

The NKI Informer



Nathan S. Kline
Institute

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

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Stuart Moss, MLS, Editor

DR. RICARDO OSORIO BRINGS FOCUS ON SLEEP AND DEMENTIA TO NKI



Ricardo Osorio, MD, MA, joined NKI's growing Clinical Research group in 2017. He graciously answered some questions for the *Informer*.

Please tell us a bit about your background and how you arrived at your current area of research and position.

I came to NKI from NYU Langone Medical Center where I am a 5-year faculty member and recently inaugurated the Sleep, Aging and Memory Lab in collaboration with the Mount Sinai Integrative Sleep Center. I also work at NYU's Center for Brain Health (CBH) and am the Clinical Director of the Multicultural Program at the Alzheimer's Disease Center. I was born in Madrid, Spain where I earned my medical degree at the *Universidad Autónoma de Madrid*. I completed my residency in psychiatry at the *Hospital 12 de Octubre* and completed an internship in neuropsychiatry at the Institute of Neurology, Queen's Square (UK). During my residency, I completed a Master's in neuropsychology at the *Universidad Complutense de Madrid*. I developed my professional career in Spain as a geriatric psychiatrist and worked as a research scientist in the Alzheimer's Project Research Unit (CIEN Foundation, Spain) until 2009. I was then recruited by CBH at the NYU School of Medicine and, after 7 years at NYU, by NKI.

My interest in sleep was unintended and happened serendipitously. While looking into the relationship between Alzheimer's disease biomarkers in cerebrospinal fluid and depressive symptoms, we found a strong association that was driven by insomnia complaints and decided to try to explain 'why'. That 'happy accident' is truly what brought me here.

Briefly describe your field(s) of interest, and your current projects/grants.

The development of effective preventive and treatment strategies for late-life dementia relies on a deep understanding of all the processes that are involved. A specific constellation of genetic and environmental factors (including sex, apolipoprotein E genotype, obesity, diabetes, hypertension, head trauma, systemic illnesses, depression, and sleep) contribute to late-life dementia risk in each individual. My focal area of research interest is the use of neuroimaging and cerebrospinal fluid/plasma biomarkers to better our understanding of the role of sleep disturbances on this risk, and how they alter brain architecture transiently or permanently at the cellular or macroscopic level. In addition, I am interested in how sleep changes from young to old age (with age it becomes more fragmented, declines in the quantity and quality of deep stages of sleep and in the number of sleep spindles), and whether age-related changes in sleep contribute to the changes in cognition commonly observed in older adults.

The projects I am currently working on encompass the topics mentioned above as well as other related topics. This winter we have started a small project that will look at sleep, orexin, and their relationship with changes in core body temperature and tau hyperphosphorylation. This will be our first study on the role of sleep and circadian rhythms as modifiers of the progression of tau neurodegeneration. This upcoming spring, we are going to start recruitment for two cohorts. The first will study the relationship between obstructive sleep apnea (OSA) severity and amyloid deposition over time in a group of cognitively normal elderly. The second will look at the increased risk of dementia among older African-Americans (AAs) and whether it is explained by decreases in non-REM slow wave sleep duration. We are truly excited about this second project as it has the potential to identify clinical predictors of dementia risk in cognitively normal AA elderly. If successful, it will be an important step towards the prevention of dementia in the black community as well as the reduction of health inequities.

How does sleep research fit into the psychiatric research context? Do you anticipate collaborating with other groups at NKI?

Paraphrasing Gyorgy Buzsaki's excellent book *Rhythms of the Brain*, virtually every psychiatric illness is associated with some kind of disruption of sleep or circadian rhythm. However, this is not surprising since it arises from abnormalities in interacting circuits and neurotransmitter systems, many of which overlap with those regulating sleep/wake and circadian rhythms. These changes in sleep are usually interpreted as a consequence of the primary problem occurring in the waking brain. But it is equally justified to consider causation in the opposite direction, namely that sleep disruption causes the altered responses in the brain during wakefulness. Deciphering the dynamics of neuronal circuits and brain oscillations in the various sleep stages might be the key to understanding many psychiatric ailments. For example, we know that sleep disruption usually happens before an episode of depression. Furthermore, individuals identified as 'at risk' of developing bipolar disorder and childhood-onset schizophrenia typically show problems with sleep before any clinical diagnosis of illness. Therefore, the opportunities for collaboration at NKI are truly limitless. I am very grateful to be part of the NKI community and the Clinical Research team in the hopes of contributing to interdisciplinary research and translating these discoveries into clinical application and, of course, to promote better sleep.


What do you like to do outside of work?

I adore traveling and love to find the curious, out-of-the-way places, that don't often make it into the traditional guidebooks. I long for the kind of destinations and experiences that expand our sense of what is possible. I love old European cabinets of curiosities, small scale art collections, museums, and more importantly their reflections of the particular inquisitiveness of their curators. I am also passionate about New York City, and love to discover the *genius loci* of places. I often look for what makes different spaces unique and distinctive as well as the people that inhabit them.

KUDOS



Two NKI investigators appear on the 2017 [Clarivate Analytics list of Highly Cited Researchers](#). **F. Xavier Castellanos, MD** (Clinical Research), and **Michael Milham, MD, PhD** (Biomedical Imaging & Neuromodulation), are both recognized for their contributions in the field of Neuroscience & Behavior. The selection criteria for this year's list included authoring a high number of papers between 2005-2015 that rank in the top 1% by citations. ([Click here](#) for a more detailed description of the selection methodology.)



