

# 18TH LIPOSOME RESEARCH DAYS 2024

DELIVERING INNOVATION AND DRIVING  
APPLICATIONS

# 2024



University of  
**Strathclyde**  
Glasgow

## EVENT SCHEDULE

### JUNE 26 TO 29, 2024

Technology and Innovation Centre (TIC), University of  
Strathclyde Glasgow, Scotland

# EVENT SCHEDULE

## 18TH LIPOSOME RESEARCH DAYS 2024

**WEDNESDAY, 26TH JUNE, 2024**

### INDUSTRY AND TRANSLATION DAY

- 10:15 – 11:00 AM** Registration desk opens
- 11:00 – 11:10 AM** Welcome, opening remarks, and housekeeping  
**Yvonne Perrie and Terry Allen**
- 11:10 – 11:50 AM** **Industry Keynote:**  
CMC considerations of an integrated nanoparticle process from discovery to manufacturing  
**Dai Hayward – Micropore Technologies**
- 11:50 – 12:15 PM** **Updates from Industry:**  
Optimizing mRNA-LNP Particle Properties for Delivery to Primates  
**Steve Reid, Genevant Sciences Corporation**
- 12:15 – 12:40 PM** Fujifilm's Activities for Liposome and Lipid Nanoparticle Development in the Pharmaceutical Industry.  
**Susumu Shimoyama, President FUJIFILM Pharmaceutical U.S.A., Inc.**
- 12:40 – 12:55 PM** Selected Speaker slot

**CHAIR: GERARD JENSEN**

**1:00 – 2:00 PM** **Network Lunch**

- 2:00 – 2:25 PM** LNP-production for mRNA-vaccines, therapeutics and for gene-editing – proof of concept for a versatile process  
**Andreas Wagner, Polymun**
- 2:25 – 2:50 PM** A Breakthrough Approach in RNA Therapeutics Delivery Using a Novel Ionizable Lipid Platform  
**Diego de Miguel, Certest PHARMA**
- 2:50 – 3:15 PM** Exploring the Implications of Tailoring Lipid Nanoparticle Dimensions Through Manufacturing Processes  
**Caitlin McMillan, Avanti Polar Lipids, Inc**
- 3:15 – 3:30 PM** Selected Speaker slot

**CHAIR: SYED REZA**

**3:30 – 4:00 PM** **Network Break**

- 4:00 – 4:25 PM** Title - TBC  
**Speaker TBC**
- 4:25 – 4:50 PM** **Invited Lectures:**  
Biofoundry-in-a-Box: By-Design RNA drug product development and manufacture for rapid response  
**Harris Makatsoris**
- 4:50 – 5:15 PM** New approaches to accelerate LNP formulation development and manufacture – using collaborative partnerships to de-risk and enhance LNP-enabled medicines.  
**Juliana Haggerty**
- 5:15 – 5:30 PM** Selected Speaker slot

**CHAIR: YVONNE PERRIE**

- 5:30 – 5:40 PM** Closing remarks  
**MUST EXIT BY 5:50 PM**

**6:00 – 7:00 PM** **Opening Reception**  
**Glasgow City Chambers**



# EVENT SCHEDULE

## 18TH LIPOSOME RESEARCH DAYS 2024

THURSDAY, 27TH JUNE, 2024

**8:15 - 9:00 AM** Registration desk opens

**9:00 - 9:40 AM** **Keynote Speaker:**  
Lipid-Based Nanomedicines: The Future of Medicine  
**Pieter Cullis**

**9:40 - 10:05 AM** An Impact of Helper Lipids on Extra-hepatocyte Delivery of Nucleic Acids Based on Ionizable Cationic Lipids.  
**Hideyoshi Harashima**

**10:05 - 10:30 AM** Targeted Lipid Nanoparticles with RNAs are Going Beyond the Liver: from Vaccines to Therapeutic Genome Editing in Cancer.

**CHAIR: WAFA AL-JAMAL** **Dan Peer**

**10:30 - 11:00 AM** **Network Break**

**11:00 - 11:40 AM** **Keynote Speaker:**  
Inhalable Dry Powder LNPs For GATA3 Silencing in Severe Asthma  
**Olivia Merkel**

**11:40 - 12:05 PM** Design of charge reversible lipid nanoparticles for RNA delivery  
**Tomohiro Asai**

**12:05 - 12:30 PM** Analytical Platform to Support Rational Design of LNPs  
**Sarah Brockbank**

**CHAIR: GAURAV SAHAY**

**12:30 - 1:30 PM** **Network Lunch**

**1:30 - 2:10 PM** Bone Marrow Homing Lipid Nanoparticles for Genome Editing in Diseased and Malignant Hematopoietic Stem Cells  
**Daniel Siegwart**

**2:10 - 2:35 PM** Brain-Targeted Nanoparticles for Treating Parkinson's Disease: From biologics to synthetic cells  
**Avi Schroeder**

**2:35 - 3:00 PM** Engineering Polymer/Oil-Based Nanocapsules for Specific RNA Delivery  
**María J. Alonso**

**CHAIR: ANNA BLAKNEY**

**3:00 - 3:30 PM** **Network Break**

**3:30 - 3:55 PM** Unlocking the cellular Blueprint: Precision Targeting of diseased Tissues with biomeimetic nanoparticles  
**Assaf Zinger**

