The NKInformer

NEW YORK STATE OF OPPORTUNITY. | Nathan S. Kline Institute

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

Donald C. Goff, MD, Director
Thomas Cunningham, MBA, Deputy Director, Institute Administration

April – May 2025

Stuart Moss, MLS, Editor

Welcome Anna Roe, PhD, NKI's new Director of Translational Neuroscience

Contributed by Anna Wang Roe, PhD

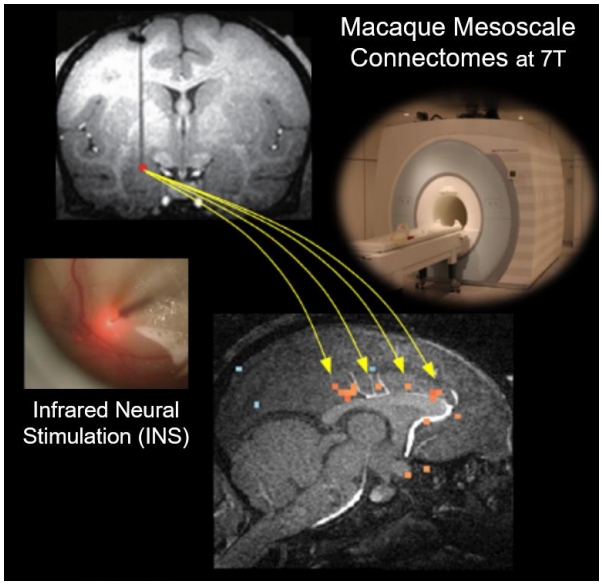
***Dr. Anna Roe** recently joined the NKI community. Her research focuses on the organization and functional circuitry of the visual system in nonhuman primates, an animal model which shares visual behaviors and brain circuits very similar to humans. Dr. Roe has graciously provided the following introduction to herself and her work.*

Hello NKI! I am a new member of the NKI community and am looking forward to meeting each of you.

My History

A little about my background. My early years were at Harvard (BA 1984) and MIT (1991, thesis 'rewired ferrets' under Mriganka Sur). In the early days of optical imaging – an exciting method for watching the brain at work – I discovered that maps for color, shape, and depth information are based in organized maps of cortical columns (under Dan Ts'o and Torsten Wiesel at Rockefeller & then Baylor College of Medicine). As an assistant professor at Yale (1996-2003), I further developed 'windows on the brain' for awake primates and established, using visual illusions, that columnar organization also underlies higher order visual percepts. This inspired a series of questions about whether columnar organization exists at whole brain scale, which I studied by developing ultrahigh field (UHF) MRI methods in primates (Vanderbilt 2003-2015). The resulting 'columnar code' provided an organized mesoscale view of primate brains and, importantly, led to the idea that brain-wide networks are also fundamentally columnar in nature. To pursue this

hypothesis in a big way, I established a new interdisciplinary institute for neuroscience and technology at Zhejiang University in China. Combining near infrared neural stimulation (INS) methods to stimulate single columns in UHF MRI led to largescale studies that showed brain-wide networks are indeed highly organized at mesoscale. These findings suggest a surprisingly simple and elegant brain architecture for primate behavior and provide a new view of a highly efficient intelligent system. This structure reminds us that neurons in the human and nonhuman primate brain do not function in a nebulous cloud but rather are constrained by the physical networks in which they live. Now at NKI, as Director of the Translational Neuroscience Division and a faculty member at NYU Psychiatry, I will be leading both basic science and translational directions. I look forward to participating in lively interactions with all of you.



Here is an overview of the three main areas of my lab's current research:

Feature Perception

How does the brain see different visual features such as color, shape, motion, and depth? By using multimodal methods including electrophysiology, optical imaging, and UHF MRI, I have found that visual features are represented in continuous parameter maps in the cortex. Thus, while topographic maps of the visual world have long been known, we now understand that, within these maps, sequences of perceptual feature maps exist and do so at multiple hierarchical levels of abstraction. We are now conducting functional connectivity and modeling studies to investigate how this rich palette of feature values gets 'mixed and matched' for real world object perception.

Foveolar Vision

A crucial aspect of visual information acquisition in primates and humans is the constant and directed sampling of our visual world via movement of the eyes. Lack of normal eye movements can be indicative of disorders such as amblyopia, autism, and schizophrenia. The very central 1 degree of retina (called the foveola) is critically important for high acuity vision, color vision, and foveally guided attention. By achieving submillimeter resolution imaging with UHF MRI, we discovered a previously unknown, highly specialized region in the brain for processing foveolar vision. This cortical region contains a complex of 8 distinct representations of the foveola, echoing the tenet that important behaviors occupy greater cortical territory. These 8 loci surround a unique area distinct from the classical visuotopic areas. We are studying the role of this area in monkeys looking at natural scenes and hypothesize that it may be important for maintaining visual continuity and for connecting brain circuits underlying different foveolar behaviors (e.g., for cognition, social interaction, manual manipulation).

Visual Cortical Prosthetics

My research also has an engineering component. I aim to develop visual cortical prosthetics that can help the blind see the rich features in our world. For people who have retinal damage (e.g., due to physical impact, macular degeneration, diabetic retinopathy), there is hope that visual cortical prosthetics can provide a solution. Toward this goal, my lab has designed an optical method to stimulate the cortical color, shape, motion, and depth columns. Thus far, we have shown feasibility of selectively targeting these columns and dynamically activating patterns of higher order feature representations. Ultimately, I hope to translate camera views of the world into appropriate spatiotemporal activation patterns in the brain, thus enabling rich and context-dependent perception of our feature-defined environment.

KUDOS

nature

Dr. Nixon's Work Recognized in *Nature*

"The future of Alzheimer's treatment," an Outlook piece recently published online in ***Nature***, discusses the welcome arrival of drugs that clear away brain plaques but cautions that targeting amyloid alone might not be enough to halt the disease. The article highlights the alternative theory, pioneered by **Dr. Ralph Nixon** and his lab in NKI's Center for Dementia Research, that there is an even earlier target for Alzheimer's intervention: dysfunction of lysosomes, the cells' waste-clearance machinery. Dr. Nixon's theory is gaining increasing acceptance in the research community.

