INVESTIGATING RESILIENCE IN THE FACE OF COVID-19 RELATED STRESSORS

Contributed by Nicholas Pantoja, COVID-19 Collaborative Project intern

The unprecedented onset of the COVID-19 pandemic and its concomitant impact on the lives and health of individuals has prompted a collaborative group of researchers at NKI to investigate how stressors related to the outbreak interact with pre-existing factors such as physical health, mental health, and social determinants of health.

Participants in the study are a subsample representative of three existing community research samples: 1) 1484 deeply phenotyped individuals from the Rockland/Westchester area (NKI-Rockland Sample; PIs Stan Colcombe, Michael Milham); 2) 1190 African American and Latinx participants, longitudinally assessed since early adolescence in the Harlem Developmental Longitudinal Study (HLDS; PI Kerstin Pahl); and 3) 813 participants in the Children in the Community (CIC; PI Kerstin Pahl) study from upstate NY, also longitudinally assessed since childhood. These samples cover the range of geographic (urban, suburban, and rural), age, racial/ethnic, and socioeconomic diversity of NY State residents.

As these participants have already shared thorough and longitudinal pre-COVID-19 assessments in previous research, this study presents a unique opportunity to identify specific structural, social, cultural, and individual factors that intersect to produce risk and resilience under extreme and adverse conditions. Baseline and monthly follow-up surveys sent to participants include questions about an individual’s health, experience, mood, and behavior in relation to the public health crisis with additional characterization surveys focusing on topics of resilience and coping strategies.

With the onboarding of new remote interns (see the June issue) who are assisting with the study, the COVID-19 research team is now at the five-month mark. We have been sending monthly survey invitations to participants and diligently tracking progress of completed surveys, and we are currently exploring and analyzing these data. Looking at risk and resilience across three cohorts will provide critical insights into how individual differences and societal structures can amplify or mitigate a range of stressors and how these stressors impact mental health.
Drs. Dan Iosifescu and Ricardo Osorio (Clinical Research) received an R01 titled “Transcranial Photobiomodulation for Alzheimer’s Disease (TRAP-AD)”. This is a collaboration with NYU School of Medicine.

Dr. Masuo Ohno (Dementia Research) received an R21 titled “Synergy between BACE1 Inhibitors and Memantine for Alzheimer’s Disease Therapy”. In collaboration, Drs. Ralph Nixon and Efrat Levy (Dementia Research) each received administrative supplements to existing NIH awards. The supplements will be used to purchase a Beckman Coulter MoFlo Astrios EQ cell sorter.

Dr. Henry Sershen (Neurochemistry) received an unrestricted donation from MindMed in support of his and Dr. Vinod Yaragudri’s (Emotional Brain Institute) work on understanding the effects of psilocybin. This donation will enable the investigators to further study the potential use of psychedelics in treating addictions and mental disorders. Their recent study revealed a long-lasting effect of a single dose of LSD on reducing alcohol self-administration in a mouse model. (This article has more views than 98% of all Frontiers articles.) Based on that finding, the group is evaluating other classical hallucinogens in the animal model as a potential approach to the identification of targets for drug discovery and investigation of the neurobiology of alcohol use disorder.

Dr. Crystal Lewis (Social Solutions & Services), in collaboration with Donna Bradbury (NYS OMH), received a new SAMHSA project titled “NYS System of Care – Peer Work Development”.

Drs. Mariko Saito, John Smiley (Neurochemistry), and Don Wilson (Emotional Brain Institute) received a new five-year segment on the R01 for the grant titled “Long-lasting Consequences of Early Ethanol on Network Activity During Sleep”.

Dr. Mariko Saito (Neurochemistry) also received a supplement for her subcontract with Dr. Bhaskar Das at Long Island University titled “Receptor Specific Retinoids Probes to Study the Brain Damage Caused by Developmental Alcohol Exposure”.

Dr. Tarek Sobeih (Information Sciences) is part of Dr. Josh Kantrowitz’s (Clinical Research) new R01 at NYSPI titled “Glutamatergic Mechanisms of Psychosis and Target Engagement”.

Dr. Sobeih (Information Sciences) is also part of the COVID supplement received by Dr. Lisa Dixon and Dr. Jennifer Humensky at NYSPI titled “Adapting Coordinated Specialty Care in the Post COVID-19 Era”.

