Dr. Saghatelian lab dives into the discovery and characterization of novel molecules associated with human disease, such as diabetes, cancer and autoimmune disease. What makes his lab unique in this endeavor is the focus on the biology of metabolites and peptides—two classes of molecules that are extremely important in biology but understudied because of technical challenges. Exploring this uncharted territory has enabled the Saghatelian lab to discover novel lipids that reduce inflammation and improve the symptoms of diabetes and identify a previously unknown cluster of human genes that produce peptides and small proteins that control fundamental cellular processes, such as DNA repair, highlighting their potential importance in cancer. Alan Saghatelian’s work touches on virtually all areas of human biology. He has developed and applied new mass spectrometry strategies that measure changes in small molecules overlooked by traditional biological methods, which typically focus on DNA, RNA and proteins. In particular, Saghatelian focuses on metabolites and peptides, which have been understudied because of technical challenges in their detection. Exploring this uncharted territory has enabled Saghatelian to make important discoveries, including the recent finding of a novel human lipid that reduces inflammation and reverses the symptoms of diabetes. Saghatelian hopes to use the knowledge gained from his lab’s work to accelerate the development of new medicines in the area of diabetes. He is also collaborating with many laboratories at Salk to understand the roles of peptides and metabolites in cancer and neurodegenerative and immunologic disorders.

Keynote Speaker
Alan Saghatelian Ph.D.
Professor
Clayton Foundation Laboratories for Peptide Biology
Dr. Frederik Paulsen Chair
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Kerry LaPlante, Pharm.D., FCCP, FIDP, FIDSA, FIDP
Professor & Chair of Pharmacy, University of Rhode Island, Kingston, RI
Adjunct Professor of Medicine, Brown University, Providence, RI

Dr. LaPlante is the Department Chairperson and a tenured Professor of Pharmacy, as well as the founding Director of the Rhode Island Infectious Diseases Antibiotic Research Program at the Providence VA Medical Center. As a licensed clinical pharmacist, LaPlante is an internationally recognized expert on antibiotic use, antimicrobial resistance, as well as health policy implementation. She remains on the frontline of the antimicrobial resistance public health crisis by leading statewide initiatives and serving as an advisor to the Centers of Diseases Control and Prevention, PEW Research Center and The Joint Commission. She currently serves as chairperson for the Rhode Island Department of Health’s Antimicrobial Stewardship and Environmental Task Force where she led the Rhode Island Antimicrobial Stewardship Expansion Initiative. In this role, she has created guidance and provided education for Antimicrobial Stewardship across Acute Care, Long Term Care and Urgent Care facilities throughout the State of Rhode Island, specifically for the CVS Minute Clinics Provider meeting at the at CVS National Headquarters in Rhode Island. During the COVID-19 pandemic, she was appointed to the COVID-19 vaccine subcommittee by the governor of Rhode Island. Combining a clinical and scientific career, Dr. LaPlante has published over 120 peer-reviewed research articles, and she has received continuous uninterrupted funding with over 30 successfully awarded grants totaling over 20 million from the National Institutes of Health, the Department of Veterans Affairs, and Investigator-Initiated Research from Research and Development divisions of the pharmaceutical industry.