

# The NKI Informer



A newsletter of the Nathan S. Kline Institute for Psychiatric Research

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July – August 2022

Stuart Moss, MLS, Editor

## SUMMER SCHOLARS AT NKI

Contributed by Kristin Dietz Trautman, LCSW and Anna MacKay-Brandt, PhD

The sixth NKI Summer Scholars Program concluded the first week of August, although several of the participants will be continuing as interns during the next academic year. This summer, we hosted a large group of advanced undergraduates who worked on diverse projects both on-site and remotely. At weekly seminars, NKI investigators presented aspects of their research and discussed their personal academic and career paths. Several Scholars received stipends through their colleges for summer living expenses.

Anna Kim, one of this year's Summer Scholars, is a student at Middlebury College where she is pursuing an interest in philosophy of science and ethics in psychology. Since she plans to become a therapist or social worker, she wanted to work with people in her internship and chose to focus on the recruitment of participants for the NKI Rockland Sample study. As part of her internship, Anna wrote about her experience and reflected on social justice, equity, accessibility, and trust in the context of psychiatric research. Here is some of what she wrote.

*The majority of my summer experience revolved around recruiting individuals for the Rockland Sample by calling, screening, and consenting*

*interested individuals. Not surprisingly, the calls themselves could be tedious, and I was often greeted with voice messages or hung up on. But, when I got to chat with participants and go through the process of informed consent with those who decided to participate, I felt a profound gratitude for the scientific process and a sense of pride that I was able to partake in the goals of bettering peoples' psychiatric health. (cont. p.2)*

### The 2022 Summer Scholars

- Sarah Abdelaziz Fordham University
- Connie Cai Harvard University
- Grace Chapis Hamilton College
- Clare Culver Fordham University
- Huixin Deng Lafayette College
- Alyssa DiFalco Saint John's University
- Mia Dominick Brown University
- Kai Xuan Gan UCLA
- Ella Garnett Bowdoin College
- Anna Kim Middlebury College
- Nora Liu UCLA
- Emily Mets Binghamton University
- Maxwell Riseman University of Rochester
- Andrea Suazo Rivas Grinnell College
- Jade Turbides City College of New York
- Ava Waters Vassar College

*Most of us consume information about various psychological studies and these are often boiled down to a one or two sentence summary of a study that took years to complete. Taking part in the process not only allowed me to understand the process about which I constantly read, but also (and more importantly) better understand the humanity and personhood at the core of psychiatric research. Talking with individuals worried about their aging and IQ individually is much different than reading broad statistics about aging and brain health. Working as part of a bigger goal at an individual level provides me with a sense of humility and gratitude for the driven individuals who dedicate their careers to the betterment of our minds.*

*This experience has furthered my skill set in working with people in a mental health/psychological setting. I also am grateful that I was able to gain mentorship and meaningful connections with co-workers within NKI. I thoroughly enjoyed the weekly intern seminars that cover the topics of NKI researchers in an interdisciplinary manner. Such seminars gave me plenty of guidance through the power of lived experiences while I am considering possible career trajectories.*

NKI's summer internship program has developed into a robust educational experience that is clearly of great value to the participants. The students will return to their undergraduate studies with a greater understanding of the research process and of careers in related fields.

## KUDOS



**Jean-Pierre Lindenmayer, MD** (Director of Research at the Manhattan Psychiatric Center Psychopharmacology Research Unit) has received the Dr. Lewis Opler Memorial Award from [NAMI-NYS](#). This award recognizes the impact Dr. Lindenmayer has made with his decades of work in research and support for those affected by mental health conditions. The award will be presented at the NAMi-NYS 2022 Education Conference in November.



The University of Texas at San Antonio  
**Oskar Fischer Prize**

**Dr. Ralph Nixon**, Director of NKI's Center for Dementia Research, has spent the last three decades working to uncover the fundamental cellular basis of Alzheimer's disease. This work by Dr. Nixon and his laboratory has been recognized with the awarding of the [Oskar Fischer Prize](#), an international competition to expand society's understanding of the causes of Alzheimer's. Dr. Nixon is one of four gold prize recipients.