Sam Houston  
Substance Abuse and Mental Health Services Administration  

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National Institute on Alcohol Abuse and Alcoholism  

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Dr. Sobeih (Information Sciences) is also part of the COVID supplement received by Dr. Lisa Dixon and Dr. Jennifer Humensky at NYSPI titled “Adapting Coordinated Specialty Care in the Post COVID-19 Era”.
**Dr. Crystal Fuller Lewis**, Director of the Social Solutions and Services Division at NKI and Associate Professor of Psychiatry at NYU, has been selected as the inaugural Laurie M. Tisch Scholar for Racial Equity in Mental Health at NYU. This position is made possible by a generous gift from the Laurie M. Tisch Illumination Fund. Dr. Lewis will work collaboratively on an educational curriculum that will be delivered to NYU Psychiatry residents and medical students, among other aims of the Scholar program.

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**Roberto Rodriguez** recently retired from his position as a Senior Lab Animal Technician. We wish Roberto all the best in his retirement!

Dr. Mark Klinger shared the following tribute:

*Roberto Rodriguez applied to the NKI Division of Laboratory Animal Resources 17 years ago as a veteran of the Iraq war where he honorably served and earned the rank of Sergeant. He was hired as a member of material management staff. His discipline and attention to detail was evident and he soon began training directly under the Attending Veterinarian as a lead lab animal technician. Eventually he earned the trust and displayed the performance to become a lead and senior technician in charge of key research resources. His contribution to the success of the Division in support of NKI’s research program over the span of his career is immeasurable. He is also a great person, a mentor to younger staff, and while we will keep in touch, I will miss his daily presence in the facility.*

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**Dr. Donald Wilson** has been named Director of the Emotional Brain Institute. Dr. Wilson takes over as the Founding Director, Dr. Joseph LeDoux, steps down from that role. Dr. Wilson came to NKI in 2008. He also holds a joint appointment as Professor of Child & Adolescent Psychiatry and Neuroscience & Physiology at NYU.
NKI’s **Geriatric Psychiatry Division** has been trying to keep business as usual as much as possible. This includes our support of the local Hudson Valley Chapter of the Alzheimer’s Association and the annual Walk to End Alzheimer’s in October. As the coronavirus (COVID-19) pandemic continues to impact communities across the country, we are trying our best to support those in need. Along with the Alzheimer’s Association, we believe that no one should face the disease alone — especially during difficult times like these. Thanks to donations and events such as the Walk to End Alzheimer’s, the Association is able to provide critical programs and services to the millions of Americans facing Alzheimer’s while continuing to advance critical global research.

Raising funds and awareness for the Walk to End Alzheimer’s looked a bit different this year! While we were not able to meet in person as we do most years, we participated in a virtual walk team to show our support. What did this look like? We each put on our walking shoes, grabbed our families, and walked 5,000 steps on Sunday, October 11 from our homes. While the walk is over, it is not too late to support our walk team “Nathan Kline Institute GERI Program and Friends”. [Click here](#) to donate.

Antero Sarreal walked with his family on Staten Island.

Melissa Alldred, Katie Brundage, and Chelsea Plaska all participated in the Walk to End Alzheimer’s.

**International League Against Epilepsy**

**Christos Lögiras** (Scharfman Lab, Dementia Research) shared his view in an [article](#) on the effects of the pandemic on epilepsy research. *Epigraph* is the official newsletter of the International League Against Epilepsy.

The latest book by Dr. Lloyd Sederer, *[Ink-Stained for Life](#)*, consists of autobiographical stories paired with thematic essays that reflect on the stories in our contemporary context. A [spotlight](#) on the book appears on the Amava website. Dr. Sederer was formerly Medical Director of the NYS Office of Mental Health, where he is currently Distinguished Psychiatrist Advisor.
Dr. Ralph Nixon, Director of the Center for Dementia Research, contributed a Comment on a primary paper on the Alzheimer’s research site Alzforum.

Remembering Janet Avery

Former NKI employee Janet Avery passed away in September at the age of 96. Gary Linn shared this remembrance:

Janet initially worked for Ken Lifshitz as an EEG tech before she moved to manage the animal facility. She told me that she had to hide that she had an MS in biology so she wouldn’t be "overqualified" for the position. She had no experience and just winged it. Her father had been an engineering professor at RPI in Troy, NY. She also worked with Terry O’Keeffe (and later me) on Ken’s experiments. Janet continued to work on some of the Cebus observation experiments even though she was managing the animal facility – so we worked together for several years – and she helped me do some repair surgeries (before we had a reliable veterinarian at NKI). I gave her some baby turtles that she took home with her when she retired. She had a good sense of humor, was smart and down to earth.

