2019 Young Investigators

MPA Molecular Psychiatry Association

7th Annual Molecular Psychiatry Meeting

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Hyatt Regency San Francisco

www.molecularpsychiatry.net

Megan Herting

University of Southern California

Megan Herting, Ph.D., is an Assistant Professor in Preventive Medicine and Pediatrics at the University of Southern California and Director of the Herting Neuroimaging Laboratory. Dr. Herting's research interests involve understanding how individual and sex differences relate to brain-behavior trajectories across adolescence, in order to better determine when and how to best intervene for boys and girls at risk for developing cognitive and mental health disorders. Using cognitive-behavioral assessments and a multi-modal Magnetic Resonance Imaging (MRI) approach, her laboratory examines how environmental factors (e.g. physical activity, air pollution), as well as hormones influence neurodevelopment outcomes. Dr. Herting is also actively involved in large-scaled NIH efforts that aim to study neurodevelopment using big data including the Adolescent Brain Cognitive Development (ABCD) study and the Environmental influences on Child Health Outcomes (ECHO) program.

Gil Hoftman

Semel Institute for Neuroscience & Human Behavior at UCLA

Gil Hoftman, M.D., Ph.D., is a 4th year psychiatry resident at UCLA. He is motivated to understand the neurodevelopmental biological underpinnings of cognitive dysfunction in schizophrenia in order to refine hypotheses of illness pathophysiology and develop novel, rational preventative and therapeutic approaches. He plans to integrate behavioral genetics and neuroimaging approaches with molecular/cellular biology as a long-term goal. He completed most of his psychiatry residency training at Western Psychiatric Institute and Clinic at the University of Pittsburgh, as well as all of his child and adolescent psychiatry fellowship training. He recently moved to UCLA to complete his adult outpatient psychiatry residency training and develop an independent research program via the NIH T32 and K award mechanisms. His Ph.D. advisor at the University of Pittsburgh was David Lewis, M.D., and his current postdoctoral/early career investigator advisors at UCLA are Carrie Bearden, Ph.D., and Daniel Geschwind, M.D., Ph.D. His current project examines a set of genes enriched in human supragranular layers 2 and 3 and asks whether their expression levels are associated with a cross-neocortex regional deviance pattern in cortical thickness in 22q11 deletion syndrome, a rare genetic syndrome that is associated with high rates of schizophrenia.

Bashkim Kadriu

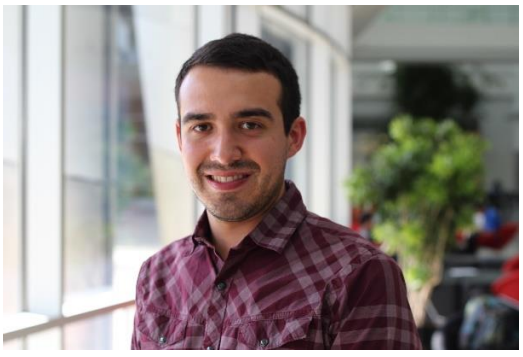
Division Intramural Research Program, National Institute of Mental Health

Bashkim Kadriu, M.D. is a board-certified psychiatrist and neuroscientist at the Experimental Therapeutics and Pathophysiology Branch (ETPB), National Institute of Mental Health (NIMH). His research interests include the neurobiological correlates of treatment-resistant mood disorders with a particular emphasis on discovering biosignatures that guide novel fast-acting antidepressant actions.

Merve Kasap

Vanderbilt University School of Medicine

Merve Kasap, Ph.D. received her Ph.D. in Pharmacology, Toxicology and Neuroscience in 2018 from the LSU Health Sciences Center at Shreveport. She studied the pharmacological properties of leak ion channels in neurological disorders using the nematode C. elegans during her Ph.D. She became interested in the genetics and molecular mechanisms of psychiatric disorders and challenged herself to learn electrophysiological properties of neurons. Upon graduation, she began working as a postdoctoral research fellow with her advisor, Dr. Lisa Monteggia at Vanderbilt University Medical School. Currently, she is investigating the changes in synaptic scaling of excitatory synapses due to chronic lithium exposure.



Kyle Ketchesin

University of Pittsburgh

Kyle Ketchesin is currently a third-year postdoctoral researcher in the laboratory of Dr. Colleen A. McClung at the University of Pittsburgh. He is interested in the role of circadian rhythms in the neurobiology of psychiatric disorders. His current research project consists of utilizing human postmortem brain tissue to measure gene expression rhythms in the striatum of subjects with schizophrenia and bipolar disorder.

