**NIH funding opportunities** 

Faculty of Medicine and Health Sciences: Research Development and Support 2 Nov 2016 (#37)

# [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>.

Please be advised that you **must contact the Research Grants Management Office (RGMO) Pre-Awards** (Dr Christa Coetsee <u>cdevries@sun.ac.za</u>) as soon as possible to inform of your intent to apply and then <u>confirm</u> 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.

Important notices

- Notice of Change to Funds Available for RFA-AG-17-057 "Systems Biology Approaches to Alzheimer's Disease Using Nonmammalian Animal Models" (NOT-AG-16-077)
- Notice of Change to Funds Available for RFA-AG-17-050 "Role of Peripheral Proteostasis on Brain Aging and on Alzheimer's Disease" (NOT-AG-16-078)
- Notice of Change to Funds Available for RFA-AG-17-053 "Human Cell Biology of Genetic Variants in Alzheimer's Disease" (NOT-AG-16-079)
- Notice of Change to Funds Available for RFA-AG-17-055 "Brain Lymphatic System in Aging and Alzheimer's Disease" (NOT-AG-16-080)
- Notice of Interest in High Priority Research in Bioethical, Legal, and Societal Implications of Biomedical Research (<u>NOT-LM-17-001</u>)

## 1. Exosomes: From Biogenesis and Secretion to the Early Pathogenesis of Alzheimer's Disease

Letter of Intent due date: 30 days prior to the application due date Hyperlink: (RFA-AG-17-051) Type: R01 Application Due Date:February 3, 2017Apply 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) invites innovative research focused on understanding the role of exosome biogenesis and secretion in modulating and propagation of early pathogenesis in sporadic and late-onset Alzheimer's disease (AD). Specifically, this FOA encourages collaborative approaches designed to identify and characterize the regulation of molecular machines that are responsible for exosome biogenesis and the secretion of exosomal cargo molecules in AD.

**Budget**: NIA intends to commit \$8 million in FY 2017 to fund 9-11 awards. The number of awards is contingent upon NIH appropriations. Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 5 years.

#### 2. Understanding the Effects of ApoE2 on the Interaction between Aging and Alzheimers Disease

Letter of Intent due date: 30 days prior to the application due date Hyperlink: (<u>RFA-AG-17-056</u>) 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**: This FOA invites applications on descriptive, basic and translational studies of APOE2 to delineate the functional effects of ApoE2 on healthy aging of the brain and other tissues. The primary focus is on the "APOE2–Aging-AD" relationship and the mechanistic effects of the protective variant on aging and potential interaction/cross talk between tissues in the aging process and AD. These studies are expected to generate new mechanistic insights that involve brain and/or other organs and assist in the identification of potential prognostic and diagnostic markers and therapeutic targets for AD and other age-related cognitive disorders. Eventually, the findings from these studies could lead to translational research opportunities not only to prevent or delay the onset of AD, but also to protect against multiple age-related conditions. **Budget**: NIA intends to commit up to \$3 million (total costs) in FY 2017 to support up to seven awards. The number of awards is contingent upon NIH appropriations. Application budgets are limited to a maximum of \$300,000 per year in direct costs. The scope of the project should determine the project period. The maximum project period is 5 years.



# Multimorbidity in Alzheimers Disease Impacts Choice of Ancillary Treatments

Letter of Intent due date: 30 days prior to the application due date Hyperlink: (RFA-AG-17-059) 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 Funding Opportunity Announcement (FOA) invites applications proposing to conduct research into improving the effectiveness of treatment strategies for comorbid conditions that occur frequently in combination with Alzheimer's disease and related dementia (ADRD). Studies may be observational treatment studies or pragmatic clinical trials. This FOA will support pilot research to test the feasibility of interventions (R21 phase) that, if successful, can transition to an R33 phase for implementation of pragmatic trials. The transition from the R21 to the R33 phase of the award will be administratively reviewed and determined by successful completion of the criteria that are specified in the R21 phase.

Budget: NIA intends to commit \$3,200,000 in FY 2017 to fund 4-6 awards. The number of awards is contingent upon NIH appropriations. For the R21 planning phase, the combined budget for direct costs for up to two years may not exceed \$275,000. No more than \$200,000 may be requested in any single year. For the R33 phase, costs are not limited but need to reflect the actual needs of the proposed project. The project period for the R21 phase may not exceed 2 years, and the project period for the R33 phase may not exceed 4 years. The total project period is limited to 5 years.

# 4. Multimorbidity in Alzheimers Disease Impacts Choice of Ancillary Treatments

Hyperlink: (RFA-AG-17-060) Letter of Intent due date: 30 days prior to the application due date Type: R33 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 Funding Opportunity Announcement (FOA) invites applications proposing to conduct research into improving the effectiveness of treatment strategies for comorbid conditions that occur frequently in combination with Alzheimer's disease and related dementia (ADRD). This FOA will support advanced-stage observational treatment studies or pragmatic clinical trials.

Budget: NIA intends to commit \$3,200,000 in FY 2017 to fund 4-6 awards. The number of awards is contingent upon NIH appropriations. Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 5 years.

#### 5. Role of Age-Associated Metabolic Changes in Alzheimer's Disease (AD)

Letter of Intent due date: 30 days prior to the application due date Hyperlink: (PAR-17-031) Type: R01 Application Due Date: Standard dates apply. 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 encourages innovative experimental approaches to explore the molecular and cellular bases for age-related change in metabolism that impact the development of Alzheimer's disease (AD).