**Vinod Yaragudri, PhD** (Emotional Brain Institute) and his coauthors have been selected as 2022 recipients of the Distinguished Scholar Award by the [Society for Birth Defects Research and Prevention](#). This award recognizes senior authors for the importance, impact, and relevance of their published works in the field of birth defects research. The [ground-breaking research](#) of Dr. Yaragudri and his colleagues on the endo-cannabinoid system in embryo neurodevelopment demonstrated early embryonic expression of the ligand/receptor signaling pathway critical for development and toxicology in two vertebrate models, the chicken and the mouse. This study has gained in importance due to the increasing use/availability of cannabis-derived products and subsequent exposures that occur in utero in humans.



**American College of  
Neuropsychopharmacology**

**Dr. Carla Nasca** (Dementia Research) has been elected to Associate Member status in the American College of Neuropsychopharmacology (ACNP).



Department of Health

Wadsworth Center

Haige Zheng (OMH Clinical Laboratory) has developed and validated a new method on the LCMS/MS instrument to test MDA and MDMA to ensure that concentrations of these new components used in patient specimen tests are accurate. By validating amphetamine and methamphetamine on the same instrument, he has reduced their turn around time from 20 min to 5 minutes per specimen. Haige’s assay method has received conditional approval from the NYS Department of Health.

### GRANTS RECEIVED



International OCD Foundation

Drs. Emily Stern and Mohammed Milad (Clinical Research) received a Breakthrough Award from the International Obsessive-Compulsive Disorder Foundation for their project titled “Neural mechanisms of active avoidance in obsessive-compulsive disorder.”



Dr. Sam Neymotin (Biomedical Imaging & Neuromodulation) received a seedling grant from the U.S. Army Research Laboratory for the project titled “Training integrated hippocampal, prefrontal, and motor cortex circuits to navigate virtual agents in simulated environments.”

### PUBLICATIONS OF NOTE



This open access paper coauthored by Christopher Cain (Emotional Brain Institute) is featured on the cover of the August issue of *Learning & Memory*.

Ostroff LE, Cain CK. Persistent up-regulation of polyribosomes at synapses during long-term memory, reconsolidation, and extinction of associative memory. Learn Mem. 2022 Jul 26;29(8):192-202. PMID: 35882501.



Clinical Evaluation Center Director Russell Tobe is a coauthor of this autism clinical trial report published in the August issue of *JAMA Psychiatry*.

Hollander E, Jacob S, Jou R, McNamara N, Sikich L, Tobe R, Smith J, Sanders K, Squassante L, Murtagh L, Gleissl T, Wandel C, Veenstra-VanderWeele J. Balovaptan vs Placebo for Social Communication in Childhood Autism Spectrum Disorder: A Randomized Clinical Trial. JAMA Psychiatry. 2022 Jul 6. PMID: 35793101.



Director of Clinical Research Dan Iosifescu wrote an editorial for *JAMA* commenting on a new clinical trial report.

Iosifescu DV. Pharmacogenomic Testing for Next-Step Antidepressant Selection: Still a Work in Progress. JAMA. 2022 Jul 12;328(2):146-148. PMID: 35819435.

## THE LANCET Psychiatry

**Ayana Jordan** (Social Solutions & Services) is the first author of this review appearing in *The Lancet Psychiatry*.

Jordan A, Quainoo S, Nich C, Babuscio TA, Funaro MC, Carroll KM. [Racial and ethnic differences in alcohol, cannabis, and illicit substance use treatment: a systematic review and narrative synthesis of studies done in the USA](#). *Lancet Psychiatry*. 2022 Aug;9(8):660-675. PMID: 35752192.



**Mohammed Milad** (Clinical Research) is the corresponding author of this open access paper in *PNAS*.

Wen Z, Raio CM, Pace-Schott EF, Lazar SW, LeDoux JE, Phelps EA, Milad MR. [Temporally and anatomically specific contributions of the human amygdala to threat and safety learning](#). *PNAS*. 2022 Jun 28; 119(26):e2204066119. PMID: 35727981.



**Kerstin Pahl**, **Sharifa Williams**, **Crystal Lewis**, and **Marilena Lekas** are coauthors of this paper in *Social Science & Medicine*.