Hye Young Lee

University of Texas, Health Science Center at San Antonio

Dr. Hye Young Lee is a neuroscientist who studies the molecular and cellular mechanisms of pathophysiology underlying autism-spectrum disorders. After a post-doctoral training in Lily Jan lab in UCSF, she joined the University of Texas, Health Science Center at San Antonio as a faculty in the department of Cellular and Integrative Physiology in 2016. The Lee lab focuses on 1) identifying the molecular and cellular mechanisms responsible for the pathophysiology of autism, and 2) using these mechanisms to develop potential therapeutics in mouse models. To address these questions, Dr. Lee uses molecular and cellular neurobiology tools, in vivo brain imaging, bioengineering and animal behavioral studies. Her recent study demonstrating a successful rescue of exaggerated repetitive behaviors in the mouse model of fragile X syndrome by a non-viral delivery of CRISPR system is published in *Nature Biomedical Engineering* and suggests potential gene therapeutics to treat brain disorders.

Andreia Pereira

Institute of Psychiatry, King's College

Andreia C. Pereira is in her final year as a Ph.D. student in the Department of Forensic and Neurodevelopmental Sciences at the Institute of Psychiatry, Psychology and Neuroscience, King's College London, UK. She is interested in using neuroimaging techniques to investigate the neurobiology of individuals with Autism Spectrum Conditions (ASC). Currently, she is using pharmacological probes that activate different GABA receptors in the brain in order to study the excitation/inhibition dynamics in adults with and without an ASC. The overarching goal of this work is to better understand the mechanisms underlying the neurobiology of ASC and identify biomarkers that can ultimately be used for the development of effective and tailored treatment options. This work is part of the AIMS-2-TRIALS European consortium investigating new medicines for ASC.

She previously completed her undergraduate degree in Biology, followed by a M.Sc. in Cell and Molecular Biology at the University of Coimbra, Portugal. During her M.Sc., she investigated the neurochemistry and brain anatomy in children and adolescents with ASC. Her research has also involved studying adult brain structural and functional plasticity in sensory- and multisensory-deprived patients (blind and deaf/blind). These works have been published in peer reviewed journals.

William Reay

School of Biomedical Sciences and Pharmacy, The University of Newcastle, Australia

William Reay is in the second year of his Ph.D. at the University of Newcastle in Newcastle, Australia under the supervision of Professor Murray Cairns and Professor Melissa Green. His research focuses on integrating statistical genetics with systems biology to further our understanding of the biological processes involved in complex disorders and how this could be leveraged for treatment. He is particularly passionate about the application of this approach to psychiatry, as novel interventions remain urgently required to improve patient outcomes. Primarily, he uses a variety of genomic and statistical techniques including common and rare variant analysis, functional annotation, and Mendelian Randomisation. His research has been published in prestigious journals including *Molecular Psychiatry and Brain, Behavior, and Immunity* and presented at conferences including the World Congress of Psychiatric Genetics and Schizophrenia International Research Society. He has also participated as a contributing analyst in two large genome-wide association study consortia (ENIGMA and CHARGE).

Jose Rubio

Hofstra NS-LIJ School of Medicine

Dr. Rubio graduated from Universtat de València Medical School (Spain), and later completed his psychiatry residency at the Zucker Hillside Hospital - Hofstra University (New York). Currently he is an early career investigator at the Division of Psychiatry Research at the Zucker Hillside Hospital, where he is also in faculty for the psychiatry residency program and has a practice for patients with treatment resistant schizophrenia. His focus of research is on treatment resistant schizophrenia and psychosis relapse. He is currently involved in several neuroimaging studies of psychosis relapse in individuals treated with long acting injectable antipsychotics, whose exposure to antipsychotic drugs at the time of relapse can be confirmed.

Susan Shen

University of California San Francisco

After growing up in the Midwest, Susan Shen attended undergrad at Caltech, where she studied biology and English. Subsequently, she received her M.D./Ph.D. from Washington University in St. Louis in Joseph Corbo's lab, where she studied gene regulation in the central nervous system. She is now a 2nd year psychiatry resident at UCSF with interests in bipolar disorder and schizophrenia. She recently joined Steve Altschuler and Lani Wu's lab, where she plans to study the effects of hypoxia on the brain. Her hobbies include writing poetry, admiring the ocean, and eating dumplings.

Nasa Sinnott-Armstrong

Stanford University

Nasa Sinnott-Armstrong is a graduate student working with Jonathan Pritchard at Stanford University on better understanding pleiotropy (shared effects on multiple outcomes) and the genetic basis of complex traits. She is very excited to be presenting her work on a particularly pleiotropic transcription factor, USF1, and its role in sleep and metabolism, at the MPA meeting!