

**NIH funding opportunities** 

Faculty of Medicine and Health Sciences: Research Development and Support 15 Feb 2021 (#02)

### [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 <u>www.grants.nih.gov</u> or <u>www.sun.ac.za/RDSfunding</u> (current & archive).

Confirm your intent to apply ASAP, but not later than **60 days** before the submission date. Tygerberg Campus: <u>cdevries@sun.ac.za</u> • Stellenbosch Campus <u>lizelk@sun.ac.za</u>

## **Important Notices**

- <u>NOT-FD-21-005</u> FDA Grants/Cooperative Agreements Clinical Trial Insurance Requirements. The recipient is
  responsible for acquiring Clinical Trial liability insurance against all liabilities, damages, losses, injuries,
  complaints and/or claims arising from the trial including, but not limited to, claims that arise from malpractice
  and/or negligence. In addition to funds required to support clinical trial conduct, the recipient should account
  for the costs of this insurance in the budget, and will be responsible for maintaining an insurance certificate that
  satisfies any relevant regulations/guidance/policies including local requirements.
- <u>NOT-OD-21-056</u> Notice of Legislative Mandates in Effect for FY 2021. The Consolidated Appropriations Act, 2021 (Public Law 116-260), signed into law on December 27, 2020, provides funding to NIH for the Fiscal Year ending September 30, 2021. The intent of this notice is to provide current requirements outlined in the following statutory provision that limits or conditions the use of funds on NIH grant, cooperative agreement, and contract awards for FY 2021.
- <u>NOT-OD-21-060</u> UPDATE Implementation of Requirement to Submit the Federal Financial Report (FFR) in the Payment Management System. The purpose of this Notice is to acknowledge challenges that recipients have experienced with submitting the SF-425 Federal Financial Report (FFR) via a single-entry point in the HHS Payment Management System (PMS). The requirement went into effect on January 1, 2021.
- <u>NOT-OD-21-059</u> Notice of Intent to Publish Funding Opportunity Announcements for Research on Firearm Injury and Mortality Prevention. Given that violence and suicide have a number of causes, NIH will take a comprehensive approach to studying these underlying causes and evidence-based methods of prevention of injury, including crime prevention. NIH plans to publish one or more FOAs in February for funding to begin in FY 2021.
- <u>NOT-HD-21-005</u> Notice of Intent to Publish a Funding Opportunity Announcement for Human Milk as a Biological System (R01 Clinical Trial Optional). The Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) intends to promote a new initiative by publishing a Funding Opportunity Announcement (FOA) to solicit applications for research on Human Milk as a Biological System. 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 in July 2021 with an expected application due date in November 2021.

## **Notices of Special Interest (NOSI)**

 <u>NOT-AI-21-011</u> Notice of Special Interest (NOSI): Secondary Analysis of Existing Datasets for Advancing Immune-mediated and Infectious Disease Research. This NOSI is to support projects that use data, alone or in combination, to address scientific questions and knowledge gaps in basic or clinical research in immunemediated and infectious diseases. This NOSI invites applications proposing innovative informatics/data science projects that seek to answer novel scientific questions and address knowledge gaps in basic, translational and clinical, immune-mediated and infectious diseases by using data in repositories and knowledgebases. The projects may combine data from a variety of repositories and/or knowledgebases funded by NIAID in addition to other sources, including controlled-access and private user-generated data. The research focus areas of the applications must include infectious diseases, emerging infections, basic immunology or immune-mediated disease (i.e. allergy, autoimmunity, or immune reactions associated with transplantation). AIDS applications can additionally propose research using existing datasets to examine the interaction of mental health and mental health comorbidities, stigma, and other social behavioral determinants of health on HIV-related outcomes. Submit applications for this initiative using one of the following funding opportunity announcements (FOAs) or any reissues of these announcement through the expiration date of this notice.

