

The NKI Informer



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

Donald C. Goff, MD, Director
Antonio Convit, MD, Deputy Director
Thomas O'Hara, MBA, Deputy Director, Institute Administration

May – June 2020

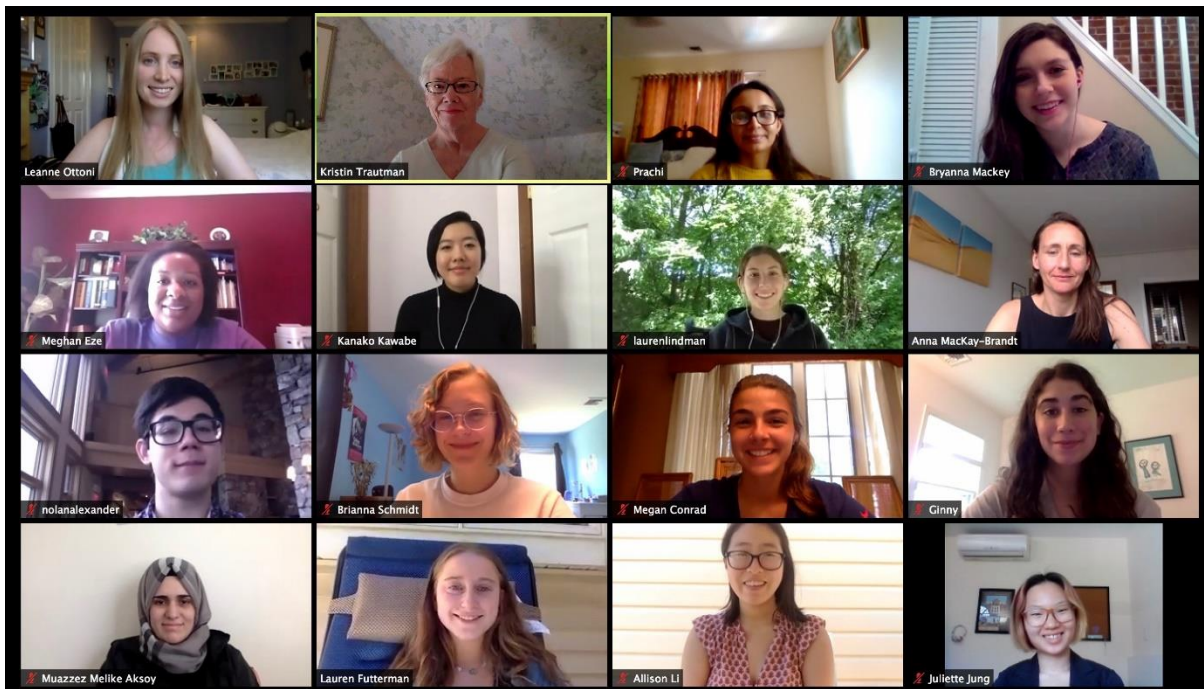
Stuart Moss, MLS, Editor

The NKI Summer 2020 Internship Program

By Kristin Dietz Trautman, LCSW and Anna MacKay-Brandt, PhD

NKI has a long tradition of individual investigators mentoring volunteer interns. With the growth of the NKI-Rockland Sample Research Initiative over the last few years, we began to develop a larger, enriched summer program for college students – one that would be educational and would support the work of the NKI-Rockland Sample.

The program has since grown to include more faculty and a greater diversity of research areas. The number and caliber of college students participating as interns have also increased steadily, due in large part to continuous postings on online recruiting platforms for students in colleges across the country such as Handshake and Simplicity.