Pahl K, Williams SZ, Capasso A, Lewis CF, Lekas HM. [A longitudinal pathway from ethnic-racial discrimination to sexual risk behaviors among Black women and Latinas: Ethnic-racial identity exploration as a protective factor](#). *Soc Sci Med*. 2022 May 21:115061. PMID: 35637046.

## scientific data

This open access article by **Russell Tobe** (Clinical Evaluation Center), **Michael Milham** (Center for Biomedical Imaging & Neuromodulation), and numerous NKI colleagues appears in *Scientific Data*. The article describes the Longitudinal Discovery of Brain Development Trajectories substudy of the NKI-Rockland Sample.

Tobe RH, MacKay-Brandt A, Lim R, Kramer M, Breland MM, Tu L, Tian Y, Trautman KD, Hu C, Sangoi R, Alexander L, Gabbay V, Castellanos FX, Leventhal BL, Craddock RC, Colcombe SJ, Franco AR, Milham MP. [A longitudinal resource for studying connectome development and its psychiatric associations during childhood](#). *Sci Data*. 2022 Jun 14;9(1):300. PMID: 35701428.



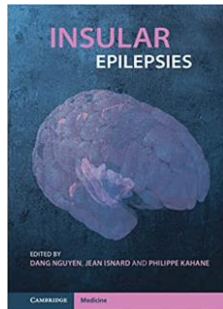
**Lila Davachi** (Biomedical Imaging & Neuromodulation) is the senior author of this review published in *Trends in Cognitive Sciences*.

Dunsmoor JE, Murty VP, Clewett D, Phelps EA, Davachi L. [Tag and capture: how salient experiences target and rescue nearby events in memory](#). *Trends Cogn Sci*. 2022 Jul 13:S1364-6613(22)00140-1. PMID: 35842373.



**Crystal Lewis** and **Marilena Lekas** (Social Solutions & Services) coauthored this open access commentary piece in *Academic Psychiatry*.

Drake C, Lewis CF, Lekas HM. [Reckoning with Racism in the Match Process](#). *Acad Psychiatry*. 2022 Jun 30:1-4. PMID: 35768748.



**Henry Evrard** (Translational Neuroscience Laboratories) contributed this chapter to a new book on insular epilepsies.

Evrard HC. [Interoceptive Integration in the Primate Insular Cortex](#). In: Nguyen D, Isnard J, Kahane P, editors. *Insular Epilepsies*. Cambridge University Press; 2022. p. 52-66.



**Ricardo Osorio** (Clinical Research) is a coauthor of these two articles recently published in the *American Journal of Respiratory and Critical Care Medicine*.

Bubu OM, Kaur SS, Mbah AK, Umasabor-Bubu OQ, Ramos-Cejudo J, Debure L, Mullins AE, Parekh A, Kam K, Osakwe ZT, Williams ET, Turner AD, Glodzik L, Rapoport DM, Ogedegbe G, Fieremans E, de Leon MJ, Ayappa I, Jean-Louis G, Masurkar AV, Varga AW, Osorio RS. [Obstructive Sleep Apnea and Hypertension with Longitudinal  \$\beta\$ -Amyloid Burden and Cognitive Changes](#). *Am J Respir Crit Care Med*. 2022 May 12. PMID: 35550019.

Kam K, Jun J, Parekh A, Bubu OM, Mullins AE, Gu C, Pham L, Wisniewski TM, Rapoport DM, Ayappa I, Osorio RS, Varga AW. [Acute OSA Impacts Diurnal Alzheimer's Biomarkers Through Nocturnal Hypoxemia and State Transitions](#). *Am J Respir Crit Care Med*. 2022 Jun 13. PMID: 35696622.



**Chelsea Reichert Plaska** (Geriatric Psychiatry) is the first author of this open access paper in *Brain Connectivity*. The article reports some of Dr. Reichert Plaska's dissertation research.

Plaska CR, Ortega J, Gomes BA, Ellmore TM. [Interhemispheric Connectivity Supports Load-Dependent Working Memory Maintenance for Complex Visual Stimuli](#). *Brain Connect*. 2022 Jun 1. PMID: 35473394.



This review by **Umit Tural** and **Dan Iosifescu** (Clinical Research) appears in the *International Journal of Eating Disorders*.

