NIH funding opportunities

Faculty of Medicine and Health Sciences: Research Development and Support 29 Nov 2017 (#45)

[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>.

Confirm your intent to apply ASAP, but not later than 30 days before the submission date. Contact: RGMO Pre-Awards <u>cdevries@sun.ac.za</u>

Important Notices:

 Notice of Change in PA-17-299 "Small Grants for Secondary Analyses of Existing Data Sets and Stored Biospecimens (R03)" (NOT-HD-17-027) *Eunice Kennedy Shriver* National Institute of Child Health and Human Development

1. Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due dateHyperlink: (RFA-CA-18-002)Type: R21Application Due Date: February 28, 2018; May 29, 2018; September 28, 2018. Apply by 5:00 PM local time of applicant organization.Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) solicits grant applications proposing exploratory
research projects focused on the early-stage development of highly innovative technologies offering novel molecular or cellular analysis
capabilities for basic or clinical cancer research. The emphasis of this FOA is on supporting the development of novel capabilities
involving a high degree of technical innovation for targeting, probing, or assessing molecular and cellular features of cancer biology.
Well-suited applications must offer the potential to accelerate and/or enhance research in the areas of cancer biology, early detection
and screening, clinical diagnosis, treatment, control, epidemiology, and/or address issues associated with cancer health disparities.
Technologies proposed for development may be intended to have widespread applicability but must be focused on improving molecular
and/or cellular characterizations of cancer biology. This funding opportunity is part of a broader NCI-sponsored Innovative Molecular
Analysis Technologies (IMAT) Program.

Budget: NCI intends to fund an estimate of 17 awards, corresponding to a total of \$4,200,000, for fiscal year 2019. Future year amounts will depend on annual appropriations. Direct costs are limited to \$400,000 over a 3-year period, with no more than \$200,000 in direct costs allowed in any single year. Application budgets must reflect the actual needs of the proposed project. The total project period request may not exceed 3 years.

2. Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date Hyperlink: (RFA-CA-18-003) Type: R33 Application Due Date: February 28, 2018; May 29, 2018; September 28, 2018 Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) solicits grant applications proposing exploratory research projects focused on further development and validation of emerging technologies offering novel capabilities for targeting, probing, or assessing molecular and cellular features of cancer biology for basic or clinical cancer research. This FOA solicits R33 applications where major feasibility gaps for the technology or methodology have been overcome, as demonstrated with supportive preliminary data, but still requires further development and rigorous validation to encourage adoption by the research community. Well-suited applications must offer the potential to accelerate and/or enhance research in the areas of cancer biology, early detection and screening, clinical diagnosis, treatment, control, epidemiology, and/or address issues associated with cancer health disparities. Technologies proposed for development may be intended to have widespread applicability but must be focused on improving molecular and/or cellular characterizations of cancer. Projects proposing application of existing technologies where the novel ty resides in the biological or clinical target/question being pursued are non-responsive to this solicitation and will not be reviewed. This funding opportunity is part of a broader NCI-sponsored Innovative Molecular Analysis Technologies (IMAT) Program. Budget: NCI intends to fund an estimate of 10 awards, corresponding to a total of \$4,300,000, for fiscal year 2019. Future year amounts

will depend on annual appropriations. Direct costs are limited to \$300,000 per year. Application budgets must reflect the actual needs of the proposed project. The total project period request may not exceed 3 years.

Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date Hyperlink: (RFA-CA-18-004) Type: *R21* Application Due Date: February 28, 2018; May 29, 2018; September 28, 2018. Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) solicits grant applications proposing exploratory research projects focused on the early-stage development of highly innovative technologies that improve the quality of the samples used for cancer research or clinical care. This includes new capabilities to address issues related to pre-analytical degradation of targeted analytes during the collection, processing, handling, and/or storage of cancer-relevant biospecimens. The overall goal is to support the development of highly innovative technologies capable of maximizing or otherwise interrogating the quality and utility of biological samples used for downstream analyses. This FOA will support the development of tools, devices, instrumentation, and associated methods to preserve or protect sample integrity, or establish verification criteria for quality assessment/quality control and handling under diverse conditions. These technologies are expected to accelerate and/or enhance research in cancer biology, early detection and screening, clinical diagnosis, treatment, epidemiology, or address issues associated with cancer health disparities, by reducing pre-analytical variations that affect biospecimen sample quality. This funding opportunity is part of a broader NCI-sponsored Innovative Molecular Analysis Technologies (IMAT) Program

Budget: NCI intends to fund an estimate of 4 awards, corresponding to a total of \$1,000,000, for fiscal year 2019. Future year amounts will depend on annual appropriations. Direct costs are limited to \$400,000 over a 3-year period, with no more than \$200,000 in direct costs allowed in any single year. Application budgets must reflect the actual needs of the proposed project. The total project period request may not exceed 3 years.

