



Milestone Report

2024





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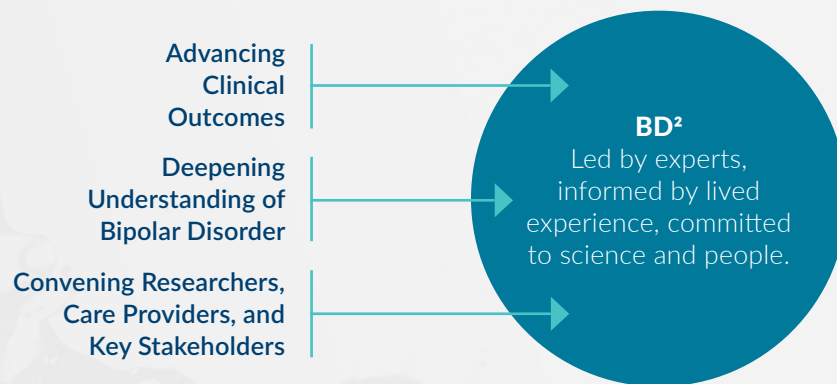
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A MESSAGE FROM EXECUTIVE LEADERSHIP

BD² launched just two years ago with a mission to rapidly and dramatically improve the science, care, and lives of people with bipolar disorder. We started by acknowledging that the field has lacked coordination and focused funding, there are upstream factors that create a system of care that feels fragmented, and there has been little progress in improving timely diagnosis or treatment options in the last several decades. Still today, one of the most used drug treatments was approved more than 50 years ago, 70% of individuals with bipolar disorder are misdiagnosed, and the average time from symptom onset to correct diagnosis and treatment is seven years.

BD² was created to change this.



We have developed a comprehensive approach that engages researchers, clinicians, and people with lived experience to have big impacts on not only the scientific understanding of bipolar disorder but science writ large. Through our leadership and commitments, we are revitalizing and expanding the field, driving fundamental research to lift the ceiling on current scientific understanding, and providing new hope to those with bipolar disorder and their loved ones.

Driven by our commitment to remove silos and accelerate the translation of scientific findings to improvements in diagnosis and care, we have committed \$78 million to support the work of more than 120 investigators across 16 teams since launching. We are supporting hypothesis-driven discovery research, examining differences in the brain, and relentlessly studying the genetic code of a widely diverse population. Our longitudinal study and learning health network connects thousands of participants and their care teams to experts at some of the world's leading medical institutions. With a deep

commitment to open science, we have constructed a centralized information and data system (the BD² Data Platform) that allows us to share insights not only across our research programs but with the global research community. The BD² Data Platform will provide an unprecedented bank of clinical and biological data for researchers to expand discovery over the long term. This open science approach is designed to propel the bipolar disorder field forward, accelerating the pace of learning and creating meaningful insights to improve care.

And, we are just getting started. We're pleased to share an update on how we are building the first organization aimed at funding and advancing research and care for bipolar disorder on a global scale. We are already seeing the promise of our collaborative approach as well as opportunities to go further. While we continue our work in bringing our vision to life, we hope you will join us as we move one step closer to the day when all those with bipolar disorder thrive.

Sincerely,



Cara Altimus, PhD
MANAGING DIRECTOR

Cara Altimus, PhD is managing director of BD² and a managing director on the Science Philanthropy Accelerator for Research and Collaboration (SPARC) team at the Milken Institute, leading the science and health innovation portfolio. Aligning the interests of multiple philanthropists, the research and clinical field, and people with lived experience, she facilitated the development of BD² from concept to reality.

About Bipolar Disorder

While bipolar disorder is common, its cause is unknown, and because there are vast differences in how people experience bipolar disorder, it often takes years to get the correct diagnosis. Until now, the research and clinical fields have been unable to advance to meet the treatment and care needs of so many people because of the lack of focused funding and collaboration.

Types of Bipolar Disorder

There are two general categories of bipolar disorder: bipolar disorder type I and bipolar disorder type II.

Some individuals living with bipolar disorder experience a wide range of symptoms that may not align with those typically associated with bipolar I or bipolar II.

Bipolar I

Individuals with bipolar I have experienced at least one manic episode that impairs functioning lasting at least one week and typically experience major depressive episodes lasting two weeks or longer.

Bipolar II

Individuals with bipolar II experience major depressive episodes and hypomania (a less intense manic episode), which does not impair functioning, that lasts four or more days.

The study of bipolar disorder has been complicated by the vast differences individuals living with the condition face. Bipolar disorder is now viewed as a collection of different conditions.

Mania can cause people to experience euphoria. Symptoms also include irritability, racing thoughts, grandiosity, and increased energy with a decreased need for sleep. These symptoms may contribute to impulsive and uncharacteristic behaviors.



Depressive episodes may include sadness, hopelessness, insomnia, lethargy, indifference, fatigue, and thoughts of suicide.



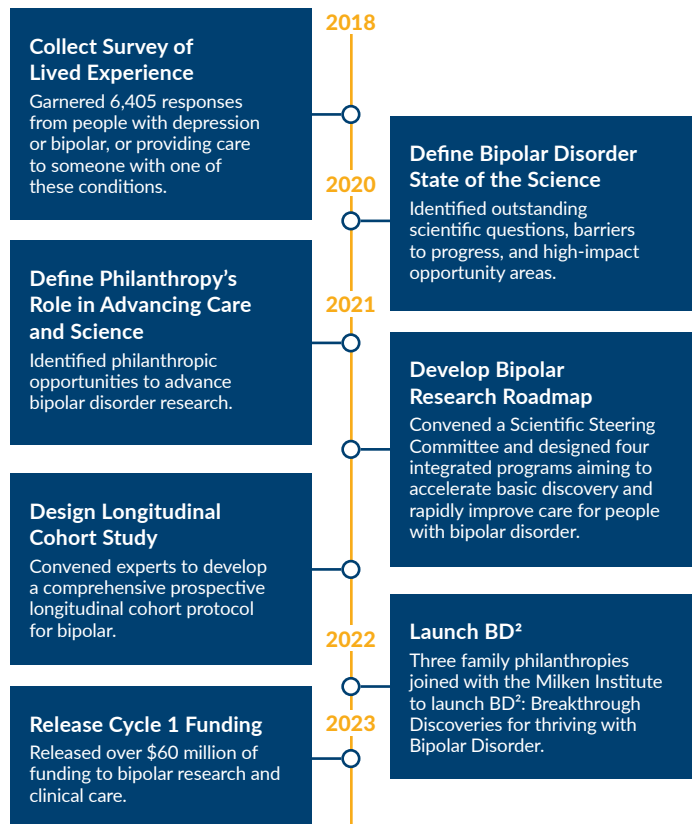
Mixed states occur when symptoms of mania and depression occur at the same time.





