NIH funding opportunities

Faculty of Medicine and Health Sciences: Research Development and Support 14 Aug 2018 (#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 30 days before the submission date.

Contact: RGMO Pre-Awards *cdevries@sun.ac.za*

Important Notices:

- Findings of Research Misconduct (NOT-OD-18-216) National Institutes of Health
- Notice of Intent to Publish a Funding Opportunity Announcement for the Reissue of Developing the Therapeutic Potential of the Endocannabinoid System for Pain Treatment (R01 - Clinical Trial Optional) (NOT-DA-18-027)

1. Computationally-Defined Behaviors in Psychiatry (R21 Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date **Hyperlink:** (RFA-MH-19-240) **Type:** ***R21***
Application Due Date: November 20, 2018; November 20, 2019; November 20, 2020. Apply by 5:00 PM local time of applicant organization.
Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) solicits applications for research projects that will apply computational approaches to develop parametrically detailed behavioral assays across mental-health relevant domains of function. These projects should focus on behavior in humans and test computational models in healthy subjects. NIMH is particularly interested in the study of behavioral measures, models, and parameters that have the potential for back-translation from humans to animals, especially for pre-clinical therapeutics development, and/or in models that have the potential to be extended to clinical populations.
Budget: NIMH intends to fund up to 10 R21 awards, corresponding to a maximum of $2,000,000, in Direct Cost for fiscal year 2019. Future year amounts will depend on annual appropriations. Direct costs are limited to $275,000 over a two-year project period, with no more than $200,000 in direct costs allowed in any single year. The maximum project period is 2 years.

2. Advancing Extracellular RNA (exRNA) Communication Research: Improved Isolation and Analysis of exRNA-Carrier Subclasses (Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink:** (RFA-RM-18-027) **Type:** ***UG3/UH3***
Application Due Date: October 23, 2018 Apply by 5:00 PM local time of applicant organization.
Funding Opportunity Announcement: Circulating extracellular RNAs (exRNAs) can act as endocrine signaling molecules, both locally and systemically, representing a novel paradigm in intercellular communication. ExRNAs are transported in body fluids in association with a variety of carrier vehicles of varying complexity including extracellular vesicles (EVs), ribonucleoproteins (RNPs), and lipo proteins (LPPs). These distinct carriers protect exRNAs from degradation and are thought to contribute to the biodistribution, uptake, and functional impact of exRNAs in target cells. The overarching goal of this Funding Opportunity Announcement (FOA) is to develop and eval uate innovative separation tools, technologies, and approaches that will enable the scientific community to rapidly and reproducibly s ort complex biofluids into homogenous carrier populations of EVs, (including EV subsets), RNPs, and LPPs, and that also support h igh-throughput isolation and analysis of their extracellular RNA content and associated molecular cargo.
Budget: The NIH Common Fund (Office of Strategic Coordination) intends to commit $2.5M per year in FY2019 and FY2020 and $5M per year in FY2021 and FY2022 to fund up to 5 awards. The number of awards is contingent upon NIH appropriations and the submission of a sufficient number of meritorious applications. Application budgets must not exceed $300,000 direct costs per year for the UG3 Phase (FY2019 and FY2020) and $650,000 direct costs per year for the UH3 Phase (FY2021 and FY2022). The maximum project period is 4 years (FY19-FY22);each phase is a maximum of 2 years.

3. Advancing Extracellular RNA (exRNA) Communication Research: Towards Single Extracellular Vesicle (EV) Sorting, Isolation, and Analysis of Cargo (Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink:** (RFA-RM-18-028) **Type:** ***UG3/UH3***
Application Due Date: October 23, 2018. Apply by 5:00 PM local time of applicant organization.
Funding Opportunity Announcement: The ability to isolate and analyze single EVs and their cargoes from human biofluids would provide a unique opportunity to understand the cell or tissue from which their respective exRNAs originate (heterogeneity) and, importantly, add significant depth to our understanding of exRNA communication. The overarching goal of this Funding Opportunity Announcement (FOA) is to develop and demonstrate innovative technologies and reagents towards isolating single EVs and to characterize the exRNA cargos associated with specific EV subpopulations based on cell of origin and their intended target cell. Shedding light on the diversity of exRNAs carried by EVs will allow for a better understanding of the precise role of exRNAs as signaling molecules for both physiological and pathophysiological processes, ultimately accelerating development of exRNAs as therapeutics and diagnostics.
Budget: The NIH Common Fund (Office of Strategic Coordination) intends to commit $2.5M per year in both FY2019 and FY2020 and $5M per year in both FY2021 and FY2022 to fund up to 5 awards. The number of awards is contingent upon NIH appropriations and the submission of a sufficient number of meritorious applications. Application budgets must not exceed $300,000 direct costs per year for the UG3 Phase (FY2019 and FY2020) and $650,000 direct costs for the UH3 Phase (FY2021 and FY2022). The maximum project period is 4 years (FY19-FY22); each phase is a maximum of 2 years.

