Faculty of Medicine and Health Sciences: Research Development and Support 01 Jul 2019 (#22)

[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

#### **Important Notices & News**

- Findings of Research Misconduct NOT-OD-19-112: the Office of Research Integrity (ORI) has taken final action in the case William W. Cruikshank, Ph.D., Boston University School of Medicine. He engaged in research misconduct by knowingly, intentionally, and/or recklessly falsifying and/or fabricating data included in the following published papers and two grant applications submitted to NCI, NIH.
- Notice of Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) participation in Planning Grant D71 (NOT-HD-19-017) and for Fogarty HIV Research Training Program D43 (NOT-HD-19-018) for Low- and Middle-Income Country Institutions.
- 1. National Institute on Aging (NIA) Multi-site Clinical Trial Implementation Grant (Clinical Trial Required)

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

Hyperlink: PAR-19-302

**Application Due Date:** <u>Standard dates</u> Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) invites applications for implementation of investigator-initiated multi-site interventional clinical trials (all phases). The trials should be hypothesis-driven, milestone-defined, and related to NIA's research mission. Information about NIA's mission can be found on the NIA website.

Budget: Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 5 years.

Mechanisms of Mycobacterial-Induced Immunity in HIV-Infected and/or Uninfected Individuals to Inform Innovative **Tuberculosis Vaccine Design (R01 Clinical Trial Not Allowed)** 

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

Hyperlink: PAR-19-307

Type: R01

Application Due Date: January 14, 2020, January 14, 2021, and January 14, 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 innovative studies to identify and understand the immune responses that mediate protection from Mycobacterium tuberculosis (Mtb) infection or progression to active tuberculosis (TB) disease. Such responses may be operative in mycobacterial infection, or following vaccination with Bacillus Calmette-Guérin (BCG) or investigational TB vaccines. Studies may focus on any stage of mycobacterial infection and may include HIV-infected and/or uninfected individuals. Research supported under this FOA should go beyond descriptive information currently known about Mtb infection, immune responses to TB vaccines, or immune modulation by non-tuberculous mycobacterial (NTM) infection, or by HIV/AIDS. Applications are sought that include characterization of the timing, anatomical location, and contribution to disease outcome, of mucosal and/or systemic immune responses to mycobacterial infection and/or vaccination. This research is expected to advance understanding of immune mechanisms in Mtb infection/vaccination and contribute to the advancement of new TB vaccines, including in populations also infected with HIV.

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.

## 3. Stimulating Innovations in Behavioral Intervention Research for Cancer Prevention and Control (R21 Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date Hyperlink: PAR-19-309 Type: R21

Application Due Date: Standard dates & Standard AIDS dates 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 the development of innovative interventions that improve cancer-related health behaviors across diverse racial/ethnic populations. Specifically, this FOA is intended to stimulate research aimed at 1) testing new theories and conceptual frameworks; 2) developing and evaluating novel strategies to improve cancer-related health behaviors; 3) investigating multi-level and multi-behavioral approaches; and 4) utilizing innovative research designs, methodologies, and technologies. The cancer-related health behaviors to be targeted are diet, obesity, physical activity and sedentary behavior, smoking, sleep and circadian dysfunction, alcohol use, and/or adherence to cancer-related medical regimens. Research can involve several stages of the cancer continuum and any phase of the translational spectrum

**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. Lipid Signaling in Healthspan and Longevity Regulation (R01 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date Hyperlink: RFA-AG-20-039 Type: R0:

**Application Due Date:** February 3, 2020. Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement**: To date, limited evidence suggests that regulation of lipid metabolism can modulate lifespan. This funding opportunity announcement aims to encourage innovative research programs designed to improve and expand our understanding of novel regulatory mechanisms governing lipid metabolism and signaling in the context of aging and age-associated conditions.

