

## Scientific Careers Retreat

Friday, November 3, 2023, 9:30 am – 5:30 pm  
 283 Eckstein Medical Research Building (EMRB)  
 Seebohm Conference Room

**This retreat introduces the spectrum of scientific careers available in the biomedical sciences. It will showcase a panel discussing their professional experiences and career opportunities in the scientific community.**

9:30 AM	Welcome Message
9:45 AM	Lisa Ridnour, PhD (Staff Scientist, Cancer Innovation Laboratory, National Cancer Institute, National Institutes of Health)
10:15 AM	Emily Petruccelli, PhD (Assistant Professor, Southern Illinois University)
10:45 AM	Coffee Break
11:00 AM	Nori Ueno, PhD (Associate Director of Business Development, Cell and Gene Therapy, Mission Bio)
11:30 AM	Christopher Vakulskas, PhD (Senior Director, IDT Technologies)
Noon	Lunch (EMRB Atrium)
1:00 PM	Josh Powell, PhD (Scientific Review Officer, National Institutes of Health)
1:30 PM	Gabriel Starbeck-Miller, PhD (Principal Scientist, Pfizer Inc.)
2:00 PM	Break
2:15 PM	Jodi Gullicksrud, PhD (Scientific Editor, <i>Immunity</i> . Cell Press)
2:45 PM	Drew Masada (Deputy Team Chief, Office of Cooperative Threat Reduction, US Department of State)
3:15 PM	Panel Discussion
3:45 PM	Closing Remarks
4:00 PM	Social - Light Reception (EMRB Atrium)
6:00 PM	Speaker dinners with trainees and other attendees (preregistration required)

**November 3, 2023, 9:30 am – 5:30 pm**

**EMRB 283 (Seebohm)**

## **SPEAKERS**

### **Lisa Ridnour, PhD**

**Staff Scientist, Cancer Innovation Laboratory, National Cancer Institute, National Institutes of Health**

Dr. Ridnour received her PhD at the University of Iowa where she demonstrated that MnSOD tumor suppressive effects involved an imbalance in peroxide generating/metabolizing enzymes. Her post-doctoral training at Washington University identified thiol-dependent mechanisms associated with NO-induced resistance to peroxide stress. Dr. Ridnour joined Dr. David Wink's lab at NCI where she studied NO regulation of extracellular matrix biology. Her collaborations led to the discoveries of a novel biphasic crosstalk relationship between NO and the angiogenesis inhibitor TSP-1, and correlations between NOS2 and TIMP-1/MMP-9 where TIMP-1 nitration at two key tyrosine residues critical for MMP-9 inhibition was identified. Importantly, NO regulation of MMP-9/TIMP-1 balance limits breast cancer patient survival and regulates plaque clearance in Alzheimer's disease. Her current studies involve examination of NOS2/COX2 regulation of the tumor immunity where she showed that NOS inhibition improved radiation therapeutic efficacy in tumor bearing mice by limiting IL-10-mediated tumor immunosuppression. This work led to the development of spatial imaging platforms to explore tumor NOS2/COX2 immune regulation in aggressive cancers, which revealed that NOS2/COX2 blockade restores tumor immune surveillance in part through augmented M1/Th1/N1 antitumor immune responses.



**Lisa Ridnour, PhD**

### **Emily Petruccelli, PhD**

**Assistant Professor, Department of Biological Sciences, Southern Illinois University Edwardsville**

Dr. Emily Petruccelli graduated with a BS in Biology from St. Ambrose University in Davenport, Iowa, then became a research assistant in Dr. John Logsdon's lab at the University of Iowa for two years and went on to earn her PhD in Dr. Toshihiro Kitamoto's *Drosophila* neurogenetics lab at the University of Iowa. Dr. Petruccelli continued her work in flies, doing a two-year post-doc with Dr. Karla Kaun at Brown University in Providence, Rhode Island. In 2018 she began a tenure-track faculty position at Southern Illinois University Edwardsville (SIUE), near St. Louis, Missouri. The majority of Dr. Petruccelli's workload at SIUE is teaching undergraduate and master's level students in courses like Honors Seminar, Genetics, Molecular Genetics, and Bioinformatics. She also is a mentor to students seeking independent research experience her small lab (~8 people), which uses *Drosophila* to investigate the neurogenetics underlying alcohol use disorder. Students in the lab learn various techniques such as locomotor behavior assays, qRT-PCR, brain immunohistochemistry, and bioinformatic analysis of RNA-seq data. Dr. Petruccelli was previously supported by an NIH F31 during her graduate training, was provided startup funds by SIUE to establish her lab, and hopes to acquire future funding with an NIH R15 grant. Dr. Petruccelli is passionate about teaching science, hoping everyone will learn to code in R, and playing with her beagle puppy, Juniper.



