NIH funding opportunities

Faculty of Medicine and Health Sciences: Research Development and Support 24 Oct 2016 (#36)

[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.*

*Please be advised that you **must contact the Research Grants Management Office (RGMO) Pre-Awards** (Dr Christa Coetsee cdevries@sun.ac.za) **as soon as possible to inform of your intent to apply and then confirm at least 30 days before the submission date**. The NIH grant is submitted institutionally. **All final application documents MUST reach the RGMO seven (7) workdays before NIH application due date.***

1. Role of Peripheral Proteostasis on Brain Aging and on Alzheimers Disease

Letter of Intent due date: 30 days prior to the application due date **Hyperlink:** (RFA-AG-17-050) **Type: R01**

Application Due Date: January 12, 2017. Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date. ***Applicants should be aware that on-time submission means that an application is submitted error free*** (to both Grants.gov and eRA Commons) on the application due date.

Purpose: This FOA is soliciting research projects that would advance biomedical research on the role of peripheral proteostasis on brain structure and function during aging and in Alzheimer's disease, facilitating the identification of molecular and cellular markers of normal brain aging and brain aging during pathological conditions.

Budget: NIA intends to commit $5M in FY 2017 to fund 8-10 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.

2. Human Cell Biology of Genetic Variants in Alzheimer's Disease

Letter of Intent due date: 30 days prior to the application due date **Hyperlink:** (RFA-AG-17-053) **Type: R01**

Application Due Date: February 10, 2017. Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date. ***Applicants should be aware that on-time submission means that an application is submitted error free*** (to both Grants.gov and eRA Commons) on the application due date.

Purpose: The goal of this FOA is to establish functional genotype-phenotype relationships of genetic variants, suspected of altering the risk of Alzheimer's disease (AD), in neural cells using human induced pluripotent stem cells or other human cell reprogramming approaches. The causal linkage of AD-associated genetic variants identified in genome-wide association studies and genome sequencing studies to molecular and biological cell phenotypes in human neural cells is expected to give greater insight into molecular targets contributing to the etiology of AD.

Budget: NIA intends to commit $6 million in FY 2017 to fund 7-9 awards. Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 5 years.

3. Brain Lymphatic System in Aging and Alzheimer's Disease

Letter of Intent due date: N/A **Hyperlink:** (RFA-AG-17-055) **Type: R01**

Application Due Date: February 9, 2017. Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date. ***Applicants should be aware that on-time submission means that an application is submitted error free*** (to both Grants.gov and eRA Commons) on the application due date.

Purpose: The goal of this FOA is to support research that will lead to a greater understanding of complex mechanisms by which the brain glymphatic system and meningeal and peripheral lymphatic systems change in normal and pathological brains. This knowledge is critical to determine whether a functional impairment or disruption of these systems may be involved in neurological disorders that are associated with immune system dysfunction, such as Alzheimer's disease.

Budget: NIA intends to commit $5 million in FY 2017 to fund 6 to 8 awards. Application budgets are limited to $500,000 in direct costs per year. The maximum project period is 5 years.

4. Systems Biology Approaches to Alzheimers Disease Using Non-mammalian Laboratory Animals

Letter of Intent due date: 30 days prior to the application due date **Hyperlink:** (RFA-AG-17-057) **Type: R01**

Application Due Date: January 18, 2017. Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date. ***Applicants should be aware that on-time submission means that an application is submitted error free*** (to both Grants.gov and eRA Commons) on the application due date.

Purpose: The National Institute on Aging is seeking applications to develop systems biology approaches to understand the basic biology underpinning neurodegeneration which might ultimately contribute to Alzheimer's disease or related dementias, using non-mammalian laboratory animal models. It is expected that research carried under the auspices of this FOA will lead to discovery of new mechanisms that provoke neurodegeneration and to new molecular pathways that might be involved in causing, amplifying or protecting against neurodegeneration. Applications should propose to use established non-mammalian laboratory animals which have a history of contributions to our understanding of neurobiology or aging biology.