Tobacco Regulatory Science (Clinical Trial Optional)

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

Hyperlink: (RFA-OD-18-002) Type: *R01* (RFA-OD-18-003) R21

Application Due Date: February 13, 2018, July 17, 2018, February 13, 2019. Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: The purpose of this Funding Opportunity Announcement (FOA) is to invite R01 applications to support biomedical and behavioral research that will provide scientific data to inform regulation of to bacco products to protect public health. Research Projects must address the research priorities related to the regulatory authority of the Food and Drug Admin istration (FDA) Center for Tobacco Products (CTP). The awards under this FOA will be administered by NIH using funds that have been made available through FDA CTP and the Family Smoking Prevention and Tobacco Control Act (P.L. 111-31). Research results from this FOA are expected to generate findings and data that are directly relevant in informing the FDA's regulation of the manufacture, distribution, and marketing of tobacco products to protect public health.

Budget: R01 = NIH, via support from the FDA Center for Tobacco products (CTP), intends to fund up to 8 R01s, corresponding to a total of up to \$4 million, for fiscal year 2018. Future year amounts will depend on availability of funds. Application budgets are limited to \$300,000 in direct cost per year. The scope of the proposed project should determine the project period. The maximum project period is 3 years. R21 = NIH, via support from the FDA Center for Tobacco products (CTP), intends to fund up to 14 R21s, corresponding to a total of up to \$4 million, for fiscal year 2018. Future year amounts will depend on availability of funds. The combined budget for direct costs for the entire project period may not exceed \$275,000. No more than \$200,000 in direct cost may be requested in any single year. The maximum project period is two years.

5. AIDS-Science Track Award for Research Transition (Clinical Trial Optional)

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

Hyperlink: (PA-18-072) Application Due Date: Standard AIDS dates Apply by 5:00 PM local time of applicant organization.

Type: R03

Funding Opportunity Announcement: This funding opportunity announcement (FOA) seeks to facilitate the entry of both newly independent and early career investigators to the area of drug abuse research on HIV/AIDS. This FOA, AIDS-Science Track Award for Research Transition (A-START), encourages Small Research Grant (R03) applications to support research projects on drug abuse and HIV/AIDS that can be carried out in a short period of time with limited resources. Applications under this FOA are welcomed from all areas of HIV/AIDS research that NIDA supports.

Budget: Budgets for direct costs of up to \$100,000 per year may be requested. The project period is limited to two years.

6. Oocyte Mitochondrial Function in Relation to Fertility, Aging, and Mitochondrial Diseases (Clinical Trial Optional) **Letter of Intent:** 30 days prior to the application due date Hyperlink: (PA-18-093) Type: R21 Application Due Date: Standard dates and Standard AIDS dates 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 from the scientific community to support outstanding research in the area of oocyte mitochondrial function in relation to fertility, aging, and mitochondrial disease transmission to offspring. The overarching goal is to gain fundamental insight into the role of mitochondria and longterm consequences of their dysfunction in the oocyte, and to develop therapeutic or alternative approaches to treat mitochondrial dysfunction for improving oocyte quality and competency, and health of the resultant offspring. It is anticipated that the results from studies supported by this FOA will provide women, suffering from infertility or subfertility and other illnesses due to mitochondrial dysfunction, practical approaches to enhance their fertility and the well-being of their offspring. This funding opportunity announcement encourages innovative and high-risk/impact studies that may lead to breakthrough in mitochondrial function, or to the development of novel techniques, agents, methodologies, models, or applications that could have a major impact in understanding and treatment of mitochondrial dysfunction. 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. The scope of the proposed project should determine the project period. The maximum period is 2 years.

7. Exploratory/Developmental Clinical Research Grants in Obesity (Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date Hyperlink: (PA-18-104) 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 research grant applications from institutions/organizations that propose to conduct exploratory/developmental clinical studies that will accelerate the development of

effective interventions for prevention or treatment of overweight or obesity in adults and/or children. Exploratory epidemiological research with a goal of informing translational/clinical research will also be supported within this program.