A Look Back and Look Ahead

The foundation of BD²'s approach took shape in 2019 with a comprehensive landscape analysis guided by a world-class scientific advisory committee to review research efforts, uncover priorities of bipolar disorder funders, and identify knowledge gaps and opportunities for collaboration.



ASSESSING THE FUNDING LANDSCAPE

As our program team and scientific advisory committee assessed funding, we found that bipolar disorder receives substantially less dedicated funding from the National Institute of Mental Health than mental illnesses such as schizophrenia and major depressive disorder and has far fewer large philanthropic sources. The lack of focused funding for bipolar disorder uncovered an opportunity—the need to facilitate partnerships across the scientific community that bring together researchers, clinicians, and people with lived experience to drive science and improve outcomes. In our first years, we have laid the foundation and built the scientific and programmatic infrastructure to enable new funding opportunities in the field.

IDENTIFYING RESEARCH NEEDS

At the same time, the committee performed an exploratory analysis that engaged 100+ scientists and leveraged the responses of 3,000+ individuals living with bipolar disorder to uncover priority scientific areas and key principles for further research. Our 25-member Scientific Advisory Committee, chaired by Dr. Eric J. Nestler, prioritized scientific questions and delineated opportunities. Members of the committee included representatives from NIH, FDA, OneMind, Psychiatric Genomics Consortium, and the Brain and Behavior Research Foundation.

Realized Scientific Needs for Bipolar Disorder Research

- Comprehensive longitudinal study
- Expansion of hypothesis-driven mechanistic discovery
- Expansion and diversification of genetic data
- Targeted study of brain tissue

Priorities for BD² Programs

- Open science principle for data and publications
- Team science approach
- Integrated science across all BD² initiatives
- Focus on outcomes that matter for people with bipolar disorder

FORGING RESEARCH PATHWAYS

Building on the landscape analysis and prioritized research needs, we developed a strategic bipolar disorder roadmap to collectively tackle field-wide challenges. At the center was our mission to accelerate scientific understanding of bipolar disorder and advance clinical care through cross-disciplinary collaboration, data sharing, and real-time learning. To realize the mission, the BD² leadership team mobilized core programming and collaboration opportunities, enhanced data-sharing protocols, and funded multidisciplinary teams at the forefront of bipolar disorder science.

Integrated Network

Bridge Insight with Precision Psychiatry

Activate a collaborative infrastructure between clinical settings and a longitudinal research study to translate real-time findings into improvements in care.



Brain Omics Platform

Understand the Differences in the Brain

Assess the transcriptomic, epigenetic, and proteomic characteristics of brain tissue derived from people with bipolar disorder.



Genetics Platform

Uncover the Genetic Contributions

Perform genetic sequencing on a large, diverse population of people with bipolar disorder to uncover the genetic drivers of bipolar disorder.



