October 2024

ARIZONA ALZHEIMER'S CONSORTIUM (AAC)
BIOMARKER MEASUREMENT SUPPORT
REQUEST FOR PROPOSALS

APPLICATION RECEIPT DATE:
Recommended: Pre-proposal Deadline: **November 1, 2024 (Friday)**
Full Application Deadline: **December 11, 2024 (Wednesday)**
Anticipated Analysis Start Date: **February 3, 2025 (Wednesday)**

PURPOSE: The Arizona Alzheimer's Consortium (AAC) invites applications for biofluid biomarker analysis to advance the understanding of neurodegenerative disorders. These biomarker analyses will be conducted at the Biomarker Laboratory at Banner Sun Health Research Institute. The objective is to foster cutting-edge research that provides meaningful insights into Alzheimer's disease and related dementias through the use of advanced biomarker platforms.

APPLICANT ELIGIBILITY: Investigators at all career stages are encouraged to apply. The project must include biofluid samples derived from human plasma, serum, or cerebrospinal fluid (CSF). Unfortunately, other biofluids or tissue homogenates will not be considered in this call as this requires method development time.

APPLICATION GUIDELINES: Applications should include a concise, two-page proposal comprising the following elements:

- Descriptive Title: A clear, impactful title that reflects the primary focus of the study.
- Abstract and Specific Aims: A brief abstract outlining the study's objectives, with clearly defined specific aims.
- Study Team: A list of key study team members with their relevant expertise.
- Study Plan: The main body of the application should highlight the novelty of the proposed research and its potential impact on the field. It should include a provisional plan for the proposed work, along with summary-level demographic details of the samples, and how they are currently stored or timeline for collection. If similar data already exists in the public domain, applicants must clearly articulate how the proposed research would advance current knowledge.
- Special attention should be given to the feasibility of acquiring and providing biofluid samples to Banner Sun Health before the analysis start date.
- How this work supports a scientific publication.

MECHANISMS OF SUPPORT: This program does not provide direct financial support to the applicant. Instead, it offers support by covering the costs associated with generating biomarker measurements. The program will sponsor up to three biomarker projects, each receiving up to $30,000 in reagent costs. This mechanism will only fund the direct biomarker assay costs and will not cover other research expenses. Biofluid samples will be analyzed anonymously, and password protected data (CSV format) with quality control report returned to sample owner within 4 weeks of receiving the samples.

RESEARCH OBJECTIVES: The goal of this initiative is to develop novel data with an immediate impact that enhances the use of biomarkers in primary care, focuses on underrepresented populations, or provides insights into non-Alzheimer's pathologies using novel biomarker techniques. Biomarker platforms available for this grant include:

- Fujirebio Lumipulse or Roche Elecsys pTau217[1] (estimated cost: $90 per sample)
- NULISA Argo HT CNS panel[2] (estimated cost: $160 per sample**)**

Examples of eligible projects include:

- Studies exploring the performance of pTau217 in primary care settings, particularly those including underrepresented groups or patients with co-morbidities (e.g., chronic kidney

disease).
- Research investigating blood or CSF biomarker profiles in non-Alzheimer's neurodegenerative diseases using the NULISA Argo platform. Disease areas of interest include ALS, Lewy Body Disease and primary tauopathies.
- Studies focused on exploring blood biomarkers in response to treatment.

APPLICATION PROCEDURES: The recommended pre-proposal and application may be emailed to Alpana Singh, PhD (Alpana.Singh@bannerhealth.com) by the end of the day of November 1 and December 11, respectively.

APPLICATION REVIEW CRITERIA: Applications will be reviewed internally by the Banner Biomarker Program for cost and timing feasibility and externally by a panel of experts for scientific content. Applications will be rated based on the following criteria:

- Novelty: The uniqueness and originality of the proposed research.
- Immediate Impact: The potential of the project to make a meaningful and immediate contribution to the field.
- Future Funding Potential: The likelihood that the project will lead to successful future grant applications.

Applicants will be notified of the decision by **January 10th, 2025**.

INQUIRIES: Prospective applicants are encouraged to contact the program to discuss the feasibility of their project within the scope of available funding and reagent costs.

For questions and more information, please contact:

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References

1. Ashton, N.J., Keshavan, A., Brum, W.S., Andreasson, U., Arslan, B., Droescher, M., Barghorn, S., Vanbrabant, J., Lambrechts, C., Van Loo, M., et al. (2024). The Alzheimer's Association Global Biomarker Standardization Consortium (GBSC) plasma phospho-tau Round Robin study. medRxiv. 10.1101/2024.08.22.24312244.
2. Zeng, X., Lafferty, T.K., Sehrawat, A., Chen, Y., Ferreira, P.C.L., Bellaver, B., Povala, G., Kamboh, M.I., Klunk, W.E., Cohen, A.D., et al. (2024). Multi-analyte proteomic analysis identifies blood-based neuroinflammation, cerebrovascular and synaptic biomarkers in preclinical Alzheimer's disease. Mol Neurodegener *19*, 68. 10.1186/s13024-024-00753-5.