

**NIH funding opportunities** 

Faculty of Medicine and Health Sciences: Research Development and Support 19 Jan 2022 (#3)

### [Click on blue <u>hyperlink</u> 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>

## **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)
- <u>PA-20-196</u> NIH Exploratory/Developmental Research Grant Program (Parent R21 Basic Experimental Studies with Humans Required)

## **Important Notices**

<u>NOT-OD-22-018</u> Reminder: FORMS-G Grant Application Forms & Instructions Must be Used for Due Dates On or After January 25, 2022 - New Grant Application Instructions Now Available. This Notice reminds the applicant and recipient community that applicants must use FORMS-G application packages for due dates on or after January 25, 2022 and must use FORMS-F application packages for due dates on or before January 24, 2022 (see <u>NOT-OD-21-169</u> for details). FORMS-G Grant Application Instructions are now posted on the <u>How to Apply-Application Guide</u> page.

# **Notices of Special Interest**

- <u>NOT-AG-21-028</u> Notice of Special Interest (NOSI): Analyses of CALERIE Datasets and Biospecimens to Elucidate the Biological Effects and the Behavioral and Psychological Aspects of Sustained Caloric Restriction in Humans. The National Institute on Aging (NIA) is issuing this Notice of Special Interest (NOSI) to encourage analyses of the unique research resources generated by the CALERIE (Comprehensive Assessment of Long-term Effects of Reducing Intake of Energy) trial to improve our understanding of the effects of sustained caloric restriction (CR) in humans and its underlying mechanisms. NIA invites applications for innovative research (R01) projects and exploratory research (R21) projects which leverage the CALERIE Phase 2: 1) biological datasets and biospecimens and/or 2) the CALERIE Tracking System (CTS) behavioral database to address novel hypotheses on the following areas:
  - Biological, phenotypic, and functional aging, and their related pathways;
  - Risk factors for chronic diseases and the underlying cellular and molecular mechanisms; and

• Behavioral and psychological aspects of sustained CR.

The CALERIE research resources are broadly accessible to investigators through the <u>NIA Aging Research Biobank</u>. Prior to any submission of an application for the analysis of CALERIE biospecimens, a request to access the CALERIE biospecimens must be submitted to the NIA Aging Research Biobank and approved by the NIA Biobank Scientific Review Committee. Prospective applicants are strongly advised to seek the necessary permissions well in advance of the anticipated submission date for their applications. Applicants are required to include plans for sharing data and results, as well as innovative data analytics approaches. This notice applies to due dates on or after February 16, 2022 and subsequent receipt dates through May 8, 2023.

- <u>NOT-AG-21-043</u> Notice of Special Interest (NOSI): Infectious Etiology of Alzheimer's Disease. Taking into consideration the strong links between microbial pathogens and AD and the emergence of the antimicrobial protection hypothesis of AD, this NOSI invites research on mechanisms underpinning neurodegeneration in AD associated with microbial pathogens in the CNS. The goals include: to determine whether microbial pathogens impact neurodegenerative processes in AD, and/or to inform aspects of future translational studies in AD including discovery of candidate therapeutics aimed at regulating pathogen-associated networks and molecules in AD. This NOSI strongly encourages leveraging existing cohorts with available samples from plasma, cerebrospinal fluid (CSF), and brain tissue, as well as imaging data, to address the possible links between infectious agents and AD. The following are appropriate research topics for this NOSI:
  - o Studies on the role of infectious agents as contributors to AD in the context of some of Koch's postulates.
  - Identification of host genes and gene networks that are most commonly perturbed by pathogens in the brains of AD patients.
  - Research on amyloidosis as a protective mechanism against microbial infection.
  - o Mechanisms linking microbial infection and systemic inflammation with peripheral amyloidosis.
  - Research on mechanisms by which AD pathology may increase the vulnerability of the CNS to microbial infection.
  - Studies of host and pathogen factors contributing to breakdown of the blood-brain barrier and potential mechanisms leading to the neuro-invasion of pathogens in AD.

Applications on research topics beyond those indicated above (e.g., dysbiosis and age-related microbiome alterations or association between the production and composition of microbiome metabolites with aging and the onset and progression of AD and Alzheimer's disease-related dementias (ADRD)) will be considered nonresponsive to this NOSI and will not be reviewed. This notice applies to due dates on or after March 11, 2022 and subsequent receipt dates through November 13, 2024.

- <u>NOT-AG-21-051</u> Notice of Special Interest (NOSI): Sleep Disorders and Circadian Clock Disruption in Alzheimer's Disease and other Dementias of Aging. While it appears that there is a bidirectional relationship between chronic sleep and circadian disruption and AD pathogenesis, and previous studies have established that humans with AD and mice with Aβ pathology develop sleep and circadian dysfunction, little is known about the mechanisms involved. The aim of this NOSI is to advance basic and clinical research on the causes and consequences of sleep deficiency and circadian clock dysfunction in AD/ADRD, and the roles of sleep and the circadian clock as modifiers of the onset and progression of neurodegeneration. This notice applies to due dates on or after March 11, 2022 and subsequent receipt dates through November 13, 2024.
- <u>NOT-EY-22-002</u> Notice of Special Interest (NOSI): Advancing NEI AGI Research on newly Identified Factors Into Models of Visual System Regeneration. The National Eye Institute (NEI) is issuing this Notice of Special Interest (NOSI) to encourage novel research that incorporates newly identified factors into new or existing models of visual system regeneration. These factors were identified by a consortium of research teams as part of the Audacious Goal Initiative (AGI) and are being shared broadly with the research community. Applicants beyond the original consortium are strongly encouraged to apply. This notice applies to due dates on or after February 16, 2022 and subsequent receipt dates through October 16, 2024.