Discovery Research

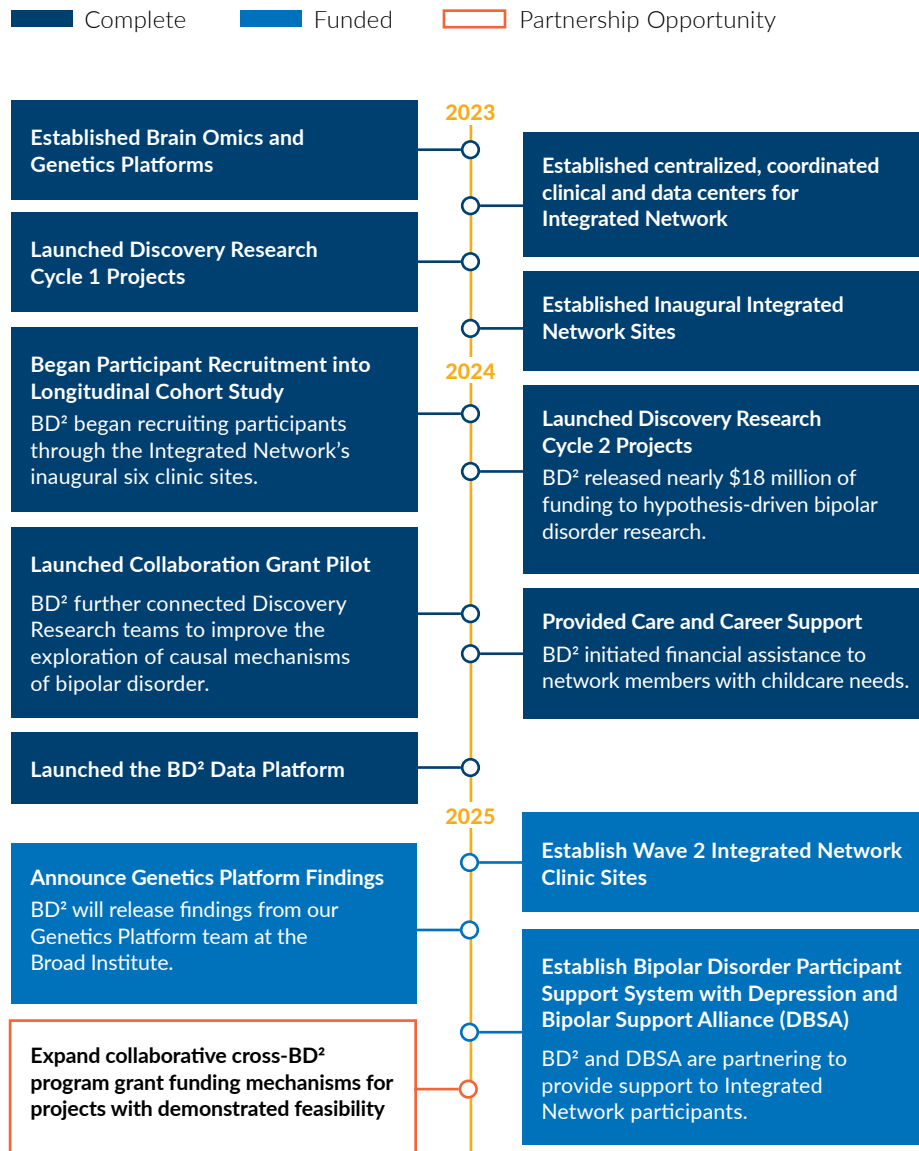
Discover the Biological Pathways

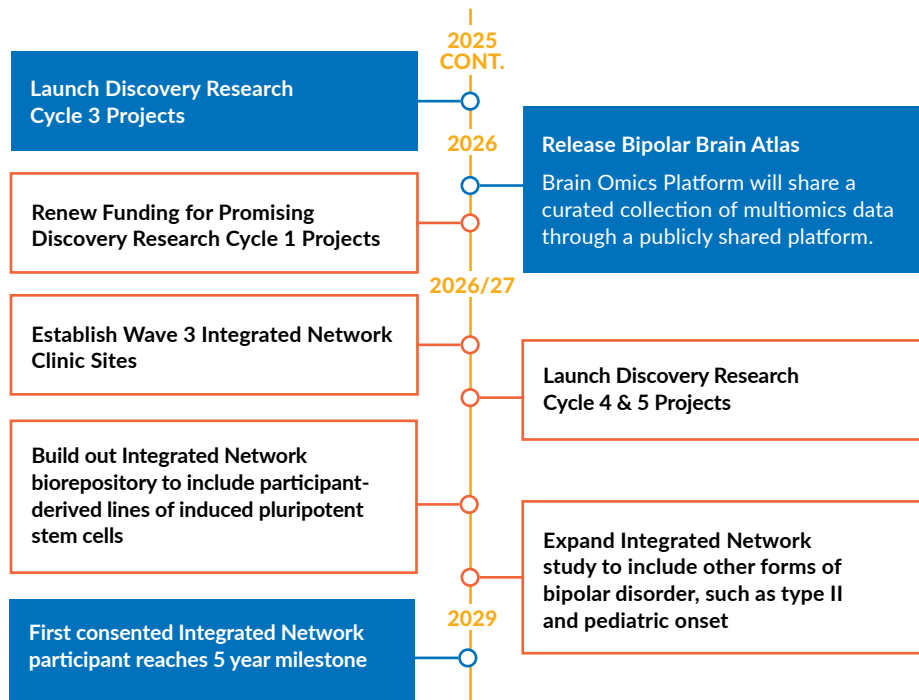
Improve the scientific understanding of the biological mechanisms of bipolar disorder.



MOBILIZING THE FUTURE OF BIPOLAR DISORDER SCIENCE

To date, BD² has dedicated \$78 million in funding across our programs. These grants, partnering with clinicians, researchers, and people with bipolar disorder, put us on the path to lift the ceiling on the scientific understanding of bipolar disorder and dramatically improve systems of care. Looking to the future, we see significant research opportunities that we can operationalize in our unique, collaborative model. While current funding is building the infrastructure to advance discovery, new funding will enable us to continue the path to understanding the disorder, improving diagnosis timeliness and accuracy, decreasing the time it takes to find effective treatment, and supporting and learning from the people with lived experience participating in the longitudinal study.





A Collaborative Imperative

BD² has created a world of new promise for both the bipolar disorder community and the broader medical research community. We bring together expertise and experience across scientific disciplines by insisting that our teams share resources and findings in real time, intentionally connecting science to accelerate progress, and nurturing collaborations. Our goal is that success in the bipolar disorder research and clinical community drives rapid improvements in patient lives and that our model is applied to other areas of psychiatry and medicine to improve clinical care.

Through our programs and grants, we have connected 120+ scientists and clinicians. As we continue to build the network, connections will strengthen, accelerating progress to positively impact the care and outcomes for people with bipolar disorder.

INSTITUTIONS

Broad Institute	Princeton University
California Institute of Technology	Rutgers University
Columbia University	Stanford University
Feinstein Institutes for Medical Research	Swinburne University
Icahn School of Medicine at Mount Sinai	University College, London
Indoc Research	University of California, Berkeley
Johns Hopkins University	University of California, Los Angeles
KTH Royal Institute of Technology	University of Michigan
Lieber Institute for Brain Development	University of Oxford
Mass General Brigham	University of Pittsburgh
McLean Hospital	University of Reading
Mayo Clinic	University of Texas at Austin
New York Genome Center	UTHealth Houston
New York University	Wyss Institute at Harvard
Northwestern University	Yale University