NKI's 2020 summer interns meet virtually with their supervisors

NKI Summer Interns' Weekly Didactic Program

Core Content Areas:

- Basics of Neuroimaging (with Dr. Stan Colcombe, Director of Human Imaging, Center for Biomedical Imaging & Neuromodulation)
- Cognitive Testing in Clinical and Research Contexts (with Dr. Anna MacKay-Brandt, Neuropsychologist)
- Biostatistics (with Dr. Sharifa Williams, Research Scientist/Biostatistician)
- Clinical Research (with Dr. Russell Tobe, Director of the Clinical Evaluation Center)
- Professional Development (with Kristin Dietz Trautman, LCSW, Research Scientist, Outreach/Education Liaison)

Scientific Talks past and present:

- Cardiorespiratory Fitness and Brain Health (Dr. Colcombe)
- Cognitive Aging Interventions (Dr. MacKay-Brandt)
- Memory Training (Dr. MacKay-Brandt)
- Nutritional Factors and Alzheimer's Disease Risk (Dr. Yian Gu, Columbia University)
- Imaging and Alzheimer's Disease (Dr. Ardekani)

Professional Development presentations:

- Career trajectories (Neuropsychologist, Biomedical Engineer, Psychiatrist, Research Psychologist, Social Worker, Epidemiologist)

This summer, the program has been reworked as a remote internship in response to the coronavirus crisis restrictions. We are delighted to have sixteen summer interns from six NKI research groups participating remotely.

An unexpected benefit of this experiment is the possibility of expanding the program to include both remote and in-person internships during the summer and throughout the academic year. Without the limitations of local residency or affordable summer housing, our program will be available to a larger and more diverse applicant pool.

We believe that the most successful summer internship includes an intensive and well-planned program with a supervisor along with an opportunity to come together with a diverse group of students for presentations and discussions focused on the interns' educational and career goals. To this end, we hold weekly meetings for all

members of the program targeted to interns' level of prior exposure across a range of content areas.

The NKI Summer Internship Program reflects the commitment of a few key NKI faculty who provide didactic presentations and serve as supervisors to interns. We hope to continue to expand the program across departments and disciplines, and we invite NKI faculty and their interns to participate.

"One of my favorite parts of the NKI Internship Program last summer was the weekly didactic meetings because they offered an opportunity to meet with, and learn from, interns and researchers from many different departments. I am excited to return to NKI this year because it gives me the chance to work on the new COVID-19 project and feel like I am making a meaningful difference during the pandemic."

*Gwyneth Maloy,
2019 and 2020 summer intern*

FROM AROUND THE INSTITUTE

NOTES FROM A SURVIVOR

[Aileen Snider's husband, Barie, was lost to COVID-19 in April. Here, Aileen shares her experience.]

First, let me thank everyone for their concern and good wishes. Receiving notes, offers of help, and condolences provided much comfort – not only to me, but to my extended family. The cards, letters, and gifts were heartfelt and appreciated and provided much solace during many difficult days.

This is a terrible disease. Unfortunately, it is an unknown disease – new symptoms are added and conflicting information on testing and immunity are often confusing. My husband's initial symptom was a sore throat which, at the time, was not thought to be connected to COVID. My symptoms and my daughter's were different. We had fevers (although not especially high), fatigue, gastro-intestinal issues, muscle spasms, numbness in the hands and feet, and body aches – none of which we initially connected to COVID. I had shortness of breath. Neither of us had a cough or difficulty breathing. We took Tylenol for the fever and drank plenty of fluids. Neither of us had much of an appetite, but we had plenty of fresh fruit. I would put a pot of water on the stove until it came to a simmer and then would breathe in the steam (3 or 4 deep breaths). This helped my oxygenation level. Having a reliable thermometer and pulse oximeter is vital. We took our temperature every 4 hours when we had a fever and then 3 times a day as we recovered. We also kept a record of our temperature. Thankfully, my daughter and I recovered and have tested negative for COVID and positive for antibodies.

Please take this disease seriously. My husband was healthy, active, and athletic. I am not. It is not only the elderly and infirm that have poor outcomes. Please keep safe and I hope that you and those you care about are well.

