

The NKI Informer



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

Donald C. Goff, MD, Director
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January – February 2022

Stuart Moss, MLS, Editor

Elisa Dias Says Goodbye to NKI



*After 23+ years at NKI, **Elisa C. Dias** is retiring. Here she provides a brief summary of her research career.*

I began working at NKI in 1998, when my husband John Smiley and I moved from Chicago to join the Life Sciences division at NKI.

I started my career in Rio de Janeiro, Brazil, as an intern in a neuroscience group that studied vision by recording the activity of cells in the superior colliculus of opossums. There I obtained first an M.S. degree and later a Ph.D. degree from the Biophysics Institute at the Federal University of Rio de Janeiro. For my Ph.D., I did most of my research project as a

visiting scholar at the Section of Neurobiology at Yale University, where I remained for four years working with Dr. Charles Bruce. We were interested in understanding the neural mechanisms that control eye movements, and for that we recorded and analyzed cell activity in the brains of non-human primates trained to perform oculomotor tasks. At Yale I met John, who at the time was a postdoctoral fellow in the same department, and after we married we moved to Northwestern University, in Illinois. There I worked for four years as a postdoctoral fellow in Dr. Mark Segraves' laboratory, and we had our first child, Leila. I continued to pursue eye movement research, using drug microinjections into tiny regions of the frontal cortex of primates, to explore the biochemical substrates of oculomotor behavior.

At NKI, I initially worked in Charles Schroeder's group, building upon my previous training by recording intracranially from different regions of the brain (such as the frontal cortex and the anterior cingulate cortex) of trained non-human primates, while using more cognitively intensive tasks. It was an exciting time! With the evolution of MRI and the availability of the 7T magnet at NKI, we were able to map the brains of our individual animals, allowing us to more reliably target brain areas for microelectrode recordings. After a few years, and a second child, Peter, I decided I would like to work

with humans and moved to Daniel Javitt's group, where we carried out studies of clinical populations with a focus on schizophrenia, trying to understand the neural deficits that contribute to the disease. Our work used mainly electrophysiological techniques, but I also participated in functional MRI studies and behavioral studies, including neuropsychological and eye tracking studies. In addition, I contributed to clinical trials and more recently to brain stimulation experiments. We explored how patients have early sensory deficits, and how these contribute to impairments in higher level cognitive tasks, such as reading, visual search, and face/emotion recognition.

I will now leave NKI to spend some time with my parents. It's been a great ride, and I am thankful for the many opportunities I have had, and for the wonderful people with whom I have had the privilege to work and interact along the way.

PSYCHIATRY RESEARCH

Coinciding with her retirement, **Elisa Dias** has guest edited a new issue of *Psychiatry Research* with Sohee Park of Vanderbilt University. The topic of the special issue is "[Diversity and disparities in research studies and career trajectories in psychiatry](#)". Dr. Dias notes that this publication arose "Following a very stimulating workshop on diversity at the 2021 Schizophrenia International Research Society (SIRS) meeting. We believed it was important and timely to share the various perspectives and insights with a larger public, so we organized a special issue that aimed to address gender, ethnic, and cultural disparities as well as issues of career development and leadership in psychiatry research and practice. Lynn DeLisi, Editor-in-Chief of *Psychiatry Research*, offered to publish it." An introduction to the issue by Drs. Dias and Park is forthcoming.

KUDOS



Congratulations to **Kevin Knorowski** (Laboratory Animal Resources), who has received the [Hero Award](#) from the Metro NY Branch of the American Association for Laboratory Animal Science (AALAS) in recognition of his outstanding service throughout the COVID pandemic. The award was presented at a virtual ceremony on February 9.



The work of NKI's Director **Donald Goff** has been highlighted as a [2021 Leading Research Achievement](#) by the Brain & Behavior Research Foundation. Dr. Goff's papers on mortality due to COVID-19 in people with psychiatric disorders were published last year in *JAMA Psychiatry*. This research was carried out with **Katlyn Nemani** (Clinical Research) and others.



