NEUROIMAGING AND CSF BIOMARKER DEVELOPMENT PROGRAM

UPCOMING DEADLINES

Must be received by 5:00 pm ET on the deadline date.

Letter of Intent
January 17, 2020

Invited Full Proposal
February 7, 2020

Letter of Intent
April 10, 2020

Invited Full Proposal
May 8, 2020

Letter of Intent
July 10, 2020

Invited Full Proposal
August 7, 2020

Letter of Intent
October 9, 2020

Invited Full Proposal
November 6, 2020

FUNDING OPPORTUNITY DESCRIPTION

The aim of this RFP is to develop biomarkers for which there is a clear clinical need in Alzheimer's disease and related dementias.

Specifically, this RFP focuses on:

- developing novel PET ligands for clinical use
- supporting novel CSF biomarkers
- validating established MRI approaches in larger cohorts

Peripheral biofluids and digital approaches are supported through the Diagnostics Accelerator RFP.

Novel biomarkers of neuroinflammation and synaptic integrity are considered high priority. Other target areas of interest include:

- Neuronal loss
- Vascular injury and blood-brain barrier integrity
- Mitochondria and metabolic function
- Protein misfolding/proteostasis

- Oxidative stress
- White matter changes
- Other novel targets supported by compelling biological rationale and connection to disease

The ADDF has limited interest in CSF measures of amyloid and tau.

AWARD INFORMATION

Average Award:
Up to $600,000 based on stage and scope of research.

Average Duration
One year with potential for follow-on funding.
Multi-year proposals can be considered.

Allowable Cost
Only direct costs are allowed. Please review our **Funding Policies**

ELIGIBILITY

Funding is open to researchers and clinicians worldwide at:

- **Academic medical centers and universities or nonprofits.** Industry partnerships are encouraged.
- **Biotechnology companies.** Funding is provided through mission-related investments that require return on investment based upon scientific and/or business milestones. Existing companies and new startups are both eligible.

FUNDING PRIORITIES

The ADDF focuses on supporting drug development for Alzheimer's and related dementias and the biomarker tools that aid in this process. This RFP prioritizes biomarker programs that define a specific use and have potential for commercial and clinical translation, with an emphasis on clinical trials (See the Evaluation section below). The RFP supports advancement of neuroimaging and CSF biomarkers that can do one or more of the following:

1. Demonstrate target engagement for novel therapeutics: Biomarkers that can serve as direct measures of target engagement for novel drugs in clinical development. High priority will be given to projects advancing biomarkers that can be used as specific companion biomarkers for therapies currently in the development pipeline. Identification of such therapies strengthens an application.

2. Detect signs of disease earlier and monitor progression: Programs developing sensitive biomarkers that can detect disease earlier than currently available biomarkers. This includes biomarkers that can predict and monitor conversion from cognitively healthy to mild cognitive impairment (MCI) or MCI to Alzheimer's disease. We also seek prognostic markers that can predict rates of cognitive decline.

3. More accurately diagnose and distinguish between dementia subtypes: Many types of dementia can present with similar clinical features, and patients often show overlapping pathologies. At present, it is challenging to distinguish between dementia subtypes and proteinopathies. Biomarkers that can distinguish between subtypes and stratify patients in clinical trials are of high priority.

MODALITY-SPECIFIC PRIORITIES

Neuroimaging:

- **Positron emission tomography (PET):** These projects should focus on ligands for target engagement and pharmacodynamic measurements of novel and repurposed therapeutics. This RFP will support pharmacokinetics, safety, synthesis, and clinical development of novel PET ligands. The investigative team should include individuals with experience in developing PET ligands for human use.
- **Magnetic resonance imaging (MRI):** The proposed structural or functional approach should already have proof-of-concept data in *human patients* and be translatable for clinical use. Approaches that can measure novel targets and are significant improvements upon what is currently available in MR techniques are of higher priority.
- **Magnetic resonance spectroscopy (MRS):** The ability to detect specific molecules or proteins relevant to disease or a specific drug in development should be demonstrated in the preliminary data section of the application.

Cerebrospinal fluid (CSF) biomarkers can be a single analyte or panel of analytes; however, the proposed signature should have proof-of-concept data in *human patient samples* and the specific analyte combination should be well justified.

Functional activity measures applicable to this RFP include electroencephalogram (EEG), magnetoencephalography (MEG), and transcranial magnetic stimulation (TMS). Only highly novel techniques or analyses for EEG, MEG and TMS will be considered. These proposals must meet the following criteria:

Other novel approaches: The biomarker should already be identified and validated in at least a small number of human samples.

EVALUATION

All proposals should address the following:

Context of use: This RFP will consider all context of use categories that will advance drug development for Alzheimer's and related dementias. These categories, **as defined by the FDA**, include diagnostic, monitoring, predictive, prognostic, pharmacodynamic/response, and susceptibility/risk biomarkers. The expected context of use, which defines a biomarker's intended clinical use, should be described in the application. The development plan should be appropriate for the described context of use.

How the proposed biomarker compares to currently available biomarkers: PET imaging and CSF markers of amyloid and tau can distinguish between Alzheimer's disease and healthy control individuals with high specificity and sensitivity. The applicant must demonstrate the advantage of their approach with these tests in mind (cheaper, easier to use, less invasive, etc.), and how it compares to the sensitivity/specificity of what is currently available (CSF Aβ, CSF tau, PET scans, MMSE, etc.).

Potential for commercial and clinical translation: The path to commercialization or clinical use should be considered in all proposals. Applicants should clearly state how the proposed biomarker would fit into the current clinical landscape. The applicant should articulate where in the path to commercialization the study falls and outline the proposed plan forward. Clear milestones and go/no-go decision points should be provided. Identification of potential future commercial partners is encouraged.

In addition, all proposals will be evaluated for:

- Novelty and biological plausibility linking the biomarker to disease pathophysiology in human studies
- Scientific and technical merit of the proposed approach
- Strength of preliminary data using the proposed biomarker in preclinical and human samples
- Level of innovation
- Feasibility, research design and methodology
- Investigator, organizational capabilities, and budget for the project

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APPLICATION SUBMISSIONS

Review the **Application Instructions** for steps on applying.

ADDF FUNDING PORTAL

LOG IN OR **CREATE ACCOUNT**

The ADDF considers its application process an iterative one and would be happy to talk to you about your drug development program.

For program-related inquiries, please contact:

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For application submission inquiries, please contact:

Grants and Mission-Related Investments Team

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Alzheimer's Drug Discovery Foundation

A GuideStar-Rated Charity

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