NIH funding opportunities

Faculty of Medicine and Health Sciences: Research Development and Support 10 Oct 2022 (#38)

[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

NIAID Initial Interim R01 Paylines Posted for Fiscal Year 2023: In preparation for the upcoming fiscal year (FY) 2023, NIAID recently shared interim paylines for research projects (R01):

- 10 percentile for established investigators
- 14 percentile for new investigators

Your Data Sharing Plan—How GDS and DMS Policies Will Interact. In light of NIH's upcoming Policy for Data Management and Sharing (DMS) and the existing Genomic Data Sharing (GDS) Policy, how many data sharing plans will your application need?

Letters of Support (LOS) have a narrow, evidentiary purpose: When applying for NIH funding, don't confuse a letter of support with a reference letter, as the two Types of Letters for Grant Applications fulfill distinct functions. Follow our advice on letters of support to ensure they help rather than harm your application during peer review.

NOT-HD-22-047 Notice of Training and REDCap Demonstration for the Implementation of NICHD's CDE Recommendations for COVID-19 Research in Pediatric, Pregnant, and Lactating Populations Published Through the NIEHS Disaster Research Response (DR2) Portal. On November 1, 2022, the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development will host a training webinar on Promoting Data Harmonization to Accelerate Pregnancy and Pediatrics Research on COVID-19 and Post-Acute Sequelae of SARS-CoV-2 Infection (PASC).

NOT-MH-23-100 Notice of Data Sharing Policy for the National Institute of Mental Health. The purpose of this Notice is to revise and replace the current NIMH Data Sharing Policy (NOT-MH-19-033), to align with the NIH Policy for Data Management and Sharing (NOT-OD-21-013), and to extend the NIMH data sharing policy to include HIV-related applications funded by the NIMH that involve human subjects research which had previously been exempted.

NOT-MH-23-105 Notice Announcing the Expectations for the Collection of Common Data Elements for HIV-Funded Research at the National Institute of Mental Health. The purpose of this Notice is to supplement NOT-MH-23-100 and inform applicants and awardees conducting HIV-related research funded by the NIMH of the expectation to collect Common Data Elements (CDEs) for human subjects research unless NIMH stipulates otherwise during the negotiation of the terms and conditions of an award. This Notice applies to all HIV-related grant applications and awards involving human research participants submitted on or after **January 25, 2023**, and applies to all Funding Opportunity Announcements (FOAs) issued or participated in by the NIMH. Applicants who do not plan to collect the expected CDEs must provide strong justification in the Data Management and Sharing Plan (see NOT-MH-23-100) included in the application. NIMH may seek further information regarding the collection of CDEs prior to an award.

NOT-OD-22-213 Supplemental Information to the NIH Policy for Data Management and Sharing: Protecting Privacy When Sharing Human Research Participant Data. NIH promotes the responsible sharing of scientific data consistent with protecting research participant privacy. To advance efforts under its new Data Management and Sharing Policy (DMS Policy), NIH is providing supplemental information assisting researchers in addressing privacy considerations when sharing human research participant data. This information is not intended to provide a guide for compliance with regulatory requirements nor is it establishing binding rules for NIH awardees, but instead provides a set of principles, best practices, and points to consider for creating a robust framework for protecting the privacy of research participants when sharing data.

NOT-OD-22-210 Financial Conflict of Interest (FCOI) and Other Support: Reminders. The purpose of this Guide Notice is two fold: (1) to remind the NIH extramural research community about the longstanding requirements provided in the financial conflict of interest (FCOI) regulation at 42 CFR Part 50 Subpart F, "Promoting Objectivity in Research" (FCOI regulation for grants and cooperative agreements). This requirement also is included in the NIH Grants Policy Statement (NIH GPS), Section 4.1.10, Financial Conflict of Interest, and serves as a term and condition of NIH grant awards. This Notice reminds the extramural applicants and recipient institutions of the requirements to develop a FCOI policy, to post it on their website and submit it to NIH, to ensure Investigator disclosure of both foreign and domestic Significant Financial Interests(SFI), to review Investigator SFIs, to determine if there is a FCOI that must be reported to NIH, and to train Investigators on FCOI requirements; and (2) to remind the NIH extramural research community of the requirement to submit complete and accurate Other Support information (NOT-OD-21-073) (NOT-OD-21-110).

NOT-OD-22-224 Research Misconduct & Detrimental Research Practices: An Overview & Case Studies – Virtual Event on October 14, 2022. Do you know the difference between research misconduct and detrimental research practices? To gain a better understanding of these topics and hear real-life scenarios, make plans to participate in a free, virtual event, presented by the NIH and the HHS Office of Research Integrity. Experts will explore interpersonal, institutional, and professional responsibilities in the overall ethical conduct of research during presentations, case studies, and discussions with the audience. Date: October 14, 2022. Time: 2:00 – 4:00 PM. Register just one time to gain access to the virtual NIH Grants Conference Center, which includes all 2022-2023 preconference events (August – January), the 2-day conference (February 1-2), and a multitude of valuable resources.