Helen Scharfman (Dementia Research) has been appointed to the Scientific Advisory Board for *Science Translational Medicine*. Dr. Scharfman is also a Neuroscience Reviewing Editor at *eLife*, a Review Editor at *Frontiers in Cellular Neuroscience*, and as of 2022, she is Section Editor of Neurophysiology and Translation at *Hippocampus*. In addition, Dr. Scharfman is on the Editorial Board of *Experimental Neurology* and is a Review Editor of *Frontiers in Neuroscience – Neurogenesis*.



As a member of the NINDS Epilepsy Young Investigators Group of the American Epilepsy Society, **Christos Lisgaras** (Dementia Research) received a Fellows Program award to attend the 2021 AES meeting.

FROM AROUND THE INSTITUTE



Christos Lisgaras (Dementia Research) was interviewed for the Epilepsy Sparks podcast by Torie Robinson, an epilepsy advocate in the UK who speaks widely about epilepsy and mental health. The interview appeared on February 3rd and can be found [here](#) and [on YouTube](#). In the interview, Dr. Lisgaras mentions his work in the Center for Dementia Research at NKI.



Dr. Lisgaras has also been invited to serve on three committees of the [International League Against Epilepsy](#). These committees focus on Leadership Development, Scientific Program Innovation, and Career Development.

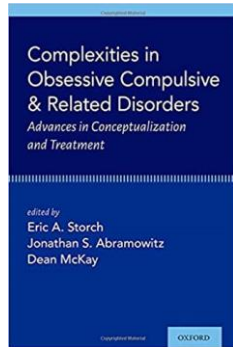
Welcome to the Team

Laura Trubenbach is NKI's new Human Resources Specialist. By way of introduction, she shared the following: "I was born to be a civil servant. Both of my parents worked as NY State employees, and I spent my childhood growing



up in Bear Mountain State Park. I went to high school and college in the Hudson Valley and am happy to call it home. I started my NYS career 23 years ago at Helen Hayes Hospital and most recently worked for the Office of Development Disabilities in the Hudson Valley Office. I have worked in both Human Resources and in the Business Office for the last 15 years, and I am excited to be back in HR. I look forward to doing my part in the Human Resources office to further NKI's mission."

PUBLICATIONS OF NOTE



Kate Collins and **Emily Stern** (Clinical Research) are coauthors of this recently published chapter on sensory processing in OCD.

Collins KA, Grimaldi SJ, Stern ER. [Sensory Processing and Intolerance in Obsessive-Compulsive Disorder](#). In: Storch EA, Abramowitz JS, McKay D, editors. *Complexities in Obsessive Compulsive and Related Disorders: Advances in Conceptualization and Treatment*. New York, NY: Oxford University Press; 2022. p. 125-41.

Translational Psychiatry

Emily Stern and **Kate Collins**, with other members of the Clinical Research Department, also have a new paper in the open access journal *Translational Psychiatry*.

Stern ER, Eng GK, De Nadai AS, Iosifescu DV, Tobe RH, Collins KA. [Imbalance between default mode and sensorimotor connectivity is associated with perseverative thinking in obsessive-compulsive disorder](#). *Transl Psychiatry*. 2022 Jan 12;12(1):19. PMID: 35022398.



Umit Tural, **Molly Irvin**, and **Dan Iosifescu** (Clinical Research) contributed this meta-analysis to the *World Journal of Biological Psychiatry*.

Tural U, Irvin MK, Iosifescu DV. [Correlation between S100B and severity of depression in MDD: A meta-analysis](#). *World J Biol Psychiatry*. 2021 Dec 15:1-8. PMID: 34854356.



Xavier Castellanos (Child Psychiatry) coauthored this paper appearing in *Review Journal of Autism and Developmental Disorders* with colleagues in the NYU Department of Child & Adolescent Psychiatry.

