

The NKInformer



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

March – April 2020

Stuart Moss, MLS, Editor

NKI COPES WITH THE CORONAVIRUS

This is an unprecedented and challenging time. That is true for the whole world, and NKI is no exception. With New York “on pause”, most of us are working from home, trying to adapt to the current reality as best we can. NKI responded with its first virtual town hall, and the Community Building Committee organized a remote happy hour. But some Institute functions cannot be done from afar, and some essential staffers have continued to work on site, performing critical tasks and keeping the facility running. So, as we all acclimate to – and weather – the coronavirus pandemic storm, this issue of the Informer recognizes those employees who are the backbone of NKI. Many of them work behind the scenes, but their efforts are integral to NKI’s success, especially during the current crisis.

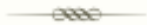


Animal facility staff enjoying some pizza (and celebrating Dr. Mark Klinger’s birthday) while also maintaining social distancing.

These mission-critical employees include those working in the following departments:

- Animal Facility
- Business Office
- Clinical Laboratories
- Housekeeping
- Human Resources
- Information Technology
- Maintenance
- Security
- Shipping

While most modestly declined to be photographed, all are greatly appreciated. A couple of departmental dispatches follow.



Animal Care Technician Taylor Hendrickson sent the front-page photo and noted that “It was nice to spend some time as a group during these times of separation. We are all taking precautions to stay healthy so that we can continue the important work we do”. Let’s acknowledge the hard work of all the animal facility staff who come in every day and play a vital role in maintaining the health of NKI’s research animals: Janelle Change, Cynthia Castro, Jose Duran, Alex Jean-Charles, Taylor Hendrickson, Director Mark Klinger, Kevin Knorowski, Marcos Munoz, Janos Piturca, Matthew Rios, Roberto Rodriguez, Relish Shah, Manager Kathleen Shannon, Trisha Somerville, Antonio Taveras.



Director of Information Technology Des Moloney sent this shout-out to his department:

Some of my group is camera shy, but I wanted to say a few things. First, they have all done an incredible job. Technology can be your best friend or worst enemy. When it’s your best friend, we will rarely hear from anyone. When it’s your worst enemy, that’s when we

get involved. All of our roles are intertwined at this point, but in general Chris and Jordan have been working directly with end users to make sure they can connect to NKI and work remotely. Kassie and Al work behind the scenes, engineering a new remote access system on short notice to encompass the expanded demand from everyone to work remotely. Chris and Jordan have been working their magic to fix anything and everything that requires attention immediately, and the overflow is being handled by the rest of the NKI IT Team. NKI IT has been working closely with Security, Personnel, Maintenance, and the Business Office to ensure all mission critical IT functions can be achieved in this new remote workforce environment.

I want to personally thank the NKI community for being understanding and patient as we all transition to this new remote-based work structure. Again, I would like to thank Kassie, Chris, Al, and Jordan for going above and beyond in their jobs to keep this transition as seamless as possible.

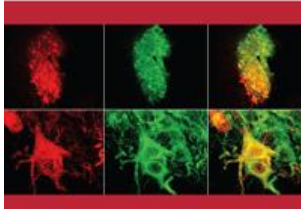
We are looking forward to seeing everyone back in the office again!



Chris Colucci *wishes* he were still on vacation. Meanwhile, Al Rozalski demonstrates proper masking technique. Both are working hard to keep NKI online and connected!

KUDOS

Molecular
Psychiatry



A paper by Emotional Brain Institute investigators **Robert Sears** and **Joseph LeDoux** and colleagues is featured on the [March cover](#) of *Molecular Psychiatry*. Learn more about the Sears Lab on their [new website](#).



Anzalee Khan (Manhattan Psychiatric Center) was invited to become a member of the 2020-21 Scientific Program Committee of the [International Society for CNS Clinical Trials and Methodology](#). The committee develops scientific program content for all ISCTM meetings. The 2020 Autumn Conference is scheduled for September in Boston.

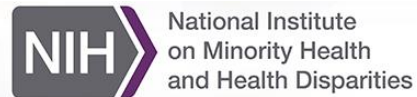
GRANTS RECEIVED



Drs. Vilma Gabbay and **Russell Tobe** (Clinical Research) received a five-year NIMH R01 titled "[Biobehavioral Predictors of Illness Progression in Adolescent Depression](#)". This is a collaboration with Albert Einstein School of Medicine.



