Stanford Center for Precision Mental Health and Wellness

Newsletter

PMHW

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Produced by Hosna Omarzad, Executive Director, PMHW

Opening Plenary

NIMH Director

Joshua A. Gordon, M.D., Ph.D





Register Now

Join us for the 2nd Annual Precision Mental Health & Wellness Symposium!

We are excited to host our upcoming hybrid symposium on Wednesday, September 28th. We are thrilled to announce this year's Opening Plenary, NIMH Director, Dr. Joshua A. Gordon. For more information and to **register now**, visit our **website**.

Spotlight: Dr. Ruth O'Hara, Faculty Senate Chair 2021-22



Lowell W. and Josephine Q. Berry Professor, Stanford Center for Clinical and Translational Research and Education (SPECTRUM) Director and Stanford School of Medicine Senior Associate Dean of Research, Dr. Ruth O'Hara, is highlighted for her role as Faculty Senate chair and helping "the university community navigate through a collision of crises including the pandemic, national events and rapid changes in the academic environment. Read the latest edition of the **Stanford Report** to learn about a leader with "the rare ability to knit together faculty, disciplines and systems" to improve communication and civil discourse.

PMHW Annual Report

Read Now: The Stanford Center for Precision Mental Health and Wellness Presents Our 2021 Annual Report



With a new transformative approach to mental health, empowered by an understanding of the brain, the Stanford Center for Precision Mental Health and Wellness (PMHW) has been on a mission to create an environment of collaboration and expertise needed to fuel such innovation.

PMHW combines high tech, data and neuroscience to detect different types of mental disorder more precisely and associate them with specific treatment outcomes. This approach is advancing clinical practice by personalizing and matching treatments more effectively to each version of the underlying disease.

To accelerate change, our Center is unified around **three research thematic areas**: *Precision Preventions and Diagnostics*, *Precision Treatment Matching*, *and Precision Strategies for Novel and Exploratory Therapeutics*.

Read our 2021 Annual Report to meet our leadership, current research members and corporate members. Discover the research impact the center and its members have had over the last year and the various ways you can get involved in furthering the mission of the Center.

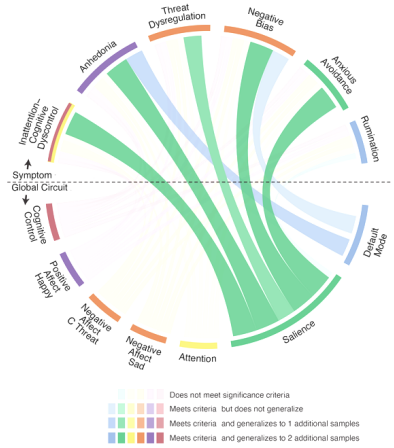
Featured News & Media

Now Available: New Episode of PMHW's 'Chat with the Experts' series

Episode 2 - 'Science, Precision Medicine and Translational Therapeutics,' features Stanford Associate Professor of Psychiatry and Behavioral Sciences and PMHW Research Member, Dr. Carolyn Rodriguez. This episode explores the latest neuroscience insights being used to develop therapeutics and improve lives for persons experiencing Obsessive Compulsive Disorder (OCD).

Check out the latest episode **here**.





Finding brain patterns underlying depression: linking functional neuroimaging to symptom subtypes

The Stanford Wearable Electronics Initiative (eWear) Initiative recently highlighted a **report** in Biological Psychiatry [1], published by our PMHW team. Author Tony Liu takes a deep dive to discuss what a more precise psychiatry would look like. Liu does an incredible job of explaining the challenges the authors faced in mapping psychiatric condition with a neural phenotype and how they present a vision and statistical framework in which an individual's "neural circuit score," derived from fMRI scanning data, can be used to tailor their psychiatric care.

Click **here** to read the eWear article.

Stanford | Stanford-Lancet Commission on the North American Opioid Crisis





Message from Commission Chairman Dr. Keith Humphreys

"The Stanford-Lancet Commission on the North American Opioid Crisis was formed in response to the soaring opioid-related morbidity and mortality that the United States and Canada have experienced over the past 25 years. The Commission is supported by Stanford University and brings together diverse Stanford scholars with other leading experts around the USA and Canada with the goal of understanding the opioid crisis and proposing solutions to it domestically while attempting to stop its spread internationally."

Click **here** to learn more about the Key Conclusions of the Commission.