NOT-OD-23-004 Reminder: Annual Reports to the Office of Laboratory Animal Welfare due December 1, 2022. This Notice is to remind awardee institutions that Annual Reports for the reporting period October 1, 2021, through September 30, 2022, are due to the NIH Office of Laboratory Animal Welfare (OLAW) by December 1, 2022.

NOT-TW-22-006 Notice of Intent to Publish a Funding Opportunity Announcement for Implementation Research on Non-Communicable Disease (NCD) Risk Factors among Low- and Middle-Income Country and Tribal Populations Living in City Environments. The National Institutes of Health (NIH), in collaboration with the Global Alliance for Chronic Diseases (GACD), intends to publish a Funding Opportunity Announcement (FOA) to solicit applications for implementation research addressing risk factors for common noncommunicable diseases (NCDs) in low- and middle-income countries (LMICs) and American Indian/Alaska Native (AI/AN) populations in the United States (US). Chronic NCDs, such as diabetes, cardiovascular disease, neurological disorders and stroke, respiratory diseases, certain cancers, and mental health disorders are the leading cause of morbidity and mortality in both LMICs and high-income countries (HICs), especially within AI/AN populations in the United States. The COVID-19 pandemic has brought NCDs further into the spotlight, as the majority of those who have experienced severe illness and death have had one or more underlying NCDs. Reducing the burden of NCDs is therefore critical to building more resilient, equitable, and healthier societies. NIH partners plan to publish FOAs with the R01 (Clinical Trial Optional) and R61/R33 (Clinical Trial Required) activity codes in Fall 2022 with expected application due dates in Winter/Spring 2023. Historically, the following NIH ICs have participated in GACD-associated FOAs and are anticipated to continue this participation: National Cancer Institute (NCI); National Eye Institute (NEI); National Heart, Lung, and Blood Institute (NHLBI); National Institute on Aging (NIA); *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD); National Institute on Drug Abuse (NIDA); National Institute of Environmental Health Sciences (NIEHS); National Institute of Mental Health (NIMH); National Institute on Minority Health and Health Disparities (NIMHD); and National Institute of Neurological Disorders and Stroke (NINDS).

NOT-EB-22-009 Notice of Intent to Publish a Funding Opportunity Announcement for NIBIB Trailblazer Award for New and Early-Stage Investigators (R21 Clinical Trial Optional). The National Institute of Biomedical Imaging and Bioengineering, with other NIH Institutes and Centers (ICs) The National Institute on Aging, The National Eye Institute, intends to promote an initiative by publishing a Funding Opportunity Announcement (FOA) to solicit applications for research to pursue research programs of high interest to the NIH that integrate engineering and the physical sciences with the life and/or biomedical sciences. This Trailblazer Award is an opportunity for NIH-defined New and Early Stage Investigators (https://grants.nih.gov/policy/early-investigators/index.htm) to pursue research programs that integrate engineering and the physical sciences with the life and/or biomedical sciences. A Trailblazer project may be exploratory, developmental, proof of concept, or high risk-high impact, and may be technology design-directed, discovery-driven, or hypothesis-driven. Importantly, applicants must propose research approaches for which there are minimal or no preliminary data.This Notice is being provided to allow potential applicants sufficient time to develop meaningful collaborations and responsive projects. The FOA is expected to be published about 11/15/2022 with an expected application due date about 2/16/2023. This FOA will utilize the R21 activity code.

Notices of Special Interest (NOSI)

NOT-AI-22-064 Halting Tuberculosis (TB) Transmission. The purpose of this Notice of Special Interest (NOSI) is to highlight NIAID's interest in accepting applications that aim to understand the critical drivers of Tuberculosis (TB) transmission at the individual and population levels in high-burden settings. Applicants are encouraged to develop effective methods to measure rates of TB transmission that rely on an increased understanding of the biomedical basis of transmission and related risk factors and to develop and assess potential interventions, including low-cost and low-tech options, to prevent TB transmission. Areas of interest include but are not limited to:

- Aerobiology;
- Environmental impacts on transmission;
- Understanding non-traditional spread (e.g., without cough or other symptoms, community spread with limited contact);
- Development or assessment of new methods or tools to measure transmission;
- Understanding how the spectrum of TB disease (including asymptomatic and sub-clinical disease) determines the risk of transmission;
- Identifying host factors or host/pathogen interactions that encourage transmission;
- Defining characteristics or sub-populations of Mtb strains that impact transmission, including the role of Mtb strain heterogeneity;
- Studies of transmission in high-risk groups (e.g., healthcare workers, congregate settings);

- Understanding the role of asymptomatic, pre-symptomatic and differentially culturable TB in transmission;
- Studies to understand how to most effectively utilize resources to reduce transmission (e.g., preventive therapy, active screening strategies, targeted diagnosis, improved ventilation or airflow patterns).