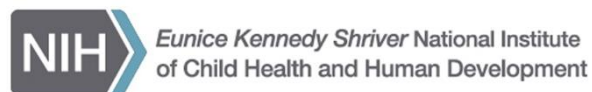
Dr. Sam Neymotin (Biomedical Imaging & Neuromodulation) received an Undergraduate Supplement for his grant with the US Army Mathematical Sciences Division titled "Training biophysical thalamocortical models to play games through biologically realistic reinforcement learning rules". This grant will enable the sponsorship of two summer research apprenticeships.



Dr. Sharifa Williams (Social Solutions & Services) received a Diversity Supplement on **Dr. Kerstin Pahl's** NIMHD R01 titled "[Longitudinal Effects of Socioeconomic Disadvantage and Racial Discrimination on Health Among African Americans and Puerto Ricans](#)".



Dr. **Daniel Iosifescu** (Clinical Research) received an R61 from NIMH for the grant titled “[Transcranial Near Infrared Radiation and Cerebral Blood Flow in Depression \(TRIADE\)](#)”. This is a collaboration with NYU School of Medicine.



Dr. **Regina Sullivan** (Emotional Brain Institute) received a new five-year segment on her R37 MERIT award from NICHD for the grant titled “[Maternal Control Over Developing Prefrontal Cortex and Transition in Independence](#)”.

FROM AROUND THE INSTITUTE

Research in the Time of COVID-19

The coronavirus has disrupted research projects along with everything else, with much work temporarily suspended. But some investigators have adapted quickly to incorporate a COVID-19 component into their research. For example, a collaboration between NKI, NIMH, and the Child Mind Institute has launched [The Coronavirus Health Impact Survey \(CRISIS\)](#), which is “designed to enable researchers and care providers to examine the extent and impact of life changes induced by the epidemic on the mental health and behavior of individuals and families across diverse international settings”. The CRISIS survey will be used with existing study samples including the NKI-Rockland Sample. **Michael Milham** is a co-investigator; **Stan Colcombe** and **Anna Mackay-Brandt** were collaborators in the development of the survey.

The following coronavirus research update comes from **Kerstin Pahl** (Social Solutions & Services):

In compliance with mandates by the New York University School of Medicine and NKI to protect research participants and staff, we paused enrollment for our study entitled “Longitudinal Effects of Socioeconomic Disadvantage and Racial Discrimination on Health Among African Americans and Puerto Ricans” on March 16. Since the study aims rely on the biomarkers collected from the biological specimens (hair, saliva, and dried blood spots), we are not able to continue our research remotely. However, we are in communication with our longitudinal participants to inform them about the study for future recruitment and to answer any questions they may have. We also sent our participants a letter explaining to them our procedures following the COVID-19 outbreak and providing a number of trustworthy sources of information about COVID-19. We are also developing a research protocol to examine how challenges associated with this pandemic interact with preexisting social determinants of health (e.g., race, socioeconomic status) to impact the lives and health of individuals.



Two recent papers coauthored by **Stephen Ginsberg** (Dementia Research) have been written up online. First, a paper published in [Nature Communications](#) is discussed in “[Alzheimer’s Brains Short Circuited by Defective Protein Connections](#)” on the Genetic Engineering & Biotechnology News site. Dr. Ginsberg is quoted in the article. Second, a paper appearing in [Journal of Clinical Investigation](#) is described in a Baylor College of Medicine blog titled “[Connecting interferon, neuroinflammation and synapse loss in Alzheimer’s disease](#)”.

CBC News

While in-person classes and events are canceled for the time being, the **Community Building Committee** has made some accommodations to keep NKI moving and connected. Below are the details if you want to participate.

Yoga and Cardio classes are ongoing. Lindsay and Catarina have set up Instagram/Skype and YouTube classes. This is a great chance for people to try either yoga or cardio classes, even if you are shy! As always with these classes, you can do as much or as little as you are comfortable with. To remind everyone:

Cardio

Mondays and Thursdays, 4:30-5pm
Instagram: @Catissery
Skype: clemos.catarina_1

Yin Yoga

Tuesdays 4:30-5pm
Instagram: Nathanklineinstitute.yoga
or after 5:30 on
Youtube: NathanklineinstituteYoga

In addition, Rob Sears has been sending out an invitation for Friday night Happy Hour via Zoom, so please check your email for that and join in to celebrate the end of the week!

