



# NIH funding opportunities



Faculty of Medicine and Health Sciences: Research Development and Support 20 Feb 2018 (#5)

[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](http://www.grants.nih.gov).

**Confirm your intent to apply ASAP, but not later than 30 days before the submission date.**

Contact: RGMO Pre-Awards [cdevries@sun.ac.za](mailto:cdevries@sun.ac.za)

## Important Notices

- Broad Agency Announcement (BAA): **Vaccine Adjuvant Discovery Program NIAID-DAIT-NIHAI201700100** ([NOT-AI-18-018](#)) The research will be solicited through a BAA. The BAA will only be available electronically on the Government wide point of entry (GPE): FedBizOpps.gov ([www.fbo.gov](http://www.fbo.gov)).
- Broad Agency Announcement (BAA): **Immune Mechanisms of Protection Against Mycobacterium tuberculosis Center (IMPAC-TB)** NIAID-DAIT-NIHAI201700104 ([NOT-AI-18-019](#)) This BAA will be available electronically on FedBizOpps <http://www.fedbizopps.gov/>
- Notice of Intent to Publish a Funding Opportunity Announcement for **Impact of Initial Influenza Exposure on Immunity in Infants** (U01 Clinical Trial Not Allowed) ([NOT-AI-18-020](#))
- Notice of Interest in Advancing Research about the **Effects of Opioids and Opioid Antagonists on the Fetal and Neonatal Brain Development** ([NOT-DA-17-067](#))
- Notice of National Institute of Neurological Disorders and Stroke (NINDS) Interest in **Biomarkers Directed at Pain or Pain Therapies** ([NOT-NS-18-043](#))

### 1. Exploiting Omics Assays to Investigate Molecular Regulation of Persistent HIV in Individuals with Substance Use Disorder (Clinical Trial Optional)

**Letter of Intent:** 30 days prior to the application due date **Hyperlink:** ([RFA-DA-19-003](#)) **Type:** R61/R33  
**Application Due Date:** July 17 2018, July 17, 2019 and July 17, 2020 Apply by 5:00 PM local time of applicant organization.  
**Funding Opportunity Announcement:** This initiative will support projects that exploit Omics assays to address outstanding questions regarding molecular regulation of persistent HIV (e.g. latency or reservoirs) in the context of chronic substance use or substance use disorder (SUD).  
**Budget:** NIDA intends to commit \$2M to fund 2-3 awards in FY2019, FY2020, and FY2021. Application budgets are limited to direct costs of \$450k/year for each year of the R61 phase and \$650k/year for each year of the R33 phase, and should reflect the actual needs of the proposed project. Application budgets are limited in time to a maximum of three years for the R61 phase and two years for the R33 phase.

### 2. Immune System Engineering For Targeted Tolerance in Type 1 Diabetes (Clinical Trial Not Allowed)

**Letter of Intent:** 30 days prior to the application due date **Hyperlink:** ([RFA-DK-17-020](#)) **Type:** R01  
**Application Due Date:** May 10, 2018 and December 6, 2018, Apply by 5:00 PM local time of applicant organization.  
**Funding Opportunity Announcement:** Type 1 diabetes (T1D) results in part from the autoimmune-mediated dysfunction or destruction of insulin-producing pancreatic beta cells. This funding opportunity is for projects that seek to discover ways to change the course of the disease by directly establishing tolerance. Immune responses could be engineered for tolerance induction through the manipulation of antigens, cells, or cellular microenvironments. Collaborations between T1D experts and investigators from other fields, including (but not limited to) cancer immunology and biomaterials engineering, are especially encouraged.  
**Budget:** NIDDK intends to commit up to \$1,000,000 to fund 1-2 awards in FY 2018 and up to \$1,000,000 to fund 1-2 awards in FY 2019. 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 \$300,000 direct costs per year. The maximum project period is 5 years.