SCHIZOPHRENIA BULLETIN

The Journal of Psychoses and Related Disorders

Jean-Pierre Lindenmayer, MD (Clinical Research) has been invited to join the Editorial Board of [Schizophrenia Bulletin](#), now subtitled *The Journal of Psychosis and Related Disorders*. Dr. Lindenmayer joins Pamela Butler, PhD, and Donald Goff, MD, NKI faculty members who are currently on the Editorial Board.

FROM AROUND THE INSTITUTE

JPMORGAN CHASE & Co.

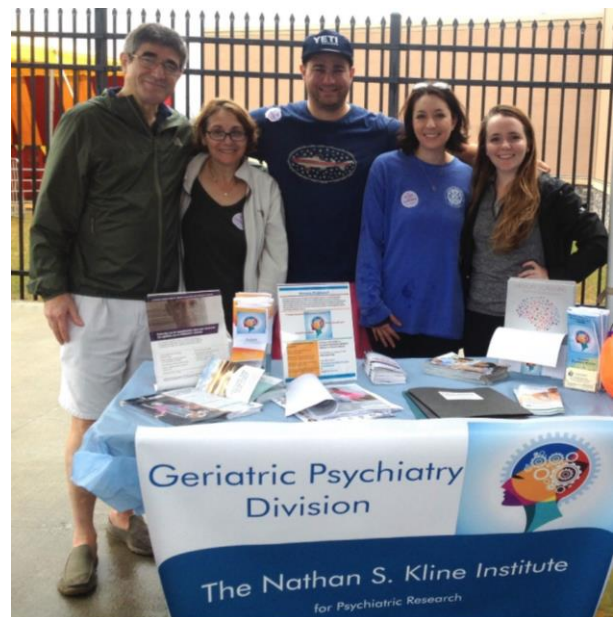
If you have noticed the fencing that went up recently around part of the RPC property and wondered what is going on, here is your answer. After many years during which numerous buildings on the property have stood abandoned, JP Morgan Chase has now purchased a 60-acre parcel and is constructing a large data center on it. For more details about this development, and a bit of the history preceding it, check out [this article on lohud.com](#) and [this one in the Rockland County Times](#).



Michael Milham, MD, PhD, Director of the Center for Biomedical Imaging and Neuromodulation, was interviewed along with Adriana Di Martino, MD (NYU) by *IEEE Pulse* magazine. The interview, titled "[Sharing Data to Solve the Autism Riddle](#)," focuses on the Autism Brain Imaging Data Exchange (ABIDE).



Some members of the **Geriatric Psychiatry Division** attended the 2017 Walk to End Alzheimer's for Rockland County on October 8th at Palisades Credit Union Park (home of the Rockland Boulders) in Pomona. The Alzheimer's Association's Walk to End Alzheimer's® is the world's largest event to raise awareness and funds for Alzheimer's care, support and research. Held annually in more than 600 communities nationwide, this inspiring event calls on participants of all ages and abilities to reclaim the future for millions. The 2017 event raised \$123,675.



(L to R) Nunzio Pomara, MD; Vita Pomara, Dan Plaska, Chelsea Reichert Plaska, and Katie Brundage

Domestic Violence Awareness



NKI recognized Domestic Violence Awareness Month in October with an information table (complete with purple Hershey Kisses!). Pictured above are Human Resources Director **Janie Rathjen** and Chief Safety Officer **Harlan Stearns**, NKI's domestic violence liaisons.

COMPLIANCE CORNER



Sending Data Over the Internet (Compliantly)

*By Bill Alexander, MS
Director of Technology*

Contrary to public belief, you *can* – provided you've secured IRB permission – send protected health information (PHI) over the Internet (even via email!) if you follow a few simple rules:

1. Data must be encrypted *while in transit*
2. PHI must not appear in the subject line
3. PHI can be sent only to academic, research, and business addresses, not Gmail, Yahoo, or other public mail systems

Fortunately, sending encrypted email has gotten easier in recent years. Basically, you have three methods to choose from. In order of ease of use:

1. If the recipient's email address is using an encryption protocol called TLS, *and* the data

is small enough to be sent in an email (less than, say, 10 megabytes), you can send the data as an email attachment without taking any other precautions. This is because TLS encrypts the data while in transit. To find out if the recipient is using TLS, either ask the Help Desk, or visit the website <http://checktls.com>, and enter the destination email address. If your confidence factor is 100%, you are good to go. If you have any doubts, contact the Help Desk!

- a. Note that NYUMC, Columbia Presbyterian, and NIH all use TLS.
 - b. NYSPI and OHM are on the same Office 365 mail system as NKI, so that is considered internal mail, and there are no restrictions.
2. If the recipient is *not* running TLS, you must encrypt the data. Office365 provides an easy way to do this. Just attach the file (no need to encrypt it) to the email, and – this is important – **begin the subject line with the word "ENCRYPT:"** (including the colon). The recipient will receive an email with instructions on how to retrieve the email and any attachments using a one-time passcode.
 3. For datasets too large to be sent as an email attachment, you can post the data on NKI's secure FTP server. While the most complex of the methods (the recipient needs to have an NKI account and install a free sFTP client that we provide), this is the best method for large or recurring data transfers, and can also be used to receive data. To initiate this process, go to myNKI. Then look for NKI Technical Support...Request Secure FTP Account or Access.