We are currently looking into online trivia or other online options for game nights, so please if you have suggestions or would like to host an online game night, let us know and we can help set that up!

PUBLICATIONS OF NOTE

Neuron

Michael Milham and **Charles Schroeder** (Biomedical Imaging & Neuromodulation) are coauthors of this meeting report in *Neuron*, as members of the PRIMatE Data Exchange. Dr. Milham is the corresponding author. The open access publication was announced in a [press release](#) from the Child Mind Institute, and noted on the Speaking of Research website [here](#).

PRIMatE Data Exchange (PRIME-DE) Global Collaboration Workshop and Consortium. [Accelerating the Evolution of Nonhuman Primate Neuroimaging](#). *Neuron*. 2020 Feb 19;105(4):600-603. PMID: 32078795.

SCHIZOPHRENIA BULLETIN OPEN

Anzalee Khan (Clinical Research at the Manhattan Psychiatric Center) is a coauthor of this paper appearing in the very first issue of the online-only journal *Schizophrenia Bulletin Open*. The paper systematically discusses key recommendations on how to study treatments for negative symptoms in schizophrenia.

Stephen R Marder, MD, Michael Davidson, MD, Silvia Zaragoza, PhD, Alan Kott, MUDr, Anzalee Khan, PhD, Xingmei Wang, MS, Dawn I Velligan, PhD, Daniel Umbricht, PhD, Remy Luthringer, PhD, David Daniel, MD, [Issues and Perspectives in Designing Clinical Trials for Negative Symptoms in Schizophrenia: Consensus Statements](#), *Schizophrenia Bulletin Open*, Volume 1, Issue 1, January 2020.

Raj Balapal and members of his lab (Analytical Psychopharmacology) published their latest work in the *International Journal of Neuropsychopharmacology*.

Shivakumar M, Subbanna S, Joshi V, Basavarajappa BS. [Postnatal Ethanol Exposure Activates HDAC-Mediated Histone Deacetylation, Impairs Synaptic Plasticity Gene Expression and Behavior in Mice](#). *Int J Neuropsychopharmacol*. 2020 Mar 14. PMID: 32170298.

Dr. Balapal summarizes the significance of this research as follows:

Fetal exposure to alcohol is associated with congenital disabilities and causes a range of developmental, cognitive, and behavioral abnormalities, which can appear at any time during development and last a lifetime. Postnatal ethanol exposure (PEE) during the active synaptogenesis period causes neurodegeneration in neonatal mice and impairs cognitive function in the adult. However, the mechanisms by which this occurs have not been precise. In this study, we examined the involvement of HDAC1-3 through CB1 receptors in PEE-induced neurodegeneration and neurobehavioral abnormalities. We found that CB1 receptor antagonism and HDAC inhibition rescue PEE-induced neurodegeneration, synaptic plasticity-related gene expression, synaptic plasticity, learning, and memory. Our results point to novel underlying brain mechanisms and are relevant to the development of pharmacological treatments for FASD.

NKI Director **Donald Goff** coauthored this editorial published in the April issue of *The American Journal of Psychiatry*.

Goff DC, Li C, Thorpe L. [Does Early Intervention Improve the Long-Term Course of Schizophrenia?](#) *Am J Psychiatry*. 2020 Mar 4. PMID: 32126809.



Jean-Pierre Lindenmeyer (Manhattan Psychiatric Center) is a coauthor of this Consensus Statement on tardive dyskinesia published in *The Journal of Clinical Psychiatry*.

Caroff SN, Citrome L, Meyer J, Sajatovic M, Goldberg JF, Jain R, Lundt L, Lindenmeyer JP, McEvoy JP, McIntyre RS, Tohen M, Ketter TA. [A Modified Delphi Consensus Study of the Screening, Diagnosis, and Treatment of Tardive Dyskinesia](#). *J Clin Psychiatry*. 2020 Jan 28;81(2). PMID: 31995677.



Samuel Neymotin (Biomedical Imaging & Neuromodulation) is the first author of this report appearing in the open access journal *eLife*.