Manhattan Schizophrenia Research Program

The **Manhattan Schizophrenia Research Program** at Manhattan Psychiatric Center continuously hosts medical students from Saint George's University (Grenada) and some qualified Educational Commission for Foreign Medical Graduates for an intensive research experience. ALL of the MPC program's 2025 residency applicants have matched into residency programs, and most of them were accepted into psychiatric residency programs! Congratulations to these new medical residents: Nicole Cristell, Thomas Glass, Anya Haider, Riley Hartnett, Chidimma Madu, Danyah Nadim, Khusro Pirzada, and Kanuja Sood.

FROM AROUND THE INSTITUTE

John Rotella Returns to NKI

John Rotella has had a long and varied career with the NYS Office of Mental Health. He started his OMH career back in 1993 when he joined the NKI Maintenance Department as an electrician. In 2000, he became a Maintenance Supervisor at Manhattan Psychiatric Center (MPC) where he oversaw a construction team doing various renovation projects for the facility. He was then promoted to Plant Superintendent at MPC, managing all the maintenance for the facility from 2003-2007. John shifted back to the Hudson Valley in 2007 when he became Plant Superintendent for both Rockland Adult and Children's Psychiatric Centers, again overseeing all the maintenance for the two facilities. In October 2015, he was promoted to Director for Administrative Services for Rockland Adult and Children's Psychiatric Centers, overseeing all the support services for both facilities (including Maintenance, Safety, Housekeeping, Food Service, Human Resources, and the Business Office). He held that position until January 2025, and he now finds himself back where he started, this time as NKI's Director of Facility Management. Welcome back, John!

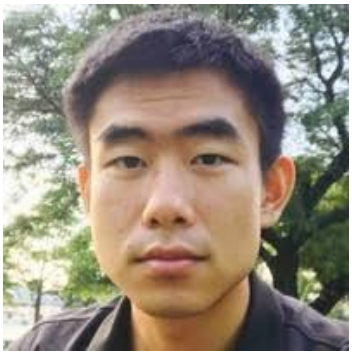
HAPPY RETIREMENT!

Director's office secretary **Aileen Snider** recently celebrated her retirement after 22 years at NKI. Aileen started here in 2003 when Dr. Robert Cancro was the Director and Dr. Jerry Levine and Tom O'Hara were the Deputy Directors. Aileen began her career as a teacher, working in Washington, D.C., Maryland, Long Island, Australia, Buffalo, and NYC. She then left the school system and began her career as an executive assistant. After her family moved from Brooklyn to Rockland County, she worked at Wyeth (now Pfizer) for five years before coming to NKI.

"How pleased and fortunate I was to end up at NKI," Aileen says. "I have enjoyed the last 20+ years I have been here working with lovely people in a stimulating environment. I will miss the conversations, friendships, and excitement of the research environment. I shall think of you all often and have many stories to tell the new people I meet as my life continues in the Albany area."

Welcome New Scharfman Lab Members

Yingxin Li received her PhD in Translational Health Sciences from the University of Bristol Medical School where she studied electrophysiology and optogenetics in the laboratory of Dr. Denize Atan and Prof. Zafar Bashir. She then worked at ACROBiosystems in Beijing, working with organoids and preformed fibrils to mimic the aggregation of alpha-synuclein or tau proteins. She joined Helen Scharfman's lab at NKI in February 2025 and is studying the mechanisms underlying changes in dentate gyrus neurons in models of Alzheimer's disease and epilepsy. Yingxin enjoys spending her spare time with her two little dogs, Money (Maltese) and Glory (Yorkie).



Fang Jie is a new Research Assistant in Dr. Scharfman's lab. Fang received his BA degree in Philosophy and Neuroscience from Boston University in 2020 and then received an MS degree in Behavioral Neuroscience from Columbia University. He conducted research in vision neuroscience from 2019-2021 and then was a Research Assistant doing clinical EEG from 2023 until the present. He started at NKI in February 2025 and is analyzing the EEG of rodents to understand seizure disorders. His hobbies include hiking, boxing, and exploring museums.

New Housekeeping Supervisor

Please welcome NKI's new housekeeping supervisor, **Guerda Mardy**. Guerda has over twenty years of experience in institutional housekeeping at Rockland Psychiatric Center and has been a supervisor for many years.

NKI gardeners have refurbished and planted the raised bed for 2025. Hopefully the reinforced garden will keep out the groundhogs and the deer resistant flowers will keep away the deer for enjoyment all season long!

Galit Bleicher, Swati Jain, Yunglin (Elaine) Gazes, and Ying Jiang planting the garden

Geriatric Psychiatry Attends Community Events

The Geriatric Psychiatry Division has been active in the community spreading the word about the MERI program (Memory Education and Research Initiative) and other current studies. As part of their ongoing community partnership with the Alzheimer's Association, the Geriatric Psychiatry group (**Chelsea Reichert**, **Andrew Orefice**, and Interns **Leo Castelluccio** and **Deanna Murray**) joined the Rockland County Office of Aging, Rockland County Meals on Wheels, and the Rockland Jewish Family Service for a community discussion. **Kari Siu** and **Michael Kuhl** from the Clinical Research Division also joined. In addition, Chelsea and Andrew attended the New Rochelle Community Health and Wellness Fair in Westchester County.

L to R: Marie Hargrove and Dana Heller from the Alzheimer's Association with Andrew Orefice and Chelsea Reichert.

Community Building Committee Activities

Looking to connect with NKI colleagues and have some fun? Keep in mind the following activities:

- Gentle **YOGA** on Wednesdays at 4:30
- **PING PONG** on Thursdays at 4:30 (or drop in to play any time)
- **EXERCISE EQUIPMENT** located at the back of the library
- Help maintain the raised **GARDEN** bed located outside the atrium

For more information about any of the above, please contact nkicbc@nki.rfmh.org.

With the arrival of warmer weather, soccer at NKI is back! To join the group on Fridays at 5pm and be included in the WhatsApp group, please contact Kyrillos.Ibrahim@nki.rfmh.org.

NKI's epilepsy investigators recently took to the airwaves to share their expertise.

Dr. Helen Scharfman joined the Epilepsy Sparks Insights podcast to discuss her research into mossy cells in the temporal lobe. In the interview, she explains the significance of these cells in understanding seizures, anxiety, and depression, and the potential for future treatments and prevention.