Currently, tracking the spread of TB relies on analogue tools in many settings, which does not allow tracking of Transmission in real time. Projects will be encouraged to consider incorporating the use of improved data systems for tracing TB transmission and explore how digitized health can improve our understanding of control of TB transmission. This notice applies to application receipt dates on or after February 5, 2023 and subsequent receipt dates through January 7, 2026.

NOT-AI-22-072 Opportunities for HIV Cure Interventions at the Time of ART Initiation. This Notice of Special Interest (NOSI) serves to identify new opportunities for cure strategies during active HIV infection at or near the start of antiretroviral therapy (ART) or as a potential replacement for conventional ART, with the ultimate goal of achieving a sustained ART-free HIV remission. The scientific objective of this NOSI is to support projects to explore HIV cure approaches administered during active HIV/SHIV/SIV infection, prior to or around the time of ART initiation, before viral loads are completely suppressed, or after an analytical treatment interruption to potentially enhance the ongoing immune response and prevent additional reservoir seeding. A better understanding of the decay dynamics of various virus-infected cell subsets following ART initiation is also needed. Therefore, longitudinal studies of the viral reservoir early in active infection and immediately after ART initiation, will be supported to inform the development of new cure strategies. Additionally, basic research into the unique mechanisms that contribute to intervention-mediated viral control and reductions in reservoir size will be important. The curative approaches studied should be experimental, innovative, and not yet approved by the FDA or a foreign regulatory agency for an HIV indication. Under this NOSI, clinical trials are not allowed, but the use of samples from clinical trials supported by other funding mechanisms is encouraged. Studies in animal models, using HIV, SIV, or SHIV, are included in the scope. Therapeutic strategies should be evaluated in an *in vitro* cell-based model prior to *in vivo* studies. This Notice applies to due dates on or after **January 7, 2023** and subsequent receipt dates through **September 7, 2025**.

NOT-AI-22-074 Targeting the Pathogen within the Arthropod Vector. This Notice of Special Interest (NOSI) invites applications to stimulate multidisciplinary research to better understand pathogen/vector interactions to identify approaches to prevent pathogen transmission to the vertebrate host. This notice applies to due dates on or after **February 5, 2023** and subsequent receipt dates through **January 7, 2026**.

NOT-ES-23-002 Understanding Exposure and Health Effects of Micro and/or Nanoplastics. The purpose of this Notice of Special Interest (NOSI) is to inform potential applicants that the National Institute of Environmental Health Sciences (NIEHS), has special interest in applications that investigate exposure to, and health effects of, microplastics (MPs) and nanoplastics (NPs). This notice applies to due dates on or after **February 5, 2023** and subsequent receipt dates through **November 16, 2027**.

NOT-HD-22-045 Impact of Childhood Sexual Abuse on Gynecologic Health and Disease. The *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD) is issuing this NOSI to underscore the need for multidisciplinary research that addresses the potential associations between childhood trauma, particularly chronic sexual abuse and gynecologic health and disease. The NICHD is interested in receiving applications proposing scientific meetings or developmental/exploratory projects that will catalyze this field of inquiry by bringing together multiple disciplines to determine where there are opportunities for collaboration and to identify scientific opportunities for investigation. This notice applies to due dates on or after **November 16, 2022** and subsequent receipt dates through **January 9, 2024**.

NOT-AG-22-032 Development of Radiotracers for Diagnosis and Clinical Studies in Alzheimer's Disease (AD) and AD-Related Dementias (ADRD). This Notice of Special Interest (NOSI) invites applications for research grants that propose to develop radiotracers for Positron Emission Tomography (PET) for use in Alzheimer's disease (AD) and AD-related dementias (ADRD) research targeting new and/or emerging biological process or molecular pathways that have been shown to be relevant in the etiology and pathophysiology of neurodegeneration. This notice applies to due dates on or after January 5, 2023 and subsequent receipt dates through September 5, 2025.

NOT-AT-23-003 BRAIN Initiative: Notice of Support for Research on Interoception Circuits. The purpose of this announcement is to notify the research community that NIH welcomes BRAIN Initiative applications targeting interoceptive processes and circuits, as appropriate to the goals and requirements of specific BRAIN Initiative FOAs. For this NOSI, interoception includes the processes by which an organism senses, interprets, integrates, and regulates signals originating within itself and represents its internal states. Interoception includes the processes by which an organism senses, interprets, integrates, and regulates internal signals. Here, the action of "sensing" denotes communication from physiological systems outside of the central nervous system (CNS) to the CNS, through the commonly called ascending or afferent pathways, whereas the action of "regulating" refers to the communication from the brain to other physiological systems via descending or efferent pathways. The CNS, especially the brain, is primarily responsible for interpreting and integrating these signals into a representation of the internal world as well as the generation of regulating signals. The systems involved in sensing signals about the internal environment include not only the peripheral nervous system and the CNS but also components of the peripheral internal organs such as vascular, endocrine, and immune systems. This notice applies to due dates on or after June 15, 2023 and subsequent receipt dates through October 3, 2024.