### 3. Discovery of Early Type 1 Diabetes Disease Biomarkers in the Human Pancreas [HIRN Consortium on Beta Cell Death and Survival (CBDS)] (Clinical Trial Not Allowed)

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

**Hyperlink:** [\(RFA-DK-17-021\)](#)

**Type:** U01

**Application Due Date:** May 10, 2018. Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement:** This Funding Opportunity Announcement (FOA) requests applications to explore human pancreatic tissues for the discovery of early biomarkers of T1D pathogenesis, the description of specific signaling or processing pathways that may contribute to the asymptomatic phase of T1D, the development of clinical diagnostic tools for the detection and staging of early T1D in at-risk or recently-diagnosed individuals, and/or the identification of therapeutic targets for the development of preventative or early treatment strategies. Successful applicants will join the Consortium on Beta Cell Death and Survival (CBDS), whose mission is to better define and detect the mechanisms of beta cell stress and destruction central to the development of T1D in humans, with the long-term goal of detecting beta cell destruction and protecting the residual beta cell mass in T1D patients as early as possible in the disease process, and of preventing the progression to autoimmunity. The CBDS is part of a collaborative research framework, the Human Islet Research Network (HIRN, <https://hirnetwork.org>), whose overall mission is to support innovative and collaborative translational research to understand how human beta cells are lost in T1D, and to find innovative strategies to protect and replace functional beta cell mass in humans. This FOA will only support studies with a primary focus on increasing our understanding of human disease biology (as opposed to rodent or other animal models). This FOA will not accept applications proposing a clinical trial.

**Budget:** NIDDK intends to commit up to \$3.5 million to fund 4-6 awards in FY 2018. 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 Direct Costs per year. Budgets are expected to reflect the actual needs of the proposed project. The maximum project period is 4 years.

### 4. High-Resolution Exploration of the Human Islet Tissue Environment [HIRN Human Pancreas Analysis Consortium (HPAC)] (Clinical Trial Not Allowed)

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

**Hyperlink:** [\(RFA-DK-17-022\)](#)

**Type:** U01

**Application Due Date:** May 10, 2018 Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement:** This Funding Opportunity Announcement (FOA) invites cooperative agreement applications that will contribute to a higher resolution understanding of the physical and functional organization of the human islet tissue environment by describing the composition (cellular and molecular) and function of important components of the pancreatic islet and peri-islet tissue architecture, the cell-cell relationships and means of communications used by cell types and cell subtypes within the pancreatic tissue ecosystem, and/or the contribution of adjacent (including acinar, ductal, lymphatic) and neighboring (intestinal, mesenteric and adipose) tissues to islet cell function and dysfunction. Successful projects will integrate the Human Pancreas Analysis Consortium (HPAC), that will consist of the research teams funded in response to this FOA with the Human Pancreas Analysis Program (HPAP), a resource-generation program that was funded in 2016 in response to RFA-DK-15-027. HPAC will become the fifth consortium of the Human Islet Research Network (HIRN, <https://hirnetwork.org/>). HIRN's overall mission is to support innovative and collaborative translational research to understand how human beta cells are lost in T1D, and to find innovative strategies to protect and replace functional beta cell mass in humans. This FOA will only support studies with a primary focus on increasing our understanding of human tissue structure and function, and human disease biology (as opposed to rodent or other animal models). This FOA will not accept applications proposing a clinical trial.

**Budget:** NIDDK intends to commit up to \$4 million to fund 4-6 awards in FY 2018. 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 \$550,000 Direct Costs per year. Budgets are expected to reflect the actual needs of the proposed project. The maximum project period is 4 years.

### 5. Clinical, Behavioral and Physiological Research Testing Current and Novel Closed Loop Systems (Clinical Trial Required)

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

**Hyperlink:** [\(RFA-DK-17-023\)](#)

**Type:** R01

**Application Due Date:** April 26, 2018 and December 6, 2018. Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement:** This Funding Opportunity Announcement (FOA) encourages applications from institutions/organizations proposing clinical trials to test a highly reliable, wearable/implantable, portable, and easy to operate system linking continuous glucose monitoring and pancreatic hormone delivery in a closed loop system. This research is also intended to study behavioral and physiological aspects of relevance to the use and adoption of these systems. The main goal of this FOA is to improve glucose control and quality of life of patients with type 1 diabetes. Only human studies will be considered responsive to this FOA, applications involving animal or in vitro studies are not responsive to this FOA.

