Department of Health and Human Services Part 1. Overview Information

Participating Organization(s)

National Institutes of Health (NIH (http://www.nih.gov))

Components of Participating Organizations

National Institute of Mental Health (<u>NIMH (http://www.nimh.nih.gov</u>)) National Institute on Alcohol Abuse and Alcoholism (<u>NIAAA (http://www.niaaa.nih.gov</u>)) National Institute on Drug Abuse (<u>NIDA (http://www.nida.nih.gov</u>))

National Institute of Aging (NIA (https://www.nia.nih.gov/))

Funding Opportunity Title

Advancing Basic Neurobiology Toward Translation Through Assay Development (R01 Clinical Trial Not Allowed)

Activity Code

R01 (//grants.nih.gov/grants/funding/ac_search_results.htm? text_curr=r01&Search.x=0&Search.y=0&Search_Type=Activity) Research Project Grant

Announcement Type

Reissue of PAR-15-066 (https://grants.nih.gov/grants/guide/pa-files/PAR-15-066.html)

Related Notices

None

Funding Opportunity Announcement (FOA) Number

PAR-18-505

Companion Funding Opportunity

None

Number of Applications

See Section III. 3. Additional Information on Eligibility.

Catalog of Federal Domestic Assistance (CFDA) Number(s)

93.242 , 93.273, 93.279, 93.866

Funding Opportunity Purpose

This funding opportunity announcement (FOA) encourages research grant applications to develop novel, robust assays to reveal changes in neuronal and/or glial function. The goal is to adapt state-of-the-art measures of basic cellular processes or molecular events that are key mediators of nervous system function into phenotypic assays, with the intent to probe mechanisms or perturbations in an unbiased and efficient manner. These novel assays would provide opportunities to measure neurobiological endpoints to accelerate basic discovery and support target identification and therapeutic development efforts.

Key Dates

Posted Date

December 18, 2017

Open Date (Earliest Submission Date)

January 5, 2018

Letter of Intent Due Date(s)

Not Applicable

Application Due Date(s)

<u>Standard dates (//grants.nih.gov/grants/guide/url_redirect.htm?id=11111)</u> apply, by 5:00 PM local time of applicant organization. All <u>types of non-AIDS applications</u> allowed for this funding opportunity announcement are due on these dates.

Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.

AIDS Application Due Date(s)

<u>Standard AIDS dates (//grants.nih.gov/grants/guide/url_redirect.htm?id=11112)</u> apply, by 5:00 PM local time of applicant organization. All <u>types of AIDS and AIDS-related applications</u> allowed for this funding opportunity announcement are due on these dates.

Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.

Scientific Merit Review

<u>Standard dates (//grants.nih.gov/grants/guide/url_redirect.htm?id=11113)</u> (<u>http://grants1.nih.gov/grants/funding/submissionschedule.htm#reviewandaward</u>) apply

Advisory Council Review

<u>Standard dates (//grants.nih.gov/grants/guide/url_redirect.htm?id=11113)</u> (http://grants1.nih.gov/grants/funding/submissionschedule.htm#reviewandaward) apply

Earliest Start Date

Standard dates (//grants.nih.gov/grants/guide/url_redirect.htm?id=11113) apply

Expiration Date January 8, 2021

Due Dates for E.O. 12372

Not Applicable

Required Application Instructions

It is critical that applicants follow the Research (R) Instructions in the <u>SF424 (R&R) Application Guide</u> (//grants.nih.gov/grants/guide/url_redirect.htm?id=12000), except where instructed to do otherwise (in this FOA or in a Notice from the <u>NIH Guide for Grants and Contracts</u> (//grants.nih.gov/grants/guide/)). Conformance to all requirements (both in the Application Guide and the FOA) is required and strictly enforced. Applicants must read and follow all application instructions in the Application Guide as well as any program-specific instructions noted in <u>Section IV</u>. When the program-specific instructions deviate from those in the Application Guide, follow the program-specific instructions. **Applications that do not comply with these instructions may be delayed or not accepted for review.**

There are several options available to submit your application through Grants.gov to NIH and Department of Health and Human Services partners. You **must** use one of these submission options to access the application forms for this opportunity.

1. Use the NIH ASSIST system to prepare, submit and track your application online.

Apply Online Using ASSIST

- Use an institutional system-to-system (S2S) solution to prepare and submit your application to Grants.gov and <u>eRA Commons (http://public.era.nih.gov/commons/)</u> to track your application. Check with your institutional officials regarding availability.
- 3. Use <u>Grants.gov (../ApplyButtonSplash.cfm?oppNum=PAR-18-505)</u> Workspace to prepare and submit your application and <u>eRA Commons (http://public.era.nih.gov/commons/)</u> to track your application.

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Part 2. Full Text of Announcement Section I. Funding Opportunity Description

Research Objectives

The objective of this announcement is to encourage the translation of innovative methods contributing to basic discoveries and advancements in neuroscience into assays for a range of applications, from acceleration of basic discovery to target identification and therapeutic development.

The broad goal of this funding opportunity is to optimize innovative cellular and molecular measures of neurobiological processes as phenotypic screens to identify novel components of CNS function. This initiative will support the development, scaling, and implementation of robust neurobiological assays that can be used to assess changes in nervous system function in response to perturbations. Since the goal is to build scalable assays, capable of ultimately assessing hundreds to thousands of chemical or genetic perturbations or conditions, most measures will be in vitro. However, some model organisms may afford unique advantages to evaluate, for example, genomic, transcriptomic, or proteomic effects in intact systems.

In recent years, the development of technologies has allowed detailed analysis of genomic, biochemical, and cellular processes in health and disease, greatly advancing our understanding of nervous system function at the molecular/cellular level. Coupled with advances in bioinformatics, chemical biology, synthetic chemistry, and protein engineering, these technologies provide a rich knowledge base and toolbox to identify and pursue new targets and strategies for understanding and treating disease. In addition, methods that enhance throughput in terms of the number of samples analyzed in parallel, as well as advances in detection techniques, imaging, and automation, allow for broader, high-content assay measures. For example, NIH initiatives such as the <u>BRAIN</u> Initiative (https://www.braininitiative.nih.gov/) are building higher throughput tools to interrogate the diversity of cellular biology and to maximize the value of high content data sets emerging from these efforts. Indeed, in fields outside of neuroscience, this expansion of methods and capability has led to breakthroughs using genomic, proteomic, or chemical manipulation in cells, tissues, cell-free preparations, and whole organisms, but, until recently, progress with neurobiological endpoints has been lagging.

