Overview of CIAPM's Depression Research Program

Precision medicine holds promise to more fully apply data to improve health and advance equity. \$9 million dollars of state funds have been awarded to support demonstration projects for depression research with the goal of improving access, care, and outcomes through collaboration between academic research, community and nonprofit organizations, and the private sector. All projects were selected through a competitive RFP. Each project will receive \$3 million over three years, beginning Fall 2024.

Overview of Selection Process

Demonstration Projects were selected through a three-step competitive peer-review process by an independent, out-of-state Expert Selection Committee. Following the submission of Letters of Intent, expert reviewers employed a process for selection of Concept Proposals and Full Proposals (Finalist Stage) based on National Institutes of Health standards. Proposals were reviewed across several factors embedded in CIAPM's enabling statute, including the 1. potential for tangible benefit to patients within five years; 2. expertise of the team; 3. clinical and commercial potential; 4. potential to reduce health disparities; and 5. potential to scale and leverage multiple electronic health records systems, among other criteria listed in the RFP. Each proposal was also assigned an overall impact score and ranked according to this score. As per statutory requirements and the Request for Proposals, at least one project must be located in both northern and southern regions of California. Additionally, lead institutions may only receive one award. Following this process and in compliance with the above criteria, the selection committee recommended the three awards below.

Awardees

Santa Clara University: Personalized and scalable interventions for reducing depression among LGBTQ+ adolescents: Combining novel digital therapeutics and peer counseling (Lead Principal Investigator: Greg Hajcak, PhD).

University of California, San Diego: Making the Unseen Seen Trial of Depression (MUST-D): Scrutinizing social determinants of depression to advance precision and equitable care (Lead Principal Investigator: Suzi Hong, PhD).

University of California, San Francisco: Precision Mental Health to Predict Risk, Prevent, and Treat Depression in Publicly Funded Youth (Lead Principal Investigator: Tony Yang, MD, PhD).

Non-Selected Projects: Finalists

- 1. A Novel Social Emotional Learning (SEL) Intervention for the Prevention of Adolescent Depression: Biomarkers Associated with Intervention Effects, UC Irvine
- 2. A precision medicine approach to improve outcomes for patients with or at risk for depression and reduce health inequities, UC San Francisco
- 3. A precision medicine approach to predict response to treatment for depression, UC Los Angeles
- 4. A response-adaptive community health worker-led intervention to address systemic barriers in access, care, and prevention of depression in Latinx communities, Stanford University
- 5. A Sleep Improvement App for Night Owl Teens: A Precision Medicine Approach to Improving Depression in Teens in Sonoma County Schools, UC San Francisco

- 6. Identification of a personalized brain biomarker for treatment selection to rapidly relieve severe depression, Stanford University
- 7. Improving Depression Assessment and Evaluating Treatment Options among AAPI and Middle Eastern Populations in Orange County through Precision Medicine: The IDEA Project, UC Irvine
- 8. Leveraging Precision Medicine and Participatory Research Approaches to Develop Treatments for Depression in Autistic Youth, Children's Hospital Los Angeles
- Modular intervention approach to perinatal depression in underserved populations, UC San Diego
- 10. Personalized Mental Wellbeing in Youth leveraging Wearables, Al and Human Connection, UC San Diego
- 11. Personalizing Resilience and Equity for Depression Care among Latino Immigrants and Farmworkers (PRECISE—Care), UC Davis
- 12. Predictive models of stress-induced depressive relapse, resilience and recovery during the COVID-19 pandemic, UC San Diego
- 13. The California Resilient Transitions Program: Defeating Depression on California Campuses Using a Bioinformatics-Driven, Symptom-Specific Precision Medicine Approach, UC Los Angeles

