

GREETINGS!

Welcome to the Stanford Pediatric Mood Disorders Program annual newsletter!

This newsletter is for current and prospective participants and their families, as well as for health professionals interested in learning about our work.

We extend a warm hello to you all, and would like to thank our current participants and families for their time and interest. Without you, our work would not be possible. We hope that this newsletter proves to be both interesting and informative.

OUR MISSION:

- 1) To improve the mental health and lives of all children and adolescents, especially those youths with or at risk for mood disorders;
- 2) To transform delivery of mental health care through fully integrated, globally recognized research, education, and innovation.

OUR VISION:

Our vision is to prevent mood problems that begin in childhood from taking hold and continuing into adulthood. We conduct research that clarifies the causes of mood disorders in childhood and try to improve upon currently available treatments.

We take a big picture approach to understanding how mood symptoms first develop and then shape brain development in kids. We are committed to translating our research into practice, and following youth in our program over the course of their development using well-validated assessments and outcome measures including cutting-edge neuroimaging, cognitive, genetic, and behavioral tools. We believe this approach will help us understand what makes some youth vulnerable to mood symptoms and others resilient. This knowledge will allow us to advance treatments that reach children before mood symptoms take hold.

WE ARE NOW RECRUITING!

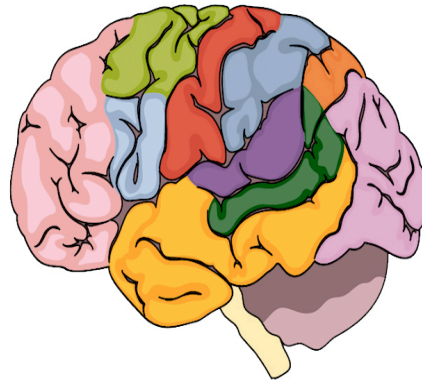
Risk and Resiliency Study

(R & R):

- The goal of this study is to discover factors that make youth either vulnerable or resilient to developing mood symptoms.
- Children (8-17 years) of families with and without histories of Major Depressive Disorder and Bipolar Disorder are invited to participate in clinical interviews, cognitive tasks, MRIs, and blood/saliva tests.
- Hooray! We have almost completed initial recruitment of nearly 150 participants! We continue to look for families with a history of Bipolar Disorder as well as families with no history of any mood disorder.
- We are now following up with families participating in the study over the next 2-5 years to track neural and behavioral markers of risk over time and see if we can base any clinical outcomes on these measures.

Janssen:

- This is a **NEW** study that invites adolescents and young adults (15-25 years) who have a parent with a diagnosis of Bipolar Disorder (BD) to provide clinical, genetic, and other biological information at 6-month intervals over 24 months.
- The goal of the study is to evaluate early risk markers that are targets for treatment with the overall goal of delaying or preventing the onset of bipolar disorder in at-risk youth.



Arousal Induced by Medication Study (AIMS):

- The goal of this multi-site trial is to evaluate the benefits and safety of antidepressant and psychotherapy treatment in teens who have a family history of Bipolar Disorder.
- We have so far recruited approximately 40 out of 150 youth with bipolar family histories across both sites.
- These youth have completed behavioral, clinical, physiological, and genetic assessments, as well as MRI scans of the brain.
- Many participants in this study have appreciated the chance to have access to timely assessment and **FREE** therapy and psychiatric services.

CONTACT US AND LEARN MORE AT OUR
WEBSITE:

<http://med.stanford.edu/pedmood.html>

401 Quarry Road
(650) 721-4049

NOW

RECRUITING!

Measuring Overeating and Mood Effects on Neurobehaviors Through Maturation: (MOMENTUM)

- MOMENTUM is recruiting youth (9-17 years old) to participate in a study aimed at understanding the relationship between mood and appetite.
- Participants are invited to have an MRI scan at two time points over the course of two years to examine neural reward networks that are activated while the child plays a game in the scanner.
- Participants are also clinically evaluated for insulin sensitivity and symptoms of depression at baseline, 6 months, and 24 months.
- We are halfway through recruitment for this study.
- Spread the word and refer a child struggling to maintain a healthy weight and experiencing sad moods!



