
6TH ANNUAL
PRECISION MENTAL HEALTH SYMPOSIUM

From Circuits to Mindsets

Precision Mental Health
in the Real World

SEPTEMBER 25, 2026
8:30AM - 6:30PM

Stanford Li Ka Shing Learning & Knowledge Center

Turning Precision into Practice

Director's Welcome



Welcome to the 6th Annual Stanford Precision Mental Health Symposium.

For too long, mental health care has been asking what works on average for people who share a diagnosis. Precision mental health starts with a different question: **what matters for this person?**

That question has driven my work for 30 years and has been at the heart of our Center since its founding. Our goal is to make individual differences measurable and **actionable** so that we can get the right intervention to each person sooner.

The ambition is larger than better biomarkers or better prediction. Can we cut the burden of mental illness in half? Lives lost, years lived with disability, years spent searching by trial and error for something that works.

Today you will hear from scientists, clinicians, innovators and people with lived experience approaching that challenge from different directions. **Together, their work spans brain circuits, genetics and mindsets, new therapeutics and technology, and the challenge of making precision mental health real.**

And we are building for what comes next. Our new home at Stanford will bring together the people, science and technology needed to accelerate precision mental health from discovery to impact. At the same time, our new global Commission with *Nature Mental Health* is bringing leaders together to help define the evidence, standards and roadmap for the field.

We invite you to help us build what comes next and accelerate the science that can change lives.

Neuroscience is personal. See the person. Change the outcome.

Warm regards,

A handwritten signature in black ink that reads "L. Williams".

Leanne M. Williams, PhD

Director, Stanford Center for Precision Mental Health (CPMH)
Vincent V.C. Woo Professor of Psychiatry and Behavioral Sciences

Become a CPMH Research Member

Join us in changing the landscape of mental health

Connect with researchers across Stanford, access shared resources, and help advance the science of precision mental health.



Friday
September 25
2026

6th Annual Precision Mental Health Symposium

LKSC
291 Campus Dr
Stanford

**From Circuits to Mindsets:
Precision Mental Health in the Real World**

9:00-9:20 **Welcome and Opening Remarks**

Victor Carrión, MD, Vice-Chair of the Stanford Department of Psychiatry & Behavioral Sciences
Lloyd Minor, MD, Dean of the Stanford School of Medicine

9:20-9:30 **State of the Field and the Next Era of Precision Mental Health**

Leanne Williams, PhD, Director of the Stanford Center for Precision Mental Health,
Vincent V.C. Woo Professor of Psychiatry and Behavioral Sciences, Stanford University

9:30-10:15 **From Circuits to Mindsets: How the Brain Shapes Belief, Expectancy, and Change**

Panel Chair: **Neir Eshel, MD, PhD**

Alia Crum, PhD, *Mindset Effects on Neurobiological and Behavioral Outcomes*

Manish Saggar, PhD, *Brain Dynamics and the Capacity for Change*

Discussion

10:15-11:00 **BREAK**

11:00-11:45 **Biomarkers and Precision Therapeutics: Transformational Strategies in Mental Health**

Panel Chair: **Teddy Akiki, MD**

Anissa Abi-Dargham, MD, *Dopaminergic Circuit Dysfunction as a Biomarker and Treatment Target in Psychiatry Disorders*

Jordan Smoller, MD, *Genomic and Polygenic Approaches to Risk Stratification in Psychiatry*

Discussion

11:45-1:00 **LUNCH**

1:00-2:30 **Rapid-Acting Interventions: Psychedelics, Neuromodulation, and the Biology of Psychological Flexibility**

Panel Chair: **Carolyn Rodriguez, MD, PhD**

Jason Tucciarone, MD, PhD, *Sustaining Ketamines's Rapid Anti-Suicidal Effects Through Low-Dose Opioid Receptor Modulation*

Raag Airan, MD, PhD, *Imaging-Based Target Identification for Precision Neuromodulation*

Alik Widge, MD, PhD, *Closed-Loop Neuromodulation for Adaptive Psychiatric Treatment*

Jonathan Downar, MD, PhD, *Circuit-Guided Neuromodulation for Treatment-Resistant Depression*

Mark Rasenick, PhD, *Lipid Raft Signaling, Antidepressant Mechanisms, and Psychedelic-Mediated Neuroplasticity*

Discussion

2:30-3:00 **BREAK**

3:00-4:00 **Making Precision Mental Health Real: Lived Experience, Engagement, and Scale**

Panel Chair: **Brandon Staglin, MS**

Carlos Larrauri, JD, MSN, MPA, *Implementing Precision Mental Health Across Clinical and Community Settings*

Uma Chatterjee, MS, MHPS, *Bridging Experience and Experiment: What Neuroscience Gains from Lived Experience*

Jon Nelson, BS, *Beyond Discovery: Delivering Real-World Impact in Precision Mental Health*
Discussion