Watch Now: Inspirational Performances from the Voices for Hope Music for Mental Health Benefit Concert

Voices for Hope, an organization of Menlo School students, led by Founder and Executive Director, Sean Nesamoney hosted a concert to raise teen mental health awareness on April 3rd. The event included inspirational music and dance, speakers and an art gallery showcasing the many talents of local students. Guest Speakers included several notable community and corporate leaders from YouTube CEO, Susan Wojcicki to United States Representative (D-CA 17th District), Rep. Ro Khanna, Stanford University School of Medicine Dean, Dr. Lloyd B. Minor and our very own Director of the Stanford Center for Precision Mental Health and Wellness, Dr. Leanne Williams.

Watch now to support our talented future leaders as they showcase their talents, raise money, and bring awareness to teen mental health.

Get Involved



Andreas Meyer-Lindenberg, MD, PhD, MSc

Director & CEO of the Central Institute of Mental Health in Mannheim, Germany

Environmental risk and resilience mechanisms for psychiatric disorders

Thursday, July 28, 2022
9:30 – 10:30 am

Click Here to Join Us for the PMHW Seminar Series

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Join us in changing the landscape of mental health across the globe.

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REIMAGINE MENTAL HEALTH

Stanford Center for Precision Mental Health and Wellness

Scholarly Publications

Cross-trial prediction of depression remission using problem-solving therapy: A machine learning approach.
Kannampallil T, Dai R, Lv N, Xiao L, Lu C, Ajilore OA, Snowden MB, Venditti EM, Williams LM, Kringle EA, Ma J. J Affect Disord. 2022 Jul 1;308:89-97. doi: 10.1016/j.jad.2022.04.015. Epub 2022 Apr 7. PMID: 35398399.

Valence processing alterations in SAPAP3 knockout mice and human OCD.
Kajs BL, van Roessel PJ, Davis GL, Williams LM, Rodriguez CI, Gunaydin LA. J Psychiatr Res. 2022 Jul;151:657-666. doi: 10.1016/j.jpsychires.2022.05.024. Epub 2022 May 23. PMID: 35661523.

Intrinsic Functional Connectivity in the Default Mode Network Differentiates the Combined and Inattentive Attention Deficit Hyperactivity Disorder Types.
Saad JF, Griffiths KR, Kohn MR, Braund TA, Clarke S, Williams LM, Korgaonkar MS. Front Hum Neurosci. 2022 Jun 9;16:859538. doi: 10.3389/fnhum.2022.859538. PMID: 35754775; PMCID: PMC9218495.

Active Cigarette Smoking Is Associated With Increased Age-Related Decline on Measures of Visuospatial Learning and Memory and Executive Function in Alcohol Use Disorder.
Padula CB, Durazzo TC. Alcohol Alcohol. 2022 May 12:agac022. doi: 10.1093/alcalc/agac022. PMID: 35552594

Great Expectations: recommendations for improving the methodological rigor of psychedelic clinical trials.
Aday JS, Heifets BD, Pratscher SD, Bradley E, Rosen R, Woolley JD.Psychopharmacology (Berl). 2022 Apr 1. doi: 10.1007/s00213-022-06123-7. Online ahead of print. PMID: 35359159

Oxytocin and the social facilitation of placebo effects.
*Itskovich E, *Bowling DL, Garner JP, Parker KJ.Mol Psychiatry. 2022 Mar 25. doi: 10.1038/s41380-022-01515-9. PMID: 35338314 * = Shared first authorship.

Enhancing cortical network-level participation coefficient as a potential mechanism for transfer in cognitive training in aMCI.
Chen Q, Turnbull A, Cole M, Zhang Z, Lin FV.Neuroimage. 2022 Mar 21:119124. doi: 10.1016/j.neuroimage.2022.119124. PMID: 35331866

Mapping Neural Circuit Biotypes to Symptoms and Behavioral Dimensions of Depression and Anxiety.
Goldstein-Piekarski AN, Ball TM, Samara Z, Staveland BR, Keller AS, Fleming SL, Grisanzio KA, Holt-Gosselin B, Stetz P, Ma J, Williams LM. Biol Psychiatry. 2022 Mar 15;91(6):561-571. doi: 10.1016/j.biopsych.2021.06.024. Epub 2021 Jul 11. PMID: 34482948.