- <u>PA-20-195</u> NIH Exploratory/Developmental Research Grant Program (Parent R21 Clinical Trial Not Allowed)
- NOT-AT-21-002 Notice of Special Interest (NOSI): Promoting Research on Interoception and Its Impact on Health and Disease. For this NOSI, interoception includes the processes by which an organism senses, interprets, integrates, and regulates signals originating from within itself and represents its internal states. This NOSI encourages basic and clinical research projects that 1) combine diverse expertise; 2) develop and use innovative technologies and approaches to delineate interoceptive mechanisms at the molecular, cellular, circuit, functional, and/or behavioral levels; 3) assess pathophysiological processes of interoception in the context of diseases and disorders; 4) determine the impact of interventions and therapies to manipulate interoceptive processes on health and/or disease; and 5) develop and validate predictive biomarkers, computational models, or artificial intelligence models relevant to interoception and its impact on health and disease. Submit applications for this initiative using one of the following FOAs or any reissues of these announcements through the expiration date of this notice.
  - o PA-20-185 NIH Research Project Grant (Parent R01 Clinical Trial Not Allowed)
  - <u>PA-20-184</u> Research Project Grant (Parent R01 Basic Experimental Studies with Humans Required)
  - o PA-20-183 Research Project Grant (Parent R01 Clinical Trial Required)
  - o PA-20-195 NIH Exploratory/Developmental Research Grant Program (Parent R21 Clinical Trial Not Allowed)
  - <u>PA-20-196</u> NIH Exploratory/Developmental Research Grant Program (Parent R21 Basic Experimental Studies with Humans Required)
  - o PA-20-194 NIH Exploratory/Developmental Research Grant Program (Parent R21 Clinical Trial Required)
- NOT-AG-21-015 Notice of Special Interest (NOSI): Aging-Relevant Behavioral and Social Research on Coronavirus Disease 2019 (COVID-19) NIA is issuing this Notice of Special Interest (NOSI) to highlight the continuing need for behavioral, psychological, social, and economic research on SARS-CoV-2 and coronavirus disease 2019 (COVID-19). There is a need for ongoing research on the longer-term effects of COVID-19 on the health and well-being of those infected, those caring for the sick, and many others whose lives were disrupted by the pandemic and its associated mitigation and prevention strategies. Beyond effects on individuals, this pandemic has brought about unprecedented social and economic disruption that is expected to have long-term and profound effects on the health of the population. These effects will likely be particularly acute for NIH-designated health disparity populations, and other COVID-19 vulnerable groups including older adults, who have experienced higher rates of COVID-19 infection, who in some cases rely on the efforts of paid and unpaid care partners, and who may have additional barriers to accessing the medical system itself. Further, middle-aged and older frontline healthcare and essential workers and their families face unique risks of exposure to both infection and other health-related outcomes by virtue of their employment.
- <u>NOT-CA-21-028</u> Notice of Special Interest (NOSI): Leveraging Real-World Imaging Data for Artificial Intelligence-based Modeling and Early Detection of Abdominal Cancers. The purpose of this Notice of Special Interest (NOSI) is to solicit applications to support the secondary use of real-world data for Artificial Intelligence (AI)-based predictive modeling with the ultimate goal of improving early detection and risk assessment for abdominal cancers. This Notice encourages applications proposing multi-institutional collaborative AI development approaches such as federated learning, which distributes the models to data-owners and aggregates the results without sharing the actual data.
- <u>NOT-CA-21-031</u> Notice of Special Interest (NOSI): Understanding the effects of cancer and cancer treatment
  on aging trajectories and aging outcomes. The purpose of this Notice of Special Interest (NOSI) is to solicit
  investigator-initiated applications that aim to better understand the effects of a cancer diagnosis and
  subsequent cancer treatment on aging trajectories and aging outcomes.
- <u>NOT-DA-21-011</u> Notice of Special Interest (NOSI): Effects of smoking and vaping on the risk and outcome of COVID-19 infection. The purpose of this notice is to communicate NIDA's interest in supporting research on the

effects of smoking or vaping tobacco or marijuana on the risk of acquiring COVID-19 and the clinical course of the infection. This Notice is a reissuance of <u>NOT-DA-20-084</u>. During this pandemic, requirements of "Stay-at-Home" to reduce exposure, social isolation, lack of employment and lost incomes have raised the level of anxiety among individuals and may have led to increased use of tobacco and marijuana. Therefore, it is scientifically relevant to explore the **medical consequences** of smoking and vaping and the effects of tobacco and marijuana exposure in relation to COVID-19. Of relevance are studies in individuals at the forefront of indispensable jobs, in individuals with substance-use disorders **(SUD)** (narcotics, stimulants, sedatives, etc.), in individuals with **HIV** and other immunocompromised populations, in disenfranchised minorities, and in adolescents whose lives have been distorted by the pandemic.