4. Physical Activity and Weight Control Interventions Among Cancer Survivors: Effects on Biomarkers of Prognosis and Survival (Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date **Hyperlink:** (PAR-18-892) **Type:** ***R21***
(PAR-18-893) ***R01***
Application Due Date: Standard dates and Standard AIDS dates Apply by 5:00 PM local time of applicant organization.
Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) encourages transdisciplinary and translational research that will identify the specific biological or biobehavioral pathways through which physical activity and/or weight control (either weight loss or avoidance of weight gain) may affect cancer prognosis and survival. Research applications should test the effects of physical activity, alone or in combination with weight control (either weight loss or avoidance of weight gain), on biomarkers of cancer prognosis among cancer survivors identified by previous animal or observational research on established biomarkers other than insulin/glucose metabolism, especially those obtained from tumor tissue sourced from repeat biopsies where available. Because many cancer survivor populations will not experience recurrence but will die of comorbid diseases or may experience early effects of aging, inclusion of biomarkers of comorbid diseases (e.g., cardiovascular disease) and of the aging process are also sought. Applications should use experimental designs (e.g., randomized controlled clinical trials (RCTs), fractional factorial designs), and will include transdisciplinary approaches that bring together behavioral intervention expertise, cancer biology, and other basic and clinical science disciplines relevant to the pathways being studied.
Budget: R21 - 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. R01 - Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 5 years.

5. CNS-Targeted Drug Delivery Strategies for HIV (Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date **Hyperlink:** (PAR-18-895) **Type:** ***R01***
Application Due Date: January 7, 2019; January 7, 2020; January 7, 2021. Apply by 5:00 PM local time of applicant organization.
Funding Opportunity Announcement: The purpose of this Funding Opportunity is to support studies with a focus on developing drug delivery strategies that target the Central Nervous System (CNS) for better suppression of Human Immunodeficiency Virus (HIV) and reservoir reduction. Applications are sought proposing multidisciplinary efforts to enhance delivery of antiretroviral (ARV) drugs and biologics into CNS compartments, maintaining a good balance between therapeutic effect and toxicity. Collaborative research partnerships are strongly encouraged but not required.
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. National Library of Medicine (NLM) Research Grants in Biomedical Informatics and Data Science (R01 Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date **Hyperlink:** (PAR-18-896) **Type:** ***R01***
Application Due Date: Standard dates and Standard AIDS dates Apply by 5:00 PM local time of applicant organization.
Funding Opportunity Announcement: The National Library of Medicine (NLM) supports innovative research and development in biomedical informatics and data science. The scope of NLM's interest in these research domains is broad, with emphasis on new methods and approaches to foster data driven discovery in the biomedical and clinical health sciences as well as domain-independent, reusable approaches to discovery, curation, analysis, organization and management of health-related digital objects. Biomedical informatics and data science draw upon many fields, including mathematics, statistics, information science, computer science and engineering, and social/behavioral sciences. Application domains include health care delivery, basic biomedical research, clinical and translational research, precision medicine, public health, biosurveillance, health information management in disasters, and similar areas. NLM defines biomedical informatics as the science of optimal representation, organization, management, integration and presentation of information relevant to human health and biology. NIH defines data science as the interdisciplinary field of inquiry in which quantitative and analytical approaches, processes, and systems are developed and used to extract knowledge and insights from increasingly large and/or complex sets of data.
Budget: Application budgets are limited to $250,000 per year 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 4 years.

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

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