Main Residency Match® Numbers General Clinical Track: Physician-Scientist Track:

Psychiatry – 1490400**C0** Psychiatry/Physician-Scientist – 1490400**C2**



Current Residents in the Research Track

September 2023

"Mount Sinai had one of the largest amounts of protected research time of any program that I visited, and the amount has only increased. Importantly, the administration worked to ensure that this time truly was protected."

Drew Kiraly, MD, PhD, Assistant Professor (Class of 2017)

Lauren Lepow, MD



PGY-7 Columbia University, BA University of Texas HSC, MD

Lauren is in her seventh year of the seven-year NIMH-supported residency plus PhD program in neuroscience. Her PhD work at the Charles Bronfman Institute for Personalized Medicine includes extracting real-world psychosocial, environmental, and cultural data typically locked away in the clinical notes in the electronic health record (EHR), and then pairing this data with genetic and clinical information. This involves developing, implementing, and validating NLP pipelines for extracting trauma-related and psychosocial clinical information from millions of notes in the EHR. She is also involved as an investigator and therapists in clinical trials at the Center for Psychedelic Psychotherapy and Trauma Research where she is a fellow. She has over 16 publications and is also a student of psychoanalysis. When she graduates, she plans to bring the tools of Natural Language Processing to audio and transcripts from psychedelic- assisted psychotherapy sessions and to continue as a therapist-investigator in psychedelic trials. In her free time, she loves exploring the arts and culture of New York City and the world with her family as well as high-intensity interval training.

Since starting residency at Mount Sinai, July 2017 - Present

Research Focus: Modeling Resilience after Trauma in Naturalistic Settings

Research Mentors: Alexander Charney, MD, PhD; Rachel Yehuda, PhD; Muhammad Parvaz, PhD

Select peer-reviewed journal articles

Lepow L, Wagner A, Adams F, Alam A, Ivanov I, Parvaz, MA. Characterizing the Independent and Interactive Impacts of Prenatal Exposure to Legal Substances and Childhood Trauma on Emotion Processing in Pre-Adolescents: Findings from the ABCD Study. Accepted for publication.

Lepow L, Morishita H, Yehuda R. Critical Period Plasticity as a Framework for Psychedelic-Assisted Psychotherapy. Front Neurosci. 2021;15:710004. PubMed Central PMCID: PMC8488335.

Ryu E, Jenkins GD, Wang Y, Olfson M, Talati A, Lepow L, Coombes BJ, Charney AW, Glicksberg BS, Mann JJ, Weissman MM, Wickramaratne P, Pathak J, Biernacka JM. The importance of social activity to risk of major depression in older adults. Psychol Med. 2021 Nov 12; PubMed Central PMCID: PMC9095757.

DePierro J, Lepow L, Feder A, Yehuda R. Translating Molecular and Neuroendocrine Findings in Posttraumatic Stress Disorder and Resilience to Novel Therapies. Biol Psychiatry. 2019 Sep 15;86(6):454-463. PubMed Central PMCID: PMC6907400.

Book Chapter

Lepow LA, Jagodnik KM, Glatman Zaretsky T, Hernandez Antonio J, Bonanno PA, Yehuda R. Psychedelic Drugs as Treatment Agents. 6 ed. In: Charney DS, Nestler EJ, editors. Charney & Nestler's Neurobiology of Mental Illness [Internet] United States: Oxford University Press; 2023. Chapter 74 Available from: in review

Main Residency Match® Numbers General Clinical Track: Physician-Scientist Track:

Psychiatry – 1490400**C0** Psychiatry/Physician-Scientist – 1490400**C2**



Lu Jin, MD, PhD



PGY-4 Physician-Scientist Track

CHIEF RESIDENT

Zhejiang University, BS Yale University, PhD Weill Cornell, MD

Lu was born and raised in Xi'an, China, graduating college with a degree in Biotechnology at Zhejiang University in Hangzhou, China. She moved to the US to pursue a PhD in Neurobiology at Yale, where she was mentored by Amy Arnsten. Her doctoral research focused on the molecular mechanisms of cognitive circuits in the prefrontal cortex, aiming to develop better treatments for cognitive deficits in aging and mental illness. She trained monkeys in a working memory task, recorded single neurons in their prefrontal cortex, and applied drugs to the recording site to test influences on neural activity. Her dissertation focused on the roles of mGluR2/3 receptors in regulating prefrontal circuitry and cognitive functions. The results ultimately challenged the prevailing understanding of these receptors and contributed to the development of compounds to treat schizophrenia. In medical school she conducted research at Weill Cornell with Faith Gunning and at Mount Sinai with Helen Mayberg and Allison Waters, focusing on optimizing subthalamic deep brain stimulation for motivational symptoms in Parkinson's Disease. This experience motivated her to pursue a career combining clinical and research work, with the goal of incorporating scientific discoveries into clinical practice. Lu has already authored 11 publications, including two as first author in Molecular Psychiatry and Cerebral Cortex, and several others as coauthor in Nature, PNAS, and Neuron. In her spare time, Lu loves rock climbing, reading history and sociology books, and attending Broadway and Off-Broadway plays.

Since starting residency at Mount Sinai, July 2020 - Present Research Plans: Characterization of the neurobiological basis of human decision-making related to effort and reward by intracranial electrophysiological and electrochemical recordings in human subjects, with the goal of developing novel circuit therapeutics for psychiatric conditions such as apathy and anhedonia.

Research Mentors: Igancio Saez, PhD; Helen Mayberg, MD

Select peer-reviewed journal articles

- Galvin VC, Yang ST, Paspalas CD, Yang Y, Jin LE, Datta D, Morozov YM, Lightbourne TC, Lowet AS, Rakic P, Arnsten AFT, Wang M. Muscarinic Mq receptors modulate working memory performance and activity via KCNQ potassium channels in the primate prefrontal cortex. <u>Neuron</u>. 2020
- Jin LE, Wang M, Galvin VC, Lightbourne TC, Conn PJ, Arnsten AFT, Paspalas C. mGluR2 versus mGluR3 metabotropic glutamate receptors in primate dorsolateral prefrontal cortex: post-synaptic mGluR3 strengthen working memory networks. <u>Cereb Cortex</u>. 2018
- 3. Jin LE, Wang M, Yang ST, Yang Y, Galvin VC, Lightbourne TC, Ottenheimer D, Zhong Q, Stein J, Raja A, Paspalas C, Arnsten AFT. mGluR2/3 mechanisms in primate dorsolateral prefrontal cortex: evidence for both presynaptic and postynaptic actions. <u>Mol Psychiatry</u>. 2016



Brian Sweis, MD, PhD

PGY-4 Physician-Scientist Track

CHIEF RESIDENT

Loyola University, BS, BA U. Minnesota, MD, PhD

Brian is a first generation Arab-American born and raised in Chicago, IL, and went to Loyola University Chicago where he double majored in Psychology & Biology with a dual minor in Neuroscience & Philosophy. His MD/PhD work at the U. of Minnesota in Minneapolis, MN was comentored by Drs. Mark J. Thomas & David Redish, focusing on understanding the mechanisms underlying complex choices using a crossspecies approach to study decision making. He applied neuroeconomic theories with neuromodulation to identify neural computations underlying distinct aspects of information processing as choices are being made. He discovered that there is a conserved evolutionary history to cognitive biases previously thought to be unique to humans, including sensitivity to "regret" and "sunk costs," and that these biases arose from similar neural systems in mice, rats, and humans. Applying this framework to the study of addiction, he found that mice exposed to different drugs of abuse suffered lasting impairments in fundamentally distinct types of choices. Brian's research was recognized with the best PhD awards from the U. Minnesota, National Council for Graduate Studies, & from the Society for Neuroscience, and was listed on Forbes 30 Under 30. Brian has directly continued this line of translational neuroeconomics research now at Mount Sinai studying how regret sensitivity, among other complex decision-making processes, changes in mood disorders such as depression. Brian has published 21 peerreviewed articles, including 11 as first-author in Science, Nature Communications, PNAS, PLoS Biology, and Learning & Memory, and 3 as senior-author, including in Science Advances, PLoS Biology, and Comm Biology. Over his academic career, he has secured a cumulative total of >\$1.66M in research funding to date, including from the Burroughs Wellcome Fund Career Award for Medical Scientists, a first in Sinai history of any specialty. Outside of medicine and science, Brian stays active with running, playing pick-up basketball games in Central Park, cooking, and exploring the best eats & stand-up comedy in NYC.