- <u>NOT-DE-21-001</u> Notice of Special Interest (NOSI): NIDCR Support for Research on the Physiological Involvement of Oral Cavity in Coronavirus Disease 2019 (COVID-19). The oral/nasal route serves as the SARS-CoV-2 point of entry into the host thus playing a pivotal role in viral spread and COVID-19 onset and progression. As such, limiting viral infectivity, replication, shedding, and load at the point of entry is crucial to containing COVID-19 progression, as well as transmission to others. This NOSI will support studies focused on the role of oral/nasal cavity and oral manifestations related to SARS-CoV-2 and/or COVID-19 within the NIDCR mission.
- NOT-AI-21-008 Notice of Special Interest (NOSI): Complement in Basic Immunology (CIBI). NIAID conducts and supports basic and applied research to better understand, treat, and ultimately prevent infectious diseases, including fundamental immunology research that aims to understand the complex interactions between pathogens and their human hosts and generate the knowledge essential for developing safe and effective treatments and vaccines. The mechanisms by which complement influences immune responses have been under appreciated, and a better understanding of complement action will inform high priority adjuvant and vaccine development, and also shed light on the pathogenesis of infections such as SARS CoV-2. The main objective of this program is to support studies that accelerate our understanding of the roles of complement components and/or receptors in the initiation, magnitude, maintenance, and quality of immune responses against infectious agents, or of the roles played by complement in the development of adjuvants and vaccine candidates or therapeutics that target complement components. Submit applications for this initiative using one of the following funding opportunity announcements (FOAs) or any reissues of these announcement through the expiration date of this notice.
  - o <u>PA-20-185</u> NIH Research Project Grant (Parent R01 Clinical Trial Not Allowed)
  - <u>PA-20-195</u> NIH Exploratory/Developmental Research Grant Program (Parent R21 Clinical Trial Not Allowed)
- <u>NOT-DA-21-017</u> Notice of Special Interest (NOSI): Medical Consequences of Smoking and Vaping Drugs of Abuse in Individuals with HIV and COVID-19. NIDA is interested in receiving research applications focusing on individuals with HIV who smoke or vape marijuana, tobacco, cocaine and/or methamphetamine to determine the long-term effects of their use among individuals with HIV and COVID-19. Submit applications for this initiative using one of the following funding opportunity announcements (FOAs) or any reissues of these announcement through the expiration date of this notice.
  - o PA-20-184 Research Project Grant (Parent R01 Basic Experimental Studies with Humans Required)
  - o PA-20-183 Research Project Grant (Parent R01 Clinical Trial Required)
  - o PA-20-200 NIH Small Research Grant Program (Parent R03 Clinical Trial Not Allowed
  - o PA-20-146 NIH Small Research Grant Program (Parent R03 Clinical Trial Required)
  - <u>PA-20-195</u> NIH Exploratory/Developmental Research Grant (Parent R21 Clinical Trial Not Allowed)
  - o <u>PA-20-194</u> NIH Exploratory/Developmental Research Grant Program (Parent R21 Clinical Trial Required)
  - <u>PA-20-196</u> NIH Exploratory/Developmental Research Grant Program (Parent R21 Basic Experimental Studies with Humans Required)
- <u>NOT-DA-21-018</u> Notice of Special Interest (NOSI): Long-Term Neurocognitive Consequences of COVID-19 in Individuals Living with HIV and Substance Use Disorders. NIDA is interested in receiving research applications focusing on studying the long-term neurocognitive consequences of the COVID-19/HIV/SUDs syndemic. Submit applications for this initiative using one of the following funding opportunity announcements (FOAs) or any reissues of these announcement through the expiration date of this notice.
  - o 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)
  - o PA-20-200 NIH Small Research Grant Program (Parent R03 Clinical Trial Not Allowed)

- PA-20-195 NIH Exploratory/Developmental Research Grant (Parent R21 Clinical Trial Not Allowed)
- <u>PA-20-194</u> NIH Exploratory/Developmental Research Grant Program (Parent R21 Clinical Trial Required)
- <u>PA-20-196</u> NIH Exploratory/Developmental Research Grant Program (Parent R21 Basic Experimental Studies with Humans Required)

## **Upcoming Deadlines**

 <u>Strengthening Institutional Capacity to Conduct Global Cancer Research in Low- and Middle-Income</u> <u>Countries D43</u> 24 June 2021

## **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.

- <u>PA-20-185</u> NIH Research Project Grant (Parent R01 Clinical Trial Not Allowed)
- <u>PA-20-184</u> Research Project Grant (Parent R01 Basic Experimental Studies with Humans Required)
- <u>PA-20-183</u> 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)
- <u>PA-20-194</u> NIH Exploratory/Developmental Research Grant Program (Parent R21 Clinical Trial Required)
- <u>PA-20-196</u> NIH Exploratory/Developmental Research Grant Program (Parent R21 Basic Experimental Studies with Humans Required)