**Budget:** NIDDK intends to commit up to \$1.25 million to fund 1-2 awards in FY 2018 and up to \$1.25 million to fund 1-2 awards in FY 2019. 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 direct costs per year, exclusive of indirect costs on subcontracts, per year. Budgets are expected to reflect the actual needs of the proposed project. The scope of the project period should determine the project period. The maximum project period is 4 years.

### 6. Impact of the Use of Glucose Monitoring and Control Technologies on Health Outcomes and Quality of Life in Older Adults with Type 1 Diabetes (T1D) (Clinical Trial Required)

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

**Hyperlink:** [\(RFA-DK-17-024\)](#)

**Type:** R01

**Application Due Date:** April 26, 2018 and Dec 6, 2018. Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement:** This Funding Opportunity Announcement (FOA) encourages applications from institutions/organizations proposing clinical studies of the use of current and emerging technologies for monitoring of blood glucose and insulin administration in older adults. (aged 65 years or older) Older adults may have increased vulnerability to hypoglycemia, cognitive impairment and/or multiple co-morbidities which may affect the risks and benefits of these technologies in this population. This research is intended to improve health, glucose control and quality of life of older patients with type 1 diabetes Only human studies will be considered responsive to this FOA; applications involving animal or invitro studies are not responsive to this FOA.

**Budget:** NIDDK intends to commit up to \$1.25 million to fund 1-2 awards in FY 2018 and up to \$1.25 million to fund 1-2 awards in FY 2019. 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 direct costs per year, exclusive of indirect costs on subcontracts, per year. Budgets are expected 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.

## **7. Development and Integration of Novel Components for Open and Closed Loop Hormone Replacement Platforms for T1D Therapy (Clinical Trial Optional)**

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

**Hyperlink:** [\(RFA-DK-17-025\)](#)

**Type:** R01

**Application Due Date:** May 10, 2018. Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement:** This Funding Opportunity Announcement (FOA) encourages applications from institutions/organizations proposing original research addressing barriers that limit progress toward effective open- and closed-loop glucose control systems. Proposed research should tackle important obstacles at the level of sensing, hormone formulation and delivery, self-management decision support systems, and/or design of automated controllers/algorithms able to manage an integrated platform. This research may contribute to development of affordable and user friendly technologies to improve glucose control in patients with type 1 diabetes.

**Budget:** The NIDDK intends to commit up to \$2.5 million dollars to fund up to 4-6 awards in FY 2018. The number of awards is contingent upon availability of funds and the submission of a sufficient number of meritorious applications. Application budget is limited to \$500,000 direct costs per year exclusive of consortium facilities and administrative (F&A) costs per year to be used over a project period of up to 4 years. Budgets are expected 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.

## **8. The Characterization and Discovery of Novel Autoantigens and Epitopes in Type 1 Diabetes (Clinical Trial Optional)**

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

**Hyperlink:** [\(RFA-DK-17-031\)](#)

**Type:** R01

**Application Due Date:** April 26, 2018 and December 6, 2018. Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement:** This Funding Opportunity Announcement (FOA) encourages applications from institutions/organizations proposing original research aimed at the characterization and discovery of neoantigens and neopeptides in type 1 diabetes. These include the characterization of the humoral and cell mediated autoimmune responses elicited by these neoepitopes and neoantigens and their role in the etiology and pathophysiology of type 1 diabetes. These studies should be integrated with the present knowledge of established epitopes and antigens (e.g. autoantibodies for insulin, GAD65, IA-2, and ZnT8T).

**Budget:** NIDDK intends to commit up to \$1.25 million to fund 2-3 awards in FY 2018 and up to \$1.25 million to fund 2-3 awards in FY 2019. The number of awards is contingent upon availability of funds and the submission of a sufficient number of meritorious applications. Application budgets are expected to range from \$250,000 to \$500,000 direct costs per year. Budgets are expected 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.

## **9. Funding For Collaborative Clinical Research In Type 1 Diabetes: Living Biobank (Clinical Trial Optional)**

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

**Hyperlink:** [\(RFA-DK-17-032\)](#)

**Type:** R01

**Application Due Date:** July 10, 2018 Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement:** This Funding Opportunity Announcement (FOA) invites applications for studies of etiology and pathogenesis related to development of type 1 diabetes (T1D) and/or its complications. Studies must involve subjects enrolled and followed in clinical trials, long term follow-up, or observational studies. This opportunity is intended to fund collaborative projects that bring new expertise and innovative approaches to enhance the value of major ongoing clinical research projects.

