (CPI)

## **"2D or non-2D? When the Third Dimension makes the difference"**

Annachiara Dozzo

## **"S-Ketamine OTF: a case study of a fast disintegrating oral thin film"**

Dr Patrick Mohr, Corporate Vice President, Head of Pharmaceutical Development II, LTS Lohmann Therapie-Systeme AG, Germany

## **"Critical material attributes of superdisintegrants: which physico-chemical properties impact functionality?"**

Dr Alberto Berardi, Product Application Specialist for Superdisintegrants and Microcrystalline Cellulose, DFE Pharma

## **"Needle-free, non-invasive liquid biopsies of melanoma biomarkers using skin tissue stretching"**

Mazen Aly

## **"Early Phase Assessment, Prediction, and Formulation of Albendazole"**

Jonathan Loughrey

## **"3D-printed reservoir-type implants containing biodegradable porous membranes for sustained drug delivery"**

Anna Korelidou

1630 hours Innovative Science Award Presentation (sponsored by GlaxoSmithKline) - Prof Vitaliy Khutoryanskiy, Professor of Formulation Science, University of Reading - "Sticky and slippery formulations as two mutually exclusive opportunities for transmucosal drug delivery "

1900 hours Conference Dinner at Titanic Centre - Sponsored by Almac



# Friday 9th September 2022 - Scientific Programme

0830 hours	Registration, exhibition, poster viewing and welcome refreshments
0900 hours	Emerging Scientist Award Presentation - Dr Bahijja Raimi-Abraham, Lecturer in Pharmaceutics, Founder of King's College London Fight the Fakes and Academic Lead, Kings College London - "A Three-Way Approach to Tackle Infectious Diseases - What worked, what didn't, and lessons learnt..."
0950 hours	Plenary Lecture - Prof Snow Stolnik, Professor of Pharmaceutics, School of Pharmacy, University of Nottingham - "Nanomedicines and Biological Barriers"
1040 hours	Poster Awards - Prof Hannah Batchelor, APS Chair

## 1130 - 1300 hours Parallel Science Session 1

<b>Antimicrobial: Rethinking Antimicrobials in a Post Pandemic World</b> Chair: Brendan Gilmore, Prof in Pharmaceutical Microbiology, Queen's University Belfast and Dr Bahijja Raimi-Abraham, Lecturer in Pharmaceutics, Kings College London	<b>Short Talks from Selected Abstracts</b> Chair: Dr Kofi Asare-Addo, Senior Lecturer in Pharmaceutics and Admissions Tutor (MPharm), University of Huddersfield	<b>New Scientist Focus Group</b> Chair: Kieran Sproston, Formulation Scientist, Pfizer
<b>"Innovations in developing antimicrobials in the age of antimicrobial resistance"</b> Prof Miraz Rahman, Chair in Medicinal Chemistry, King's College London	<b>"Multifunctional hybrid organic-inorganic porous silica nanoparticles and 3D assemblies with hierarchical porosity for controlled drug delivery"</b> Zhan Yuin Ong	<b>"Investigating the Impact of Shear Flow on Nanoparticle-Protein Interactions"</b> Karim Daramy, PhD Student, University of Strathclyde
<b>"Vaccination as a strategy for AMR; using a reverse vaccinology approach to identify Pseudomonas aeruginosa vaccine candidates"</b> Dr Beckie Ingram, Queen's University Belfast	<b>"Selecting the most appropriate formulation excipient for manufacture of amorphous solid dispersions: a case study of lumefantrine"</b> Dijia Liu, Queen's University Belfast	<b>"Mucoadhesive Hyaluronic-coated Polymersomes for Improved Diagnosis and Treatment of Bladder Cancer"</b> Shams Hussein
<b>"Lighting the way: characterisation of photodynamic antimicrobial polymer films for their suitability as medical device coatings"</b> Robyn Irwin	<b>"Polymer Drug Conjugate Strategy for the Effective Delivery of Temozolomide for Targeting Blood-BrainBarrier"</b> t.b.c.	<b>"Enhancing the transdermal delivery of 'next generation' biotherapeutics using hydrogel-forming microarray patches"</b> Aaron Hutton
<b>"Unexpectedly high distribution of lamivudine into mesenteric lymph node HIV reservoir, although negligible penetration into brain reservoir"</b> Abigail Wong	<b>"Electrospun ocular inserts for the delivery of anti-inflammation drugs to the anterior segment of the eye"</b> Wenrui Zhang, Queen's University Belfast	<b>"Nasal delivery of peptide nanofibers for acute ischaemic stroke"</b> Santina Iellamo De Gennaro, PhD Student, University of Portsmouth
	<b>"Assessment of Titanium Dioxide Free Film Coating Formulations"</b> Michaela Lzicarova, Pfizer	<b>"An investigation into swelling and dissolution behaviour of polymer-excipient blends of PEO utilizing dissolution imaging"</b> Haja Hassan Muhamad Muhamad, PhD Student, University of Huddersfield
	<b>"Microarray Patches: Strategies to Enhance the Transdermal Delivery of the Poorly Soluble Drug Olanzapine"</b> Peter McKenna	<b>"Formulating pramipexole base and its corresponding salt into dissolving microneedle patches to enable sustained ex vivo delivery over 24 hours"</b> Mary McGuckin

# Friday 9th September 2022 – Scientific Programme

(Continued)

1300 hours    Lunch, exhibition, poster viewing and prizes – close of conference

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