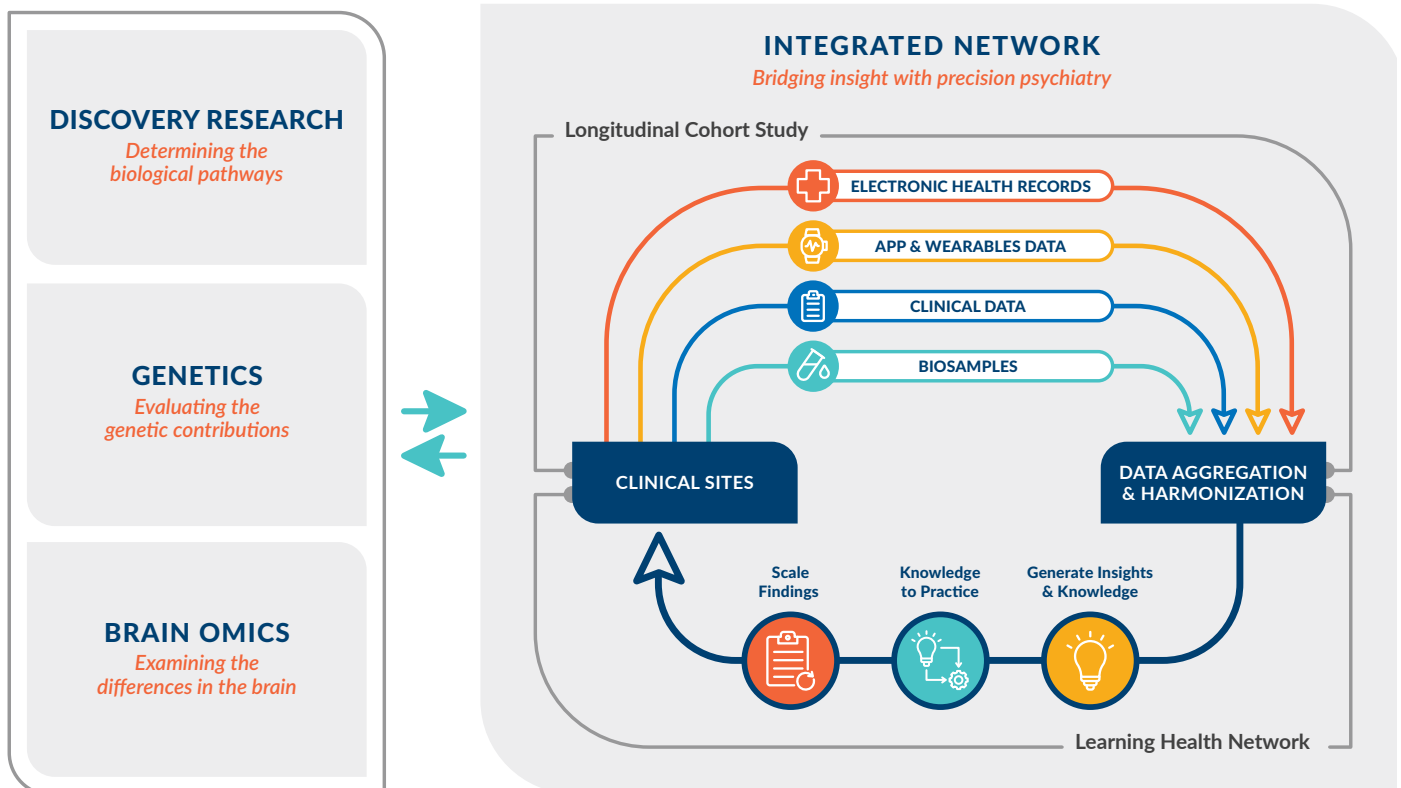


The strong commitment of BD² to open science will allow investigators both inside and outside the BD² Learning Health Network to continually develop new actionable insights as well as clinical innovations.

Philip Wang, MD, DrPH

BD² INTEGRATED NETWORK SCIENTIFIC STEERING COMMITTEE MEMBER, MASS GENERAL BRIGHAM

To expand the scientific understanding of bipolar disorder, all BD² programs share data and findings. Our open science priority means findings in the Integrated Network can provide insight for research into biological mechanisms that drive disease (Discovery Research), genetic contributions (Genetics Platform), and molecular changes that can be detected in the brain (Brain Omics Platform). Concurrently, findings from hypothesis-based research projects in the Discovery Research program, Genetics platform, and Brain Omics platform are shared with the Integrated Network to build on what's known about the biological mechanisms of bipolar disorder. The sharing of data between programs effectively builds the necessary foundations for bipolar disorder research and pushes the boundaries on what's known to find new treatments and personalized care models. Our dedication to open science not only allows our network to rapidly increase what's known about bipolar disorder but also provides scientists across the world and across disciplines access to data to inform their own studies.



SNAPSHOT OF BD² PARTNERSHIPS

Our goal is to improve the science underlying bipolar and care for individuals navigating the disorder. Beyond breaking down silos within our funded research and clinical teams, we know that partnership across organizations will be critical as well. To this end, we are paving new tracks to expand our work that will ultimately make the BD² teams stronger and broaden the reach of our research.

Depression and Bipolar Support Alliance

In November of this year, BD² announced a partnership with the Depression and Bipolar Support Alliance (DBSA). The mission of DBSA is to provide hope, help, support, and education to improve the lives of people living with depression and bipolar disorder. One of DBSA's core beliefs centers on peer support as a powerful, evidence-based wellness tool that can be beneficial to both patients (peers) and their supporters. In partnering with DBSA, BD² will make these resources available to Integrated Network participants by providing peer support, a sense of community, and wellness tools as part of their long-term involvement in the study.



Depression and Bipolar Support Alliance



Peer support is a critical evidence-based tool that helps people with mood disorders build community and understand they are not alone. Our hope is that the BD² Integrated Network study participants will find these support networks helpful in their daily life and that this support will boost long-term involvement and engagement in the study.

Michael Pollock
CEO OF DBSA

Indoc Research



Indoc Research serves as the centralized Data Coordinating Center for the BD² Integrated Network. The Indoc team aggregates, harmonizes, and integrates the study data collected from all Integrated Network clinic sites. Indoc also operates the BD² Data Platform, through which investigators will be able to access and analyze standardized, longitudinal Integrated Network data to better understand the heterogeneity of bipolar disorder patients, uncover population-level and patient-level data trends and interactions, and more accurately predict treatment responsiveness.



The integration of a longitudinal cohort study with a learning health network across multiple sites offers unprecedented opportunities to leverage data across various applications, maximizing the value the program will gain from the data being collected. The team at Indoc Research is thrilled to be supporting the BD² program in achieving their data-driven vision, we are excited for innovative tools and analyses that the Data Coordinating Center will support and insights they will provide into better understanding and treatment of bipolar disorder.

