## The NKInformer



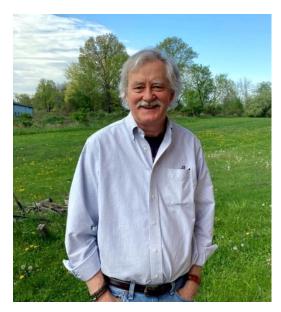
A newsletter of the Nathan S. Kline Institute for Psychiatric Research

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

November – December 2022 Stuart Moss, MLS, Editor

### **NKI Administration Enters New Era**

With the retirement of **Tom O'Hara**, NKI begins a new administrative era. Tom arrived at NKI (then called the Rockland Research Institute) in 1982, the Institute's 30<sup>th</sup> anniversary. He retires on NKI's 70<sup>th</sup> anniversary, after 40 years of service including 23 years as the Deputy Director, Institute Administration (DDIA). Tom's retirement and contributions to NKI were celebrated on November 15<sup>th</sup> in the conference room.



Tom's future includes blue skies and green pastures in South Carolina.

The departure of Tom O. brings the arrival of Tom C. Tom Cunningham, NKI's new DDIA, is an MBA with more than 28 years of administrative experience, 20 years of which was as a research administrator at Memorial Sloan-Kettering and at Weill Medical College of Cornell University. He has exceptional expertise in research finance, compliance, human resources, and day-to-day management. He has always worked closely with investigators and understands how to support and facilitate research.

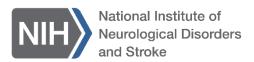


Tom Cunningham



Tom O'Hara first joined the Information Sciences Division (ISD) as Fiscal Administrator. He is pictured here with ISD colleagues Bill Alexander (left) and Jim Robinson (right).

#### **KUDOS**



**Dr. Helen Scharfman** is the recipient of a 2022 <u>Javits Neuroscience Investigator Award</u> from the National Institute of Neurological Disorders and Stroke (NINDS). The Javits Award is a conditional, seven-year research grant given to scientists for their superior competence and outstanding productivity. Javits Awards provide long-term support to investigators with a history of exceptional talent, imagination, and preeminent scientific achievement.

Dr. Scharfman's research focuses on neuronal excitability and plasticity, neuroendocrinology, and neurogenesis. She studies these basic mechanisms in the hippocampus with a special emphasis on their contribution to mechanisms underlying the development of epilepsy. She was the first to show the excitatory nature of mossy cells using electrophysiological recordings. Her project aims to examine the role of mossy cells during acute status epilepticus, the latent phase, and chronic spontaneous recurrent seizures, and cognitive/emotional comorbidities in two animal models of temporal lobe epilepsy. This research could establish dual roles for mossy cells in acute and chronic phases of temporal lobe epilepsy and potentially give rise to new approaches for therapy development.



Matthew Hoptman, PhD (Clinical Research), received the 2022 Excellence in Research Award from NAMI-NYS, recognizing his decades of work studying impulsivity and aggression and his recent work on suicidality in schizophrenia employing a variety of neuroimaging modalities. The award was presented in November at NAMI New York State's Education Conference by Dr. Abraham Goldring, Research Chair for NAMI-NYS.



Matthew Hoptman (right) with Abraham Goldring



Yohan Kim, a postdoctoral fellow in the Levy Lab (Dementia Research) won the 2022 Best Poster Award for Psychiatry Research Day at NYU, as voted on by the attendees. The title of Dr. Kim's poster was "Sex differentially alters secretion of brain extracellular vesicles during aging: a potential mechanism for maintaining brain homeostasis"



Ayana Jordan, MD, PhD (Social Solutions & Services), has been selected by the American Society of Addiction Medicine (ASAM) to be the first recipient of ASAM's Award for the Promotion of Inclusion, Diversity, Equality and Justice in Addiction Medicine. This award recognizes and honors an individual whose work in the area of injustice related to addiction care has improved the lives of people with addiction disorders who have been the object of discrimination, injustice, exclusion, or persecution. The presentation of the award will occur at the ASAM Annual Conference in Washington, DC, in April 2023.

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Home to
Highly Cited
Researchers
2022
Clarivate

Two NKI investigators have once again been recognized their high-impact research. Drs. F. Xavier Castellanos and Michael P. **Milham** both appear on the 2022 list of Highly Cited Researchers compiled Clarivate. Both have made the list every year since 2014, demonstrating their consistent output and influence.

