SELECTBIO

April 3-4, 2024

Embassy Suites Miami Airport
Miami, Florida

Extracellular Vesicles (EVs) & Nanoparticles 2024: Diagnostics, Delivery, Therapeutics

Space Summit 2024

Organized by SelectBIO Conferences

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Beckman Coulter Life Sciences

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SelectBIO Extracellular Vesicles (EVs) & Nanoparticles 2024: Diagnostics, Delivery, Therapeutics

Agenda for Day 1 [Wednesday, April 3, 2024] of the Conference

07:30 Conference Registration and Materials Pick-Up

08:15 *Welcome and Introduction by Conference Co-Chairperson*
Michael Graner, Professor, Dept of Neurosurgery, University of Colorado Anschutz School of Medicine, United States of America

Session Title: Conference Opening Session - Extracellular Vesicles 2024

08:30 *Extracellular Vesicle-Based Gene Therapy*
Mei He, Associate Professor, University of Florida, United States of America [Conference Co-Chairperson]

09:00 Keynote Presentation
Integrating Microphysiological Systems and Extracellular Vesicle-Based Technologies to Advance Regenerative Medicine
Danilo Tagle, Director, Office of Special Initiatives, National Center for Advancing Translational Sciences at the NIH (NCATS), United States of America

09:30 Keynote Presentation
Plasma Extracellular Vesicles for Cardiovascular Disease
Dominique de Kleijn, Professor Experimental Vascular Surgery, Professor Netherlands Heart Institute, University Medical Center Utrecht, The Netherlands

10:00 Keynote Presentation
Moving Neural Stem Cell Derived Exosomes into Clinical Trials: Manufacturing and Mechanistic Considerations
Steven Stice, Co-Founder and Chief Scientific Officer, Aruna Bio; DW Brook Distinguished Professor and Director of the Regenerative Bioscience Center, Georgia Research Alliance Eminent Scholar, University of Georgia, United States of America

10:30 Mid-Morning Coffee Break and Networking in the Exhibit Hall

11:00 *EVs in Treatment of Lung Diseases and Other Targets*
Marcin Jurga, Chief Scientific Officer, EXO Biologics SA, Belgium

11:30 Keynote Presentation
High-Resolution Analysis of Single Extracellular Vesicles and Particles with Digital Flow Cytometry and Super-Resolution Imaging
Daniel Chiu, A. Bruce Montgomery Professor of Chemistry, University of Washington, United States of America

12:00 Technology Spotlight Presentation
Characterization of Extracellular Vesicles and Other Biological Nanoparticles Using Nanoparticle Tracking Analysis (NTA)
Sven Rudolf Kreutel, Particle Metrix GmbH and CEO, Particle Metrix Inc., USA

12:30 Networking Lunch Break in the Atrium – Network with Colleagues, Visit Exhibitors and View Posters

Session Title: Extracellular Vesicles for Drug Delivery and Therapeutics Applications

13:30 *Large Scale Manufacturing, Cargo Profiling, and Functional Effects of hTERT MSC EVs*
Heather Branscome, Senior Scientist, ATCC and Research Assistant, George Mason University, United States of America

14:00 Keynote Presentation
Therapeutic Development and Use of Exosomes in Neurological Disease and Injury
Damien Pearse, 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 Technology Spotlight Presentation
Step up your EV Characterization with Leprechaun
Alex Shephard, Market Manager, Unchained Labs, UK/USA

15:00 *Engineering EVs for Cardiovascular Diseases*
Eun Ji Chung, Dr. Karl Jacob Jr. and Karl Jacob III Early Career Chair, Associate Professor of Biomedical Engineering, Chemical Engineering and Materials Science, Surgery, and Medicine, University of Southern California, United States of America

15:30 Mid-Afternoon Coffee Break and Networking in the Exhibit Hall

16:00 Technology Spotlight Presentation
Single vs Multi-Parameter EV Isolation Methods
Amber Murray, Senior VP, Application, Exokeryx, United States of America

16:30 *Delivery of Mitochondria-Containing Extracellular Vesicles to the BBB*
Devika Manickam, Associate Professor, Duquesne University, United States of America

17:00 Keynote Presentation
Determining Critical Quality Attributes (CQAs) of Adeno-Associated Virus Gene Therapies using Resistive Pulse Sensing
Steve Soper, Foundation Distinguished Professor, Director, Center of BioModular Multi-Scale System for Precision Medicine, The University of Kansas, United States of America

17:30 Keynote Presentation
Nucleic Acid Delivery with Biological and Synthetic Lipid Nanoparticles
Raymond Schiffelers, Professor of Nanomedicine, University Medical Center Utrecht, The Netherlands

18:00 Networking Beer and Wine Reception - Meet Exhibitors, View Posters, Network with Colleagues

19:30 Close of Day 1 of the Conference

SelectBIO Extracellular Vesicles (EVs) & Nanoparticles 2024: Diagnostics, Delivery, Therapeutics

Agenda for Day 2 [Thursday, April 4, 2024] of the Conference

08:00 *Astrocyte-Pericyte tête-à-tête: Blaming the Messenger*
Palsamy Periyasamy, Assistant Professor, University of Nebraska Medical Center, United States of America

08:30 *Discovering the Secrets of Extracellular Vesicles for Diagnostics and Therapeutics*
Fei Liu, Faculty of Medicine, Brigham and Women's Hospital, United States of America