Since starting residency at Mount Sinai, July 2020 - Present Research Focus: Translational Neuroeconomics; Cross-Species Decision Science in Mood Disorders; Computational Psychiatry

Research Mentors: Eric Nestler, MD, PhD; Scott Russo, PhD; Denise Cai, PhD Select peer-reviewed journal articles

- Durand-de Cuttoli R,..., Russo SJ, Nestler EJ, Sweis BM. Distinct forms of regret linked to resilience versus susceptibility to stress are regulated by region-specific CREB function in mice, <u>Science Advances</u>, 2022
- Sweis BM, Mau W, Rabinowitz S, Cai DJ. Dynamic and heterogeneous neural ensembles contribute to memory engram. <u>Curr Opin Neurobiol</u>. 2021
 Sweis BM, et al. Mice learn to avoid regret. <u>PLoS Biology</u>. 2018
- Sweis BM, Abram, S., Schmidt, B., Seeland, K., MacDonald, A.W., Thomas, M.J., Redish, A.D. Sensitivity to "sunk costs" in mice, rats, and

humans. Science. 2018

Main Residency Match® Numbers General Clinical Track: Physician-Scientist Track:

Psychiatry – 1490400**C0** Psychiatry/Physician-Scientist – 1490400**C2**



Mina Rizk, MBBCH, MSc



PGY-3 Physician-Scientist Track

University of Minya, MD

Mina was born and raised in Egypt, where he earned his Medical Degree, and completed a prior combined Neurology and Psychiatry Residency training. He then joined the Department of Psychiatry at Columbia University in 2016 as a visiting research scholar then postdoctoral research scientist where his work focused on the neurobiology of suicidal ideation and behavior. Using different brain imaging modalities (i.e., diffusion tensor imaging, voxel-based morphometry and resting-state functional MRI) and stress response paradigms, he helped delineate the neurobiological underpinnings of distinct subtypes of suicidal individuals. In 2019, Mina received the Paul Janssen Fellowship in Translational Neuroscience Research and the NARSAD Young Investigator Award to study the potential anti-suicidal effects of buprenorphine. Since he started residency, Mina has been working with his mentor, Dr. James Murrough, on projects focusing on the immune mechanisms of depression. He is leading a study in the Depression and Anxiety Center (DAC) investigating the potential antidepressant effects of a novel monoclonal antibody in people with treatment-resistant depression. Mina has been awarded two travel awards to the 2022 APA research colloquium for young psychiatric investigators and the 2023 Biological Psychiatry Annual Meeting. He has been also selected by the NIMH to participate in the 2023 Outstanding Resident Research Award Program (ORAP). Mina has published many papers in prestigious journals such as the American Journal of Psychiatry. He also co-authored the Suicide Prevention chapter in the new edition of the APA Textbook of Mood Disorders. In his spare time, Mina loves to watch soccer (Liverpool!!) and spend time with his family.

Since starting residency at Mount Sinai, July 2021 – Present

Research Focus: Brain Imaging; Novel Anti-suicidal Treatments, Novel Immune Therapeutics for Treatment-Resistant Depression

Research Mentor: James Murrough, MD, PhD

Select peer reviewed journal articles

- Neupane SP, Daray FM, Ballard ED, Galfalvy H, Itzhaky L, Segev A, Shelef A, Tene O, Rizk MM, Mann JJ, Zalsman G. Immune-Related Biomarkers and Suicidal Behaviors: A Meta-Analysis. <u>European</u> <u>Neuropsychopharmacology</u>. 2023
- Mann JJ & Rizk MM. Rethinking The Medication Management of Major Depression. <u>Expert Review of Neurotherapeutics</u>. 2023
- Rizk MM, Galfalvy H, Miller JM, Milak M, Parsey R, Grunebaum M, Burke A, Sublette ME, Oquendo MA, Stanley B, Mann JJ. Characteristics of depressed suicide attempters with remitted substance use disorders. <u>Journal of Psychiatric Research</u>. 2021
- Rizk MM, Herzog S, Dugad S, Stanley B. Suicide Risk and Addiction: The Impact of Alcohol and Opioid Use Disorders. <u>Curr Addiction Reports</u>. 2021
- Mann JJ & Rizk MM. A Brain-Centric Model of Suicidal Behavior. <u>American Journal of Psychiatry</u>. 2020