The Highly Cited Researchers list recognizes the world's most influential researchers of the past decade, demonstrated by the production of multiple highly-cited papers that rank in the top 1% by citations for field and year. This select group includes only 1 in 1,000 of the world's researchers. Dr. Castellanos is a Senior Research Psychiatrist at NKI and an endowed Professor of Child & Adolescent Psychiatry and Professor of Radiology and Neuroscience at the NYU Grossman School of Medicine. Dr. Milham directs the Center for Biomedical Imaging and Neuromodulation (C-BIN) at NKI and is Vice President of Research at the Child Mind Institute.

#### **GRANTS RECEIVED**

Dr. Carla Nasca has a grant from the Dr. Ralph and Marian Falk Medical Research Trust with a subcontract to NKI titled "A novel therapeutic approach for major depressive disorder."



#### FROM AROUND THE INSTITUTE



A long article just published in *Quanta Magazine* features an extensive profile of Center for Dementia Research Director **Ralph Nixon** and his work at NKI. The article, "What Causes Alzheimer's? Scientists Are Rethinking the Answer," surveys alternative theories to the dominant amyloid cascade hypothesis and looks at Dr. Nixon's work in depth. The article also includes a number of handsome photos of Dr. Nixon and NKI!



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C-BIN Director **Michael Milham** was one of the main sources for this *Slate* article on the use of MRI in psychiatry: "Could Brain Scans Bring Psychiatry Into the 21st Century?"

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**Ralph Nixon** and **Ju-Hyun Lee** (Dementia Research) posted their <u>latest commentary</u> on a recent publication on the Alzforum site.



NKI's **Community Building Committee** spearheaded the 4<sup>th</sup> annual food drive to benefit <u>People to People</u> of Rockland County. The result was a donation of over 300 pounds of food and over \$400 in cash for a total of over \$1,300 of needed food for the Rockland County community.



Staff members of the NKI/OMH Clinical Lab contributed to the food drive.

#### **RETIREMENTS**

Dr. Gary Linn has retired from NKI after 36 years of service. Gary's educational and training background is in Zoology and Physical Anthropology (BS in Anthropology-Zoology from the University of Michigan; PhD in Physical Anthropology, Primatology, from specializing in Rutgers University). Throughout his long career, he pursued an interest in nonhuman primate gonadal hormone influences on social and sexual behavior, nonhuman primate behavioral psychopharmacology relating to schizophrenia, and nonhuman primate neurophysiology and neuromodulation.



Gary's first connection with the Rockland Research Institute was through his dissertation research project with stumptail macaques on Hall's Island in Bermuda, where he first met Terry O'Keeffe in 1978. After finishing his Ph.D., Dr. Linn came to NKI where he worked under Ken Lifshitz, who was studying effects and side-effects of antipsychotics, antidepressants, and other pharmacological manipulations on Cebus monkey behavior and neurophysiology as a model for treatment development.

Gary then worked in Dan Javitt's group developing nonhuman primate models of schizophrenia using NMDA receptor antagonists such as PCP.

Most recently, Gary worked in Charlie Schroeder's group and contributed to projects studying the effects of different types of neuromodulation on nonhuman primate fMRI and neurophysiological measures of brain activity. These neuromodulation modalities include designer receptors exclusively activated by designer drugs (DREADDs), transcranial focused ultrasound (tFUS), transcranial magnetic stimulation (TMS), and transcranial alternating and direct current stimulation (tACS/tDCS).

Retirement will allow Gary more time for fishing, tennis, exploring the outdoors, and projects around the house.

#### **PUBLICATIONS OF NOTE**



**Daniel Javitt**, the longtime Director of Schizophrenia Research at NKI, is the author of a new review article in the *Annual Review of Pharmacology & Toxicology*.

Javitt DC. Cognitive Impairment Associated with Schizophrenia: Toward Novel Therapeutics. Annu Rev Pharmacol Toxicol. 2022 Sep 23. PMID: 36151052.

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# **Epilepsia**

**Christos Lisgaras** and **Helen Scharfman** (Dementia Research) published new research in *Epilepsia* demonstrating high frequency oscillations in a mouse model of Alzheimer's.