ONGOING RESEARCH:

Childhood Sex Differences in the "Integration" of the Superficial White and Cortical Gray Matter

We are using a "big data" approach to understand why girls sometimes more frequently experience depression and anxiety while boys experience attention deficit and hyperactivity. Using data from 10,000 kids in the Philadelphia Neurodevelopmental Cohort, our team is conducting exciting analyses to discover how the brain's structure and function might explain apparent differences between boys and girls. We have created a novel high-resolution vertex-based mapping measure that may reflect the brain's structure and network connectivity. Using this measure, we recently found childhood brain sex differences in structure and connectivity in the frontal lobe and cingulate. These differences could underlie observable sex differences in behavior in developing adolescents.

Transcranial Magnetic Stimulation (TMS) Teen MDD Study

Interested in a non-medication alternative to treating your child's depression? Our program is collaborating with Stanford's Depression Research Clinic to conduct Stanford's **first ever** trial using Transcranial Magnetic Stimulation (TMS) in 12-21-year-old youth with depression. Contact Jessica Hawkins at (650) 723-8323 for more details!

WANT A PICTURE OF YOUR BRAIN? WANT SOME SUMMER SPENDING CASH? PARTICIPATE IN ONE OF OUR STUDIES!

The PEARL Research Team Welcomes All New Families!

We continue to look for paid research subjects. If any of these studies are of interest to you or someone you know, please contact us at:

650-721-4049

thepearlab@stanford.edu

"Like" our page on Facebook at:

PEARL at Stanford!



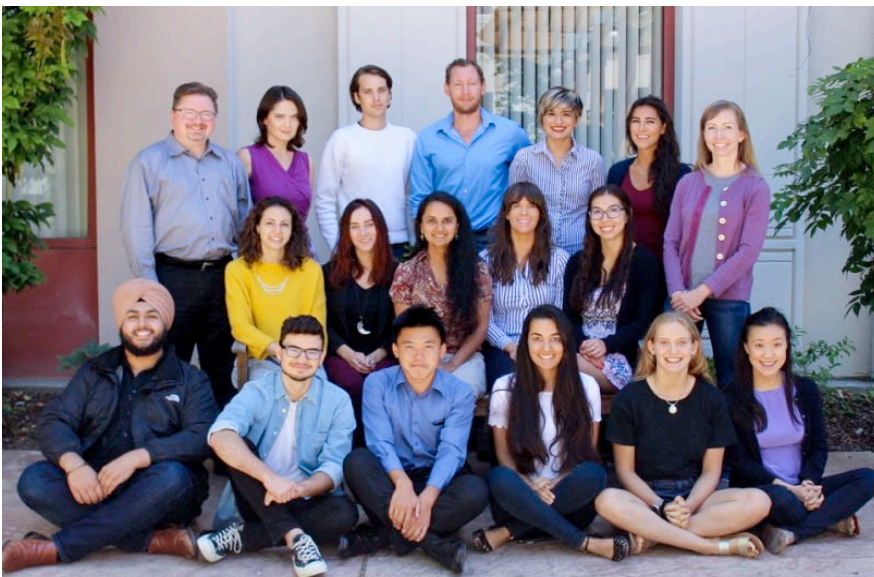
13th ANNUAL MOOD DISORDERS EDUCATION DAY



Join us on Saturday, August 19th 2017, 8:00AM-2:50PM
Frances C. Arrillaga Alumni Center
326 Galvez St. Stanford, CA 94305

The Stanford University Mood Disorders Center will host the 13th Annual Mood Disorders Education Day for patients and their families, caregivers, friends, and all community members interested in mood disorders. At this event, the community will hear from some of the top researchers in the field.

The Education Day program will include discussions of recent treatment advances, the neuroscience of mood disorders in adults, adolescents, and children, and the influences of genetics and environment on mood disorders. Education Day will also include opportunities for Q&A and panel discussions.