**Budget**: NIA intends to commit \$1 million in FY 2020 to fund 4-5 awards. Application budgets are limited to \$250,000 in direct costs and should 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. Regulation of Brain Regional and Cell Type Specific Proteome Dynamics in Alzheimer's Disease (R21 Clinical Trial Not Allowed)

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

Hyperlink: RFA-AG-20-041

Type: R21

Application Due Date: October 23, 2019. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) invites early stage innovative and exploratory research focusing on understanding the regulation of brain regional and cell type-specific protein dynamics in Alzheimer's disease (AD). In particular, this FOA seeks applications proposing to develop novel proteomic platforms and animal models to further understanding of the alteration of a single-cell neuronal cell proteome in the central nervous system (CNS) during the course of aging and AD.

Budget: NIA intends to commit \$2 million in FY 2020 to support 8 awards. 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. Application budgets need to reflect the actual needs of the proposed project. The maximum project period is two years

### 6. Regulation of Brain Regional and Cell Type Specific Proteome Dynamics in Alzheimer's Disease (Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date Hyperlink: RFA-AG-20-042 Type: R01

**Application Due Date:** Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement**: This Funding Opportunity Announcement (FOA) invites innovative research focused on understanding the regulation of brain regional and cell-type-specific proteome dynamics in Alzheimer's disease (AD). Specifically, this FOA encourages collaborative approaches to design and implement novel, single-cell-based proteomic platforms to comprehensively characterize the dynamics of neuronal proteomes during the course of aging and AD.

**Budget**: NIA intends to commit \$10,000,000 in FY 2020 to fund 8-10 awards. Application budgets need to reflect the actual needs of the proposed project and should be limited to no more than \$750,000 in direct costs per year. The maximum project period is 5 years

## 7. Leveraging Big Data Science to Elucidate the Mechanisms of HIV Activity and Interaction with Substance Use Disorder (Clinical Trials Not Allowed)

Letter of Intent: 30 days prior to the application due date Hyperlink: RFA-DA-20-008 Type: R01

**Application Due Date:** November 14, 2019. Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement**: The purpose of this FOA is to attract data and computational scientists to propose novel ways to integrate data of different types and scales to allow new types of analysis through big data science approaches. It is expected that the development and application of novel computational, bioinformatics, statistical, and analytical approaches can be leveraged to reveal the effects of the interaction of the HIV virus and drugs of abuse on viral activity, latency, and disease progression, as well as new aspects of addiction biology.

**Budget**: NIDA intends to commit \$1M in FY2020 to fund 3-5 awards from this R01 and the R21. Future year amounts will depend on annual appropriations. Application budgets are limited to direct costs of \$350k. Project periods cannot exceed 5 years.

## 8. Leveraging Big Data Science to Elucidate the Mechanisms of HIV Activity and Interaction with Substance Use Disorder (Clinical Trials Not Allowed)

Letter of Intent: 30 days prior to the application due date Hyperlink: RFA-DA-20-009 Type: R21

Application Due Date: November 14, 2019. Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement**: The purpose of this FOA is to attract data and computational scientists to propose novel ways to integrate data of different types and scales to allow new types of analysis through big data science approaches. It is expected that the development and application of novel computational, bioinformatics, statistical, and analytical approaches can be leveraged to reveal the effects of the interaction of the HIV virus and drugs of abuse on viral activity, latency, and disease progression, as well as new aspects of addiction biology.

**Budget**: NIDA intends to commit \$1M in FY2020 to fund 3-5 awards from this R21 and the R01. Future year amounts will depend on annual appropriations. 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. Project periods cannot exceed 2 years.