With much affection,
Aileen

The MERI Program During the Coronavirus Pandemic

Contributed by the Geriatric Psychiatry Department

During the current pandemic, Dr. Pomara and the Geriatric Psychiatry Division (GERI) have been eager to stay in contact with our Memory Education and Research Initiative (MERI) community. While the GERI team is working safely from home, we wanted to make sure that the MERI community knew that we are here for them as a resource and we are eager to see them again in person. With that in mind, the GERI team came up with the idea, during our weekly virtual meeting, to check in with our large MERI network to let them know that we are here for them! We have formed an essential community of individuals that are as interested in helping advance science as they are in getting "cognitive check-ups". With this in mind, we are reaching out to the MERI community to capture information about their pandemic experience. After they agree to talk to us about their experience, we have been scheduling brief phone calls in which we administer seven surveys to assess changes in mood, stress, sleeping habits and lifestyle. We are using several surveys that are already part of the MERI program so that we can assess change since their last visit, as well as including some new surveys that are pertinent to the current situation.



Annie Schatz is conducting surveys remotely

Overall, the response to this effort has been very positive! Of the MERI participants that we have connected with thus far, most report that they are retired. Many are finding ways to stay active by:

- Volunteering for organizations such as Disaster Medical Assistance Teams (DMAT)
- Keeping in contact with loved ones and neighbors
- Sewing masks to donate
- Helping their neighbors by food shopping for them

In general, we have found that many people have a positive mindset and that they are grateful for good health as well as their loved ones remaining healthy during this time. We are eager to learn about how the pandemic will impact our community and the potential changes it may have on memory and cognition as we continue to speak with our MERI community. We look forward to sharing the results of this research in the future.

These calls have been a great reminder that this is a time to reach out to those you love but also to extend a hand to the next-door neighbor. We hope that everyone in the NKI community is staying safe and healthy!



The GERI team has been meeting virtually

Celebrating NKI's Essential Animal Facility Employees

Animal Facility staff have continued to do their good work on site throughout the pandemic. Fortunately, they have kept up their spirits with occasional celebrations – see the photos below from Taylor Hendrickson. In addition, the staff's efforts have been recognized by Dr. Mark Klinger and Kathleen Shannon with lunch "on the house" on Fridays. They are looking forward to being joined by other staff when NKI can safely reopen for all.



Marcos Munoz celebrates his 19th year at NKI



Cynthia Castro is a brand-new hire who just graduated from Dominican College



The staff also wished Kevin Knorowski a happy birthday

The Big Dig

While many of us have been working from home during the shutdown, some emergency work had to be undertaken at NKI to repair collapsed storm drainpipes in the inner courtyard of building 39. This fix required a crane to drop in excavation equipment to access and replace the broken pipes. Thanks to Henry Sershen and Tom O'Hara for the photos.



A crane was required to access the problem area



Evidence of the problem



Fortunately, the end of the rainbow was in sight

KUDOS



Dr. Abel Lajtha (Neurochemistry) was interviewed for the website Hungary Today. In the interview, he shared his perspective as one of the founders of the Friends of Hungary Foundation and on other issues. You can find the interview [here](#).

PUBLICATIONS OF NOTE



The NEW ENGLAND
JOURNAL of MEDICINE

NKI Director **Donald Goff** published this editorial in a recent issue of the *New England Journal of Medicine*.

Goff DC. [Promising Evidence of Antipsychotic Efficacy without Dopamine D2-Receptor Binding](#). *N Engl J Med*. 2020 Apr 16;382(16):1555-1556. PMID: 32294351.



Michael Milham, Director of the Center for Biomedical Imaging and Neuromodulation, is a senior author of this paper in *JAMA Network Open*. The paper is the subject of an [invited commentary](#) in the same journal, and [received notice](#) in *Contemporary Pediatrics*.

Margolis AE, Broitman J, Davis JM, Alexander L, Hamilton A, Liao Z, Banker S, Thomas L, Ramphal B, Salum GA, Merikangas K, Goldsmith J, Paus T, Keyes K, Milham MP. [Estimated Prevalence of Nonverbal Learning Disability Among North American Children and Adolescents](#). *JAMA Netw Open*. 2020 Apr 1;3(4):e202551. PMID: 32275324.

