

Medicine

## Tuesday, December 6, 2016 **Perelman School of Medicine University of Pennsylvania Biomedical Research Building, Gaulton Auditorium and Lobby** 421 Curie Boulevard, Philadelphia, PA 19104

and Therapeutics

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8:15-8:45 a.m.	Registration and Breakfast	Gaulton Lobby
8:45-9:00 a.m.	Welcome & Introduction Andrew Tsourkas, Ph.D., CT <sup>3</sup> N Co-Director, Professor of Bioengineering and Radiology, University of Pennsylvania	Gaulton Auditorium
<u>Session I:</u>	<u>Keynote Lecture</u> Session Chair: Hans E. Huber, Ph.D., CT <sup>3</sup> N Associate Director, Adjunct Associate Professor of Systems Pharmacology and Translational Therapeutics, University of Pennsylvania	
9:00- 9:50 a.m.	Solving Drug Delivery Problems by Genetically Engineered Nanoparticles	
	Ashutosh Chilkoti, Ph.D., Alan L. Kaganov Professor and Chair, Department of Biomedical Engineering, Duke University	
9:50- 10:00 a.m.	COFFEE BREAK	Gaulton Lobby
Session II:	<u>Multidisciplinary Aspects of Drug Carriers</u> Session Chair: Michael Chorny, Ph.D., CT <sup>3</sup> N Associate Director, Research Associate Professor of Pediatrics, Division of Cardiology of Children's Hospital of Philadelphia	Gaulton Auditorium
10:00-10:30 a.m.	Nano/Meso-Scale Principles and Applications with Flexibility: From Delivery and Self-Recognition to Differentiation	
	<b>Dennis E. Discher, Ph.D.,</b> Robert D. Bent Chaired Professor, Director of the National Cancer Institute Physical Science Oncology Center, Professor of Chemical and Biomolecular Engineering, Bioengineering, and Mechanical Engineering and Applied Mathematics, University of Pennsylvania	

10:30-11:00 a.m.	Orchestrating the Immune Response using Modular Nanomaterials for Autoimmune and Cancer Immunotherapy	
11:00-11:30 a.m.	<b>Tarek Fahmy, Ph.D.,</b> Associate Professor of Biomedical Engineering, Chemical and Environmental Engineering, and Immunobiology, Yale University <i>Gold Nanotheranostics</i>	
	Xiaoyuan (Shawn) Chen, Ph.D., Senior Investigator, Chief, Laboratory of Molecular Imaging and Nanomedicine (LOMIN), National Institute of Biomedical Imaging and Bioengineering (NIBIB), National Institutes of Health (NIH)	
11:30- 12:00 p.m.	IVIVC in Transdermal Drug Delivery: Academic Bench to Clinical Trials	
	Audra Stinchcomb, Ph.D., Professor of Pharmaceutical Sciences, School of Pharmacy, University of Maryland	
12:00- 1:00 p.m.	Lunch, Poster Session and Competition Prizes for Trainees: First Prize - \$300; Second Prize- \$200; Third Prize- \$100	Gaulton Lobby
	Organizers: Drs. Michael Chorny and Hans Huber	
Session III:	<u>Biological and Biomimetic Approaches</u> Session Chair: Theresa Busch, Ph.D., Research Professor of Radiation Oncology, University of Pennsylvania	Gaulton Auditorium
1:00 – 1:30 p.m.	Nanomedicine for Cancer Immunotherapy: Tracking Cancer- Specific T-cells in vivo	
	<b>Rachela Popovtzer, Ph.D.,</b> Associate Professor of Engineering and the Institute of Nanotechnology and Advanced Materials, Bar-Ilan University, Israel	
1:30- 2:00 p.m.	Rapid Functionalization of Antibodies using the Meditope Technology	
	John Williams, Ph.D., Associate Professor, Department of Molecular Medicine, Director, X-Ray Crystallography Core, City of Hope	
2:00- 2:30 p.m.	Therapeutic Modification of Tumor Microenvironment to Boost Drug Delivery	
	Jayanth Panyam, Ph.D., Professor and Head of the Department of Pharmaceutics, University of Minnesota	

2:30- 3:00 p.m.	Complement Activation and Immune Recognition of Superparamagnetic Iron Oxides (SPIO) in Mice and Humans	
	<b>Dmitri Simberg, Ph.D.,</b> Assistant Professor, Department of Pharmaceutical Sciences, The Skaggs School of Pharmacy, University of Colorado Anshutz Medical Campus	
3:00- 3:10 p.m.	COFFEE BREAK	Gaulton Lobby
3:10- 3:40 p.m.	Targeting Personalized Nanomedicine to the Tumor Microenvironment	Gaulton Auditorium
	<b>Daniel A. Heller, Ph.D.,</b> Assistant Member in the Molecular Pharmacology Program and the Center for Molecular Imaging and Nanotechnology, Memorial Sloan-Kettering Cancer Center, Assistant Professor, Department of Pharmacology, Weill Cornell Medical College, Cornell University	
3:40- 4:10 p.m.	Unnatural Amino Acid Modifications to Probe and Control Protein Stability	
	E. James Petersson, Ph.D., Associate Professor of Chemistry, University of Pennsylvania	
Session IV:	<u>Keynote Lecture</u> Session Chair: David Eckmann, Ph.D., M.D., Professor of Anesthesiology and Critical Care and Bioengineering, University of Pennsylvania	
4:10- 5:00 p.m.	Genetic Control of Molecular and Materials Assembly	
	David A. Tirrell, Ph.D., Ross McCollum-William H. Corcoran Professor of Chemistry and Chemical Engineering, and Director of the Beckman Institute, California Institute of Technology	
5:00- 5:20 p.m.	<b>Poster Awards Presentation</b> Michael Chorny, Ph.D., and Hans Huber, Ph.D., CT <sup>3</sup> N Associate Directors	
5:20- 5:30 p.m.	<b>Closing Remarks</b> Vladimir Muzykantov, M.D., Ph.D., CT <sup>3</sup> N Co-Director, Professor of Systems Pharmacology and Translational Therapeutics and Medicine, University of Pennsylvania	
5:30- 6:30 p.m.	Reception	Gaulton Lobby