Budget: NIA intends to commit $3.3 million in FY 2017 to fund up to 5 awards. Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 5 years.

5. Nicotinic Immune Modulation in the Presence of HIV-1 Infection

Letter of Intent due date: 30 days prior to the application due date **Hyperlink:** (RFA-DA-17-020) **Type: R01**

Application Due Date: January 17, 2017. Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date. ***Applicants should be aware that on-time submission means that an application is submitted error free*** (to both Grants.gov and eRA Commons) on the application due date.

Purpose: The FOA encourages the submission of research project applications to determine nicotine's modulatory effects on peripheral and central immune system functions in the presence of HIV-1 infection. Specifically, NIDA is particularly interested in projects exploring the ability of nicotine to produce anti-inflammatory and protective effects, and the translational potential of the new knowledge in attenuating HIV-induced pathologies and HIV-associated CNS complications such as neurological/cognitive disorders.

Budget: NIDA intends to commit $3,000,000.00 in FY 2017 to fund 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.

6. BRAIN Initiative: Proof of Concept Development of Early Stage Next Generation Human Brain Imaging

Letter of Intent due date: 30 days prior to the application due date **Hyperlink:** (RFA-EB-17-001) **Type: R01**

Application Due Date: January 20, 2017. Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date. ***Applicants should be aware that on-time submission means that an application is submitted error free*** (to both Grants.gov and eRA Commons) on the application due date.

Purpose: 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 components intend to commit an estimated total of $4M in FY2017 to fund 8-14 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.

7. BRAIN Initiative: Development of Next Generation Human Brain Imaging Tools and

Letter of Intent due date: 30 days prior to the application due date **Hyperlink:** (RFA-EB-17-002) **Type: U01**

Application Due Date: Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date. ***Applicants should be aware that on-time submission means that an application is submitted error free*** (to both Grants.gov and eRA Commons) on the application due date.

Purpose:

Budget:

8.

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

Application Due Date: January 20, 2017. Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date. ***Applicants should be aware that on-time submission means that an application is submitted error free*** (to both Grants.gov and eRA Commons) on the application due date.

Purpose: 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 within the timeframe of the BRAIN Initiative ("BRAIN 2025: A Scientific Vision," http://braininitiative.nih.gov/). This FOA represents the second stage of the tool/technology development effort that started with RFA-MH-14-217 and RFA-MH-15-200.

Budget: Issuing IC and partner components intend to commit an estimated total of $7.5M in FY2017 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.

9. BRAIN Initiative Cell Census Network (BICCN) - Specialized Center on Human and Non-Human Primate Brain Cell Atlases

Letter of Intent due date: 30 days prior to the application due date **Hyperlink:** (RFA-MH-17-210) **Type: U01**

Application Due Date: January 23, 2017 & October 13, 2017. Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date. ***Applicants should be aware that on-time submission means that an application is submitted error free*** (to both Grants.gov and eRA Commons) on the application due date.

Purpose: This Funding Opportunity Announcement (FOA) intends to assemble a group of Specialized Collaboratories that will adopt scalable technology platforms and streamlined workflows to accelerate progress towards establishing reference cell atlases of human brain and/or non-human primate brains. A central goal of this and the three companion FOAs is to build a brain cell census resource that can be widely used throughout the research community.

Budget: Issuing IC and partner components intend to commit an estimated total of $5M per year to fund 3-5 Specialized Collaboratories. Application budgets are not limited but must reflect the actual needs of the proposed project. The maximum project period is 5 years.

10. BRAIN Initiative Cell Census Network (BICCN) Brain Cell Data Center

Letter of Intent due date: 30 days prior to the application due date **Hyperlink:** (RFA-MH-17-215) **Type: U24**

Application Due Date: January 23, 2017. Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date. ***Applicants should be aware that on-time submission means that an application is submitted error free*** (to both Grants.gov and eRA Commons) on the application due date.