Molecular Psychiatry

Catarina Cunha, Cátia Teixeira (Emotional Brain Institute) and other NKI investigators have a new publication in *Molecular Psychiatry*. The authors note that “our data provide translational insight into developmental mechanisms underlying endophenotypes of neuropsychiatric disorders. Such insights into how environmental factors can confer risk for later-occurring disorders could be relevant to efforts to improve prevention, advance age of first diagnoses and enhance treatment outcomes.”


Cunha C, Smiley JF, Chuhma N, Shah R, Bleiwas C, Menezes EC, Seal RP, Edwards RH, Rayport S, Ansoorge MS, Castellanos FX, Teixeira CM. [Perinatal interference with the serotonergic system affects VTA function in the adult via glutamate co-transmission](#). *Mol Psychiatry*. 2020 May 12. PMID: 32398719.

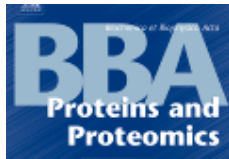


nature medicine

Director of Clinical Research **Dan Iosifescu** is a coauthor of this article in the May issue of *Nature Medicine*. The study is described in this [NIMH press release](#).

Krystal AD, Pizzagalli DA, Smoski M, Mathew SJ, Nurnberger J Jr, Lisanby SH, Iosifescu D, Murrough JW, Yang H, Weiner RD, Calabrese JR, Sanacora G, Hermes G, Keefe RSE, Song A, Goodman W, Szabo ST, Whitton AE, Gao K, Potter WZ. [A randomized proof-of-mechanism trial applying the 'fast-fail' approach to evaluating \$\kappa\$ -opioid antagonism as a treatment for anhedonia](#). *Nat Med*. 2020 May; 26(5):760-768. PMID: 32231295.





Ralph Nixon, Director of the Center for Dementia Research, published a new review on lysosomes in *Biochimica et Biophysica Acta (BBA) – Proteins and Proteomics*.

Nixon RA. [The aging lysosome: An essential catalyst for late-onset neurodegenerative diseases](#). *Biochim Biophys Acta Proteins Proteom*. 2020 May 13:140443. PMID: 32416272.



Dr. Nixon is also a coauthor of a recent paper appearing in *Brain*.

Gafson AR, Barthélemy NR, Bomont P, Carare RO, Durham HD, Julien JP, Kuhle J, Leppert D, Nixon RA, Weller RO, Zetterberg H, Matthews PM. [Neurofilaments: neurobiological foundations for biomarker applications](#). *Brain*. 2020 May 14. PMID: 32408345.



Pamela Butler (Clinical Research) is coauthor of a commentary piece published in the spring issue of *Psychiatria Danubina*.

Malaspina D, Butler PD. [A Vision for Psychosis Research: Commentary on "New Insights into Schizophrenia: a Look at the Eye and Related Structures"](#). *Psychiatr Danub*. 2020 Spring; 32(1):70-71. PMID: 32303032.

Journal of Psychiatry and Brain Science

Dr. Butler and several NKI colleagues also recently published this grant report in the open access *Journal of Psychiatry and Brain Science*.

Butler PD, Hoptman MJ, Smith DV, Ermel JA, Calderone DJ, Lee SH, Barch DM. [Grant Report on Social Reward Learning in Schizophrenia](#). *J Psychiatr Brain Sci*. 2020;5. PMID: 32206729.



Daniel Javitt (Schizophrenia Research), with **Antigona Martinez**, **Peter Lakatos**, and others, authored this *Neuropsychopharmacology* paper on the use of neuro-oscillations as biomarkers.

Javitt DC, Siegel SJ, Spencer KM, Mathalon DH, Hong LE, Martinez A, Ehlers CL, Abbas AI, Teichert T, Lakatos P, Womelsdorf T. [A roadmap for development of neuro-oscillations as translational biomarkers for treatment development in neuropsychopharmacology](#). *Neuropsychopharmacology*. 2020 May 6. PMID: 32375159.

Another recent article, coauthored by **Joshua Kantrowitz**, **Donald Goff**, **Tarek Sobeih**, **Daniel Javitt**, and others also appears in *Neuropsychopharmacology*.