Tural U, Iosifescu DV. [Adiponectin in anorexia nervosa and its modifiers: A meta-regression study](#). *Int J Eat Disord*. 2022 Jun 11. PMID: 35689560.



**Robert Smith** (Neurochemistry) is a corresponding author of this paper recently published in *Brain Imaging and Behavior*.

Liu Y, Li H, Li W, Wang Y, Jiang J, Cao X, Zhang T, Tang Y, Wang J, Yao D, Luo C, Smith RC, Li C. [Effects of transcranial direct current stimulation on brain changes and relation to cognition in patients with schizophrenia: a fMRI study](#). *Brain Imaging Behav*. 2022 Jul 4. PMID: 35781191.



## brain sciences

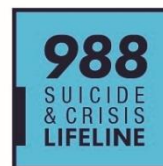
**Shivakumar Subbanna** and **Basavaraj Balapal** (Dementia Research) published their latest work in the open access journal *Brain Sciences*. This research suggests that binge-like prenatal alcohol exposure during the sensitive stages of pregnancy in mice causes impairments in synaptic plasticity-associated proteins and bidirectional synaptic plasticity (LTP and LTD), leading to persistent FASD-like neurobehavioral abnormalities in mice. The article appears in a planned special issue on "New Advances in Neurobiology and Behavioral Disturbance in Alcohol Use Disorder (AUD) including Fetal Alcohol Spectrum Disorder (FASD)", edited by Dr. Balapal.

Subbanna S, Basavarajappa BS. [Binge-like Prenatal Ethanol Exposure Causes Impaired Cellular Differentiation in the Embryonic Forebrain and Synaptic and Behavioral Defects in Adult Mice](#). *Brain Sci.* 2022 Jun 17;12(6):793. PMID: 35741678.

### INFO UPDATE



"On the internet," as the old cartoon goes, "[nobody knows you're a dog](#)". And since most anybody can post most anything online, it's important for the browser to beware. That's especially true when it comes to health information, where misinformation can have serious consequences. To help you avoid the "dogs" and find information you can trust, here is a useful web page from the NIH Office of Dietary Supplements offering guidance on "[How To Evaluate Health Information on the Internet](#)".



Last month, the National Suicide & Crisis Prevention Lifeline transitioned to 988 – an easy-to-remember three-digit number. When you call or text 988, you will be connected to the National Suicide Prevention Lifeline network, made up of around 200 crisis call centers and national backup centers. That means anyone, anywhere in the country, can contact 988 during a mental health crisis and be connected with a trained crisis counselor who can listen, provide support, deescalate the situation and connect you to additional resources that might help. The Lifeline can respond to any type of mental health crisis or emotional distress. It is free, confidential, and open to a person in crisis or someone calling on behalf of another. For more information, see [this SAMHSA web page](#).

The NKI librarian is always available to assist with literature searching, citation searching (Web of Science, Scopus), bibliographic reference management, and the like. When you have any information needs, or questions about available resources, don't hesitate to turn to us.

The library offers a comfortable, quiet space for reading, work, and small meetings. To use the library's Wi-Fi network, ask the library staff for the password.

You can [link to the NKI Library's website](#) from myNKI. The Library site includes quick links to the NYU Health Sciences Library and to the New York State Library, as well as links to NKI's own library resources ([journal finder](#), [online catalog](#), etc.).

## EVENTS AND SEMINARS

### The NKI Community Building Committee

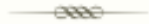
#### Sweet September BBQ 2022

Tuesday Sept. 13th (1-3pm)

Rain date: Sept. 14th

Location – Outside of the atrium entrance

*The NKI Community Building Committee (CBC) is organizing a BBQ for the NKI Community where all personnel, researchers and staff are invited to join. It has been some time since we could plan and have such a get together, so we look forward to a nice time spent with friends and colleagues. Vegetarian food options will be available as well.*



### Center for Biomedical Imaging and Neuromodulation Science Series

Held on Mondays at 11 am via Zoom  
(Meeting ID: 214 282 6575)

#### Michael Lipton, MD, PhD

Montefiore Medical Center  
Albert Einstein College of Medicine

September 19

#### Thomas Funck, PhD

Institute of Neuroscience and Medicine  
Research Centre Jülich, Germany

September 26



### NAMI Rockland's Annual 5K Run/Walk for Wellness

Sunday, September 18<sup>th</sup>  
at Rockland Lake State Park

[Click here](#) to register or create a team.

