

2nd Annual Drexel Immune Modulation and Engineering Symposium (IMES)

November 11-13, 2020

[Virtual via CVENT Event Hub](#)

Day 1: Wednesday, November 11, 2020 (+4 UTC)	
8:50-9:00 EST	WELCOME: KARA SPILLER, PhD (Drexel University)
9:00-9:50 EST	SESSION I: Infectious Diseases and Vaccines I MODERATOR: MICHELE KUTZLER, PhD (Drexel University) <ul style="list-style-type: none">• Plenary Speaker: Ted M. Ross, PhD – <i>Consensus-based prophylactic approaches to effectively prevent influenza infections</i> (Director of the Center for Vaccines and Immunology and Georgia Research Alliance Eminent Scholar, Professor of Infectious Diseases, University of Georgia)
9:50-10:00 EST	BREAK
10:00-11:00 EST	SESSION II: Infectious Diseases and Vaccines II MODERATOR: EBONY GARY, PhD (Wistar Institute) <ul style="list-style-type: none">• Drew Weissman, MD, PhD – <i>mRNA vaccines for influenza, HSV</i> (Co-director, Penn Center for AIDS Research, Immunology Core, University of Pennsylvania)• Ami Patel, PhD – <i>Synthetic DNA vaccines against emerging infectious diseases</i> (Research Assistant Professor, Wistar Institute)• Xun Sun, PhD – <i>Delivering mucosal vaccines against infectious diseases</i> (Professor of Pharmaceutics, Sichuan University)
11:00-11:20 EST	PANEL DISCUSSION
11:20-1:00 EST	BREAK
1:00-2:00 EST	SESSION III: Development of Immunotherapies MODERATOR: MICHELE KUTZLER, PhD (Drexel University) <ul style="list-style-type: none">• Paula Oliver, PhD – <i>Cullin ligases that regulate immune cell function</i> (Co-chief, Division of Protective Immunity, Children's Hospital of Philadelphia)• Eric Appel, PhD – <i>Sustained delivery technologies for improving humoral immune responses to vaccines</i> (Assistant Professor, Materials Science and Engineering, Stanford University)• Kristy Ainslie, PhD – <i>Influence of particle degradation rates on optimization of universal influenza vaccines</i> (Professor, School of Pharmacy, University of North Carolina, Chapel Hill)
2:00-2:20 EST	PANEL DISCUSSION

2:20-2:40 EST	BREAK
2:40-3:40 EST	SESSION IV: Immune-microbiota interactions MODERATOR: SONIA NAVAS MARTIN, PhD (Drexel University) <ul style="list-style-type: none"> • Edward M. Behrens, MD – <i>Pathogenesis and treatment of cytokine storm syndromes.</i> (Chief, Division of Rheumatology, Children's Hospital of Philadelphia) • Alison Carey, MD – <i>Modulating the developing lung microbiome to improve the infant response to respiratory viruses</i> (Associate Professor of Pediatrics, Drexel University College of Medicine, St. Christopher's Hospital for Children) • Chengcheng Jin, PhD – <i>Immune-microbiota interactions in lung cancer.</i> (Assistant Professor, Department of Cancer Biology, University of Pennsylvania)
3:40-4:00 EST	PANEL DISCUSSION
4:00 EST	DAY 1 CLOSING REMARKS: MICHELE KUTZLER, PhD (Drexel University)
4:00-5:30 EST	POSTER LIVE Q&A SESSIONS: Number 1 - 19

Day 2: Thursday, November 12, 2020 (+4 UTC)	
9:00-9:50 EST	SESSION V: Cancer Immunotherapies I MODERATOR: HAO CHENG, PhD (Drexel University) <ul style="list-style-type: none"> • Plenary Speaker: Darrell Irvine, PhD – <i>Vaccine boosting natural and synthetic T cells for cancer immunotherapy</i> (Professor of Biological Engineering, Massachusetts Institute of Technology)
9:50-10:00 EST	BREAK
10:00-11:00 EST	SESSION VI: Cancer Immunotherapies II MODERATOR: YIZHOU DONG, PhD (Ohio State University) <ul style="list-style-type: none"> • Zhen Gu, PhD – <i>Platelet-derived immunotherapeutics</i> (Professor of Bioengineering, Zhejiang University) • Saar Gill, MD, PhD – <i>Engineering immune cells</i> (Assistant Professor of Medicine, University of Pennsylvania) • Zhuang Liu, PhD – <i>Biomaterials to boost cancer immunotherapy</i> (Professor of Biomaterials, FUNSOM)
11:00-11:20 EST	PANEL DISCUSSION
11:20-1:00 EST	BREAK

