NEWS RELEASE

BD² Expands Foundational Effort to Understand Biology of Bipolar Disorder with $36 Million in New Grants

2024-09-26

Grantees include researchers at the University of Oxford, the University of California, Berkeley, Mass General Brigham, and the Broad Institute; BD² opens new round of funding

Washington D.C., Sept. 26, 2024 (GLOBE NEWSWIRE) -- BD²: Breakthrough Discoveries for thriving with Bipolar Disorder today announced **its second installment of Discovery Research grants**, totaling nearly $18 million – broadening a comprehensive effort to examine the key mechanisms of bipolar disorder and marking a global expansion of BD². Multidisciplinary teams of scientists and clinicians whose leads are from the University of Oxford, the University of California, Berkeley, Mass General Brigham, and the Broad Institute of MIT and Harvard, will each receive grants of up to $4.5 million over three years, joining current Discovery Research grantees to undertake targeted, innovative research that deepens our understanding of bipolar disorder.

BD² also announced **a third round of funding for the program**, inviting interested research teams to apply for grants of up to $4.5 million each as well – an additional $18 million in total.

"The Discovery Research program is a cornerstone of BD²'s comprehensive efforts to improve the exploration of causal mechanisms of bipolar disorder," said Cara Altimus, PhD, managing director for BD² and managing director at the Milken Institute Science Philanthropy Accelerator for Research and Collaboration. "This second round of funding includes projects with direct links to programs throughout BD², building the scientific basis for new diagnostic and treatment approaches."

The second round of Discovery Research grantees and their areas of focus are as follows:

- Paul Harrison of the University of Oxford will lead his team to investigate the role of voltage-gated calcium channels in bipolar disorder. Using a variety of innovative molecular approaches, the team will determine the function of these proteins in the causes and development of bipolar disorder and assess their potential as drug targets. Throughout, the work will unlock collaboration across BD^2, especially through the validation of key findings, and has the potential to translate new therapeutic avenues to the **BD^2 Integrated Network**.
- Lance Kriegsfeld of the University of California, Berkeley, will lead his team to explore the link between reward-related behavior and disruption in circadian-regulated processes like sleep – and how the interplay may exacerbate manic symptoms in people with bipolar disorder. The project will complement other ongoing work within bipolar-related sleep dysfunction and will help to inform future efforts within the BD^2 Integrated Network.
- Tracy Young-Pearse of Mass General Brigham will lead her team to examine the role of the immune system in bipolar disorder, identifying how circulating immune cells in the blood can enter the brain and impact its function. Using newly developed organ-chip technology, the team will model how these immune changes affect living human brain cells – ultimately identifying key immune biomarkers and uncovering possibilities for new therapies.
- Jen Pan of the Broad Institute of MIT and Harvard will lead her team to investigate the role of gene-driven dysfunction within key brain structures along the cerebellar thalamic cortical circuit in a model of bipolar disorder to determine if changes in these structures drive disease-associated symptoms. The study will leverage recent genetic findings from the Stanley Center for Psychiatric Research and collaborators, characterize the properties of cerebellar thalamocortical circuits in rodent models, and may generate potential therapeutic opportunities for bipolar patients.

Learn more about **the projects and the teams.**

The first round of Discovery Research grantees included teams whose leads are from Yale University, Stanford University, New York Genome Center, and the Wyss Institute at Harvard University. That work, comprising research into topics like the genetic risk factors of bipolar disorder and the role of genes in sleep disruption and mania, began last year and is well underway.

BD^2 also announced the opening of **a third round of funding opportunities** for the Discovery Research program, inviting scientists across disciplines to learn more about and apply for funding to undertake groundbreaking research into the genetic, molecular, cellular, circuit, and behavioral mechanisms of bipolar disorder.

“Opening the Cycle 3 RFA for the Discovery Research program is a testament to the promise already evident in this approach – and an indicator of our hope and ambition to be able to accelerate scientific progress,” said Eric J. Nestler, MD, PhD, Icahn School of Medicine at Mount Sinai, and Chair, BD^2 Research Programs. “This program

continues to champion innovative thinking and creative strategies from a variety of teams and institutions to better understand bipolar disorder and lift up new opportunities for treatment."

BD^2 has dedicated $85 million in funding to research that accelerates scientific understanding of bipolar disorder and advances clinical care through cross-disciplinary collaboration, data sharing, and real-time learning.

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About BD^2: Breakthrough Discoveries for thriving with Bipolar Disorder is the first organization focused on funding and advancing research and care for bipolar disorder on a global scale. Our collaborative, open-science approach is designed to transform and shorten the time it takes for scientific breakthroughs to make a meaningful difference in the lives of the tens of millions of people with bipolar disorder. For more information, please visit **bipolardiscoveries.org**.

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Source: BD^2: Breakthrough Discoveries for Thriving with Bipolar Disorder