Christos Lisgaras (Dementia Research) recently appeared as a guest on Sharp Waves, an epilepsy podcast from the International League Against Epilepsy. The topic for the episode was "High-frequency oscillations, seizures, and epilepsy".

PUBLICATIONS OF NOTE

Director of Schizophrenia Research **Dan Javitt** published this editorial in the March issue of *The American Journal of Psychiatry*.

Javitt DC. Xanomeline-Trospium Treatment of Cognitive Impairments of Schizophrenia: Hope for Some, or Hope for All? Am J Psychiatry. 2025 Mar 1; 182(3):237-239. PMID: 40022530.

Jordan Hamm (Emotional Brain Institute) is a coauthor of this paper recently published in *Neuron*.

Shymkiv Y, Hamm JP, Escola S, Yuste R. Slow cortical dynamics generate context processing and novelty detection. Neuron. 2025 Mar 19; 113(6):847-857.e8. PMID: 39933524.

David Liebers (Clinical Research) is a coauthor of this meta-analysis in *JAMA Psychiatry*.

Ebrahimi P, Batlle JC, Ayati A, Maqsood MH, Long C, Tarabanis C, McGowan N, Liebers DT, Laynor G, Hosseini K, Heffron SP. Suicide and Self-Harm Events With GLP-1 Receptor Agonists in Adults With Diabetes or Obesity: A Systematic Review and Meta-Analysis. JAMA Psychiatry. 2025 Mar 19:e250091. PMID: 40105856.

Director of Geriatric Psychiatry **Nunzio Pomara** coauthored this new article accepted in *Brain*.

Pomara N, Imbimbo BP. Making a diagnosis of Alzheimer's disease in asymptomatic individuals with positive biomarkers. Brain. 2025 Apr 28:awaf162. PMID: 40290052.

Dr. Pomara and **Chelsea Reichert** (Geriatric Psychiatry) also coauthored this Comment in *JAMA Psychiatry*.

Pomara N, Plaska CR, Imbimbo BP. Depression and Amyloid Pathology-Methodological Aspects. JAMA Psychiatry. 2025 May 21. PMID: 40397473.

Kerstin Pahl (Social Solutions & Services) is a coauthor with colleagues at NYU of this paper appearing in *Violence Against Women*.

Capasso A, Tozan Y, DiClemente RJ, Pahl K. Trajectories of Physical Violence Against Latinas and Black Women: The Protective Role of Parents, Neighborhoods, and Schools. Violence Against Women. 2025 Feb 17: 10778012251319752. PMID: 39962890.

Matthew Hoptman (Clinical Research) is a co-editor (with Melissa Cyders at Indiana University Indianapolis and Anthony Ahmed at Weill Cornell Medicine) of a Research Topic recently published online in *Frontiers in Psychiatry*. The theme is "Emotional Impulsivity and Emotion Regulation Deficits as Important Factors in Clinically Challenging Behaviors in Psychiatric Disorders". Dr. Hoptman and his colleagues are working on a second issue on this topic because of strong interest.

Hoptman MJ, Cyders MA, Ahmed AO. Editorial: Emotional impulsivity and emotion regulation deficits as important factors in clinically challenging behaviors in psychiatric disorders. Front Psychiatry. 2025 Apr 1; 16:1595135. PMID: 40236496.

Ricardo Osorio and **Esther Blessing** (Clinical Research) are coauthors of this paper published in *Sleep*.

Mullins AE, Parekh A, Kam K, Valencia DI, Schoenholz R, Fakhoury A, Castillo B, Roberts ZJ, Wickramaratne S, Tolbert TM, Hwang J, Blessing EM, Bubu OM, Rapoport DM, Ayappa I, Osorio RS, Varga AW. EEG slow oscillations and overnight spatial navigational memory performance in CPAP-treated obstructive sleep apnea. Sleep. 2025 Feb 24:zsaf046. PMID: 39989096.

Christopher Cain (Emotional Brain Institute) coauthored this open access review in *Communications Psychology*.

Badarnee M, Wen Z, Hammoud MZ, Glimcher P, Cain CK, Milad MR. Intersect between brain mechanisms of conditioned threat, active avoidance, and reward. Commun Psychol. 2025 Feb 26; 3(1):32. PMID: 40011644.

Carrie Masia Warner (Social Solutions & Services) is the corresponding author of this paper recently published in *Psychology in the Schools*.

Fox, J.K., Martin, G., Walls, T., Perrone, L., Francois, M., Saha, P., Lekas, H.-M. and Warner, C.M. (2025), Perspectives on Social Anxiety and Barriers to School-Based Mental Health Services Among Black American Adolescents. Psychology in the Schools.

Stephen Ginsberg and members of his Center for Dementia Research Lab (first author **Melissa Alldred**, **Kyrillos Ibrahim**, **Harshitha Pidikiti**, and **Sang Han Lee**) published their latest work in *Frontiers in Neuroscience*.

Alldred MJ, Ibrahim KW, Pidikiti H, Lee SH, Heguy A, Chiosis G, Mufson EJ, Stutzmann GE, Ginsberg SD. Profiling hippocampal neuronal populations reveals unique gene expression mosaics reflective of connectivity-based degeneration in the Ts65Dn mouse model of Down syndrome and Alzheimer's disease. Front Mol Neurosci. 2025 Feb 26; 18:1546375. PMID: 40078964.

Stephan Bickel (Biomedical Imaging & Neuromodulation) is the senior author of this new article in the open access journal *iScience*.

Mishra A, Akkol S, Espinal E, Markowitz N, Tostaeva G, Freund E, Mehta AD, Bickel S. **Hippocampal and cortical high-frequency oscillations orchestrate human semantic networks during word list memory**. iScience. 2025 Mar 13; 28(4):112171. PMID: 40235588.

Schizophrenia Research investigators **Robert Smith** (corresponding author) and **Henry Sershen** are coauthors of this open access paper in the *Journal of Psychiatric Research*.

Cao X, Liu Y, Lu Y, Jin H, Sershen H, Davis JM, Li C, Smith RC. **Effects of transcranial alternating current stimulation on measures of cognition and symptom scores in Chinese patients with schizophrenia**. J Psychiatr Res. 2025 Mar; 183:10-15. PMID: 39914113.

Nabin Koirala (Biomedical Imaging & Neuromodulation) is the first author of this paper published in *Brain Communications*.