Budget: Direct costs are limited to \$275,000 over an R21 two-year period, with no more than \$200,000 in direct costs allowed in any single year. The maximum project period is two years.

Exploratory/Developmental Bioengineering Research Grants (EBRG) (Clinical Trial Optional) 8.

Letter of Intent: 30 days prior to the application due date Hyperlink: (PA-18-286) Type: R21 Application Due Date: Standard dates and Standard AIDS dates Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: The purpose of this FOA is to encourage submission of Exploratory/Developmental Bioengineering Research Grants (EBRG) applications which establish the feasibility of technologies, techniques or methods that: 1) explore a new multidisciplinary approach to a biomedical challenge; 2) are high-risk but have high impact; and 3) develop data that may lead to significant future research. An EBRG application may propose hypothesis-driven, discovery-driven, developmental, or designdirected research and is appropriate for evaluating unproven approaches for which there is minimal or no preliminary data. Budget: Direct costs are limited to \$275,000 over a two-year period, with no more than \$200,000 in direct costs allowed in any single year. The total project period may not exceed two years.

National Institute on Deafness and Other Communication Disorders (NIDCD) Clinical Trials in Communication Disorders 9. (Clinical Trial Required)

Letter of Intent: 30 days prior to the application due date Hyperlink: (PA-18-334) 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 NIDCD is committed to identifying effective interventions for the diagnosis, prevention, or treatment of communication disorders by supporting well-designed and well-executed clinical trials. This funding opportunity announcement (FOA) supports investigator initiated low risk clinical trials addressing the mission and research interests of NIDCD. Clinical trials must meet ALL the following criteria: meet the budget limits of this FOA, not require FDA oversight, are not intended to formally establish efficacy and have low risks to potentially cause physical or psychological harm. It is advisable that only one clinical trial be proposed in each NIDCD Clinical Trials in Communication Disorders R01 application. High risk clinical trials not meeting all the criteria above are referred companion U01 FOA PAR-18-340, NIDCD Cooperative Agreement for Clinical Trials in Communication Disorders.

Budget: Application budgets are limited to less than \$500,000 in direct costs in any year. The scope of the proposed project should determine the project period. The maximum project period is five years.

10. National Institute of Neurological Disorders and Stroke (NINDS) Exploratory Neuroscience Research Grant (Clinical Trial **Optional**)

Hyperlink: (PA-18-358) Letter of Intent: 30 days prior to the application due date Type: *R21* Application Due Date: Standard dates and Standard AIDS dates Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: The NINDS Exploratory Neuroscience Research Grant program supports exploratory and innovative research projects, which fall within the mission of the NINDS. Awards will provide support for the early and conceptual stages of projects. These studies often assess the feasibility of a novel avenue of investigation and involve considerable risk, but have the potential to bring about breakthroughs in the understanding of important areas of neuroscience, or to the development of novel techniques, agents, methodologies, or models, of high value to the neuroscience community Budget: Direct costs are limited to \$275,000 over a two-year period, with no more than \$200,000 in direct costs allowed in any single year. The maximum project period is two years

11. Addressing Health Disparities in NIDDK Diseases (Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date Hyperlink: (PA-18-412)

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) invites research to understand and mitigate health disparities in the development, diagnosis, and treatment of diseases of high priority to the National Institute of Dia betes and Digestive and Kidney Diseases (NIDDK). Research is encouraged in the following high priority diseases: diabetes and other endocrine and metabolic diseases; obesity; nutrition-related disorders; hepatitis C; gallbladder disease; H. Pylori infection; complications of sickle cell disease within the NIDDK mission areas; kidney diseases; urologic diseases; metabolic, gastrointestinal, hepatic, and renal complications from infection with HIV; and mechanistic research in hematologic diseases, including studies in abnormal hemoglobin synthesis. This FOA will not support multi-center clinical studies or Clinical Trials. Animal research will be supported if the research is a clinically relevant model of a NIDDK mission area disease in a minority population

Budget: Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 5 years.