4:00-4:30 **Closing Session - A Vision for the Future of Psychiatric Neuroscience**

John Krystal, MD, Editor-in-Chief, *Biological Psychiatry*

4:30-4:40 **Closing Remarks**, **Leanne Williams**, PhD, Director, CPMH

4:40-5:00 **Poster Awards & Recognitions**

5:00-6:30 **Happy Hour Poster & Networking Session**

PANEL CHAIR**Neir Eshel, MD, PhD**

Neir Eshel, MD, PhD, is a psychiatrist and neuroscientist who joined the Stanford faculty in 2021. His research applies cutting-edge tools in rodent models to uncover how neural circuits control motivated behaviors in both health and disease. His work has appeared in *Nature*, *Science*, *Neuron*, and other leading journals, and he has earned multi-year funding from the NIH, Burroughs Wellcome Fund, Simons Foundation, One Mind, and other foundations. His clinical focus is the full-spectrum mental health care of sexual and gender minorities, and he spends one day each week treating patients in Stanford's LGBTQ+ clinic. Before joining the Stanford community for psychiatry residency, Dr. Eshel earned his Bachelor's at Princeton University, Master's at University College London, and MD/PhD at Harvard University.

SPEAKER**Alia Crum, PhD****Mindset Effects on Neurobiological and Behavioral Outcomes**

Alia J. Crum, PhD, is an Associate Professor of Psychology at Stanford University and the Principal Investigator of the Stanford Mind & Body Lab. She received her PhD from Yale University and BA degree from Harvard University. Dr. Crum's research focuses on how changes in subjective mindsets—the core assumptions we make about things and processes in the world—can alter objective reality through behavioral, psychological, and physiological mechanisms. Her work is, in part, inspired by research on the placebo effect, a robust demonstration of the ability of mindsets to elicit healing properties in the body. She is interested in understanding how mindsets affect important outcomes both within and beyond the realm of medicine, in domains such as exercise, diet, and stress. Moreover, Dr. Crum's research aims to understand how mindsets can be consciously and deliberately changed through intervention to affect physiological and psychological well-being. To date, her research has won several awards, including the NIH New Innovator Award and the Association for Psychological Science's Rising Star Award. She is also the recipient of the Phi Beta Kappa Teaching Award and the Dean's Award for First Years of Teaching at Stanford University. In addition to her academic research and teaching, Dr. Crum has worked as a clinical psychologist for the VA healthcare system and has created, delivered, and evaluated interventions focused on mindset change for organizations, including LinkedIn, UBS, Stanford Healthcare, and the United States Navy.

SPEAKER**Manish Saggar, PhD****Brain Dynamics and the Capacity for Change**

Manish Saggar, PhD, is an Associate Professor in the Department of Psychiatry and Behavioral Sciences at Stanford University and the Director of the Brain Dynamics Lab. His research seeks to understand how the brain adapts to changing internal and external demands by integrating computational modeling with multimodal neuroimaging, including functional MRI and EEG. His lab develops novel methods to characterize brain dynamics and uncover the neural mechanisms underlying learning, adaptation, resilience, and mental health. Dr. Saggar's research has been supported by the National Institutes of Health, including the prestigious NIH Director's New Innovator Award (DP2) and multiple grants from the National Institute of Mental Health. His long-term goal is to establish brain dynamics as a foundation for precision mental health by developing computational models that explain and measure the brain's capacity for change.

11:00-11:45 am

Biomarkers and Precision Therapeutics: Transformational Strategies in Mental Health



Teddy Akiki, MD

PANEL CHAIR

Teddy J. Akiki, MD, is an Assistant Professor in the Department of Psychiatry and Behavioral Sciences at Stanford University School of Medicine. He is Associate Director of Computational Neuroscience at the Center for Precision Mental Health and co-Director of the Stanford Precision Psychiatry Clinic. His research uses neuroimaging and computational methods to bring brain-based measurement into psychiatric diagnosis and treatment.



Anissa Abi-Dargham,
MD

SPEAKER

Dopaminergic Circuit Dysfunction as a Biomarker and Treatment Target in Psychiatric Disorders

Anissa Abi-Dargham, MD, is Chair of Psychiatry and Behavioral Health, Lourie Endowed Chair in Psychiatry, and SUNY Distinguished Professor at Stony Brook University's Renaissance School of Medicine. She is an expert in the areas of molecular imaging, pharmacology, schizophrenia and addiction. She is an internationally recognized leader in the use of molecular imaging of the human brain to study schizophrenia and its comorbidity with addiction. Her research has resulted in seminal findings describing the complex alterations of dopamine transmission in schizophrenia. She has recently focused on modulators of dopamine such as the cholinergic system and the kappa opioid system, using PET to uncover specific relationships between targets and symptom domains. In recognition for her work, she received the Leiber Prize for outstanding research in schizophrenia from the Brain and Behavior Research Foundation, she was elected to the National Academy of Medicine in 2016 and served as President of the American College for Neuropsychopharmacology (ACNP) in 2017. She is currently chairing the APA DSM subcommittee on candidate biomarkers and biological factors.