Koirala N, Manning J, Neumann S, Anderson C, Deroche MLD, Wolfe J, Pugh K, Landi N, Muthuraman M, Gracco VL. **The neural characteristics influencing literacy outcome in children with cochlear implants**. Brain Commun. 2025 Feb 21; 7(2):fcaf086. PMID: 40046341.

NKI Director **Donald Goff** contributed this guest editorial in the latest issue of the *Journal of Clinical Psychopharmacology*.

Goff DC. **At Last, a Nondopaminergic Agent for the Treatment of Schizophrenia: The Combination of Xanomeline and Trospium (Cobenfy)**. J Clin Psychopharmacol. 2025 Mar-Apr 01; 45(2):63-64. PMID: 39913270.

Christos Lisgaras (Dementia Research) is the first author of this open access critical review in *Epilepsia*.

Lisgaras CP, de la Prida LM, Bertram E, Cunningham M, Henshall D, Liu AA, Gnatkovsky V, Balestrini S, de Curtis M, Galanopoulou AS, Jacobs J, Jefferys JGR, Mantegazza M, Reschke CR, Jiruska P. **The role of electroencephalography in epilepsy research - From seizures to interictal activity and comorbidities**. Epilepsia. 2025 Feb 6. PMID: 39913107.

Mariko Saito (Emotional Brain Institute) is a senior author, with colleagues from NKI and elsewhere, of this paper in the open access journal *Molecules*.

Zhang X, Subbanna S, Williams CRO, Canals-Baker S, Hashim A, Wilson DA, Weiss LM, Shukla S, Chokkalingam P, Das S, Das BC, Saito M. **Methionine Aminopeptidase 2 (MetAP2) Inhibitor BL6 Attenuates Inflammation in Cultured Microglia and in a Mouse Model of Alzheimer's Disease**. Molecules. 2025 Jan 31; 30(3):620. PMID: 39942725

.

INFO UPDATE

Remembering the Past

Exiles in New York City: Warehousing the Marginalized on Ward's Island is a new book by Philip T. Yanos, a Professor of Psychology at John Jay College and CUNY Graduate Center. You can hear Dr. Yanos discuss the book on WNYC's All of It radio show. Ward's Island is the home of Manhattan Psychiatric Center, which is where NKI's Manhattan Schizophrenia Research Program is located. And NKI's former Center for Neurochemistry (led by Abel Lajtha) got its start on Ward's Island before moving to NKI.

Child Mind Institute

After a recent article on ADHD published in *The New York Times Magazine* prompted a lot of discussion, a brief response was published by C-BIN Director **Michael Milham** in his role as Chief Science Officer at the Child Mind Institute. You can read the response here: "Beyond the ADHD Headlines: A Nuanced Look at Diagnosis, Drugs, and Daily Life".

The New York Times

The Trump administration's reckless dismantling of many federal agencies and resources has caused the loss, or alteration, of valuable health information websites. This *New York Times* article provides some independent sources for reliable information on vaccines, women's health, children's health, and more: "5 Places to Turn for Accurate Health Information." And you can always ask a librarian for advice on finding trustworthy information.

Brain Mapping Milestone

In a package of papers published on April 9th in *Nature* and associated journals, scientists describe the MICrONS project, which created a detailed reconstruction of the structure and function of a cubic millimeter of the mouse visual cortex, along with new artificial intelligence-driven tools. This work represents a milestone in which the researchers mapped the more than 523 million connections among more than 200,000 cells. You can read more about this achievement in *The New York Times* and in *NIH Research Matters*.

Quanta magazine

Rapid advancements in artificial intelligence have exploded into the mainstream and promise to transform society in all sorts of ways. One area where the profound impact of AI is already being felt is in science, and *Quanta Magazine* has published a special series exploring this impact: "Science, Promise and Peril in the Age of AI". For an overview of the series, see this news item from the Simons Foundation, publisher of *Quanta*.

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.

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

EVENTS & SEMINARS

NKI Science Day

Science Day aims to bring together faculty, staff, and trainees from all departments here to raise awareness of the ongoing research activities at NKI. The event will feature select presentations, followed by a comprehensive poster session.

See the program details at
https://www.nki.rfmh.org/event/science-day-2025/

Tuesday, June 3rd, 2025
12:30 – 4:30 pm
Miki Kohn Conference Room

Center for Biomedical Imaging and Neuromodulation Science Series

Held on Mondays at 11 am via Zoom

Michael Birnbaum, MD

Medical Director, OnTrackNY

Social Media, the Internet, and Early Psychosis Intervention

June 9th

Arielle Tambini, PhD

C-BIN @NKI

TITLE TBA

June 16th

Alexandre R. Franco, PhD

Computational Neuroimaging Laboratories, NKI

TITLE TBA

June 23rd

Eduardo Gonzalez-Moreira, PhD

C-BIN @NKI

TITLE TBA

June 30th

Sara Sánchez-Alonso, PhD

Child Study Center, Yale

TITLE TBA

July 7th

Thomas Funck, PhD

Center for the Developing Brain
Child Mind Institute

TITLE TBA

July 14th

Dylan Nielson, PhD

National Institute of Mental Health

TITLE TBA

July 21st

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

Department of Psychiatry Grand Rounds

Director of Clinical Research **Dan Iosifescu, MD** recently presented the NYU Department of Psychiatry Grand Rounds on "An NYU Perspective on Interventional Psychiatry: Ketamine and Photobiomodulation".

On May 15th, **Helen-Maria Lekas, PhD**, Co-Director of the Center for Research on Cultural and Structural Equity in Behavioral Health (Social Solutions and Services) was the Discussant for a Grand Rounds presentation on "Psychiatric Habitus & The Mental Status Exam in Practice" given by Benjamin Trnka, MD.

Department of Psychiatry Research Rounds

The NYU Department of Psychiatry Research Rounds on April 25th were presented by **Anna W. Roe, PhD**, NKI's new Director of Translational Neuroscience in the Center for Biomedical Imaging and Neuromodulation. The topic of Dr. Roe's talk was "Why Studying the Mesoscale Organization of Brain Circuits is Important".

Spring Hippocampal Research Conference

Christos Lisgaras (Dementia Research) presented new data on High Frequency Oscillations in Alzheimer's Disease at the 17th Spring Hippocampal Research Conference in Verona, Italy.