Neymotin SA, Daniels DS, Caldwell B, McDougal RA, Carnevale NT, Jas M, Moore CI, Hines ML, Hämäläinen M, Jones SR. [Human Neocortical Neurosolver \(HNN\), a new software tool for interpreting the cellular and network origin of human MEG/EEG data](#). *Elife*. 2020 Jan 22;9. pii: e51214. PMID: 31967544.

Joseph LeDoux, Director of the Emotional Brain Institute, has a number of new publications appearing in high profile journals. Several of these are about consciousness.

nature
neuroscience

Shrestha P, Ayata P, Herrero-Vidal P, Longo F, Gastone A, LeDoux JE, Heintz N, Klann E. [Cell-type-specific drug-inducible protein synthesis inhibition demonstrates that memory consolidation requires rapid neuronal translation](#). Nat Neurosci. 2020 Feb;23(2):281-292. PMID: 31959934.

Current
Biology

LeDoux JE. [How does the non-conscious become conscious?](#) Curr Biol. 2020 Mar 9;30(5):R196-R199. PMID: 32155417.

PNAS

LeDoux JE, Lau H. [A new vista in psychiatric treatment: Using individualized functional connectivity to track symptoms](#). Proc Natl Acad Sci U S A. 2020 Mar 3;117(9):4450-4452. PMID: 32094186.

LeDoux JE, Michel M, Lau H. [A little history goes a long way toward understanding why we study consciousness the way we do today](#). Proc Natl Acad Sci U S A. 2020 Mar 13. PMID: 32170012.

Neuropsychopharmacology

At the intersection of brain, behavior, and therapeutics

Joshua Kantrowitz (lead author) and colleagues in the Schizophrenia Research group coauthored this paper in *Neuropsychopharmacology*.

Kantrowitz JT, Javitt DC, Freedman R, Sehatpour P, Kegeles LS, Carlson M, Sobeih T, Wall MM, Choo TH, Vail B, Grinband J, Lieberman JA. [Double blind, two dose, randomized, placebo-controlled, cross-over clinical trial of the positive allosteric modulator at the alpha7 nicotinic cholinergic receptor AVL-3288 in schizophrenia patients](#). Neuropsychopharmacology. 2020 Feb 3. PMID: 32015461.

Cerebral CORTEX

Elisa Dias, **Daniel Javitt**, and NKI colleagues (Schizophrenia Research) published a new paper in *Cerebral Cortex*.

Dias EC, Van Voorhis AC, Braga F, Todd J, Lopez-Calderon J, Martinez A, Javitt DC. [Impaired Fixation-Related Theta Modulation Predicts Reduced Visual Span and Guided Search Deficits in Schizophrenia](#). Cereb Cortex. 2020 Feb 6. PMID: 32030407.

jmb
Journal of Molecular Biology

Ju-Hyun Lee and members of the Nixon lab (Dementia Research) published their latest research in the *Journal of Molecular Biology*.

Lee JH, Wolfe DM, Darji S, McBrayer MK, Colacurcio DJ, Kumar A, Stavrides P, Mohan PS, Nixon RA. [β2-adrenergic agonists rescue lysosome acidification and function in PSEN1 deficiency by reversing defective ER to lysosome delivery of CIC-7](#). J Mol Biol. 2020 Feb 24. PMID: 32105735.

JAMA Psychiatry

Mohammed Milad (corresponding author) and **Matthew Hoptman** (both Clinical Research) each contributed to recent publications in *JAMA Psychiatry*.

Marin MF, Hammoud MZ, Klumpp H, Simon NM, Milad MR. [Multimodal Categorical and Dimensional Approaches to Understanding Threat Conditioning and Its Extinction in Individuals with Anxiety Disorders](#). *JAMA Psychiatry*. 2020 Feb 5. PMID: 32022832.

Voineskos AN, Mulsant BH, Dickie EW, Neufeld NH, Rothschild AJ, Whyte EM, Meyers BS, Alexopoulos GS, Hoptman MJ, Lerch JP, Flint AJ. [Effects of Antipsychotic Medication on Brain Structure in Patients with Major Depressive Disorder and Psychotic Features: Neuroimaging Findings in the Context of a Randomized Placebo-Controlled Clinical Trial](#). *JAMA Psychiatry*. 2020 Feb 26. PMID: 32101271.