Regardless of the method used, it is your responsibility to ensure you have appropriate permission to send PHI to this recipient. If you have any questions in this regard, contact Karya Ottey at x5492. For questions about technical aspects, contact the Help Desk at x6521.

PUBLICATIONS OF NOTE

The logo for Nature Medicine, featuring the word "nature" in a smaller, lowercase font above the word "medicine" in a larger, lowercase font, both in white on a dark red rectangular background.

Helen Scharfman (Dementia Research) is a coauthor of this paper published in the November issue of *Nature Medicine*. The paper is highlighted as an Editors' Choice selection in the 22 November issue of *Science Translational Medicine* ("[The vicious epigenetic cycle of neuronal activation](#)").

You JC, Muralidharan K, Park JW, Petrof I, Pyfer MS, Corbett BF, LaFrancois JJ, Zheng Y, Zhang X, Mohila CA, Yoshor D, Rissman RA, Nestler EJ, Scharfman HE, Chin J. Epigenetic suppression of hippocampal calbindin-D28k by Δ FosB drives seizure-related cognitive deficits. *Nat Med*. 2017 Nov;23(11):1377-1383.

Dr. Scharfman is also a coauthor of these recent articles.

The logo for the journal Epilepsia, with the word "Epilepsia" in a serif font, centered within a light blue rectangular background.

Harte-Hargrove LC, French JA, Pitkänen A, Galanopoulou AS, Whittemore V, Scharfman HE. Common data elements for preclinical epilepsy research: Standards for data collection and reporting. A TASK3 report of the AES/ILAE Translational Task Force of the ILAE. *Epilepsia*. 2017 Nov;58 Suppl 4:78-86.

The logo for the journal Epilepsy & Behavior, with the words "Epilepsy" and "Behavior" in a bold, sans-serif font, separated by an ampersand, all in red and yellow colors.

Kanner AM, Scharfman H, Jette N, et al. Epilepsy as a Network Disorder (1): What can we learn from other network disorders such as autistic spectrum disorder and mood disorders? *Epilepsy Behav*. 2017 Oct 26.

Scharfman HE, Kanner AM, Friedman A, et al. Epilepsy as a Network Disorder (2): What can we learn from other network disorders such as dementia and schizophrenia, and what are the implications for translational research? *Epilepsy Behav*. 2017 Oct 30.

The logo for the journal JAMA Psychiatry, with "JAMA" in a bold, blue, sans-serif font and "Psychiatry" in a blue, serif font, both on a white background.

Daniel Javitt (Schizophrenia Research) is the lead author of this new paper appearing in *JAMA Psychiatry*. **Joshua Kantrowitz** and **Jim Robinson** are NCI coauthors. The article is accompanied by an invited commentary piece titled "Paving the Way for Targeted Drug Development in Schizophrenia". You can read a Columbia University Medical Center press release about this research [here](#).

Javitt DC, Carter CS, Krystal JH, Kantrowitz JT, Girgis RR, Kegeles LS, Ragland JD, Maddock RJ, Lesh TA, Tanase C, Corlett PR, Rothman DL, Mason G, Qiu M, Robinson J, Potter WZ, Carlson M, Wall MM, Choo TH, Grinband J, Lieberman JA. Utility of Imaging-Based Biomarkers for Glutamate-Targeted Drug Development in Psychotic Disorders: A Randomized Clinical Trial. *JAMA Psychiatry*. 2017 Nov 22.

The logo for the journal eNeuro, with "eNeuro" in a blue, sans-serif font, where the "e" is green and the "N" is blue.

Robert Sears and **Joseph LeDoux** (Emotional Brain Institute) are the senior authors of this paper appearing in the open access journal *eNeuro*, published by the Society for Neuroscience.

Campese VD, Soroeta JM, Vazey EM, Aston-Jones G, LeDoux JE, Sears RM. Noradrenergic Regulation of Central Amygdala in Aversive Pavlovian-to-Instrumental Transfer. *eNeuro*. 2017 Oct 24;4(5).



Current Opinion in
Psychology

Regina Sullivan (Emotional Brain Institute) cowrote this review on the neurobiology of infant attachment.

Perry RE, Blair C, Sullivan RM. Neurobiology of infant attachment: attachment despite adversity and parental programming of emotionality. *Curr Opin Psychol*. 2017 Oct; 17:1-6.



FREE
RADICAL
BIOLOGY &
MEDICINE

The latest publication from the **Nixon Lab** (Center for Dementia Research) is this review in *Free Radical Biology & Medicine*. The authors write, "Collectively, these studies underscore the growing value of investigating Down syndrome (DS) to probe the biological origins of Alzheimer's disease as well as to understand and ameliorate the developmental disability of DS."

Colacurcio DJ, Pensalfini A, Jiang Y, Nixon RA. Dysfunction of autophagy and endosomal-lysosomal pathways: Roles in pathogenesis of Down syndrome and Alzheimer's Disease. *Free Radic Biol Med*. 2017 Oct 6.