1:00-2:00 EST	SESSION VII: Cancer Immunotherapies III MODERATOR: PIERLUIGI PORCU, MD (Sidney Kimmel Cancer Center) <ul style="list-style-type: none"> • Melody Smith, MD – <i>Impact of intestinal microbiota on CAR-T patient outcomes</i> (Assistant Member, Memorial Sloane Kettering Cancer Center) https://www.mskcc.org/research/ski/labs/members/melody-smith • Michael J. Mitchell, PhD – <i>Lipid nanoparticle-mediated mRNA delivery for CAR-T cell engineering</i> (Assistant Professor of Bioengineering, University of Pennsylvania) • Elizabeth Wayne, PhD – <i>Biomaterials targeting tumor-associated macrophages</i> (Assistant Professor of Biomedical Engineering, Carnegie Mellon University)
2:00-2:20 EST	PANEL DISCUSSION
2:20-2:40 EST	BREAK
2:40-3:40 EST	SESSION VIII: Immune Tolerance and Regulation MODERATOR: HAO CHENG, PhD (Drexel University) <ul style="list-style-type: none"> • Elias Haddad, PhD – <i>Targeting follicular helper T cells for HIV vaccines</i> (Professor of Medicine, Drexel University) • Stefania Gallucci, MD – <i>Immunostimulatory dendritic cells in autoimmunity</i> (Associate Professor of Microbiology and Immunology, Temple University) • Ben Keselowsky, PhD – <i>Tissue-Anchored Enzyme for Suppressive Metabolic Immune Engineering</i> (Professor of Biomedical Engineering, University of Florida)
3:40-4:00 EST	PANEL DISCUSSION
4:00 EST	DAY 2 CLOSING REMARKS: HAO CHENG, PhD (Drexel University)
4:00-5:30 EST	POSTER LIVE Q&A SESSIONS: Number 20 - 38

Day 3: Friday, November 13, 2020 (+4 UTC)	
9:00-9:50 EST	SESSION IX: Regenerative Medicine I MODERATOR: YINGHUI ZHONG, PhD (Drexel University) <ul style="list-style-type: none"> • Plenary Speaker: Jennifer Elisseeff, PhD – <i>Biomaterial-mediated control over immune cell interactions</i> (Professor of Biomedical Engineering, Johns Hopkins University)
9:50-10:00 EST	BREAK

10:00-11:00 EST	SESSION X: Regenerative Medicine II MODERATOR: KAITLYN SADTLER, PhD (NIBIB) <ul style="list-style-type: none"> • Jonathan Epstein, PhD – <i>Targeting cardiac fibrosis with engineered T cells</i> (Professor of Cardiovascular Research, Perelman School of Medicine, University of Pennsylvania) • Wendy Liu, PhD – <i>Controlling the inflammatory response to biomaterials</i> (Associate Professor of Biomedical Engineering, University of California, Irvine) • Anthal IPM Smits, PhD – <i>Development of regenerative scaffolds for heart valve and blood vessel engineering</i> (Assistant Professor of Biomedical Engineering, Eindhoven University of Technology)
11:00-11:20 EST	PANEL DISCUSSION
11:20-1:00 EST	BREAK
1:00-2:00 EST	SESSION XI: Neuro-Immune Modulation MODERATOR: YINGHUI ZHONG, PhD (Drexel University) <ul style="list-style-type: none"> • Lonnie Shea, PhD – <i>Immune cell reprogramming for neuro-immune modulation</i> (Professor of Biomedical Engineering, Univ. of Michigan) • Jae Lee, PhD – <i>Immunomodulation of central nervous system fibrosis</i> (Associate Professor of Neurological Surgery, The Miami Project to Cure Paralysis) • Hao Cheng, PhD – <i>PEGylation of nanomaterials enables immune tolerance for treating experimental autoimmune encephalomyelitis</i> (Associate Professor of Materials Science and Engineering, Drexel University)
2:00-2:20 EST	PANEL DISCUSSION
2:20-2:40 EST	BREAK
2:40-3:40 EST	SESSION XII: Talks selected from submitted abstracts (4 at 10min + 5min Q&A) MODERATOR: CHRIS RODELL, PhD (Drexel University) <ul style="list-style-type: none"> • Erin O'Brien – <i>The Effects of M1 Macrophage Activation on M1-to-M2 Phenotypic Switching</i> (Graduate Student, Drexel University) • Stuart Bauer – <i>Tolerogenic Artificial Antigen Presenting Cells (ToIAPCs) for Type 1 Diabetes Treatment</i> (Graduate Student, Johns Hopkins University) • Loek Eggermont, PhD – <i>Boosting Regulatory T-cell Induction with Immunoinstructive Cryogel Scaffolds</i> (Post-Doctoral Student, Northeastern University) • Fan Zhang, PhD – <i>Programming tumor-clearing macrophages with in situ gene therapy</i> (Post-Doctoral Student, Fred Hutchinson Cancer Research Center)

3:40 EST

AWARDS CEREMONY & CLOSING REMARKS: CHRIS RODELL, PhD
(Drexel University)