Maya Opendak, Regina Sullivan, and colleagues in the Emotional Brain Institute coauthored this paper appearing in the open access journal *Nature Communications*.

Opendak M, Theisen E, Blomkvist A, Hollis K, Lind T, Sarro E, Lundström JN, Tottenham N, Dozier M, Wilson DA, Sullivan RM. [Adverse caregiving in infancy blunts neural processing of the mother](#). *Nat Commun*. 2020 Feb 28;11(1):1119. PMID: 32111822.

INFO UPDATE

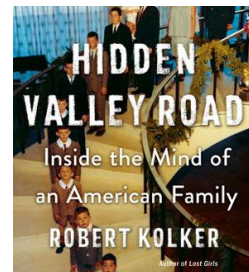
Please note that library services continue uninterrupted during this period of working from home. As always, if you need documents, assistance with literature searching, or have reference questions, the [NKI librarian](#) is at your service.



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.)



[Hidden Valley Road](#) is a new book by Robert Kolker, the bestselling author of *Lost Girls*. It tells the story of the Galvins, a midcentury American family with twelve children, six of whom were diagnosed with schizophrenia. But alongside this extraordinary family story is a story about the science of schizophrenia, since the Galvins were one of the first families to be studied by the NIMH. Perhaps of special interest to NKI readers, Lynn DeLisi features prominently in the part about schizophrenia genetics research. Dr. DeLisi spent several years at NKI in the early 2000's. You can find an NPR author interview [here](#) and the New York Times review [here](#).



New features continue to be added to the [new PubMed](#). The latest of these include the expansion of the summary display format and several other changes, which you can read about in the *NLM Technical Bulletin* [here](#).

Also, the new PubMed site is responsive to different screen sizes, so the full functionality can now be experienced on your mobile device. (The new PubMed replaces the PubMed Mobile app.)

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.

Please contact the NKI librarian if you have any questions about database searching or troubleshooting.



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.).

Bedlam

[Bedlam](#) is a new documentary film that "chronicles the personal, poignant stories of those suffering from serious mental illness" to bring to light the mental health crisis in America and possible solutions. The film premieres on PBS Independent Lens on April 13. A [virtual screening](#) is also scheduled for April 14. You can read more about the film in this [article by the filmmaker](#) in *Psychiatric News*.

DEPARTMENT OF WONDER



Harvard Health Publishing
HARVARD MEDICAL SCHOOL
Trusted advice for a healthier life

In case you are not yet convinced that healthy habits are worth the effort, here is a [study published in the BMJ](#) that concludes that "Adherence to a healthy lifestyle at mid-life is associated with a longer life expectancy free of major chronic diseases." For a summary, see "[Five healthy habits net more healthy years](#)" in the Harvard Health Blog.



While some folks are morning birds, others don't hit their stride until later in the day and tend to stay up later. But is this something that can be changed or are we hardwired to be the way we are? [Recently published research](#) may not have all the answers, but it does provide evidence that a molecular switch mechanism can shorten the biological clock in some individuals, making them very early risers. The investigators hope that this kind of research may lead to new ways to adjust the clock in those with sleep disorders, for example. You can read more about this work [on the NIH Director's Blog](#) and [on the UC Santa Cruz website](#).

For another angle on the larks and owls, see [this new publication](#) which describes differences in the coping styles of people with different circadian typologies.

NKI ON THE ROAD



Samuel Neymotin (Biomedical Imaging & Neuromodulation) gave a talk in February at the [Computational Psychiatry Workshop](#) held at the Institute for Pure & Applied Mathematics at UCLA. The title of the talk was “Using Biophysical Computational Neural Models to Investigate Neuropsychiatric Disorders”.

EVENTS AND SEMINARS

NKI Seminars Have Been Canceled Until Further Notice

However, there is no shortage of learning opportunities available online, 24/7. For example, [check out TED](#) (Ideas worth spreading), where you can access talks on [hundreds of topics](#), including [brain](#), [neuroscience](#), and [coronavirus](#).

Or if you're more in the mood for a story, try [The Moth](#)

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 6,200 items dating back to 1995, and can be searched from the [myNKI website](#).

