





## Wednesday, December 4, 2019

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

## Wednesday December 4, 2019

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

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

**Andrew Tsourkas, PhD**, CT<sup>3</sup>N 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: Vladimir Muzykantov, MD, PhD, Co-Director, CT<sup>3</sup>N, Professor of Pharmacology and Medicine, Vice-Chair of Faculty Development, Department of Pharmacology, Perelman School of

Medicine, University of Pennsylvania

9:00- 9:50 a.m. Discovery and Translation of the Cell Membrane Coating

Nanotechnology

**Liangfang Zhang, PhD**, Professor of Nanoengineering, Bioengineering, and Chemical Engineering, University of

California San Diego

Session II	<u>Cell-Derived Drug Delivery Technologies</u> Session Chair: Kara L. Spiller, PhD, Associate Professor, School of Biomedical Engineering, Science, and Health Systems, Drexel University	
9:50- 10:25 a.m.	Trojan Horses of the 21 <sup>st</sup> Century: Targeted Delivery of Therapeutics in Macrophages to the Brain	
	Elena Batrakova, PhD, Associate Professor, Center for Nanotechnology in Drug Delivery Division of Pharmacoengineering & Molecular Pharmaceutics, University of North Carolina at Chapel Hill	
10:25- 11:00 a.m.	Extracellular Vesicles for Therapeutic and Diagnostic Use	
	<b>Joy Wolfram, PhD,</b> Assistant Professor of Medicine, Mayo Clinic Florida	
11:00 - 11:15 a.m.	Coffee Break	Gaulton Lobby
Session III	Biomaterials and Nanocarriers Session Chair: Michael Chorny, PhD, Associate Director of CT <sup>3</sup> N, Research Associate Professor of Pediatrics, Children's Hospital of Philadelphia	Gaulton Auditorium
11:15- 11:50 a.m.	Nanotechnology Law for Commercialization of Nano-Enabled Products	
	Ilise Feitshans, JD, ScM, DIR, Fellow in International Law of Nanotechnology, European Scientific Institute, Archamps Technopole, University of Grenoble	
11:50- 12:25 p.m.	Designing Compatibility: Polymer Nanomaterials for the Treatment of Soft Tissue Diseases	
	<b>Thomas Dziubla, PhD</b> , Professor and Chair, Department of Chemical and Materials Engineering, University of Kentucky	
12:25- 1:00 p.m.	Nanoparticle Design for Targeting to Caveolae and Neutrophils	
	<b>Jacob Myerson, PhD,</b> Research Associate, Department of Pharmacology, University of Pennsylvania	
1:00- 2:15 p.m.	Lunch, Poster Viewing, and Networking	Gaulton Lobby

Session IV	Antibody Therapeutics and Engineering Session Chair: Hans E. Huber, PhD, Associate Director of CT <sup>3</sup> N, Adjunct Professor of Pharmacology, Perelman School of Medicine, University of Pennsylvania	Gaulton Auditorium
2:15- 2:50 p.m.	Drug-like Antibodies by Design and Directed Evolution	
	<b>Peter M. Tessier, PhD,</b> Albert M. Mattocks Professor, Departments of Pharmaceutical Sciences, Chemical Engineering and Biomedical Engineering, Biointerfaces Institute, University of Michigan	
2:50- 3:25 p.m.	The Use of Virus-like Particles to Isolate Highly Specific Claudin 6 Antibodies for Targeting Solid Tumors	
	<b>Benjamin Doranz, PhD, MBA</b> , President and CEO, Integral Molecular, Philadelphia	
3:25- 4:00 p.m.	Targeting Tumor Metastasis with Engineered Multispecific Antibodies	
	Jamie Spangler, PhD, Assistant Professor, Biomedical and Chemical & Biomolecular Engineering, Johns Hopkins University	
4:00- 4:15 p.m.	Coffee Break	Gaulton Lobby
Session V	Keynote Lecture Session Chair: Andrew Tsourkas, PhD	Gaulton Auditorium
4:15- 5:05 p.m.	Using Fluorescence Microscopy to Inform the Design of Antibody-Based Therapeutics	
	Sally Ward, PhD, Professor, Department of Microbial Pathogenesis & Immunology, University of Southampton (UK) and Texas A&M University Health Science Center	
5:05- 5:10 p.m.	Closing Remarks Vladimir Muzykantov, MD, PhD	
5:10 – 6:10 p.m.	Reception	Gaulton Lobby