

**THE 16<sup>TH</sup> US-JAPAN SYMPOSIUM ON DRUG DELIVERY SYSTEMS  
DECEMBER 15-19, 2024**

**SUNDAY, DECEMBER 15, 2024**

**2:30 PM-5:30 PM**

**Registration**

**Grand Promenade Foyer**

**5:45 PM-6:55 PM**

**Welcome Reception**

**Halona Kai**

***EVENING PLENARY SESSION***

**Monarchy 4**

**7:00 PM-7:05 PM**

**Introduction: Robert Langer and Yasuhiko Tabata**

**Discussion Leaders: Susan Langer and Ali Khademhosseini**

**7:05 PM-7:40 PM – Vadim Dudkin, Founding CTO**

Souffle Therapeutics

*Cell and tissue specific delivery of therapeutic payloads*

**7:40 PM-8:15 PM - Yizhou Dong, Professor**

Icahn School of Medicine at Mount Sinai

*Lipid nanoparticles enabled mRNA therapeutics*

**8:15 PM-8:30 PM - Refreshment Break**

**8:30 PM-9:05 PM – Maureen Chlopik Chief of Staff & VP of Commercial & Portfolio Strategy**

Lyndra Inc.

*Drug delivery in the 4th dimension: Time and long-acting oral (LAO) products*

**9:05 PM-9:40 PM– Hideyuki Okano, MD, PhD Distinguished Professor**

Keio University

*iPSCs-based regenerative therapy for subacute complete spinal cord injury, the interim report of the first-in-human (FIH) trial.*

**9:40 PM-10:15 PM— Joseph DeSimone, Sanjiv Sam Gambhir Professor of Translational Medicine and Chemical Engineering, Director, Canary Center**

Stanford University

*Drug delivery and biomarker collection devices fabricated using high resolution (in all three cartesian coordinates) 3D printing*

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**MONDAY, DECEMBER 16, 2024**

***MORNING PLENARY SESSION***

**Discussion Leader: Nicholas Peppas**

**8:00 AM-8:35 AM – Kenji Hyodo, Ph.D. Senior Director, Head of Advanced Drug Delivery**

Eisai Co., Ltd.

*Optimization of drug release from liposomes for cancer therapy*

**8:35 AM-9:10 AM –Hiroshi Kikuchi, Ph.D. President**

DDS Strategy Firm LLC

*Usefulness of active release of liposomal cytotoxic drug by irradiation of near-infrared light*

**9:10 AM - 9:45 AM – Avi Domb**

Hebrew University of Jerusalem

*Injectable biodegradable polymers for drug delivery and tissue separation – from the bench to the clinic*

**9:45 AM-10:15 AM – Refreshment Break**

**10:15 AM-10:50 AM— Natalie Artzi, Associate Professor**

Harvard Medical School and Brigham and Women's Hospital

*Supercharging immunotherapy through nanotechnology: Chemical structure matters*

**10:50 AM-11:25 AM– Aaron Anselmo, Chief Scientific Officer**

VitaKey Inc.

*VitaKey Inc.: Unlocking the science of nutrition*

**11:25 AM-12:00 PM– Henry Brem, Professor and Director of Neurosurgery**

John Hopkins University

*Brain tumor treatments*

**AFTERNOON UNSCHEDULED**

***EVENING PLENARY SESSION***

**Discussion Leaders: Rodney Pearlman and Aimee Hamilton**

**7:00 PM-7:35 PM—Kristi Anseth, Distinguished Professor and Tisone Professor of Chemical and Biological Engineering**

University of Colorado - Boulder

*Adaptable and responsive hydrogels to develop tissue models for drug screening*

**7:35 PM- 8:10 PM - Kerry Benenato, Chief Platform Officer**

Sail Biomedicines

*Developing of fully programmable medicines to expand the therapeutic potential of RNA*

**8:10 PM-8: 35 PM- Refreshment Break**

**8:35 PM-9:10 PM — Chae-OK Yun, Professor**

Hanyang University

*Nanomaterial-based intranasal brain delivery*

**9:10 PM-9:45 PM - Masahiro Yasunaga , MD, PhD. Director**

National Cancer Center, Exploratory Oncology Research & Clinical Trial Center

*Development of next-generation antibody therapeutics utilizing DDS, molecular imaging, and cell biology*

**9:45 PM-10:20 PM – John Patton Senior Strategic Advisor**

Kindeva Drug Delivery

*Eliminate the syringe with epithelial delivery: Inhaled/nasal and intradermal delivery systems*

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**TUESDAY, DECEMBER 17, 2024**

***MORNING PLENARY SESSION***

**Discussion Leaders: Rebecca Carrier and Oljora Rezhdo**

**8:00 AM-8:35 AM– Cato Laurencin, University Professor and CEO, The Cato T. Laurencin Institute**  
University of Connecticut  
*Regenerative engineering*

**8:35 AM-9:10 AM– Kathryn Whitehead Professor**  
Carnegie Mellon University  
*Amine chemistry dictates innate and adaptive immune responses to lipid nanoparticles*

**9:10 AM-9:45 AM –Masayo Takahashi, President**  
Vision Care, Inc.  
*AI robotics and retinal cell therapy*

**9:45 AM-10:15 AM – Refreshment Break**

**10:15 AM-10:50 AM– Shimpei Gotoh, MD, Ph.D. Professor**  
Center for iPS Cell Research and Application, (CiRA), Kyoto University  
*Implementing pluripotent stem cells for human lung disease modeling*

