

## Meet our Panellists

### **Cecilia Bergeria, Ph.D.**, Johns Hopkins University School of Medicine | CAN Award Recipient



Dr. Cecilia Bergeria is an Assistant Professor at the Department of Psychiatry and Behavioral Sciences at Johns Hopkins University School of Medicine, specializing in the field of behavioral pharmacology. Her research focuses on measuring, understanding the mechanisms behind, and treating opioid craving and withdrawal, and she is an expert in conducting residential and outpatient human laboratory research on the effects of opioids and cannabinoids. Dr. Bergeria earned her bachelor's degree in psychology from James Madison University and went on to earn both her master's and doctoral degrees in Human Behavioral Pharmacology from the University of Vermont. She is currently leading several research projects, including serving as the Principal Investigator for grants funded by the National Institute on Drug Abuse (NIDA) and a contract funded by ACTION (an FDA public-private partnership), to develop an assessment for the opioid craving to guide drug labeling using the FDA Qualified Clinical Outcome Assessments protocol. Dr. Bergeria is also the PI for a NIDA-funded study evaluating bupirone for the treatment of opioid craving and withdrawal in a research residential setting.

### **Colby Betschart** | Recovery Advocate



My name is Colby. I'm 31 years old and have been battling substance abuse since the age of 16. I was born in the state of Washington and raised in the smaller country town of Redmond, OR. I was lucky enough to be introduced to AA and NA at the age of 14 when my mother started bringing me due to her own dependency. Throughout high school, I was very uncomfortable in my own skin which started me on my path of self-destructive behaviors that led me to jail, homelessness, drug addiction, losing jobs, losing connections with family, and most of all losing myself. I have been blessed with many years of being clean in the past, but it never worked as it would drag me down again and again. I'm thankful to say, I now have well over 3 years of full continuous sobriety off every mind-altering substance. I also own a beautiful little salon and have put myself through school, paid off all my prior debts, and have given myself that independent steady freedom I thought never seemed to be possible.

### **Charles Chavkin, Ph.D.**, University of Washington | CAN Award Recipient



We are interested in the molecular basis of drug addiction. Drugs including heroin, cannabinoids, cocaine, and others produce specific pharmacological effects that ultimately change the functioning of neurons, reorganize plastic neural circuits, and change motivated behavior. In this lab, we take an integrative, neurobiological approach to define these changes at the molecular, cellular, anatomical, and behavioral levels. Studies at the molecular level define the structural properties of the receptors and ion channels that mediate the initial actions of opiates and cannabinoids. We are interested in learning how signaling events initiated by receptor activation are regulated, and how receptors, channels, and accessory proteins assemble to form functional macromolecular complexes. At the cellular level, we study how sustained exposure to opiates produces desensitization and how phosphorylation, downregulation, and synaptic plasticity (LTP and LTD) mechanisms contribute to drug tolerance. At the anatomical level, we study the distribution of the key proteins within the brain that are important for opiate action and how that distribution helps define the neuronal systems responsible for drug effects. Understanding how that distribution changes following repeated drug exposure helps define the changes underlying drug addiction. Based on these cellular and molecular insights, we generate mice having targeted changes in gene expression of key proteins in specific brain regions, then study the behavioral responses of the animals to opiates and cocaine. The ultimate goal of these studies is to gain a better understanding of the molecular basis of drug addiction, a malleable form of motivated behavior.

**Kathryn A. Cunningham, Ph.D.,** John Sealy School of Medicine, University of Texas Medical Branch | CAN Team



Kathryn A. Cunningham, Ph.D., has catalyzed translational research in neuropsychiatry disorders with a particular emphasis on substance use disorders (**SUDs**). She has established strengths in phenotyping in preclinical and human research, pioneered the study of biological signaling networks for serotonin receptors, discovered and patented novel chemical molecules for future SUD therapeutics, and human laboratory and clinical trials. Dr. Cunningham has been continuously funded by NIH for 30 years and has made numerous seminal observations and developed new technologies which are described in 170+ peer-reviewed publications, and contributed 40+ research-related chapters, reviews and/or commentaries [h-index is 63 and i10-value is 60 (Google Scholar)]. Her scientific trajectory began as a first-generation college student from a low-income family and the only woman student in her mentor's laboratory. The ensuing experiences shaped a life-long commitment to diversity, equity and inclusion as a driver of excellence in science and education. Her own protégés include 27 Ph.D. (eight M.D./Ph.D), three M.S. students and 22 postdoctoral fellows, and many early career faculty who published extensively, secured funding, and established successful careers in academia, government, and/or industry. Of these 52 mentees, 65% are female and 35% diversity mentees. She received the College on Problems of Drug Dependence (**CPDD**) Mentorship Award, based her mentees' nomination, the 2020 UTMB Mentorship Award and the 2022 UTMB Academy of Research Mentors (**ARM**) Lifetime Achievement Award. Her commitment to community engagement has spanned over 30 years, and she has been recognized with the *Angel Among Us Award* for Long-Standing Community Support of Women in Recovery, and the Cruisin' to Recovery Community Award.