Area-Gomez E, Larrea D, Pera M, Agrawal RR, Guilfoyle DN, Pirhaji L, Shannon K, Arain HA, Ashok A, Chen Q, Dillman AA, Figueroa HY, Cookson MR, Gross SS, Fraenkel E, Duff KE, Nuriel T. APOE4 is Associated with Differential Regional Vulnerability to Bioenergetic Deficits in Aged APOE Mice. *Sci Rep.* 2020 Mar 9;10(1):4277. PMID: 32152337.

Baril AA, Gagnon K, Descoteaux M, Bedetti C, Chami S, Sanchez E, Montplaisir J, De Beaumont L, Gilbert D, Poirier J, Pelleieux S, Osorio RS, Carrier J, Gosselin N. Cerebral white matter diffusion properties and free-water with obstructive sleep apnea severity in older adults. *Hum Brain Mapp.* 2020 Mar 13. PMID: 32166865.

Bottary RM, Seo J, Daffre C, Gazecki S, Moore KN, Kopotiyenko K, Dominguez JP, Gannon K, Lasko NB, Roth B, Milad MR, Pace-Schott EF. Fear Extinction Memory is Negatively Associated with REM Sleep in Insomnia Disorder. *Sleep.* 2020 Jan 29. PMID: 31993652.

Brown R, LeDoux J. Higher-order memory schema and consciousness experience. *Cogn Neuropsychol.* 2020 Feb 25:1-3. PMID: 32097576.

Caroff SN, Citrome L, Meyer J, Sajatovic M, Goldberg JF, Jain R, Lundt L, Lindenmayer JP, McEvoy JP, McIntyre RS, Tohen M, Ketter TA. A Modified Delphi Consensus Study of the Screening, Diagnosis, and Treatment of Tardive Dyskinesia. *J Clin Psychiatry.* 2020 Jan 28;81(2). PMID: 31995677.

Clelland CL, Kantrowitz JT, Choo T, Clelland JD, Lieberman JA. Adjunctive sapropterin dihydrochloride treatment in schizophrenia: A positive proof-of-concept, rater-blind, randomized, multivitamin-controlled study. *Schizophr Res.* 2020 Jan 21. PMID: 31973997.

Dai K, Hernando J, Billeh YN, Gratiy SL, Planas J, Davison AP, Dura-Bernal S, Gleeson P, Devresse A, Dichter BK, Gevaert M, King JG, Van Geit WAH, Povolotsky AV, Muller E, Courcol JD, Arkhipov A. The SONATA data format for efficient description of large-scale network models. *PLoS Comput Biol*. 2020 Feb 24;16(2):e1007696. PMID: 32092054.

Dias EC, Van Voorhis AC, Braga F, Todd J, Lopez-Calderon J, Martinez A, Javitt DC. Impaired Fixation-Related Theta Modulation Predicts Reduced Visual Span and Guided Search Deficits in Schizophrenia. *Cereb Cortex*. 2020 Feb 6. PMID: 32030407.

Dong JW, Jelescu IO, Ades-Aron B, Novikov DS, Friedman K, Babb JS, Osorio RS, Galvin JE, Shepherd TM, Fieremans E. Diffusion MRI biomarkers of white matter microstructure vary nonmonotonically with increasing cerebral amyloid deposition. *Neurobiol Aging*. 2020 Jan 23. PMID: 32111392.

Goff DC, Li C, Thorpe L. Does Early Intervention Improve the Long-Term Course of Schizophrenia? *Am J Psychiatry*. 2020 Mar 4. PMID: 32126809.

Guo Q, Hu Y, Zeng B, Tang Y, Li G, Zhang T, Wang J, Northoff G, Li C, Goff D, Wang J, Yang Z. Parietal memory network and default mode network in first-episode drug-naïve schizophrenia: Associations with auditory hallucination. *Hum Brain Mapp*. 2020 Feb 29. PMID: 32112506.

Güleş E, Iosifescu DV, Tural Ü. Plasma Neuronal and Glial Markers and Anterior Cingulate Metabolite Levels in Major Depressive Disorder: A Pilot Study. *Neuropsychobiology*. 2020 Feb 11:1-8. PMID: 32045918.

