

**THE 15<sup>TH</sup> US-JAPAN SYMPOSIUM ON DRUG DELIVERY SYSTEMS  
DECEMBER 14-18, 2019**

**SATURDAY, DECEMBER 14, 2019**

**1:30 PM-3:30 PM**

**Haleakala Ballroom Lobby**

**Registration**

**3:30-5:30 PM**

**Haleakala Ballroom**

**Session Chair – Dan Wattendorf  
Bill and Melinda Gates Foundation**

***AFTERNOON PANEL DISCUSSION***

*Non-viral vector delivery methods to targeting immune cells*

**Panelists: Dan Anderson (MIT); Kerry Benenato (Moderna); James Dahlman (GA Tech)**

**5:45 PM–6:55 PM**

**Valley Isle Lounge and Terrace**

**Welcome Reception**

***EVENING PLENARY SESSION***

**7:00 PM-7:05 PM- Introduction: Robert Langer and Yasuhiko Tabata**

**Discussion Leaders: Molly Stevens and Frank Szoka**

**7:05 PM-7:40 PM – Katsuto Tamai**

Osaka University Graduate School of Medicine

*Systemic administration of synthesized HMGB1 peptide increases ectoderm-derived mesenchymal stem/progenitor cells in the blood for necrotic tissue repair*

**7:40 PM-8:15 PM– Mark E. Davis**

California Institute of Technology

*Designing nanoparticles to cross the blood-brain barrier*

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

**8:30 PM-9:05 PM – Marsha Moses**

Boston Children's Hospital/Harvard Medical School

*Rationally designed precision theranostics for cancer and its metastases*

**9:05 PM-9:40 PM– Hidetoshi Masumoto**

Kyoto University

*Drug delivery system-based cardiovascular regenerative medicine: From bench to bedside*

**9:40 PM-10:15 PM— Tony Voiers and William Daunch**

Advanced Chemotherapy Technologies

*Active drug delivery of chemotherapeutics via iontophoresis: Bypassing the barriers to traditional pancreatic cancer treatment*

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**SUNDAY, DECEMBER 15, 2019**

***MORNING PLENARY SESSION***

**Discussion Leaders: Ana Jaklenec and Steve Kern**

**8:00 AM-8:35 AM – Dan Hartman**

Bill and Melinda Gates Foundation

*CMC innovation for global health: Why high-tech solutions fit in the low income world*

**8:35 AM-9:10 AM – Philip Welkhoff**

Bill and Melinda Gates Foundation

*Pathway to eradication: An innovation agenda for achieving a malaria-free world*

**9:10-9:45 AM—Kei Katsuno**

Global Health Innovative Technology Fund

*Introduction to GHIT Fund*

**9:45 AM-10:15 AM – Refreshment Break (30 mins)**

**10:15AM-10:50 AM-- Mark Prausnitz**

Georgia Institute of Technology

*Microneedle technologies for drug delivery*

**10:50 AM-11:25AM– Samir Mitragotri**

Harvard University

*Ionic liquids for drug delivery*

**11:25 AM-12:00 PM– Giovanni Traverso**

Massachusetts Institute of Technology

*Gastrointestinal device development in a few movements*

**AFTERNOON UNSCHEDULED**

***EVENING PLENARY SESSION***

**Discussion Leaders: Sung Wan Kim and Rami Suzuki**

**7:00 PM-7:35 PM— Chae-Ok Yun**

Hanyang University

*Reprogrammed oncolytic adenovirus as cancer immunotherapy*

**7:35 PM-8:10 PM – Takahiro Ochiya**

Tokyo Medical University

*EV as a novel DDS for cancer therapeutics*

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

**8:35 PM-9:10 PM — Christopher Loose**

Frequency Therapeutics, Inc.

*Progenitor cell activation: A potential disease modifying approach for hearing loss and other degenerative conditions*

**9:10 PM-9:45 PM --- James Hedrick**

**Azul 3D**

*Unlocking high area rapid 3D printing for manufacturing*

**9:45 PM-10:20 PM – Masaya Nakamura**

Keio University School of Medicine

*Regenerative medicine for spinal cord injury using iPS cells*

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**MONDAY, DECEMBER 16, 2019**

***MORNING PLENARY SESSION***

**Discussion Leader: Yosi Kost and Howie Rosen**

**8:00 AM-8:35 AM– Shinsuke Sando**

University of Tokyo

*Artificial growth factors for controlling cellular functions and fates*

**8:35 AM-9:10 AM– Joachim Kohn**

Rutgers University

*Delivery of epigenetic modifiers as a promising alternative to the use of cytokines and growth factors in regenerative medicine*

**9:10 AM-9:45 AM – Igor Feldman**

Verseau Pharmaceuticals

*Completing the immunity cycle by developing myeloid immunotherapies*

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

**10:15 AM-10:50 AM– Junichi Kikuta**

Osaka University Graduate School of Medicine

*Intravital imaging technology dissecting cellular dynamics in inflammation and cancers in vivo*

**10:50 AM-11:25 AM– Joseph DeSimone**

Carbon, Inc.