NOT-DA-23-009 HEAL Initiative: Grand Opportunity in Medications Development for Substance-Use Disorders. The NIH HEAL initiative aims to speed the development and implementation of scientific solutions to the national opioid public health crisis by bolstering research across NIH to (1) improve treatment for opioid and co-occurring stimulant misuse and addiction and (2) enhance pain management. More information and periodic updates about the HEAL Initiative are available at: https://heal.nih.gov/. The PAR-22-202 - Grand Opportunity in Medications Development for Substance-Use Disorders (U01 Clinical Trial Optional) seeks to accelerate the development of medication for the treatment of opioid and/or stimulant use disorders or overdose by encouraging research applications to support a diverse array of preclinical and/or clinical research projects. The goal is to fund medication studies that will have high impact and quickly yield the necessary results to advance medications closer to FDA approval. This notice applies to due dates on or after October 27, 2022 2022 and subsequent receipt dates through September 2, 2025.

NOT-DA-23-010 HEAL Initiative: Development of Medications to Prevent and Treat Opioid and/or Stimulant Use Disorders and Overdose. The NIH HEAL initiative aims to speed the development and implementation of scientific solutions to the national opioid public health crisis by bolstering research across NIH to (1) improve treatment for opioid and co-occurring stimulant misuse and addiction and (2) enhance pain management. More information and periodic updates about the HEAL Initiative are available at: https://heal.nih.gov/. PAR-22-200 entitled Development of Medications to Prevent and Treat Opioid and/or Psychostimulant Use Disorders and Overdose (UG3/UH3 - Clinical Trial Optional seeks to support the discovery and development of medications to prevent and treat Opioid and/or Stimulant Use Disorders and Overdose. The UG3/UH3 Phase Innovation Awards Cooperative Agreement involves 2 phases. The UG3 is to support a project with specific milestones to be accomplished by the end of the 2-year period. The UH3 is to provide funding for 3 years to a project that successfully completed the milestones set in the UG3 Phase. UG3 projects that have met their milestones will be administratively considered by NIDA and prioritized for transition to the UH3 phase. Investigators responding to this FOA must address both UG3 and UH3 phases. This notice applies to due dates on or after October 27, 2022 and subsequent receipt dates through September 2, 2025.

NOT-HD-22-049 High Priority Areas in Placental Research for Healthy Pregnancies" (Reissue). Although the placenta is a short-lived organ limited to pregnancy, its importance is often underappreciated in being a crucial organ for the propagation of our species and future health of our progeny. Perturbations in any one of its many functions may result in many common adverse pregnancy outcomes. These include early pregnancy loss, preeclampsia, fetal growth restriction, stillbirth, and preterm birth. In addition, a poorly functioning placenta can lead to aberrant programming of the fetus that can impact the health of the individual later in adult life. This includes an increased incidence of adult diseases such as obesity, cardiovascular disease, and diabetes. Thus, a more comprehensive understanding of the placenta is necessary to help address a number of major gaps in knowledge. The major gaps that this NOSI targets fall within four major research areas. This notice applies to applications submitted on or after February 5, 2022 and subsequent receipt dates through March 16, 2025.

Funding Opportunity Announcements (FOA)

1. Limited Competition: The NHGRI Genomic Data Science Analysis, Visualization, and Informatics Lab-space (AnVIL) (U24 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-HG-22-020** **Type: U24**

Application Due Date: December 02, 2022. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: The purpose of this FOA is to solicit applications for development, maintenance, and user support for the NHGRI Genomic Data Science Analysis, Visualization, and Informatics Lab-space (AnVIL). AnVIL is a scalable and interoperable resource for the basic and clinical genomic research communities that leverages a cloud-based infrastructure to democratize data access, sharing, and computing across large genomic and genomic-related datasets. This is a limited competition RFA. Only recipient organizations funded under RFA-HG-17-011 are eligible to apply.

Budget: NHGRI intends to commit a total of $6,500,000 per year in FY 2023 through FY 2027 to fund up to 2 awards. This is a limited competition RFA. Only recipient organizations funded under RFA-HG-17-011 are eligible to apply. 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.

2. The NHGRI Genomic Data Science Analysis, Visualization, and Informatics Lab-space Clinical Resource (ACR) (U24 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-HG-22-021** **Type: U24**

Application Due Date: December 02, 2022. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: The purpose of this Funding Opportunity Announcement (FOA) is to support the development, implementation, and maintenance of the AnVIL Clinical Resource (ACR), a suite of genomic-based clinical tools and services built into the NHGRI Data Science Analysis, Visualization, and Informatics Lab-Space (AnVIL) to foster clinical genomic research. AnVIL is a scalable and interoperable resource for the basic and clinical genomic research communities that leverages a cloud-based infrastructure to democratize data access, sharing, and computing across large genomic and genomic-related datasets.

Budget: NHGRI intends to commit a total of $1,500,000 per year in FY 2023 through FY 2027 to fund 1 award. 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.

