Wednesday, December 6, 2023
Perelman School of Medicine, University of Pennsylvania
Biomedical Research Building, Gaulton Auditorium and Lobby
421 Curie Boulevard, Philadelphia, PA 19104

“Entering the Nobel Era of Nanomedicine”

8:15- 8:45 a.m.  Registration and Breakfast  
Gaulton Lobby

8:45- 8:55 a.m.  Welcome  
Andrew Tsourkas, PhD, Co-Director, CT³N and Chemical and Nanoparticle Synthesis Core; Professor of Bioengineering, School of Engineering and Applied Science, University of Pennsylvania  
Gaulton Auditorium

8:55- 9:05 a.m.  Introduction  
Garret FitzGerald, MD, FRS, Professor of Medicine and Pharmacology, McNeil Professor in Translational Medicine and Therapeutics, Director, Institute for Translational Medicine & Therapeutics, Perelman School of Medicine, University of Pennsylvania

Session I  

Keynote Lecture  
Session Chair: Hamideh Parhiz, PharmD, PhD, Research Assistant Professor of Medicine, Department of Medicine, University of Pennsylvania

9:05am- 9:55 a.m.  Lipid Nanoparticles for mRNA Delivery to the Pancreas  
Kathryn Whitehead, PhD, Professor, Departments of Chemical and Biomedical Engineering, Carnegie Mellon University

Session II  

A Breath of Fresh Nano-Air: Inhaled Delivery  
Session Chair: Jake Brenner, MD, PhD, Assistant Professor & Attending Physician Depts of Medicine and Pharmacology, University of Pennsylvania
9:55-10:30 a.m.  **Designing Inhalable Nanoparticles to Direct Innate Immune Cell Responses in The Lung**  
**Catherine Fromen, PhD**, Associate Professor, Chemical and Biomolecular Engineering, University of Delaware

10:30-11:05 a.m.  **Dual Functions of NanoSTING@Mn to Enhance Protective Immunity Against Heterosubtypic Influenza Viruses in Aging Mice**  
**Mei x. Wu, MD, PhD**, The Wellman Center for Photomedicine, Dermatology Department, Massachusetts General Hospital, and Harvard Medical School

11:05 – 11:25 a.m.  **Coffee Break**  
Gaulton Lobby

**Session III**  
**Delivery on Our Minds: CNS Delivery**  
*Session Chair: Patrick Glassman, PhD, Assistant Professor, School of Pharmacy, Temple University*

11:25 – 12:00 a.m.  **Hypotonic Gelling Solutions for Extended Topical Ocular Drug Delivery**  
**Laura M. Ensign-Hodges, PhD**, Marcella E. Woll Professor of Ophthalmology, Vice Chair for Research, Wilmer Eye Institute, Professor of Chemical and Biomolecular Engineering, Biomedical Engineering, Pharmacology and Molecular Sciences, Infectious Diseases, Gynecology & Obstetrics, and Oncology, Johns Hopkins Medicine

12:00 – 12:35 p.m.  **Targeted Nanomedicine for Stroke**  
**Oscar Marcos Contreras, PhD**, Assistant Professor, Department of Systems Pharmacology and Translational Therapeutics, Department of Neurology, University of Pennsylvania

12:35 – 1:15 p.m.  **Lunch Break**  
Gaulton Lobby

**Session IV**  
**A Rich Plate of Carriers: Lipid Nanocarriers Continued Ascension**  
*Session Chair: Kara L. Spiller, PhD, Professor, School of Biomedical Engineering, Science, and Health Systems, Drexel University*

1:55 – 2:30 p.m.  **The Evolution of Liposomes and Lipid Nanoparticles as Drug Carriers-Six Decades On**  
**Francis C. Szoka Jr., PhD**, Emeritus Professor of Bioengineering, Therapeutic Sciences and Pharmaceutical Chemistry University of California/San Francisco

2:30 – 3:05 p.m.  **Lipid Nanoparticles Enabled mRNA Therapeutics**  
**Yizhou Dong, PhD**, Professor, Icahn Genomics Institute, Precision Immunology Institute, Department of Oncological Sciences, Tisch Cancer Institute, Friedman Brain Institute, Icahn School of Medicine at Mount Sinai
3:05-3:40 p.m.  
**That’s Funny**  
*Tom Anchordoquy, PhD,* Professor, Skaggs School of Pharmacy and Pharmaceutical Sciences, University of Colorado Anschutz Medical Campus

3:40-4:00 p.m.  
**Coffee Break**  
Gaulton Lobby

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**Session V**  
**Keynote Lecture**  
*Session Chair: Dennis Discher, PhD, Robert D. Bent Professor, Department of Bioengineering, School of Engineering and Applied Science, University of Pennsylvania*  
Gaulton Auditorium

4:00-4:50 p.m.  
**Rational Design of Lipid Nanoparticles for Enabling Gene Therapies**  
*Pieter Cullis, PhD,* Professor, Department of Biochemistry and Molecular Biology, University of British Columbia

4:50-5:00 p.m.  
**Closing Remarks**  
*John Wherry, PhD,* Chair, Department of Systems Pharmacology & Translational Therapeutics, Richard and Barbara Schiffrin President’s Distinguished Professor, Director, Institute for Immunology, Co-Program Leader, Immunobiology Program, Abramson Cancer Center, Co-Director, Parker Institute for Cancer Immunotherapy, University of Pennsylvania  

*Vladimir Muzykantov, PhD,* Founding Co-Director of the PSOM/SEAS Center for Targeted Therapeutics and Translational Nanomedicine (CT3N), Professor of Systems Pharmacology and Translational Therapeutics, Professor of Medicine, University of Pennsylvania

5:00-6:00 p.m.  
**Reception**  
Gaulton Lobby