Type: R21

12. Stimulating Innovations in Behavioral Intervention Research for Cancer Prevention and Control (Clinical Trial Optional)

Type: *R21*

 Letter of Intent: 30 days prior to the application due date
 Hyperlink: (PAR-18-018)

 Application Due Date: Standard dates
 and Standard AIDS dates
 Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: The purpose of this Funding Opportunity Announcement (FOA) is to provide support for the development of innovative interventions that improve cancer-related health behaviors across diverse racial/ethnic populations. Specifically, this FOA is intended to stimulate research aimed at 1) testing new theories and conceptual frameworks; 2) developing and evaluating novel strategies to improve cancer-related health behaviors; 3) investigating multi-level and multi-behavioral approaches; and 4) utilizing innovative research designs, methodologies, and technologies. The cancer-related health behaviors to be targeted are diet, obesity, physical activity and sedentary behavior, smoking, sleep and circadian dysfunction, alcohol use, and/or adherence to cancer-related medical regimens. Research can involve any aspect of the cancer continuum and any phase of the translational spectrum.

Budget: Direct costs are limited to \$275,000 over an R21 two-year period, with no more than \$200,000 in direct costs allowed in any single year. The maximum project period is 2 years.

13. National Cancer Institute (NCI) Clinical and Translational Exploratory/Developmental Studies (Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date Hyperlink: (PAR-18-020) Type: R21 Application Due Date: July 19, 2018; October 18, 2018; February 21, 2019; June 19, 2019; October 17, 2019; February 20, 2020; June 19, 2020; October 17, 2020; February 20, 2021 Aids Dates: July 19, 2018; November 22, 2018; March 22, 2019; July 19, 2019; November 22, 2019; March 22, 2020; July 19, 2020; November 22, 2020; March 22, 2021 Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) supports the development of new exploratory research in cancer diagnosis, treatment, imaging, symptom/toxicity, and prevention clinical trials; correlative studies associated with clinical trials; novel cancer therapeutic, symptom/toxicity, and preventive agent development, radiotherapy development activities, and mechanism-driven combinations; and innovative preclinical studies--including the use of new clinically-relevant models and imaging technologies--which could lead to first-in-human clinical trials. The R21 mechanism is intended to encourage exploratory and developmental research projects by providing support for the early and conceptual stages of these projects. These studies may involve considerable risk, but may lead to a breakthrough in a particular area, or to the development of novel techniques, agents, methodologies, models, or applications that could have a major impact on a field of cancer research (pre-clinical or clinical). 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.

14. Imaging - Science Track Award for Research Transition (I/START) (Clinical Trial Optional)

 Letter of Intent: 30 days prior to the application due date
 Hyperlink: (PAR-18-081)
 Type: R03

 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 Small Research Grant (R03) applications to facilitate the entry of investigators to the area of neuroimaging, including both new investigators and established investigators seeking to adopt neuroimaging methodologies in their research programs, to enable the conduct of small "proof of concept" studies. The R03 is intended to support research projects that can be carried out in a short period of time with limited resources.

Budget: Budgets for direct costs of up to \$150,000 per year and is for a period of one year only. The maximum project period is 1 year.

15. National Institute on Drug Abuse (NIDA) Research Education Program for Clinical Researchers and Clinicians (Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due dateHyperlink: (PAR-18-083)Type: R25Application Due Date: July 20, 2018 and AIDS date September 7, 2018. Apply by 5:00 PM local time of applicant organization.Funding Opportunity Announcement: The NIH Research Education Program (R25) supports research education activities in the mission
areas of the NIH. The over-arching goal of this NIDA R25 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. This FOA is intended to support
research education activities that enhance the knowledge of substance abuse and addiction research. The program is intended for those
in clinically focused careers and/or those training for careers as clinicians/service providers, clinical researchers or op timally a
combination of the two. This mechanism may not be used for support of non-research-related clinical training. To accomplish the stated
over-arching goal, this FOA will support creative educational activities with a primary focus on Courses for Skills Development and
Research Experiences.

Budget: Although the size of the award may vary with the scope of the research education program proposed, it is expected that applications will not exceed \$350,000 in total direct costs annually. The scope of the proposed project should determine the project period. The total project period, however, may not exceed 5 years

16. Mechanistic Basis of Diffuse White Matter Disease and Small Vessel Pathology in Vascular Contributions to Cognitive Impairment and Dementia (VCID)

Letter of Intent: 30 days prior to the application due dateHyperlink: (PAR-18-413)Type: R01Application Due Date: March 23, 2018. Apply by 5:00 PM local time of applicant organization.Funding Opportunity Announcement: The purpose of this funding opportunity announcement (FOA) is to support hypothesis-testing
research to elucidate cellular and molecular mechanisms that underlie diffuse white matter disease and small vessel disease in the brain,
the relationships between them, and how they may contribute to cognitive impairment and dementia.Budget: Application budgets are limited to up to \$500,000 direct costs per year, and should reflect the actual needs of the proposed project.
The maximum project period is 5 years.

