

Center for Targeted Therapeutics and

Translational Nanomedicine

CT³N Symposium 2018







Gaulton Auditorium

Wednesday, December 5, 2018 Perelman School of Medicine, University of Pennsylvania Biomedical Research Building, Gaulton Auditorium and Lobby 421 Curie Boulevard, Philadelphia, PA 19104

Wednesday December 5, 2018

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

8:45-9:00 a.m. **Welcome & Introduction**

> Andrew Tsourkas, PhD, CT³N Co-Director, Co-Director, Chemical and Nanoparticle Synthesis Core, Professor of Bioengineering and Radiology, School of Engineering and Applied Science,

University of Pennsylvania

Session I: Keynote Lecture

Session Chair: Andrew Tsourkas, PhD

9:00-9:50 a.m. Rational Vaccinology: In Pursuit of the Perfect Vaccine

> Chad Mirkin, PhD, George B. Rathmann Professor of Chemistry and Director, International Institute for Nanotechnology,

Northwestern University

Immune Response Engineering and Therapy Session II:

> Session Chair: Theresa M. Busch, PhD, CT³N Advisory Board Member, Research Professor of Radiation Oncology, Perelman

School of Medicine, University of Pennsylvania

9:50- 10:20 a.m. **Engineering Nanotechnology for Immuno-Oncology:**

Harnessing Innate Immunity to Enhance Cancer

Immunotherapy

John T. Wilson, PhD, Assistant Professor of Chemical and

Biomolecular Engineering, Vanderbilt University

10:20- 10:50 a.m.	Dual-Function Oligonucleotides for Immunotherapy of "Cold" Prostate Cancers	
	Marcin Kortylewski, PhD, Associate Professor of Immuno- Oncology, City of Hope	
10:50- 11:05 a.m.	Coffee Break	Gaulton Lobby
Session III	Tissue Targeting and Engineering Session Chair: Hans E. Huber, PhD, Associate Director of CT ³ N, Adjunct Associate Professor of Pharmacology, Perelman School of Medicine, University of Pennsylvania	Gaulton Auditorium
11:05- 11:35 a.m.	Oligonucleotide Therapeutics: Now on Target	
	Arthur A. Levin, PhD , Executive Vice President of Research and Development, Avidity Biosciences	
11:35- 12:05 p.m.	There's Plenty of Room in the Belly: Efficient Cell Targeting in Visceral Tissues	
	Andrew M. Smith, PhD , Associate Professor of Bioengineering and Associate Head of Undergraduate Programs, University of Illinois at Urbana-Champaign	
12:05- 12:35 p.m.	Non-Genetic Engineering of Cell-Cell Interactions with Protein Nanorings	
	Carston R. Wagner, PhD , Professor and Endowed Chair in Medicinal Chemistry, University of Minnesota	
12:35- 1:50 p.m.	Lunch, Poster Viewing, and Networking	Gaulton Lobby
Session IV	<u>Drug Delivery Vehicles and Devices</u> Session Chair: Michael Chorny, PhD, Associate Director of CT ³ N, Research Associate Professor of Pediatrics, Children's Hospital of Philadelphia	Gaulton Auditorium
1:50- 2:20 p.m.	Long-Acting Implants: Design for Durable Drug Delivery	
	Seth Forster, MS , Associate Principal Scientist, Merck Research Laboratories	
2:20- 2:50 p.m.	Design and Development Synthetic High Density Lipoprotein Nanomedicines	
	Anna Schwendeman, PhD, Assistant Professor of Pharmaceutical Sciences, Biointerfaces Institute, College of Pharmacy, University of Michigan	

2:50- 3:20 p.m.	Using Blood-Brain Barrier Characteristics to Target the CNS: An Emphasis on Exosomes	
	William A. Banks, MD, FACE, Professor, Division of Gerontology and Geriatric Medicine, Department of Internal Medicine, University of Washington and Associate Chief of Staff, Research and Development, Puget Sound VA	
3:20- 3:35 p.m.	Coffee Break	Gaulton Lobby
3:35- 4:05 p.m.	Utilizing miRNA-enriched MSC Exosomes for Cardiac Regeneration: An Activity-Composition Analysis	Gaulton Auditorium
	Juliane Nguyen, Pharm D, PhD , Assistant Professor, Department of Pharmaceutical Sciences, School of Pharmacy, University at Buffalo	
Session V	Keynote Lecture Session Chair: Vladimir Muzykantov, MD, PhD, Co-Director, CT³N, Professor of Pharmacology and Medicine, Vice-Chair of Faculty Development, Department of Pharmacology, Perelman School of Medicine, University of Pennsylvania	
4:05- 4:55 p.m.	Developing T-Cell Therapy for the Masses	
	Matthias Stephan, MD, PhD , Associate Member, Program in Immunology, Clinical Research Division, Fred Hutchinson Cancer Research Center	
4:55- 5:00 p.m.	Closing Remarks Vladimir Muzykantov, MD, PhD	
5:00- 6:00 p.m.	Reception	Gaulton Lobby