Lisgaras CP, Scharfman HE. <u>High Frequency</u>
Oscillations (250-500Hz) in Animal Models of
Alzheimer's Disease and Two Animal Models of
Epilepsy. Epilepsia. 2022 Nov 8. PMID:
36346209.

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**Arielle Tambini** (Biomedical Imaging & Neuromodulation) is a coauthor of this open access opinion paper published in the December issue of *Trends in Cognitive Sciences*.

Wang J, Tambini A, Lapate RC. <u>The tie that binds:</u> <u>temporal coding and adaptive emotion</u>. Trends Cogn Sci. 2022 Dec; 26(12):1103-1118. PMID: 36302710.



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**Dr. Tambini** also coauthored this new article appearing in *Neuron*.

Miller JA, Tambini A, Kiyonaga A, D'Esposito M.

<u>Long-term learning transforms prefrontal</u>

<u>cortex representations during working</u>

<u>memory</u>. Neuron. 2022 Oct 7. PMID: 36240768.

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## JAMA Psychiatry

**Panos Roussos** (Dementia Research) is a senior author of this recent publication in *JAMA Psychiatry*.

Bigdeli TB, Voloudakis G, Barr PB, Gorman BR, Genovese G, ... Harvey PD, Roussos P; Cooperative Studies Program (CSP) #572 and Million Veteran Program (MVP). Penetrance and Pleiotropy of Polygenic Risk Scores for Schizophrenia, Bipolar Disorder, and Depression Among Adults in the US Veterans Affairs Health Care System. JAMA Psychiatry. 2022 Sep 14; 79(11):1092–101. PMID: 36103194.

**Dr. Roussos** is also the senior author of these two papers published in *Nature*-branded journals:

Dong P, Hoffman GE, Apontes P, Bendl J, Rahman S, Fernando MB, Zeng B, Vicari JM, Zhang W, Girdhar K, Townsley KG, Misir R; CommonMind Consortium, Brennand KJ, Haroutunian V, Voloudakis G, Fullard JF, Roussos P. <u>Population-level variation in enhancer expression identifies disease mechanisms in the human brain</u>. Nat Genet. 2022 Oct; 54(10):1493-1503. PMID: 36163279.

Bendl J, Hauberg ME, Girdhar K, Im E, Vicari JM, Rahman S, Fernando MB, Townsley KG, Dong P, Misir R, Kleopoulos SP, Reach SM, Apontes P, Zeng B, Zhang W, Voloudakis G, Brennand KJ, Nixon RA, Haroutunian V, Hoffman GE, Fullard JF, Roussos P. <u>The three-dimensional landscape of cortical chromatin accessibility in Alzheimer's disease</u>. Nat Neurosci. 2022 Oct; 25(10):1366-1378. PMID: 36171428.

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### nature communications

Two new articles by NKI authors appear in the open access journal *Nature Communications*.

**Ying Jiang, Ralph Nixon**, and several colleagues in the Center for Dementia Research published this paper:

Jiang Y, Alam JJ, Gomperts SN, Maruff P, Lemstra AW, Germann UA, Stavrides PH, Darji S, Malampati S, Peddy J, Bleiwas C, Pawlik M, Pensalfini Α, Yang DS, Subbanna Basavarajappa BS, Smiley JF, Gardner A, Blackburn K, Chu HM, Prins ND, Teunissen CE, Harrison JE, Scheltens P, Nixon RA. Preclinical and randomized clinical evaluation of the p38a kinase inhibitor neflamapimod for basal forebrain cholinergic degeneration. Nat Commun. 2022 Sep 21; 13(1):5308. PMID: 36130946.

And **Brian Russ** (Biomedical Imaging & Neuromodulation) is a coauthor of this one:

Waidmann EN, Koyano KW, Hong JJ, Russ BE, Leopold DA. <u>Local features drive identity responses in macaque anterior face patches</u>. Nat Commun. 2022 Sep 23; 13(1):5592. PMID: 36151142.



**Carrie Masia Warner** (Social Solutions & Services) is the senior author of this paper published in the latest issue of the *Journal of Latinx Psychology*.

Portillo NL, Grapin SL, Reyes-Portillo JA, Warner CM. <u>Online discrimination and mental health outcomes: The moderating roles of ethnic identity and immigrant generation among Latinx young adults</u>. Journal of Latinx Psychology 2022; 10(4):322-39.