*If you know Rena Finkelstein and would like to join her team or donate, [click here](#).*

The New York State Office of Mental Health (OMH) regularly hosts an interactive video broadcast covering the latest research, technology, and treatment implementation in the fields of psychiatry and psychology. These programs are recorded, and the archived Statewide Grand Rounds programs can be viewed [on the OMH website](#).

## NKI ON THE ROAD



### Behavioral Health Grand Rounds

**Emily Stern** (Clinical Research) gave the NYU Behavioral Health Grand Rounds on July 20. Dr. Stern's presentation topic was "Measuring and Modulating Sensory Phenomena in Obsessive-Compulsive Disorder".



**Christos Lisgaras** (Center for Dementia Research) made many contributions to the recent [European Epilepsy Congress](#) in Geneva. He gave a basic science presentation on "Hippocampal area CA2 as a novel therapeutic target in epilepsy" and presented in a forum on "From cell to biomarker – renaissance of EEG?", which he also co-chaired. He also co-chaired a conference session on Clinical Neurophysiology and was a facilitator for a Neurophysiology networking session.

In addition, Dr. Lisgaras gave two video interviews on data that were presented at the conference. These interviews can be viewed on VJ Dementia ([First description of a novel EEG biomarker in animal models of Alzheimer's disease](#)) and on VJ Neurology ([Hippocampal area CA2 as a novel therapeutic target in epilepsy](#)).

## NKI PUBLICATIONS UPDATE

Below is a list of references that have been added to the NKI publications database since the previous update. The full database contains over 6,800 items dating back to 1995 and can be searched from the [myNKI website](#).

Adam O, Blay M, Brunoni AR, Chang HA, Gomes JS, Javitt DC, Jung DU, Kantrowitz JT, Koops S, Lindenmayer JP, Palm U, Smith RC, Sommer IE, Valiengo LDCL, Weickert TW, Brunelin J, Mondino M. Efficacy of Transcranial Direct Current Stimulation to Improve Insight in Patients with Schizophrenia: A Systematic Review and Meta-analysis of Randomized Controlled Trials. *Schizophr Bull.* 2022 Jul 12;sbac078. PMID: 35820035.

Adebimpe A, Bertolero M, Dolui S, Cieslak M, Murtha K, Baller EB, Boeve B, Boxer A, Butler ER, Cook P, Colcombe S, Covitz S, Davatzikos C, Davila DG, Elliott MA, Flounders MW, Franco AR, Gur RE, Gur RC, Jaber B, McMillian C; ALLFTD Consortium, Milham M, Mutsaerts HJMM, Oathes DJ, Olm CA, Phillips JS, Tackett W, Roalf DR, Rosen H, Tapera TM, Tisdall MD, Zhou D, Esteban O, Poldrack RA, Detre JA, Satterthwaite TD. ASLPrep: a platform for processing of arterial spin labeled MRI and quantification of regional brain perfusion. *Nat Methods.* 2022 Jun;19(6):683-686. PMID: 35689029.

Awile O, Kumbhar P, Cornu N, Dura-Bernal S, King JG, Lupton O, Magkanaris I, McDougal RA, Newton AJH, Pereira F, Sävulescu A, Carnevale NT, Lytton WW, Hines ML, Schürmann F. Modernizing the NEURON Simulator for Sustainability, Portability, and Performance. *Front Neuroinform.* 2022 Jun 27; 16:884046. PMID: 35832575.

Blessing EM, Parekh A, Betensky RA, Babb J, Saba N, Debure L, Varga AW, Ayappa I, Rapoport DM, Butler TA, de Leon MJ, Wisniewski T, Lopresti BJ, Osorio RS. Association between lower body temperature and increased tau pathology in cognitively normal older adults. *Neurobiol Dis.* 2022 May 10; 171:105748. PMID: 35550158.



Bruno D, Jauregi Zinkunegi A, Pomara N, Zetterberg H, Blennow K, Kosciak RL, Carlsson C, Bendlin B, Okonkwo O, Hermann BP, Johnson SC, Mueller KD. Cross-sectional associations of CSF tau levels with Rey's AVLT: A recency ratio study. *Neuropsychology*. 2022 May 23. PMID: 35604714.