Proposed assays should have the potential for enhancement in throughput (number of simultaneous measurements) and/or content (types of measurements), compared to existing methods, though the initial throughput of novel assays may be lower while under development. In general, assays should have the potential to enable an unbiased screen of hundreds to thousands of perturbations (e.g., small molecules, siRNAs, peptides, etc.). However, for novel measures and approaches that have not previously been scaled up, more modest increases in throughput may be reasonable.

Assays may utilize any appropriate preparation, including cell-free systems, cultured cells, induced pluripotent stem cells (iPSC), organoids, organotypic brain slices, or model organisms (e.g., zebrafish, C. elegans), which adequately recapitulate important aspects of neuronal or glial function and are sufficiently scalable. Phenotypes of interest include, but are not limited to: dendritic or axonal outgrowth; neuronal activity and plasticity; synaptic maturation or synaptic function; receptor function and trafficking; biological function of neuronal signaling molecules; protein synthesis, sorting, interactions, and turnover; cell fate specification; or chromatin remodeling. Projects may carry considerable risk, but should have the potential for generating high impact datasets. Assays aimed at identifying novel targets that may serve as starting points for therapeutics development are particularly encouraged.

Specific Areas of Research Interest

Examples of suitable research topics include, but are not limited to:

 Innovative development, optimization and scaling of technologies for analyses of brain signaling processes and mechanisms relevant to health and disease;

- Novel measures of key intracellular or intercellular communication processes, such as: circuit formation, neurodevelopmental mechanisms, synaptic activity, brain plasticity mechanisms, glial signaling;
- Novel assays capturing the expression or biological activity of brain signaling molecules such as proteins, lipids, transcriptional regulators, inflammatory markers;
- Scalable assays for assessing anatomic or functional connectivity in the nervous system;
- Novel adaptation of assays to increase throughput or include high content, multiplexed measures that maximize the amount and value of the captured data;
- Development and optimization of screens that combine proteomic, genetic, and/or chemical approaches to measure functional phenotypes;
- Novel medium- and high-throughput assays measuring specific neurobiological functions suitable for screens using genetic, chemical, siRNA, or peptide libraries;
- Innovative assays for rescue of cellular/molecular phenotypes associated with nervous system disorders;
- Optimizing functional assays for outcome measures relevant to disease pathophysiology such as monolayer assays, microfluidic assays such as engineered microphysiological systems (e.g., tissue chips), self-organizing organotypic assays;
- Development of screens for targeted functional studies in cellular models derived from human patient populations (e.g., induced pluripotent stem (iPS) cells), to identify alterations in cellular processes associated with nervous system disorders;
- Novel adaptation of assays for imaging and quantifying dynamic changes in the localization of signaling molecules or intracellular compartmentalization;
- Use of microfluidic control of the chemical environment to monitor and manipulate neuronal development and circuit formation;
- Development of assays using state of the art approaches for single cell analysis to evaluate, for example, cell-phenotypic selective responses and time-dependent processes;
- Assay adaptations to improve efficiency and throughput for examining the neurobiological impact of pharmacological agents or other cell or circuit activity manipulations within brain slice or culture preparations;
- High sensitivity/high specificity assays for neuroinflammation/neuroinflammatory markers.

This FOA encourages projects at various stages of assay development or implementation, including initial conceptualization and development of the assay, assay optimization, scale-up, pilot screening, and full scale implementation. It is anticipated that projects focused on assay development and optimization will require no more than three years of effort, while projects that include both development and implementation efforts may require up to four years. Incorporation of assay replication and hit validation is strongly encouraged, however significant assessment and characterization of resulting hits are not encouraged in this announcement.

Screening projects already in high throughput screening (HTS) format are not appropriate for this FOA. Applications proposing to use established screening methodologies may not be appropriate for this FOA unless proposing/testing high impact improvements or adaptations. Moreover, the participating institutes may assign lower priority to projects proposing to measure neurobiological endpoints for which screens are already in use unless applicants provide a compelling case that there are significant advantages to the new approach.

Applicants are strongly encouraged to contact <u>Scientific/Research Contact(s)</u> to discuss potential research projects prior to submitting an application.

Institute Interests

Proposed research projects should have relevance to the basic and translational research priorities of the National Institute of Mental Health (NIMH), the National Institute on Alcohol Abuse and Alcoholism (NIAAA), or the National Institute on Drug Abuse (NIDA).

NIMH

NIMH is interested in applications proposing the development and scaling of assays for neurobiological endpoints relevant to mental disorders. Further information on NIMH research priorities can be found in the <u>NIMH Strategic</u> <u>Plan, (http://www.nimh.nih.gov/about/strategic-planning-reports/index.shtml)</u> <u>Strategic Research Priorities</u>

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(http://www.nimh.nih.gov/about/strategic-planning-reports/strategic-research-priorities/index.shtml), and Interventions Workgroup Report (http://www.nimh.nih.gov/about/advisory-boards-andgroups/namhc/reports/fromdiscoverytocure_103739.pdf).

Investigators interested in validation and optimization of hits into fully characterized probes should consider <u>PAR-17-335</u> 'Discovery of Cell-based Chemical Probes for Novel Brain Targets (R21)' or PAR 17-336 'Discovery of in vivo Chemical Probes for Novel Brain Targets (R01). (https://grants.nih.gov/grants/guide/pa-files/PAR-17-335.html)

Applicants from SBIR/STTR eligible small businesses should consider relevant SBIR/STTR announcements including PAR 14-196 (https://grants.nih.gov/grants/guide/pa-files/PA-14-196.html) and PAR 14-197 (https://grants.nih.gov/grants/guide/pa-files/PA-14-197.html) 'Complex Technologies and Therapeutics Development for Mental Health Research and Practice'.

Scientific rigor and transparency in conducting biomedical research is key to the successful application of knowledge toward improving health outcomes. In support of this important goal, investigators must follow NIH Guidance on addressing rigor and reproducibility in grant applications (http://grants.nih.gov/reproducibility/index.htm (https://grants.nih.gov/reproducibility/index.htm)).

For applicants proposing assays focused on modulation of the effect of putative disease-associated genes, it is expected that genes selected will be based on replicated and statistically significant clinical genomics data (e.g, GWAS hits, highly penetrant mutations).

Applicants are strongly encouraged to discuss applications with NIMH staff listed in Section VII - Agency Contact(s) Scientific/Research Contacts prior to submission to determine alignment of the planned studies with NIMH priorities and to assess whether this or other NIMH funding opportunities are most appropriate.