Ehsan Moazen Zadeh, MD, MSc



PGY-3 Physician-Scientist Track

Iran University, MD

Ehsan was born and raised in Kerman, Southern Iran. He moved to Tehran for medical school in 2008, where he started working on research projects very early in the course, first on the genetics of bipolar disorder and later on the treatment of pain and depression in fibromyalgia, inspired by both his broad interest in biological medicine and a great mentor. His passion for psychiatry developed as he started psychodynamic psychotherapy in 2011 and subsequently founded a free discussion group for medical students. He then later tele-collaborated on a number of large-scale epidemiologic studies of mental health disparities among racial groups in the USA and did a postdoctoral fellowship in psychopharmacology at Tehran University upon graduation from medical school, where he mainly focused on RCTs of novel therapeutics for major psychiatric disorders. Ehsan moved to Canada in 2018 for graduate studies on substance use disorders at UBC, Vancouver. In 2019, he joined a major Neuroimaging lab at Columbia University, and by 2020 he moved to Mount Sinai for a postdoctoral fellowship at Yasmin Hurd laboratory. Ehsan has had 30 publications so far, including 2 in The Lancet Psychiatry. In his personal life, he is passionate about photography and adventures in nature.

Since starting residency at Mount Sinai, July 2021 - Present

Since joining Mount Sinai, Ehsan's focus has been on new drug development and neuroimaging in opioid use disorder. He has been a coinvestigator on an FDA-regulated UG3/UH3 Phase1-Phase2 clinical trial of CBD and on an R01 NIDA-funded proof of concept trial of CBD in patients with heroin use disorder using sequential fMRI-MRSI.

Research Focus His specific areas of interest for future research are shared neural phenotypes and transdiagnostic treatments across addictive disorders.

Research Mentor: Yasmin Hurd, PhD

Select peer reviewed journal articles

- Nikoo M, Kianpoor K, Nikoo N, Javidanbardan S, Kazemi A, ..., Moazen-Zaden E, Givaki R, Jazani M, Mohammadian F, Moghaddam NM, Schutz C, Jang K, Akhondzadeh, Krausz M. Opium tincture versus methadone for opioid agonist treatment: a randomized controlled trial. <u>Addiction</u>. 2022
- Saraf G, Moazen-Zadeh E, Pinto JV, Ziafat K, Torres IJ, Kesavan M, Yatham LN. Early intervention for people at high risk of developing bipolar disorder: a systematic review of clinical trials. <u>The Lancet Psychiatry</u>. 2021
- Moazen-Zadeh E, Bayanati S, Ziafat K, Rezaei F, Masgarpour B, Akhondzadeh S, Vortioxetine as adjunctive therapy to risperidone for treatment of patients with chronic schizophrenia: a randomised, doubleblind, placebo-controlled clinical trial. <u>J Psychopharmacology</u>. 2020
- Moazen-Zadeh E, Karamouzian M, Kia H, Salway T, Ferlatte O, Knight R. A call for action on overdose amont LGBTQ people in North America. <u>The</u> <u>Lancet Psychiatry</u>. 2019

Main Residency Match® Numbers General Clinical Track: Physician-Scientist Track:

Psychiatry – 1490400**C0** Psychiatry/Physician-Scientist – 1490400**C2**



Eric Sanford, MD, PhD



PGY-2 Physician-Scientist Track

Brown University, BS University of Pennsylvania, MD, PhD

Eric grew up in Felton, a census-designated place in the Santa Cruz Mountains of California. He received his K-12 education in the San Lorenzo Valley public school system, after which he went to Brown University. In college, he concentrated in Neuroscience (completing an Honors thesis in Thomas Serre's lab) while exploring other interests in computer science, music, and writing. After college he worked in the computational biology group at Foundation Medicine, where he coauthored several publications in cancer genomics under the mentorship of Siraj Ali, Garrett Frampton, and James Sun. He then enrolled in the MD/PhD program at the University of Pennsylvania, originally thinking he would pursue a career in cancer research. He earned his PhD in Genomics and Computational Biology in Arjun Raj's lab, completing an interdisciplinary project that combined molecular biology, mathematical modeling, and genomics methods to characterize how genes combine the transcriptional effects of interacting input signals. He found that gene regulation appeared to have a preference for the operations of either addition or multiplication when combining the effects of two cell signals. Eric became increasingly interested in psychiatry throughout his MD/PhD training and chose to pursue it as his primary clinical and research career mid-way through his PhD. Clinically, he is interested in adult psychotherapy, and he plans to participate in a supplemental psychoanalytic training program during residency. For research, he is interested in pursuing interdisciplinary projects that may include computational correlates to psychotherapy response, psychedelic-assisted psychotherapy, and facial image analysis.