**Nancy Davis** | CAN Founder and President



Nancy Davis is an extremely dedicated philanthropist, jewelry, and clothing designer, and author. Most importantly, she is a full-time mother who is devoted to her children. Nancy was diagnosed with multiple sclerosis at the age of 33 in 1991. She was determined to devote her time, relationships, and resources to finding a cure and founded Race to Erase MS in 1993 to fund MS research. Nancy's hope, courage, and strength continue to inspire her to maintain a vibrant quality of life despite this chronic disease, but most of all, she remains positive, continues to live her life to the fullest, and is tireless in her efforts to find the cure for MS. In 2018 Nancy founded Cure Addiction Now with her son Jason Davis who had struggled with substance use disorder. Jason tragically passed away in February of 2020. His brother Brandon Davis and sisters, Isabella and Mariella Rickel, have joined Nancy in the foundation's commitment to fund ground-breaking research to find therapies to help stop the vicious cycle of substance use disorder (SUD) and help people not only detox but stay in permanent recovery. This was Jason's passion and as a family, it has become our personal mission.

**Kelly E. Dunn, Ph.D.,** Johns Hopkins School of Medicine | CAN Team | CAN Award Recipient



Kelly E. Dunn, Ph.D. is a Professor in the Behavioral Pharmacology Research Unit within the Department of Psychiatry and Behavioral Sciences in the Johns Hopkins University School of Medicine. Dr. Dunn received her M.S. in Applied Biopsychology from the University of New Orleans (2005), her Ph.D. in Human Behavioral Pharmacology from the University of Vermont (2009), and her MBA from the Johns Hopkins Carey School of Business (2019). Dr. Dunn's primary interest is in opioid use disorder and she has been continuously funded by the National Institute on Drug Abuse for the past decade. She is the principal investigator on clinical trials ranging from the genetics of opioid misuse risk, opioid and cannabis interactions for pain treatment, examining and identifying methods for treating opioid withdrawal, and treatment of pain in persons with opioid use disorder. She also contributes to numerous other projects examining elements of opioid use disorder, including overdose risk and treatment. Dr. Dunn has served in leadership roles in organizations that support research on substance use disorder. She managed conferences for the College on the Problems of Drug Dependence and the American Psychological Association, was the President of the Division on Psychopharmacology and Substance Abuse for the APA, serves as the Co-Editor of the Journal of Addiction Medicine, and is the incoming editor for the journal "Experimental and Clinical Psychopharmacology". Finally, she is the editor of the 1st edition of the Oxford Handbook on Opioids and Opioid Use Disorder, available early 2023.

**Cassandra D. Gipson-Reichardt, Ph.D., University of Kentucky | Guest Panelist**



Dr. Cassandra Gipson-Reichardt is an Associate Professor in the Department of Pharmacology and Nutritional Sciences at the University of Kentucky. Her research program identifies novel neurobiological and behavioral mechanisms to guide the treatment of substance use, with a specific focus on brain mechanisms underlying addiction to various drugs of dependence during young adulthood and during the female reproductive transition of menopause.

Projects focus on xylazine adulteration of fentanyl, nicotine, and oxycodone/cocaine co-use, using cutting-edge neuroscience and behavioral methodologies. Dr. Gipson-Reichardt focuses her research on the translation of her basic science to clinical outcomes, with several ongoing collaborations with researchers at the clinical level.

**Barbara Juarez, Ph.D., The University of Maryland | CAN Award Recipient**



Dr. Juarez believes that by understanding the circuit and molecular mechanisms that underlie individual resilience or susceptibility to substance use disorders, novel treatments to disorders will be discovered. She began her scientific training as an undergraduate at Florida International University in the Minority Biomedical Research Support- Research Initiative for Scientific Enhancement (MBRS-RISE) program and as a Summer Undergraduate Research Program (SURP) fellow at Boston University. Dr. Juarez completed her Ph. D training in December 2016 and joined the laboratories of Drs. Larry Zweifel and Charles Chavkin at the University of Washington in January 2017 to elucidate how potassium channel subunits contribute to the regulation of cellular physiology and associative

learning. Dr. Juarez is now an Assistant Professor at the University of Maryland, Baltimore School of Medicine in the Department of Anatomy and Neurobiology. [The Juarez Lab](#) is focused on understanding how regulators of cellular excitability contribute to healthy and disordered behaviors. Her lab uses combinatorial approaches to accomplish these goals, such as patch-clamp electrophysiology, in vivo monitoring of neural activity, CRISPR/Cas9 gene editing, and mouse models of neuropsychiatric disorders. Throughout her research tenure, Dr. Juarez has been committed to the promotion and support of underrepresented individuals in science and to the mentoring of the next generation of scientists. She has experience in establishing and growing equity, diversity, and inclusivity initiatives in academic environments.