PUBLICATIONS OF NOTE

JAMA Psychiatry

Emily Stern (Clinical Research) is one of the coauthors of this publication in JAMA Psychiatry as a member of the OCD ENIGMA Working Group.

Writing Committee for the Attention-Deficit/Hyperactivity Disorder; Autism Spectrum Disorder; Bipolar Disorder; Major Depressive Disorder; Obsessive-Compulsive Disorder; and Schizophrenia ENIGMA Working Groups, Patel Y, Parker N, ... Thompson PM, Paus T. Virtual Histology of Cortical Thickness and Shared Neurobiology in 6 Psychiatric Disorders. JAMA Psychiatry. 2020 Aug 26. PMID: 32857118.

NKI Director Donald Goff, an Associate Editor of JAMA, contributed this Viewpoint piece along with editors of JAMA Psychiatry and JAMA Network Open. The piece is one of 13 by JAMA Network editors reflecting on COVID-19 as it impacts their various medical specialties.


Eva Petkova coauthored this Viewpoint article appearing in the August 11 issue of JAMA.

Marcin Leszczyński and Charles Schroeder (Biomedical Imaging & Neuromodulation) are the corresponding authors, with other lab members, of this paper in the open access AAAS journal Science Advances.


Mohammed Milad (Clinical Research) co-wrote this “hot topics” piece on threat conditioning and extinction in anxiety for Neuropsychopharmacology.


Elisa Dias (corresponding author) and other members of the Schizophrenia Research group recently published this paper on modeling reading ability in schizophrenia in Schizophrenia Bulletin.


This review of 5-HT₂A receptors in schizophrenia by Joshua Kantrowitz (Schizophrenia Research) was published in CNS Drugs.

Kantrowitz JT. Targeting Serotonin 5-HT(2A) Receptors to Better Treat Schizophrenia: Rationale and Current Approaches. CNS Drugs. 2020 Sep; 34(9):947-959. PMID: 32783116.

Noelle O’Connell and other members of Peter Lakatos’s Lab in the Translational Neuroscience group (Biomedical Imaging & Neuromodulation) recently published this paper in the open access Cell Press journal iScience.


Andrea Balla, Stephen Ginsberg, Henry Sershen, and Daniel Javitt are NIK coauthors of this paper in the online journal Biomarkers in Neuropsychiatry.

Jean-Pierre Lindenmayer, Abraham Goldring, and their colleagues at Manhattan Psychiatric Center are among the coauthors of this *Schizophrenia Research* paper.


Efrat Levy and lab members Rocio Pérez-González, Yohan Kim, Chelsea Miller (Dementia Research) coauthored this paper on the roles of extracellular vesicles in Alzheimer’s disease appearing in the *FASEB Journal*.


Csaba Vadasz and Bea Gyetvai (Neurobehavioral Genetics Lab) published their latest work in *Drug and Alcohol Dependence*.


**INFO UPDATE**

Library services continue uninterrupted. As always, if you need documents, assistance with literature searching, or have reference questions, the NKI librarian is at your service.

NKI employees are eligible to register with the New York State Library in order to access the Library’s substantial electronic resources. (Note that all New York residents can register, but NYS government employees have access to a lot more.) Instructions to register are [here](http://www.nysl.nysed.gov/apply.htm)

(If you need assistance verifying your agency employment while at home, the NKI librarian can do that for you.)
If you are still getting used to the new PubMed interface, PubMed Essentials On-Demand may be just what you need. This course is made up of 10 very short video-modules with interactive exercises built into each video so you can explore PubMed at your own pace. It is designed to take no more than one hour to complete. For more information and to register, go here

The 2020 Voting Guide

The 2020 Presidential election is right around the corner. For information and tips about voting in this unusual year, check out USAGov’s Quick Voting Guide.

Government Mental Health Resources

Struggling with mental health challenges can make you feel isolated, frustrated, and overwhelmed. This guide from USA.gov can help you learn how mental illness differs from other illnesses, recognize warning signs, and find resources to help.

For a nice overview of Google’s approach to delivering high quality, reliable search results, see the blog “How Google delivers reliable information in Search”. And for a look at how Google is using artificial intelligence to improve various aspects of search and help people understand the world, see this collection of posts.

The NKI librarian is always available to assist with literature searching, citation searching (Web of Science, Scopus), bibliographic reference management, and the like. When you have any information needs, or questions about available resources, don’t hesitate to turn to us.