JNeurosci
THE JOURNAL OF NEUROSCIENCE

Yoshi Kajikawa, John Smiley, and Charles Schroeder have a new paper in the *Journal of Neuroscience*.

Kajikawa Y, Smiley JF, Schroeder CE. Primary Generators of Visually Evoked Field Potentials Recorded in the Macaque Auditory Cortex. *J Neurosci*. 2017 Oct 18;37(42):10139-10153.



Neuro
pharmacology

A new paper from the lab of **Vinod Yaragudri** (Analytical Psychopharmacology and Emotional Brain Institute) appears online in *Neuropharmacology*. NKI coauthors are **Andrea Balla, Bin Dong, Borehalli Shilpa, Henry Sershen, and Ray Suckow**.

Balla A, Dong B, Shilpa BM, Vemuri K, Makriyannis A, Pandey SC, Sershen H, Suckow RF, Vinod KY. Cannabinoid-1 receptor neutral antagonist reduces binge-like alcohol consumption and alcohol-induced accumbal dopaminergic signaling. *Neuropharmacology*. 2017 Nov 3.



PLOS | BIOLOGY

Peter Lakatos (Biomedical Imaging & Neuromodulation) wrote this commentary piece with two colleagues.

Obleser J, Henry MJ, Lakatos P. What do we talk about when we talk about rhythm? *PLoS Biol*. 2017 Sep 19;15(9):e2002794. [Erratum in: *PLoS Biol*. 2017 Nov 1;15(11):e1002615.]



PNAS

Elizabeth Phelps (Emotional Brain Institute) is the corresponding author on this recent article in *PNAS*. This is Dr. Phelps's second *PNAS* paper this year, and her eleventh in all.

Raio CM, Hartley CA, Orederu TA, Li J, Phelps EA. Stress attenuates the flexible updating of aversive value. *Proc Natl Acad Sci U S A*. 2017 Oct 17; 114(42):11241-11246.

Psychiatry Research

Jean-Pierre Lindenmayer and **Matthew Hoptman** (Clinical Research) are coauthors of this *Psychiatry Research* paper on aggression in schizophrenia.

Ahmed AO, Richardson J, Buckner A, Romanoff S, Feder M, Oragunye N, Ilnicki A, Bhat I, Hoptman MJ, Lindenmayer JP. Do cognitive deficits predict negative emotionality and aggression in schizophrenia? *Psychiatry Res.* 2017 Nov 7; 259:350-357.

Psychiatry Research Neuroimaging

Vilma Gabbay (Clinical Research) is the corresponding author of this article appearing in the *Neuroimaging* section of *Psychiatry Research*.

Freed RD, Hollenhorst CN, Weiduschat N, Mao X, Kang G, Shungu DC, Gabbay V. A pilot study of cortical glutathione in youth with depression. *Psychiatry Res.* 2017 Dec 30; 270:54-60.

SCHIZOPHRENIA RESEARCH

NKI investigators contributed to three recent papers in *Schizophrenia Research*. NKI Director **Donald Goff** is an author of the first one below, describing the GENUS consortium project. **Daniel Javitt** and other members of the Schizophrenia Research program are coauthors of the other two.

Blokland GAM, Del Re EC, Meshulam-Gately RI, Jovicich J, Trampush JW, Keshavan MS, DeLisi LE, et al. The Genetics of Endophenotypes of Neurofunction to Understand Schizophrenia (GENUS) consortium: A collaborative cognitive and neuroimaging genetics project. *Schizophr Res.* 2017 Oct 3.

Corcoran CM, Stoops A, Lee M, Martinez A, Sehatpour P, Dias EC, Javitt DC. Developmental

trajectory of mismatch negativity and visual event-related potentials in healthy controls: Implications for neurodevelopmental vs. neurodegenerative models of schizophrenia. *Schizophr Res.* 2017 Oct 12.

Avissar M, Javitt D. Mismatch negativity: A simple and useful biomarker of N-methyl-D-aspartate receptor (NMDAR)-type glutamate dysfunction in schizophrenia. *Schizophr Res.* 2017 Nov 10.



Members of the Emotional Brain Institute have two recent papers in *Scientific Reports*, an open access journal from Nature Publishing. **Millie Rincón-Cortés** and **Regina Sullivan** are coauthors of the first, and **Yaniv Cohen** and **Donald Wilson** wrote the second.

Boulanger-Bertolus J, Rincón-Cortés M, Sullivan RM, Mouly AM. Understanding pup affective state through ethologically significant ultrasonic vocalization frequency. *Sci Rep.* 2017 Oct 18; 7(1):13483.

Cohen Y, Wilson DA. Task-Related Cortical Asymmetry and Intra- and Inter-Hemispheric Separation. *Sci Rep.* 2017 Nov 6;7(1):14602.

The American Journal of Psychiatry

In this Letter to the Editor, **Joseph LeDoux** (Emotional Brain Institute) and Daniel Pine respond to a Letter critiquing the [review](#) they published last year.

Pine DS, LeDoux JE. Elevating the Role of Subjective Experience in the Clinic: Response to Fanelow and Pennington. *Am J Psychiatry.* 2017 Nov 1; 174(11):1121-1122.

INFO UPDATE



The new third edition of *The American Psychiatric Association Publishing Textbook of Forensic Psychiatry* is [now available on PsychiatryOnline](#) with NKI's institutional license.



