

Conference Agenda

Conference Day 1—Thursday, May 15, 2025

08:00 Conference Registration, Materials Pick-Up, Coffee and Networking

09:00 **Conference Co-Chairperson Introduction – Havana Ballroom**
Introduction to the EV, LNP 2025 Conference -- Topics Covered and Synergies Across Disciplines

Michael Graner, Professor, Dept of Neurosurgery, University of Colorado Anschutz School of Medicine -- Conference Co-Chairperson

09:05 **Conference Co-Chairperson Introduction**
Introduction to LNPs -- Why are LNPs Gaining Attention and a Survey of Applications

Noah Malmstadt, Professor, Mork Family Dept. of Chemical Engineering & Materials Science, University of Southern California -- Conference Co-Chairperson

09:10 **Session Sub-Title: Extracellular Vesicles 2025 -- Progress in Research, Diagnostics & Therapeutics Development**

Chairperson: Professor Michael Graner, University of Colorado - Anschutz Medical Center

09:15 **Keynote Presentation**
Label-Free Detection and Identification of Single Protein Molecules Harvested from Extracellular Vesicles

Steve Soper, Foundation Distinguished Professor, Director, Center of BioModular Multi-Scale System for Precision Medicine, The University of Kansas, USA

09:45 Big-Pharma Presentation

Exosomes as Biomarkers: A New Frontier in Medical Diagnostics

Banishree Saha, Associate Director, Early Clinical Development, Takeda Pharmaceuticals, United States of America

10:15 Mid-Morning Coffee Break and Networking with Exhibitors

10:45 Technology Spotlight Presentation

Characterization of Extracellular Vesicles and Other Biological Nanoparticles Using Nanoparticle Tracking Analysis (NTA)



Sven Kreutel, CEO, Particle Metrix, Inc., USA and Germany

11:15 EV or Virus? Using Common Features of Viruses and EVs for a Novel HIV At-Home Lateral Flow Test

Kimberly Luke, Vice President, Research and Development, Intuitive Biosciences, USA



11:45 Technology Spotlight Presentation

High-Efficiency Isolation of Exosomes and Its Application in Diagnosis and Treatment



Johnny Zhuang, Business Development & Product Application Scientist, EXODUS BIO, United States of America

12:15 Keynote Presentation

Innovations to Detect Ovarian Cancer at its Origin: Combining Cancer Biology and Extracellular Vesicle-based Diagnostic Tools

Andrew Godwin, Professor and Division Director, Genomic Diagnostics, University of Kansas Medical Center, United States of America

12:45 Networking Lunch in the Atrium

13:59 Session Sub-Title: EV-based Therapeutics -- Status Update, ca. 2025

14:00 Keynote Presentation

The Protective and Regenerative Effects of Schwann Cell EVs

Damien Pearce, Professor, Department of Neurological Surgery; The John M. and Jocelyn H.K. Watkins Distinguished Chair in Cell Therapies, University of Miami Miller School of Medicine, United States of America

14:30 Investigating the Therapeutic Potential of Modified Microglial Exosomes in Spinal Cord Injury Repair

Mousumi Ghosh, Research Associate Professor, The Miami Project to Cure Paralysis, Department of Neurological Surgery, University of Miami Miller School of Medicine, United States of America

15:00 Identifying Stress-Exacerbated Thermal-Injury Induced Pain Biomarkers

Natasha Sosanya, Research Scientist, US Army Institute of Surgical Research (USAISR), United States of America

15:30 Developing Diagnostic Assays Using Biomarkers in EVs

Susan Belzer, Director of Business Development - US, INOVIQ Limited, USA



16:00 Mid-Afternoon Coffee Break and Networking in the Exhibit Hall

16:30 Technology Spotlight Presentation

Title to be Confirmed

Unchained Labs, United States of America



17:00 Keynote Presentation

Plasma Extracellular Vesicles in Reducing Hospital Referrals for Chest Pain Patients

Dominique PV de Kleijn, Professor Experimental Vascular Surgery, Professor Netherlands Heart Institute, University Medical Center Utrecht, The Netherlands

17:30 Keynote Presentation

Large-Scale Isolation and Detection of Nanocarriers Biomarkers with Nanotechnologies: Parsing Heterogeneity

Hsueh-Chia Chang, Bayer Professor of Chemical and Biomolecular Engineering, University of Notre Dame, United States of America

18:00 Networking Reception with Beer & Wine in the Atrium

19:00 Close of Day 1 of the Conference

Conference Day 2—Friday, May 16, 2025

08:00 Morning Coffee and Networking in the Exhibit Hall

08:30 **Investigating the Role of Hypoxia on Lipid Nanoparticle Mediated mRNA Delivery**

Owen Fenton, Assistant Professor at the University of North Carolina at Chapel Hill, United States of America

09:00 **LNPs -- A Deep Dive**

Noah Malmstadt, Professor, Mork Family Dept. of Chemical Engineering & Materials Science, University of Southern California, USA -- Conference Co-Chairperson

09:30 **Design, Synthesis, and Characterization of Structurally Tunable Lipid Nanoparticles (LNPs) for Transdermal Delivery**

Briana L. Simms, Assistant Professor of Chemistry, University of Cincinnati, United States of America

10:00 Mid-Morning Coffee Break and Networking in the Exhibit Hall

10:30 **Technology Spotlight Presentation**

Demeter EVPrep: Where Microchips Meet Biotech to Deliver Automated, Reproducible EV Isolation



Varshal Davé, Senior Vice President, Commercial, Exokeryx, United States of America

11:00 **Technology Spotlight Presentation**

Advancement of Mixing Methods for Assembly of Nucleic Acid-Lipid Nanoparticles



Brian Feng, CEO, Osem Fluidics, United States of America

11:30 **AI-Guided Development of Lipid Nanoparticles for mRNA Delivery**

Bowen Li, Assistant Professor, Canada Research Chair in RNA Vaccines and Therapeutics, University of Toronto, Canada

12:00 Keynote Presentation

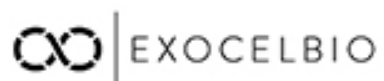
Translation of Extracellular Vesicles from Bench to Bedside

Andreas Möller, Professor, Director, JC STEM Lab of Personalized Cancer Medicine,
Chinese University of Hong Kong

12:30 Networking Lunch in the Atrium

13:30 Space Microgravity and Hypoxia Conditions as a Novel Approach to Enhance Regenerative Potency of MSC-derived Exosomes in Specialized 3D Cell Culture System

Natalia Tumidajski, Principal Scientist & GMP Site
Head, ExoCel Bio, Pennsylvania Biotechnology
Center, United States of America



14:00 HIV Tat-Stimulated Microglial Extracellular Vesicles Shuttle Ferroptosis Mediators and Induce Neuronal Injury: Role of Dysregulated Autophagy

Shilpa Buch, Professor-Department of Pharmacology and Experimental
Neuroscience, University of Nebraska Medical Center, USA

14:30 Therapeutic potential of EVs in IVIG

Mỹ Mahoney, Professor, Department of Pharmacology, Physiology, and Cancer
Biology, Thomas Jefferson University, United States of America

15:00 Liposomes as a Successful, Safe and Sustainable Drug Delivery Platform for Kaempferol in the Treatment of Glioblastoma

Chukwumaobim Nwokwu, Assistant Professor of Biochemistry, Florida Gulf Coast
University, United States of America

15:30 Mid-Afternoon Coffee Break and Networking with the Exhibitors