The library offers a comfortable, quiet space for reading, work, and small meetings. To use the library’s Wi-Fi network, ask the library staff for the password.

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

DEPARTMENT OF WONDER

Masked NYC

New York City photographer AJ Stetson caught COVID-19 in March. After recovering, he began taking portraits of his housemates, friends, and other New Yorkers. These images show the diversity and strength of New Yorkers during this challenging time.

This photo project was highlighted in a Coronavirus Update message sent out by New York Governor Andrew Cuomo. You can sign up to receive these messages here.

COVID Chronicles

COVID Chronicles is a series of illustrated stories depicting personal accounts of life and death from the front lines of COVID-19. This series was also shared via the Coronavirus Update.
**EVENTS AND SEMINARS**

**2020 NAMI-NYS Education Conference**

**Building Momentum:**

Comming Together to Create Our Future.

The **2020 NAMI-NYS Education Conference** will instill the importance of resiliency and address many of the critical issues we are currently facing.

NKI Director Dr. Donald Goff will be one of the featured speakers.

The online event will take place October 23-24th.

**BBRF International Mental Health Research Virtual Symposium**

Watch the BBRF Outstanding Achievement Prizewinners share new breakthroughs and insights on schizophrenia, bipolar disorder, depression, autism, cognitive neuroscience, and childhood psychiatric disorders.

The entire symposium will be available on demand starting on Friday, October 30, 2020 and is free with registration.

**Statewide Grand Rounds**

**Clozapine Update: Tools for Optimizing Care**

**Presenters**

Jean-Pierre Lindenmeyer, MD
Clinical Director, Manhattan Psychiatric Center
Clinical Professor, NYU School of Medicine

Daniel Silverman, MD
Director, Bureau of Health Services, NYS OMH

Lynn Abbate, RPh
Medicare Part D Pharmacy Manager, NYS OMH

**Moderator**

Jay Carruthers, MD
Medical Director, Bureau of Psychiatric Services
NYS Office of Mental Health

Wednesday, October 21st, 1:00 – 2:30 pm

The following Statewide Grand Rounds took place in September. The archived recording can be viewed here.

**Structural Competency: Addressing the Social Determinants of Mental Health in Clinical Care**

**Presenters**

Helena Hanson, MD, PhD
Associate Professor, New York University
Departments of Psychiatry & Anthropology

Lianne Smith, MD, MA
Attending Psychiatrist, Kaiser Permanente East Bay, Oakland California
Former Associate Clinical Director, Bronx Psychiatric Center

Merrill Rotter, MD
Senior Forensic Advisor to the Commissioner, NYS Office of Mental Health
The Child Mind Institute recently held its annual *On the Shoulders of Giants* scientific symposium. The **2020 program** included presentations by Dr. Tom Boyce, the distinguished scientist award recipient, and two of his proteges. These presentations were followed by a roundtable of distinguished scientists who discussed issues of race and discrimination in child and adolescent health and in the country. NKI’s Xavier Castellanos, MD, participated in the roundtable. You can view the program [here](#) and the event recording [here](#).

**NKI ON THE (VIRTUAL) ROAD**

Christos Lisgaras (Scharfman Lab, Dementia Research) co-chaired a session on “New approaches to integrated epilepsy care and research” at the **ILAE North American Epilepsy Congress** held virtually in September.

**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 6,400 items dating back to 1995, and can be searched from the [myNKI website](#).


Kantrowitz JT. Targeting Serotonin 5-HT(2A) Receptors to Better Treat Schizophrenia: Rationale and Current Approaches. CNS Drugs. 2020 Sep; 34(9):947-959. PMID: 32783116.


Writing Committee for the Attention-Deficit/Hyperactivity Disorder; Autism Spectrum Disorder; Bipolar Disorder; Major Depressive Disorder; Obsessive-Compulsive Disorder; and Schizophrenia ENIGMA Working Groups, Patel Y, Parker N, ... Thompson PM, Paus T. Virtual Histology of Cortical Thickness and Shared Neurobiology in 6 Psychiatric Disorders. JAMA Psychiatry. 2020 Aug 26. PMID: 32857118.


Basavarajappa BS, Subbanna S, Joshi V, Shivakumar M. Enduring Gene Locus-Specific Upregulation of Hdacs Impairs Synaptic Plasticity Gene Expression and Neurobehavior in Mice Exposed to Postnatal Ethanol. Alcoholism: Clinical & Experimental Research 44[Suppl. 1], 57A. 2020. [Abstract]

