



**Wednesday, December 8, 2021**

**Perelman School of Medicine, University of Pennsylvania**

**Free Virtual Event – [Register Here](#)**

## **“Nanomedicine and the Immune System”**

**8:30- 8:35a.m.**

### **Welcome**

**Andrew Tsourkas, PhD**, CT<sup>3</sup>N Co-Director, Chemical and Nanoparticle Synthesis Core, Professor of Bioengineering and Radiology, School of Engineering and Applied Science, University of Pennsylvania

**8:35- 8:45a.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.**

### ***Ligand-Targeted Imaging and Therapeutic Agents for Cancer, Autoimmune and Infectious Diseases***

**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

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|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:10- 10:45 a.m.         | <b><i>Biomaterials-Aided Combination Immunotherapy</i></b><br><b>Natalie Artzi, PhD</b> , Assistant Professor of Medicine, Brigham and Women's Hospital, Harvard University; Principal Research Scientist, Massachusetts Institute of Technology                                          |
| 10:45 - 11:00 a.m.        | <b>Break</b>                                                                                                                                                                                                                                                                              |
| <b><u>Session III</u></b> | <i>Session Chair: Jake Brenner, MD, PhD, Assistant Professor &amp; Attending Physician Depts of Medicine and Pharmacology, University of Pennsylvania</i>                                                                                                                                 |
| 11:00- 11:35 a.m.         | <b><i>Immunotherapeutic Drug Delivery to Lymph Nodes Augments Cancer Immunotherapy</i></b><br><b>Susan Thomas, PhD</b> , 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.         | <b><i>Engineering Strategies to Modulate the Gut Microbiome and Immune System</i></b><br><b>James Moon, PhD</b> , John Gideon Searle Professor, Department of Pharmaceutical Sciences, Department of Biomedical Engineering, University of Michigan                                       |
| 12:10- 1:10 p.m.          | <b>Lunch Break</b>                                                                                                                                                                                                                                                                        |
| <b><u>Session IV</u></b>  | <b><u>UPENN Keynote Lecture</u></b><br><i>Session Chair: Michael J. Mitchell, PhD, Skirkanich Assistant Professor of Innovation, Department of Bioengineering, School of Engineering and Applied Science, University of Pennsylvania</i>                                                  |
| 1:10- 2:00 p.m.           | <b><i>“Nucleoside-Modified mRNA-LNP Targeted Therapies”</i></b><br><b>Drew Weissman, MD, PhD</b> , Roberts Family Professor in Vaccine Research, Perelman School of Medicine, University of Pennsylvania                                                                                  |
| <b><u>Session V</u></b>   | <i>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</i>                                      |
| 2:00- 2:35 p.m.           | <b><i>The Use of Targeted mRNA-Lipid Nanoparticles in the Context of Acute Inflammatory Conditions</i></b><br><b>Hamideh Parhiz, PhD</b> , Research Assistant Professor of Medicine, Infectious Disease Division, Perelman School of Medicine, University of Pennsylvania                 |
| 2:35- 3:10 p.m.           | <b><i>Harnessing The Neonatal Fc Receptor to Enhance Pharmacokinetics of Biotherapeutics</i></b><br><b>Patrick Glassman, PhD</b> , Research Associate, Department of Systems Pharmacology and Translational Therapeutics, Perelman School of Medicine, University of Pennsylvania         |
| 3:10- 3:25 p.m.           | <b>Break</b>                                                                                                                                                                                                                                                                              |
| <b><u>Session VI</u></b>  | <b><u>Keynote Lecture</u></b><br><i>Session Chair: Hans Huber, PhD, Adjunct Professor of Systems Pharmacology and Translational Therapeutics, Associate Director, CT<sup>3</sup>N, Perelman School of Medicine, University of Pennsylvania</i>                                            |

3:25- 4:15 p.m.

***Title to be Announced***

**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<sup>3</sup>N), Professor of Systems Pharmacology and Translational Therapeutics, Professor of Medicine, University of Pennsylvania