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 7,600 items dating back to 1995 and can be searched from the **myNKI website**.

Alldred MJ, Ibrahim KW, Pidikiti H, Lee SH, Heguy A, Chiosis G, Mufson EJ, Stutzmann GE, Ginsberg SD. Profiling hippocampal neuronal populations reveals unique gene expression mosaics reflective of connectivity-based degeneration in the Ts65Dn mouse model of Down syndrome and Alzheimer's disease. Front Mol Neurosci. 2025 Feb 26; 18:1546375. PMID: 40078964.

Asadi A, Koirala N, Muthuraman M. Navigating neural pathways: how stimulation polarity shapes deep brain stimulation efficacy. Brain Commun. 2025 Feb 8; 7(1):fcaf061. PMID: 39980738.

Badarnee M, Wen Z, Hammoud MZ, Glimcher P, Cain CK, Milad MR. Intersect between brain mechanisms of conditioned threat, active avoidance, and reward. Commun Psychol. 2025 Feb 26; 3(1):32. PMID: 40011644.

Bay S, Rodina A, Haut F, Roychowdhury T, Argyrousi EK, Staniszewski A, Han K, Sharma S, Chakrabarty S, Digwal CS, Stanisavljevic A, Labuza A, Alldred MJ, Panchal P, SanthaSeela A, Tuffery L, Li Z, Hashmi A, Rosiek E, Chan E, Monetti M, Sasaguri H, Saido TC, Schneider JA, Bennett DA, Fraser PE, Erdjument-Bromage H, Neubert TA, Ginsberg SD, Arancio O, Chiosis G. Systems-Level Interactome Mapping Reveals Actionable Protein Network Dysregulation Across the Alzheimer's Disease Spectrum. Res Sq [Preprint]. 2025 Feb 12:rs.3.rs-5930673. PMID: 39989971.

Bender DA, Nayak SM, Siegel JS, Hellerstein DJ, Ercal BC, Lenze EJ. Psychological Support Approaches in Psychedelic Therapy: Results From a Survey of Psychedelic Practitioners. J Clin Psychiatry. 2025 Feb 5; 86(1):24m15521. PMID: 39928849.

Berger M, Licandro R, Nenning KH, Langs G, Bonelli SB. Artificial intelligence applied to epilepsy imaging: Current status and future perspectives. Rev Neurol (Paris). 2025 Apr 1:S0035-3787(25)00487-4. PMID: 40175210.

Bhambhani Y, Gallo L, McNamara EO, Stotts A, Gabbay V. Persisting with Purpose: Using Acceptance and Commitment Therapy to Target Comorbid Opioid Use Disorder and Chronic Pain in a Racially and Economically Marginalized Population. J Contextual Behav Sci. 2025 Apr; 36:100888. PMID: 40191473.

Byeon K, Park H, Park S, Cluce J, Mehta K, Cieslak M, Cui Z, Hong SJ, Chang C, Smallwood J, Satterthwaite TD, Milham MP, Xu T. Developmental Variations in Recurrent Spatiotemporal Brain Propagations from Childhood to Adulthood. bioRxiv [Preprint]. 2025 Feb 5:2025.02.04.635765. PMID: 39975397.

Canet G, Da Gama Monteiro F, Rocaboy E, Diego-Diaz S, Khelaifia B, Godbout K, Lachhab A, Kim J, Valencia DI, Yin A, Wu HT, Howell J, Blank E, Laliberté F, Fortin N, Boscher E, Fereydouni-Forouzandeh P, Champagne S, Guisle I, Hébert SS, Pernet V, Liu H, Lu W, Debure L, Rapoport DM, Ayappa I, Varga AW, Parekh A, Osorio RS, Lacroix S, Burns MP, Lucey BP, Blessing EM, Planel E. Sleep-wake variation in body temperature regulates tau secretion and correlates with CSF and plasma tau. J Clin Invest. 2025 Feb 4; 135(7):e182931. PMID: 39903530.

Cao X, Liu Y, Lu Y, Jin H, Sershen H, Davis JM, Li C, Smith RC. Effects of transcranial alternating current stimulation on measures of cognition and symptom scores in Chinese patients with schizophrenia. J Psychiatr Res. 2025 Mar; 183:10-15. PMID: 39914113.

Capasso A, Tozan Y, DiClemente RJ, Pahl K. Trajectories of Physical Violence Against Latinas and Black Women: The Protective Role of Parents, Neighborhoods, and Schools. Violence Against Women. 2025 Feb 17:10778012251319752. PMID: 39962890.

Chowdhury A, Boukezzi S, Costi S, Hameed S, Jacob Y, Salas R, Iosifescu DV, Han MH, Swann A, Mathew SJ, Morris L, Murrough JW. Effects of the KCNQ (Kv7) Channel Opener Ezogabine on Resting-State Functional Connectivity of Striatal Brain Reward Regions, Depression and Anhedonia in Major Depressive Disorder: Results from a Randomized Controlled Trial. Biol Psychiatry. 2025 Mar 4:S0006-3223(25)01011-X. PMID: 40049579.

Counts SE, Beck JS, Maloney B, Malek-Ahmadi M, Ginsberg SD, Mufson EJ, Lahiri DK. Posterior cingulate cortex microRNA dysregulation differentiates cognitive resilience, mild cognitive impairment, and Alzheimer's disease. Alzheimers Dement. 2025 Feb; 21(2):e70019. PMID: 40008917.

DeSerisy M, Cohen JW, Yang H, Ramphal B, Greenwood P, Mehta K, Milham MP, Satterthwaite TD, Pagliaccio D, Margolis AE. Neural Correlates of Irritability and Potential Moderating Effects of Inhibitory Control. Biol Psychiatry Glob Open Sci. 2024 Nov 20; 5(2):100420. PMID: 39867565.

Doherty DW, Jung J, Dura-Bernal, Lytton WW. Self-organized and self- sustained ensemble activity patterns in simulation of mouse primary motor cortex. bioRxiv [Preprint]. 2025 Jan 14:2025.01.13.632866. PMID: 39868170.

Ebrahimi P, Batlle JC, Ayati A, Maqsood MH, Long C, Tarabanis C, McGowan N, Liebers DT, Laynor G, Hosseini K, Heffron SP. Suicide and Self-Harm Events With GLP-1 Receptor Agonists in Adults With Diabetes or Obesity: A Systematic Review and Meta-Analysis. JAMA Psychiatry. 2025 Mar 19:e250091. PMID: 40105856.