**3:55 - 4:20 PM** Investigating the immunocompatibility of complex medicines – challenges and approaches for a novel therapeutic strategy for osteoarthritis, developed by the siNPAIN consortium  
**Neill Liptrott**

**4:20 - 4:45 PM** Quest for next generation lipid nanoparticles for cell-specific delivery of mRNA  
**Gaurav Sahay**

**4:45 - 5:00 PM** Selected Speaker slot

**CHAIR: ANNE GROBLER**

**5:00 - 5:45 PM** **Poster session**

**7:00 PM** Conference Dinner



# EVENT SCHEDULE

## 18TH LIPOSOME RESEARCH DAYS 2024

FRIDAY, 28TH JUNE, 2024

8:30 – 9:00 AM Registration desk opens

9:00 – 9:40 AM **Keynote Speaker:**  
Formulating for self-amplification  
**Robin Shattock**

CHAIR: NEILL LIPTROTT

9:40 – 10:30 AM Session 5: Lighting Round Presentations  
**Adjudicated Abstracts**

CHAIR: ASSAF ZINGER

10:30 – 11:00 AM **Network Break**

11:00 – 11:25 AM Optimization of Lipid Nanoparticle Immunogenicity for Vaccine or Therapeutic Indications  
**Anna Blakney**

11:25 – 11:50 AM From Lipids to Production: Navigating LNPs' Manufacturing Landscape (whilst working at preclinical volumes)  
**Yvonne Perrie**

11:50 – 12:15 PM ALFQ: A Unique Giant (>1 Micron) Unilamellar Liposomal Carrier of Monophosphoryl Lipid A and Qs21 Saponin As Adjuvants for Vaccines  
**Carl Alving**

12:15– 12:30 PM Selected Speaker slot

CHAIR: HIDEYOSHI HARASHIMA

12:30 – 1:30 PM **Network Lunch**

1:30 – 1:55 PM Lipid Nanoparticle Adjuvants for Recombinant Protein Vaccines  
**Philip Felgner**

1:55 – 2:20 PM Multi-Modality Therapy to Improve Efficacy of Nanomedicines  
**Alberto A. Gabizon**

2:20 – 2:45 PM NETs as The Universal Target for the Carrier-Mediated Drug Delivery in Different Pathologies  
Vladimir P. Torchilin

2:35 – 3:00 PM Selected Speaker slot

CHAIR: JAI PRAKASH

3:00 – 3:30 PM **Network Break**

3:30 – 3:55 PM **Phospholipid Research Center (PRC) Session**  
Formulation Optimization, Biocompatibility and In Vivo Clearance of Biodegradable Liposome-Indocyanine Green J- Aggregates for Photothermal Therapy  
**Wafa T. Al-Jamal**

3:55 – 4:20 PM Novel Liposomal Strategy to Target Tumour-Inducing Macrophages in Primary Tumour and Metastasis  
**Jai Prakash**

4:20 – 4:55 PM Cell Penetrating Peptide Modified Liposomes: A Technology for Oral Peptide Delivery  
**Philipp Uhl**

4:45 – 5:00 PM Selected Speaker slot

5:10 – 5:20 PM **Poster Awards**

CHAIR: GERT STORM

5.20 – 5.45 PM LRDs Business meeting

7:00 PM **Speakers' Dinner – by invitation only**





# EVENT SCHEDULE

## 18TH LIPOSOME RESEARCH DAYS 2024

**SATURDAY, 29TH JUNE, 2024**

**9.00 – 9.40 AM** **Bangham Award lecture**  
Introduction: Terry Allen  
My Life with Liposomes: Looking Back, Moving Forward  
**Gert Storm**

**CHAIR: TERRY ALLEN**

**9.40 – 10.05 AM** Extracellular vesicles versus lipid nanoparticles  
**Raymond Schiffelers**

**10.05 – 10.30 AM** Can Liposomal Small Molecules be used to Overcome the Limitations of LNP RNA therapeutics?  
**Marcel Bally**

**CHAIR: KOSTAS KOSTARELOS**

**10.30 – 11.00 AM** **Network Break**

**11.00 – 11.25 AM** Immunological responses against PEGylated materials: the induction of anti-PEG antibodies  
**Tatsuhiko Ishida**

**11.25 – 11.50 AM** Safety and Immunogenicity of Malaria, SARS-CoV-2, and HIV-1 Vaccines Adjuvanted with ALFQ  
**Mangala Rao**

**11.50 – 12.15 PM** The application of the lipid-based Pheroid delivery system in animal health in Southern Africa  
**Anne Grobler**

**12.15 – 12.30 PM** Selected Speaker slot

**CHAIR: RAYMOND SCHIFFELERS**

**12.30 – 1.30 PM** **Network Lunch**

**1.30 – 1.55 PM** Heroin and Fentanyl Vaccines Adjuvanted With Army Liposome Formulation  
**Gary R. Matyas**

**1.55 – 2.20 PM** Innate immune stimulation by mRNA-LNP: Mechanisms and relevance to adverse reactions  
**Janos Szebeni**

**2.20 – 2.55 PM** Back to the Future: Creative Revisiting of the PEGylated Liposome from Biomarker Scavengers to Brain Transporters  
**Kostas Kostarelos**

**CHAIR: MARCEL BALLY**

**3.00 – 3.30 PM** **Network Break**

**3.30 – 4.20 PM** Keynote Speaker Panel Discussion  
**Panel Leads: Terry Allen**

**4.20 – 4.30 PM** Closing remarks