The National Institute of Mental Health (NIMH) has released its [second annual update](#) of the [Strategic Research Priorities](#). These priorities serve as guidance to NIMH grantees, potential grant applicants, and staff for the design and implementation of future research.



NIMH has also launched an official Twitter account – [@NIMHDirector](#) – for its Director, Joshua A. Gordon, MD, PhD. Dr. Gordon will tweet research, news, events, and funding opportunities. NIMH established its enterprise Twitter account, [@NIMHgov](#), in May of 2009. It surpassed more than a million followers earlier this year.



New videos have been posted on [NCBI's YouTube channel](#), including recordings of recent NCBI Minute webinars. Some sample topics are "PubMed Tools and ORCID ID's for Authors", "Introducing the Genome Data Viewer: NCBI's Genome Browser", and "Keeping Current and Getting Help with NCBI Resources".

Enhancing Author Impact

The Bernard Becker Medical Library of Washington University in St. Louis has produced some online resources that provide guidance to authors in support of their scholarly work. Among a variety of pages focusing on different tools for authors is this one on [Enhancing Your Impact](#). The library has also created a site on [Assessing the Impact of Research](#).



Dr. Lloyd Sederer, Chief Medical officer of the NYS Office of Mental Health has authored a new [policy paper](#) for the Scattergood Foundation titled [America's Opioid Epidemic](#). A new book by Dr. Sederer on addiction will be published in 2018.



Finally, in his [latest Director's Message](#), Dr. Gordon reflects on his first year at NIMH and outlines priorities going forward.

ResearchGate

A coalition of academic publishers has been exerting pressure on the scholarly social network ResearchGate to remove copyrighted articles from its website. And two of the coalition members, Elsevier and the American Chemical Society, have filed a lawsuit to prevent copyrighted material from being posted. ResearchGate, a for-profit company founded in 2008, enables its millions of users to upload and share material including published papers. You can read more about the dispute in [Science magazine](#) and in [Nature News](#).

DEPARTMENT OF WONDER



A 2013 “American Icons” episode of the public radio show [Studio 360](#) focused on the cultural impact of *One Flew Over the Cuckoo’s Nest* – the film and the book that it was adapted from. You can listen to the entire episode [here](#).



The publisher of the Annual Reviews series now also has a free online publication called [Knowable Magazine](#). Selected articles from the 50 Annual Reviews journals serve as springboards for the stories in *Knowable Magazine*, which explores the real-world significance of scholarly work through a journalistic lens. “Through in-depth features, explainers, articles, essays, interviews, infographics, slideshows, and comics, *Knowable Magazine* presents insights from research to a broader audience.”



The Brain & Behavior Research Foundation held its annual Mental Health Research Symposium and Awards Dinner on October 27. [Click here](#) to learn more about these events and the Outstanding Achievement Prize winners, including brief video profiles.

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.). Remote access is available using NKI’s VPN.

NKI ON THE ROAD



New York Metro Imaging Research Consortium

NKI presenters at the 4th annual [New York Metro Imaging Research Symposium](#) were:

- **Babak Ardekani** (C-BIN) – Automatic Unbiased and Fast Alignment of Longitudinal Structural MRI
- **David Guilfoyle** (C-BIN) – Proton NMR spectroscopy of the entorhinal cortex in apoE4 and apoE3 mice
- **Matthew Hoptman** (Clinical Research) – Amygdala functional connectivity patterns in late-life major depression

The Symposium was held at Columbia University Medical Center.



Quite a few NKI researchers attended the [2017 Society for Neuroscience meeting](#) in Washington, DC. Some of their contributions are listed below. To search all the conference programs and sessions, [click here](#).

- **Kathy Peng** and **Rocio Perez-Gonzalez** (Mathews and Levy Labs, Dementia Research) chaired a nanosymposium on "Mechanisms of Neurotoxicity and Degeneration", during which Kathy presented on "Apolipoprotein E4 expression reduces brain exosome secretion".
- **Donald Wilson** (Emotional Brain Institute) chaired a nanosymposium on "Gating Olfactory Information", during which he presented on "State-dependent competition between bottom-up and top-down inputs to olfactory cortex".
- **Elisa Dias** (Schizophrenia Research) gave a nanosymposium talk on "Reduced subcortical activation during paragraph reading in schizophrenia".
- **Helen Scharfman** (Dementia Research) chaired the Hippocampus Social.
- **Pamela Butler** (Clinical Research) spoke at a professional development workshop on Global Approaches for Collaboration & Networking sponsored by Women in World Neuroscience (WWN). Her talk was titled "Strategies and Steps for Effective Scientific Writing." WWN is an independent mentoring and networking organization aimed at providing mentoring and networking opportunities for neuroscientists around the world.

Poster presenters included **Melissa Alldred**, **Justin Botterill**, **Helen Chao**, **Emmanuelle Courtiol**, **Megan Gautier**, **Stephen Ginsberg**, **Yoshinao Kajikawa**, **Marcin Leszczynski**, **Maya Opendak**, **Mariko Saito**, and **Idan Tal**.

Also in attendance were **Efrat Levy**, **Paul Mathews**, **Monika Pawlik**, **Mitsuo Saito**, and **Regina Sullivan**.