Since starting residency at Mount Sinai, July 2022 - Present

Research Plans: computational correlates of psychotherapy response, psychedelic-assisted psychotherapy, PTSD, major depressive disorder, generalized anxiety disorder

Research Mentor: Xiaosi Gu, PhD

Select peer-reviewed journal articles

- Sanford EM, Emert BL, Cote A, Raj A. Gene regulation gravitates toward either addition or multiplication when combining the effects of two signals. <u>eLife</u> 2020
- Kiani K, Sanford EM, Goyal Y, Raj A Changes in chromatin accessibility are not concordant with transcriptional changes for single-factor perturbations. Preprint on <u>bioRxiv</u> 2022
- Chung JH*, Sanford EM*(co-first author), Johnson A, Klempner SJ, Schrock AB, Palma NA, ... Ali SM. Comprehensive Genomic Profiling of Anal Squamous Cell Carcinoma Reveals Distinct Genomically Defined Classes. <u>Annals of Oncology</u>, 2016
- 4. Ali SM, Sanford EM, Rubinson D, Wang K, Palma N, Chmielecki J, ... Miller VA. Prospective Comprehensive Genomic Profiling of Advanced Gastric Carcinoma Cases Reveals Frequent Clinically Relevant Genomic Alterations and New Routes for Targeted Therapies. <u>The Oncologist</u> 2015



Deepak Kaji, MD, PhD

PGY-2 Physician-Scientist Track

Cornell University, BA Icahn School Of Medicine at Mount Sinai, MD, PhD

Deepak was born in New York and went to Cornell University where he double majored in Economics and Biology and began studying developmental and stem cell biology. He completed an honors thesis in cardiac development before coming to Mount Sinai for his MD/PhD. He completed the PhD training area in the "Developmental and Stem Cell Biology" track. His dissertation was mentored by Dr. Alice Huang and focused on mechanisms of tendon regeneration and molecular control over the tendon cell fate. During this time, Deepak developed novel engineering strategies for driving stem cells towards the tendon and fibrocartilage fates. This work resulted in inventors status on a patent, an R01 supplement, and an NIH NIAMS F31 fellowship. Outside of his dissertation laboratory, Deepak leveraged the statistical education he got during his economics degree to deploy artificial intelligence on a variety of clinical problems. His work in artificial intelligence resulted in being Co-Investigator on an NIH K12 Clinical Scientist Award and a Mount Sinai 4D Technology Award. Towards the end of his PhD, he began published on the use of artificial intelligence to understand the relative prognostic values of genetic and clinical data in schizophrenia. He finished his PhD with over 15 publications and an h-index of 12. In his spare time, Deepak loves eating his way through NYC in search of its best pizza and ice cream.

Since starting residency at Mount Sinai, *July 2022 - Present* Deepak is currently working as a research resident in the laboratory of Dr. Panagiatos Roussos using stem cell biology and computational biology to study development of the human brain and model neuropsychiatric disease. In his intern year, he won the APA Research Colloquium award, the ACNP Travel

Award, the Mount Sinai Teaching Award and was a finalist for the NY Stem Cell Foundation Druckenmiller Fellowship. He has recently become passionate about Alzheimer's disease.

Research Plans: Using human stem cell models to model Alzheimer's disease and neurodevelopment

Research Mentor: Panagiatos Roussos, MD, PhD

Select peer-reviewed journal articles

- Kaji DA, Montero AM, Patel R, Huang AH. "Transcriptomic profiling of mESC-derived tendon and fibrocartilage cell fate switch". <u>Nature</u> <u>Communications</u>. 2021
- 2. **Kaji DA**, Howell KL, Huang AH. "TGFβ signaling is required for tenocyte recruitment and functional neonatal tendon regeneration." <u>eLife</u>. 2020
- Landi I, Kaji DA, Cotter, Van Vleck T, Belbin G, Preuss M, Loos R, Kenny E, Glicksberg BS, Beckmann N, O'Reilly P, Fanous A, Pato M, Pato C, Bigdeli T, Nadkarni GN, Charney AW. "Schizophrenia polygenic risk scores do not predict outcomes in adults with psychotic disorders." <u>Nature Medicine</u>. 2021
- Kaji DA, Kim JS, Cho SK, Dangayach NS, Costa AB, Oermann EK. "An interpretable deep learning model of clinical events in the intensive care unit." <u>PLosOne</u>. 2019