OUR TEAM

Manpreet K. Singh, MD, MS
Director, Pediatric Mood Disorders Program,
Pediatric Emotion and Resilience Lab (PEARL)

Owen Phillips
Postdoctoral Fellow

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Alma Andrade
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Alexis Staver
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Danielle Wall
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Clinical Research Coordinator

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Data Analyst

Sara Momi Leslie
Neuroimaging Research Coordinator

Jane Zaiko
Neuroimaging Research Coordinator

Avani Bhatnagar
Summer Research Intern, UIUC

Sabrina Chen
Summer Research Intern, Johns Hopkins

Bryan Chu
Summer Research Intern, UC Davis

Aaron Gorelik
Summer Research Intern, UC Davis

Anya Gupta
Summer Research Intern, Tulane University

Mia Leonard
Summer Research Intern, Stanford University

Akhila Masarapu
Summer Research Intern, UC Santa Cruz

Sajan Sawhney
Summer Research Intern, University of Buffalo

Sarah Siegel
Summer Research Intern, Stanford University

RECENTLY PUBLISHED RESEARCH:

Chang K, Garrett A, Kelley R, Howe M, Sanders EM, Acquaye T, Bararpour L, Li S, Singh M. (2017). Anomalous prefrontal-limbic activation and connectivity in youth at high-risk for bipolar disorder. *Journal of Affective Disorders*.

Observed brain activation in response to facial expressions in 50 youth identified as high risk for Bipolar Disorder (BD) to potentially predict the development of BD. Similar to youth with BD, youth at high risk for BD were shown to have greater activation in response to fearful faces.

Kim, E., Garrett, A., Boucher, S., Park, M., Howe, M., Sanders, E., Kelley, R. G., Reiss, A. L., Chang, K. D., Singh, M. K. (2017). Inhibited Temperament and Hippocampal Volume in Offspring of Parents with Bipolar Disorder. *Journal of Child and Adolescent Psychopharmacology*.

This study aimed to examine temperament in symptomatic and healthy offspring of parents with bipolar disorder (OBD) and to investigate whether inhibited temperament is associated with aberrant hippocampal volumes compared with healthy control youth. Inhibited temperament in OBD was inversely correlated with hippocampal volume.

LeMoult, J., Colich, N., Joormann, J., Singh, M. K., Eggleston, C., Gotlib, I. H. (2017). Interpretation Bias Training in Depressed Adolescents: Near- and Far-Transfer Effects. *Journal of abnormal child psychology*.

This study investigated the effect of 6 sessions of Positive versus Neutral Internet-Based Cognitive-Bias Modification (CBM-I) on measures of interpretation bias, attention bias, and clinical symptoms in adolescents with major depressive disorder (MDD). Adolescents who received positive CBM-I interpreted ambiguous scenarios more positively than did participants who received Neutral CBM-I, providing evidence of training effectiveness. However, this training effect did not improve attention bias or clinical symptoms of depression.

Colich, N. L., Foland-Ross, L. C., Eggleston, C., Singh, M. K., Gotlib, I. H. (2016). Neural Aspects of Inhibition Following Emotional Primes in Depressed Adolescents. *Journal of Clinical Child and Adolescent Psychology*.

This study examined the neural underpinnings of inhibitory control in depressed adolescents. We used functional magnetic resonance imaging in 18 adolescents with major depressive disorder (MDD) and 15 age- and gender-matched healthy controls (CTLs) as they performed an inhibitory control task during functional MRI. Adolescents with MDD showed anomalous recruitment of prefrontal control regions during inhibition trials, suggesting depression-associated disruption in neural inhibition.

Schneck CD, Chang KD, Singh MK, DelBello MP, Miklowitz, DJ. (2017). A Pharmacologic Algorithm for Youth Who Are at High Risk for Bipolar Disorder. *J Child Adolesc Psychopharmacol*.

In this article, we propose a pharmacological treatment algorithm for symptomatic youth with a family history of Bipolar Disorder (BD). An algorithmic approach to pharmacologic interventions may aid in the management of these youth at high risk for BD.

Gershon A, Singh, M. K. (2017). Sleep in Adolescents with Bipolar I Disorder: Stability and Relation to Symptom Change. *J Clin Child Adolesc Psychol*.

Sleep disturbances are common features of Bipolar Disorder (BD), yet little is known about how sleep impacts outcome. Using longitudinal data, this study assessed the stability of sleep disturbances and their ability to predict symptom progression in adolescents diagnosed with BD compared to controls. Adolescents with BD showed low stability on most sleep indices, whereas controls showed high stability on all sleep indices. After controlling for baseline depression symptoms, more baseline weekend awakenings and weekend wake time predicted significantly greater depression symptoms 12 months later in youth with BD but not in controls. Findings suggest that increased awakenings and wakefulness on weekends may be an important therapeutic target for reducing depression in adolescents with BD.