09:00 Technology Spotlight Presentation
Accurate Extracellular Vesicle (EV) Size, Concentration, and Payload with Spectradyne's ARC Particle Analyzer
Lew Brown, Business Development, Spectradyne, United States of America

09:30 Technology Spotlight Presentation
High-Efficiency Isolation of Exosomes and Its Application in Diagnosis and Treatment
Johnny Zhuang, Product Application Scientist, EXODUS BIO, United States of America

10:00 Technology Spotlight Presentation
Flexible Solutions for Extracellular Vesicle Analysis
Alexis Vedder and Shawn Sternisha, Product Manager, Beckman Coulter Life Sciences

10:30 Mid-Morning Coffee Break and Networking in the Exhibit Hall

11:00 Technology Spotlight Presentation
Multicolor, High-Resolution Exosome Analysis with the Delaware Flow NanoCytometer
Giacomo Vacca, President & CEO, Kinetic River Corp., United States of America

11:30 *Acoustofluidics: Merging Acoustics and Fluid Mechanics for Biomedical Applications*
Tony Jun Huang, William Bevan Distinguished Professor of Mechanical Engineering and Materials Science, Duke University, United States of America

12:00 Technology Spotlight Presentation by NanoFCM

12:30 *Filamin-A and a4ß1 Integrin are CD47-dependent Cargo Proteins in Extracellular Vesicles*
Sukhbir Kaur, Staff Scientist, National Cancer Institute, National Institutes of Health, United States of America

13:00 Networking Buffet Lunch in the Atrium—Network with Colleagues, Engage with Exhibitors and View Posters

14:00 Round-Table Open Discussion: How does a Scientist Send Their Experiment into Space On-Board International Space Station? -- Q&A with Mike Roberts and Kristin Kopperud, ISS-National Laboratory

15:00 Mid-Afternoon Coffee Break and Networking in the Exhibit Hall

Session Title:	The Convergence of Virus Research and EV Research
Session Chairperson:	Professor Michael Graner, University of Colorado

15:30 *Development of Circulating Extracellular Vesicles as Theranostic of HIV Neurodisease Progression*
Andrea Raymond, Associate Professor, Herbert Wertheim College of Medicine, Florida International University, United States of America

16:00 *Exploiting an Antiviral Response to Improve Drug Delivery*
Tom Anchordoquy, Professor, University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences, United States of America

16:30 *Extracellular Condensates (ECs) are Endogenous Modulators of HIV Transcription and Latency Reactivation*
Chioma Okeoma, Professor & Vice Chair of Research, New York Medical College, United States of America

17:00 *Targeting Viral Genomic RNA by the Delivery of Extracellular Vesicles-Mediated CRISPR Machinery*
Houjian Cai, Associate Professor, University of Georgia, United States of America

17:30 *Extracellular Vesicle Isolation Methods Identify Distinct HIV-1 Particles Released from Chronically Infected T-cells*
Fatah Kashanchi, Professor and Director of Research, Lab of Molecular Virology, George Mason University, United States of America

18:00 Round-Table Discussion on Viruses and EVs Moderated by Professor Michael Graner

18:30 Close of Conference

The Space Summit 2024
Thursday, April 4, 2024

[Concurrent with the EV Track on the Morning of Thursday—April 4th]

09:00 Keynote Presentation
Biomanufacturing and In-Space Production Applications on the ISS National Lab
Michael Roberts, Chief Scientific Officer, International Space Station National Laboratory, United States of America

09:30 *In-Space Produced Janus Base Nanomaterials for Treatment of Osteoarthritis and Solid Tumors*
Yupeng Chen, Associate Professor, University of Connecticut, United States of America

10:00 Single Cell Sequencing Reveals Non-Random Genetic Alterations in a Cyanobacterium During the Biology and Mars Experiment (BIOMEX)
Yuguang Liu, Assistant Professor and Associate Consultant, Microbiome Program, Mayo Clinic, United States of America

10:30 Mid-Morning Coffee Break and Networking in the Exhibit Hall

11:00 Technology Spotlight Presentation
Biomanufacturing in Microgravity – Where we are Today and Where we Plan to Go in the Future
Molly Mulligan, Director, Business Development, Redwire, United States of America

11:30 Technology Spotlight Presentation
Successful Microfluidic Fabrication Strategies for Experiments in Microgravity
Leanna Levine, Founder & CEO, ALine, Inc., United States of America

12:00 Keynote Presentation
Low Earth Orbit Research Opportunities on the International Space Station
Kristin Kopperud, Science Program Director, Biological Sciences, International Space Station National Laboratory, United States of America

12:30 Keynote Presentation
NCATS Tissue Chips in Space Program
Danilo Tagle, Director, Office of Special Initiatives, National Center for Advancing Translational Sciences at the NIH (NCATS), United States of America

13:00 Technology Spotlight Presentation
A User-Centric Odyssey into Cutting-Edge Technique
Victor Morel Cahoreau, Head of Sales, Eden Microfluidics

13:30 Networking Buffet Lunch in the Atrium—Network with Colleagues, Engage with Exhibitors and View Posters

14:00 *Round-Table Open Discussion: How does a Scientist Send Their Experiment into Space On-Board International Space Station?* -- Q&A with Mike Roberts and Kristin Kopperud, ISS-National Laboratory
[Joint with Extracellular Vesicles Track]