NIH funding opportunities

Faculty of Medicine and Health Sciences: Research Development and Support 14 Nov 2022 (#43)

[Click on blue hyperlink for further information]

*The NIH funding opportunities listed below are only a **selection** of pre-screened, currently open health funding opportunities for which **South African institutions are eligible to apply**. For a comprehensive selection of NIH funding opportunities, please visit **www.grants.nih.gov** or **www.sun.ac.za/RDSfunding** (current & archive).*

Confirm your intent to apply ASAP, but not later than 60 days before the submission date.

Tygerberg Campus: cdevries@sun.ac.za • Stellenbosch Campus lizelk@sun.ac.za

To prepare an application can take 4-18 months, depending on many factors:

1. Mechanism for which you will apply e.g. U54, R01, D43, K43

2. Requirement of preliminary data

3. Time to assemble the research team

4. Time available to work on the grant, taking into consideration other responsibilities

5. Time for internal review

Parent Announcements

Parent Announcements (PA) for unsolicited are broad funding opportunity announcements allowing applicants to submit investigator-initiated applications. They are open for up to 3 years and use standard due dates.

- **PA-20-185** NIH Research Project Grant (Parent R01 Clinical Trial Not Allowed)
- **PA-20-184** Research Project Grant (Parent R01 Basic Experimental Studies with Humans Required)
- **PA-20-183** Research Project Grant (Parent R01 Clinical Trial Required)
- **PA-20-200** NIH Small Research Grant Program (Parent R03 Clinical Trial Not Allowed)
- **PA-20-195** NIH Exploratory/Developmental Research Grant Program (Parent R21 Clinical Trial Not Allowed)
- **PA-20-194** NIH Exploratory/Developmental Research Grant Program (Parent R21 Clinical Trial Required)
- **PA-20-196** NIH Exploratory/Developmental Research Grant Program (Parent R21 Basic Experimental Studies with Humans Required)

Important Notices

Gearing Up for Transition to FORMS-H Application Forms: As **announced** over the summer, NIH requires the use of updated application forms (FORMS-H) for due dates on or after January 25, 2023. . The How to Apply – Application Guide was updated on October 25 with FORMS-H application form instructions to prepare for the transition. Also see **Guide Notice NOT-OD-23-012.** All form changes are listed in High-level Grant Application Form Change Summary: FORMS-H. A key change in FORMS-H is support for the implementation of the 2023 NIH Data Management and Sharing Policy.

The intended due date for your application determines the correct form version to use.

- DO use FORMS-G form version for application due dates on or before January 24, 2023
- DO use FORMS-H form version for application due dates on or after January 25, 2023
- DO NOT use FORMS-H too early or FORMS-G too late

Notices of Special Interest (NOSI)

NOT-DA-24-005 Chemoproteomic Approaches for Discovery of Targets and Therapeutics to Treat Substance Use Disorders. The purpose of this Notice is to inform potential applicants to the National Institute on Drug Abuse (NIDA) about a special interest in supporting basic research on the application of chemoproteomic approaches for the discovery of targets and for development of drugs to treat addiction and substance use disorders. This notice applies to due dates on or after February 5, 2023 and subsequent receipt dates through January 8, 2026. Submit applications for this initiative using one of the funding opportunity announcements (FOAs) or any reissues listed in the NOSI.

NOT-HL-22-052 Advancing Research in Lipoprotein(a) and Cardiovascular Disease (R01 Clinical Trials Allowed) and (R01 No Clinical Trials Allowed). The purpose of this NOSI is to stimulate research on lipoprotein(a) [Lp(a)] and its role in cardiovascular disease (CVD). We encourage multidisciplinary collaborations to conduct basic, preclinical, and mechanistic clinical studies on Lp(a) and CVD. This NOSI is intended to facilitate collaborative research on Lp(a) and investigate its role in CVD development. This notice applies to due dates on or after February 5, 2023 and subsequent receipt dates through January 7, 2026. Submit applications for this initiative using one of the funding opportunity announcements (FOAs) or any reissues listed in the NOSI.

NOT-MH-23-110 Explainable Artificial Intelligence for Decoding and Modulating Neural Circuit Activity Linked to Behavior. The eXplainable Artificial Intelligence (XAI) framework aims to provide strong predictive value along with a mechanistic understanding of AI solutions by combining machine learning techniques with effective explanatory techniques. This Notice of Special Interest (NOSI) solicits applications in the area of XAI applied to neuroscientific questions of encoding, decoding, and modulation of neural circuits linked to behavior. This NOSI encourages collaborations between computationally and experimentally focused investigators. This NOSI seeks the development of machine learning algorithms that are able to mechanistically explain how experimental manipulations affect cognitive, affective, or social processing in humans or animals. Proof-of-concept applications aimed at improving the current state of the technology that uses XAI to provide unbiased, hierarchical explanations of causal relationships between complex neural and behavioral data are also appropriate. This notice applies to due dates on or after February 5, 2023 and subsequent receipt dates through February 5, 2026. Submit applications for this initiative using one of the funding opportunity announcements (FOAs) or any reissues listed in the NOSI.

Funding Opportunity Announcements (FOA)

1. Engineering Next-Generation Human Nervous System Microphysiological Systems (R01 Clinical Trials Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: PAR-23-046** **Type: R01**

Application Due Date: February 05, 2023 through to January 07, 2026. Applications are due by 5:00 PM local time of applicant organization. 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.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) encourages research grant applications directed toward developing next-generation human cell-derived microphysiological systems (MPS) and related assays that replicate complex nervous system architectures and physiology with improved fidelity over current capabilities. Supported projects will be expected to enable future studies of complex nervous system development, function, and aging in healthy and disease states. This FOA is intended to encourage the further development of projects with feasibility support for the line of investigation. Applicants proposing exploratory research at the early and conceptual stages of project development may instead wish to apply to the companion R21 FOA (PAR-23-047).

Budget: Application budgets are not limited but need to reflect the actual needs of the proposed project. The scope of the proposed project should determine the project period. The maximum project period is 5 years. Applicants requesting $500,000 or more in direct costs in any year (excluding consortium F&A) must contact a Scientific/ Research Contact 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.

2. Investigating the Effects of Addictive Substances on Brain Developmental Trajectories Using Innovative Scalable Methods for Quantification of Cell Identity, Lineage and Connectivity (R01 - Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-DA-23-036** **Type: R01**

Application Due Date: February 02, 2023. Applications are due by 5:00 PM local time of applicant organization. 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.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) will support projects that investigate the effects of addictive substances on developmental trajectories of molecularly-defined central nervous system (CNS) cells and circuits. Emphasis is on carrying out systematic and highly granular quantitative characterizations of the impact of in utero and/or postnatal substance exposure on the numbers, spatial distribution and connectivity of molecularly-defined cells, across whole brains or within distributed circuits of clinical relevance. The ultimate goals of the program are to identify critical developmental windows and cellular mechanisms mediating the protracted developmental impact of addictive substances, and to inform clinical practice, by complementing the data from human longitudinal neuroimaging studies such as the HEALthy Brain and Child Development (HBCD) Study and the Adolescent Brain Cognitive Development (ABCD) Study.

Budget: NIDA intends to commit $2M in FY2023 to fund 1-3 awards. Applications may not request more than $700,000 direct costs for any one year. The maximum project period is 5 years.