Cervantes PE, Conlon GR, Shalev RA, Castellanos FX. [Trends in ASD Pharmacological Research: An Analysis of ClinicalTrials.gov](#). *Review Journal of Autism and Developmental Disorders* 2022.



This paper by **Yi-Ling Lu** and **Helen Scharfman** (Dementia Research) was published in *Frontiers in Cellular Neuroscience*.

Lu YL, Scharfman HE. [New Insights and Methods for Recording and Imaging Spontaneous Spreading Depolarizations and Seizure-Like Events in Mouse Hippocampal Slices](#). *Front Cell Neurosci*. 2021 Nov 26; 15:761423. PMID: 34899190.



The latest publication by **Csaba Vadasz** and **Bea Gyetvai** (Neurochemistry) appears in the open access journal *Drug & Alcohol Dependence Reports*.

Vadasz C, Gyetvai BM. [Genetic association of Nucleus Accumbens 5-hydroxyindoleacetic acid level and alcohol preference drinking in a Quasi-Congenetic Male Mice: Potential Modulation by Grm7 gene polymorphism](#). *Drug & Alcohol Dependence Reports* 2021;100012.



This recent paper in *BJPsych Open* by **Jim Clelland** (Clinical Research) and colleagues suggests that antidepressants may be protective against COVID-19.

Clelland CL, Ramiah K, Steinberg L, Clelland JD. [Analysis of the impact of antidepressants and other medications on COVID-19 infection risk in a chronic psychiatric in-patient cohort](#). *BJPsych Open*. 2021 Dec 3;8(1):e6. PMID: 34859759.



International Journal of
Molecular Sciences

The latest publication by **Victor Dyakin** and colleagues appears in the open access *International Journal of Molecular Sciences*.

Dyakin VV, Dyakina-Fagnano NV, Mcintire LB, Uversky VN. [Fundamental Clock of Biological Aging: Convergence of Molecular, Neurodegenerative, Cognitive and Psychiatric Pathways: Non-Equilibrium Thermodynamics Meet Psychology](#). *Int J Mol Sci*. 2021 Dec 28; 23(1):285. PMID: 35008708.



Jean-Pierre Lindenmayer and colleagues at Manhattan Psychiatric Center published this open access article in *Innovations in Clinical Neuroscience*.

Lindenmayer JP, Insel BJ, Khan A, Osborne M, Goldring A, Seddo M. [Effects of Clozapine on Neurocognitive Functions in Schizophrenia: A Naturalistic Comparison to Non-clozapine Antipsychotics](#). *Innovations in Clinical Neuroscience* 2021;18(10-12):40-6.



Ricardo Osorio (Clinical Research) is the senior author of these two recent papers appearing in the open access journal *Frontiers in Aging Neuroscience*.

Bubu OM, Williams ET, Umasabor-Bubu OQ, Kaur SS, Turner AD, Blanc J, Cejudo JR, Mullins AE, Parekh A, Kam K, Osakwe ZT, Nguyen AW, Trammell AR, Mbah AK, de Leon M, Rapoport DM, Ayappa I, Ogedegbe G, Jean-Louis G, Masurkar AV, Varga AW, Osorio RS. [Interactive Associations of Neuropsychiatry Inventory-Questionnaire Assessed Sleep Disturbance and Vascular Risk on Alzheimer's Disease Stage Progression in Clinically Normal Older Adults](#). *Front Aging Neurosci*. 2021 Dec 10; 13:763264. PMID: 34955813.

Ramos-Cejudo J, Johnson AD, Beiser A, Seshadri S, Salinas J, Berger JS, Fillmore NR, Do N, Zheng C, Kovbasyuk Z, Ardekani BA, Bubu OM, Parekh A, Convit A, Betensky RA, Wisniewski TM, Osorio RS. [The Neutrophil to Lymphocyte Ratio Is Associated with the Risk of Subsequent Dementia in the Framingham Heart Study](#). *Front Aging Neurosci*. 2021 Nov 30; 13:773984. PMID: 34916927.



