



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- 9:00 a.m.	Welcome Andrew Tsourkas, PhD , Co-Director, CT ³ N and Chemical and Nanoparticle Synthesis Core; Professor of Bioengineering, School of Engineering and Applied Science, University of Pennsylvania	Gaulton Auditorium
9:00- 9:05a.m.	Introduction Jake Brenner, MD, PhD , Assistant Professor & Attending Physician, Departments of Medicine and Pharmacology, University of Pennsylvania	
Session I Keynote Lecture <i>Session Chair: Hamideh Parhiz, PharmD, PhD, Research Assistant Professor of Medicine, Department of Medicine, University of Pennsylvania</i>		
9:05- 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 <i>Session Chair: Jake Brenner, MD, PhD, Assistant Professor & Attending Physician, Departments of Medicine and Pharmacology, University of Pennsylvania</i>		
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.	<i>Dual Functions of NanoSTING@Mn to Enhance Protective Immunity Against Heterosubtypic Influenza Viruses in Aging Mice</i> 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
<u>Session III</u>	<u>Delivery on Our Minds: CNS Delivery</u> <i>Session Chair: Patrick Glassman, PhD, Assistant Professor, School of Pharmacy, Temple University</i>	Gaulton Auditorium
11:25- 12:00 p.m.	<i>Hypotonic Gelling Solutions for Extended Topical Ocular Drug Delivery</i> 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.	<i>Targeted Nanomedicine for Stroke</i> Oscar Marcos Contreras, PhD , Assistant Professor, Department of Systems Pharmacology and Translational Therapeutics, Department of Neurology, University of Pennsylvania	
12:35- 1:55 p.m.	Lunch Break	Gaulton Lobby
<u>Session IV</u>	<u>A Rich Plate of Carriers: Lipid Nanocarriers' Continued Ascension</u> <i>Session Chair: Kara L. Spiller, PhD, Professor, School of Biomedical Engineering, Science, and Health Systems, Drexel University</i>	Gaulton Auditorium
1:55- 2:30 p.m.	<i>The Evolution of Liposomes and Lipid Nanoparticles as Drug Carriers - Six Decades On</i> 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.	<i>Lipid Nanoparticles Enabled mRNA Therapeutics</i> 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.	<i>That's Funny</i> 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

Session V

Keynote Lecture

Gaulton Auditorium

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

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

E. 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

Jake Brenner, MD, PhD, Assistant Professor & Attending Physician, Departments of Medicine and Pharmacology, University of Pennsylvania

5:00- 6:00 p.m.

Reception

Gaulton Lobby