# **Funding Opportunity Announcements (FOA)**

1. The Cellular Scale Connectome in Aging and Alzheimer's Disease (U01 Clinical Trial Not Allowed)			
Letter of Intent: 30 days prior to the application due date	Hyperlink: <u>RFA-AG-22-008</u>	Type: U01	
Application Due Date: June 15, 2021. Apply by 5:00 PM local time of applicant organization.			
Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) invites applications that will: (1) promote the			
development of a comprehensive characterization of brain circuits susc	eptible to Alzheimer's disease type patholo	ogy and/or neurodegeneration	
in mouse models of Alzheimer's disease (AD), (2) share data on the cell connectome in the aging and AD brain in a common reference brain cell			

atlas that integrates both molecular and anatomical annotations, and (3) complement and extend research on vulnerable cell types to include the mapping of connectivity changes between cells in aging and AD and provide a greater understanding of the mechanisms underlying resilience and vulnerability in AD.

**Budget:** NIA intends to commit \$8.0 million in FY 2022 to fund 3-5 awards. Application budgets are not limited but need to reflect the actual needs of the proposed project. The project period is limited to five years.

# 2. NIH Blueprint for Neuroscience Research: Tools and Technologies to Explore Nervous System Biomolecular Condensates (R21 Clinical Trial Not Allowed)

 Letter of Intent: 30 days prior to the application due date
 Hyperlink: <u>RFA-DA-22-008</u>
 Type: R21

 Application Due Date: September 15, 2021. Apply by 5:00 PM local time of applicant organization.
 Funding Opportunity Announcement: he NIH Blueprint for Neuroscience Research is a collaborative framework through which 14 NIH

 Institutes, Centers and Offices jointly support neuroscience related research, with the aim of accelerating discoveries and reducing the burden of nervous system disorders (for further information, see <a href="http://neuroscienceblueprint.nih.gov/">http://neuroscienceblueprint.nih.gov/</a>). The purpose of this FOA is to support the development of innovative tools and/or technologies to monitor or manipulate biomolecular condensates (BMCs) in vivo and enable investigators to adopt these tools to answer outstanding questions in basic neuroscience. This research will transform our understanding of the mechanistic role of BMCs in human nervous system health and disease and may serve as the foundation for the development of novel BMC-based therapeutics.

**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. The project period may not exceed two years.

#### Research on Biopsychosocial Factors of Social Connectedness and Isolation on Health, Wellbeing, Illness, and Recovery (R01 Basic 3. **Experimental Studies with Humans Required)**

#### Letter of Intent: 30 days prior to the application due date

Hyperlink: PAR-21-144 Type: R01

Application Due Date: March 17, 2021. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This funding opportunity announcement (FOA) invites research projects that seek to explain the underlying mechanisms, processes, and trajectories of social relationships and how these factors affect outcomes in human health, illness, recovery, and overall wellbeing. Types of projects submitted under this FOA include studies that prospectively assign human participants to conditions (i.e., experimentally manipulate independent variables) and that assess biomedical and/or behavioral outcomes in humans to understand fundamental aspects of phenomena related to social connectedness and isolation. NIH considers such studies as "prospective basic science studies involving human participants" that meet the NIH definition of basic research and fall within the NIH definition of clinical trials (see, e.g., NOT-OD-19-024) Types of studies that should submit under this FOA include studies that prospectively assign human participants to conditions (i.e., experimentally manipulate independent variables) and that assess biomedical or behavioral outcomes in humans for the purpose of understanding the fundamental aspects of phenomena without specific application towards processes or products in mind. Applications proposing studies - include, but are not limited to, model animal research or observational studies involving humans should submit under the companion FOA PAR-21-145 "Research on Biopsychosocial Factors of Social Connectedness and Isolation on Health, Wellbeing, Illness, and Recovery (R01 Clinical Trials Not Allowed).

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.

#### 4. Exploratory studies to investigate mechanisms of HIV infection, replication, latency, and/or pathogenesis in the context of substance use disorders (R61/R33 - Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date

Hyperlink: RFA-DA-22-004 Type: R61/R33

Application Due Date: July 14, 2021 and AIDS date September 07, 2021 Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: The purpose of this FOA is to support exploratory studies developing or using novel tools or technologies or testing novel hypotheses to investigate mechanistic questions in HIV infection, replication, latency, and/or pathogenesis (including neuroHIV) in the context of Substance Use Disorders (SUDs). This initiative focuses on exploration and characterization of signaling pathways that are involved in CNS HIV establishment and expansion. The FOA aims to promote research to investigate the underlying molecular mechanisms by which HIV infection is initiated, established, and maintained in the CNS and to determine how addictive substances modulate HIV infection, latency and the size and persistence of CNS HIV reservoirs.