# Funding Opportunity Announcements (FOA)

# 1. Early and Late Stage Clinical Trials for the Spectrum of Alzheimer's Disease/Alzheimer's Related Dementias and Age-Related Cognitive Decline (R01 Clinical Trial Optional)

 Letter of Intent: 30 days prior to the application due date
 Hyperlink: PAR-21-359
 Type: R01

Application Due Date: March 04, 2022 through to October 05, 2024. Apply by 5:00 PM local time of applicant organization Funding Opportunity Announcement: The purpose of this Funding Opportunity Announcement (FOA) is to 1) invite applications that propose to develop and implement early to late stage clinical trials of promising pharmacological and non-pharmacological interventions for cognitive and neuropsychiatric changes associated with age-related cognitive decline and Alzheimer's disease (AD) and Alzheimer's disease-related Dementias (ADRD) across the spectrum from pre-symptomatic to more severe stages of disease, and 2) stimulate studies to enhance trial design and methods.

Companion Funding: PAR-21-360, R61 Phase 1 Exploratory/Developmental Grant

**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. Pilot Studies for the Spectrum of Alzheimer's Disease/Alzheimer's Disease-Related Dementias and Age-Related Cognitive Decline (R61 Clinical Trial Optional)

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

Hyperlink: <u>PAR-21-360</u>

Type: R61

Application Due Date: March 04, 2022 through to October 18, 2024. Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: The purpose of this Funding Opportunity Announcement (FOA) is to 1) invite research grant applications that enable the collection of pilot data to support early stage testing of promising pharmacological and non-pharmacological interventions for cognitive and neuropsychiatric changes associated with age-related cognitive decline and Alzheimer's disease (AD) and Alzheimer's disease-related dementias (ADRD) across the spectrum from pre-symptomatic to more severe stages of disease, and 2) stimulate studies to enhance trial design and methods.

**Budget:** NIH intends to fund an estimate of up to 5 awards, corresponding to a total of \$2.5 million, for fiscal year 2022. Future year amounts will depend on annual appropriations. Application budgets are limited to \$325,000 direct costs per year. The scope of the proposed project should determine the project period. The maximum project period is 2 years.

#### 3. Exploratory/Developmental Bioengineering Research Grants (EBRG) (R21 Clinical Trial Not Allowed)

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

Hyperlink: PAR-22-090

Hyperlink: PAR-22-091

Hyperlink: RFA-DA-22-037

Type: R21

Type: R21

Type: R01

Application Due Date: February 16, 2022 through to October 16, 2024. Apply by 5:00 PM local time of applicant organization Funding Opportunity Announcement: he purpose of this engineering-oriented funding opportunity announcement (FOA) is to encourage submissions of exploratory/developmental Bioengineering Research Grant (EBRG) applications to demonstrate feasibility and potential utility of new capabilities or improvements in quality, speed, efficacy, operability, costs, and/or accessibility of solutions to problems in basic biomedical, pre-clinical, or clinical research, clinical care delivery, or accessibility

**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 maximum project period is 2 years.

#### 4. Exploratory/Developmental Bioengineering Research Grants (EBRG) (R21 Clinical Trial Optional)

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

Application Due Date: February 16, 2022 through to October 16, 2024. Apply by 5:00 PM local time of applicant organization

**Funding Opportunity Announcement**: The purpose of this engineering-oriented funding opportunity announcement (FOA) is to encourage submissions of exploratory/developmental Bioengineering Research Grant (EBRG) applications to demonstrate feasibility and potential utility of new capabilities or improvements in quality, speed, efficacy, operability, costs, and/or accessibility of solutions to problems in basic biomedical, pre-clinical, or clinical research, clinical care delivery, or accessibility. This FOA will support clinical trials that test functionality or validate performance in the chosen setting. Applications that propose phase III clinical trials in any area of cancer research are not sought by and will not be supported through this FOA

**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 maximum project period is 2 years.

#### 5. Accelerating the Pace of Drug Abuse Research Using Existing Data (R01 Clinical Trial Optional)

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

Application Due Date: March 04, 2022 through to November 15, 2024. Apply by 5:00 PM local time of applicant organization

**Funding Opportunity Announcement**: The purpose of this Funding Opportunity Announcement (FOA) is to invite applications proposing innovative analysis of existing social science, behavioral, administrative, and neuroimaging data to study the etiology and epidemiology of substance using behaviors (defined as alcohol, tobacco, prescription, and other substances) and related disorders, prevention of substance use and HIV, and health service utilization. This FOA encourages the analyses of public use and other extant community-based or clinical datasets to their full potential in order to increase our knowledge of etiology, trajectories of substance using behaviors and their consequences including morbidity and mortality, risk and resilience in the development of psychopathology, strategies to guide the development, testing, implementation, and delivery of high quality, effective and efficient services for the prevention and treatment of substance use disorder and HIV. Primary data collection is not allowed for applications in response to this FOA.