Protection of Human subject language (Applications with data collection plans that involve multiple respondent groups (e.g., clients/patients, therapists/providers, supervisors, administrators) should address provisions for human subject protections and consenting procedures for all participant groups, accordingly. The NIMH has published updated policies and guidance for investigators regarding human research protection and clinical research data and safety monitoring (NOT-MH-15-025 (//grants.nih.gov/grants/guide/notice-files/NOT-MH-15-025.html)). The application's Protection of Human Subjects section and data and safety monitoring plans should reflect the policies and guidance in this notice. Plans for the protection of research subjects and data and safety monitoring will be reviewed by the NIMH for consistency with NIMH and NIH policies and federal regulations.)

NIA

NIA is interested in applications proposing development of assays aimed at the study of

neurobiological endpoints and phenotypes relevant to aging and age-related neurodegenerative diseases. More specifically, NIA is interested in assays to study changes in neurobiological processes as a function of aging in neural cells (neurons and glia), as well as the impact of aging on the expression and/or modulation of neurobiological and pathological processes in human cell models (e.g. iPSCs) of aging and Alzheimer's disease. Development of complex, circuit-level assays that can be used to study systems biology, physiology, connectivity, and genotype-phenotype relationships of human neural cells are of particular interest.

NIAAA and NIDA

NIAAA and NIDA are interested in applying the approaches above for assay development to studies relevant to alcohol and drugs of abuse, respectively. For example, NIAAA and NIDA are interested in applications for assay development that seek to understand how alcohol (NIAAA) or drugs of abuse (NIDA) alter various cellular and molecular processes. In addition, NIAAA and NIDA are interested in assay development that seeks to understand how genetic variation in alcoholism (NIAAA) or drug abuse (NIDA) candidate genes affects brain function at the cellular and molecular level.

See Section VIII. Other Information for award authorities and regulations.

Section II. Award Information

Funding Instrument

Grant: A support mechanism providing money, property, or both to an eligible entity to carry out an approved project or activity.

Application Types Allowed

New Renewal Resubmission Revision

The <u>OER Glossary (//grants.nih.gov/grants/guide/url_redirect.htm?id=11116)</u> and the SF424 (R&R) Application Guide provide details on these application types.

Clinical Trial?

Not Allowed: Only accepting applications that do not propose clinical trials

<u>Need help determining whether you are doing a clinical trial?</u> (https://grants.nih.gov/grants/guide/url_redirect.htm?id=82370)

Funds Available and Anticipated Number of Awards

The number of awards is contingent upon NIH appropriations and the submission of a sufficient number of meritorious applications.

Award Budget

Application budgets are not limited but need to reflect the actual needs of the proposed project.

Award Project Period

The scope of the proposed project should determine the project period. The maximum project period is 4 years. It is anticipated that projects focused on assay development and optimization will require no more than three years of effort, while projects that include both development and implementation efforts may require up to four years.

NIH grants policies as described in the <u>NIH Grants Policy Statement</u> (//grants.nih.gov/grants/guide/url_redirect.htm?id=11120) will apply to the applications submitted and awards made from this FOA.

Section III. Eligibility Information 1. Eligible Applicants

Eligible Organizations

Higher Education Institutions

- Public/State Controlled Institutions of Higher Education
- Private Institutions of Higher Education

The following types of Higher Education Institutions are always encouraged to apply for NIH support as Public or Private Institutions of Higher Education:

- o Hispanic-serving Institutions
- o Historically Black Colleges and Universities (HBCUs)
- o Tribally Controlled Colleges and Universities (TCCUs)
- o Alaska Native and Native Hawaiian Serving Institutions
- o Asian American Native American Pacific Islander Serving Institutions (AANAPISIs)

Nonprofits Other Than Institutions of Higher Education

- Nonprofits with 501(c)(3) IRS Status (Other than Institutions of Higher Education)
- Nonprofits without 501(c)(3) IRS Status (Other than Institutions of Higher Education)

For-Profit Organizations

- Small Businesses
- For-Profit Organizations (Other than Small Businesses)

Governments

- State Governments
- County Governments
- City or Township Governments
- Special District Governments
- Indian/Native American Tribal Governments (Federally Recognized)
- Indian/Native American Tribal Governments (Other than Federally Recognized)
- Eligible Agencies of the Federal Government
- U.S. Territory or Possession

Other

- Independent School Districts
- Public Housing Authorities/Indian Housing Authorities
- Native American Tribal Organizations (other than Federally recognized tribal governments)
- Faith-based or Community-based Organizations
- Regional Organizations
- Non-domestic (non-U.S.) Entities (Foreign Institutions)

Foreign Institutions

Non-domestic (non-U.S.) Entities (Foreign Institutions) **are** eligible to apply. Non-domestic (non-U.S.) components of U.S. Organizations **are** eligible to apply. Foreign components, as <u>defined in the *NIH Grants Policy Statement*</u> (//grants.nih.gov/grants/guide/url redirect.htm?id=11118), **are** allowed.

Required Registrations

Applicant Organizations

Applicant organizations must complete and maintain the following registrations as described in the SF 424 (R&R) Application Guide to be eligible to apply for or receive an award. All registrations must be completed prior to the application being submitted. Registration can take 6 weeks or more, so applicants should begin the registration process as soon as possible. The <u>NIH Policy on Late Submission of Grant Applications</u> (//grants.nih.gov/grants/guide/notice-files/NOT-OD-15-039.html) states that failure to complete registrations in advance of a due date is not a valid reason for a late submission.

 <u>Dun and Bradstreet Universal Numbering System (DUNS) (http://fedgov.dnb.com/webform)</u> - All registrations require that applicants be issued a DUNS number. After obtaining a DUNS number, applicants

PAR-18-505: Advancing Basic Neurobiology Toward Translation Through Assay Development (R01 Clinical Trials Not Allowed) can begin both SAM and eRA Commons registrations. The same DUNS number must be used for all registrations, as well as on the grant application.

- <u>System for Award Management (SAM) (https://www.sam.gov/portal/public/SAM/)</u> (formerly CCR) Applicants must complete and maintain an active registration, which requires renewal at least annually. The renewal process may require as much time as the initial registration. SAM registration includes the assignment of a Commercial and Government Entity (CAGE) Code for domestic organizations which have not already been assigned a CAGE Code.
- o <u>NATO Commercial and Government Entity (NCAGE) Code</u> (//grants.nih.gov/grants/guide/url_redirect.htm?id=11176) – Foreign organizations must obtain an NCAGE code (in lieu of a CAGE code) in order to register in SAM.
- <u>eRA Commons (//grants.nih.gov/grants/guide/url_redirect.htm?id=11123)</u> Applicants must have an active DUNS number and SAM registration in order to complete the eRA Commons registration. Organizations can register with the eRA Commons as they are working through their SAM or Grants.gov registration. eRA Commons requires organizations to identify at least one Signing Official (SO) and at least one Program Director/Principal Investigator (PD/PI) account in order to submit an application.
- <u>Grants.gov (//grants.nih.gov/grants/guide/url_redirect.htm?id=82300)</u> Applicants must have an active DUNS number and SAM registration in order to complete the Grants.gov registration.

