Wednesday, December 8, 2021
Perelman School of Medicine, University of Pennsylvania

Free Virtual Event – Register Here

“Nanomedicine and the Immune System”

8:30-8:35 a.m. Welcome
Andrew Tsourkas, PhD, CT³N Co-Director, Chemical and Nanoparticle Synthesis Core, Professor of Bioengineering and Radiology, School of Engineering and Applied Science, University of Pennsylvania

8:35-8:45 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: Dennis E. Discher, PhD, Robert D. Bent chaired Professor, Director of NCI Phys Sci Oncology Ctr @ Penn, Biophys Eng’g Labs: Mol.Cell Biophys & NanoBio-Polymers, University of Pennsylvania

8:45-9:35 a.m. New Strategies for Harnessing the Immune System to Treat Cancers
Philip S. Low, PhD, Presidential Scholar for Purdue Institute for Drug Discovery Ralph C. Corley Distinguished Professor of Chemistry Purdue University

Session II
Session Chair: David Cormode, DPhil, Associate Professor, Radiology Department, Perelman School of Medicine, University of Pennsylvania

9:35-10:10 a.m. Engineering the Bio/Nano Interface for Enhanced Nano-Immunotherapy
Evan A. Scott, PhD, Kay Davis Professor of Biomedical Engineering & Microbiology immunology, Department of Biomedical Engineering, Department of Microbiology-Immunology, Interdisciplinary Biological Sciences, Chemistry of Life Processes Institute, Simpson Querrey Institute, International Institute of Nanotechnology, Institute for Global Health, Robert H. Lurie Comprehensive Cancer Center, Northwestern University
10:10- 10:45 a.m.  
**Biomaterials-Aided Combination Immunotherapy**

Natalie Artzi, PhD, Assistant Professor of Medicine, Brigham and Women’s Hospital, Harvard University; Principal Research Scientist, Massachusetts Institute of Technology

10:45 - 11:00 a.m.  
**Break**

**Session III**  
Session Chair: Jake Brenner, MD, PhD, Assistant Professor & Attending Physician Depts of Medicine and Pharmacology, University of Pennsylvania

11:00- 11:35 a.m.  
**Immunotherapeutic Drug Delivery to Lymph Nodes Augments Cancer Immunotherapy**

Susan Thomas, PhD, Associate Professor, George W. Woodruff School of Mechanical Engineering, Associate Director, Integrated Cancer Research Center, Georgia Institute of Technology

11:35- 12:10 p.m.  
**Engineering Strategies to Modulate the Gut Microbiome and Immune System**

James Moon, PhD, John Gideon Searle Professor, Department of Pharmaceutical Sciences, Department of Biomedical Engineering, University of Michigan

12:10- 1:10 p.m.  
**Lunch Break**

**Session IV**  
**UPENN Keynote Lecture**

Session Chair: Michael J. Mitchell, PhD, Skirkanich Assistant Professor of Innovation, Department of Bioengineering, School of Engineering and Applied Science, University of Pennsylvania

1:10- 2:00 p.m.  
“Nucleoside-Modified mRNA-LNP Targeted Therapies”

Drew Weissman, MD, PhD, Roberts Family Professor in Vaccine Research, Perelman School of Medicine, University of Pennsylvania

**Session V**  
Session Chair: E. John Wherry, PhD, Richard and Barbara Schiffrin President’s Distinguished Professor Chair, Department of Systems Pharmacology and Translational Therapeutics Director, Institute for Immunology, University of Pennsylvania

2:00- 2:35 p.m.  
**The Use of Targeted mRNA-Lipid Nanoparticles in the Context of Acute Inflammatory Conditions**

Hamideh Parhiz, PhD, Research Assistant Professor of Medicine, Infectious Disease Division, Perelman School of Medicine, University of Pennsylvania

2:35- 3:10 p.m.  
**Harnessing The Neonatal Fc Receptor to Enhance Pharmacokinetics of Biotherapeutics**

Patrick Glassman, PhD, Research Associate, Department of Systems Pharmacology and Translational Therapeutics, Perelman School of Medicine, University of Pennsylvania

3:10- 3:25 p.m.  
**Break**

**Session VI**  
**Keynote Lecture**

Session Chair: Hans Huber, PhD, Adjunct Professor of Systems Pharmacology and Translational Therapeutics, Associate Director, CT²N, Perelman School of Medicine, University of Pennsylvania
3:25- 4:15 p.m.  *Exploiting Tumor Lymphangiogenesis for Cancer Immunotherapy*

**Melody A. Swartz, PhD,** William B. Ogden Professor of Molecular Engineering, Pritzker School of Molecular Engineering and Ben May Department for Cancer Research, Vice Dean for Faculty Affairs, University of Chicago

4:15- 4:25p.m.  **Closing Remarks**

**Vladimir Muzykantov, PhD,** Founding Co-Director of the PSOM/SEAS Center for Targeted Therapeutics and Translational Nanomedicine (CT^3N), Professor of Systems Pharmacology and Translational Therapeutics, Professor of Medicine, University of Pennsylvania