Iravani B, Arshamian A, Ohla K, Wilson DA, Lundström JN. Non-invasive recording from the human olfactory bulb. *Nat Commun*. 2020 Jan 31;11(1):648. PMID: 32005822.

Kamarajan C, Ardekani BA, Pandey AK, Chorlian DB, Kinreich S, Pandey G, Meyers JL, Zhang J, Kuang W, Stimus AT, Porjesz B. Random Forest Classification of Alcohol Use Disorder Using EEG Source Functional Connectivity, Neuropsychological Functioning, and Impulsivity Measures. *Behav Sci*. 2020 Mar 1;10(3). pii: E62. PMID: 32121585.

Kamarajan C, Ardekani BA, Pandey AK, Kinreich S, Pandey G, Chorlian DB, Meyers JL, Zhang J, Bermudez E, Stimus AT, Porjesz B. Random Forest Classification of Alcohol Use Disorder Using fMRI Functional Connectivity, Neuropsychological Functioning, and Impulsivity Measures. *Brain Sci*. 2020 Feb 20;10(2). pii: E115. PMID: 32093319.

Kantrowitz JT, Javitt DC, Freedman R, Sehatpour P, Kegeles LS, Carlson M, Sobeih T, Wall MM, Choo TH, Vail B, Grinband J, Lieberman JA. Double blind, two dose, randomized, placebo-controlled, cross-over clinical trial of the positive allosteric modulator at the alpha7 nicotinic cholinergic receptor AVL-3288 in schizophrenia patients. *Neuropsychopharmacology*. 2020 Feb 3. PMID: 32015461.

Kobak K, Townsend L, Birmaher B, Milham M, Kaufman J. Computer-Assisted Psychiatric Diagnosis. *J Am Acad Child Adolesc Psychiatry*. 2020 Feb;59(2):213-215. PMID: 32039771.

LeDoux JE. How does the non-conscious become conscious? *Curr Biol*. 2020 Mar 9;30(5):R196-R199. PMID: 32155417.

LeDoux JE, Lau H. A new vista in psychiatric treatment: Using individualized functional connectivity to track symptoms. *Proc Natl Acad Sci U S A*. 2020 Mar 3;117(9):4450-4452. PMID: 32094186.

LeDoux JE, Michel M, Lau H. A little history goes a long way toward understanding why we study consciousness the way we do today. *Proc Natl Acad Sci U S A*. 2020 Mar 13. PMID: 32170012.

Lee JH, Wolfe DM, Darji S, McBrayer MK, Colacurcio DJ, Kumar A, Stavrides P, Mohan PS, Nixon RA. β 2-adrenergic agonists rescue lysosome acidification and function in PSEN1 deficiency by reversing defective ER to lysosome delivery of CIC-7. *J Mol Biol.* 2020 Feb 24. PMID: 32105735.

Marder, SR, MD, Michael Davidson, MD, Silvia Zaragoza, PhD, Alan Kott, MUDr, Anzalee Khan, PhD, Xingmei Wang, MS, Dawn I Velligan, PhD, Daniel Umbricht, PhD, Remy Luthringer, PhD, David Daniel, MD, Issues and Perspectives in Designing Clinical Trials for Negative Symptoms in Schizophrenia: Consensus Statements, *Schizophrenia Bulletin Open*, Volume 1, Issue 1, January 2020.

Marin MF, Hammoud MZ, Klumpp H, Simon NM, Milad MR. Multimodal Categorical and Dimensional Approaches to Understanding Threat Conditioning and Its Extinction in Individuals with Anxiety Disorders. *JAMA Psychiatry.* 2020 Feb 5. PMID: 32022832.

Neufeld NH, Kaczkurkin AN, Sotiras A, Mulsant BH, Dickie EW, Flint AJ, Meyers BS, Alexopoulos GS, Rothschild AJ, Whyte EM, Mah L, Nierenberg J, Hoptman MJ, Davatzikos C, Satterthwaite TD, Voineskos AN. Structural brain networks in remitted psychotic depression. *Neuropsychopharmacology.* 2020 Feb 28. PMID: 32109935.

Neymotin SA, Daniels DS, Caldwell B, McDougal RA, Carnevale NT, Jas M, Moore CI, Hines ML, Hämäläinen M, Jones SR. Human Neocortical Neurosolver (HNN), a new software tool for interpreting the cellular and network origin of human MEG/EEG data. *Elife.* 2020 Jan 22;9. pii: e51214. PMID: 31967544.