Jordan Smoller, MD

SPEAKER

Genomic and Polygenic Approaches to Risk Stratification in Psychiatry

Jordan W. Smoller, MD, SCD, is a psychiatrist, epidemiologist, and geneticist whose research focus has been understanding the genetic and environmental determinants of psychiatric disorders across the lifespan and using big data to advance precision mental health, including improved methods to reduce risk and enhance resilience. Dr. Smoller is Professor of Psychiatry at Harvard Medical School and Professor in Epidemiology at the Harvard T.H. Chan School of Public Health. At Massachusetts General Hospital, he is the Jerrold F. Rosenbaum Endowed Chair in Psychiatry, Director of the Center for Precision Psychiatry, Director of the Psychiatric and Neurodevelopmental Genetics Unit, and co-Director of the Center for Suicide Research and Prevention at MGB and Harvard. Dr. Smoller also serves as Director of the Omics Unit of the MGH Division of Clinical Research and co-Director of the Mass General Brigham Training Program in Precision and Genomic Medicine. He is an Associate Member of the Broad Institute and past President of the International Society of Psychiatric Genetics. He has played a leading role in national and international efforts to advance precision and genomic medicine, including as a PI in the eMERGE (Electronic Medical Records and Genomics) network, the PsycheMERGE Consortium, the NIH All of Us Research Program, and co-Chair of the Cross-Disorder Workgroup of the Psychiatric Genomics Consortium (PGC). He is an author of more than 650 scientific publications.

1:00-2:30 pm

Rapid-Acting Interventions:

Psychedelics, Neuromodulation, and the Biology of Psychological Flexibility



**Carolyn Rodriguez,
MD, PhD**

PANEL CHAIR

Carolyn Rodriguez, MD, PhD, is the Director of the Stanford OCD Research Program and Associate Dean in the Stanford School of Medicine and Consultation-Liaison Psychiatrist at the Palo Alto VA. Her work includes clinical trials of novel OCD therapeutics, including ketamine and MDMA, and neuromodulation in hoarding disorder. Dr. Rodriguez serves as Deputy Editor of the *American Journal of Psychiatry* and Deputy Editor of *Neuropsychopharmacology*. She serves as a member of several scientific councils for non-profit research and advocacy groups, including Brain & Behavior Research Foundation, the American Foundation for Suicide Prevention, and the International OCD Foundation.



**Jason Tucciarone,
MD, PhD**

SPEAKER

Sustaining Ketamine's Rapid Anti-Suicidal Effects Through Low-Dose Opioid Receptor Modulation

Dr. Jason Tucciarone, MD, PhD, is an Assistant Professor of Psychiatry and Behavioral Sciences at Stanford University School of Medicine, where he leads a lab at the intersection of circuit neuroscience and precision psychiatry. His research bridges preclinical work on striatal microcircuits, dopamine signaling, and opioid neuroadaptation with a clinical program developing rapid-acting treatments for mood disorders, suicidal ideation, and addiction, including ketamine, buprenorphine, psilocybin, and ibogaine. Trained under Dr. Josh Huang at Cold Spring Harbor Laboratory and in residency with Drs. Robert Malenka and Alan Schatzberg at Stanford, Dr. Tucciarone brings a mechanistic, brain-circuit-informed lens to individualized mental health care.



Raag Airan, MD, PhD

SPEAKER

Imaging-Based Target Identification for Precision Neuromodulation

Raag Airan MD, PhD, is a neuroradiologist at Stanford University and directs a research group developing focused ultrasound-based methods for targeted drug delivery and manipulation of glymphatic/lymphatic flows, as well as imaging methods to read out the effects of those interventions. His group is opening first-in-human trials for neuropsychiatric applications of each intervention. Dr. Airan will present preclinical validations of targeted drug delivery using ultrasonic drug uncaging, glymphatic modulation with ultrasonic debris clearance, and progress towards clinical translation of each technology.

1:00-2:30 pm

Rapid-Acting Interventions:

Psychedelics, Neuromodulation, and the Biology of Psychological Flexibility
(continued)

SPEAKER



Alik Widge, MD, PhD

Closed-Loop Neuromodulation for Adaptive Psychiatric Treatment

Alik Widge, MD, PhD, is a brain stimulation psychiatrist and biomedical engineer. He is an Associate Professor of Psychiatry at the University of Minnesota, where he directs the Translational NeuroEngineering Lab. Dr. Widge completed his MD at the University of Pittsburgh, his PhD in Robotics at Carnegie Mellon University, psychiatry residency at the University of Washington, and fellowships at Massachusetts General Hospital and the Massachusetts Institute of Technology. His research focuses on brain stimulation for severe and treatment-resistant mental illness, with particular emphasis on deep brain stimulation and related implantable technologies. Dr. Widge's recent work has demonstrated new algorithms for closed-loop brain stimulation, stimulation methods for modifying connectivity in the distributed circuits of mental illness, and hardware solutions for embodying those insights. His laboratory studies both rodent models, to prototype these new technologies, and human participants, to identify biomarkers and targets for future intervention. His work has won numerous awards, including the Society for Biological Psychiatry's AE Bennett Translational Research Award and the North American Neuromodulation Society's Kumar Award. It has resulted in over 130 peer-reviewed published articles, covering a range of journals from engineering and neuroscience to clinical reviews.