Kantrowitz JT, Grinband J, Goff DC, Lahti AC, Marder SR, Kegeles LS, Girgis RR, Sobeih T, Wall MM, Choo TH, Green MF, Yang YS, Lee J, Horga G, Krystal JH, Potter WZ, Javitt DC, Lieberman JA. [Proof of mechanism and target engagement of glutamatergic drugs for the treatment of schizophrenia: RCTs of pomaglumetad and TS-134 on ketamine-induced psychotic symptoms and pharmacBOLD in healthy volunteers](#). *Neuropsychopharmacology*. 2020 May 13. PMID: 32403118.



Babak Ardekani and colleagues in the Center for Biomedical Imaging and Neuromodulation published their latest paper in *Psychiatry Research: Neuroimaging*.

Ardekani BA, Izadi NO, Hadid SA, Meftah AM, Bachman AH; Alzheimer's Disease Neuroimaging Initiative. [Effects of sex, age, and apolipoprotein E genotype on hippocampal parenchymal fraction in cognitively normal older adults](#). *Psychiatry Res Neuroimaging*. 2020 May 13; 301:111107. PMID: 32416384.



Sang Han Lee (Biomedical Imaging & Neuromodulation) coauthored this paper in *Infancy* with colleagues from NYSPI and elsewhere.

Beebe B, Hoven CW, Kaitz M, Steele M, Musa G, Margolis A et al. [Urgent engagement in 9/11 pregnant widows and their infants: Transmission of trauma](#). *Infancy* 2020; 25(2):165-89.



Victor Dyakin (NKI), with **Abel Lajtha** (Neurochemistry) and Thomas Wisniewski (NYU), published this paper in the open access online journal *Symmetry*.

Dyakin VV, Wisniewski TM, Lajtha A. [Chiral Interface of Amyloid Beta \(A \$\beta\$ \): Relevance to Protein Aging, Aggregation and Neurodegeneration](#). *Symmetry* 2020;12(4):585.



Donald Wilson and **Brett East** (Emotional Brain Institute) coauthored this new open access review in *Frontiers in Behavioral Neuroscience*.

Kontaris I, East BS, Wilson DA. [Behavioral and Neurobiological Convergence of Odor, Mood and Emotion: A Review](#). *Front Behav Neurosci*. 2020 Mar 10; 14:35. PMID: 32210776.



Babak Tofighi (Social Solutions & Services), with NYU colleagues, recently published this paper in *Drug and Alcohol Review*.

Tofighi B, Aphinyanaphongs Y, Marini C, Ghassemlou S, Nayebvali P, Metzger I, Raghunath A, Thomas S. [Detecting illicit opioid content on Twitter](#). *Drug Alcohol Rev*. 2020 Mar;39(3):205-208. PMID: 32202005.



Eva Petkova (Clinical Research) is a coauthor of this editorial about psychiatry and COVID-19 appearing in *BJPsych Open*.

Kaufman KR, Petkova E, Bhui KS, Schulze TG. [A global needs assessment in times of a global crisis: world psychiatry response to the COVID-19 pandemic](#). *BJPsych Open*. 2020 Apr 6;6(3):e48. PMID: 32250235.

INFO UPDATE

Please note that library services continue uninterrupted during this period of working from home. As always, if you need documents, assistance with literature searching, or have reference questions, the [NKI librarian](#) is at your service.



This is a good time to remind NKI employees that they are eligible to register with the New York State Library in order to access the Library's substantial [electronic resources](#). (Note that all New York residents can register, but NYS government employees have access to a lot more.) Instructions to register are [here](#):

<http://www.nysl.nysed.gov/apply.htm>

(If you need assistance verifying your agency employment while at home, the NKI librarian can do that for you.)



After several months in a transitional phase, the [new PubMed design](#) is now the default interface. Plenty of training materials (including a number of 2-minute Quick Tour Videos) are [available online here](#). Also available are the [User Guide and FAQ's](#) (these are linked at the bottom of the new PubMed home page) and a [Tips for Using PubMed](#) fact sheet (PDF). There is also a new training course for clinicians on [Using PubMed in Evidence-Based Practice](#).