Budget: NIDA intends to commit \$ 3.5M in FY 2022 to fund 4-7 awards. Applications may not request more than \$350k direct costs for any single year of the R61 phase or more than \$500k direct costs for any single year of the R33 phase. The maximum period of the combined R61/R33 is five years, with up to two years for the R61 Phase and three 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.

#### 5. High-throughput Discovery and Validation of Novel Signal Transducers or Small Molecules that Modulate Opioid or other Substance Use Disorder Relevant Pathways (R01 - Clinical Trials Not Allowed)

Letter of Intent: 30 days prior to the application due date

Hyperlink: <u>RFA-DA-22-006</u> Application Due Date: September 15, 2021 Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This FOA will support high-throughput screening approaches to identify novel receptors, signal transducers, or small molecules that modulate Substance Use Disorder (SUD)-relevant signal transduction pathways (dopamine, opioid, cannabinoid, nicotinic, or other appropriately justified pathway). Applicants may also propose secondary screens and/or validation of high value identified targets.

Budget: NIDA intends to commit \$ 3M in FY 2022 to fund 2-4 awards. Applicants may request up to \$400k per year in direct costs. Applicants may request up to 5 years of support.

#### Natural History of Disorders Screenable in the Newborn Period (R01 Clinical Trial Optional) 6.

Letter of Intent: 30 days prior to the application due date

Hyperlink: PAR-21-115

Type: R01

Type: R01

Application Due Date: standard due dates apply. Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: This funding opportunity announcement (FOA) encourages applications that propose to develop studies that will lead to a broad understanding of the natural history of disorders that already do or could potentially benefit from early identification by newborn screening. A comprehensive understanding of the natural history of a disorder has been identified as a necessary element to facilitate appropriate interventions for infants identified by newborn screening. By defining the sequence and timing of the onset of symptoms and complications of a disorder, a valuable resource will be developed for the field. In addition, for some disorders, specific genotype-phenotype correlations may allow prediction of the clinical course, and for other disorders, identification of modifying genetic, epigenetic, or environmental factors will enhance an understanding of the clinical outcomes for an individual with such a condition. Comprehensive data on natural history will facilitate the field's ability to: 1) accurately diagnose the disorder; 2) understand the genetic and clinical heterogeneity and phenotypic expression of the disorder; 3) identify underlying mechanisms related to basic defects; 4) potentially prevent, manage, and treat symptoms and

complications of the disorder; and 5) provide children and their families with needed support and predictive information about the disorder. 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.

7.	asic Research to Inform Vaccine and Therapeutic Development for Non-Polio Human Enteroviruses (NPEV) (R01 Clinical Trial	Not
	llowed)	

Letter of Intent: 30 days prior to the application due date

Hyperlink: <u>RFA-AI-21-006</u>

Type: R01

Application Due Date: July 13, 2021. Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: The purpose of this funding opportunity announcement is to solicit applications to expand basic research on non-polio enteroviruses (NPEV) that will inform the development of pan-enterovirus vaccines and broad-spectrum antivirals against enteroviruses A, B, C, and D.

**Budget:** NIAID intends to commit \$6 million in FY 2022 to fund 8 - 13 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. A maximum project period of 5 years is allowed.

## 8. Expert-Driven Small Projects to Strengthen Gabriella Miller Kids First Discovery (R03 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date Hyperl

Hyperlink: <u>RFA-RM-21-011</u> Type: R03

Application Due Date: June 18, 2021. Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement**: The NIH Common Fund has established the Gabriella Miller Kids First Pediatric Research Program (Kids First) with the vision of alleviating suffering from childhood cancer and structural birth defects by fostering collaborative research to uncover the etiology of these diseases and supporting data sharing within the pediatric research community. Kids First has established and continues to develop a Data Resource including a large collection of curated genomic and phenotypic data from childhood cancer and structural birth defects cohorts and a central portal where these data and analysis tools are accessible to the research community. This FOA is intended to engage experts in a variety of activities that will enhance the utility of childhood cancer and/or structural birth defects genomic datasets generated by the Kids First program and/or associated phenotypic datasets and resources. These activities should strengthen future analyses of Kids First datasets by the broader researcher community with the ultimate goal of improving diagnostic capabilities and therapies for children and their families affected by these conditions.

**Budget:** Kids First intends to commit approximately \$1,675,000 in FY 2021 (Year 1 of these awards), contingent upon receiving scientifically meritorious applications. 9-14 awards are anticipated from this solicitation. No more than \$100,000 may be requested in direct costs per year. A project duration of up to two years may be requested.