Mariah Novy, Paul Mathews, and Center for Dementia Research colleagues recently published this open access paper in *Neurobiology of Aging*.

Novy MJ, Newbury SF, Liemisa B, Morales-Corraliza J, Alldred MJ, Ginsberg SD, Mathews PM. [Expression and proteolytic processing of the amyloid precursor protein is unaffected by the expression of the three human apolipoprotein E alleles in the brains of mice.](#) *Neurobiol Aging*. 2022 Feb; 110:73-76. PMID: 34875506.

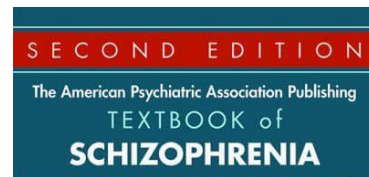


Babak Ardekani (Biomedical Imaging & Neuromodulation; corresponding author) and Ricardo Osorio (Clinical Research) are coauthors of this article recently published in *Journal of Alzheimer's Disease*.

Khajehpiri B, Moghaddam HA, Forouzanfar M, Lashgari R, Ramos-Cejudo J, Osorio RS, Ardekani BA; for the Alzheimer's Disease Neuroimaging Initiative. [Survival Analysis in Cognitively Normal Subjects and in Patients with Mild Cognitive Impairment Using a Proportional Hazards Model with Extreme Gradient Boosting Regression.](#) *J Alzheimers Dis*. 2021 Dec 2. PMID: 34864679.

INFO UPDATE

NEW BOOKS AVAILABLE



The second edition of The American Psychiatric Association Publishing [Textbook of Schizophrenia](#) is now available in the NKI Library. This book includes a chapter by NKI Director **Donald Goff**, and another chapter coauthored by Schizophrenia Research Director **Daniel Javitt**.

Also newly available in the library is [The Rise and Fall of the Age of Psychopharmacology](#). Visit the library to browse these and many other books. And through interlibrary loan, we can obtain for you any book, article, DVD, etc. that you might want.



[The California Healthy Minds, Thriving Kids Project](#), developed by the Child Mind Institute and made possible by a \$25 million grant from the State of California, has produced a series of free videos and print resources for parents, educators, and students, available in English and Spanish, that is designed to promote children's emotional health and help them thrive. These videos empower caregivers and educators to teach kids essential coping skills, such as Understanding Feelings, Relaxation Skills, Understanding Thoughts, Managing Intense Emotions, and Mindfulness. This project was featured in an [NBC News segment](#).

NCBI Virtual Workshop Series

The National Center for Biotechnology Information is presenting an ongoing [series of virtual workshops and webinars](#). Of particular interest are the upcoming sessions titled "[Learn How to Report Your NIH-funded Publications Using My Bibliography](#)". Note that pre-registration is required, and the number of attendees is limited.



[Know the Science](#) is an initiative of the National Center for Complementary and Integrative Health (NCCIH) that aims to combat misinformation by clarifying and explaining scientific topics related to health research. The site features a variety of materials including interactive modules, quizzes, and videos to provide engaging, straightforward content. And now, Know the Science (Conozca la Ciencia) is also [available in Spanish](#).

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](#), etc.).

EVENTS AND SEMINARS

Center for Biomedical Imaging and Neuromodulation Science Series

Held on Mondays at 11 am via Zoom
(Meeting ID: 919 544 345)

Michael Milham

C-BIN Director, NKI

February 28

Sarah Yip

Yale University

Connectomics of addiction risk and recovery

March 7

Boris Bernhardt

McGill University

Multiscale neuroinformatics of typical and atypical brain organization

March 14

Alex Opitz

University of Minnesota

March 21

Marco Pagani

Child Mind Institute

A cross-species link between mTOR-related synaptic pathology and functional hyperconnectivity in autism

March 28

Arielle Tambini

C-BIN, NKI

April 4

Justus Kebschull

Johns Hopkins University

April 11

John Sidtis

Brain & Behavior Lab, NKI

Cerebral blood flow is not a direct surrogate of behavior: Performance models suggest a role for functional meta-networks

April 18



Statewide Grand Rounds

The archived recording of November's Grand Rounds program on ***Difficult to Treat Bipolar Disorder*** presented by Clinical Research Director **Dan Iosifescu, MD, MSc**, is now available for viewing at <https://omh.ny.gov/omhweb/bps/>.