SPEAKER



Jonathan Downar,
MD, PhD

Circuit-Guided Neuromodulation for Treatment-Resistant Depression

Jonathan Downar, MD, PhD, is an Adjunct Professor in the Department of Psychiatry and Institute of Medical Science at the University of Toronto. As a clinician and scientist in the field of TMS since 2010, he has directly supervised the TMS treatment of more than 5000 patients and has published over 200 peer-reviewed articles and book chapters on TMS and brain imaging, including in *Lancet*, *JAMA Psychiatry*, *Nature Medicine*, *Nature Neuroscience*, and *Brain Stimulation*. He is the senior author of the 2018 THREE-D study, which shortened TMS sessions 10-fold to 3 minutes, with no loss of efficacy. He has also recently pioneered the ONE-D protocol, delivering a full therapeutic course of TMS in a single day. His work continues to optimize TMS protocols and hardware to improve the overall practicality and economics of TMS, with the goal of achieving cost parity with pharmacotherapy and universal access to this powerful treatment.

SPEAKER



Mark Rasenick, PhD

Lipid Raft Signaling, Antidepressant Mechanisms, and Psychedelic-Mediated Neuroplasticity

Mark M. Rasenick, PhD, is currently Distinguished UIC Professor of Physiology & Biophysics, and Psychiatry at the University of Illinois College of Medicine and a Research Career Scientist at the Jesse Brown VAMC. He is also the Chief Science Officer of Pax Neuroscience Inc. Dr. Rasenick's work has focused on G protein signaling in the nervous system and the relationship between neurotransmitter signaling, membrane microdomains, and the cytoskeleton. He has been particularly interested in how G proteins and specialized membrane structures (lipid rafts) form a molecular basis for the action of antidepressant therapies and, perhaps, the etiology of depression. He has recently explored the cellular basis for the antidepressant action of psychedelics. These studies have led to the identification of a simple blood biomarker for depression and antidepressant response that is being commercialized by Pax Neuroscience.

3:00-4:00 pm

Making Precision Mental Health Real: Lived Experience, Engagement, and Scale



Brandon Staglin, MS

PANEL CHAIR

Brandon Staglin, MS, is co-Founder and Chief Advocacy & Engagement Officer at One Mind. Drawing from his personal recovery journey with schizophrenia and his leadership experience, Brandon champions youth mental health and early intervention. He launched One Mind's ASPIRe program, which expands access to high-quality, data-driven care to improve recovery outcomes. His advocacy helped advance landmark mental health legislation in California, and he chairs One Mind's Lived Experience Council. As creator and host of the One Mind Brain Waves webcast, he promotes public awareness and reduces stigma by highlighting stories of hope and innovation. Brandon has served on advisory councils for the World Economic Forum, NIMH, and the State of California, and his work has been featured in scientific and public platforms alike. He holds an MS in Healthcare Administration and Interprofessional Leadership from UCSF and dual BAs in Engineering Sciences and Anthropology from Dartmouth College.

SPEAKER



Carlos Larrauri,
JD, MSN, MPA

Implementing Precision Mental Health Across Clinical and Community Settings

Carlos A. Larrauri, JD, MSN, MPA, serves as a Lived Experience Expert for the ACE-D study (Accelerating Cognition-guided signatures to Enhance translation in Depression), an NIH-funded IMPACT-MH initiative validating a cognitive signature to guide individualized, precision treatment selection in depression. He also teaches in Mental Health Leadership: Transformation Through Innovation, part of the Harvard T.H. Chan School of Public Health's Executive and Continuing Education program. His work intersects law, policy, and mental health, with publications in *Nature Mental Health*, *npj Digital Medicine*, *Schizophrenia*, and *Psychiatric Services*, as well as chapters published by Cambridge University Press and the American Psychiatric Association. He holds a JD from the University of Michigan Law School, where he served as an Editor of the *Michigan Law Review*, and an MPA from Harvard Kennedy School as a Zuckerman Fellow. Additionally, he is board-certified as both a family and psychiatric-mental health nurse practitioner.