Pictured at the NYU Social: Helen Chao (far left), Megan Gautier, Rocio Perez-Gonzalez, Kathy Peng, and Melissa Alldred (Center for Dementia Research)



The American College of Neuropsychopharmacology annual meeting just wrapped up in Palm Springs, CA. NKI contributors were:

Institute Director **Donald Goff** gave a panel presentation on "Hippocampal Atrophy, Duration of Untreated Psychosis and Molecular Biomarkers During Initial Antipsychotic Treatment of First Episode Psychosis".

Regina Sullivan (Emotional Brain Institute) gave a panel presentation on "Neurobiology of Infant Trauma: Specific Categories of Adversity Produce Diverse Neurobiological Signatures and Outcome".

In addition, posters were presented by:

Daniel Javitt (Schizophrenia Research) – "Multicenter Validation Study of Biomarkers for Glutamate-Targeted Drug Development in Psychotic Disorders: A Randomized Clinical Trial".

Joshua Kantrowitz (Schizophrenia Research) – “Replication of Significant Improvement in Treatment Resistant Auditory Verbal Hallucinations After 5 Days of Double-Blind, Sham Controlled Inhibitory (Cathodal) tDCS: Evidence for fMRI Guided Treatment”.

Antigona Martinez (Schizophrenia Research) – “Differential Deficits in Early Visual Processing Across Neuropsychiatric Populations: Implications for Screening and Intervention”.

Nunzio Pomara (Geriatric Psychiatry) – “Reduction in CSF sTREM2, a Biomarker of Microglia Activation, in Elderly Depressives”. **Jay Nierenberg** and **Chelsea Reichert** also contributed to this international collaboration.



Mary Jane Alexander (Social Solutions & Services) moderated a session on “Climate Change and Mental Health: Responding to Mental Health Needs Following Natural Disasters” at the [American Public Health Association annual meeting](#) in Atlanta. The theme for this year’s meeting was Creating the Healthiest Nation: Climate Changes Health. Dr. Alexander is the Chair of the APHA [Mental Health Section](#).



Dr. Pamela Butler (Clinical Research) gave a talk at the Society for Research in Psychopathology meeting in Colorado in September on “Visual Contrast Processing, Cognitive Function, and Functional Outcome in Schizophrenia.”



Outpatient Research Director **Russell Tobe** was one of the speakers at The Annual Jeanne E. Jonas Professional Development Symposium and Frank W. Masterson Memorial Banquet, sponsored by the Mental Health Association in Orange County, Orange Regional Medical Center, and the Orange County Department of Mental Health.

UPCOMING EVENTS AND SEMINARS

Center for Biomedical Imaging and Neuromodulation Science Series

Held on Mondays at 11 am

J. Thomas Vaughan, PhD

Professor of Biomedical Engineering
Director of Magnetic Resonance Research
Columbia University

Title TBA

January 8th

Conor Liston, MD, PhD

Assistant Professor of Neuroscience and Psychiatry
Weill Cornell Medicine

Title TBA

January 22nd

Stan Colcombe, PhD

Director, Design, Acquisition & Neuromodulation Laboratory, NKI

Title TBA

January 29th

Center for Dementia Research Seminar Series

Held on Thursdays at 10 am

Arjun Masurkar, MD, PhD

Assistant Professor of Neurology, NYU

Hippocampal CA1 circuit heterogeneity through space and time

January 4th

Khalil Saadipour, PhD

Molecular Neurobiology, NYU

Pathological consequences of p75 neurotrophin receptor expression in the brain

January 18th

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 5,600 items dating back to 1995, and can be searched from the [myNKI website](#).

Ahmed AO, Richardson J, Buckner A, Romanoff S, Feder M, Oragunye N, Ilnicki A, Bhat I, Hoptman MJ, Lindenmayer JP. Do cognitive deficits predict negative emotionality and aggression in schizophrenia? *Psychiatry Res.* 2017 Nov 7; 259:350-357.

Avissar M, Javitt D. Mismatch negativity: A simple and useful biomarker of N-methyl-d-aspartate receptor (NMDAR)-type glutamate dysfunction in schizophrenia. *Schizophr Res.* 2017 Nov 10.

Balla A, Dong B, Shilpa BM, Vemuri K, Makriyannis A, Pandey SC, Sershen H, Suckow RF, Vinod KY. Cannabinoid-1 receptor neutral antagonist reduces binge-like alcohol consumption and alcohol-induced accumbal dopaminergic signaling. *Neuropharmacology.* 2017 Nov 3.

Blokland GAM, Del Re EC, et al. The Genetics of Endophenotypes of Neurofunction to Understand Schizophrenia (GENUS) consortium: A collaborative cognitive and neuroimaging genetics project. *Schizophr Res.* 2017 Oct 3.

Boulanger-Bertolus J, Rincón-Cortés M, Sullivan RM, Mouly AM. Understanding pup affective state through ethologically significant ultrasonic vocalization frequency. *Sci Rep.* 2017 Oct 18; 7(1):13483.

Campese VD, Soroeta JM, Vazey EM, Aston-Jones G, LeDoux JE, Sears RM. Noradrenergic Regulation of Central Amygdala in Aversive Pavlovian-to-Instrumental Transfer. *eNeuro.* 2017 Oct 24;4(5).