Clozapine for Treatment Resistant Schizophrenia: An Expert Review, Including New Ancestry-Based Dosing Guidelines

Presenter

Christoph U. Correll, MD

Professor of Psychiatry and Molecular Medicine,
Zucker School of Medicine at Hofstra/Northwell

Wednesday, February 16th, 1:00 – 2:30 pm

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 (VIRTUAL) ROAD

International Workshop
The risks and challenges of neurotechnologies for human rights

Salvador Dura-Bernal (Biomedical Imaging & Neuromodulation) co-organized the "[International Workshop on the risks and challenges of neurotechnologies for human rights](#)" held online in November. UNESCO's Assistant Director-General Gabriela Ramos, who manages the International Bioethics Committee, gave the keynote address.

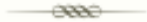
The workshop consisted of short talks and discussion among a panel of experts in neuroscience, neuroengineering, philosophy, ethics, and law, including Chilean Senator Guido Girardi, who led Chile's efforts to become the first country to legislate "neurorights"; Nima Mesgarani from Columbia University, who develops neuroprosthetic devices to translate brain activity into speech; and Nathan Copeland, the first human implanted with a cortical bidirectional brain-computer interface to move and receive sensation from a robotic arm. The full recording of the workshop can be found on YouTube: [Session 1](#) and [Session 2](#).

Together with UNESCO, the organizers are now preparing a [publication](#) with contributions from the workshop speakers. This will be a "groundbreaking report on the ethical and human rights implications of neurotechnology", containing recommendations on this topic from UNESCO and various international entities.





Director of Clinical Research **Dan Iosifescu, MD, MSc**, presented the NYU Department of Psychiatry Grand Rounds on January 13th. The topic of his talk was “Brain Neuromodulation for Depression”.



Christos Lisgaras, PhD (Dementia Research) will give an invited talk on February 16th at the NYU Comprehensive Epilepsy Center, where he will discuss his work in the Scharfman Lab.



EASTERN ASSOCIATION OF ELECTROENCEPHALOGRAPHERS

On February 12th, **Dr. Lisgaras** spoke at the virtual [conference of the EAEEG](#). This symposium presentation will be on a new animal model of epilepsy ([recently published in *Neurobiology of Disease*](#)).



alzheimer's association®

On January 26th, **Dr. Iosifescu** also gave a joint presentation for the Alzheimer's Association on “Advancing the Science: The Latest on Alzheimer's and Dementia Research”.



American College of Neuropsychopharmacology

Several NKI investigators presented posters (virtually and/or in person) at the [60th Annual Meeting of the ACNP](#) held in December in San Juan, Puerto Rico. Posters were presented by Drs. **Dan Iosifescu, Dan Javitt, Josh Kantrowitz, Mohammed Milad, Carla Nasca, Nunzio Pomara, Henry Sershen, and Robert Smith**. In addition, **Donald Goff** participated in a study group at the meeting.

NKI PUBLICATIONS UPDATE

Below is a list of references that have been added to the NKI publications database since the previous update. The full database contains over 6,800 items dating back to 1995 and can be searched from the [myNKI website](#).

