

**NIH funding opportunities** 

Faculty of Medicine and Health Sciences: Research Development and Support 23 Mar 2021 (#07)

### [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>

## General

Once you've confirmed your planned investigator-initiated research project meets <u>NIH's Definition of a Clinical</u> <u>Trial</u>, you next need to decide whether The National Institute of Allergy and Infectious Diseases (<u>NIAID</u>) will consider your research to be high-risk. As explained in a recent <u>Notice of Information: Submission of NIAID</u> <u>Investigator-Initiated Clinical Trials to Appropriate FOAs</u>, knowing whether your study is high-risk or not will help determine the funding opportunity announcement (FOA) through which you should apply. NIAID defines a "highrisk" clinical trial as having one or more of the following attributes:

- Providing a non-routine intervention, i.e., an intervention or non-routine use of an intervention that would not otherwise be provided for the condition under study in the local facility where the study is being conducted
- o Administrating an unlicensed product
- o Administrating a licensed product for an unapproved indication

Contact NIAID program staff to request a prior consultation, ideally at least 10 weeks before the application due date.

# **Important Notices**

- <u>NOT-HD-21-019</u> Notice of Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) Participation in PA-20-183, "Research Project Grant (Parent R01 Clinical Trial Required)"
- <u>NOT-HD-21-020</u> Notice of NICHD Participation on PA-20-184 "Research Project Grant (Parent R01 Basic Experimental Studies with Humans Required)"
- <u>NOT-MH-21-220</u> Notice of Change to Key Dates of RFA-MH-21-120, "Mental Health Research Awards for Investigators Early in their Career in Low and Middle-Income Countries (R01 Clinical Trial Optional)"

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

- <u>NOT-AT-21-006</u> NOSI Fundamental Science Research on Complementary and Integrative Health Approaches, Including Natural Products or Mind and Body Interventions
- <u>NOT-HL-21-007</u> NOSI Integrative Omics Analysis of National Heart, Lung, and Blood Institute (NHLBI) TOPMed Data (Parent R01 Clinical Trial Not Allowed) Grants funded under this initiative will have access to data via dbGaP, including phenotype and genotype data from joint variant-call of all TOPMed WGS samples by the TOPMed Informatics Research Center (IRC). The transcriptomics, methylation, and metabolomics data will soon be released as well.

## **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)

- 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)

# Funding Opportunity Announcements (FOA)

Exploratory Data Science Methods and Algorithm Development in Infectious and Immune-mediated Diseases (R21 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date Type: R21 Hyperlink: RFA-AI-21-035 Application Due Date: July 02, 2021, February 17, 2022, July 01, 2022, February 17, 2023, July 06, 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 exploratory research focused on developing innovative methods and algorithms in biomedical computing, informatics, and data science addressing priority needs across the infectious or immune-mediated disease research continuum aligned with the research mission of NIAID. This includes infectious diseases, emerging infections, or immune-mediated diseases that include allergy, autoimmunity, or immune reactions associated with transplantation. As a part of the trans-NIAID Data Science program, this R21 FOA encourages applications focused on the development of novel computational, mathematical, and statistical algorithms and methods, including artificial intelligence and machine learning approaches, that can considerably improve acquisition, management, analysis, visualization, and dissemination of relevant data and/or knowledge. This contrasts with early-stage development (U01) and enhancement/sustainment (U24) efforts to generate these tools and resources that are supported by the companion FOAs.

Budget: NIAID intends to commit \$1,040,000 in FY 2022 to fund up to 4 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. The maximum project period is two years.

#### The Autoantigens and Neoantigens Function in the Etiology and Pathophysiology of Type 1 Diabetes (R01 Clinical Trial Optional) 2. Letter of Intent: 30 days prior to the application due date Hyperlink: Type: R01

Application Due Date: June 22, 2021, March 09, 2022. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) encourages applications from institutions and organizations proposing original research aimed at the characterization of the function of neoepitopes and neoantigens in type 1 diabetes. This includes the function that post-translational modifications might have in the humoral and cell mediated autoimmune responses and overall in the etiology and pathophysiology of type 1 diabetes. Applications that include the discovery of neoantigens or neoepitopes are within the scope of this solicitation, but should propose a plan for integrating these discoveries with the present knowledge on established epitopes and antigens (e.g. autoantibodies for insulin, GAD65, IA-2, and ZnT8). In the long-term the goals of this initiative are to facilitate the development of better tools to monitor disease progression and treatment, and potentially to facilitate the development of personalized therapeutics.

Budget: The NIDDK intends to commit up to \$2.0 million to fund 3-5 awards in FY 2022. The number of awards is contingent upon availability of funds and the submission of a sufficient number of meritorious applications. Application budgets are limited to \$500,000 in direct costs per year. Budgets are expected to reflect the actual needs of the proposed project. The maximum project period is 5 years. The scope of the proposed project should determine the project period.