Not everyone has been thrilled with the new design, as this [Science news article](#) indicates. Fortunately, though, the "legacy" PubMed interface remains available at <https://pmlegacy.ncbi.nlm.nih.gov/> (for now). This [online guide](#) from the University of Texas Libraries provides some side-by-side comparisons and might help you get up to speed with the new PubMed.

Please contact the NKI librarian if you have any questions about database searching or troubleshooting, using PubMed or any other tool.



NIH Preprint Pilot

The NIH has just launched a pilot project that makes preprints resulting from NIH research available in PubMed Central (PMC) and therefore discoverable in PubMed. The first phase of this pilot will focus on preprints related to SARS-CoV-2 and COVID-19, but as the system and workflows are tested and refined, it is anticipated that the full range of NIH research will be reflected in later phases. Overviews of the pilot can be found [here](#), [here](#) and [here](#).

Preprint records in PMC and PubMed will be clearly marked with large banners that identify them as preprints. The banners will explain that the papers have not been peer reviewed and link to information about the pilot for additional context. Newly created filters also enable users to exclude preprint records from search results in both PMC and PubMed. You can see what the banner looks like and learn how to filter search results in this [NLM Technical Bulletin article](#). A full description of the Preprint Pilot, including FAQ's, can be found [here](#).



As announced recently on the [NIMH Director's Blog](#), the NIMH has released it's new Strategic Plan for Research. The plan includes four high-level goals which provide a framework for NIMH research priorities in the coming years. These goals are:

1. [Define the Brain Mechanisms Underlying Complex Behaviors](#)
2. [Examine Mental Illness Trajectories Across the Lifespan](#)
3. [Strive for Prevention and Cures](#)
4. [Strengthen the Public Health Impact of NIMH-Supported Research](#)

For the first time, this plan is a living online document, providing needed flexibility and enabling research projects and findings to be highlighted on linked [Progress pages](#) for each goal.



As the data breaches and privacy abuses (by tech giants and others) have accumulated over the years, many people have become increasingly concerned about safeguarding the privacy of their personal data. Several months ago, Google improved the tools it offers so that users can more easily do just that. Google users can now set their search data to auto-delete after a certain period of time. For more details and related privacy options, see this *New York Times* [article](#).

Retraction Watch

Amidst the flood of publications related to the coronavirus pandemic, the retraction of a couple of high-profile papers, published in *The Lancet* and the *New England Journal of Medicine*, has drawn a lot of attention. For more about this story and what it means, see "[The Pandemic Claims New Victims: Prestigious Medical Journals](#)" in the *New York Times*.

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](#), [PsychiatryOnline](#), etc.).

DEPARTMENT OF WONDER



During the coronavirus pandemic, the meditation app company Headspace has been offering some free content to New Yorkers. Go [here](#) for the special NY collection of meditation, sleep, and movement exercises.

#QueensCOVID

During unique historical moments like the one we are currently experiencing, oral histories can provide a valuable source of documentation. One nearby example is the [Queens Memory COVID-19 Project](#), which is “making a lasting record of how we are living, working, learning, and helping one another in Queens during the COVID-19 pandemic. Through first-person stories, it captures the state of mind and reality we are experiencing from one day to the next” [from the website]. Additional entries are [here](#).

Psychiatric Times

Drs. Jeffrey Lieberman and Mark Olfson of Columbia University and the NYS Psychiatric Institute discuss “Psychiatric Ramifications of the COVID-19 Pandemic” in this [10-minute video](#) on the *Psychiatric Times* website.

Medscape

And at Medscape.com, former OMH Medical Director Dr. Lloyd Sederer published a commentary on [“What Past Disasters Tell Us About COVID-19 and Substance Abuse”](#).

NIH Director’s Blog

Throughout the pandemic, the need for reliable testing – both for the virus itself and for the antibodies present in those who were previously infected – has been a constant issue, and a source of some confusion. For a clear discussion of the present state of understanding about antibody tests, check out the NIH Director’s Blog, [“Discussing the Need for Reliable Antibody Testing for COVID-19”](#).