Mojib Javadi, PhD

BD² DATA COORDINATING CENTER LEAD, INDOC RESEARCH

Program Updates

In 2024, we supercharged collaboration, expanded our network, began recruiting longitudinal cohort study participants, and continued to shape, learn, and grow the next frontier of bipolar disorder research.

DISCOVERY RESEARCH

BD²'s Discovery Research grants create a pathway to building foundational knowledge in bipolar disorder science. They are the cornerstone of our hypothesis-driven, cross-disciplinary approach. This year, we strengthened collaboration between grantees, saw exciting progress across grants, and added a cohort of new scientists and researchers.



The Discovery Research program is the hypothesis-driven pathway to building the scientific knowledge that will help move the needle on what's known about bipolar disorder, bringing new hope to promising approaches to care and treatment.

Daniel Pham, PhD

BD² DISCOVERY RESEARCH PROGRAM DIRECTOR

Cycle 1 Discovery Research Cohort Update

Our first Discovery Research cohort has made impressive strides in the first year of funding. These projects are developing new resources, data, and models of evaluation to inform what is known about bipolar disorder.



Mechanisms of Mitochondrial Dysfunction

LEAD PI: Hilary Blumberg, MD

Yale University

Team Blumberg is pioneering the use of a broadband near-infrared spectroscopy (bNIRS), which is a non-invasive neuroimaging technique that allows for the assessment of brain mitochondrial function in human subjects. They are one of few laboratories in the world that have implemented this system, and they recently published a “Hot Topics”

article in Neuropsychopharmacology describing the method. Currently, they are using bNIRS to collect data from bipolar subjects and expect to have results ready for publication in the coming year. In addition to their human neuroimaging experiments, the team is assessing cellular metabolism and mitochondrial function within cell lines and organoids derived from bipolar subjects and healthy controls. An initial publication sharing exciting new findings in these cell lines is expected in early 2025.

Article: 'Hot Topics' article in Neuropsychopharmacology, "[The might of light for revealing neuropsychiatric mechanisms](#)" (September 2024) – a highlight of the cutting-edge non-invasive bNIRS neuroimaging technique.



Mechanisms of Sleep and Circadian Rhythms

LEAD PI: Julie Kauer, PhD
Stanford University

Team Kauer is establishing the use of CRISPR technology to interrogate the function of bipolar-linked genes using mouse models. They have now validated this method and are able to target genes at the level of cell types and circuits. Their ongoing experiments are coupling this technique with measures of neuronal activity, behavioral function, sleep structure, and pharmacological response, allowing for the assessment of causal relationships between genetic targets and bipolar-associated phenotypes. Importantly, this project will serve as a model for evaluating the biological function of genetic risk factors within the brain.

Publication: Dr. Yevgenia Kozorovitskiy's publication in Neuron, "[Dopamine pathways mediating affective state transitions after sleep loss](#)" (January 2024) – cites the process of creating the BD² team and adding new perspectives to the experimental plan as key drivers of the design and data collection in the study.



Genetics of Bipolar Using Stem Cells

LEAD PI: Thomas Lehner, PhD, MD
New York Genome Center

Team Lehner is making progress on their plan to measure biological readouts from a large cohort of samples from individuals with African ancestry who have a high polygenic risk score. They are also developing tools for optimizing the use of iPSCs and for investigating genetic variants that will be made widely available to the research community. These resources are expected to become available within the coming year.



Mechanisms of Current Treatments

LEAD PI: Jenny Tam, PhD
Wyss Institute at Harvard University

Team Tam is using a high throughput drug screening system called CircaVent that combines a machine learning algorithm with human brain organoid experiments, proteomics, and spatial transcriptomics to identify potential drug candidates. They have generated a set of organoids from individuals with bipolar and begun to collect biological data in the presence of both known therapeutics such as lithium and predicted drug candidates. An initial report of their findings is expected to be submitted for publication by the end of 2024.

2024 saw the introduction of BD² Collaboration Grants between Discovery Research, Genetics, and Brain Omics teams. These grants provide opportunities to capture synergies that exist across the funded programs to develop new insights into the etiology, progression, diagnosis, and care of bipolar disorder.

Cycle 2 Discovery Research Cohort Introduction

The second installment of Discovery Research grants bolsters our effort to improve our understanding of the biological mechanisms of bipolar disorder. It deepens our focus within promising areas of scientific exploration as we seek to build a complete biological picture of bipolar disorder.



Voltage-Gated Calcium Channels in Bipolar Disorder

LEAD PI: Paul Harrison, MA, BM, BCh, DM (Oxon), FRCPsych
University of Oxford

"There have long been tantalizing clues about [Voltage Gated Calcium Channels]' importance, and the time is right to make significant advances. Our work will investigate how they contribute to the disorder and, particularly, whether and how they can be novel treatment targets. We look forward to joining the BD² community and working together towards achieving this goal." – Paul Harrison, MA, BM, BCh, DM (Oxon), FRCPsych



Influence of Circadian Disruption on Dopamine and Reward Processing in Bipolar Disorder

LEAD PI: Lance Kriegsfeld, PhD
University of California, Berkeley

“Circadian and sleep disturbances, and a heightened response to reward, are key risk factors for the onset and course of bipolar disorder. We look forward to beginning our research examining the mechanistic link between dysregulated circadian timing and reward processing in bipolar disorder to help identify novel treatment targets and therapeutic approaches to care.” – Lance Kriegsfeld, PhD



Cerebellar Thalamic Cortical Circuits in Bipolar Disorder

LEAD PI: Jen Pan, PhD
Broad Institute

“There have been clues connecting these regions of the brain to bipolar disorder, but recent genetic findings open the door to more deeply understand the underlying mechanisms and potentially uncover new therapeutic opportunities. We are excited to join the BD² network and grateful for the support of BD² Discovery Research.” – Jen Pan, PhD



Novel Immune Targets in Bipolar Disorder

LEAD PI: Tracy Young-Pearse, PhD
Mass General Brigham

“This grant will provide us with critical funding to tackle challenging questions regarding the molecular basis neuroimmune interactions in bipolar disorder. Scientists in the Departments of Neurology and Psychiatry here at Mass General Brigham are teaming up for this effort to identify and test novel therapeutic targets for bipolar disorder.” – Tracy Young-Pearse, PhD



The Discovery Research program continues to complement and expand BD²'s comprehensive efforts to improve the exploration of causal mechanisms of bipolar disorder with an eye toward novel treatments. This second round of funding includes projects with direct links to programs throughout BD², broadening understanding and collaboration.