### Innovation for Tuberculosis Vaccine Discovery (ITVD) (R61/R33 Clinical Trial Not Allowed) 3.

Letter of Intent: 30 days prior to the application due date Hyperlink: RFA-AI-21-007

Application Due Date: June 30, 2021. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: To support the design of novel tuberculosis (TB) vaccine candidates that exploit innovative approaches and their advancement into preclinical animal model testing. This funding opportunity will use a milestone driven, biphasic award mechanism to fund high risk/exploratory research. Transition to the second phase depends on the successful completion of milestones.

Budget: NIAID intends to commit \$4,000,000 in FY 2022 to fund up to 8 awards. Future year amounts will depend on annual appropriations Application budgets are limited to \$300,000 in direct costs per year in the R61 phase and \$600,000 in direct costs per year in the R33 phase. All F&A costs are excluded from this limit. Requested budgets should reflect the actual needs of the proposed project. The total project period cannot exceed five years. Applicants should plan for three years of support for the R61 phase and up to two years of support for the R33 phase. NIAID anticipates that approximately 50 percent of the funded R61 phase awards will transition to the R33 phase award.

### 4. Research on Bat Immunology (R21 Clinical Trial Not Allowed)

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

Application Due Date: July 15, 2021, March 15, 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 research to characterize cellular and molecular constituents of the bat immune system and to understand protective innate and adaptive immune mechanisms in bats. 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 total project period may not exceed 2 years.

Hyperlink: PAR-21-184

### Type: R61/R33

Type: R21

### 5. Understanding and Modifying Temporal Dynamics of Coordinated Neural Activity (R01 Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date Hyperlink: <u>PAR-21-175</u> Type: R01

Application Due Date: June 05, 2021; October 05, 2021; February 05, 2022Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: A growing body of evidence suggests that optimal cognitive, affective, and social processes are associated with highly coordinated neural activity. These findings indicate that oscillatory rhythms, their co-modulation across frequency bands, spikephase correlations, spike population dynamics, and other patterns might be useful drivers of therapeutic development for the treatment of cognitive, social, or affective symptoms in neuropsychiatric disorders. This Funding Opportunity Announcement (FOA) supports projects that test whether modifying electrophysiological patterns during behavior can improve cognitive, affective, or social processing. Applications must use experimental designs that incorporate active manipulations to address at least one, and ideally more, of the following topics: (1) in animals or humans, determine which parameters of neural coordination, when manipulated in isolation, improve particular aspects of cognitive, affective, or social processing; (2) in animals or humans, determine how particular abnormalities at the genomic, molecular, or cellular levels affect the systems-level coordination of electrophysiological patterns during behavior; (3) determine whether in vivo, systems-level electrophysiological changes in behaving animals predict analogous electrophysiological and cognitive improvements in healthy persons or clinical populations; and (4) use biologically-realistic computational models that include systems-level aspects to understand the function and mechanisms by which oscillatory and other electrophysiological patterns unfold across the brain to impact cognitive, affective, or social processing. This FOA uses the R01 grant mechanism, whereas its companion FOA, PAR-21-176, seeks shorter, higher-risk R21 grant applications. 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.

### 6. Enhancement or Sustainment of Data Science Tools for Infectious and Immune-Mediated diseases (U24 Clinical Trial Not Allowed) Letter of Intent: 30 days prior to the application due date Hyperlink: RFA-Al-21-021 Type: U24

Application Due Date: July 02, 2021, February 17, 2022, July 01, 2022, February 17, 2023, July 06, 2023. Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement**: The purpose of this Funding Opportunity Announcement (FOA) is to solicit applications for the enhancement and/or sustainment of high-value data science research software to improve the acquisition, management, analysis, visualization, and dissemination of data and knowledge across the immune-mediated, and infectious-disease research continuum, aligned with the research mission of NIAID. This includes infectious diseases, emerging infections, or immune-mediated diseases that include allergy, autoimmunity, or immune reactions associated with transplantation. As a part of the trans-NIAID data science program, this FOA focuses on enhancement and/or sustaining operations and improving the user experience and availability of existing, widely adopted informatics tools and resources. This contrasts with exploratory (R21) and early-stage (U01) development efforts to generate these tools and resources that are supported by the companion FOAs.

**Budget:** NIAID intends to commit \$1,800,000 in FY 2022 to fund up to 2 awards. Direct costs are limited to \$600,000 per year. The maximum project period is five years.

Research Development and Support Division (RDSD),
Faculty of Medicine and Health Sciences, Stellenbosch University
5 <sup>th</sup> Floor, Teaching Block, Tygerberg Campus.
Enquiries: <i>Christa</i>
e: cdevries@sun.ac.za   t: +27 21 938 9838

Afdeling Navorsingsontwikkeling/Division for Research Development (DRD) Stellenbosch University 2038 Wilcocks Building, Ryneveld Street Enquiries: Lizél e: lizelk@sun.ac.za | t: +27 21 808 2105