Bubu OM, Williams ET, Umasabor-Bubu OQ, Kaur SS, Turner AD, Blanc J, Cejudo JR, Mullins AE, Parekh A, Kam K, Osakwe ZT, Nguyen AW, Trammell AR, Mbah AK, de Leon M, Rapoport DM, Ayappa I, Ogedegbe G, Jean-Louis G, Masurkar AV, Varga AW, Osorio RS. Interactive Associations of Neuropsychiatry Inventory-Questionnaire Assessed Sleep Disturbance and Vascular Risk on Alzheimer's Disease Stage Progression in Clinically Normal Older Adults. *Front Aging Neurosci.* 2021 Dec 10; 13:763264. PMID: 34955813.

Burger B, Nanning KH, Schwartz E, Margulies DS, Goulas A, Liu H, Neubauer S, Dauwels J, Prayer D, Langs G. Disentangling cortical functional connectivity strength and topography reveals divergent roles of genes and environment. *Neuroimage.* 2021 Nov 30; 247:118770. PMID: 34861392.

Cervantes PE, Conlon GR, Shalev RA, Castellanos FX. Trends in ASD Pharmacological Research: An Analysis of ClinicalTrials.gov. *Review Journal of Autism and Developmental Disorders* 2022.

Clelland CL, Ramiah K, Steinberg L, Clelland JD. Analysis of the impact of antidepressants and other medications on COVID-19 infection risk in a chronic psychiatric in-patient cohort. *BJPsych Open.* 2021 Dec 3;8(1):e6. PMID: 34859759.

Clewett D, Dunsmoor J, Bachman SL, Phelps EA, Davachi L. Survival of the salient: Aversive learning rescues otherwise forgettable memories via neural reactivation and post-encoding hippocampal connectivity. *Neurobiol Learn Mem.* 2022 Jan; 187:107572. PMID: 34871800.

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Collins KA, Grimaldi SJ, Stern ER. Sensory Processing and Intolerance in Obsessive-Compulsive Disorder. In: Storch EA, Abramowitz JS, McKay D, editors. *Complexities in Obsessive Compulsive and Related Disorders: Advances in Conceptualization and Treatment.* New York, NY: Oxford University Press; 2022. p. 125-41.

De Gasperi R, Mo C, Azulai D, Wang Z, Harlow LM, Du Y, Graham Z, Pan J, Liu XH, Guo L, Zhang B, Ko F, Raczkowski AM, Bauman WA, Goulbourne CN, Zhao W, Brotto M, Cardozo CP. Numb is required for optimal contraction of skeletal muscle. *J Cachexia Sarcopenia Muscle.* 2022 Jan 9. PMID: 35001540.

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Falade-Nwulia O, Momoh O, Felsher M, Nwulia E, Tofighi B, Ward K, McCormick S, Sulkowski M, Latkin C. Validation of a tool to assess effectiveness of peer- recruitment for hepatitis C testing and linkage to care among people who inject drugs. *Drug Alcohol Depend.* 2022 Jan 1; 230:109177. PMID: 34808487.

Gabay A, London S, Yates KF, Convit A. Does obesity-associated insulin resistance affect brain structure and function of adolescents differentially by sex? *Psychiatry Res Neuroimaging.* 2022 Jan; 319:111417. PMID: 34875560.

Givigi RCN, Silva RS, Menezes EC, Santana JRS, Teixeira CMP. Effects of isolation in COVID-19 pandemic on the behavior of autistic children and adolescents. *Revista Latinoamericana de Psicopatologia Fundamental* 2021;24(3):618-40.

Häntschel M, Eberhardt R, Petermann C, Gesierich W, Darwiche K, Hagemeyer L, Colby TV, Fend F, Theegarten D, Wintzer HO, Kreuter M, Spengler W, Behrens-Zemek AF, Lewis RA, Evrard HC, Ehab A, Böckeler M, Hetzel J. Diagnostic Yield of Transbronchial Lung Cryobiopsy Compared to Transbronchial Forceps Biopsy in Patients with Sarcoidosis in a Prospective, Randomized, Multicentre Cross-Over Trial. *J Clin Med.* 2021 Dec 2; 10(23):5686. PMID: 34884387.

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