Program Directors/Principal Investigators (PD(s)/PI(s))

All PD(s)/PI(s) must have an eRA Commons account. PD(s)/PI(s) should work with their organizational officials to either create a new account or to affiliate their existing account with the applicant organization in eRA Commons. If the PD/PI is also the organizational Signing Official, they must have two distinct eRA Commons accounts, one for each role. Obtaining an eRA Commons account can take up to 2 weeks.

Eligible Individuals (Program Director/Principal Investigator)

Any individual(s) with the skills, knowledge, and resources necessary to carry out the proposed research as the Program Director(s)/Principal Investigator(s) (PD(s)/PI(s)) is invited to work with his/her organization to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NIH support.

For institutions/organizations proposing multiple PDs/PIs, visit the Multiple Program Director/Principal Investigator Policy and submission details in the Senior/Key Person Profile (Expanded) Component of the SF424 (R&R) Application Guide.

2. Cost Sharing

This FOA does not require cost sharing as defined in the <u>NIH Grants Policy Statement</u>. <u>(//grants.nih.gov/grants/guide/url_redirect.htm?id=11126)</u>

3. Additional Information on Eligibility

Number of Applications

Applicant organizations may submit more than one application, provided that each application is scientifically distinct.

The NIH will not accept duplicate or highly overlapping applications under review at the same time. This means that the NIH will not accept:

- A new (A0) application that is submitted before issuance of the summary statement from the review of an overlapping new (A0) or resubmission (A1) application.
- A resubmission (A1) application that is submitted before issuance of the summary statement from the review of the previous new (A0) application.
- An application that has substantial overlap with another application pending appeal of initial peer review (see <u>NOT-OD-11-101 (//grants.nih.gov/grants/guide/notice-files/NOT-OD-11-101.html</u>)).

Section IV. Application and Submission Information

1. Requesting an Application Package

Buttons to access the online ASSIST system or to download application forms are available in <u>Part 1</u> of this FOA. See your administrative office for instructions if you plan to use an institutional system-to-system solution.

2. Content and Form of Application Submission

It is critical that applicants follow the Research (R) Instructions in the <u>SF424 (R&R) Application Guide</u> (//grants.nih.gov/grants/guide/url_redirect.htm?id=12000), except where instructed in this funding opportunity announcement to do otherwise. Conformance to the requirements in the Application Guide is required and strictly enforced. Applications that are out of compliance with these instructions may be delayed or not accepted for review.

For information on Application Submission and Receipt, visit <u>Frequently Asked Questions – Application Guide,</u> <u>Electronic Submission of Grant Applications (//grants.nih.gov/grants/guide/url_redirect.htm?id=41137)</u>.

Page Limitations

All page limitations described in the SF424 Application Guide and the <u>Table of Page Limits</u> (//grants.nih.gov/grants/guide/url_redirect.htm?id=11133) must be followed.

Instructions for Application Submission

The following section supplements the instructions found in the SF424 (R&R) Application Guide and should be used for preparing an application to this FOA.

SF424(R&R) Cover

All instructions in the SF424 (R&R) Application Guide must be followed.

SF424(R&R) Project/Performance Site Locations

All instructions in the SF424 (R&R) Application Guide must be followed.

SF424(R&R) Other Project Information

All instructions in the SF424 (R&R) Application Guide must be followed.

SF424(R&R) Senior/Key Person Profile

All instructions in the SF424 (R&R) Application Guide must be followed.

R&R or Modular Budget

All instructions in the SF424 (R&R) Application Guide must be followed.

R&R Subaward Budget

All instructions in the SF424 (R&R) Application Guide must be followed.

PHS 398 Cover Page Supplement

All instructions in the SF424 (R&R) Application Guide must be followed.

PHS 398 Research Plan

All instructions in the SF424 (R&R) Application Guide must be followed, with the following additional instructions:

Research Strategy:

Applicants should clearly describe how the proposed assay will assess key neurobiological mechanisms and will enhance our understanding of fundamental mechanisms of CNS function, disease processes, and/or identify novel therapeutic targets. The research plan should outline the scalability of the assay in terms of throughput and/or content and describe how proposed optimization efforts will increase assay capacity to screen a sufficient number of perturbations to meet the goal of the assay. Applicants should provide a detailed plan for assessment of assay stability, reliability, and validity.

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Applicants should address innovation in the approach and target, discussing whether there are existing assays for the proposed measure or endpoint and, if so, how the proposed approach offers an advantage.

Milestones and Timeline: Provide a timeline with specific milestones for accomplishing the proposed research. Indicate when it is anticipated that essential components of the project (e.g., optimization of protocols, generation of reagents, critical experiments to verify the hypothesis, validation of novel tools or techniques) will be completed. The proposed timeline should be clearly delineated and should appear as the last element of the Research Strategy section.

It is anticipated that projects focused on assay development and optimization will require no more than three years of effort, while projects that include both development and implementation efforts may require up to four years. Project plans and timelines should take into consideration the level of risk involved, such that high risk projects with modest confidence of successful scale-up should propose a shorter duration award focused on assay development and optimization. Projects involving assays with more potential for ease of scaling should consider a longer duration award incorporating optimization and implementation efforts.

Resource Sharing Plan: Individuals are required to comply with the instructions for the Resource Sharing Plans as provided in the SF424 (R&R) Application Guide, with the following modification:

• All applications, regardless of the amount of direct costs requested for any one year, should address a Data Sharing Plan.

Appendix:

Only limited Appendix materials are allowed. Follow all instructions for the Appendix as described in the SF424 (R&R) Application Guide.

PHS Human Subjects and Clinical Trials Information

Use only for applications with due dates on or after January 25, 2018. When involving NIH-defined human subjects research, clinical research, and/or clinical trials (and when applicable, clinical trials research experience) follow all instructions for the PHS Human Subjects and Clinical Trials Information form in the SF424 (R&R) Application Guide, with the following additional instructions:

If you answered "Yes" to the question "Are Human Subjects Involved?" on the R&R Other Project Information form, you must include at least one human subjects study record using the **Study Record: PHS Human Subjects and Clinical Trials Information** form or **Delayed Onset Study** record.