3. Advancing Methods for Safe, Noninvasive, Real Time Assessment of Placenta Development and Function Across Pregnancy (R21 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: PAR-22-236** **Type: R21**

Application Due Date: February 16, 2023. October 16, 2023. October 16, 2024. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) invites grant applications that seek to advance or clinically validate emerging novel approaches for the development of safe, real-time, non-invasive (or minimally invasive) methods to assess the development and function of the human placenta across pregnancy.

Budget: The combined budget for direct costs for the two year project period may not exceed $275,000. No more than $200,000 may be requested in any single year.

4. Advancing Methods for Safe, Noninvasive, Real Time Assessment of Placenta Development and Function Across Pregnancy (R01 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: PAR-22-237** **Type: R01**

Application Due Date: February 05, 2023. October 05, 2023. October 05, 2024. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) invites grant applications that seek to advance or clinically validate emerging novel approaches for the development of safe, real-time, non-invasive (or minimally invasive) methods to assess the development and function of the human placenta across pregnancy.

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.

5. Large Scale Integrated Mapping and Molecular Profiling of Cell Ensembles and/or Cell-Types Mediating Opioid Action in the Rodent Brain (R01 - Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-DA-23-035** **Type: R01**

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

Funding Opportunity Announcement: This funding opportunity announcement (FOA) aims to support complementary research programs that adopt innovative scalable technologies to inventory, register and profile cellular ensembles and/or cell-types that produce and/or respond to opioids in the rodent brain, or that are engaged during different stages of opioid use (acute, chronic, withdrawal, abstinence, relapse). Emphasis is on approaches capable of integrating data generated through molecular profiling, at single-cell resolution, with other data modalities, such as cellular activity, connectivity and/or spatial localization, collected from the same cells or cell-types. The overarching goal of the FOA is to deliver multimodal reference datasets that will constitute useful resources to the research community and will provide a foundational biological framework to advance the understanding and treatment of opioid-associated states.

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.

6. BRAIN Initiative: Theories, Models and Methods for Analysis of Complex Data from the Brain (R01 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-DA-23-039** **Type: R01**

Application Due Date: December 15, 2022. September 12, 2023. September 12, 2024. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) seeks the development of theories, computational models, and analytical tools to derive understanding of brain function from complex neuroscience data. Proposed projects could develop tools to integrate existing theories or formulate new theories; conceptual frameworks to organize or fuse data to infer general principles of brain function; multiscale/multiphysics models to generate new testable hypotheses to design/drive future experiments; new analytical methods to substantiate falsifiable hypotheses about brain function. It is expected that the tools developed under this FOA will be made widely available to the neuroscience research community for their use and modification. Investigative studies should be limited to model parameter estimation and/or validity testing of the tools being developed.

Budget: Application budgets are not limited, but are expected to range between $150,000 to $250,000 direct costs per year. Investigators are expected to request a budget that is required to accomplish the proposed work. Awards are for three years of support. **PEDP implementation costs:** Applicants may include allowable costs associated with PEDP implementation (as outlined in the Grants Policy Statement section 7: https://grants.nih.gov/grants/policy/nihgps/html5/section_7/7.1_general.htm).

7. Schizophrenia and related disorders during mid- to late-life (R01 Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-MH-22-270** **Type: R01**

Application Due Date: February 22, 2023. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: The purpose of this Funding Opportunity Announcement (FOA) is to encourage applications that will advance translational research to better understand the emergence, trajectory, and outcomes of schizophrenia and related psychotic disorders in mid- to late-life, and to identify targets for future development of prevention and treatment interventions.

This FOA uses the R01 grant mechanism, while the companion FOA (RFA-MH-22-271), uses the R21 mechanism. Investigators proposing high risk/high reward projects that lack preliminary data may be more appropriate for the R21 mechanism.

Budget: NIMH intends to commit $3,000,000 in FY 2024 to fund 5-7 awards in response to this FOA and the companion (RFA-MH-22-271). 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.

8. INvestigation of Co-occurring conditions across the Lifespan to Understand Down syndromE (INCLUDE) Clinical Research Short Course (R25 Independent Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: PAR-22-195** **Type: R25**

Application Due Date: June 27, 2023. June 27, 2024. June 27, 2025. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: The NIH Research Education Program (R25) supports research education activities in the mission areas of the NIH. The overarching goal of this R25 program is to support educational activities that complement and/or enhance the training of a workforce to meet the nation's biomedical, behavioral and clinical research needs. To accomplish the stated over-arching goal, this FOA will support creative educational activities with a primary focus on courses for skills development. The NIH INvestigation of Co-occurring conditions across the Lifespan to Understand Down syndromE (INCLUDE) Project seeks to improve health and quality-of-life for individuals with Down syndrome (DS). As part of the INCLUDE Project, NIH is interested in expanding and diversifying the skilled DS clinical research workforce. The intent of this Funding Opportunity Announcement (FOA) is to encourage applications that develop creative and innovative short courses to train the next generation of DS researchers in state-of-the-art clinical research skills that will improve the understanding of the co-occurring clinical features in DS and support development of new treatments for health conditions experienced by those with DS.

