NIH funding opportunities

Faculty of Medicine and Health Sciences: Research Development and Support 2 Aug 2021 (#24)

[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

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

NOT-AI-21-059 Notice of Special Interest (NOSI): Immune Responses to Arthropod Feeding on Vertebrate Hosts. This Notice of Special Interest (NOSI) solicits transdisciplinary research projects to understand the immunologic events in the vertebrate host that occur at the bite site (skin) and systemically during and after feeding by hematophagous and ectoparasitic arthropods. Exploratory research on arthropod blood feeding was formerly supported by NIAID through the expired FOA, PAR-18-860, "Immune Response to Arthropod Blood Feeding (R21 Clinical Trial Not Allowed). The intent of this NOSI is to indicate continued NIAID support for research in this area as described below through applications to the parent R01 and R21 FOAs. this NOSI supports studies to better understand the role of arthropod salivary factors in the establishment of vector-borne infections and immune-mediated diseases (e.g., alpha-gal syndrome), and local as well as systemic immune modulation. This NOSI supports the NIH Strategic Plan for Tickborne Disease Research (objective 1.3.: alpha-gal syndrome, 1.4.: study of salivary proteins). This notice applies to due dates on or after October 5, 2021 and subsequent receipt dates through September 7, 2024. Submit applications for this initiative using one of the following funding opportunity announcements (FOAs)

- PA-20-185 - NIH Research Project Grant (Parent R01 Clinical Trial Not Allowed)
- PA-20-195– NIH Exploratory/Developmental Research Project Grant (Parent R21 Clinical Trial Not Allowed)

NOT-AI-21-071 Notice of Special Interest (NOSI): Using the Collaborative Cross (CC) Mouse Model for Immunoregulatory and Infectious Disease Research. The National Institute of Allergy and Immunology (NIAID) is issuing this Notice of Special Interest (NOSI) to highlight interest in receiving grant applications focusing on the following area(s):

- Use mouse lines from the Collaborative Cross (CC) and recombinant inbred intercrosses of CC lines (CC-RIX) to more faithfully reproduce human immune responses and to advance understanding of the host genetics involved in immune regulation and function

- Screen CC mouse lines to identify and characterize lines suitable for specific studies and disease models within the mission of NIAID (e.g., fundamental immunology, immune-mediated diseases, infectious diseases).

This NOSI is a furtherance of the previously expired PAR-18-781 Collaborative Cross (CC) Mouse Model Generation and Discovery of Immunoregulatory Mechanisms (R21 Clinical Trial Not Allowed). This notice applies to due dates on or after October 5, 2021 and subsequent receipt dates through September 7, 2024. Submit applications for this initiative using one of the following funding opportunity announcements (FOAs)

- PA-20-185 - NIH Research Project Grant (Parent R01 Clinical Trial Not Allowed)
- PA-20-195 – NIH Exploratory/Developmental Research Project Grant (Parent R21 Clinical Trial Not Allowed)

Funding Opportunity Announcements (FOA)

1. Investigator Initiated Research in Computational Genomics and Data Science (R01 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: PAR-21-254** **Type: R01**

Application Due Date: Standard dates apply. The first standard due date for this FOA is Oct 5,2021. 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 for a broad range of research efforts in computational genomics, data science, statistics, and bioinformatics relevant to one or both of basic or clinical genomic science, and broadly applicable to human health and disease. This FOA supports fundamental genomics research that develops innovative analytical methodologies and approaches, early-stage development of tools and software, and refinement or hardening of software and tools of high value to the biomedical genomics community. Work supported under this FOA should be enabling for genomics and be generalizable or broadly applicable across diseases and biological systems.

Budget: Application budgets are limited to $500,000 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 5 years.

2. Investigator Initiated Research in Computational Genomics and Data Science (R21 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: PAR-21-255** **Type: R21**

Application Due Date: Standard dates apply. The first standard due date for this FOA is Oct 16, 2021.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 for a broad range of research efforts in computational genomics, data science, statistics, and bioinformatics relevant to one or both of basic or clinical genomic science, and broadly applicable to human health and disease. This FOA supports fundamental genomics research that develops innovative analytical methodologies and approaches, early-stage development of tools and software, and refinement or hardening of software and tools of high value to the biomedical genomics community. Work supported under this FOA should be enabling for genomics and be generalizable or broadly applicable across diseases and biological systems.

Budget: Application budgets need to reflect the actual needs of the proposed project. 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.

3. Utilizing Invasive Recording and Stimulating Opportunities in Humans to Advance Neural Circuitry Understanding of Mental Health Disorders (R21 Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date **Hyperlink: PAR-21-288** **Type: R21**

Application Due Date: October 16, 2021, February 16, 2022, June 16, 2022, October 16, 2022. 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 to pursue invasive neural recording studies focused on mental health-relevant questions. Invasive neural recordings provide an unparalleled window into the human brain to explore the neural circuitry and neural dynamics underlying complex moods, emotions, cognitive functions, and behaviors with high spatial and temporal resolution. Additionally, the ability to stimulate, via the same electrodes, allows for direct causal tests by modulating network dynamics. This FOA aims to target a gap in the scientific knowledge of neural circuit function related to mental health disorders. Researchers should target specific questions suited to invasive recording modalities that have high translational potential. Development of new therapies is outside the scope of this FOA, though development of novel tools/methods to enable relevant mental health studies is encouraged. This FOA uses the R21 grant mechanism, encouraging shorter, higher-risk applications, whereas its companion funding opportunity, PAR-21-289, seeks R01 grant applications.