Study Record: PHS Human Subjects and Clinical Trials Information

All instructions in the SF424 (R&R) Application Guide must be followed.

Delayed Onset Study

All instructions in the SF424 (R&R) Application Guide must be followed.

PHS Assignment Request Form

All instructions in the SF424 (R&R) Application Guide must be followed.

Foreign Institutions

Foreign (non-U.S.) institutions must follow policies described in the <u>NIH Grants Policy Statement</u> (//grants.nih.gov/grants/guide/url_redirect.htm?id=11137), and procedures for foreign institutions.

3. Unique Entity Identifier and System for Award Management (SAM)

See Part 1. Section III.1 for information regarding the requirement for obtaining a unique entity identifier and for completing and maintaining active registrations in System for Award Management (SAM), NATO Commercial and Government Entity (NCAGE) Code (if applicable), eRA Commons, and Grants.gov

4. Submission Dates and Times

<u>Part I. Overview Information</u> contains information about Key Dates and times. Applicants are encouraged to submit applications before the due date to ensure they have time to make any application corrections that might be necessary for successful submission. When a submission date falls on a weekend or <u>Federal holiday</u> (<u>https://grants.nih.gov/grants/guide/url_redirect.htm?id=82380</u>)</u>, the application deadline is automatically extended to the next business day.

Organizations must submit applications to <u>Grants.gov (//grants.nih.gov/grants/guide/url_redirect.htm?id=11128)</u> (the online portal to find and apply for grants across all Federal agencies). Applicants must then complete the submission process by tracking the status of the application in the <u>eRA Commons</u>

(//grants.nih.gov/grants/guide/url_redirect.htm?id=11123), NIH's electronic system for grants administration. NIH and Grants.gov systems check the application against many of the application instructions upon submission. Errors must be corrected and a changed/corrected application must be submitted to Grants.gov on or before the application due date and time. If a Changed/Corrected application is submitted after the deadline, the application will be considered late. Applications that miss the due date and time are subjected to the NIH Policy on Late Application Submission.

Applicants are responsible for viewing their application before the due date in the eRA Commons to ensure accurate and successful submission.

Information on the submission process and a definition of on-time submission are provided in the SF424 (R&R) Application Guide.

5. Intergovernmental Review (E.O. 12372)

This initiative is not subject to intergovernmental review. (//grants.nih.gov/grants/guide/url_redirect.htm?id=11142)

6. Funding Restrictions

All NIH awards are subject to the terms and conditions, cost principles, and other considerations described in the <u>NIH Grants Policy Statement (//grants.nih.gov/grants/guide/url_redirect.htm?id=11120)</u>.

Pre-award costs are allowable only as described in the <u>NIH Grants Policy Statement</u> (//grants.nih.gov/grants/guide/url_redirect.htm?id=11143).

7. Other Submission Requirements and Information

Applications must be submitted electronically following the instructions described in the SF424 (R&R) Application Guide. Paper applications will not be accepted.

Applicants must complete all required registrations before the application due date.Section III.Eligibility Information contains information about registration.Section III.

For assistance with your electronic application or for more information on the electronic submission process, visit <u>Applying Electronically (//grants.nih.gov/grants/guide/url_redirect.htm?id=11144)</u>. If you encounter a system issue beyond your control that threatens your ability to complete the submission process on-time, you must follow the <u>Guidelines for Applicants Experiencing System Issues</u>

(//grants.nih.gov/grants/ElectronicReceipt/support.htm#guidelines). For assistance with application submission, contact the Application Submission Contacts in <u>Section VII</u>.

Important reminders:

All PD(s)/PI(s) must include their eRA Commons ID in the Credential field of the Senior/Key Person Profile Component of the SF424(R&R) Application Package. Failure to register in the Commons and to include a valid PD/PI Commons ID in the credential field will prevent the successful submission of an electronic application to NIH. See <u>Section III</u> of this FOA for information on registration requirements.

The applicant organization must ensure that the DUNS number it provides on the application is the same number used in the organization's profile in the eRA Commons and for the System for Award Management. Additional information may be found in the SF424 (R&R) Application Guide.

See more tips (//grants.nih.gov/grants/guide/url_redirect.htm?id=11146) for avoiding common errors.

Upon receipt, applications will be evaluated for completeness and compliance with application instructions by the Center for Scientific Review, NIH. Applications that are incomplete or non-compliant will not be reviewed.

Requests of \$500,000 or more for direct costs in any year

Applicants requesting \$500,000 or more in direct costs in any year (excluding consortium F&A) must contact a <u>Scientific/ Research Contact</u> at least 6 weeks before submitting the application and follow the Policy on the Acceptance for Review of Unsolicited Applications that Request \$500,000 or More in Direct Costs as described in the SF424 (R&R) Application Guide.

Post Submission Materials

Applicants are required to follow the instructions for post-submission materials, as described in <u>the policy</u> (//grants.nih.gov/grants/guide/url redirect.htm?id=82299). Any instructions provided here are in addition to the instructions in the policy.

Section V. Application Review Information

1. Criteria

Only the review criteria described below will be considered in the review process. As part of the <u>NIH mission</u> (//grants.nih.gov/grants/guide/url_redirect.htm?id=11149), all applications submitted to the NIH in support of biomedical and behavioral research are evaluated for scientific and technical merit through the NIH peer review system.

For this particular announcement, note the following: The potential success of assay development by optimizing and scaling of innovative measures is not certain; a level of risk is inherent in this activity. It is recommended that reviewers balance feasibility concerns in light of the proposed plans and timelines. For example, it is anticipated that a higher risk development plan would request fewer years since the ability to successfully translate the measures to scalable assays must first be established before implementation is proposed

Overall Impact

Reviewers will provide an overall impact score to reflect their assessment of the likelihood for the project to exert a sustained, powerful influence on the research field(s) involved, in consideration of the following review criteria and additional review criteria (as applicable for the project proposed).

Scored Review Criteria

Reviewers will consider each of the review criteria below in the determination of scientific merit, and give a separate score for each. An application does not need to be strong in all categories to be judged likely to have major scientific impact. For example, a project that by its nature is not innovative may be essential to advance a field.

Significance

Does the project address an important problem or a critical barrier to progress in the field? Is there a strong scientific premise for the project? If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field? Do the proposed measures assess key neurobiological mechanisms? What is the likelihood that the assay will enhance our understanding of fundamental mechanisms or disease processes, and/or identify novel therapeutic targets? Do the proposed studies have a reasonable potential to significantly increase assay capability beyond what is currently available?