Nikolaidis A, Heinsfeld AS, Xu T, Bellec P, Vogelstein J, Milham M. Bagging improves reproducibility of functional parcellation of the human brain. *Neuroimage.* 2020 Feb 28:116678. PMID: 32119986.

Opendak M, Theisen E, Blomkvist A, Hollis K, Lind T, Sarro E, Lundström JN, Tottenham N, Dozier M, Wilson DA, Sullivan RM. Adverse caregiving in infancy blunts neural processing of the mother. *Nat Commun.* 2020 Feb 28;11(1):1119. PMID: 32111822.

PRIMatE Data Exchange (PRIME-DE) Global Collaboration Workshop and Consortium. Accelerating the Evolution of Nonhuman Primate Neuroimaging. *Neuron.* 2020 Feb 19;105(4):600-603. PMID: 32078795.

Shen YQ, Zhou HX, Chen X, Castellanos FX, Yan CG. Meditation effect in changing functional integrations across large-scale brain networks: Preliminary evidence from a meta-analysis of seed-based functional connectivity. *Journal of Pacific Rim Psychology* 2020;14:e10.

Shivakumar M, Subbanna S, Joshi V, Basavarajappa BS. Postnatal Ethanol Exposure Activates HDAC-Mediated Histone Deacetylation, Impairs Synaptic Plasticity Gene Expression and Behavior in Mice. *Int J Neuropsychopharmacol.* 2020 Mar 14. PMID: 32170298.

Shrestha P, Ayata P, Herrero-Vidal P, Longo F, Gastone A, LeDoux JE, Heintz N, Klann E. Cell-type-specific drug-inducible protein synthesis inhibition demonstrates that memory consolidation requires rapid neuronal translation. *Nat Neurosci.* 2020 Feb;23(2):281-292. PMID: 31959934.

Stefanova E, Dubljević O, Herbert C, Fairfield B, Schroeter ML, Stern ER, Urben S, Derntl B, Wiebking C, Brown C, Drach-Zahavy A, Kathrin Loeffler LA, Albrecht F, Palumbo R, Boutros SW, Raber J, Lowe L. Anticipatory feelings: neural correlates and linguistic markers. *Neurosci Biobehav Rev.* 2020 Feb 13. PMID: 32061891.

Tural U, Iosifescu DV. Neuropeptide Y in PTSD, MDD, and chronic stress: A systematic review and meta-analysis. *J Neurosci Res.* 2020 May;98(5):950-963. PMID: 32048334.

Voineskos AN, Mulsant BH, Dickie EW, Neufeld NH, Rothschild AJ, Whyte EM, Meyers BS, Alexopoulos GS, Hoptman MJ, Lerch JP, Flint AJ. Effects of Anti-psychotic Medication on Brain Structure in Patients with Major Depressive Disorder and Psychotic Features: Neuroimaging Findings in the Context of a Randomized Placebo-Controlled Clinical Trial. *JAMA Psychiatry*. 2020 Feb 26. PMID: 32101271.

Vos de Wael R, Benkarim O, Paquola C, Lariviere S, Royer J, Tavakol S, Xu T, Hong SJ, Langs G, Valk S, Mistic B, Milham M, Margulies D, Smallwood J, Bernhardt BC. BrainSpace: a toolbox for the analysis of macroscale gradients in neuroimaging and connectomics datasets. *Commun Biol*. 2020 Mar 5;3(1):103. PMID: 32139786.

Whitton AE, Reinen JM, Slifstein M, Ang YS, McGrath PJ, Iosifescu DV, Abi-Dargham A, Pizzagalli DA, Schneier FR. Baseline reward processing and ventrostriatal dopamine function are associated with pramipexole response in depression. *Brain*. 2020 Feb 1;143(2):701-710. PMID: 32040562.

Worthington MA, Petkova E, Freudenreich O, Cather C, Holt D, Bello I, Diminich E, Tang Y, Ardekani BA, Zeng B, Wu R, Fan X, Zhao J, Wang J, Goff DC. Air pollution and hippocampal atrophy in first episode schizophrenia. *Schizophr Res*. 2020 Mar 10. PMID: 32169403.