Fox, J.K., Martin, G., Walls, T., Perrone, L., Francois, M., Saha, P., Lekas, H.-M. and Warner, C.M. (2025), Perspectives on Social Anxiety and Barriers to School-Based Mental Health Services Among Black American Adolescents. Psychology in the Schools.

Goff DC. At Last, a Nondopaminergic Agent for the Treatment of Schizophrenia: The Combination of Xanomeline and Trospium (Cobenfy). J Clin Psychopharmacol. 2025 Mar-Apr 01; 45(2):63-64. PMID: 39913270.

Grazia A, Dyrba M, Pomara N, Temp AG, Grothe MJ, Teipel SJ; Alzheimer's Prevention Initiative (API) Autosomal-Dominant Alzheimer's Disease (ADAD) Trial. Basal forebrain global functional connectivity is preserved in asymptomatic presenilin-1 E280A mutation carriers: Results from the Colombia cohort. J Prev Alzheimers Dis. 2025 Feb; 12(2):100030. PMID: 39863323.

Gyetvai BM, Vadasz C. Pleiotropic Effects of *Grm7*/*GRM7* in Shaping Neurodevelopmental Pathways and the Neural Substrate of Complex Behaviors and Disorders. Biomolecules. 2025 Mar 8; 15(3):392. PMID: 40149928.

Ho ECY, Newton AJH, Urdapilleta E, Dura-Bernal S, Truccolo W. Downmodulation of Potassium Conductances Induces Epileptic Seizures in Cortical Network Models Via Multiple Synergistic Factors. J Neurosci. 2025 Mar 26; 45(13):e1909232025. PMID: 39880680.

Hoptman MJ, Cyders MA, Ahmed AO. Editorial: Emotional impulsivity and emotion regulation deficits as important factors in clinically challenging behaviors in psychiatric disorders. Front Psychiatry. 2025 Apr 1; 16:1595135. PMID: 40236496.

Javitt DC. Xanomeline-Trospium Treatment of Cognitive Impairments of Schizophrenia: Hope for Some, or Hope for All? Am J Psychiatry. 2025 Mar 1; 182(3):237-239. PMID: 40022530.

Javitt DC. Disturbances in Auditory and Visual Perceptual Function in Schizophrenia: Patterns, Causes, and Consequences. Curr Top Behav Neurosci. 2025 Apr 2. PMID: 40169504.

Joseph JF, Tural U, Joseph ND, Mendoza TE, Patel E, Reifer R, Deregnaucourt M. Understanding High-Functioning Depression in Adults. Cureus. 2025 Feb 12; 17(2):e78891. PMID: 39963293.

Kahe K, Laferrère B, Castellanos FX, Zhang Y, Mozaffarian D. Monosodium glutamate: A hidden risk factor for obesity? Obes Rev. 2025 Feb 6:e13903. PMID: 39914377.

Kaiser KA, Thompson JL, Butler PD, Ahmed AO, Seitz AR, Sobeih T, Silverstein SM. Effects of visual remediation on Ebbinghaus illusion task performance in people with schizophrenia: A preliminary study. Schizophr Res. 2025 Mar; 277:57-64. PMID: 40020340.

Keshishian M, Mischler G, Thomas S, Kingsbury B, Bickel S, Mehta AD, Mesgarani N. Parallel hierarchical encoding of linguistic representations in the human auditory cortex and recurrent automatic speech recognition systems. bioRxiv [Preprint]. 2025 Feb 1:2025.01.30.635775. PMID: 39975377.

Kiefer M, Khan A, Leiro B, Yavorsky C, Laforet G, Kirby K, Townsend E. Feasibility, Acceptability, and Reliability of Remote Motor Assessment in Children With Canavan Disease. Pediatr Neurol. 2025 Mar; 164:129-136. PMID: 39892021.

Kiesel B, Borkovec M, Furtner J, Roetzer-Pejrimovsky T, Nenning KH, Greutter L, Miller-Michlits Y, Widhalm G, Woehrer A. Sex-specific differences in DNA methylation defining prognostically relevant subgroups in glioblastoma. J Neurosurg. 2025 Feb 14:1-10. PMID: 39951709.

Koirala N, Manning J, Neumann S, Anderson C, Deroche MLD, Wolfe J, Pugh K, Landi N, Muthuraman M, Gracco VL. The neural characteristics influencing literacy outcome in children with cochlear implants. Brain Commun. 2025 Feb 21; 7(2):fcaf086. PMID: 40046341.

Lisgaras CP, de la Prida LM, Bertram E, Cunningham M, Henshall D, Liu AA, Gnatkovsky V, Balestrini S, de Curtis M, Galanopoulou AS, Jacobs J, Jefferys JGR, Mantegazza M, Reschke CR, Jiruska P. The role of electroencephalography in epilepsy research-From seizures to interictal activity and comorbidities. Epilepsia. 2025 Feb 6. PMID: 39913107.

Li X, Wang X, Mantell K, Casillo EC, Milham M, Opitz A, Xu T. DeepSeg: A transfer-learning segmentation tool for limited sample training of nonhuman primate MRI. Annu Int Conf IEEE Eng Med Biol Soc. 2024 Jul; 2024:1-4. PMID: 40031470.

Luo AC, Meisler SL, Sydnor VJ, Alexander-Bloch A, Bagautdinova J, Barch DM, Bassett DS, Davatzikos C, Franco AR, Goldsmith J, Gur RE, Gur RC, Hu F, Jaskir M, Kiar G, Keller AS, Larsen B, Mackey AP, Milham MP, Roalf DR, Shafiei G, Shinohara RT, Somerville LH, Weinstein SM, Yeatman JD, Cieslak M, Rokem A, Satterthwaite TD. Two Axes of White Matter Development. bioRxiv [Preprint]. 2025 Mar 20:2025.03.19.644049. PMID: 40166142.

Mckeown B, Goodall-Halliwell I, Wallace R, Chitiz L, Mulholland B, Karapanagiotidis T, Hardikar S, Strawson W, Turnbull A, Vanderwal T, Ho N, Wang HT, Xu T, Milham M, Wang X, Zhang M, Gonzalez Alam TR, Vos de Wael R, Bernhardt B, Margulies D, Wammes J, Jefferies E, Leech R, Smallwood J. Self-reports map the landscape of task states derived from brain imaging. Commun Psychol. 2025 Jan 22; 3(1):8. PMID: 39843761.