Investigator(s)

Are the PD(s)/PI(s), collaborators, and other researchers well suited to the project? If Early Stage Investigators or those in the early stages of independent careers, do they have appropriate experience and training? If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)? If the project is collaborative or multi-PD/PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project?

Innovation

Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense? Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed? Is the approach novel or simply an incremental improvement to an existing assay?

Approach

Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Have the investigators presented strategies to ensure a robust and unbiased approach, as appropriate for the work proposed? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed? Have the investigators presented adequate plans to address relevant biological variables, such as sex, for studies in vertebrate animals or human subjects?

Is there a sufficiently developed plan for the assessment of assay stability, reliability, and validity within the proposed grant period? Is the proposed assay scalable in terms of throughput (number of simultaneous measurements) and/or content (types of measurements)? Does the proposed assay have the potential to screen a reasonable number of perturbations (e.g., small molecules, siRNAs, peptides) to meet the goals of the assay?

If the project involves human subjects and/or NIH-defined clinical research, are the plans to address 1) the protection of human subjects from research risks, and 2) inclusion (or exclusion) of individuals on the basis of sex/gender, race, and ethnicity, as well as the inclusion or exclusion of children, justified in terms of the scientific goals and research strategy proposed?

Environment

Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?

Additional Review Criteria

As applicable for the project proposed, reviewers will evaluate the following additional items while determining scientific and technical merit, and in providing an overall impact score, but will not give separate scores for these items.

Milestones and Timeline

Are the proposed milestones feasible, well developed and quantifiable with regard to the goals of the project? Are the proposed milestones appropriate for judging the yearly progress of the proposed work? Are there other intermediate and overall goals that should be monitored?

Protections for Human Subjects

For research that involves human subjects but does not involve one of the six categories of research that are exempt under 45 CFR Part 46, the committee will evaluate the justification for involvement of human subjects

PAR-18-505: Advancing Basic Neurobiology Toward Translation Through Assay Development (R01 Clinical Trials Not Allowed) and the proposed protections from research risk relating to their participation according to the following five review criteria: 1) risk to subjects, 2) adequacy of protection against risks, 3) potential benefits to the subjects and others, 4) importance of the knowledge to be gained, and 5) data and safety monitoring for clinical trials.

For research that involves human subjects and meets the criteria for one or more of the six categories of research that are exempt under 45 CFR Part 46, the committee will evaluate: 1) the justification for the exemption, 2) human subjects involvement and characteristics, and 3) sources of materials. For additional information on review of the Human Subjects section, please refer to the <u>Guidelines for the Review of Human Subjects (//grants.nih.gov/grants/guide/url_redirect.htm?id=11175)</u>.

Inclusion of Women, Minorities, and Children

When the proposed project involves human subjects and/or NIH-defined clinical research, the committee will evaluate the proposed plans for the inclusion (or exclusion) of individuals on the basis of sex/gender, race, and ethnicity, as well as the inclusion (or exclusion) of children to determine if it is justified in terms of the scientific goals and research strategy proposed. For additional information on review of the Inclusion section, please refer to the <u>Guidelines for the Review of Inclusion in Clinical Research</u> (//grants.nih.gov/grants/guide/url_redirect.htm?id=11174).

Vertebrate Animals

The committee will evaluate the involvement of live vertebrate animals as part of the scientific assessment according to the following criteria: (1) description of proposed procedures involving animals, including species, strains, ages, sex, and total number to be used; (2) justifications for the use of animals versus alternative models and for the appropriateness of the species proposed; (3) interventions to minimize discomfort, distress, pain and injury; and (4) justification for euthanasia method if NOT consistent with the AVMA Guidelines for the Euthanasia of Animals. Reviewers will assess the use of chimpanzees as they would any other application proposing the use of vertebrate animals. For additional information on review of the Vertebrate Animals section, please refer to the <u>Worksheet for Review of the Vertebrate Animal Section</u> (//grants.nih.gov/grants/guide/url_redirect.htm?id=11150).

Biohazards

Reviewers will assess whether materials or procedures proposed are potentially hazardous to research personnel and/or the environment, and if needed, determine whether adequate protection is proposed.

Resubmissions

For Resubmissions, the committee will evaluate the application as now presented, taking into consideration the responses to comments from the previous scientific review group and changes made to the project.

Renewals

For Renewals, the committee will consider the progress made in the last funding period.

Revisions

For Revisions, the committee will consider the appropriateness of the proposed expansion of the scope of the project. If the Revision application relates to a specific line of investigation presented in the original application that was not recommended for approval by the committee, then the committee will consider whether the responses to comments from the previous scientific review group are adequate and whether substantial changes are clearly evident.

Additional Review Considerations

As applicable for the project proposed, reviewers will consider each of the following items, but will not give scores for these items, and should not consider them in providing an overall impact score.

Applications from Foreign Organizations

Reviewers will assess whether the project presents special opportunities for furthering research programs through the use of unusual talent, resources, populations, or environmental conditions that exist in other countries and either are not readily available in the United States or augment existing U.S. resources.

Select Agent Research

Reviewers will assess the information provided in this section of the application, including 1) the Select Agent(s) to be used in the proposed research, 2) the registration status of all entities where Select Agent(s) will be used, 3) the procedures that will be used to monitor possession use and transfer of Select Agent(s), and 4) plans for appropriate biosafety, biocontainment, and security of the Select Agent(s).

Resource Sharing Plans

Reviewers will comment on whether the following Resource Sharing Plans, or the rationale for not sharing the following types of resources, are reasonable: (1) <u>Data Sharing Plan</u>

(//grants.nih.gov/grants/guide/url_redirect.htm?id=11151); (2) Sharing Model Organisms (//grants.nih.gov/grants/guide/url_redirect.htm?id=11152); and (3) Genomic Data Sharing Plan (GDS) (//grants.nih.gov/grants/guide/url_redirect.htm?id=11153).

Authentication of Key Biological and/or Chemical Resources:

For projects involving key biological and/or chemical resources, reviewers will comment on the brief plans proposed for identifying and ensuring the validity of those resources.

Budget and Period of Support

Reviewers will consider whether the budget and the requested period of support are fully justified and reasonable in relation to the proposed research.

2. Review and Selection Process

Applications will be evaluated for scientific and technical merit by (an) appropriate Scientific Review Group(s) convened by Center for Scientific Review, in accordance with <u>NIH peer review policy and procedures</u> (//grants.nih.gov/grants/guide/url_redirect.htm?id=11154), using the stated review criteria. Assignment to a Scientific Review Group will be shown in the eRA Commons.