Bubu OM, Kaur SS, Mbah AK, Umasabor-Bubu OQ, Ramos-Cejudo J, Debure L, Mullins AE, Parekh A, Kam K, Osakwe ZT, Williams ET, Turner AD, Glodzik L, Rapoport DM, Ogedegbe G, Fieremans E, de Leon MJ, Ayappa I, Jean-Louis G, Masurkar AV, Varga AW, Osorio RS. Obstructive Sleep Apnea and Hypertension with Longitudinal  $\beta$ -Amyloid Burden and Cognitive Changes. *Am J Respir Crit Care Med*. 2022 May 12. PMID: 35550019.

Bunting AM, Krawczyk N, Choo TH, Pavlicova M, McNeely J, Tofighi B, Rotrosen J, Nunes E, Lee JD. Polysubstance use before and during treatment with medication for opioid use disorder: Prevalence and association with treatment outcomes. *J Subst Abuse Treat*. 2022 Jun 22:108830. PMID: 35773113.

Chen X, Lu B, Li HX, Li XY, Wang YW, Castellanos FX, et al. The DIRECT consortium and the REST-meta-MDD project: towards neuroimaging biomarkers of major depressive disorder. *Psychoradiology* 2022 March 1;2(1):32-42.

Chen YF, Song Q, Colucci P, Maltese F, Siller-Pérez C, Prins K, McGaugh JL, Hermans EJ, Campolongo P, Nadif Kasri N, Roozendaal B. Basolateral amygdala activation enhances object recognition memory by inhibiting anterior insular cortex activity. *Proc Natl Acad Sci U S A*. 2022 May 31; 119(22): e2203680119. PMID: 35622887.

Cohen AO, Glover MM, Shen X, Phaneuf CV, Avallone KN, Davachi L, Hartley CA. Reward enhances memory via age-varying online and offline neural mechanisms across development. *J Neurosci*. 2022 Jul 1:JN-RM-1820-21. PMID: 35790398.

Crawford ND, Lewis C, Moore R, Pietradoni G, Weidle P. Examining the multi-level barriers to pharmacy-based HIV prevention and treatment services. *Sex Transm Dis*. 2022 May 12. PMID: 35550478.

Das BC, Nandwana NK, Das S, Nandwana V, Shareef MA, Das Y, Saito M, Weiss LM, Almaguel F, Hosmane NS, Evans T. Boron Chemicals in Drug Discovery and Development: Synthesis and Medicinal Perspective. *Molecules*. 2022 Apr 19;27(9):2615. PMID: 35565972.

Ding YD, Chen X, Chen ZB, Li L, Li XY, Castellanos FX, et al. Reduced nucleus accumbens functional connectivity in reward network and default mode network in patients with recurrent major depressive disorder. *Transl Psychiatry*. 2022 Jun 6;12(1):236. PMID: 35668086.

Drake C, Lewis CF, Lekas HM. Reckoning with Racism in the Match Process. *Acad Psychiatry*. 2022 Jun 30:1–4. PMID: 35768748.

Dromard Y, Arango-Lievano M, Borie A, Dedin M, Fontanaud P, Torrent J, Garabedian MJ, Ginsberg SD, Jeanneteau F. Loss of glucocorticoid receptor phosphorylation contributes to cognitive and neurocentric damages of the amyloid- $\beta$  pathway. *Acta Neuropathol Commun*. 2022 Jun 22;10(1):91. PMID: 35733193.

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Jordan A, Quainoo S, Nich C, Babuscio TA, Funaro MC, Carroll KM. Racial and ethnic differences in alcohol, cannabis, and illicit substance use treatment: a systematic review and narrative synthesis of studies done in the USA. *Lancet Psychiatry*. 2022 Aug;9(8):660-675. PMID: 35752192.

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Kelley CM, Ginsberg SD, Liang WS, Counts SE, Mufson EJ. Posterior cingulate cortex reveals an expression profile of resilience in cognitively intact elders. *Brain Commun*. 2022 Jun 21;4(4):fcac162. PMID: 35813880.

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