**Mohammed Milad** (Clinical Research) is the corresponding author of this paper appearing in the September issue of *Learning & Memory*.

Wen Z, Fried J, Pace-Schott EF, Lazar SW, Milad MR. Revisiting sex differences in the acquisition and extinction of threat conditioning in humans. Learn Mem. 2022 Sep 2; 29(9):274-282. PMID: 36206388.



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**John Sidtis** and **Diana Van Lancker Sidtis** (Brain & Behavior Laboratory) with Kelly Bridges and Helen Mayberg, recently published their latest work in the *Journal of Neurolinguistics*.

Bridges KA, Mayberg H, Van Lancker-Sidtis D, Sidtis JJ. <u>Familiar language in treatment-resistant depression: Effects of deep brain stimulation of the subcallosal cingulate</u>. Journal of Neurolinguistics 2023; 65:101110.



**Vilma Gabbay** (Clinical Research) is a coauthor of this paper appearing online in *Clinical Child Psychology and Psychiatry*.

Polanco-Roman L, DeLapp RC, Dackis MN, Ebrahimi CT, Mafnas KS, Gabbay V, Pimentel SS. Racial/ethnic discrimination and suicide-related risk in a treatment-seeking group of ethnoracially minoritized adolescents. Clin Child Psychol Psychiatry. 2022 Oct 8. PMID: 36210796.

### Journal of Big Data

**Xavier Castellanos** (Clinical Research) is a senior author of this new article in the open access *Journal of Big Data*.

Lu B, Li HX, Chang ZK, Li L, Chen NX, Zhu ZC et al. A practical Alzheimer's disease classifier via brain imaging-based deep learning on 85,721 samples. Journal of Big Data 2022; 9:101.

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in Computational Neuroscience

**Samuel Neymotin** (Biomedical Imaging & Neuromodulation) is the corresponding author of this open access paper in *Frontiers in Computational Neuroscience*. David D'Onofrio and Haroon Anwar are C-BIN coauthors.

Haşegan D, Deible M, Earl C, D'Onofrio D, Hazan H, Anwar H, Neymotin SA. <u>Training spiking neuronal networks to perform motor control using reinforcement and evolutionary learning</u>. Front Comput Neurosci. 2022 Sep 30; 16:1017284. PMID: 36249482.



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**Balapal Basavarajappa** and **Shivakumar Subbana** (Dementia Research) contributed this review to the open access journal *Biomolecules*.

Basavarajappa BS, Subbanna S. <u>Molecular Insights into Epigenetics and Cannabinoid Receptors</u>. Biomolecules. 2022 Oct 26;12(11):1560. PMID: 36358910.



**Salvador Dura-Bernal** (Biomedical Imaging & Neuromodulation) is a corresponding author of this research paper in the open access journal *Frontiers in Nueroinformatics*.

Borges FS, Moreira JVS, Takarabe LM, Lytton WW, Dura-Bernal S. <u>Large-scale biophysically detailed model of somatosensory thalamocortical circuits in NetPyNE</u>. Front Neuroinform. 2022 Sep 22; 16:884245. PMID: 36213546.



**Gilbert Nick, Sharifa Williams, Helen-Maria Lekas, Kerstin Pahl, Chloe Blau**, and **Crystal Lewis** (Social Solutions & Services) published this open access paper in *Drug and Alcohol Dependence Reports*.

Nick GA, Williams S, Lekas HM, Pahl K, Blau C, Kamin D, Lewis CF. Crisis Intervention Team (CIT) training and impact on mental illness and substance use-related stigma among law enforcement. Drug Alcohol Depend Rep. 2022; 5:100099.

#### INFO UPDATE



A long-awaited search feature was recently added to PubMed. Proximity searching enables you to search for multiple terms appearing in any order within a specified distance of one another in the [Title] or [Title/Abstract] fields. For more details and examples, check out the NCBI Insights blog and the NLM Technical Bulletin. An interactive video tutorial can be found here.



Free COVID tests are again being offered by mail from the federal government. For more information and to order, go to https://www.covid.gov/tests.



New <u>National Guidelines for Child and Youth</u> <u>Behavioral Health Crisis Care</u> are available for download from SAMHSA.