Budget: Application budgets may not exceed $400,000 in direct costs annually and are expected 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.

9. National Library of Medicine (NLM)Research Grants in Biomedical Informatics and Data Science (R01 Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date **Hyperlink: PAR-23-034** **Type: R01**

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

Funding Opportunity Announcement: The National Library of Medicine (NLM) supports innovative research and development in biomedical informatics and data science. This funding opportunity focuses on biomedical discovery and data-powered health, integrating streams of complex and interconnected research outputs that can be translated into scientific insights, clinical care, public health practices, and personal wellness. The scope of NLM's interest in these research domains is broad, with emphasis on new and innovative methods and approaches to foster data driven discovery in the biomedical and clinical health sciences as well as domain-independent, scalable, and reusable/reproducible approaches to discovery, curation, analysis, organization, and management of health-related digital objects.

Budget: Application budgets are limited to $250,000 per year in direct costs and 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 4 years.

10. Mechanism-Focused Research to Promote Adherence to Healthful Behaviors to Prevent Mild Cognitive Impairment (MCI) and Alzheimer's Disease (AD) and AD-Related Dementias (ADRD) (R61/R33 Clinical Trial Required)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-AG-23-034** **Type: R61/R33**

Application Due Date: January 20, 2023. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) invites applications to address psychological and interpersonal mechanisms driving adherence to behaviors or lifestyle changes relevant to the prevention of cognitive decline, Mild Cognitive Impairment (MCI), and Alzheimer's disease (AD) and AD-related dementias (ADRD). Mechanisms of adherence may be studied in new, early- to late-stage (including Stages I-IV) behavior change trials. Applications should seek to identify malleable, mechanistic, psychological, or interpersonal targets that, if modified, will strengthen adherence to, maintenance of, and continued/renewed engagement in behaviors that may promote cognitive health and prevent AD/ADRD. This FOA utilizes the R61/R33 Exploratory/Developmental Phased Award activity code. The R61 phase will support pilot research to identify, measure, and assess the malleability of psychological or interpersonal adherence-relevant targets that, if successful, can transition to the R33 phase. The R33 phase will utilize results from the R61 phase to implement rigorous, proof-of-concept intervention studies. The transition from the R61 to the R33 phase will be administratively reviewed for, and be dependent upon, successful completion of the go/no-go criteria specified in the R61 phase.

Budget: NIA intends to commit $1.4 million in fiscal year 2023 to fund 2-4 awards. For the R61 planning phase, the budget for direct costs may not exceed $225,000 in any single year. For the R33 implementation phase, the budget for direct costs may not exceed $500,000 in any single year. Application budgets need to reflect the actual needs of the proposed project. The maximum period of the combined R61/R33 phases is 5 years, with 1-2 years for the R61 phase and 3-4 years for the R33 phase. Funding of the R33 award will be determined by successful completion of the R61 scientific goals, as determined by NIH.

11. Genetic Tools for Understanding Rickettsial and Related Infections (R61/R33 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-AI-22-047** **Type:R61/R33**

Application Due Date: February 14, 2023. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: A comprehensive understanding of pathogenic bacteriology requires the ability to generate and study genetically altered bacterial strains. For the obligate intracellular human pathogens of the order Rickettsiales—including *Anaplasma*, *Ehrilichia*, *Orientia* and *Rickettsia* species—these tools have long lagged behind those available for extracellular bacteria. While recent advances have demonstrated the feasibility of genetically manipulating these bacteria, inherent limitations associated with their obligate intracellular nature and reduced genomes have hindered large-scale generation of useful mutants across all species.

This funding opportunity will address that research gap by dedicating support to the generation and functional characterization of mutant libraries for rickettsial species that cause infections in humans, and to the application of these new tools to better understanding the biology of rickettsial pathogens.

Budget: NIAID intends to commit $2 million in FY 2024 to fund 6-8 awards. Budgets for the R61 phase may not exceed $175,000 annually in direct costs. Budgets for the R33 phase may not exceed $250,000 annually in direct costs. The maximum period of funding for the R61 phase is three years and the maximum period of funding of the R33 phase is two years, for a total of five years for the entire R61/R33 award.

12. Immunity in Older Adults (U01 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-AI-22-060** **Type: U01**

Application Due Date: February 14, 2023. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: The purpose of this Funding Opportunity Announcement (FOA) is to support studies that provide mechanistic insights into innate and adaptive immune changes that occur during the aging process. The main objective of the program is to define the contribution of age-related alterations in different components of the immune system and the functional consequences in relation to infections, vaccine responses, and chronic inflammatory conditions.

Budget: NIAID and partner components intend to commit an estimated total of $4.42M to fund 5-7 awards. Application budgets are not expected to exceed $400,000 in direct costs per year and should reflect the actual needs of the proposed project. The project period must be five years.

13. Therapeutics for Eliminating Hepatitis B Virus cccDNA (R21/R33 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-AI-22-068** **Type: R21/R33**

Application Due Date: February 14, 2023. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: The purpose of this Funding Opportunity Announcement is to invite applications aimed at discovery of new antivirals that result in the transcriptional suppression and elimination of HBV cccDNA from infected cells.

