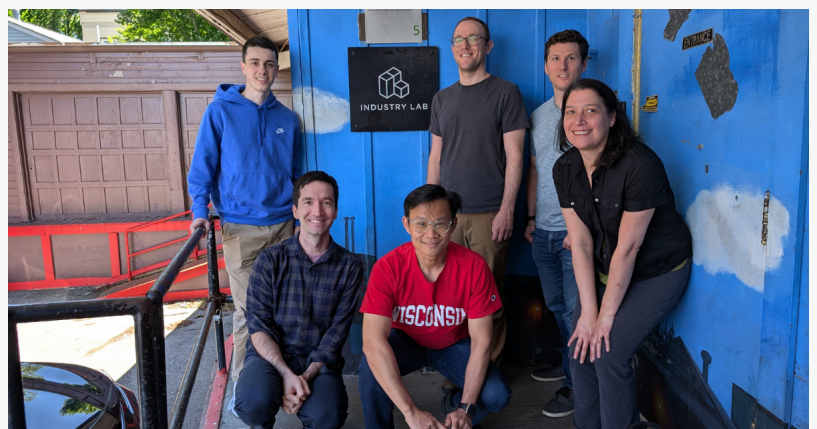


Constantiam Biosciences Awarded Business Grant to Advance Genetic Testing for Alzheimer's and Dementia

HOUSTON, TX, UNITED STATES, October 29, 2024 /EINPresswire.com/ -- [Constantiam Biosciences](#), a biotechnology startup specializing in high-throughput experimentation and advanced computations has been awarded a \$485,192 Phase I SBIR grant from the National Institute on Aging (NIA). The funding will drive the development of MAVEvidence™, a premier platform designed to improve the clinical interpretation of genetic variants associated with Alzheimer's disease and Alzheimer's disease related dementias (ADRD).



Team at Industry Lab



Alzheimer's and ADRD are progressive brain disorders, with Alzheimer's disease ranking as the sixth leading cause of death in the United States. Neurological decline begins decades before symptoms appear, making early risk assessment critical. While genetic testing can inform an individual's risk, the majority of genetic variants contributing to Alzheimer's and ADRD are classified as Variants of Uncertain Significance (VUS), offering little actionable information.

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With MAVEvidence, we're advancing genetic variant interpretation, empowering clinicians to accurately assess Alzheimer's and dementia risks for early personalized detection and precision care.”

Nicholas Schafer, CEO

[MAVEvidence](#) seeks to change that by applying Multiplexed Assays of Variant Effect (MAVEs) to Alzheimer's and ADRD genes. MAVEs, which assess the functional impact of thousands of protein variants in a single experiment, have already proven valuable in cardiovascular and cancer genetic risk interpretation. Constantiam Biosciences is now expanding this technology to dementia-related genes, starting with APP, a major Alzheimer's risk gene, and SNCA, linked to Lewy body dementia (LBD).

Nicholas Schafer, PhD, CEO of Constantiam Biosciences, expressed the company's excitement: "With the development of MAVEvidence, we are pioneering the next generation of genetic variant interpretation. By leveraging high-throughput functional evidence, we empower clinicians to accurately assess Alzheimer's and dementia risk variants, offering a personalized, data-driven approach to early detection and precision management."

Norman Ong, PhD, CCO of Constantiam Biosciences, echoes a similar sentiment: "Some of the variant scientists have asked that we also include functional evidence for neurodegenerative disorders like Alzheimer's. This project is one-step toward that direction and this grant award provides us with invaluable resources to fulfill another unmet need in bringing more clarity to VUS beyond cancer."

Key Objectives of the Grant:

- Curate and validate MAVE data for major genes implicated in Alzheimer's disease and related dementias.
- Apply MAVE data to ACMG variant interpretation frameworks for clinical relevance.
- Generate quantitative measures to offer personalized risk assessments for patients.

This grant builds on Constantiam's existing Varify™ platform for cardiovascular and cancer variant interpretation. The integration of MAVEvidence with Varify will extend its capabilities to dementia-related genes, offering clinical variant scientists at genetic testing companies and diagnostic laboratories a tool to resolve VUS more efficiently.

The project aims to reduce the time spent evaluating functional data by 90%, transforming VUS into actionable insights. MAVEvidence has been used by over 50 for-profit and nonprofit organizations and this grant funding will enable comprehensive inclusion of MAVEs data extending to Alzheimer's disease and ADRD-related genes and the development of an innovative approach to quantitative personalized risk assessments.

About Constantiam Biosciences

Founded by three University of Wisconsin-Madison alumni, Constantiam Biosciences is dedicated to improving outcomes for patients affected by genetic diseases through high-throughput experimentation and advanced computational tools. The company focuses on interpreting complex genetic data for conditions such as cancer, cardiovascular disease, and neurodegeneration.

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