EVENTS AND SEMINARS

While in-person NCI seminars have been canceled until further notice, the Community Building Committee (CBC) has been organizing online “Chats with Snacks” featuring scientific presentations. Be sure to read the CBC emails to find out about upcoming events.



In the meantime, there is no shortage of opportunities to explore and learn new skills. One source of free information is the National Center for Biotechnology Information (NCBI), which is offering an upcoming webinar called [“An Insider’s Guide to Creating Federal Grant BioSketches”](#). You can find current and archived NCBI webinars and courses [here](#).



Richard Kogan, a psychiatrist and award-winning pianist, was scheduled to give a special presentation at this year’s Annual Meeting of the American Psychiatric Association in May. And although the meeting was canceled this year, you can still watch [a YouTube video presentation](#) by Dr. Kogan. This 30-minute video is a condensed version of his presentation on “The Mind and Music of Tchaikovsky”. Kogan combines discussion about the link between musical artistry and mental illness with piano performances, offering listeners a sense of the composer’s state of mind at the time.

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 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 6,300 items dating back to 1995, and can be searched from the [myNKI website](#).

Ardekani BA, Izadi NO, Hadid SA, Meftah AM, Bachman AH; Alzheimer's Disease Neuroimaging Initiative. Effects of sex, age, and apolipoprotein E genotype on hippocampal parenchymal fraction in cognitively normal older adults. *Psychiatry Res Neuroimaging*. 2020 May 13; 301:111107. PMID: 32416384.

Beebe B, Hoven CW, Kaitz M, Steele M, Musa G, Margolis A et al. Urgent engagement in 9/11 pregnant widows and their infants: Transmission of trauma. *Infancy* 2020;25(2):165-89.

Bruno D, Reichert Plaska C, Clark DPA, Zetterberg H, Blennow K, Verbeek MM, Pomara N. CSF α -synuclein correlates with CSF neurogranin in late-life depression. *Int J Neurosci*. 2020 Mar 31:1-5. PMID: 32228205.

Butler PD, Hoptman MJ, Smith DV, Ermel JA, Calderone DJ, Lee SH, Barch DM. Grant Report on Social Reward Learning in Schizophrenia. *J Psychiatr Brain Sci*. 2020;5. PMID: 32206729.

Caroff SN, Lindenmayer JP, Marder SR, Factor SA, Farahmand K, Lundt L. 139 Early Response with Valbenazine and Long-Term Symptom Reduction in Patients with Tardive Dyskinesia: Post Hoc Analysis of the KINECT 3 Study. *CNS Spectr*. 2020 Apr; 25(2):288-289. PMID: 32331018. [Abstract]

Chen BK, Luna VM, LaGamma CT, Xu X, Deng SX, Suckow RF, Cooper TB, Shah A, Brachman RA, Mendez-David I, David DJ, Gardier AM, Landry DW, Denny CA. Sex-specific neurobiological actions of prophylactic (R,S)-ketamine, (2R,6R)-hydroxynorketamine, and (2S,6S)-hydroxynorketamine. *Neuropsychopharmacology*. 2020 May 17. PMID: 32417852.

Cunha C, Smiley JF, Chuhma N, Shah R, Bleiwas C, Menezes EC, Seal RP, Edwards RH, Rayport S, Ansoorge MS, Castellanos FX, Teixeira CM. Perinatal interference with the serotonergic system affects VTA function in the adult via glutamate co-transmission. *Mol Psychiatry*. 2020 May 12. PMID: 32398719.

Dyakin VV, Wisniewski TM, Lajtha A. Chiral Interface of Amyloid Beta ($A\beta$): Relevance to Protein Aging, Aggregation and Neurodegeneration. *Symmetry* 2020;12(4):585.

Eickhoff SB, Milham M, Vanderwal T. Towards clinical applications of movie fMRI. *Neuroimage*. 2020 May 3:116860. PMID: 32376301.