Campese VD, Kim IT, Rojas G, LeDoux JE. Pavlovian Extinction and Recovery Effects in Aversive Pavlovian to Instrumental Transfer. *Front Behav Neurosci.* 2017 Sep 25;11:179.

Cohen Y, Wilson DA. Task-Related Cortical Asymmetry and Intra- and Inter-Hemispheric Separation. *Sci Rep.* 2017 Nov 6;7(1):14602.

Colacurcio DJ, Pensalfini A, Jiang Y, Nixon RA. Dysfunction of autophagy and endosomal-lysosomal pathways: Roles in pathogenesis of Down syndrome and Alzheimer's Disease. *Free Radic Biol Med.* 2017 Oct 6.

Corcoran CM, Stoops A, Lee M, Martinez A, Sehatpour P, Dias EC, Javitt DC. Developmental trajectory of mismatch negativity and visual event-related potentials in healthy controls: Implications for neurodevelopmental vs. Neurodegenerative models of schizophrenia. *Schizophr Res.* 2017 Oct 12.

Elsamadony A, Yates KF, Sweat V, Yau PL, Mangone A, Joseph A, Fierman A, Convit A. Asian Adolescents with Excess Weight are at Higher Risk for Insulin Resistance than Non-Asian Peers. *Obesity (Silver Spring)*. 2017 Nov; 25(11):1974-1979.

Fava M, Freeman MP, Flynn M, Hoepfner BB, Shelton R, Iosifescu DV, Murrrough JW, Mischoulon D, Cusin C, Rapaport M, Dunlop BW, Trivedi MH, Jha M, Sanacora G, Hermes G, Papakostas GI. Double-blind, proof-of-concept (POC) trial of Low-Field Magnetic Stimulation (LFMS) augmentation of antidepressant therapy in treatment-resistant depression (TRD). *Brain Stimul*. 2017 Sep 23.

Freed RD, Hollenhorst CN, Weiduschat N, Mao X, Kang G, Shungu DC, Gabbay V. A pilot study of cortical glutathione in youth with depression. *Psychiatry Res*. 2017 Dec 30;270:54-60.

Garcia-Garcia M, Nikolaidis A, Bellec P, Craddock RC, Cheung B, Castellanos FX, Milham MP. Detecting stable individual differences in the functional organization of the human basal ganglia. *Neuroimage*. 2017 Jul 21.

Girgis RR, Ciarleglio A, Choo T, Haynes G, Bathon JM, Cremers S, Kantrowitz JT, Lieberman JA, Brown AS. A Randomized, Double-Blind, Placebo-Controlled Clinical Trial of Tocilizumab, an Interleukin-6 Receptor Antibody, for Residual Symptoms in Schizophrenia. *Neuropsychopharmacology*. 2017 Nov 1.

Gonzales L, Yanos PT, Stefancic A, Alexander MJ, Harney-Delehanty B. The Role of Neighborhood Factors and Community Stigma in Predicting Community Participation Among Persons With Psychiatric Disabilities. *Psychiatr Serv*. 2017 Sep 15;appips201700165.

Harte-Hargrove LC, French JA, Pitkänen A, Galanopoulou AS, Whittemore V, Scharfman HE. Common data elements for preclinical epilepsy research: Standards for data collection and reporting. A TASK3 report of the AES/ILAE Translational Task Force of the ILAE. *Epilepsia*. 2017 Nov; 58 Suppl 4:78-86.

Hong SJ, Valk SL, Di Martino A, Milham MP, Bernhardt BC. Multidimensional Neuroanatomical Subtyping of Autism Spectrum Disorder. *Cereb Cortex*. 2017 Sep 14:1-11.

Kajikawa Y, Smiley JF, Schroeder CE. Primary Generators of Visually Evoked Field Potentials Recorded in the Macaque Auditory Cortex. *J Neurosci*. 2017 Oct 18;37(42):10139-10153.

Kanner AM, Scharfman H, Jette N, Anagnostou E, Bernard C, Camfield C, Camfield P, Legg K, Dinstein I, Giacobe P, Friedman A, Pohlmann-Eden B. Epilepsy as a Network Disorder (1): What can we learn from other network disorders such as autistic spectrum disorder and mood disorders? *Epilepsy Behav*. 2017 Oct 26.

Kim Y, Kim J, Cohen A, Backus M, Arnovitz M, Rice T, Luber MJ, Coffey BJ. Medication Nonadherence Secondary to Choking Phobia (Phagophobia) in an Adolescent with Significant Trauma History: Addressing the Issue of Mental Contamination. *J Child Adolesc Psychopharmacol*. 2017 Sep; 27(7):667-672.

Koyama MS, Ortiz-Mantilla S, Roesler CP, Milham MP, Benasich AA. A Modulatory Effect of Brief Passive Exposure to Non-linguistic Sounds on Intrinsic Functional Connectivity: Relevance to Cognitive Performance. *Cereb Cortex*. 2017 Oct 17:1-14.

Lancôt KL, Amatniek J, Ancoli-Israel S, Arnold SE, Ballard C, Cohen-Mansfield J, Ismail Z, Lyketsos C, Miller DS, Musiek E, Osorio RS, Rosenberg PB, Satlin A, Steffens D, Tariot P, Bain LJ, Carrillo MC, Hendrix JA, Jurgens H, Boot B. Neuropsychiatric signs and symptoms of Alzheimer's disease: New treatment paradigms. *Alzheimers Dement*. 2017 Aug 5;3(3):440-449.