SPEAKER



Uma Chatterjee,
MS, MHPS

Bridging Experience and Experiment: What Neuroscience Gains from Lived Experience

Uma Chatterjee, MS, MHPS, is an award-winning mental health neuroscientist, science communicator, and lived experience advocate. She's currently a PhD Candidate and NIH TL1 Predoctoral Fellow in Dr. Michael Cahill's laboratory at UW-Madison's Neuroscience Training Program. Uma's dissertation research, awarded by the 2026 NIH OSNAP, utilizes reverse-translational approaches, across human postmortem tissue and mice, to probe the genetic and mechanistic underpinnings of OCD pathophysiology and novel therapeutic targets. Her work is deeply informed by her lived experience of severe mental illnesses and neurodivergence, including clinically extreme OCD, PTSD, treatment-resistant depression, bulimia, chronic suicidality, and ADHD, leading to her pioneering the Researchers with Lived Experience (RWLE) movement. Uma serves in several global leadership and advisory roles, including co-founder of Foundation for OCD Research, Care & Education (FORCE) and One Mind council member. A globally invited public speaker, she has delivered 150+ presentations worldwide and has reached millions through her A Chat with Uma podcast and external media platforms, including NIMH, Ologies, ABC, NAMI, APA's Speaking of Psychology, and NOCD.

SPEAKER



Jon Nelson, BS

Beyond Discovery: Delivering Real-World Impact in Precision Mental Health

Jon Nelson, BS, didn't choose this fight. It chose him. After two decades building brands and leading agencies across America, Jon walked away from the safety of a successful healthcare marketing career to fight against something he barely survived. He spent years fighting a losing battle against treatment-resistant depression until he underwent experimental deep brain stimulation and started living his "bonus life." He came back a menace to the status quo. Today Jon is co-founder of Otherside, the world's first lived-experience-led neuroscience agency, and founder of Pulverize the Stigma. He's testified on Capitol Hill for the NIH BRAIN Initiative, sits on the American Brain Coalition board, advises One Mind, and shows up everywhere from NPR to Bloomberg to say the things everyone else knows are true but are afraid to say aloud.



John Krystal, MD

CLOSING SESSION

A Vision for the Future of Psychiatric Neuroscience

4:00-4:30 pm

Join Dr. Krystal for a closing reflection on the ideas and discoveries shaping the future of the field. He will share his vision for the next era of psychiatric neuroscience and explore how integrating psychiatry, neuroscience, and AI can move us toward a more precise, personalized, and transformative approach to mental health.

John Krystal, MD, is the Robert L. McNeil, Jr., Professor of Translational Research, Professor of Psychiatry, Neuroscience, and Psychology, Chair of Psychiatry, Co-Director of the Yale Center for Clinical Investigation at Yale University, and Psychiatrist-in-Chief for the Yale New Haven Health System. He also serves as Director of the Clinical Neuroscience Division of the National Center for PTSD (VA) and the NIAAA Center for the Translational Neuroscience of Alcohol. He is an expert on the neurobiology and treatment of schizophrenia, depression, PTSD, and alcohol use disorder. He is best known for the discovery of the rapid antidepressant effects of ketamine, leading to the FDA approval of Esketamine, the first mechanistically novel antidepressant in 50 years. His contributions to psychiatry have been recognized with honors, including the Sarnat Prize (National Academy of Medicine), the Connecticut Medal of Technology, the Barnwell Prize (VA), the Colvin Prize (BBRF), and others. He is a member of the National Academy of Medicine; Fellow of the American Association for the Advancement of Science; editor of *Biological Psychiatry*; Vice President of the Scientific Council of the Brain and Behavior Research Foundation, member of the Board of Directors of the Clinical Research Forum, and co-founder of Freedom Biosciences. He previously served as co-chair of the Forum on Neuroscience and Nervous System Disorders of the National Academies of Sciences, Engineering, and Medicine; president of the American College of Neuropsychopharmacology and International College of Neuropsychopharmacology; and a member of the Advisory Councils for NIMH and NIAAA.

Poster & Networking Session

Posters 1-28 in Foyer | Posters 29-52 in Auditorium

1. Within-person prediction of depressive symptom change using year-long Screenome data and CES-D assessments

Merve Cerit, Andrea Mock, Vryan Almanon Feliciano, Thomas N. Robinson, Byron Reeves, Nilam Ram, Nick Haber

2. Toward Continuous Mental Health Monitoring in Patients Undergoing Hematopoietic Cell Transplantation: Protocol and Implementation Framework for a 24-Week Digital Phenotyping Study

Crane Huang, Rachel Lim, Kenichiro Kubo, Vanessa E. Kennedy, Kevin Schulman

3. The Cognitive Cost of Short-Form Content

Vinan Adhikesavan, Noah Ghanmi

4. Modeling Dopaminergic and Anxiety Circuit Interactions in Approach-Avoidance Dynamics in Depression

April Luo, Stephen Read

5. Medical trainee attitudes toward an AI-powered video clinical interview agent: A pilot study

Sevim Bianchi, Caroline Liu, Megan Kou, Riley Danna, Valerie A Gerriets, Steven Chan, Peter Yellowlees