Mishra A, Akkol S, Espinal E, Markowitz N, Tostaeva G, Freund E, Mehta AD, Bickel S. Hippocampal and cortical high-frequency oscillations orchestrate human semantic networks during word list memory. iScience. 2025 Mar 13; 28(4):112171. PMID: 40235588.

Morris LS, Costi S, Hameed S, Collins KA, Stern ER, Chowdhury A, Morel C, Salas R, Iosifescu DV, Han MH, Mathew SJ, Murrough JW. Effects of KCNQ potassium channel modulation on ventral tegmental area activity and connectivity in individuals with depression and anhedonia. Mol Psychiatry. 2025 Mar 25. PMID: 40133425.

Mullins AE, Parekh A, Kam K, Valencia DI, Schoenholz R, Fakhoury A, Castillo B, Roberts ZJ, Wickramaratne S, Tolbert TM, Hwang J, Blessing EM, Bubu OM, Rapoport DM, Ayappa I, Osorio RS, Varga AW. EEG slow oscillations and overnight spatial navigational memory performance in CPAP-treated obstructive sleep apnea. Sleep. 2025 Feb 24:zsaf046. PMID: 39989096.

Nicholson G, Richards N, Lockett J, Ly MB, Nair RV, Kim WK, Vinod KY, Nagre N. Cannabinoid-2 Receptor Activation Attenuates Sulfur Mustard Analog 2-Chloroethyl-Ethyl-Sulfide-Induced Acute Lung Injury in Mice. Pharmaceuticals (Basel). 2025 Feb 10; 18(2):236. PMID: 40006049.

Pagani M, Zerbi V, Gini S, Alvino F, Banerjee A, Barberis A, Basson MA, Bozzi Y, Galbusera A, Ellegood J, Fagiolini M, Lerch J, Matteoli M, Montani C, Pozzi D, Provenzano G, Scattoni ML, Wenderoth N, Xu T, Lombardo M, Milham MP, Martino AD, Gozzi A. Biological subtyping of autism via cross-species fMRI. bioRxiv [Preprint]. 2025 Mar 5:2025.03.04.641400. PMID: 40093106.

Ping A, Wang J, Ángel García-Cabezas M, Li L, Zhang J, Gothard KM, Zhu J, Roe AW. Brainwide mesoscale functional networks revealed by focal infrared neural stimulation of the amygdala. Natl Sci Rev. 2024 Dec 24; 12(4):nwae473. PMID: 40170996.

Pleshkevich M, Ahituv A, Tefera E, Kaur A, Iosifescu DV, Steriade C. Seizures exacerbate depressive symptoms in persons with epilepsy. Epilepsy Behav. 2025 Apr; 165:110304. PMID: 39983593.

Pomara N, Imbimbo BP. Making a diagnosis of Alzheimer's disease in asymptomatic individuals with positive biomarkers. Brain. 2025 Apr 28:awaf162. PMID: 40290052.

Qian M, Wang J, Gao Y, Chen M, Liu Y, Zhou D, Lu HD, Zhang X, Hu JM, Roe AW. Multiple loci for foveolar vision in macaque monkey visual cortex. Nat Neurosci. 2025 Jan; 28(1):137-149. PMID: 39639181.

Raghavan VS, O'Sullivan J, Herrero J, Bickel S, Mehta AD, Mesgarani N. Improving auditory attention decoding by classifying intracranial responses to glimpsed and masked acoustic events. Imaging Neurosci (Camb). 2024; 2:10.1162/imag_a_00148. PMID: 39867597.

Rockholt MM, Wu RR, Zhu E, Perez R, Martinez H, Hui JJ, Commeh EB, Denoon RB, Bruno G, Saba BV, Waren D, O'Brien C, Aggarwal VK, Rozell JC, Furgiuele D, Macaulay W, Schwarzkopf R, Schulze ET, Osorio RS, Doan LV, Wang J. Application of the Uniform Data Set version 3 tele-adapted test battery (T-cog) for remote cognitive assessment preoperatively in older adults. Front Aging Neurosci. 2025 Jan 17; 16:1535830. PMID: 39897457.

Santana RS, Menezes EC, Ralin V, Givigi S, Batorowicz B. Lipreading as a communication strategy to enhance speech recognition in individuals with hearing impairment: a scoping review. Disabil Rehabil Assist Technol. 2025 Jan 24:1-12. PMID: 39854251.

Saperstein AM, Brennan R, Qian M, Javitt DC, Medalia A. Impact of Early Auditory Processing on Negative Symptom Response to Cognitive Remediation for Schizophrenia. Schizophr Bull. 2025 Feb 21:sbaf017. PMID: 39982844.

Sejourne C, Barker MS, Heath MR, Gazes Y, Fremont R, Perez YG, Hearne LJ, Wassermann EM, Tierney MC, Manoochehri M, Huey ED, Grafman J. Neuropsychiatric and behavioral symptom clusters in frontotemporal dementia. J Alzheimers Dis Rep. 2025 Mar 2; 9:25424823251324391. PMID: 40034531.

Shafiei G, Esper NB, Hoffmann MS, Ai L, Chen AA, Cluce J, Covitz S, Giavasis S, Lane C, Mehta K, Moore TM, Salo T, Tapera TM, Calkins ME, Colcombe S, Davatzikos C, Gur RE, Gur RC, Pan PM, Jackowski AP, Rokem A, Rohde LA, Shinohara RT, Tottenham N, Zuo XN, Cieslak M, Franco AR, Kiar G, Salum GA, Milham MP, Satterthwaite TD. Reproducible Brain Charts: An open data resource for mapping brain development and its associations with mental health. bioRxiv [Preprint]. 2025 Feb 26:2025.02.24.639850. PMID: 40060681.

Shymkiv Y, Hamm JP, Escola S, Yuste R. Slow cortical dynamics generate context processing and novelty detection. Neuron. 2025 Mar 19; 113(6):847-857.e8. PMID: 39933524.

Swaminathan A, Srivastava U, Tu L, Lopez I, Shah NH, Vickers AJ. Against reflexive recalibration: towards a causal framework for addressing miscalibration. Diagn Progn Res. 2025 Feb 11; 9(1):4. PMID: 39930530.