**Budget:** The NIDDK intends to commit up to \$3 million dollars in FY 2019 to fund up to 5 awards. 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 \$600,000 direct costs per year. The scope of the proposed project should determine the project period. The maximum project period is 5 years. Budgets are expected to reflect the actual needs of the proposed project.

## **10. Elucidating the Effect of Glycemic Excursions on Patient Well-being and Cognitive Status in People with Type 1 Diabetes (T1D) (Clinical Trial Optional)**

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

**Hyperlink:** [\(RFA-DK-18-003\)](#)

**Type:** R01

**Application Due Date:** July 10, 2018 Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement:** This Funding Opportunity Announcement (FOA) encourages applications from institutions/organizations proposing research on the use of current and emerging technologies for monitoring of blood glucose levels to capture the relationship between blood glucose excursions, perception of wellbeing, and cognitive status in people with type 1 diabetes (T1D). This information will inform the design of more effective interventions that may improve patient reported outcomes (PROs), including quality of life measures, and validate glycemic measures that may serve as outcomes in clinical trials to improve glucose management in T1D.

**Budget:** NIDDK intends to commit up to \$1.9 million in FY 2019 to fund up to 2 awards. 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 direct costs per year. Budgets are expected 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.

### 11. Development of New Technologies and Bioengineering Solutions for the Advancement of Cell Replacement Therapies for Type 1 Diabetes (T1D) (Clinical Trial Optional)

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

**Hyperlink:** [\(RFA-DK-18-004\)](#)

**Type:** R01

**Application Due Date:** May 10, 2018 Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement:** This Funding Opportunity Announcement (FOA) encourages applications from institutions/organizations proposing original research addressing barriers that limit progress toward effective cell replacement therapies for type 1 diabetes (T1D). The purpose is to support research leading to the development and testing of novel and supportive technologies for the improvement of cell replacement interventions using novel biomaterials and devices for T1D treatment.

**Budget:** The NIDDK intends to commit up to \$2.5 million to fund 3-6 awards in FY 2018. The number of awards is contingent upon availability of funds and the submission of a sufficient number of meritorious applications. Application budget is limited to \$500,000 direct costs per year. The scope of the proposed project should determine the project period. The maximum project period is 4 years.

### 12. Developmentally Tailored HIV Prevention and Care Research for Adolescents and Young Adults (Clinical Trial Optional)

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

**Hyperlink:** [\(PA-18-651\)](#)

**Type:** R01

[\(PA-18-652\)](#)

R21

[\(PA-18-653\)](#)

R34

**Application Due Date:** [Standard AIDS dates](#). Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement:** This Funding Opportunity Announcement encourages developmentally tailored research focused on adolescents and emerging adults as it relates to HIV prevention and treatment. Research is encouraged to incorporate recent advances in adolescent and young adult developmental research to optimize outcomes in HIV prevention and care research for this heterogeneous population. PA-18-651 uses the R01 grant mechanism, PA-18-652 uses the R21 mechanism, while PA-18-653 uses the R34 mechanism. High risk/high payoff projects that lack preliminary data or utilize existing data may be most appropriate for the R21 mechanism. Applicants with preliminary data and/or planning to include longitudinal analysis may wish to apply using the R01 mechanism. Applicants wanting to develop and pilot test an intervention may wish to apply using the R34 mechanism.

**Budget:** R01 - Application budgets are not limited but need to reflect the actual needs of the proposed project. The total project period for an application submitted in response to this funding opportunity may not exceed five years. 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. R34 - Direct costs are limited to \$450,000 over the entire project period, with no more than \$225,000 in direct costs in any single year. The total project period for an application submitted in response to this funding opportunity may not exceed three years.

### 13. Genetics of Alcohol Sensitivity and Tolerance (Clinical Trial Not Allowed)

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

**Hyperlink:** [\(PA-18-660\)](#)

**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 Institute on Alcohol Abuse and Alcoholism is publishing a Funding Opportunity Announcement (FOA) to seek applications on novel genetic mechanisms underlying the development of tolerance and the progression to alcohol use disorder. Alcohol use disorders is complex, multifactorial, and influenced both by genetic and environmental factors. The purpose of this FOA is to stimulate and support efforts on identifying genetic, genomic and epigenetic factors contributing to the development of sensitivity and tolerance to alcohol.

