

BSNM2024 Programme

Day 1: Monday 9th September

- 08:30 – 09:15** **Registration and coffee**
- 09:00 – 11:00 **Bioelectronics and Sensors**
- 09:15 – 09:30 **Welcome and event introduction – Prof Steve Conlan/ Dr Ioanna Mela**
- 09:30 – 10:00 **KEYNOTE: Professor George Malliaras** (University of Cambridge) – *Bioelectronic Medicine*
- 10:00 – 10:15 **Thomas McDonald** (University of Manchester) – *In situ forming implants based on nanogels for long-acting drug delivery*
- 10:15 – 10:30 **Lucía López Vidal** (Queen’s University Belfast) – *Mucoadhesive Itraconazole Nanocrystals with Precise Control of Surface Charge Incorporated to Chitosan Films for Buccal Drug Delivery*
- 10:30 – 11:00 *Coffee break*
- 11:00 – 12:05 **Nanoparticle Fabrication and Characterisation**
- 11:00 – 11:20 **INDUSTRY TALK – Waters Wyatt:** Kevin Jackson
- 11:20 – 11:35 **Siyu Long** (University of Manchester) – *Monitoring Particle Integrity of Förster Resonance Energy Transfer (FRET)-based Lipid Nanoparticles*
- 11:35 – 11:50 **Hulya Bayraktutan** (University of Cambridge) – *Design of ‘artery-in-box’ device for advanced nanoparticle evaluation*
- 11:50 – 12:05 **Amanda Pearce** (Loughborough University) – *A standardised approach for analysing protein corona formation on polymer particles*
- 12:05 – 12:15 **Flash talks**
- 12:15 – 13:30 *Lunch and poster session*
- 13:30 – 15:05 **Drug Delivery**
- 13:30 – 14:00 **KEYNOTE: Professor Nyugen T.K. Thanh** (University College London) – *Plasmonic and Magnetic Nanoparticles for Biomedical Applications*
- 14:00 – 14:15 **INDUSTRY TALK – Bruker:** Alexander Dulebo
- 14:15 – 14:30 **Mohamad Anas Al Tahan** (Aston University) – *Engineering a Novel Needle-Structured-Mesoporous Silica-Lipid Hybrid Carrier for Oral Peptide Delivery*
- 14:30 – 14:45 **Samuel McLennan** (King’s College London) – *Deciphering the Mechanisms of Cell-Nanoneedle Interaction Using Interpretable AI for Improved Biological Cargo Delivery*
- 14:45 – 15:00 **Pratik Gurnani** (University College London) – *Polymer delivery enhanced enhance delivery and response for a bivalent SARS-CoV-2 DNA vaccine*
- 15:00 – 15:30 *Coffee break*
- 15:30 – 16:45 **Nanoparticles in Infection**
- 15:30 – 16:00 **KEYNOTE: Professor Moein Moghimi** (Newcastle University) – *Innate immune responses to nano-pharmaceuticals: from fundamentals to adverse reactions*
- 16:00 – 16:15 **Lucía López Vidal** (Queen’s University Belfast) – *In vivo pharmacokinetic study and PBPK modelling: Comparison between 3D-printed nanocrystals and solid dispersions*
- 16:15 – 16:30 **Vahid Heravi Shargh** (University of Liverpool) – *NO-releasing liposomal formulations for the treatment of respiratory infections*
- 16:30 – 16:45 **Anna Scheeder** (University of Cambridge) – *Molecular Mechanisms of Cationic Fusogenic Liposome Interactions with Bacterial Envelopes*
- 17:00 – 18:00 **Bruker Workshop, Timmy Hele Room, Queen’s Building**
- 18:30 – 19:30 *Drinks on the lawn*
- 19:30 – Late **Gala Dinner, Dinner Hall**

Day 2: Tuesday 10th September

- 09:00 – 09:45** **BSNM Annual General Meeting (BSNM members only)**
- 09:45 – 11:00 **Protein and Nanoparticle Design and Safety**
- 09:45 – 10:15 **KEYNOTE: Professor Laura Itzhaki** (University of Cambridge) – *Proteins and nanoparticles: A perfect marriage of form and function*
- 10:15 – 10:30 **P. Steven Patrick** (University College London) – *Nanoparticle Contrast Agents for Dark Field X-ray Imaging*
- 10:30 – 10:45 **Andrew Baker** (University of Cambridge) – *An Indocyanine Green-Based Nanoprobe for In Vivo Detection of Cellular Senescence*
- 10:45 – 11:00 **Roger Molto Pallares** (RWTH Aachen University Hospital) – *Polymeric microbubbles for ultrasound imaging and therapy*
- 11:00 – 11:30 *Coffee break*
- 11:30 – 12:35 **Precision Medicine**
- 11:30 – 11:50 **Enza Torino** (University of Naples Federico II) – *Boosting biofabrication and loading of Small Extra Cellular Vesicles (sEVs) by Fluidity in Microfluidics and their validation*
- 11:50 – 12:05 **Federico Bosetto** (University of Cambridge) – *DNA aptamers as therapeutic binders of different proteins*
- 12:05 – 12:20 **Paul Cressey** (King's College London) – *Microbubble blood brain barrier opening for the delivery of imageable thermosensitive liposomes for the treatment of glioblastoma*
- 12:20 – 12:40 **BSNM Spotlight: Early Career Council and Champions**
- 12:40 – 13:30 *Lunch and poster session.*
- 13:30 – 14:35 **Extracellular Vesicles in Drug Delivery**
- 13:30 – 13:50 **INDUSTRY TALK – Izon**
- 13:50 – 14:05 **Maria Zacharopoulou** (University of Cambridge) – *Design of DNA-peptide nano-structures against intracellular targets in cancer*
- 14:05 – 14:20 **Chengwei Jiang** (University College London) – *Icariin-Loaded Inhalable Dry Powder for Idiopathic Pulmonary Fibrosis Therapy: inhibition of Macrophage M2 Polarization*
- 14:20 – 14:35 **Oliver Vanderpoorten** (UiT The Arctic University of Norway) – *NANOSPACER: Nanofluidic sizing of extracellular vesicles and biomacromolecules in solution*
- 14:35 – 15:05 *Coffee break*
- 15:05 – 16:10 **Nucleic Acids**
- 15:05 – 15:25 **INDUSTRY TALK – Medicines Discovery Catapult: Nisha Ponnappan**
- 15:25 – 15:40 **Suneha Patil** (University College London) – *Microfluidic engineering of pDNA Nanogels using a co-axial flow reactor*
- 15:40 – 15:55 **Rory Hills** (University of Oxford) – *Quartet Nanocages Elicit Broad Anti-Coronavirus Humoral Immunity to Facilitate Proactive Vaccinology*
- 16:00 – 16:30 **Prize giving and closing ceremony. Meeting closed.**