*Digital manufacturing for healthcare applications*

**11:25 AM-12:00 PM– Hideyoshi Harashima**

Hokkaido University

*Multifunctional envelope-type nano device for gene/nucleic acids delivery: Concept and application to nanomedicine*

**AFTERNOON UNSCHEDULED**

**Discussion Leader: Nicholas Peppas and Sungho Han**

***EVENING POSTER SESSION 1***

**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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**TUESDAY, DECEMBER 17, 2019**

***MORNING PLENARY SESSION***

**Discussion Leader:** Shelley Weinstock and Bruce Zetter

**8:00 AM-8:35 AM – Rogerio Vivaldi**

Sigilon Therapeutics

*Correcting blood disorders by implementation of ex vivo gene-modified allogeneic (human) cells shielded with novel biomaterials*

**8:35 AM-9:10 AM –Zhen Gu**

University of California, Los Angeles /Zenomics, Inc.

*Glucose-responsive smart insulin delivery*

**9:10 AM-9:45 AM– Rosemary Kanasty**

Lyndra Therapeutics

*Making the most of each oral dose*

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

**10:15 AM-10:50AM– Henry Brem**

Johns Hopkins University

*Novel Therapeutics for Brain tumor therapy*

**10:50 AM-11:25 AM –Patrick Anquetil**

Portal Instruments

*Connected, needle-free drug delivery—medical injections transformed*

**11:25 AM-12:00 PM – Ryo Kojima**

Pharmaceutical Research and Technology Labs., Pharmaceutical Technology, Astellas Pharma Inc.

*Drug delivery application of exosome/extracellular vesicles*

**AFTERNOON UNSCHEDULED**

***EVENING PLENARY SESSION***

**Discussion Leader:** Hideyoshi Harashima and Paulina Hill

**7:00 PM-7:35 PM--- Yosuke Hiraoka**

Biomaterial group, R&D Center, Nitta Gelatin Inc.

*Unlocked potential of gelatin—old but new material*

**7:35 PM-8:10 PM – Upma Sharma**

Arsenal Medical

*Name of presentation TBD*

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

**8:35 PM-9:10 PM – Sabrina M. Johnson**

Daré Bioscience, Inc.

*Personalizing drug delivery for women: A vaginal ring to rule them all*

**9:10 PM-9:45 PM – Thomas von Erlach**

Vivtex

*Using the gastrointestinal organ robotic interface system for oral drug delivery applications*

**9:45 PM-10:20 PM–Kaitlyn Sadtler**

National Institute of Biomedical Imaging and Bioengineering

National Institutes of Health

*The immune system in tissue regeneration and medical device development*

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**WEDNESDAY, DECEMBER 18, 2019**

***MORNING PLENARY SESSION***

**Discussion Leader:** Susan Langer and Rodney Pearlman

**8:00 AM-8:35 AM — Lloyd Johnston**

Selecta Biosciences

*Tolerogenic nanoparticles to enable repeat dosing of gene therapy*

**8:35 AM-9:10 AM – Chad Mirkin**

Northwestern University

*Opening the fields of digital medicine and rational vaccinology with spherical nucleic acids*

**9:10 AM-9:45 AM – Natalie Artzi**

MIT/ HMS/ BWH

*Combination cancer (immuno)therapy*

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

**10:15 AM-10:50 AM – Yasuhiro Matsumura**

EPOC National Cancer Center

*Cancer stromal targeting (CAST) therapy*

**10:50 AM-11:25 AM – Hiroshi Kikuchi**

Shonan Research Laboratories, LTT Bio-Pharma

*Species difference problem on DDS formulation design and the established commission for the solution*

**11:25 AM-12:00 PM— John Patton**

Aerami Therapeutics

*So, you want to do a drug delivery company? Some stuff I've learned – Yikes!*

**AFTERNOON UNSCHEDULED**

**EVENING POSTER SESSION 2**

**Discussion Leader:** Aimee Hamilton and Hiroshi Kikuchi

**7:30 PM Oral Presentation of Posters - Selected from Poster Session #2**

**Refreshment Break: 8:30 PM**

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

***THANK YOU FOR PARTICIPATING -  
WE HOPE TO SEE YOU AGAIN AT  
THE 16<sup>th</sup> SYMPOSIUM IN 2021***