Center for Targeted Therapeutics and Translational Nanomedicine
11th Annual CT³N Symposium 2022

Perelman School of Medicine, University of Pennsylvania | ITMAT Institute for Translational Medicine and Therapeutics | Penn Engineering, University of Pennsylvania

Wednesday, December 7, 2022

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

"Engineering Biological Carriers for Targeted Delivery of Therapeutics"

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
Session I	**Keynote Lecture** *Session Chair:* ***Hamideh Parhiz, PharmD, PhD,*** *Research Assistant Professor of Medicine, Department of Medicine, University of Pennsylvania*	
8:55am- 9:45 a.m.	***Designing Bioengineering Approaches for Biosensing and Therapeutics*** **Molly Stevens, PhD**, Professor of Biomedical Materials and Regenerative Medicine, Department of Bioengineering and Department of Materials, Imperial College London	
Session II	**Drug Delivery by Anucleated Cells** *Session Chair:* ***Theresa Busch, PhD,*** *Research Professor of Radiation Oncology, Department of Radiation Oncology, University of Pennsylvania*	
9:45- 10:20 a.m.	***Cargocytes: A Next Generation Biomimetic Drug Delivery Platform*** **Richard Klemke, PhD,** Professor of Pathology and Cancer Biology, Department of Pathology and Moores Cancer Center; Director, Cancer Imaging Network and Proteomics Center of Excellence; University of California, San Diego	

10:20- 10:55 a.m.	***Engineering Red Blood Cells with New Metabolic Pathways for the Treatment of Rare Diseases*** **Mauro Magnani, PhD,** Professor of Biochemistry and Dean, Department of Biomolecular Sciences, University of Urbino Carlo Bo, Italy	
10:55 - 11:20 a.m.	**Coffee Break**	Gaulton Lobby
Session III	**New Developments in Cellular Therapies** *Session Chair:* ***David Cormode, PhD,*** *Associate Professor of Radiology, Department of Radiology, University of Pennsylvania*	Gaulton Auditorium
11:20- 11:55 a.m.	***Engineering Enhanced Adoptive T Cell Therapy*** **Leyuan Ma, PhD,** Assistant Professor, Department of Pathology and Laboratory Medicine, University of Pennsylvania, The Raymond G. Perelman Center for Cellular and Molecular Therapeutics, Children's Hospital of Philadelphia	
11:55- 12:30 p.m.	***RNA-Engineered Cell Therapies for Treatment of Autoimmune Disease*** **Michael Singer, MD, PhD,** Chief Scientific Officer, Cartesian Therapeutics, Gaithersburg, Adjunct Assistant Professor of Medicine and Entrepreneur-in-Residence, Yale University	
12:30- 1:50 p.m.	**Lunch Break**	Gaulton Lobby
Session IV	**Targeted Interventions in Complex Biological Settings** *Session Chair:* ***Marc A. Ilies, PhD****, Professor, School of Pharmacy, Temple University*	Gaulton Auditorium
1:50- 2:25 p.m.	***Drug Delivery for Heart and Lung Repair*** **Ke Cheng, PhD,** Randall B. Terry, Jr. Distinguished Professor in Regenerative Medicine, Department of Molecular Biomedical Sciences and Department of Biomedical Engineering, Division of Molecular Pharmaceutics, UNC-Chapel Hill & NC State University	
2:25- 3:00 p.m.	***Imaging and Controlling Genetic Medicines*** **Mark Sellmyer, MD, PhD,** Assistant Professor, Department of Radiology and Department of Biochemistry and Biophysics; Co-Director, The Center for Translational Chemical Biology, Abramson Cancer Center, Radiobiology and Imaging Program, University of Pennsylvania	
3:00- 3:35 p.m.	***Bioengineering Strategies to Target Traumatic Brain Injury*** **Sarah E. Stabenfeldt, PhD,** Associate Professor and Associate Director, School of Biological and Health Systems Engineering, Arizona State University	

3:35- 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. ***Nanoparticle Delivery to Solid Tumors***
Warren Chan, PhD, Distinguished Professor of Nanobioengineering, Canada Research Chair in Nanobioengineering, and Director, Institute of Biomedical Engineering, University of Toronto, Canada

4:50- 5:00 p.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

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