6. K-Bench: Clinician-Calibrated Evaluation of Mental Health Conversational Safety in Large Language Models

Matthew Vowels, Apoorv Jha, Shivali Sharma

7. Kurate: Scalable, Source-Traceable Evaluation of Scientific Quality in Mental Health Research

Matthew Vowels, Jamie Cummins

8. Transcranial magnetic stimulation for targeting restricted and repetitive behaviors in autism spectrum disorder

Seigo Ninomiya, Mohamad Matout, Hamidreza Komaki, Briana Hernandez, Ryan Villacrusis, Nina Raman, Serena Park, Ethan Makarewycz, Masataka Wada, Antonio Y. Hardan, John P. Hegarty II

9. Genetic and environmental influences on brain regions supporting social functioning

Nina R. Raman, Jennifer M. Phillips, Joachim F. Hallmayer, Antonio Y. Hardan, John P. Hegarty II

10. A Randomized Placebo-Controlled Trial of Pregnenolone in Adolescents and Adults with Autism

Nina R. Raman, Briana Hernandez, Lawrence K Fung, Robin Libove, Antonio Y. Hardan

11. Cerebellar Structure and Excitation-Inhibition Balance in Autism Spectrum Disorder: A Pilot Study to Identify Biomarkers for Precision Mental Health

Beatrice B. Begley, Hamidreza Komaki, Meng Gu, Daniel M. Spielman, Antonio Y. Hardan, John P. Hegarty II

12. **The role of norepinephrine signaling in the medial entorhinal cortex**
Christa Rose, Lavonna Mark, Lisa Giocomo
13. **Developmental Origins of Norepinephrine Dysfunction: Critical Periods for Cognition**
David C. Wang, Setareh Metanat, Robert Malenka
14. **Targeting cortical networks with electrical stimulation**
Patrycja Dzialecka, Cephra Raja, Naseem Moussa, Anish Mitra
15. **Optimizing Neuromodulation Outcomes in Treatment-Resistant Depression: A Systematic Review and Meta-Analysis of Personalized fMRI Connectivity-Guided TMS Targeting**
Satvik Vuppalaapati
16. **Psychotropic Medication Prescribing Patterns by Provider Type in the US, 2020-2025: A Cross-Sectional Analysis of 11.4 Million Pharmacy Claims**
Tanner Pulice, Laura T. Derry, Howard Bauchner**
17. **Beyond Mood: Changes in verbal learning and memory following transcranial magnetic stimulation in U.S. military veterans with major depressive disorder**
Kaetlin R. Kohlhorst, Nicole D. Evangelista, Michelle L. Wong, Alesha Heath, Emilee Brussow, Kelvin Lim, Noah Philip, Paul Holtzheimer, Leanne Williams, Michelle R. Madore
18. **Exploring the Effects of Tobacco Use on rTMS Treatment in Veterans with Treatment-Resistant Depression**
Areebah Mubin, Raquel Ramirez, Alesha Heath, Chloe Alkadri, Michelle R. Madore
19. **Redosing of Psilocybin in Veterans with Severe Treatment-Resistant Depression: A Case Series**
Madeleine Cluck, Anna Donnelly, Catherine M. Bostian, Elizabeth Conlan, Sara Ellis, Michael J. Ostacher, Scott T. Aaronson, Trisha Suppes
20. **Individual Differences in Psilocybin Response: EEG Complexity Predicts Next-Day Mood Shift and Longer-Term Self-Criticism Change**
Sai Jayakumar
21. **A Transformer-Based Delta Expression Encoder Recovers Cell-Type and Drug-Specific Transcriptional Structure in Psilocybin Response Without Pathway Supervision**
Sai Jayakumar
22. **Dynamic Default Mode Network Substates Track Mystical Effects and Clinical Outcomes after Ibogaine**
Kenneth Shinozuka, Clayton Olash, Tracy Han, Azeezat Azeez, Malvika Sridhar, Andrew D. Geoly, Catherine Daye, Saron Hunegnaw, Kirsten N. Cherian, Jakob N. Keynan, Randi E. Brown, Derrick M. Buchanan, John P. Coetzee, Ian H. Kratter, Raag D. Airan, Martijn Arns, Maheen M. Adamson, Manish Sagar, Cammie Rolle
23. **Structural Brain Changes Following Magnesium-Ibogaine in Veterans With Blast-Related Traumatic Brain Injury**
Andrew D. Geoly, John P. Coetzee, Derrick Matthew Buchanan, Wiebke Struckmann, Bora Kim, Malvika Sridhar, Azeezat Azeez, Jennifer I. Lissemore, Kirsten Cherian, Afik Faerman, Jakob N. Keynan, Prakamya Singal, Alaa Shanbour, Igor D. Bandeira, Ian H. Kratter, Maheen M. Adamson, Manish Sagar, Cammie Rolle, Nolan R. Williams
24. **Implicit Emotional Conflict Adaptation and Bilateral Mastectomy Choice in Women With Breast Cancer**
John P. Coetzee, Tracy Han, Cassidy Kinderman, David Spiegel
25. **Changes in Effective Connectivity in an Extended Reward Circuit Are Associated with Decreases in Alcohol Consumption after Ibogaine Treatment**
Reece Jones, Kenneth Shinozuka, Julia Alexandra Galiza Soares, Jennifer I. Lissemore, Azeezat Azeez, Malvika Sridhar, Andrew D. Geoly, Saron Hunegnaw, Igor Bandeira, John P. Coetzee, Kirsten N. Cherian, Jakob N. Keynan, Ian H. Kratter, Raag D. Airan, Martijn Arns, Maheen M. Adamson, Cammie Rolle, Jason Tucciarone**
26. **Subjective Music Experience during MDMA Assisted Therapy for Obsessive Compulsive Disorder: Pilot Data from an Observational Sub-Study**
Anna Payton, Edith Noyes, Boris Heifets, Carolyn Rodriguez, Mendel Kaelen
27. **Toward Personalized TMS with Response-Guided Prefrontal Target Optimization**
Leonhard Schreiner, Christopher C. Cline, Samantha M. Gray, Emma Klebaner, Hansong Lee, Umair Hassan, Nicholas T. Trapp, Aaron D. Boes, Corey J. Keller
28. **Repeated iTBS Doses Increase Prefrontal Excitability in Major Depressive Disorder**
Apoorva Karekal, Lily Forman, Jade Truong, Winn Hartford, Corey J. Keller, Christopher C. Cline
29. **State-Dependent Neuromodulation for GAD: Feasibility of Worry-Induced cTBS with TMS-EEG and Autonomic Monitoring**
Arline C. Pierre-Louis, Charles W. Dickey, Ethan A. Solomon, Hansong Lee, Emma Klebaner, Christopher C. Cline, Corey J. Keller
30. **Interpretable Symptom Vectors for Depression in a Large Language Model**
Fangyi Zhu, Ajay Subramanian, Allison Constant, Camille Wang, Ravish Gupta, Corey J. Keller
31. **Feedforward auditory cortex connectivity predicts neuronal population activity during naturalistic music processing: implications for music-enhanced neurotherapeutics**
Samantha M Gray, Ethan Solomon, Leonhard Schreiner, Christopher C Cline, Ritika Garg, Sofia Pantis, Josef Parvizi, Joel Berger, Jessica M Ross, Andrea Goldstein-Piekarski*, Corey J. Keller**