17. Integrative Research on Polysubstance Abuse and Addiction (Clinical Trial Optional)

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

Hyperlink: <u>(PAR-18-084)</u>

Type: R21/R33

Application Due Date: <u>Standard dates</u> and <u>Standard AIDS dates</u> Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) is supported by Collaborative Research on Addiction (CRAN) at the National Institutes of Health (NIH), a trans-NIH partnership composed of the National Institute on Alcohol Abuse and Alcoholism (NIAAA), the National Institute on Drug Abuse (NIDA), and the National Cancer Institute (NCI). The intent of this FOA is two-fold: (1) characterize how the neurobiological alterations, associated behaviors, and public health consequences arising from polysubstance use differ from, or are similar to, those observed in single drug use; (2) promote integrative polysubstance research along a translational pipeline, consisting of basic science research in animals, human-based laboratory investigations, and epidemiological studies. These dual objectives will be accomplished with a Phased Innovation (R21/R33) mechanism, where polysubstance research can occur in any of these translational stages during the R21 phase and these findings will be rapidly back- or forward-integrated into another stage during the R33 phase, allowing for bi-directional research exchange.

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.

18. Target Assessment, Engagement and Data Replicability to Improve Substance Use Disorders Treatment Outcomes (Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date	Hyperlink: <u>(PAR-18-085)</u>	Type: <i>R33</i>
	<u>(PAR-18-086)</u>	R21/R33

Application Due Date: <u>Standard dates</u> Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) is part of an NIH initiative known as Collaborative Research on Addiction at NIH (CRAN). Areas supported by this FOA include research to generate and conduct preliminary tests of targeted addiction treatment to address multiple substances, which may include alcohol, tobacco and other drug use (ATOD). The purpose of this FOA is to provide support for applications that focus on data replication and the scalability of novel, targe ted addiction treatments. Consistent with an experimental therapeutics approach, studies that would fall under the R33 (Phase II) would include studies with theory-derived targets (based on putative mechanisms of ATOD) and clearly defined hypotheses about how the proposed treatment directed at changing the target relates to clinical outcomes. In addition, studies that include preliminary efficacy with respect to target engagement and validation (i.e., data to establish the relation between target and symptom reduction and functional outcomes) are essential to the Phase II arm (R33). Studies of novel treatments include, but are not limited to behavioral, pharmacological, biologics-based, cognitive, device-based, interpersonal, physiological, or combined approaches. This FOA provides support for replication studies of addiction treatment across 2 or more settings. Specifically, this phase will focus on clinical trials that apply the target in a treatment setting (testing, refinement, and/or adaptation) to evaluate the efficacy and replicability of larger trials. Ultimately, the goal of this FOA is to replicate findings of mechanisms and processes underlying treatments or replication of strategies into novel intervention approaches that can be efficiently tested and replicated for their promise to address substance use disorder outcomes. Furthermore, these studies build on data that have been demonstrated with sufficient signal of target engagement from an analogous R21-like study to justify the proposed R33 trials.

Budget: R33 - Application budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 3 years. **R21/R33** -The 2-year R21 phase may not exceed \$275,000 in direct costs, with no more than \$200,000 in direct costs in any single year. The R33 phase budgets are not limited but need to reflect the actual needs of the proposed project. The maximum project period is 5 years; 2 years for the R21 phase and 3 years for the R33 phase.

19. Pilot and Feasibility Clinical Research Grants in Kidney Diseases (Clinical Trial Optional)			

 Letter of Intent: 30 days prior to the application due date
 Hyperlink: (PAR-18-100)
 Type: R21

 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) is to support Exploratory/Developmental

Research Grants (R21) that propose small scale or pilot and feasibility clinical and translational research studies, including epidemiological studies or clinical trials related to kidney disease research. Studies should address important clinical and translational questions and are potentially of high clinical and public health impact. It is anticipated that some projects supported by these grants may lead to full-scale clinical studies including diagnostic strategies, epidemiological studies, or randomized clinical trials of diagnosis, prevention, or treatment of kidney diseases.