**Adam Kaplin, M.D, Ph.D., President Mira1a Pharmaceutical and Adjunct Faculty Johns Hopkins | CAN Team**



Dr. Adam Kaplin completed his undergraduate training at Yale University and his MD and PhD training at the Johns Hopkins School of Medicine. His research training experience includes having trained in the labs of two Nobel Laureates, and completed his PhD and postdoctoral training in the Lab of Solomon Snyder, MD, who was the 2005 recipient of the National Medal of Science (the highest science honor in the United States). Dr. Kaplin, who maintains his Adjunct Faculty appointment at Johns Hopkins, was the Chief Psychiatric Consultant to the Johns Hopkins Multiple Sclerosis and Transverse Myelitis Centers. Dr. Kaplin investigated the biological basis of the effects

of the immune system on mood regulation and cognition, and he provided neuropsychiatric care to patients afflicted with such comorbidities. His research is focused on understanding the biological basis of depression and dementia and discovering new ways to diagnose prognosticate and treat these diseases. Dr. Kaplin has transitioned to working in the pharmaceutical industry as the Chief Scientific Officer of MyMD Pharmaceuticals, which is developing first-in-class therapeutics for a range of autoimmune diseases and immune-mediated neuropsychiatric illnesses, and President of Mira Pharmaceuticals, developing novel Cannabinoid analog therapeutics with psychotropic and anti-inflammatory benefits.

**Paul J. Kenny, Ph.D.**, Icahn School of Medicine at Mount Sinai | CAN Team | CAN Award Recipient



Dr. Kenny is the Ward-Coleman Professor and Chairman of The Nash Department of Neuroscience and Director of the Drug Discovery Institute at the Icahn School of Medicine at Mount Sinai. Dr. Kenny is also co-founder of Eolas Therapeutics Inc., a company focused on developing novel medications for drug addiction. Dr. Kenny is a member of the the advisory council for the National Institute of Drug Abuse (NIDA) and has served as a Senior Editor for The Journal of Neuroscience. Dr. Kenny is a graduate of Trinity College Dublin, where he earned a degree in Biochemistry. He completed his Ph.D. in neuropharmacology at King's College London. Dr. Kenny completed his postdoctoral training at The Scripps Research Institute in La Jolla, CA. Prior joining the Icahn School of Medicine at Mount Sinai, Dr. Kenny was on the faculty of The Scripps Research Institute in Jupiter, Florida. Research in Dr. Kenny's

laboratory is focused on understanding the molecular neurobiology of drug addiction, obesity and schizophrenia. Dr. Kenny has received numerous awards for his research, including the Daniel H. Efron Research Award from the American College of Neuropsychopharmacology (ACNP), the Jacob P. Waletzky Memorial Award from the Society for Neuroscience (SfN), the Distinguished Investigator Award from NARSAD, and the Tom Connor Distinguished Investigator Award from Neuroscience Ireland.

**Kurt Rasmussen, Ph.D.**, CSO, Delix Therapeutics | CAN Scientific Advisory Board



Kurt Rasmussen, Ph.D., is the Chief Scientific Officer at Delix Therapeutics, a new company focused on developing neuroplasticity-promoting therapeutics for multiple indications, including substance use disorders. Previous to Delix, he was the Director of the Division of Therapeutics and Medical Consequences at the National Institute on Drug Abuse (NIDA), leading their efforts to promote the development of safe and effective pharmacotherapies, behavioral therapies, and devices to treat substance use disorders. Previous to NIDA, he worked as a senior research scientist in the Neuroscience Division of Eli Lilly & Co., leading efforts to discover novel treatments for psychiatric disorders such as depression and schizophrenia. Dr. Rasmussen's career spans over 30 years of highly innovative scientific research in neuroscience pharmaceutical discovery, from hypothesis generation to clinical candidate

evaluation. He received his B.A. with honors and distinction from Cornell University, his Ph.D. in neuroscience and psychology from Princeton University, and was a postdoctoral associate in the Department of Psychiatry at the Yale University School of Medicine.

**Justin C. Strickland, Ph.D.**, Johns Hopkins School of Medicine | CAN Award Recipient



Justin C. Strickland, Ph.D. is an Assistant Professor in the Behavioral Pharmacology Research Unit in the Department of Psychiatry and Behavioral Sciences of the Johns Hopkins University School of Medicine. Dr. Strickland earned his Ph.D. in Experimental Psychology and Certificate in Biostatistics from the University of Kentucky (2019). Dr. Strickland's primary interest is in the use of behavioral economics to develop improved interventions for substance use disorder. His research applies a translational pipeline of preclinical animal research, human laboratory assessment, and clinical trials to evaluate choice and decision-making processes involved in substance use and apply these basic science findings

to develop new diagnostic procedures and novel medications. He also contributes to public policy efforts by studying improved ways to predict the misuse potential of novel drugs to inform regulatory guidance. Dr. Strickland serves in leadership roles in the College on the Problems of Drug Dependence and the American Psychological Association supporting the dissemination of substance use discoveries.