# 9. Development of Clinical Outcome Assessments for Clinical Trials in Substance Use Disorders as FDA-qualified Drug Development Tools (Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date Hyperlink: RFA-DA-20-015 Type: U01

Application Due Date: October 23, 2019. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: The purpose of this funding opportunity announcement is to support the development of Clinical Outcome Assessments (COAs) for Substance Use Disorders (SUDs) aiming to be qualified by the Food and Drug Administration (FDA) as Drug Development Tools (DDTs). The FDA qualification of a COA is based on a review of the evidence to support the conclusion that the COA is a "well-defined and reliable assessment of a targeted concept(s) in a specified context of use in adequate and well-controlled investigations". Once qualified as a DDT, the COA will become a publicly available instrument and can be deployed within a specified context of use (COU) as a sensitive, reliable and validated instrument. COA can be a patient-reported outcome (PRO), a clinician-reported outcome (ClinRO), an observer-reported outcome (ObsRO) or a performance outcome (PerfO). Applications may focus on the creation and development of a new COA, or on modification/optimization of an existing COA. The final goal is to have FDA-qualified COA(s) measure(s) that would be acceptable to regulatory authorities when used in SUDs clinical trials. It is expected that such FDA-qualified COAs will have a potential to catalyze the regulatory approval path for new treatments.

**Budget**: NIDA intends to commit \$2M in FY 2020 to fund up to 4 awards. Application budgets are expected not to exceed \$500,000 per year per each award in direct costs. The maximum project period is 3 years.

### 10. BRAIN Initiative: Proof of Concept Development of Early Stage Next Generation Human Brain Imaging (Clinical Trial Not Allowed)

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

Hyperlink: RFA-EB-19-001

Type: R01

Application Due Date: September 3, 2019. Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement**: This funding opportunity announcement (FOA), in support of the NIH Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative, aims to support early stage development of entirely new and novel noninvasive human brain imaging technologies and methods that will lead to transformative advances in our understanding of the human brain. The FOA solicits unusually bold and potentially transformative approaches and supports small-scale, proof-of-concept development based on exceptionally innovative, original and/or unconventional concepts.

**Budget**: Issuing IC and partner <u>components</u> intend to commit an estimated total of \$ 4M to fund 6-12 awards. Application budgets are limited to \$300,000 in direct costs in any project year. The scope of the proposed project should determine the project period. The maximum project period is 2 years.

## 11. BRAIN Initiative: Development of Next Generation Human Brain Imaging Tools and Technologies (Clinical Trial Not Allowed)

**Letter of Intent:** 30 days prior to the application due date **Hyperlink:** RFA-EB-19-002 **Type:** U01 **Application Due Date:** September 3, 2019, September 3, 2020, and September 3, 2021. Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement**: This funding opportunity announcement (FOA), in support of the NIH Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative, aims to support full development of entirely new or next generation noninvasive human brain imaging tools and methods that will lead to transformative advances in our understanding of the human brain. The FOA seeks innovative applications that are ready for full-scale development of breakthrough technologies with the intention of delivering working tools. This FOA represents the second stage of the tool/technology development effort that started with <a href="https://rec.acm.ncbi.nlm.ncbi

**Budget**: Issuing IC and partner <u>components</u> intend to commit an estimated total of \$8M to fund 3-6 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.

#### 12. Computational Methods for Integrating Tissue and Single Cell Genomic Data from the Brain (Clinical Trial Not Allowed)

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

Hyperlink: RFA-MH-20-300

Type: R01

Application Due Date: September 3, 2019. 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 or application of advanced computational and statistical tools to integrate brain tissue and single-cell genomic data in order to advance our understanding of the cell type-specific gene regulatory networks and biological pathways involved in the pathogenesis and pathophysiology of major mental disorders.

**Budget:** NIMH intends to commit \$2.5M in FY20 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 4 years.

#### 13. BRAIN Initiative: Non-Invasive Neuromodulation - New Tools and Techniques for Spatiotemporal Precision (Clinical Trial Optional)

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

Hyperlink: RFA-MH-20-310

Type: R01

**Application Due Date:** Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) solicits grant applications in two related but distinct areas. The first area is in the development and testing of novel tools and methods of neuromodulation that go beyond the existing forms of neural stimulation. The second distinct area that this FOA seeks to encourage is the optimization of existing stimulation methods.

Budget: Issuing IC and partner components intend to commit an estimated total of \$3 million to fund approximately 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 4 years.

Brief definitions of some NIH grant mechanisms: comprehensive list of extramural grant and cooperative agreement activity codes

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