Here is a website that helps you find local recycling information according to the zip code you enter:

https://berecycled.org/

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 <u>link to the NKI Library's website</u> 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 (<u>journal finder</u>, <u>online catalog</u>, etc.).

#### **EVENTS AND SEMINARS**

### Center for Biomedical Imaging and Neuromodulation Science Series

Held on Mondays at 11 am via Zoom

https://childmind.zoom.us/j/2142826575?pwd=d XISeDRCaW9RNWRpZ2R5Y0dPQkw4UT09

#### Pat Stanton, PhD

New York Medical College

N-methyl-D-aspartate Receptor Modulators as Treatments for Neuropsychiatric Disease

December 19th

#### Anna Wang Roe, PhD

Zhejiang University, China January 9<sup>th</sup>

#### Vincent Costa, PhD

Oregon National Primate Research Center

January 23<sup>rd</sup>



#### **Statewide Grand Rounds**

#### Perinatal Psychopharmacology

Presenter

#### Kristina Deligiannidis, MD

Director, Women's Behavioral Health Zucker Hillside Hospital, Northwell Health

#### Sarah Osgood, LCSW

**Hutchings PC Madison Street Clinic** 

Wednesday, December 21<sup>st</sup> 1:00 – 2:15 pm

#### Center for Dementia Research Neuroscience Seminar Series

Held on Thursdays in the NKI conference room

#### Frederick Maxfield, PhD

Weill Cornell Medical College

Interaction of microglia with amyloid plaques

January 5<sup>th</sup>

Tae-Wan Kim, PhD

Columbia University

Microglial TREM2 interactome in Alzheimer's disease

January 19th

Yadong Huang, MD, PhD

**UCSF Gladstone Institute** 

ApoE4 and Alzheimer's Disease: Molecular Mechanisms and Therapeutic Strategies

February 2nd



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

#### **NKI ON THE ROAD**



Clinical Research Psychiatrist **Katlyn Nemani** gave the OMH Statewide Grand Rounds presentation on October 19<sup>th</sup>. Her topic was "COVID-19 & Schizophrenia: Updates on a Systemic Immune Challenge". The recorded presentation can be viewed here.



Three members of the Social Solutions & Services Department – Marilena Lekas, Gilbert Nick, and Sharifa Williams – presented their work at the Annual Meeting of the American Public Health Association in Boston on these projects:

Williams S.Z., Granger D., Blevins K., Green N., Pahl K. Salivary uric acid reactivity to discrimination stress and associations with cardiometabolic risk.

Nick G., Williams S.Z., Sanichar N., Pahl K. Psychosocial Determinants of Well-Being Indicators during the COVID-19 Pandemic.

Lekas H-M, Lewis C., Pahl K., Williams S. Development and evaluation of a training program in social and cultural determinants of health for family and youth peer advocates in New York State.



**Christos Lisgaras** (Dementia Research) gave a talk in October for the NextGen Epilepsy Seminar, part of the University of California Irvine Epilepsy Research Center Seminar Series.



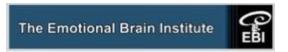
Several NKI researchers participated in the <a href="mailto:2022">2022</a>
<a href="mailto:meeting">2022</a>
<a href="mailto:meeting">meeting</a>
 of the American College of Neuropsychopharmacology held earlier this month in Phoenix. Posters were presented by <a href="Xavier">Xavier</a>
<a href="Castellanos">Castellanos</a>
 (Clinical Research), <a href="Antigona Martinez">Antigona Martinez</a>
 (Schizophrenia Research), <a href="Mailto:Nunzio Pomara">Nunzio Pomara</a>
 (Geriatric Psychiatry; presented virtually) <a href="Robert Smith">Robert Smith</a>
 (Neurochemistry), and <a href="Catia Teixeira">Catia Teixeira</a>
 (Emotional Brain Institute). In addition, <a href="Mohammed Milad">Mohammed Milad</a>
 (Clinical Research) was a study group participant.



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## Department of Psychiatry Grand Rounds

On December 15<sup>th</sup>, **Drs. Helen-Maria Lekas, Crystal Lewis**, and **Kerstin Pahl** (Social Solutions & Services) gave the final grand rounds presentation of 2022 for the NYU Department of Psychiatry. Their topic was "Rethinking Cultural Competence: Shifting to Cultural and Structural Humility""



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Also on December 15<sup>th</sup>, **Dr. Catia Teixeira** of the Emotional Brain Institute gave a departmental talk titled "Role of PFC Activity in the Behavioral Deficits Induced by Maternal Separation".