Cara Altimus, PhD
BD² MANAGING DIRECTOR

Brain Omics Platform Update

GOAL: Assess the transcriptomic, epigenetic, and proteomic characteristics of brain tissue derived from people with bipolar disorder.

UPDATE: The Brain Omics Platform is performing multiomic analysis on postmortem brain samples collected from 200 donors, half of which represent individuals with bipolar disorder. The team is in the process of performing whole genome sequencing, proteomics, and single-cell multiomics for anterior cingulate cortex samples.



LEAD PI: Panos Roussos, MD, MS, PhD
Icahn School of Medicine at Mount Sinai

Genetics Platform Update

GOAL: Perform genetic sequencing on a large, diverse population of people with bipolar disorder to contribute to the genetic database.

UPDATE: The Genetics Platform is working toward their goal of sequencing a cohort of ~100,000 bipolar disorder patients collected from multiple international sites. In preliminary experiments, they have identified potential risk variant genes and are continuing to sequence samples and refine their procedure for phenotypic alignment to harmonize data.

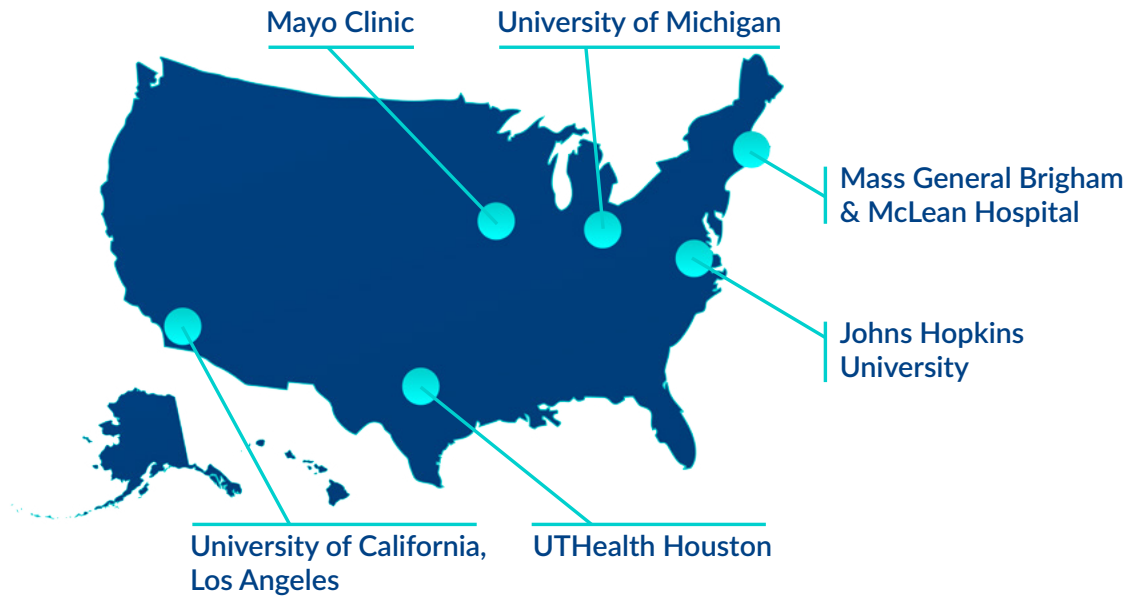
The team has shared details on their innovative blended genome exome sequencing technique through a method-based manuscript that is under review for publication and has been posted as a preprint. They have also [shared their list of new bipolar-risk associated genetic targets](#) at scientific conferences, including the International Society for Bipolar Disorders, the World Congress on Gene and Biotechnology, and the American Society of Human Genetics, with plans to submit for publication and post a preprint in December 2024. The team additionally maintains the Bipolar Exome Browser, which allows other researchers to view and leverage their dataset.



LEAD PI: Ben Neale, PhD
Broad Institute

INTEGRATED NETWORK

The Integrated Network is a groundbreaking approach designed to shorten the time it takes for research insights to be applied to improvements in care for people with bipolar disorder. By engaging a network of collaborating investigators and clinicians, we are building an unprecedented data ecosystem for bipolar disorder, implementing and informing data-driven improvements in care for people with bipolar disorder, and generating novel insights for interventional approaches.



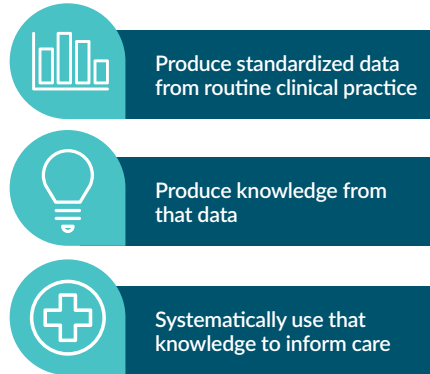
I hope the Integrated Network serves to empower people with bipolar disorder. For those who choose to participate in the research study, it's an opportunity to share their unique experience with bipolar disorder—their clinical course and biology—with a community designed to learn, derive insight, and rapidly translate findings back to the clinic. I think that's a point of hope for everyone living with bipolar disorder.

Emily Baxi, PhD

BD² INTEGRATED NETWORK PROGRAM DIRECTOR

The initiative weaves together a unique two-pronged approach—a traditional longitudinal cohort study, engaging people with bipolar disorder, with a learning health network aimed at improving outcomes. Currently, there are few learning health networks in development in psychiatry, though they have demonstrated their transformative potential in other areas of medicine.