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. The total project period may not exceed 2 years.

20. Development and Application of PET and SPECT Imaging Ligands as Biomarkers for Drug Discovery and for Pathophysiological Studies of CNS Disorders (Clinical Trial Optional)

 Letter of Intent: 30 days prior to the application due date
 Hyperlink: (PAR-18-227)
 Type: R01

 Application Due Date: Standard dates
 Apply by 5:00 PM local time of applicant organization.
 Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) invites research grant applications from organizations/institutions that propose the development of novel radioligands for positron emission tomography (PET) or single photon emission computed tomography (SPECT) imaging in human brain, and that incorporate pilot or clinical feasibility evaluation in preclinical studies.

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 period is 3 years.

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21. Pilot and Feasibility Clinical Research Grants in Urologic Disorders (Clinical Trial Optional)

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

Type: *R*21

Application Due Date: <u>Standard dates</u> and <u>Standard AIDS dates</u> Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) is to support Exploratory/Developmental Research Grants (R21) that propose small scale or pilot and feasibility clinical and translational research studies, including epidemiological studies or clinical trials related to urologic disorders research. Studies should address important clinical and translational questions that are potentially of high clinical and public health impact. It is anticipated that some projects supported by these grants may lead to full-scale clinical studies including diagnostic strategies, epidemiological studies, or randomized clinical trials of prevention, diagnosis or treatment of urologic disorders.

Hyperlink:

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. The total project period may not exceed 2 years.

22. Pilot Services Research Grants Not Involving Interventions (Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date Hyperlink: (PAR-18-267)

Type: *R34*

Application Due Date: Standard dates Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: The purpose of this Funding Opportunity Announcement (FOA) is to encourage pilot research consistent with NIMH priorities for services research studies that are not immediate precursors to the development and testing of services interventions. While NIMH has moved to support and areas of mental health services research fall outside of that domain and have the potential to make significant contributions to advancing NIMH priorities and objectives. These areas include: 1) studies to identify mutable factors that impact access, utilization, quality, financing, outcomes including disparities in outcomes, or scalability of mental health services, which may serve as targets in future intervention development; 2) development and testing of new rese arch tools, measures, or methods; or 3) testing the feasibility of integrating existing data sets to understand factors affecting access, quality or outcomes of care. Studies focused on the development and preliminary testing of services interventions (e.g., pilot testing of patient, provider-, organizational-, or systems- level services interventions to improve care quality, coordination, outcomes, delivery, or scalability) should be submitted under RFA-MH-16-410.

Budget: Direct costs are limited to \$450,000 over the R34 project period, with no more than \$225,000 in direct costs allowed in any one year. The total project period for an application submitted in response to this funding opportunity may not exceed three years

23. Healthy Habits: Timing for Developing Sustainable Healthy Behaviors in Children and Adolescents (Clinical Trial Optional) Letter of Intent: 30 days prior to the application due date Hyperlink: (PA-18-355) (PA-18-354) Type: R01 R21

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), issued by the National Institute of Nursing Research (NINR), is to encourage encourage Research Project Grant (R01) and Exploratory/Developmental Research Grant (R21) applications that employ innovative research to identify mechanisms of influence and/or promote positive sustainable health behavior(s) in children and youth (birth to age 18). Positive health behaviors may include: developing healthy sleep patterns, developing effective self-regulation strategies, adaptive decision-making in risk situations, practicing proper dental hygiene, eating a balanced and nutritious diet, engaging in age-appropriate physical activity and/or participating in healthy relationships. Applications to promote positive health behavior(s) should target social and cultural contexts, including, but not limited to: schools, families, communities, population, food industry, age-appropriate learning tools and games, social media, social networking, technology and mass media. Topics to be addressed in this announcement include: effective, sustainable processes for influencing young people to make he althy behavior choices; identification of the appropriate stage of influence for learning sustainable lifelong health behaviors; the role of technology and new media in promoting healthy behavior; identification of factors that support healthy behavior development in vulnerable populations; and, identification of mechanisms and mediators that are common to the development of a range of habitual health behaviors. Given the many factors involved in developing sustainable health behaviors, applications from multidisciplinary team that include nurse scientists are strongly encouraged. The goal of this FOA is to promote research that identifies and enhances processes that promote sustainable positive behavior or changes social and cultural norms that influence health and future health behaviors. 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 project period is 5 years. R21 - The combined budget for direct costs for the twoyear project period may not exceed \$275,000. No more than \$200,000 may be requested in any single year.