Purpose: This Funding Opportunity Announcement (FOA) intends to support a Brain Cell Data Center (BCDC) that will work with other BICCN Centers and interested researchers to establish a web-accessible information system to capture, store, analyze, curate, and display all data and metadata on brain cell types, and their connectivity. The BCDC is expected to: (1) lead the effort to establish spatial and semantic standards for managing heterogeneous brain cell census data types and information; (2) lead the effort to collect and register multimodal brain cell census data to common brain coordinate systems; (3) generate searchable 2D and 3D digital brain atlases for cell census data; and (4) generate a unified and comprehensive brain cell knowledge base that integrates all existing brain cell census data and information across diverse repositories. A central goal of this and the three companion FOAs is to build a brain cell census resource that can be widely used throughout the research community.

Budget: Issuing IC and partner components intend to commit an estimated total of $3M per year to fund 1 award. Application budgets are not limited but must reflect the actual needs of the proposed project. The maximum project period is 5 years.

11. BRAIN Initiative Cell Census Network (BICCN) Comprehensive Center on Mouse Brain Cell Atlas

Letter of Intent due date: 30 days prior to the application due date **Hyperlink:** (RFA-MH-17-225) **Type: U19**

Application Due Date: January 23, 2017. Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date. ***Applicants should be aware that on-time submission means that an application is submitted error free*** (to both Grants.gov and eRA Commons) on the application due date.

Purpose: This Funding Opportunity Announcement (FOA) intends to assemble a group of Comprehensive Centers that will adopt scalable technology platforms and streamlined workflows to generate a comprehensive 3D brain cell reference atlas encompassing molecular, anatomical, and physiological annotations of brain cell types in mouse, and incorporate additional genetic and other advanced cell-specific targeting approaches and tools to facilitate this goal. A central goal of this and the three companion FOAs is to build a brain cell census resource that can be widely used throughout the research community.

Budget: Issuing IC and partner components intend to commit an estimated total of $18M per year to fund 1-4 Comprehensive Centers and 2-6 Specialized Centers. Application budgets are not limited but must reflect the actual needs of the proposed project. The maximum project period is 5 years.

12. BRAIN Initiative Cell Census Network (BICCN) - Specialized Center on Mouse Brain Cell Atlas

Letter of Intent due date: 30 days prior to the application due date **Hyperlink:** (RFA-MH-17-230) **Type: U01**

Application Due Date: January 23, 2017 & October 13, 2017. Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date. ***Applicants should be aware that on-time submission means that an application is submitted error free*** (to both Grants.gov and eRA Commons) on the application due date.

Purpose: This Funding Opportunity Announcement (FOA) intends to support Specialized Collaboratory that will adopt scalable technology platforms and streamlined workflows to generate a comprehensive 3D brain cell reference atlas encompassing molecular, anatomical, and physiological annotations of brain cell types in mouse, and incorporate additional genetic and other advanced cell-specific targeting approaches and tools to facilitate this goal. A central goal of this and the three companion FOAs is to build a brain cell census resource that can be widely used throughout the research community.

Budget: Issuing IC and partner components intend to commit an estimated total of $18M per year to fund 2-6 Specialized Collaboratories and 1-4 Comprehensive Centers. Application budgets are not limited but must reflect the actual needs of the proposed project. The maximum project period is 5 years.

13. BRAIN Initiative: Research on the Ethical Implications of Advancements in Neurotechnology and Brain Science

Letter of Intent due date: 30 days prior to the application due date **Hyperlink:** (RFA-MH-17-260) **Type: R01**

Application Due Date: January 30, 2017. Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date. ***Applicants should be aware that on-time submission means that an application is submitted error free*** (to both Grants.gov and eRA Commons) on the application due date.