Budget: NIAID intends to commit $3,800,000 in FY 2024 to fund 7-9 awards. Application budgets are limited to $275,000 in direct costs over the two-year project period for the R21 phase, with a maximum of $200,000 in direct costs allowed in any single year. The R33 award phase is limited to $300,000 in direct costs per year. The maximum period of funding for the R21 phase is two years and the maximum period of funding of the R33 phase is three years, for a total of five years for the entire R21/R33 award.

14. Advancing Adolescent Tobacco Cessation Intervention Research (R34 Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-CA-22-042** **Type: R34**

Application Due Date: January 23, 2023. October 16, 2023. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: The purpose of this Funding Opportunity Announcement (FOA) is to provide support for research to facilitate well planned clinical trials aimed at advancing the science of tobacco cessation among adolescents. Specifically, the FOA invites applications for Planning Grants (R34) to inform the planning, design, and initial development of adolescent tobacco cessation behavioral intervention studies, with an emphasis on the critical developmental risk period ranging from mid- to late adolescence (i.e., approximately 14-20 years old). Applications should propose clinical trial planning activities that are scientifically necessary to guide the design and conduct of a future clinical trial evaluating a tobacco cessation behavioral intervention for adolescents. Planning activities could include, but are not limited to, feasibility and pilot studies to assess intervention viability and/or trial design, and testing of recruitment, retention, and adherence strategies to increase participant engagement and scientific rigor.

Budget: NCI and NIDA intend to commit $3 million total across the fiscal years (FYs) starting in FY 2023 to fund up to 4 awards. Direct costs are limited to $450,000 over a 3-year project period, with no more than $225,000 in direct costs allowed in any single year. The maximum project period is three years.

15. Advancing Adolescent Tobacco Cessation Intervention Research (R01 Clinical Trial Required)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-CA-22-043** **Type: R01**

Application Due Date: January 23, 2023. October 16, 2023. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: The purpose of this Funding Opportunity Announcement (FOA) is to support studies that develop, test, implement, and evaluate behavioral tobacco cessation interventions for adolescents, with a focus on the critical developmental risk period of mid- to late adolescence (approximately 14-20 years old).

Budget: NCI and NIDA intend to commit $30 million total across the fiscal years (FYs) starting in FY 2023 to fund up to 6 awards. Direct costs in any single year should reflect the actual needs of the proposed project; however, total direct costs are limited to $3,150,000 across a 5-yr project period. The proposed project period must not exceed 5 years.

16. Clinical Sites for HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network (UG1 Clinical Trial Required)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-CA-22-051** **Type:**

Application Due Date: December 28, 2022. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: Through this Funding Opportunity Announcement (FOA), the National Cancer Institute (NCI) solicits applications from institutions/organizations to participate as Clinical Sites for the HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network. The 'CASCADE' Network will conduct pragmatic clinical trials evaluating the effectiveness of clinically proven interventions to overcome barriers and reduce failures in the cervical cancer screening, management, and precancer treatment cascade for women living with HIV. 'CASCADE' clinical trials will be conducted in intended-use environments in resource-constrained settings in low and middle-income countries and in regions with health disparities in the United States, and will have four major scientific focus areas: increasing screening uptake, improving the management of screen positives, facilitating precancer treatment access, and optimizing precancer treatments for cervical cancer prevention in women living with HIV. Evidence from these trials is expected to inform clinical practice guidelines and improve the implementation of cervical cancer prevention and control programs globally.

'CASCADE' will consist of three organizational components each with its own FOA: U24 Coordinating Center (funded previously by RFA-CA-21-045), UG1 Research Bases (funded previously by RFA-CA-21-046), and UG1 Clinical Sites. Three UG1 Clinical Sites have previously been funded under RFA-CA-21-047; five additional UG1 Clinical Sites will be supported under this FOA to join the 'CASCADE' Network.

As an integral part of this Cooperative Agreement-funded network, the UG1 Clinical Sites (this FOA) will provide a pluripotent infrastructure for accruing participants to network clinical trials, interface with the UG1 Research Bases and U24 Network Coordinating Center during concept and protocol development to provide insights and input on clinical significance and study feasibility and provide on-site operational leadership for the successful conduct of the network clinical trials.

Budget: NCI intends to commit $1.5 million per year total costs in FY2022 to fund up to five awards for the UG1 Clinical Sites. It is expected that $1.5 million per year will be available in FY2024 - FY2026, but future year amounts will depend on annual appropriations. The requested budget must not exceed $200,000 in direct costs for each year of the 4-year project period. The maximum project period is 4 years.