24. Population Health Interventions: Integrating Individual and Group Level Evidence (Clinical Trials Not Allowed)			
Letter of Intent: 30 days prior to the application due date	Hyperlink: <u>(PA-18-356)</u>	Type: <i>R01</i>	
Application Due Date: Standard dates and Standard AIDS dates Appl	y by 5:00 PM local time of applicant organization	on.	
Funding Opportunity Announcement: To improve health and redu	ice the burden of disease, scientific research	needs to be implemented	
at the population level in addition to the biological and clinical level	ls. The purpose of this funding opportunity a	announceme nt (FOA) is to	
support multilevel, transdisciplinary population health intervention	ns that target underlying social, economic, an	nd environmental	
conditions in an effort to improve health outcomes.			
Budget : Application budgets are not limited but need to reflect the a should determine the project period. The maximum project period is		e of the proposed project	
o 11 0		e of the proposed project	

25. Family-Centered Self-Management of Chronic Conditions		
Letter of Intent: 30 days prior to the application due date	Hyperlink: <u>(PA-18-383)</u>	Type: <i>R01</i>
	<u>(PA-18-380)</u>	R21
Application Due Date: <u>Standard dates</u> and <u>Standard AIDS dates</u> Apply	by 5:00 PM local time of applicant organizat	tion.
Funding Opportunity Announcement: The purpose of this Funding O	Opportunity Announcement (FOA) is to en	courage research that
seeks to build the science of family-centered self-management (FCSI	M) in chronic conditions.	

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 project 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.

26. Population Health Interventions: Integrating Individual and Group Level Evidence - Clinical Trial Optional		
Letter of Intent: 30 days prior to the application due date	Hyperlink: <u>(PA-18-385)</u>	Type: <i>R01</i>
	<u>(PA-18-407)</u>	R21
Application Due Date: Standard dates and Standard AIDS dates Apply	by 5:00 PM local time of applicant organizat	ion.

Funding Opportunity Announcement: To improve health and reduce the burden of disease, scientific research needs to be implemented at the population level in addition to the biological and clinical levels. The purpose of this funding opportunity announcement (FOA) is to support multilevel, transdisciplinary population health interventions that target underlying social, economic, and environmental conditions in an effort to improve health outcomes.

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 project 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

27. Population Health Interventions: Integrating Individual and Group Level Evidence - Clinical Trials Not Allowed

Letter of Intent: 30 days prior to the application due dateHyperlink: (PA-18-406)Type: R21Application Due Date: Standard dates and Standard AIDS datesApply by 5:00 PM local time of applicant organization.Funding Opportunity Announcement: To improve health and reduce the burden of disease, scientific research needs to be implementedat the population level in addition to the biological and clinical levels. The purpose of this funding opportunity announcement (FOA) is tosupport multilevel, transdisciplinary population health interventions that target underlying social, economic, and environmentalconditions in an effort to improve health outcomes.

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

28. mHealth Tools for Individuals with Chronic Conditions to Promote Effective Patient-Provider Communication, Adherence to Treatment and Self-Management (Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date	Hyperlink: <u>(PA-18-386)</u>	Type: <i>R01</i>
	<u>(PA-18-389)</u>	R21

Application Due Date: <u>Standard dates</u> and <u>Standard AIDS dates</u> Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: The purpose of this initiative is to stimulate research utilizing Mobile Health (mHealth) tools aimed at the improvement of effective patient—provider communication, adherence to treatment and self-management of chronic diseases. With the rapid expansion of cellular networks and substantial advancements in Smartphone technologies, it is now possible and affordable - to transmit patient data digitally from remote areas to specialists in urban areas, receive real-time feedback, and capture that consultation in a database. These mHealth tools, therefore, may facilitate more timely and effective patient -provider communication through education communication around goal setting, treatment reminders, feedback on patient progress, and may improve health outcomes. This announcement encourages the development and testing of interventions utilizing mHealth technologies. There is also an interest in studying mHealth technologies in underserved populations.

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 project 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.