A retrospective analysis of ketamine intravenous therapy for depression in real-world care settings.
McInnes LA, Qian JJ, Gargeya RS, DeBattista C, Heifets BD.J Affect Disord. 2022 Mar 15;301:486-495. doi: 10.1016/j.jad.2021.12.097. Epub 2022 Jan 11. PMID: 35027209

Endogenous oxytocin, cortisol, and testosterone in response to group singing.
Bowling DL, Gahr J, Graf Ancochea P, Hoeschele M, Canoine V, Fusani L, Fitch WT.Hormones and Behavior. 2022 Mar. doi: 10.1016/j.yhbeh.2021.105105. PMID: 34999566

Robust, Generalizable, and Interpretable Artificial Intelligence-Derived Brain Fingerprints of Autism and Social Communication Symptom Severity.
Supekar K, Ryali S, Yuan R, Kumar D, de Los Angeles C, Menon V.Biol Psychiatry. 2022 Feb 16:S0006-3223(22)00089-0. doi: 10.1016/j.biopsych.2022.02.005. PMID: 35382930

Dissecting the Shared Genetic Architecture of Suicide Attempt, Psychiatric Disorders, and Known Risk Factors.
Mullins N, … Williams LM, et al. Biol Psychiatry. 2022 Feb 1;91(3):313-327. doi: 10.1016/j.biopsych.2021.05.029. Epub 2021 Sep 9. PMID: 34861974; PMCID: PMC8851871.

Scholarly Publications

Prefrontal transcranial magnetic stimulation for depression in US military veterans - A naturalistic cohort study in the veterans health administration.
Madore MR, Kozel FA, Williams LM, Green LC, George MS, Holtzheimer PE, Yesavage JA, Philip NS. J Affect Disord. 2022 Jan 15;297:671-678. doi: 10.1016/j.jad.2021.10.025. Epub 2021 Oct 20. PMID: 34687780; PMCID: PMC8667345.

Coping Strategies, Neural Structure, and Depression and Anxiety During the COVID-19 Pandemic: A Longitudinal Study in a Naturalistic Sample Spanning Clinical Diagnoses and Subclinical Symptoms.
Holt-Gosselin B, Tozzi L, Ramirez CA, Gotlib IH, Williams LM. Biol Psychiatry Glob Open Sci. 2021 Dec;1(4):261-271. doi: 10.1016/j.bpsgos.2021.06.007. Epub 2021 Jun 30. PMID: 34604834; PMCID: PMC8479487.

Oscillatory Biomedical Signals: Frontiers in Mathematical Models and Statistical Analysis.
Wu HT, Lai TL, Haddad GG, Muotri A.Front. Appl. Math. Stat. 2021 Jul 15:S0006-3223(22)00089-0. doi: 10.3389/fams.2021.689991.

Stability bounds and almost sure convergence of improved particle swarm optimization methods.
Tong XT, Choi KP, Lai TL, Wong WK. Res Math Sci. 2021 May 5. doi: 10.1007/s40687-020-00241-4.

A STATISTICAL APPROACH TO ADAPTIVE PARAMETER TUNING IN NATURE-INSPIRED OPTIMIZATION AND OPTIMAL SEQUENTIAL DESIGN OF DOSE-FINDING TRIALS.
Choi KP, Lai TL, Tong XT, Wong WK. Stat Sinica. 2021 Dec. doi: 10.5705/ss.202020.0412.

Effectiveness of the Body Project eating disorder prevention program for different racial and ethnic groups and an evaluation of the potential benefits of ethnic matching.
Stice E, Onipede ZA, Shaw H, Rohde P, Gau JM. J Consult Clin Psychol. 2021 Dec;89(12):1007-1019. doi: 10.1037/ccp0000697. PMID: 35025541.

Evidence that a novel transdiagnostic eating disorder treatment reduces reward region response to the thin beauty ideal and high-calorie binge foods.
Stice E, Yokum S, Rohde P, Gau J, Shaw H. Psychol Med. 2021 Oct 12:1-11. doi: 10.1017/S0033291721004049. Epub ahead of print. PMID: 34635191.

Enhancing efficacy of a dissonance-based obesity and eating disorder prevention program: Experimental therapeutics.
Stice E, Rohde P, Gau JM, Butryn ML, Shaw H, Cloud K, D'Adamo L. J Consult Clin Psychol. 2021 Oct;89(10):793-804. doi: 10.1037/ccp0000682. PMID: 34807655.

Neurocognitive markers of passive suicidal ideation in late-life depression.
Jordan JT, Chick CF, Rolle CE, Hantke N, Gould CE, Lutz J, Kawai M, Cotto I, Karna R, Pirog S, Berk M, Sudheimer K, O'Hara R, Beaudreau SA. Int Psychogeriatr. 2020 Oct 29:1-11. doi: 10.1017/S1041610220003610. Epub ahead of print. PMID: 33118918.