Freeman MP, Hock RS, Papakostas GI, Judge H, Cusin C, Mathew SJ, Sanacora G, Iosifescu DV, DeBattista C, Trivedi MH, Fava M. Body Mass Index as a Moderator of Treatment Response to Ketamine for Major Depressive Disorder. *J Clin Psychopharmacol*. 2020 May/Jun;40(3):287-292. PMID: 32332464.

Gafson AR, Barthélemy NR, Bomont P, Carare RO, Durham HD, Julien JP, Kuhle J, Leppert D, Nixon RA, Weller RO, Zetterberg H, Matthews PM. Neurofilaments: neurobiological foundations for biomarker applications. *Brain*. 2020 May 14. PMID: 32408345.

Goff DC. Promising Evidence of Antipsychotic Efficacy without Dopamine D2-Receptor Binding. *N Engl J Med.* 2020 Apr 16;382(16):1555-1556. PMID: 32294351.

Gunduz N, Akpınar Aslan E, Eren F, Södan Turan H, Öztürk M, Tural U. Analysis of 24-Hour Heart Rate Variability among Panic Disorder Patients without Previous Drug Treatment and Comorbid Disorders. *Turkish Journal of Psychiatry* 2019;30(4):236-44.

He B, Perez SE, Lee SH, Ginsberg SD, Malek-Ahmadi M, Mufson EJ. Expression profiling of precuneus layer III cathepsin D-immunopositive pyramidal neurons in mild cognitive impairment and Alzheimer's disease: Evidence for neuronal signaling vulnerability. *J Comp Neurol.* 2020 Apr 22. PMID: 32323319.

Humensky JL, Bello I, Malinovsky I, Nossel I, Patel S, Jones G et al. OnTrackNY's Learning Healthcare System. *Journal of Clinical and Translational Science* 2020.

Javitt DC, Siegel SJ, Spencer KM, Mathalon DH, Hong LE, Martinez A, Ehlers CL, Abbas AI, Teichert T, Lakatos P, Womelsdorf T. A roadmap for development of neuro-oscillations as translational biomarkers for treatment development in neuropsychopharmacology. *Neuropsychopharmacology.* 2020 May 6. PMID: 32375159.

Kantrowitz JT, Grinband J, Goff DC, Lahti AC, Marder SR, Kegeles LS, Girgis RR, Sobeih T, Wall MM, Choo TH, Green MF, Yang YS, Lee J, Horga G, Krystal JH, Potter WZ, Javitt DC, Lieberman JA. Proof of mechanism and target engagement of glutamatergic drugs for the treatment of schizophrenia: RCTs of pomaglometad and TS-134 on ketamine-induced psychotic symptoms and pharmacBOLD in healthy volunteers. *Neuropsychopharmacology.* 2020 May 13. PMID: 32403118.

Kaufman KR, Petkova E, Bhui KS, Schulze TG. A global needs assessment in times of a global crisis: world psychiatry response to the COVID-19 pandemic. *BJPsych Open.* 2020 Apr 6;6(3):e48. PMID: 32250235.

Kontaris I, East BS, Wilson DA. Behavioral and Neurobiological Convergence of Odor, Mood and Emotion: A Review. *Front Behav Neurosci.* 2020 Mar 10;14:35. PMID: 32210776.

Krystal AD, Pizzagalli DA, Smoski M, Mathew SJ, Nurnberger J Jr, Lisanby SH, Iosifescu D, Murrough JW, Yang H, Weiner RD, Calabrese JR, Sanacora G, Hermes G, Keefe RSE, Song A, Goodman W, Szabo ST, Whitton AE, Gao K, Potter WZ. A randomized proof-of-mechanism trial applying the 'fast-fail' approach to evaluating κ -opioid antagonism as a treatment for anhedonia. *Nat Med.* 2020 May; 26(5):760-768. PMID: 32231295.

Lohnas LJ, Davachi L, Kahana MJ. Neural fatigue influences memory encoding in the human hippocampus. *Neuropsychologia.* 2020 Apr 22:107471. PMID: 32333936.

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