Yates T, Sigwebela S, Seedat S, Milham M, du Plessis S, Abramson L, Niemiec E, Worthman C, Rotheram-Borus MJ, Salum G, Franco A, Zuanazzi A, Ahmed F, Gemmell K, Christodoulou J, Mhlaba N, Mqhele N, Ngalimane N, Sambudla A, Tottenham N, Tomlinson M. Investigative Approaches to Resilient Emotion Regulation Neurodevelopment in a South African Birth Cohort. Biol Psychiatry Glob Open Sci. 2025 Jan 31; 5(3):100457. PMID: 40144514.

Tian F, Liu Y, Chen M, Schriver KE, Roe AW. Selective activation of mesoscale functional circuits via multichannel infrared stimulation of cortical columns in ultra-high-field 7T MRI. Cell Rep Methods. 2025 Jan 27; 5(1):100961. PMID: 39874948.

Zhang X, Subbanna S, Williams CRO, Canals-Baker S, Hashim A, Wilson DA, Weiss LM, Shukla S, Chokkalingam P, Das S, Das BC, Saito M. Methionine Aminopeptidase 2 (MetAP2) Inhibitor BL6 Attenuates Inflammation in Cultured Microglia and in a Mouse Model of Alzheimer's Disease. Molecules. 2025 Jan 31; 30(3):620. PMID: 39942725.

CONFERENCE ABSTRACTS

Grazia A, Dyrba M, Pomara N, Temp AG, Grothe MJ, Teipel S. A Neuroimaging Perspective on Familial Alzheimer's Functional Data through Bayesian Eyes. Alzheimer's and Dementia 20[Suppl. 10]. 2025.

Jacobs T, Jacobson SR, Fortea J, Berger JS, Vedvyas A, Marsh K et al. The neutrophil to lymphocyte ratio associates with markers of Alzheimer's disease pathology in cognitively unimpaired elderly people. Alzheimer's and Dementia 20[Suppl. 1]. 2025.

Lee JH, Stavrides P, Darji S, Berg MJ, Goulbourne CN, Mohan PS et al. A preclinical intraneuronal stage of autophagy-lysosomal dysfunction, amyloidosis, and neuron death yields senile plaques in human late-onset Alzheimer's Disease. Alzheimer's and Dementia 20[Suppl. 8]. 2025.

Malampati S, Stavrides P, Im E, Goulbourne CN, Mohan PS, Das BC et al. Pharmacological reacidification of lysosomes attenuates intraneuronal amyloidosis, early neuron death, and amyloid plaque formation in 5xFAD mice. Alzheimer's and Dementia 20[Suppl. 8]. 2025.

Plaska CR, Bruno D, Cejudo JR, Osorio RS, Zetterberg H, Blennow K et al. The Effect of Loneliness on Plasma AD Biomarkers in Cognitively Normal Elderly. Alzheimer's and Dementia 20[Suppl. 2]. 2025.

Eng GK, Recchia N, Collins KA, Harvey J, Tobe RH, Stern ER. Clinical and Neural Features of Sensory Urges in Individuals with Obsessive-Compulsive Disorder and Unaffected Siblings. Biological Psychiatry 97[9 Suppl.], S264. 2025.

Murphy A, Avissar M, Chen Y, Sehatpour P, Patel G, Javitt D. A Mechanistic Investigation of Network Etiologies of Auditory Hallucinations in Schizophrenia. Biological Psychiatry 97[9 Suppl.], S328. 2025.

Qi W, Santacatterina M, Brinker S, Gilad A, Capichioni G, Ando F et al. Transcranial Ultrasound Stimulation of the Right Globus Pallidus in Schizophrenia: A Randomized Sham-Controlled Pilot Study. Biological Psychiatry 97[9 Suppl.], S328. 2025.

Fujimoto S, Fujimoto A, Elorette C, Seltzer A, Andraka E, Verma G et al. Deep brain stimulation induces white matter remodeling and functional changes to brain-wide networks. Brain Stimulation 18[1], P242-P243. 2025.

Guth M, Perera N, Masiello K, Butler B, Falchier A, Opitz A. Distinct electrophysiological effects of targeting prefrontal theta oscillations using closed-loop TMS in a non-human primate. Brain Stimulation 18[1], P489. 2025.

Lee S, Alekseichuk I, Zhao Z, Schroeder C, Falchier A, Opitz A. Layer-specific effects of electrical stimulation on local field potentials in the primary visual cortex of monkeys. Brain Stimulation 18[1], P591. 2025.

Hartig R, Karimi A, Evrard H. FUNCTIONAL LOCALIZATION OF THE PRIMARY TASTE CORTEX IN THE ANESTHETIZED MACAQUE MONKEY. Chemical Senses 49, bjae039.200. 2024.

Kantrowitz JT, Iosifescu D, Grinband J, Sehatpour P, Mayer MR, Javitt DC. RECENT ADVANCES IN TARGET ENGAGEMENT STUDIES IN SCHIZOPHRENIA. International Journal of Neuropsychopharmacology 28[Suppl. 1], i42. 2025.

Gimenez-Badia S, Vazquez L, Benejam B, Carmona M, Videla L, Arranz J et al. Alzheimer's disease effects on sleep in adults with down syndrome. Journal of Sleep Research 33[Suppl. 1], P764. 2024.

Lisgaras C, Badia SG, Clos S, Carmona-Iragui M, Blesa LM, Scharfman HE et al. Scalp high frequency oscillations (>250 Hz) during sleep in humans at risk for developing Alzheimer's disease. Journal of Sleep Research 33[Suppl. 1], P295. 2024.

Gaggi N, Collins K, Parincu Z, Peterson A, Siu K, Osorio R et al. The Effects of Transcranial Photobiomodulation on Irradiated and Non-Irradiated Brain Regions in Major Depressive Disorder: Continuous Versus Pulsed Delivery. Neuropsychopharmacology 49[Suppl. 1], 413. 2024.

Martinez A, Aburto-Ponce MB, Sehatpour P, Beggel O, Micceri K, Javitt D. Personalized High-Definition MR-Guided tDCS Improves Face Emotion Recognition in Schizophrenia. Neuropsychopharmacology 49[Suppl. 1], 533. 2024.