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### **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 7,000 items dating back to 1995 and can be searched from the myNKI website.

Basavarajappa BS, Subbanna S. Molecular Insights into Epigenetics and Cannabinoid Receptors. Biomolecules. 2022 Oct 26;12(11):1560. PMID: 36358910.

Bendl J, Hauberg ME, Girdhar K, Im E, Vicari JM, Rahman S, Fernando MB, Townsley KG, Dong P, Misir R, Kleopoulos SP, Reach SM, Apontes P, Zeng B, Zhang W, Voloudakis G, Brennand KJ, Nixon RA, Haroutunian V, Hoffman GE, Fullard JF, Roussos P. The three-dimensional landscape of cortical chromatin accessibility in Alzheimer's disease. Nat Neurosci. 2022 Oct; 25(10):1366-1378. PMID: 36171428.

Bigdeli TB, Voloudakis G, Barr PB, Gorman BR, Genovese G, ... Harvey PD, Roussos P; Cooperative Studies Program (CSP) #572 and Million Veteran Program (MVP). Penetrance and Pleiotropy of Polygenic Risk Scores for Schizophrenia, Bipolar Disorder, and Depression Among Adults in the US Veterans Affairs Health Care System. JAMA Psychiatry. 2022 Sep 14; 79(11):1092–101. PMID: 36103194.

Borges FS, Moreira JVS, Takarabe LM, Lytton WW, Dura-Bernal S. Large-scale biophysically detailed model of somatosensory thalamocortical circuits in NetPyNE. Front Neuroinform. 2022 Sep 22; 16:884245. PMID: 36213546.

Borges MS, Hoffmann MS, Simioni A, Axelrud LK, Teixeira DS, Zugman A, Jackowski A, Pan PM, Bressan RA, Parker N, Germann J, Bado PP, Satterthwaite TD, Milham MP, Chakravarty MM, Paim Rohde LA, Constantino Miguel E, Paus T, Salum GA. Deviations from a typical development of the cerebellum in youth are associated with psychopathology, executive functions and educational outcomes. Psychol Med. 2022 Oct 13:1-11. PMID: 36226568.

Bouton C, Bhagat N, Chandrasekaran S, Herrero J, Markowitz N, Espinal E et al. Decoding Neural Activity in Sulcal and White Matter Areas of the Brain to Accurately Predict Individual Finger Movement and Tactile Stimuli of the Human Hand. Frontiers in Neuroscience 2021;15:699631.

Bridges KA, Mayberg H, Van Lancker-Sidtis D, Sidtis JJ. Familiar language in treatment-resistant depression: Effects of deep brain stimulation of the subcallosal cingulate. Journal of Neurolinguistics 2023; 65:101110.

Carcamo-Orive I, Hoffman GE, Cundiff P, Beckmann ND, D'Souza SL, Knowles JW, Patel A, Hendry C, Papatsenko D, Abbasi F, Reaven GM, Whalen S, Lee P, Shahbazi M, Henrion MYR, Zhu K, Wang S, Roussos P, Schadt EE, Pandey G, Chang R, Quertermous T, Lemischka I. Analysis of Transcriptional Variability in a Large Human iPSC Library Reveals Genetic and Non-genetic Determinants of Heterogeneity. Cell Stem Cell. 2022 Oct 6; 29(10):1505. Erratum for: Cell Stem Cell. 2017 Apr 6;20(4):518-532.e9. PMID: 36206733.

Chandrasekaran S, Bickel S, Herrero JL, Kim JW, Markowitz N, Espinal E et al. Evoking highly focal percepts in the fingertips through targeted stimulation of sulcal regions of the brain for sensory restoration. Brain Stimulation 2021 September; 14(5):1184-96.

Chandrasekaran S, Fifer M, Bickel S, Osborn L, Herrero J, Christie B et al. Historical perspectives, challenges, and future directions of implantable brain-computer interfaces for sensorimotor applications. Bioelectronic Medicine 2021 September 22;7(1):14.