17. Cannabis and Cannabinoid Use in Adult Cancer Patients During Treatment: Assessing Benefits and Harms (U01 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-CA-22-052** **Type:**

Application Due Date: February 17, 2023. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: Through this Funding Opportunity Announcement (FOA), the National Cancer Institute (NCI), National Institute on Drug Abuse (NIDA), and National Center for Complementary and Integrative Health (NCCIH) invite Cooperative Agreement (U01) applications that propose prospective research studies to assess the benefits and harms of cannabis and cannabinoid use among adult cancer patients during active treatment. NCI, NIDA, and NCCIH are seeking well-designed prospective cohort studies of cancer patients with solid or hematologic tumors currently receiving treatment. Studies are expected to compare cancer patients who use cannabis/cannabinoids with cancer patients that do not use cannabis and/or cannabinoids. Research studies including diverse populations by age, sex, race/ethnicity, tumor types, and/or geography and propose population-based recruitment strategies using cancer registries are strongly encouraged. This FOA is published in parallel with RFA-CA-22-053 "Coordinating Center for Cannabis and Cannabinoid Use in Adult Cancer Patients During Treatment: Assessing Benefits and Harms (U24 Clinical Trial Not Allowed)." New prospective studies and the coordinating center funded under these FOAs will work together with NIH program staff.

Budget: NCI, NIDA, and NCCIH intend to commit $4.05 million in FY 2023 to fund approximately four awards. Future year amounts are anticipated to be at the same levels but will ultimately depend on annual appropriations. Application budgets are limited to $500,000 direct costs per year. The maximum project period is 5 years.

18. Basic/Translational Research on Health Disparities in Underrepresented People Living with HIV (PLWH) and Cancer (R01 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-CA-22-056** **Type: R01**

Application Due Date: December 15, 2022; December 15, 2023. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: Through this funding opportunity announcement, the National Cancer Institute (NCI) intends to focus on the biological interactions of cancer health disparities in people living with HIV (PLWH) from underrepresented minority groups through basic mechanistic or translational studies to investigate how HIV interacts with health disparities to promote both non-AIDS and AIDS-defining cancer initiation, progression, and the resulting pathogenic disease sequelae. Companion Funding Opportunity R21 = RFA-CA-22-057

Budget: NCI intends to commit $3.5M in FY 2023 to fund 7-10 awards and $3.5M in FY 2024 to fund another 7-10 awards. 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

19. BRAIN Initiative Cell Atlas Network (BICAN): Comprehensive Center on Human and Non-human Primate Brain Cell Atlases (UM1 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-MH-22-290** **Type:UM1**

Application Due Date: February 01, 2023Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) intends to support large-scale Comprehensive Center(s) that will adopt high throughput imaging technology platforms to create comprehensive and highly granular brain cell atlases of human and non-human primates with an emphasis on human. The Centers are expected to characterize all brain cell types (neurons, glia, and other non-neuronal cells) at high-resolution. The overarching goal of the BRAIN Initiative Cell Atlas Network (BICAN) is to build reference brain cell atlases that will be widely used throughout the research community, providing a molecular and anatomical foundational framework for the study of brain function and disorders.

Budget: Issuing IC and partner components intend to commit an estimated total of $30M per fiscal year to fund 1-3 Comprehensive Centers. Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 5 years.

20. BRAIN Initiative Cell Atlas Network (BICAN): Coordinating Unit for Biostatistics, Informatics, and Engagement (CUBIE) (U24 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-MH-22-291** **Type: U24**

Application Due Date: February 01, 2023. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) intends to support cloud-based common imaging data processing pipelines to uniformly process high-volume imaging-based brain cell atlas data. The purpose is to visualize, register, analyze, and integrate the cell atlas imaging data, and characterize molecular and anatomical phenotypes and features of brain cells. The overall goals of Coordinating Unit for Biostatistics, Informatics, and Engagement (CUBIE) are to (i) enable the exploration of large-scale brain cell atlas data and knowledge, and inspire research in brain function and disorders; and (ii) ensure research rigor and data reproducibility by making the data Findable, Accessible, Interoperable, and Reusable (FAIR), and the process transparent. An application is expected to propose only one of the above four respective elements.

Budget: Issuing IC and partner components intend to commit an estimated total of $4M per fiscal year to fund 1-3 awards. Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 5 years.

21. BRAIN Initiative Cell Atlas Network (BICAN): Specialized Collaboratory on Human, Non-human Primate, and Mouse Brain Cell Atlases (R01 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-MH-22-292** **Type: R01**

Application Due Date: February 01, 2023. February 01, 2024. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) intends to support a group of Specialized Collaboratories that will adopt scalable technology platforms and streamlined sampling strategies and assay cascade to create comprehensive and highly granular brain cell atlases in human, non-human primates, mouse, and other species in coordination and collaboration with other BRAIN Initiative Cell Atlas Network (BICAN) projects. In particular, the Specialized Collaboratories are expected to complement the Comprehensive Centers in BICAN with distinct capabilities, competencies, and research aims. The overarching goal of the BICAN is to build reference brain cell atlases that will be widely used throughout the research community, providing a molecular and anatomical foundational framework for the study of brain function and disorders.

Budget: Issuing IC and partner components intend to commit an estimated total of $6M per fiscal year to fund 4-8 Specialized Collaboratories. Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 3 years.