Budget: NIDA intends to commit \$2 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 scope of the proposed project should determine the project period. The maximum project period is 5 years.

#### In Vitro Based Approaches to Evaluate the Bioequivalence of Prospective Generic Rectal and Vaginal Products (U01) Clinical Trial Not Allowed

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

Type: U01 Hyperlink: RFA-FD-22-014

Application Due Date: March 31, 2022, by 11:59 PM Eastern Time.

Funding Opportunity Announcement: The purpose of this funding opportunity is to support research and development that will characterize the specific and unique considerations relevant to evaluating the bioequivalence (BE) of rectal and vaginal (topical) drug products. A specific emphasis of this funding opportunity involves the development of biorelevant performance tests as a component of product characterizationbased BE approaches.

Budget: The number of awards is contingent upon FDA appropriations and the submission of a sufficient number of meritorious applications. Award(s) will provide one (1) year of support and include future recommended support for three (3) additional years contingent upon annual appropriations, availability of funding and satisfactory recipient performance. FDA/CDER intends to commit up to \$500,000 in FY 2022 to fund up to two (2) awards. Application budgets need to reflect the actual needs of the proposed project and should not exceed \$250,000 in total costs (direct and indirect) per year. The scope of the proposed project should determine the project period. The maximum project period is four (4) years.

#### In Vitro Approaches to Evaluate and Compare the Adhesion Performance of Transdermal and Topical Delivery Systems (TDS) (U01) 7. **Clinical Trial Required**

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

Hyperlink: RFA-FD-22-015

Type: U01

Application Due Date: March 31, 2022, by 11:59 PM Eastern Time.

Funding Opportunity Announcement: The purpose of this funding opportunity is to support the research to develop in vitro test methods for Transdermal and Topical delivery systems (collectively, TDS) that can correlate with and be predictive of TDS adhesion performance in vivo. Differences in product design, formulation, or quality attributes between a prospective generic TDS and it reference TDS may have the potential to alter the adhesion quality or performance of the test TDS, compared to the reference TDS. The in vitro test methods to be developed are expected to be useful for the industry to evaluate potential failure modes related to TDS adhesion during the development of prospective generic TDS, and useful in FDA's assessment of potential differences in the adhesion quality and performance of prospective generic TDS relative to their reference TDS.

Budget: The number of awards is contingent upon FDA appropriations and the submission of a sufficient number of meritorious applications. Award(s) will provide one (1) year of support and include future recommended support for four (4) additional years contingent upon annual appropriations, availability of funding and satisfactory recipient performance. FDA/CDER intends to commit up to \$250,000 in FY 2022 to fund up to one (1) award. Application budgets need to reflect the actual needs of the proposed project and should not exceed \$250,000 in total costs (direct and indirect) per year. The scope of the proposed project should determine the project period. The maximum project period is five (5) vears.

#### Chronic, Non-Communicable Diseases and Disorders Across the Lifespan: Fogarty International Research Training Award (NCD-LIFESPAN) (D43 Clinical Trial Optional)

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

Hyperlink: PAR-21-230

Type: D43

Application Due Date: July 13, 2022; July 13, 2023. Apply by 5:00 PM local time of applicant organization Funding Opportunity Announcement: This funding opportunity announcement (FOA) encourages applications for the Chronic, Non-Communicable Diseases and Disorders Across the Lifespan: Fogarty International Research Training Award (NCD-LIFESPAN) D43 program for institutional research training programs in low-and middle-income countries (LMICs, as defined by the World Bank classification system). Applications may be for collaborations between institutions in the U.S and an eligible LMIC or may involve just LMIC institutions if there is a previous track record of externally funded research and/or research training programs by the lead LMIC institution. The proposed institutional research training program is expected to sustainably strengthen the NCD research capacity of the LMIC institutions, and to train in-country experts to develop and conduct research on NCDs across the lifespan, with the long-range goal of developing and implementing evidence-based interventions relevant to their countries. Interdisciplinary research training that cuts across NCDs is encouraged. However, for more topical applications, the main focus of research training covered in the application must be relevant to the mission and/or interests of at least one of the participating NIH ICs, other than FIC, as stated by each in this FOA. Other NCD topics and types of training may be included as secondary and complementary focus areas. This Funding Opportunity Announcement (FOA) allows appointment of Trainees (D43) proposing to serve as the lead investigator of an independent clinical trial; or proposing a separate ancillary clinical trial; or proposing to gain research experience in a clinical trial led by another investigator, as part of their research and career development.

Budget: Application budgets are limited to \$230,000 per year for new awards and \$250,000 per year for renewal awards (total direct costs). The maximum project period is up to 5 years.

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