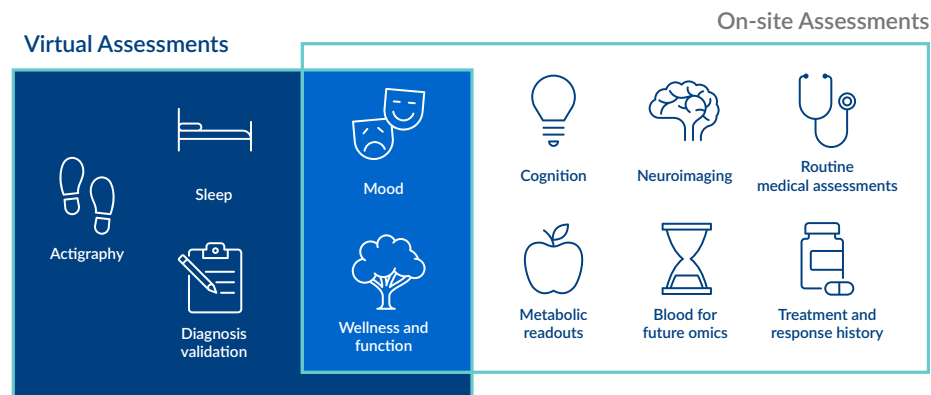
THREE KEY LEARNING HEALTH NETWORK COMPONENTS



BD² Integrated Network is the first of its kind: Clinical care is informed by evidence-based practice integrated with deep phenotyping data to create a system that continually improves outcomes.

In the Longitudinal Cohort Study, we will conduct deep phenotyping of a diverse group of people with bipolar I disorder to track the development of the disease and clarify its underlying biology. From these phenotypes, scientists and clinicians will aim to identify and understand important clinical, neural, and biological processes that drive improvements in care and treatment for bipolar disorder. As it stands, progress has been stunningly fast. All sites are underway with participant recruitment into the groundbreaking study. Over the next four years, sites will recruit a total of 4,000 participants.

Deep Phenotyping Data



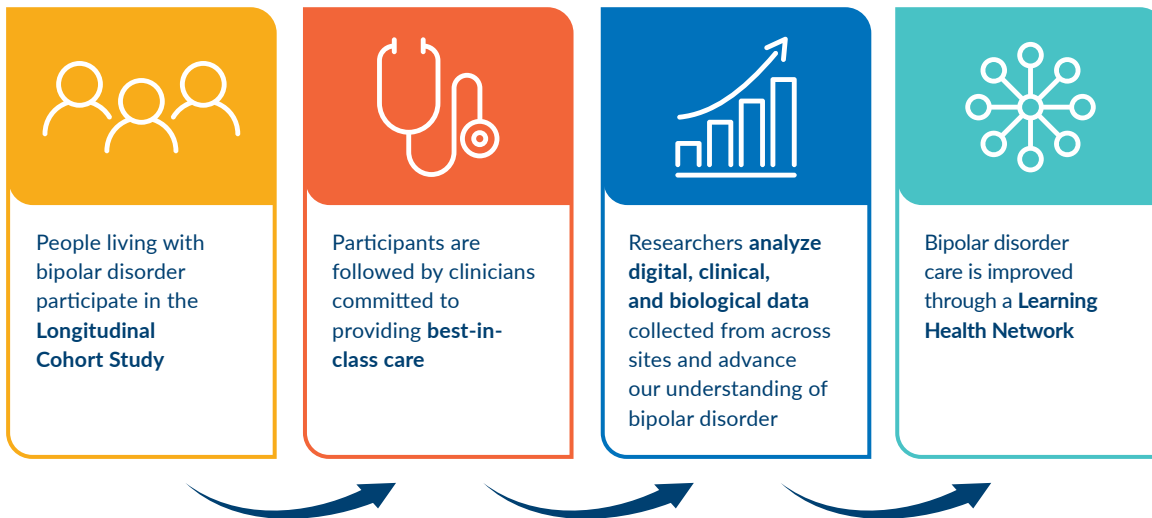


The scientists who are involved in this effort are flexible, and they understand the clinical aspects of the illness, which is very important not just for treating patients but also for research, that you understand what the manifestations are, the varieties, and so forth. It's an exciting adventure and an effort that involves a lot of people, a lot of time, a lot of money, and it's very exciting.

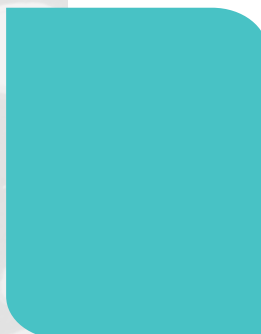
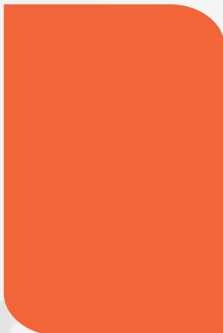
Kay Redfield Jamison, PhD

BD² SCIENTIFIC STEERING COMMITTEE MEMBER, DALIO PROFESSOR IN MOOD DISORDERS, PROFESSOR OF PSYCHIATRY AT THE JOHNS HOPKINS SCHOOL OF MEDICINE, AND CO-DIRECTOR OF THE JOHNS HOPKINS MOOD DISORDERS CENTER

At each site, clinicians implement on-the-ground, near-real-time improvements in clinical care based on the emerging insights from within the network and from the research data generated by the Longitudinal Cohort Study. To ensure a comprehensive, standardized data ecosystem, we have designed the study with centralized support services. The Clinical Coordinating Center, Data Coordinating Center, and biorepository implement a deliberate, specific data collection protocol that ensures data is consistent across clinic sites and modalities. By linking research and data standardization with the improvement of clinical care, we will drive scientific discovery in bipolar disorder in a way that has never been done before in mental health or neuroscience.



BD² Team



BD²'s vision requires expanding the field of scientists, clinicians, and people with lived experience engaged in improving research and clinical care. To that end, BD² works to publicize its work to engage greater numbers of partners. BD² has taken part in conferences, panels, and other appearances across the world to bring awareness of the Theory of Change and programs to a wider audience.