Conway KP, Bhardwaj K, Michel E, Paksarian D, Nikolaidis A, Kang M, Merikangas KR, Milham MP. Association between COVID-19 Risk-Mitigation Behaviors and Specific Mental Disorders in Youth. Res Sq [Preprint]. 2022 Sep 21:rs.3.rs-2026969. PMID: 36172129.

Datta-Chaudhuri T, Zanos T, Chang EH, Olofsson PS, Bickel S, Bouton C et al. The Fourth Bioelectronic Medicine Summit "Technology Targeting Molecular Mechanisms": current progress, challenges, and charting the future. Bioelectronic Medicine 2021 May 24;7(1):7.

Dong P, Hoffman GE, Apontes P, Bendl J, Rahman S, Fernando MB, Zeng B, Vicari JM, Zhang W, Girdhar K, Townsley KG, Misir R; CommonMind Consortium, Brennand KJ, Haroutunian V, Voloudakis G, Fullard JF, Roussos P. Population-level variation in enhancer expression identifies disease mechanisms in the human brain. Nat Genet. 2022 Oct; 54(10):1493-1503. PMID: 36163279.

Fulton SL, Wenderski W, Lepack AE, Eagle AL, Fanutza T, Bastle RM, Ramakrishnan A, Hays EC, Neal A, Bendl J, Farrelly LA, Al-Kachak A, Lyu Y, Cetin B, Chan JC, Tran TN, Neve RL, Roper RJ, Brennand KJ, Roussos P, Schimenti JC, Friedman AK, Shen L, Blitzer RD, Robison AJ, Crabtree GR, Maze I. Rescue of deficits by Brwd1 copy number restoration in the Ts65Dn mouse model of Down syndrome. Nat Commun. 2022 Oct 26; 13(1):6384. PMID: 36289231.

Glodzik L, Rusinek H, Butler T, Li Y, Storey P, Sweeney E, Osorio RS, Biskaduros A, Tanzi E, Harvey P, Woldstad C, Maloney T, de Leon MJ. Higher body mass index is associated with worse hippocampal vasoreactivity to carbon dioxide. Front Aging Neurosci. 2022 Sep 7; 14:948470. PMID: 36158536.

Haşegan D, Deible M, Earl C, D'Onofrio D, Hazan H, Anwar H, Neymotin SA. Training spiking neuronal networks to perform motor control using reinforcement and evolutionary learning. Front Comput Neurosci. 2022 Sep 30; 16:1017284. PMID: 36249482.

Hemonnot-Girard AL, Meersseman C, Pastore M, Garcia V, Linck N, Rey C, Chebbi A, Jeanneteau F, Ginsberg SD, Lachuer J, Reynes C, Rassendren F, Hirbec H. Comparative analysis of transcriptome remodeling in plaque-associated and plaque-distant microglia during amyloid-β pathology

progression in mice. J Neuroinflammation. 2022 Sep 24; 19(1):234. PMID: 36153535.

Herrero JL, Smith A, Mishra A, Markowitz N, Mehta AD, Bickel S. Inducing neuroplasticity through intracranial Î,-burst stimulation in the human sensorimotor cortex. Journal of Neurophysiology 2021 November 1;126(5):1723-39.

Hoffman GE, Jaffe AE, Gandal MJ, Collado-Torres L, Sieberts SK, Devlin B, Geschwind DH, Weinberger DR, Roussos P. Comment on: What genes are differentially expressed in individuals with schizophrenia? A systematic review. Mol Psychiatry. 2022 Sep 19. PMID: 36123423.

Ho NF, Lin AY, Tng JXJ, Chew QH, Cheung MW, Javitt DC, Sim K. Abnormalities in visual cognition and associated impaired interactions between visual and attentional networks in schizophrenia and brief psychotic disorder. Psychiatry Res Neuroimaging. 2022 Oct 3; 327:111545. PMID: 36272310.

Javitt DC. Cognitive Impairment Associated with Schizophrenia: Toward Novel Therapeutics. Annu Rev Pharmacol Toxicol. 2022 Sep 23. PMID: 36151052.

Jegede O, Muvvala S, Cahill J, Wade R, Jordan A. Integrating Ambulatory Addiction Consultation Service Into a Community Mental Health Center. J Addict Med. 2022 Sep 16. PMID: 36111994.

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