Non-Selected Projects: Additional Applications

- 1. A community-based person-centered intervention to address depression among diverse informal caregivers of older adults and persons with complex health conditions, UC Irvine
- 2. A Precision Medicine Approach to Examining the Role of Social Connectedness in Decreasing Depression Among Transitional Age Foster Youth, University of Southern California
- 3. Achieving Equitable and Culturally Relevant Outcomes Between the LGBTQ Community and Behavioral Health Systems, UC Merced
- 4. Addressing Depression in Parkinson's Disease, UC Davis
- 5. ALERT-Depression: Algorithmic Learning for Early and Equitable Recognition and Treatment of Depression, UC San Francisco
- 6. An Integrative Precision Strategy to Preventing Depression in Latinx Adolescents, San Jose State University
- 7. Biosensor monitoring of antidepressants and biomarkers, UC Santa Barbara
- 8. Boosting the endogenous healing capacity of hard-to-reach Latino populations with depression by optimizing the psychosocial context of care, CSU Stanislaus
- 9. CAMP-CARE+: Comprehensive Approach to Mental Health Advancement and Precision Medicine for Depression Care Continuum, CSU San Bernardino
- 10. Co-occurring Treatment-Resistant Depression and Pain Syndromes: Characterizing Esketamine-Responsive Subgroups, Expediting Treatment, and Assessing Impact on Opioid Use, UC Riverside
- 11. Decoding Despair: Leveraging Machine Learning's Promise for Early Detection, CSU Northridge
- 12. Early Screening and Treatment of Depression Among People of Color Caregivers of Individuals with Chronic Diseases Using Precision Medicine, University of San Diego
- 13. Enhancing Mental Health Support Services for the 2SLGBTQ+ Californians: A Focus on Culturally Affirming Depression Care, UC Merced
- 14. Epigenomic Signatures of Depression Risk in Latinx Youth Following Trauma: Leveraging Long-Read Genome Sequencing of Newborn Dried Blood Spots, UC San Diego
- 15. Forging a New Way Forward, UC Davis

- 16. Foundation AI models and neurobiological markers for depression, Stanford University
- 17. Healing-Centered Futures: A Comprehensive Depression Reduction Concept for Children & Families with Historical Trauma, UC San Francisco
- 18. Increasing the Capacity, Accessibility and Cultural Acceptance of Transcranial Magnetic Stimulation for Treatment-Resistant Depression, UC Davis
- 19. Leveraging Medical-Grade AI to Foster Culturally Responsive Depression Treatment for Black Californians, UC Santa Barbara
- 20. Mechanisms Underlying Vascular Dysfunction in Depression, Huntington Medical Research Institutes
- 21. MI ANIMO: Multifaceted Innovations: Accessible Novel & Individualized Mental Health Treatment Optimization, UC Berkeley
- 22. Personalized Wellness Interventions for Patients with Depression and Heart Disease, Cedars-Sinai
- 23. Pioneering Predictive Modeling: A Youth Vulnerability Index to Guide Clinical Assessment and Intervention through Community-Centered, Whole-Child Care, Children's Hospital Orange County
- 24. Postpartum depression in women of color: biomarker discovery using plasma proteomics, Cedars-Sinai
- 25. Precision Care for All Communities: Improving Access and Quality Care for Child and Adolescent Depression, UC Riverside
- 26. Precision modelling to deliver electrical stimulation to the brain, UC Davis
- 27. PREP: Precision medicine in depression: Scalable tools for biotype-based prediction of personalized treatment selection and prevention of treatment resistance, Stanford University
- 28. Preventing and Overcoming Postnatal Depression: The Power of Community, CSU East Bay
- 29. Promoting Intergenerational Health Equity Through Community-Partnered Postpartum Depression Prevention, Chapman University
- 30. Reducing stigma and increasing help-seeking among Black and Asian American emerging adults with depression and suicide risk, University of Southern California
- 31. Strikeout Toxic Stress! aims to increase parents' literacy in adverse childhood experiences (ACEs) and positive parenting among monolingual Spanish-speaking Latinos, CSU Fresno
- 32. Strong Minds: Ask, Risk, Tell, Share (SMARTS), CSU East Bay
- 33. Sweet Potato II Project: An Innovative Approach to Enhancing African American Student Mental Health and Academic Success, CSU Fresno
- 34. Treatment Response Enhancement and Stigma Reduction in Major Depressive Disorder Using Functional Neuroimaging and Meta-Analytic Tools, CSU Fresno
- 35. Using Community Academic Partnerships to Prevent Depression Among Filipino American Youth, Children's Hospital Los Angeles
- 36. Whole Clinician Care (WCC) Program: Team-Based, Culturally Responsive, Community-Centered Training, Professional Development, and Wellness for Clinicians, UC Irvine
- 37. Youth participatory action research (YPAR) to minimize stigma and reduce barriers to care, CSU Monterey Bay