Purpose: This funding opportunity announcement (FOA), in support of the NIH Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative, is one of several FOAs aimed at supporting transformative discoveries that will lead to breakthroughs in understanding human brain function. Guided by the long-term scientific plan, "BRAIN 2025: A Scientific Vision," this FOA specifically seeks to support efforts addressing core ethical issues associated with research focused on the human brain and resulting from emerging technologies and advancements in research and development supported by the BRAIN Initiative. The hope is that efforts supported under this FOA might be both complimentary and integrative with the transformative, breakthrough discoveries being supported through the BRAIN Initiative.

Budget: Issuing IC and partner components intend to commit an estimated total of $2 million to fund 4-6 awards. Application budgets are limited to $300,000 in direct costs in any project year, 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 4 years.

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

D71 - International Research Training Planning Grant: To plan for the preparation of an application for a D43 international research training grant or for a U2R international research training cooperative agreement.

D43 - International Research Training Grants: To support research training programs for US and foreign professionals and students to strengthen global health research and international research collaboration.

R01 – NIH Research Project Grant Program: most common NIH program; to support a discrete, specified, circumscribed research project; generally 3-5 years; budget may be specified, but generally <$500,000 p.a. (direct costs).

R21 – NIH Exploratory/Developmental Research Grant: encourages new, exploratory and developmental research projects (could be used for pilot or feasibility studies); up to 2 years; budget total generally <$275,000 (direct costs).

R03 – NIH Small Grant Program: limited funding for short period to support e.g. pilot / feasibility study, collection of preliminary data, secondary analysis of existing data, small-contained research projects, development of new research technology, etc.; normally for "new investigators"; not renewable; up to 2 years; budget generally <$50,000 (direct costs).

R21/R33 - Phased Innovation: The R33 award is to provide a second phase for the support for innovative exploratory and development research activities initiated under the R21 mechanism. Although only R21 awardees are generally eligible to apply for R33 support, specific program initiatives may establish eligibility criteria under which applications could be accepted from applicants demonstrating progress equivalent to that expected under R33.

R25 – NIH Education Projects: used in a wide variety of ways to promote an appreciation for and interest in biomedical research, provide additional training in specific areas, and/or to develop ways to disseminate scientific discovery into public health and community applications.

R34 - Clinical Trial Planning Grant Program: To provide support for the initial development of a clinical trial, including the establishment of the research team; the development of tools for data management and oversight of the research; the development of a trial design and other essential elements of the study, such as the protocol, recruitment strategies, and procedure manuals; and to collect feasibility data.

R35 - Outstanding Investigator Award: To provide long term support to an experienced investigator with an outstanding record of research productivity. This support is intended to encourage investigators to embark on long-term projects of unusual potential.

U01 – NIH Research Project Cooperative Agreement: supports discrete, specified, circumscribed projects to be performed by investigator(s) in an area representing their specific interests and competencies; many types of cooperative agreements, e.g. Clinical Trials Centers; generally no budget upper limit but may be specified.

U24 – Resource-Related Research Projects – Cooperative Agreements: To support research projects contributing to improvement of the capability of resources to serve biomedical research.

U01 – NIH Research Project Cooperative Agreement: supports discrete, specified, circumscribed projects to be performed by investigator(s) in an area representing their specific interests and competencies; many types of cooperative agreements, e.g. Clinical Trials Centers; generally no budget upper limit but may be specified.

U19 - Research Program-Cooperative Agreements: supports a research program of multiple projects directed toward a specific major objective, basic theme or program goal, requiring a broadly based, multidisciplinary and often long-term approach. A cooperative agreement research program generally involves the organized efforts of large groups, members of which are conducting research projects designed to elucidate the various aspects of a specific objective.

Glossary of selected acronyms:

FOA	Funding Opportunity Announcement
PA	Program Announcements *(click on "PA" to search for further funding opportunities)*
RFA	Request for Applications *(click on "RFA" to search for further funding opportunities)*

Complete Glossary and acronym list of NIH Terms

National Institutes of Health
Turning Discovery Into Health

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