Main Residency Match® Numbers General Clinical Track: Physician-Scientist Track:

Psychiatry – 1490400**C0** Psychiatry/Physician-Scientist – 1490400**C2**



Gonzalo Martines-Ales Garcia, MD, MSc, PhD



PGY-1 Physician-Scientist Track

Universidad Autonoma de Madrid, MSc, MD, PhD

Columbia University, MPhil, PhD

Gonzalo Martinez-Ales was raised in Madrid, Spain, and moved to New York in 2018. He is a psychiatrist-epidemiologist trained in Spain and the United States. He obtained MD, MSc in epidemiology, and PhD in psychiatry degrees from Universidad Autonoma de Madrid (with Enrique Baca-Garcia and Marife Bravo as mentors) and worked as a psychiatry resident and consultant at Hospital Universitario La Paz, in Madrid. Between 2017-2021, he collaborated with the Psychiatric Epidemiology Unit at Columbia University under the mentorship of Ezra Susser and Kerry Keyes - receiving MPhil and PhD degrees in epidemiology with a focus on causal inference theory and methods. During his time at Columbia, Gonzalo also collaborated with researchers at the NYSPI and taught on topics such as psychiatric epidemiology and global mental health. Following a period doing clinical and applied epidemiological work in Madrid during the initial pandemic outbreak, Gonzalo completed a postdoctoral fellowship at the CAUSALab (formerly Program on Causal Inference) at Harvard University, under the mentorship of Miguel Hernan, where he helped build leading data science initiatives to elucidate optimal treatment strategies for first episode psychosis and suicide risk. He has also served as field epidemiologist in Matagalpa, Nicaragua, and as NIH-Fogarty Scholar in the Department of Epidemiology of the University of Michigan. Gonzalo's doctoral studies were funded by a "la Caixa" International Fellowship, his work has been supported by competitive grants by federal agencies in Europe and by the Brain and Behavior Research Foundation in the US, and he has received several early investigator awards including Columbia's Sidney Kark Award to the commitment to global health and social justice in research, or the Don Quixote Award by the American Society of Hispanic Psychiatry. His work includes over 70 manuscripts, for a Google Scholar H-index 16, featured in the most relevant journals of psychiatry and epidemiology, including JAMA Psychiatry, Lancet Psychiatry, Molecular Psychiatry, American Journal of Epidemiology, American Journal of Public Health, and Journal of Clinical Epidemiology. He serves as Associate Editor for the European Journal of Psychiatry. Gonzalo's work focuses on the development, adaptation and implementation of causal inference theory and methods to examine the causes and outcomes of schizophrenia and suicidal behaviors and guide public health and clinical decision-making.

Started residency at Mount Sinai, July 2023 - Present

Research Plans: Adapting causal inference using observational data to examine clinical questions re: post-partum depression, suicide risk, & early schizophrenia

Research Mentor: Mercedes Perez-Rodriguez, MD, PhD

Select peer-reviewed journal articles

- López-Cuadrado T, Szmulewicz A, Öngür D, <u>Martínez-Alés G.</u> Clinical Characteristics and Outcomes of People with Severe Mental Disorders Hospitalized due to COVID-19: A nationwide population-based study. <u>Gen</u> <u>Hosp Psychiatry</u>. 2023
- Szmulewicz A, Martínez-Alés G, Logan R, Ferrara M, Kelly C, Fredrikson D, Gago J, Conderino S, Diaz-Caneja CM, Arango C, Ongur D, Hernan MA. Antipsychotic drugs in first-episode psychosis: A target trial emulation using the FEP-CAUSAL Collaboration. <u>Am J Epi</u>. 2023
- Keyes KM, Kandula S, Martínez-Alés G, Gimbrone C, Joseph V, Monnat S, Rutherford C, Olfson M, Gould MS, Shaman J. Geographic Variation, Economic Activity, and Labor Market Characteristics in Trajectories of Suicide in the United States, 2008 to 2020. <u>Am J Epi</u>. 2023