SITE VISITS

- Mass General Brigham-McLean Hospital [1]
- Johns Hopkins University [2]
- Mayo Clinic [3]
- University of California, Los Angeles [4]
- University of Michigan [5]
- UTHealth Houston*
- Wyss Institute of Harvard University [6]

*Site visit occurring in 2025



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CONFERENCES

- The World Economic Forum, Davos (January 2024) [7]
- BD² All Investigators Meeting (March 2024) [8]
- American Psychiatric Association Conference (May 2024) [9]
- Milken Institute Global Conference (May 2024)
- National Network of Depression Centers Conference (September 2024) [10]
- International Society for Bipolar Disorders Annual Conference (September 2024) [11]
- European College of Neuropsychopharmacology Conference (September 2024)
- BD² Integrated Network Sites Meeting (October 2024) [12]
- Milken Institute Future of Health Conference (November 2024)
- American College of Neuropsychopharmacology Conference (December 2024)



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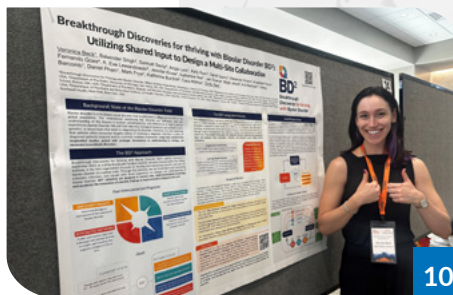
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Forging New Pathways

Our vision requires expanding the field of solvers—scientists, clinicians, and people with lived experience—engaged in improving research and clinical care for bipolar disorder. While the scope, scale, and focus of BD²'s investment are unprecedented for bipolar disorder research, the field requires more dedicated funding to drive and sustain science and improve outcomes. We welcome philanthropic partners in our efforts to advance scientific understanding that will lead to new interventions for preventing and treating bipolar disorder.

While we intuitively know that bipolar disorder is challenging, no single person or idea is positioned to “solve” it. That's why BD² was built—to come together intentionally, in a collaborative model that transcends preconceived boundaries.



BD² is the driving force bringing together foundational and hypothesis-driven research in bipolar disorder. The discoveries from this research will over time enable long-sought advances in clinical care.

Eric J. Nestler, MD, PhD

BD² DISCOVERY RESEARCH PROGRAMS, ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI



It's the goal that this will have an impact that is global, the way the Framingham Heart Study still gives us insights 70 years after it was launched. The goal is for that kind of impact. It's big.

Katherine Burdick, PhD

BD² INTEGRATED NETWORK, VICE CHAIR FOR RESEARCH, DEPARTMENT OF PSYCHIATRY MASS GENERAL BRIGHAM, PROFESSOR OF PSYCHOLOGY IN PSYCHIATRY AT HARVARD MEDICAL SCHOOL



Our goal is to achieve a paradigm shift in our overall understanding of the condition, accelerating the diagnosis and treatment of bipolar disorder worldwide.

Mark Frye, MD

BD² INTEGRATED NETWORK, MAYO CLINIC



Our goal with BD² is to achieve prominence and to grow and build over time to be one of the leading nonprofits in this field, with an initial focus on the research side.

Kent Dauten

BD² CO-FUNDER



Through our shared principle of open science, ASAP and BD² are helping create collaborative, effective strategies that can be applied across scientific disciplines to accelerate discoveries that lead to breakthroughs.

Ekemini A.U. Riley, PhD

FOUNDER AND PRESIDENT OF THE COALITION FOR ALIGNING SCIENCE AND
MANAGING DIRECTOR OF ALIGNING SCIENCE ACROSS PARKINSON'S

BD² Scientific Steering Committee

We are honored to unite this esteemed group of scientific and clinical experts to ensure hypothesis-driven scientific research is shared and advancements are integrated into clinical care for bipolar disorder.

SCIENTIFIC STEERING COMMITTEE CHAIRS



Katherine Burdick, PhD

Integrated Network

Mass General Brigham, Harvard Medical School



Mark Frye, MD

Integrated Network

Mayo Clinic



Eric Nestler, MD, PhD

Discovery Research Programs

Icahn Mount Sinai

BD² INTEGRATED NETWORK



Deanna Barch, PhD

Washington University in St. Louis



Benicio Frey, MD, PhD

McMaster University



Kay Redfield Jamison, PhD

Johns Hopkins University



Leslie Kirsch, EdD

The Michael J. Fox Foundation for Parkinson's Research



Melvin McInnis, MD

University of Michigan



Roger McIntyre, MD

University of Toronto



Dost Öngür, MD, PhD

McLean Hospital



Philip Wang, MD, DrPH

Mass General Brigham, Harvard Medical School



Peter Zandi, PhD

Johns Hopkins University

DISCOVERY RESEARCH



Ana C. Andreazza, PhD

University of Toronto



Conor Liston, MD, PhD

Weill Cornell Medicine



Rob Malenka, MD, PhD

Stanford University



Colleen McClung, PhD

University of Pittsburgh

LEARN MORE ABOUT THE INTEGRATED NETWORK:

[Connecting Bipolar Disorder Research with Clinical Care in Unprecedented Ways](#)

With Emily Baxi, PhD, Katherine Burdick, PhD, and Mark Frye, MD

[How the Learning Health Network is Improving Clinical Care and Outcomes](#)

With Philip Wang, MD, DrPH, and Peter Zandi, PhD

[Coordinating Clinical & Biological Data from 4,000 Participants to Rapidly Improve Lives](#)

With Anil Malhotra, MD, Mojib Javadi, PhD, and Mine Çiçek, PhD

PAPERS & ARTICLES

Team Kauer; Dr. Yevgenia Kozorovitskiy's publication in Neuron, ["Dopamine pathways mediating affective state transitions after sleep loss"](#) (January 2024)

Genetics Platform; preprint in BioRxiv, ["A blended genome and exome sequencing method captures genetic variation in an unbiased, high-quality, and cost-effective manner"](#) (September 2024)

Team Blumberg; 'Hot Topics' article in Neuropsychopharmacology, ["The might of light for revealing neuropsychiatric mechanisms"](#) (September 2024)



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