**10:50 AM-11:25 AM– Upma Sharma President & CEO**  
Arsenal Medical  
*Innovative biomaterials: Transformative medicine*

**11:25 AM-12:00 PM– Wei Zhu, PhD Chief Technology Officer**  
CELLINK Bioprinting AB  
*Light-based bioprinting: The next frontier in biofabrication*

**AFTERNOON UNSCHEDULED**

***EVENING POSTER SESSION 1***

**Discussion Leaders: Shelley Weinstock and Howie Rosen**

**7:30 PM – 10:00 PM            Oral Presentation of Posters - Selected from Poster Session #1**

**Refreshment Break: 8:30 PM**

**Session ends at approximately 10:00 PM**

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**WEDNESDAY, DECEMBER 18, 2024**

***MORNING PLENARY SESSION***

**Discussion Leaders: Bruce Zetter and Alex Denner**

**8:00 AM-8:35 AM – Sabrina Martucci Johnson, CEO**

Daré Biosciences

*Optimizing drug delivery that prioritizes women's health and well-being, expands treatment options, and improves outcomes*

**8:35 AM-9:10 AM – Patrick Anquetil, CEO**

Portal Instruments

*Transforming the patient experience with modern drug delivery systems*

**9:10 AM-9:45 AM– Shaoyi Jiang, Robert Langer '70 Family and Friends Professor**

Cornell University

*Zwitterionic materials and drug delivery systems.*

**9:45 AM-10:15 AM - Refreshment Break**

**10:15 AM-10:50 AM – Chad Mirkin, Director, International Institute for Nanotechnology; George B. Rathmann Professor of Chemistry, Chemical and Biological Engineering, Biomedical Engineering, Materials Science & Engineering,**

Northwestern University

*Structural nanomedicine: Repurposing the blueprint of life for through spherical nucleic acids*

**10:50 AM-11:25 AM – Hirohide Saito, Ph.D. Professor**

Institute for Quantitative Biosciences, The University of Tokyo; Center for iPS Cell research and application, Kyoto University /

*RNA synthetic biology approaches to program gene expression and cell-fate*

**11:25 AM-12:00 PM – Badriprasad (Badri) Ananthanarayanan, Vice President of Platform**

Earli, Inc

*Teaching old lipids new tricks: Engineering LNP composition for extrahepatic delivery of DNA for lung cancer imaging and treatment*

**AFTERNOON UNSCHEDULED**

***EVENING PLENARY SESSION***

**Discussion Leader: Dan Hartman**

**7:00 PM-7:35 PM - Niya Bowers, Senior Program Officer**

Bill and Melinda Gates Foundation

*Advances in long-acting injectable (LAI) formulations for tuberculosis treatment with applications in LMICs*

**7:35 PM-8:10 PM - Ana Jaklenec, Principal Research Scientist**

Massachusetts Institute of Technology

*Innovations in vaccine delivery for global health*

**8:10 PM-8:35 PM – Refreshment Break**

**8:35 PM-9:10 PM - John Walker, Senior Program Officer**

Bill and Melinda Gates Foundation

*Long acting delivery of ARVs for HIV PrEP*

**9:10 PM-9:45 PM - Giancarlo Francese, Senior Program Officer**

Bill and Melinda Gates Foundation

*End-to-end development to address the needs of women in low- and middle-income countries: A holistic approach*

**9:45 PM-10:20 PM – Gregg Redeker, Senior Program Officer**

Bill and Melinda Gates Foundation

*Stabilizing and delivering live biotherapeutics for global health*

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**THURSDAY, DECEMBER 19, 2024**

***MORNING PLENARY SESSION***

**Discussion Leader: Gio Traverso**

**8:00 AM-8:35 AM - Michael Sefton University Professor and Scientific Director, Medicine by Design**

University of Toronto

*Regenerative biomaterial for cell delivery in Type 1 Diabetes*

**8:35 AM-9:10 AM - David Edwards- Adjunct Professor/Founder Sensory Cloud Inc.**

John Hopkins Medical Center/Sensory Cloud Inc.

*Controlled-release hydration of the airways to prevent the rise of chronic respiratory diseases with global warming*

**9:10 AM-9:45 AM - Asim Siddiqui Senior Vice President, Research**

Seer Bio

*Discoveries in the dirt: How nanoparticle biofouling led to the creation of a revolutionary proteomics product*

**9:45 AM-10:15 AM – Refreshment Break**

**10:15 AM-10:50 AM – Takanori Takebe, MD, Ph.D., Professor**

Osaka University, Tokyo Medical and Dental University, Cincinnati Children's

*Promise and impact of organoid medicine*

**10:50 AM-11:25 AM – Daniel G. Anderson, Joseph R. Mares (1924) Professor of Chemical Engineering**

Massachusetts Institute of Technology

*Non-viral delivery of nucleic acids for gene therapy and editing*

**11:25 AM-12:00 PM— Jeff Haley Senior Manager and Product Specialist**

Celanese

*Extruded long-acting polymer implants for macromolecules*

**AFTERNOON UNSCHEDULED**

**EVENING POSTER SESSION 2**

**Discussion Leader: Michael Langer**

**7:30 PM**

**Oral Presentation of Posters - Selected from Poster Session #2**

**Refreshment Break: 8:30 PM**

**Session ends at approximately 10:00 PM**