Jonathan Kanen, MD, PhD

PGY-1 Physician-Scientist Track

Vassar College, BA

Cooper Medical School of Rowan University, MD

University of Cambridge, PhD

Jonathan Kanen is originally from Ridgewood, New Jersey. He studied Psychology at Vassar College and earned his MD from Cooper Medical School of Rowan University. Jonathan obtained his PhD from the University of Cambridge as a Gates Scholar, under the supervision of Professor Trevor Robbins, who has been ranked one of the most influential brain scientists of the modern era. Before medical school, Jonathan worked in the laboratory of Professor Elizabeth Phelps at New York University, where he gained a compelling sense of how animal studies of learning and memory can be translated into human neuroscience to uncover the roots of mental illness. Broadly, Jonathan is interested in how learned associations can become too persistent or inflexible and how this could be remediated. His PhD dissertation focused on the role of serotonin in adjusting emotional reactions and learned behaviors to meet new environmental demands, and he uncovered different forms of inflexible actions in obsessive-compulsive disorder and addiction. Jonathan is excited by clinical applications of memory reconsolidation research, whereby maladaptive associations, such as those leading to drug craving, might be diminished through revision of the memory trace rather than by mere inhibition. Jonathan was awarded the Angharad Dodds John Fellowship in Mental Health and Neuropsychiatry at the University of Cambridge and won the American College of Neuropsychopharmacology (ACNP) Travel Award. He was also a member of the Trinity College Postdoctoral Society at Cambridge. Jonathan has published 19 peer-reviewed journal articles, with nine as first author, in numerous high impact journals including Proceedings of the National Academy of Sciences, Molecular Psychiatry, JAMA Network Open, and the Journal of Neuroscience. His work has been presented at over 20 conferences and he has delivered lectures to audiences across nine countries. Jonathan is also a saxophonist and among other credits was awarded the Reinstein Prize for Jazz at the University of Cambridge. In his spare time, he enjoys seeing shows at various NYC jazz clubs and comparing pastrami sandwiches across delis.

Started residency at Mount Sinai, July 2023 - Present

Research Plans: neurochemical modulation of learning and memory, cognitive flexibility, memory reconsolidation, compulsivity, OCD, substance use disorders

Research Mentors: Daniela Schiller, PhD, Xiaosi Gu, PhD

Select peer-reviewed journal articles

- 1. **Kanen JW**, Luo Q, Rostami Kandroodi M, Cardinal RN, Robbins TW, Nutt DJ, Carhart-Harris RL, den Ouden HEM. Effect of lysergic acid diethylamide (LSD) on reinforcement learning in humans. <u>Psychological Medicine</u>. 2022
- Kanen JW, Apergis-Schoute AM, Yellowlees R, Arntz FE, van der Flier FE, Price A, Cardinal RN, Christmas DM, Clark L, Sahakian BJ, Crockett MJ, Robbins TW. Serotonin depletion impairs both Pavlovian and instrumental reversal learning in healthy humans. <u>Molecular Psychiatry</u>. 2021
- Kanen JW, Ersche KD, Fineberg NA, Robbins TW, Cardinal RN. Computational modelling reveals contrasting effects on reinforcement learning and cognitive flexibility in stimulant use disorder and obsessivecompulsive disorder: remediating effects of dopaminergic D2/3 receptor agents. <u>Psychopharmacology</u> 2019
- Schiller D, Kanen JW, LeDoux JE, Monfils MH, Phelps EA. Extinction during reconsolidation of threat memory diminishes prefrontal cortex involvement. <u>Proceedings of the National Academy of Sciences</u> 2013

Main Residency Match® Numbers

General Clinical Track: Physician-Scientist Track: Psychiatry – 1490400**C0** Psychiatry/Physician-Scientist – 1490400**C2**



Research Track Psychiatry Residency at the Icahn School of Medicine at Mount Sinai

Training Director and Vice Chair of Education: Dr. Antonia S. New, MD. antonia.new@mssm.edu Associate Training Director (Research Track): Dr. M. Mercedes Perez-Rodriguez, MD, PhD. mercedes.perez@mssm.edu Associate Training Director (Clinical Track): Dr. Asher B. Simon, MD. asher.simon@mssm.edu