Budget: The number of awards is contingent upon NIH appropriations and the submission of a sufficient number of meritorious applications. NIA intends to commit \$2.7M in FY 2017 to fund 6-8 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. Translational Bioinformatics Approaches to Advance Drug Repositioning and Combination Therapy Development for **Alzheimers Disease**

Letter of Intent due date: 30 days prior to the application due date Hyperlink: (PAR-17-032) Type: R01 Application Due Date: Standard dates apply. 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 invites applications that integrate the use of computational approaches to identify individual drugs currently used for other conditions with potential to be efficacious in AD or AD-related dementias (as single drugs or as drug combinations) with proof-of-concept efficacy studies in cell-based models, animal models and/or humans.

Budget: The number of awards is contingent upon NIH appropriations and the submission of a sufficient number of meritorious applications. NIA intends to commit \$3 million in FY 2017 to fund 2-4 awards. Annual direct costs are capped at \$500K. The maximum project period is 5 years.

#### 7. Integrative Research to Understand the Impact of Sex Differences on the Molecular Determinants of AD Risk and **Responsiveness to**

Letter of Intent due date: 30 days prior to the application due date Hyperlink: Type: R01 Application Due Date: Standard dates apply. 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 invites applications that apply a cross-disciplinary, team science approach to gain comprehensive, mechanistic understanding of the impact of sex differences on the trajectories of brain aging and phenotypes of AD risk and on the responsiveness to pharmacologic and non-pharmacologic interventions.

Budget: NIA intends to commit \$7.5 million in FY 2017 to fund 5-10 awards. Annual direct costs are capped at \$750K. The maximum project period is 5 years.

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Type: R21/R33

#### 8. Clarifying the Relationship between Delirium and Alzheimers Disease and Related

Letter of Intent due date: 30 days prior to the application due dateHyperlink: (PAR-17-037)Type: R21/R33Application Due Date: Standard datesapply.Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply<br/>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<br/>Commons) on the application due date.

Purpose: This Funding Opportunity Announcement (FOA) invites applications that focus on clarifying the relationship between delirium and Alzheimer's disease and related dementias (ADRD). Specifically sought is research focusing on understanding why persons with ADRD are at increased risk to develop delirium, often with a worse prognosis compared to those without antecedent ADRD, and why patients who experience delirium are at higher risk to develop subsequent short- and/or long-term mild cognitive impairment or ADRD, often with an accelerated rate of cognitive decline compared to those without preceding delirium. Relevant research projects may focus on, but are not limited to, those that A) provide insight into possible common, sequential, causative, contributory and/or synergistic pathways underlying both ADRD and delirium, B) elucidate mechanisms that lead to the development of delirium against the background of aging and/or neurodegeneration, with particular emphasis on use of appropriate animal models, C) identify risk factors for the onset and/or progression of delirium in those with ADRD and vice versa, D) diagnose and assess one condition in the setting of the other, E) identify putative phenotypes of patients with co-existing ADRD and delirium, or F) test pharmacologic and/or non-pharmacologic strategies to prevent, treat, or reduce the impact of delirium in patients with ADRD and vice versa. Research supported by this FOA is intended to provide mechanistic insight to improve risk assessment, diagnosis, phenotyping, prevention, and management approaches for both delirium and ADRD. This FOA will use the R21/R33 phased innovation mechanism to conduct exploratory/developmental studies focused on feasibility or proof-of-concept that may then transition to an implementation phase following successful achievement of pre-defined investigator-proposed milestones. Budget: Application budgets are limited to \$275,000 in direct costs over the 2-year R21 phase, with no more than \$200,000 allowed in any year Budgets are limited to less than \$500,000 annual direct costs in the R33 phase. The maximum project period is 2 years for the R21 phase and 3 years for the R33 phase.

### 9. Clarifying the Relationship between Delirium and Alzheimers Disease and Related Dementias

Letter of Intent due date: 30 days prior to the application due dateHyperlink: (PAR-17-038)Type: R01Application Due Date: Standard dates apply. Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply early<br/>to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.<br/>
Applicants should be aware that on-time submission means that an application is submitted error free (to both Grants.gov and eRA<br/>
Commons) on the application due date.

**Purpose**: This Funding Opportunity Announcement (FOA) invites applications that focus on clarifying the relationship between delirium and Alzheimer's disease and related dementias (ADRD). Specifically sought is research focusing on understanding why persons with ADRD are at increased risk to develop delirium, often with a worse prognosis compared to those without antecedent ADRD, and why patients who experience delirium are at higher risk to develop subsequent short- and/or long-term mild cognitive impairment or ADRD, often with an accelerated rate of cognitive decline compared to those without preceding delirium. Relevant research projects may focus on, but are not limited to, those that A) provide insight into possible common, sequential, causative, contributory and/or synergistic pathways underlying both ADRD and delirium, B) elucidate mechanisms that lead to the development of delirium against the background of aging and/or neurodegeneration, with particular emphasis on use of appropriate animal models, C) identify risk factors for the onset and/or progression of delirium in those with ADRD and vice versa, D) diagnose and assess one condition in the setting of the other, E) identify putative phenotypes of patients with co-existing ADRD and delirium, or F) test pharmacologic and/or non-pharmacologic strategies to prevent, treat, or reduce the impact of delirium in patients with ADRD and vice versa. Research supported by this FOA is intended to provide mechanistic insight to improve risk assessment, diagnosis, phenotyping, prevention, and management approaches for both delirium and ADRD.
Budget: Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 5 years.

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, smallcontained 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)

**<u>RFA</u>** Request for Applications (click on "RFA" to search for further funding opportunities)

Complete Glossary and acronym list of NIH Terms



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