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. Utilizing Invasive Recording and Stimulating Opportunities in Humans to Advance Neural Circuitry Understanding of Mental Health Disorders (R01 Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date **Hyperlink: PAR-21-289** **Type: R01**

Application Due Date: October 05, 2021, February 05, 2022, June 05, 2022, October 05, 2022. 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 to pursue invasive neural recording studies focused on mental health-relevant questions. Invasive neural recordings provide an unparalleled window into

the human brain to explore the neural circuitry and neural dynamics underlying complex moods, emotions, cognitive functions, and behaviors with high spatial and temporal resolution. Additionally, the ability to stimulate, via the same electrodes, allows for direct causal tests by modulating network dynamics. This FOA aims to target a gap in the scientific knowledge of neural circuit function related to mental health disorders. Researchers should target specific questions suited to invasive recording modalities that have high translational potential. Development of new therapies is outside the scope of this FOA, though development of novel tools/methods to enable relevant mental health studies is encouraged. This FOA uses the R01 grant mechanism, encouraging longer-term projects, whereas its companion R21 FOA, PAR-21-288, seeks grant applications encouraging shorter, higher-risk studies.
Budget: Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 5 years.

5. Pancreatic Ductal Adenocarcinoma (PDAC) Stromal Reprogramming Consortium (PSRC) (U01 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-CA-21-041** **Type: U01**
Application Due Date: November 01, 2021Apply 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 U01 Research Projects to form the NCI-led PDAC Stromal Reprogramming Consortium (PSRC). The overarching objective of the PSRC is to develop a comprehensive understanding of PDAC tumor progression, its microenvironment (TME) as a tumor fate determinant and the reciprocal tumor-TME interactions that drive clinical outcomes. The information obtained through these comprehensive studies should expose new biology-backed vulnerabilities that will inform the development and preclinical testing of novel interventions in PDAC. Central to the PSRC structural organization is the implementation of multidisciplinary team science approaches that iteratively bridge basic and translational research across the tumor-TME continuum in each U01 Research Project, in trans-PSRC activities, and in collaboration with other NCI-funded mechanisms and programs whenever possible.
Budget: The NCI intends to commit $5.94M in FY 2022 to fund up to 6 awards. Application budgets for each U01 may not exceed $600K in direct costs per year and need to reflect the actual needs of the proposed project. Applicants may request up to 5 years of support.

6. 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-21-235** **Type: UM1**
Application Due Date: November 09, 2021. Apply by 5:00 PM local time of applicant organization
Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) intends to support a group of large-scale Comprehensive Centers that will adopt scalable technology platforms and streamlined sampling strategies and assay cascade 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 $95M per year to fund 2-4 Comprehensive Centers (RFA-MH-21-235) and 5-10 Specialized Collaboratories (RFA-MH-21-236). Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 5 years.

7. BRAIN Initiative Cell Atlas Network (BICAN): Specialized Collaboratory on Human, Non-human Primate, and Mouse Brain Cell Atlases (U01 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-MH-21-236** **Type: U01**
Application Due Date: November 09, 2021. 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, and mouse, 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 $95M per year to fund 2-4 Comprehensive Centers (RFA-MH-21-235) and 5-10 Specialized Collaboratories (RFA-MH-21-236). Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 5 years.

8. 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-21-237** **Type: U24**
Application Due Date: November 09, 2021. Apply by 5:00 PM local time of applicant organization
Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) intends to support a Coordinating Unit for Biostatistics, Informatics, and Engagement (CUBIE) that will be composed of four elements to establish respectively (1) a common sequencing data processing pipeline, (2) a common imaging data processing pipeline, (3) a comprehensive brain cell knowledge base, and (4) an engagement and outreach element to coordinate the research within and beyond BICAN. The overall goals of 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 $5M per year to fund 4-8 awards. Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 5 years.

9. Materials to Enhance Training in Experimental Rigor (METER) (UE5 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink: RFA-NS-21-033** **Type: UE5**
Application Due Date: October 21, 2021, October 11, 2022, October 10, 2023Apply by 5:00 PM local time of applicant organization
Funding Opportunity Announcement: The NIH Research Education Program (UE5) supports research education activities in the mission areas of the NIH. The overarching goal of this UE5 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:

- Curriculum or Methods Development

The NINDS Materials to Enhance Training in Experimental Rigor (METER) UE5 will support curriculum development in the form of innovative educational materials that will be incorporated into a new cutting-edge online resource that aims to promote awareness, understanding, and practice of fundamental principles of rigorous biomedical research for researchers and other scientists in various career stages and learning environments. This UE5 FOA runs in parallel with a companion UC2 FOA that solicits applications for the NINDS center for Creating an Educational Nexus for Training in Experimental Rigor (CENTER), described in detail in RFA-NS-21-009.
Budget: Application budgets may not exceed direct costs of $250,000 over the course of the project period. The maximum project period is 3 years.