- 32. Shared Spectral Signatures of Sensory and Affective Pain Circuits in Human Intracranial EEG**
Sabra Sisler, Ethan Solomon, Danny Huang, Yu Zhang, Corey Keller
- 33. Distinct Temporal Patterns of Brain Functional Connectivity Change During Antidepressant Treatment**
Xiaoyu Tong, Feng Vankee Lin, Yu Zhang
- 34. Predicting CBT-I Response for Depression and Insomnia from fMRI Functional Connectivity**
Zhitong John Wang, Madeline Babros, Adam J. Krause, Raquel Osorno, Natalie Solomon, Maryam Ahmadi, Leanne M. Williams, James Gross, Jun Ma, Jerome Yesavage, Jared M. Saletin, Hadi Hosseini, Andrea N. Goldstein-Piekarski
- 35. DBT-FND: The Development of a Manualized Adaptation of Dialectical Behavior Therapy for Functional Neurological Disorder**
Jordana Gardenswartz, Lilia Aronoff-Aspaturian, Kim Bullock
- 36. Decoupling Distress from Action? Ecological Momentary Assessment of Emotion-Related Impulsivity After NACT**
Pearl Werbach, Angela Victoria Lee, Jacqueline Carrillo, Olivia Atkinson, Sheri Johnson, Eivind Haga Ronold
- 37. The long-term association of adverse childhood experiences with C-reactive protein in the SYSTEMAATIC cohort**
Ziyan (Anna) Deng, Malia Beaulieu, Rachel Gilgoff, Jackson Schuetz, Rajni K. Badhan, Dinara Bogetic, Ryan Pilkington, Sharon Chinthrajah, Sayantani B. Sindher
- 38. Childhood Adversity and Positive Experiences in the SYSTEMAATIC Project: Associations with Psychological and Physical Health Burden**
Jackson Schuetz, Rachel Gilgoff, Malia Beaulieu, Ryan Pilkington, Rajni Kaur Badhan, Ziyan Deng, Sunsifan Tan, Hadi Hosseini, Sharon Chinthrajah, Sayantani B. Sindher
- 39. Improving Assessment of Traumatic Brain Injury in Women Veterans**
Colleen Mills-Finnerty and Maheen Adamson
- 40. Military Sexual Trauma, Post-Traumatic Stress, and Post Concussive Symptoms Among Women Veterans**
Colleen Mills-Finnerty, Maheen Adamson, Molly Timmerman
- 41. Early Adversity Selectively Reshapes the Somato-Cognitive Action Network in the Developing Brain**
Chase Antonacci, Eugenia Giampetruzzi, Gracie Grimsrud, Sanju Koirala, Jessica P. Uy, Jocelyn A. Ricard, Yoonji Lee, Andre Zugman, Booil Jo, Kilian M. Pohl, Russell A. Poldrack, Ian H. Gotlib
- 42. Resting-State fMRI Node Strength for Early Detection and Clinical Staging of Behavioral Variant Frontotemporal Dementia**
Behnaz Akbarian and Ryan Darby
- 43. Genetic Mouse Models of Schizophrenia Do Not Capture Human Neuroanatomical Subtypes: A Novel Cross-Species Approach**
Craig Waldence McFarland, Robert A. McCutcheon, Rogier B. Mars
- 44. Partner-inflicted brain injury may cognitively age survivors by over a decade**
Craig Waldence McFarland and Eve M. Valera
- 45. Sex-Specific Associations Between Plasma Biomarkers, Neuroimaging, and Cognition in Down Syndrome and Alzheimer's Disease**
Grace Bishay and Jennifer Bruno
- 46. Chromosome 21 Immune Gene Variants and Neuroinflammatory Biomarker Profiles in Down Syndrome**
Niku Sedarat, Jennifer Bruno and Laura Xicota Vila
- 47. Direct Neuronal Synaptic Gene Dysregulation by C4A: Redefining Druggable Complement Pathways in Schizophrenia**
Thomas C. Beck, Ally Kim, Reenal Pattni, Marcus Ho, Alexander Urban, Agnieszka Kalinowski
- 48. From Genetic Risk to OCD Pathophysiology: Region- and Sex-Specific Molecular and Behavioral Findings Across Human and Mouse Brain**
Uma R. Chatterjee and Michael E. Cahill
- 49. A Neurocognitive Framework for Prospective, Individual-Level Identification of the Cognitive Biotype in Depression**
Jeesung Ahn, Lara C. Foland-Ross, Xue Zhang, Teddy J. Akiki, Hyun-Joon Yang, Andrea Ellsay, Booil Jo, Trevor J. Hastie, Laura M. Hack, Peter J. van Roessel, Alex Leow, Ruth O'Hara, Alan F. Schatzberg, Olu Ajilore, Jun Ma, Leanne M. Williams
- 50. Precision neurolinguistics reveals latent speech signatures of a negative affect biotype and its modulation by MDMA**
Elizabeth Beam, Xue Zhang, Leanne M. Williams
- 51. Stratified Precision Medicine Trial of Transcranial Magnetic Stimulation for the Cognitive Circuit Biotype of Depression: Prospective Validation of a Circuit-Based Framework in the B-SMART fMRI Trial**
Liangfang Li, Isabelle Wydler, Divya Rajasekharan, Michelle R. Madore, Noah S. Philip, Kelvin O. Lim, Paul Holtzheimer, Leanne M. Williams
- 52. From targets to E-fields: The impact of non-focal stimulation on clinical outcomes in transcranial magnetic stimulation for depression**
Divya Rajasekharan, Konstantin Weise, Michelle R. Madore, Kelvin O. Lim, Paul Holtzheimer, Leanne M. Williams, Thomas Knösche, Noah S. Philip