**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 total project period for an application submitted in response to this funding opportunity may not exceed 5 years

### 14. Basic Research in Cancer Health Disparities (Clinical Trials Not Allowed)

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

**Hyperlink:** [\(PAR-18-654\)](#)

**Type:** R01

[\(PAR-18-655\)](#)

R21

**Application Due Date:** June 19, 2018; November 19, 2018; June 18, 2019; November 19, 2019; June 18, 2020; November 19, 2020 Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement:** This Funding Opportunity Announcement (FOA) encourages grant applications from investigators interested in conducting basic, mechanistic research into the biological/genetic causes of cancer health disparities. These research project grants (R01) will support innovative studies designed to investigate biological/genetic bases of cancer disparities, such as (1) mechanistic studies of biological factors associated with cancer disparities, including those related to basic research in cancer biology or cancer prevention strategies, (2) the development and testing of new methodologies and models, and (3) secondary data analyses. This FOA is also designed to aid and facilitate the growth of a nationwide cohort of scientists with a high level of basic research expertise in cancer health disparities research who can expand available resources and tools, such as biospecimens, patient derived models, and methods that are necessary to conduct basic research in cancer health disparities.

**Budget:** R01 - 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 period is 5 years. 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.

### 15. Mechanisms of Alcohol Tolerance (Clinical Trial Not Allowed)

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

**Hyperlink:** [\(PAR-18-659\)](#)

**Type:** R21/R33

**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) focuses on sensitivity and tolerance mechanisms underlying the development of alcohol use disorders. The intent of this FOA is to: (1) develop hypotheses about cellular, molecular or network mechanisms that regulate sensitivity and tolerance to alcohol, and (2) develop quantitative models to predict the development

of tolerance and the progression to alcohol dependence. These objectives will be accomplished with a Phased Innovation (R21/R33) mechanism, in which secondary data analysis or pilot studies can occur during the R21 phase, and research testing the hypotheses can be expanded in the R33 phase. The transition to the R33 phase will be determined by NIAAA program staff after evaluation of the achievement of specific milestones set for the R21 phase. Applicants interested in the genetic basis of tolerance may consider FOA (PA-18-660).

**Budget:** For the R21 phase, the combined budget for direct costs during the two-year project period may not exceed \$275,000 with no more than \$200,000 requested in a single year. For the R33 phase, the direct costs should not exceed \$500,000 per year. The project period is limited to 2 years for the R21 phase and up to 3 years for the R33 phase. The total project period may not exceed 5 years.

## 16. Clinical Validation of Candidate Biomarkers for Neurological Diseases (Clinical Trial Optional)

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

**Hyperlink:** [\(PAR-18-664\)](#)

**Type:** U01

**Application Due Date:** Standard dates: April 17, 2018; July 18, 2018; February 14, 2019; July 18, 2019; February 14, 2020; and July 20, 2020 and Standard AIDS dates May 7, 2018; September 7, 2018; May 7, 2019; September 7, 2019; May 7, 2019; and September 7, 2020. Apply by 5:00 PM local time of applicant organization.

**Funding Opportunity Announcement:** The purpose of this Funding Opportunity Announcement (FOA) is to support rigorous clinical validation of a candidate biomarker using retrospective and/or prospective methods in a manner that is consistent with the purpose of the biomarker. This FOA assumes that: 1) a candidate biomarker has already been identified, 2) an analytical method has been developed and validated that is consistent with the purpose of the biomarker and 3) a working hypothesis regarding context of use is in place. The goal of this FOA is to facilitate the advancement of robust and reliable biomarkers of diseases that fall within the mission of NINDS to application in clinical trials and practice (Phase II clinical trials and beyond).

**Budget:** Application budgets are not limited but need to reflect the actual needs of the proposed project. The proposed project period for this grant must not exceed 5 years (but can be less than 5 years)

Brief definitions of some NIH grant mechanisms: [comprehensive list of extramural grant and cooperative agreement activity codes](#)

**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).