As part of the scientific peer review, all applications:

- May undergo a selection process in which only those applications deemed to have the highest scientific and technical merit (generally the top half of applications under review) will be discussed and assigned an overall impact score.
- Will receive a written critique.

Applications will be assigned on the basis of established PHS referral guidelines to the appropriate NIH Institute or Center. Applications will compete for available funds with all other recommended applications. Following initial peer review, recommended applications will receive a second level of review by the appropriate National Advisory Council or Board. The following will be considered in making funding decisions:

- Scientific and technical merit of the proposed project as determined by scientific peer review.
- Availability of funds.
- Relevance of the proposed project to program priorities.

3. Anticipated Announcement and Award Dates

After the peer review of the application is completed, the PD/PI will be able to access his or her Summary Statement (written critique) via the <u>eRA Commons (//grants.nih.gov/grants/guide/url_redirect.htm?</u> <u>id=11123</u>). Refer to Part 1 for dates for peer review, advisory council review, and earliest start date.

Information regarding the disposition of applications is available in the <u>NIH Grants Policy Statement</u> (//grants.nih.gov/grants/guide/url_redirect.htm?id=11156).

Section VI. Award Administration Information

1. Award Notices

If the application is under consideration for funding, NIH will request "just-in-time" information from the applicant as described in the <u>NIH Grants Policy Statement (//grants.nih.gov/grants/guide/url_redirect.htm?id=11157)</u>.

A formal notification in the form of a Notice of Award (NoA) will be provided to the applicant organization for successful applications. The NoA signed by the grants management officer is the authorizing document and will be sent via email to the grantee's business official.

Awardees must comply with any funding restrictions described in <u>Section IV.5. Funding Restrictions</u>. Selection of an application for award is not an authorization to begin performance. Any costs incurred before receipt of the NoA are at the recipient's risk. These costs may be reimbursed only to the extent considered allowable pre-award costs.

Any application awarded in response to this FOA will be subject to terms and conditions found on the <u>Award</u> <u>Conditions and Information for NIH Grants (//grants.nih.gov/grants/guide/url_redirect.htm?id=11158)</u> website. This includes any recent legislation and policy applicable to awards that is highlighted on this website.

2. Administrative and National Policy Requirements

All NIH grant and cooperative agreement awards include the <u>NIH Grants Policy Statement</u> (//grants.nih.gov/grants/guide/url_redirect.htm?id=11120) as part of the NoA. For these terms of award, see the <u>NIH Grants Policy Statement Part II: Terms and Conditions of NIH Grant Awards, Subpart A: General</u> (//grants.nih.gov/grants/guide/url_redirect.htm?id=11157) and <u>Part II: Terms and Conditions of NIH Grant</u> Awards, Subpart B: Terms and Conditions for Specific Types of Grants, Grantees, and Activities (//grants.nih.gov/grants/guide/url_redirect.htm?id=11159). More information is provided at <u>Award Conditions and</u> Information for NIH Grants (//grants.nih.gov/grants/guide/url_redirect.htm?id=11158).

Recipients of federal financial assistance (FFA) from HHS must administer their programs in compliance with federal civil rights law. This means that recipients of HHS funds must ensure equal access to their programs without regard to a person's race, color, national origin, disability, age and, in some circumstances, sex and religion. This includes ensuring your programs are accessible to persons with limited English proficiency. HHS recognizes that research projects are often limited in scope for many reasons that are nondiscriminatory, such as the principal investigator's scientific interest, funding limitations, recruitment requirements, and other considerations. Thus, criteria in research protocols that target or exclude certain populations are warranted where nondiscriminatory justifications establish that such criteria are appropriate with respect to the health or safety of the subjects, the scientific study design, or the purpose of the research.

For additional guidance regarding how the provisions apply to NIH grant programs, please contact the Scientific/Research Contact that is identified in Section VII under Agency Contacts of this FOA. HHS provides general guidance to recipients of FFA on meeting their legal obligation to take reasonable steps to provide meaningful access to their programs by persons with limited English proficiency. Please see http://www.hhs.gov/ocr/civilrights/resources/laws/revisedlep.html. The HHS Office for Civil Rights also provides guidance on complying with civil rights laws enforced by HHS. Please see http://www.hhs.gov/ocr/civilrights/understanding/section1557/index.html (http://www.hhs.gov/ocr/civilrights/understanding/section1557/index.html); and http://www.hhs.gov/ocr/civilrights/understanding/index.html (http://www.hhs.gov/ocr/civilrights/understanding/index.html). Recipients of FFA also have specific legal obligations for serving qualified individuals with disabilities. Please see http://www.hhs.gov/ocr/civilrights/understanding/disability/index.html (http://www.hhs.gov/ocr/civilrights/understanding/disability/index.html). Please contact the HHS Office for Civil Rights for more information about obligations and prohibitions under federal civil rights laws at http://www.hhs.gov/ocr/office/about/rgn-hgaddresses.html (http://www.hhs.gov/ocr/office/about/rgnhgaddresses.html) or call 1-800-368-1019 or TDD 1-800-537-7697. Also note it is an HHS Departmental goal to ensure access to quality, culturally competent care, including long-term services and supports, for vulnerable populations. For further guidance on providing culturally and linguistically appropriate services, recipients should review the National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care at http://minorityhealth.hhs.gov/omh/browse.aspx?lvl=2&lvlid=53 (http://minorityhealth.hhs.gov/omh/browse.aspx? lvl=2&lvlid=53).

In accordance with the statutory provisions contained in Section 872 of the Duncan Hunter National Defense Authorization Act of Fiscal Year 2009 (Public Law 110-417), NIH awards will be subject to the Federal Awardee Performance and Integrity Information System (FAPIIS) requirements. FAPIIS requires Federal award making officials to review and consider information about an applicant in the designated integrity and performance system (currently FAPIIS) prior to making an award. An applicant, at its option, may review information about itself that a Federal agency previously entered and is currently in FAPIIS. The Federal awarding agency will consider any comments by the applicant, in addition to other information in FAPIIS, in making a judgement about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in 45 CFR Part 75.205 "Federal awarding agency review of risk posed by applicants." This provision will apply to all NIH grants and cooperative agreements except fellowships.

Cooperative Agreement Terms and Conditions of Award

Not Applicable

3. Reporting

When multiple years are involved, awardees will be required to submit the <u>Research Performance Progress</u> <u>Report (RPPR) (//grants.nih.gov/grants/rppr/index.htm)</u> annually and financial statements as required in the <u>NIH</u> <u>Grants Policy Statement. (//grants.nih.gov/grants/guide/url_redirect.htm?id=11161)</u>

A final RPPR, invention statement, and the expenditure data portion of the Federal Financial Report are required for closeout of an award, as described in the <u>NIH Grants Policy Statement</u> (//grants.nih.gov/grants/guide/url redirect.htm?id=11161).