STAY CONNECTED

Continue the conversation and get involved in the work of the Stanford Center for Precision Mental Health



For Clinicians

Partner with us to bring precision mental health into practice.

[LEARN MORE](#)



Join Our Mailing List

Get the latest news, events and opportunities from the Center.

[SIGN UP](#)



7th Annual Precision Mental Health Symposium

SEPTEMBER 24, 2027

Registration and full program released in early 2027.
We look forward to seeing you next year!

Stanford Precision Psychiatry Clinic

Personalized psychiatric care, informed by neuroscience

SCIENCE | COMPASSION | BETTER LIVES

Science Driven

Precision Circuit Mapping guides treatment selection beyond trial-and-error

Evidence-Based

Care tailored through validated neuroscience findings

Patient-Centered

Excellence in psychiatry, delivered in a welcoming, wellness-inspired space

[LEARN MORE OR MAKE A REFERRAL](#) | precisionpsychclinic_inquiries@stanford.edu

SYMPOSIUM PLANNING COMMITTEE

Leanne Williams, PhD, Director
Ruth O'Hara, PhD, Co-Director
Hosna Omarzad, MS
Lara Foland-Ross, PhD
Anna Boken, MA

SCIENTIFIC REVIEW COMMITTEE

Xue Zhang, PhD
Akshay Chaudhari, PhD
Khalid Salaheldin, MD
Mohamad Matout, MD, MSc
Yu Zhang, PhD

MEDIA SUPPORT

Rio Hundley, BS
LiPo Ching, MA
Ken Hamel Photo
Stanford Medicine

Stanford

Center for Precision
Mental Health