Lempert KM, Lackovic SF, Tobe RH, Glimcher PW, Phelps EA. Propranolol reduces reference-dependence in intertemporal choice. *Soc Cogn Affect Neurosci*. 2017 Sep 1;12(9):1394-1401.

Mosconi L, Berti V, Guyara-Quinn C, McHugh P, Petrongolo G, Osorio RS, Connaughty C, Pupi A, Vallabhajosula S, Isaacson RS, de Leon MJ, Swerdlow RH, Brinton RD. Perimenopause and emergence of an Alzheimer's bioenergetic phenotype in brain and periphery. *PLoS One*. 2017 Oct 10;12(10):e0185926.

Obleser J, Henry MJ, Lakatos P. What do we talk about when we talk about rhythm? *PLoS Biol*. 2017 Sep 19; 15(9):e2002794. [Erratum in: *PLoS Biol*. 2017 Nov 1;15(11):e1002615.]

Perry RE, Blair C, Sullivan RM. Neurobiology of infant attachment: attachment despite adversity and parental programming of emotionality. *Curr Opin Psychol*. 2017 Oct;17:1-6.

Pine DS, LeDoux JE. Elevating the Role of Subjective Experience in the Clinic: Response to Fanselow and Pennington. *Am J Psychiatry*. 2017 Nov 1; 174(11):1121-1122.

Raio CM, Hartley CA, Orederu TA, Li J, Phelps EA. Stress attenuates the flexible updating of aversive value. *Proc Natl Acad Sci U S A*. 2017 Oct 17; 114(42):11241-11246.

Scharfman HE, Kanner AM, Friedman A, Blümcke I, Crocker CE, Cendes F, Diaz-Arrastia R, Förstl H, Fenton AA, Grace AA, Palop J, Morrison J, Nehlig A, Prasad A, Wilcox KS, Jette N, Pohlmann-Eden B. Epilepsy as a Network Disorder (2): What can we learn from other network disorders such as dementia and schizophrenia, and what are the implications for translational research? *Epilepsy Behav*. 2017 Oct 30.

Sharma RA, Varga AW, Bubu OM, Pirraglia E, Kam K, Parekh A, Wohlleber M, Miller MD, Andrade A, Lewis C, Tweardy S, Buj M, Yau PL, Sadda R, Mosconi L, Li Y, Butler T, Glodzik L, Fieremans E, Babb JS, Blennow K, Zetterberg H, Lu SE, Badia SG, Romero S, Rosenzweig I, Gosselin N, Jean-Louis G, Rapoport DM, de Leon MJ, Ayappa I, Osorio RS. Obstructive Sleep Apnea Severity Affects Amyloid Burden in Cognitively Normal Elderly: A Longitudinal Study. *Am J Respir Crit Care Med*. 2017 Nov 10.

Suvilesh KN, Yariswamy M, Savitha MN, Joshi V, Nanjaraj Urs AN, Urs AP, Choudhury M, Velmurugan D, Vishwanath BS. Purification and characterization of an anti-hemorrhagic protein from *Naja naja* (Indian cobra) venom. *Toxicon*. 2017 Oct 26;140:83-93.

You JC, Muralidharan K, Park JW, Petrof I, Pyfer MS, Corbett BF, LaFrancois JJ, Zheng Y, Zhang X, Mohila CA, Yoshor D, Rissman RA, Nestler EJ, Scharfman HE, Chin J. Epigenetic suppression of hippocampal calbindin-D28k by Δ FosB drives seizure-related cognitive deficits. *Nat Med*. 2017 Nov;23(11):1377-1383.

Baslow MH, Guilfoyle DN. [The Bimodal Nature of Neurovascular Coupling](#). *International Biological & Biomedical Journal* 2017;3(4):162-8.

Baslow MH, Guilfoyle DN. [The Bimodal Nature of Neurovascular Coupling: Slow Tonic and Rapid Phasic Responses are Separately Controlled by Specific Astrocyte Metabotropic and Ionotropic Glutamate Receptors](#). *Journal of Molecular and Genetic Medicine* 2017; 11:266.

Dyakin VV, Lucas J, Dyakina-Fagnano NV, Posner EV, Vadasz C. [The Chain of Chirality Transfer as Determinant of Brain Functional Laterality](#). *Neurology and Neuroscience Research* 2017;1(1):2.

Faber H, Opitz A, Zipser C, Muller-Dahlhaus F, Ziemann U. [tDCS shows no effects on motor cortex excitability at rest](#). *Clinical Neurophysiology* 128[10], e356-e357. 2017. [Abstract]

Iosifescu DV, Neborsky RJ, Valuck RJ. [Author's reply](#). *Neuropsychiatric Disease and Treatment* 2017; 13:2529-30.

Jiang B, Petkova E, Tarpey T, Ogden RT. [Latent class modeling using matrix covariates with application to identifying early placebo responders based on EEG signals](#). *Annals of Applied Statistics* 2017;11(3):1513-36.

Van Lancker-Sidtis D, Sidtis JJ. [Evaluation, treatment, and analysis of a rare case of motor speech systems dyscoordination syndrome](#). *Cogent Medicine* 2017;4(1):1388208.