The Federal Funding Accountability and Transparency Act of 2006 (Transparency Act), includes a requirement for awardees of Federal grants to report information about first-tier subawards and executive compensation under Federal assistance awards issued in FY2011 or later. All awardees of applicable NIH grants and cooperative agreements are required to report to the Federal Subaward Reporting System (FSRS) available at www.fsrs.gov (//grants.nih.gov/grants/guide/url redirect.htm?id=11170) on all subawards over \$25,000. See the NIH Grants Policy Statement (//grants.nih.gov/grants/guide/url redirect.htm?id=11171) for additional information on this reporting requirement.

In accordance with the regulatory requirements provided at 45 CFR 75.113 and Appendix XII to 45 CFR Part 75, recipients that have currently active Federal grants, cooperative agreements, and procurement contracts from all Federal awarding agencies with a cumulative total value greater than \$10,000,000 for any period of time during the period of performance of a Federal award, must report and maintain the currency of information reported in the System for Award Management (SAM) about civil, criminal, and administrative proceedings in connection with the award or performance of a Federal award that reached final disposition within the most recent five-year period. The recipient must also make semiannual disclosures regarding such proceedings. Proceedings information will be made publicly available in the designated integrity and performance system (currently FAPIIS). This is a statutory requirement under section 872 of Public Law 110-417, as amended (41 U.S.C. 2313). As required by section 3010 of Public Law 111-212, all information posted in the designated integrity and performance system on or after April 15, 2011, except past performance reviews required for Federal procurement contracts, will be publicly available. Full reporting requirements and procedures are found in Appendix XII to 45 CFR Part 75 – Award Term and Conditions for Recipient Integrity and Performance Matters.

Section VII. Agency Contacts

We encourage inquiries concerning this funding opportunity and welcome the opportunity to answer questions from potential applicants.

Application Submission Contacts

eRA Service Desk (Questions regarding ASSIST, eRA Commons registration, submitting and tracking an application, documenting system problems that threaten submission by the due date, post submission issues) Finding Help Online: <u>http://grants.nih.gov/support/ (//grants.nih.gov/support/)</u> (preferred method of contact) Telephone: 301-402-7469 or 866-504-9552 (Toll Free)

<u>Grants.gov Customer Support (//grants.nih.gov/grants/guide/url_redirect.htm?id=82301)</u> (Questions regarding Grants.gov registration and submission, downloading forms and application packages) Contact Center Telephone: 800-518-4726 Email: <u>support@grants.gov (mailto:support@grants.gov)</u>

GrantsInfo (Questions regarding application instructions and process, finding NIH grant resources) Email: <u>GrantsInfo@nih.gov (mailto:GrantsInfo@nih.gov)</u> (preferred method of contact) Telephone: 301-945-7573

Scientific/Research Contact(s)

Jamie Driscoll National Institute of Mental Health (<u>NIMH (http://www.nimh.nih.gov/index.shtml</u>)) Telephone: 301-443-5288 Email: jdrisco1@mail.nih.gov (mailto:jdrisco1@mail.nih.gov)

Mark Egli, Ph.D. National Institute on Alcohol Abuse and Alcoholism (<u>NIAAA (http://www.niaaa.nih.gov/</u>)) Telephone: (301) 594-6382 Email: <u>megli@mail.nih.gov (mailto:megli@mail.nih.gov)</u>

Kristopher Bough, Ph.D. National Institute on Drug Abuse (<u>NIDA (http://www.drugabuse.gov/</u>)) Telephone: 301-443-9800 Email: <u>boughk@mail.nih.gov (mailto:boughk@mail.nih.gov)</u>

Lorenzo Refolo, PhD National Institute on Aging (NIA) Telephone: 301-594-7576 Email: <u>refolol@nia.nih.gov</u> (mailto:refolol@nia.nih.gov)

Peer Review Contact(s)

Carole Jelsema, Ph.D. Center for Scientific Review (<u>CSR (http://public.csr.nih.gov/Pages/default.aspx</u>)) Telephone: 301-435-1248 Email: jelsemacbrianscott@csr.nih.gov (mailto:jelsemac@csr.nih.gov)

Financial/Grants Management Contact(s)

Tamara Kees National Institute of Mental Health (<u>NIMH (http://www.nimh.nih.gov/index.shtml</u>)) Telephone: 301-443-8811 Email: <u>tkees@mail.nih.gov (mailto:tkees@mail.nih.gov)</u>

Judy Fox National Institute on Alcohol Abuse and Alcoholism (<u>NIAAA (http://www.niaaa.nih.gov/Pages/default.aspx</u>)) Telephone: 301-443-4704 Email: <u>jfox@mail.nih.gov (mailto:jfox@mail.nih.gov)</u>

Yinka Abu National Institute on Drug Abuse (<u>NIDA (http://www.nida.nih.gov/nidahome.html)</u>)

PAR-18-505: Advancing Basic Neurobiology Toward Translation Through Assay Development (R01 Clinical Trials Not Allowed)

Telephone: 301-595-0572 Email: <u>abuy@nida.nih.gov (mailto:abuy@nida.nih.gov)</u>

Linda Whipp National Institute on Aging (NIA) Telephone: 301-496-7700 Email: whippl@mail.nih.gov (mailto:whippl@mail.nih.gov)

Section VIII. Other Information

Recently issued trans-NIH <u>policy notices (//grants.nih.gov/grants/guide/url_redirect.htm?id=11163)</u> may affect your application submission. A full list of policy notices published by NIH is provided in the <u>NIH Guide for Grants</u> <u>and Contracts (//grants.nih.gov/grants/guide/url_redirect.htm?id=11164)</u>. All awards are subject to the terms and conditions, cost principles, and other considerations described in the <u>NIH Grants Policy Statement</u> <u>(//grants.nih.gov/grants/guide/url_redirect.htm?id=11120)</u>.

Authority and Regulations

Awards are made under the authorization of Sections 301 and 405 of the Public Health Service Act as amended (42 USC 241 and 284) and under Federal Regulations 42 CFR Part 52 and 45 CFR Part 75.

<u>Weekly TOC for this Announcement (/grants/guide/WeeklyIndex.cfm?12-22-17)</u> <u>NIH Funding Opportunities and Notices (/grants/guide/index.html)</u>



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Note: For help accessing PDF, RTF, MS Word, Excel, PowerPoint, Audio or Video files, see <u>Help Downloading Files</u> (/grants/edocs.htm).