**Emily Petruccelli, PhD**

## SPEAKERS

### Nori Ueno, PhD

**Associate Director of Business Development - Cell and Gene Therapy - Mission Bio**

Nori Ueno completed his doctoral research on the mechanisms of *Leishmania infantum chagasi* phagocytosis in Mary Wilson's lab and received his PhD from the Department of Microbiology in 2011. He then continued his training with Melissa Lodoen at the University of California, Irvine, studying *Toxoplasma gondii* dissemination as an American Heart Association postdoctoral fellow. He published his work in *Journal of Leukocyte Biology*, *Cellular Microbiology*, *MBio*, *Immunology and Cell Biology*, and *Nature Microbiology*. In 2016, Nori entered Thermo Fisher Scientific as an applications scientist to pursue his passion in science communication and experimental design consultation. He led a flow cytometry technical sales team during his tenure and established the organization's first diversity and inclusion educational unit. After five years with Thermo Fisher, Nori became an associate director of business development at Mission Bio, where he now supports cell and gene therapy partners accelerate product characterization using single cell genomics.



**Nori Ueno, PhD**

### Christopher Vakulskas, PhD

**Senior Director of Enzyme Development, Research and Development, Integrated DNA Technologies  
- Danaher**

Dr. Vakulskas earned his PhD in Microbiology at the University of Iowa, where he studied genetic regulatory circuits in pathogenic bacterial species. After earning his PhD, he became an NIH Postdoctoral Fellow at the University of Florida, where he studied RNA binding proteins and posttranscriptional gene regulation. At IDT, he has managed contract research projects, led process development for cGMP protein purification, and develops innovative new products in qPCR, NGS, and Genomics Medicines. His laboratory has developed market-leading CRISPR nuclease solutions for genome editing including "HiFi Cas9" (published in *Nature Medicine*), "Cas12a Ultra" (published in *Nature Communications*) and has more recently led the development of the PrimeTime™ One-Step 4X Broad-Range Master Mix diagnostics product for the detection of viral specimens absent sample extraction. His laboratory specializes in protein engineering and frequently collaborates with both academic and industrial research teams to co-publish breakthrough solutions in agriculture, human therapeutics, and diagnostics.



**Christopher Vakulskas, PhD**

### Joshua D. Powell, PhD

**Scientific Review Officer (SRO), National Institutes of Health (NIH)**

Dr. Joshua Powell received his MS in genetics and his PhD in microbiology from Oregon State University. As a molecular virologist for 19 years in academia, industry and government, his expertise spans both basic and applied research themes focused on human pathogens. At the NIH, Dr. Powell is currently a scientific review officer (SRO) that facilitates peer review within R01/R21 study sections primarily in Ames, Iowa with occasional travel to Bethesda, Maryland. Before joining NIH, Dr. Powell worked as an established scientist at the USDA National Animal Disease Center (NADC) in Ames, Iowa with research focused on spillover of influenza A virus at the swine-human interface using surveillance, in vitro and in vivo (animal) experimental approaches.



**Joshua Powell, PhD**

## SPEAKERS

### **Gabriel Starbeck-Miller, PhD**

**Senior Principal Scientist, Pfizer, Inc.**

Gabe received his PhD in Immunology at the University of Iowa in 2014. During his graduate school training, Gabe was mentored by John Harty as he studied the influence of cytokines on CD8 T cell responses. He then went on to Genentech for a postdoctoral fellowship in Andrew Chan's lab where he studied how TCR signalling can be governed differently in Th-lineage specific contexts. In 2016, Gabe joined AbbVie as a Senior Scientist where he further broadened his Immuno-Oncology expertise and drug hunting skills as he explored novel ways myeloid cells can guide anti-tumor immune responses. In 2019, Gabe joined Pfizer where he now mentors a group of PhD and non-PhD scientists as they develop new large molecule, small molecule, and mRNA-based therapies that aim to improve the immunogenicity of tumor cells and bring better outcomes to cancer patients.



**Gabriel Starbeck-Miller, PhD**

### **Jodi Gullicksrud, PhD**

**Scientific Editor *Immunity*, Cell Press**

Dr. Gullicksrud earned her PhD from the University of Iowa in 2017, where she studied the transcription factor, TCF-1, in the context of transcriptional regulation of T cell differentiation and memory formation in the laboratory of Dr. Hai-Hui Xue. Her postdoctoral research elucidating the facets involved in effective immune responses to the intestinal parasite, *Cryptosporidium*, was performed under the joint mentorship of Dr. Chris Hunter and Dr. Boris Striepen at the University of Pennsylvania. She joined the editorial staff at *Immunity* in 2020, where she handles many of the papers related to mucosal immunology and the microbiome, T cell immunity, and infectious diseases.



**Jodi Gullicksrud, PhD**

### **Drew Masada**

**Deputy Team Chief, Office of Cooperative Threat Reduction, US Department of State**

Drew Masada is a Deputy Team Chief at the Office of Cooperative Threat Reduction (CTR) at the U.S. Department of State. In her time at State, she's supported CTR's efforts to deliver expedient technical support to West Africa during the Ebola outbreak and to the Government of Iraq in their fight against ISIS. She was recognized for her contributions to protect Ukrainian partners from WMD threats and to evacuate our Afghan partners. Drew also provides oversight over hundreds of millions in grants and interagency agreements with partners who implement the CTR program. She holds a Master's of Global Policy Studies from the LBJ School of Public Affairs at the University of Texas at Austin and a BA in Government, also from the University of Texas at Austin.



**Drew Masada**