29. Pilot and Feasibility Therapeutic Clinical Trials in Diabetes, and Endocrine and Metabolic Diseases (Clinical Trial Required)		
Letter of Intent: 30 days prior to the application due date	Hyperlink: <u>(PA-18-405)</u>	Type: <i>R21</i>
Application Due Date: Standard dates and Standard AIDS dates Apply	by 5:00 PM local time of applicant organizat	ion.
Funding Opportunity Announcement: This Funding Opportunity Anr	ouncement encourages the submission of	ⁱ pilot and feasibility
therapeutic trials conducted in humans that will lay the foundation for larger clinical trials related to the prevention and/or treatment of		
diabetes or selected endocrine and genetic metabolic diseases within the mission of NIDDK. The program will support short-term clinical		
trials in humans to acquire preliminary data and/or refine power calculations that would lead to a larger, more definitive study		
impacting clinical care or health outcomes. This FOA is not appropriate for mechanistic clinical trials.		
Budget: Direct costs are limited to \$275,000 over a two-year period, with no more than \$200,000 in direct costs allowed in any single year.		
The scope of the proposed project should determine the project period. The maximum project period is two years.		

30. National Cancer Institute (NCI) Small Grants Program for Cancer Research (NCI Omnibus Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due dateHyperlink: (PAR-18-021)Type: R03Application Due Date: February 27, 2018; June 29, 2018; October 26, 2018; February 26, 2019; June 28, 2019; October 25, 2019. Aids Dates -
May 7, 2018; September 7, 2018; January 7, 2019; May 7, 2019; September 7, 2019; January 7, 2020. Apply by 5:00 PM local time of applicant
organization.

Funding Opportunity Announcement: This funding opportunity announcement (FOA) supports small research projects on cancer that can be carried out in a short period of time with limited resources. The R03 grant mechanism supports different types of projects including pilot and feasibility studies; secondary analysis of existing data; small, self-contained research projects; development of research methodology; and development of new research technology.

Budget: A budget for direct costs of up to \$50,000 per year may be requested. The maximum project period is 2 years.

31. National Center for Medical Rehabilitation Research (NCMRR) Early Career Research Award (Clinical Trial Optional)

 Letter of Intent: 30 days prior to the application due date
 Hyperlink: (PAR-18-211)

 Application Due Date: March 30, 2018, March 29, 2019. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: The National Center for Medical Rehabilitation Research (NCMRR) Early Career Research (ECR) Award (R03) is intended to support both basic and clinical research from rehabilitation scientists who are establishing indep endent research careers. It cannot be used to support thesis/dissertation research or research conducted by postdoctoral fellows. The research should be focused on one or more of the areas within the biomedical and behavioral mission of NCMRR: pathophysiology and management of chronically injured nervous and musculoskeletal systems; repair and recovery of motor and cognitive function; functional plasticity, adaptation, and windows of opportunity for rehabilitation interventions; rehabilitative strategies involving pharmaceutical, stimulation, neuroengineering approaches, exercise, motor training, and behavioral modifications; pediatric rehabilitation; secondary conditions associated with chronic disabilities; improved diagnosis, assessment, and outcome measur es; and development of orthotics, prosthetics, and other assistive technologies and devices. The NCMRR ECR Award supports different types of projects including secondary analysis of existing data; small, self-contained research projects; development of research methodology; translational research; outcomes research; and development of new technology. Irrespective of the type of project, the intent of the NCMRR ECR Award is for the Program Director(s)/Principal Investigator(s) (PD(s)/PI(s)) to obtain sufficient preliminary data for a subsequent R01 application.

Budget: The combined budget for direct costs for the entire project period may not exceed \$200,000. No more than \$100,000 in direct costs may be requested in any single year. The scope of the proposed project should determine the project period. The maximum period of support is 2 years.

32. Human-Animal Interaction (HAI) Research (Clinical Trial Optional)

 Letter of Intent: 30 days prior to the application due date
 Hyperlink: (PAR-18-213)

 Application Due Date: March 30, 2018, March 30, 2019. Apply by 5:00 PM local time of applicant organization.

Type: *R01*

Type: R03

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) invites grant applications for research to examine 1) the impact of HAI on typical and atypical child development and health; 2) the evaluation of animal-assisted intervention for children and adults with disabilities or in need of rehabilitative services; 3) the effects of animals on public health, including cost effectiveness of involving animals in reducing and preventing disease.

Budget: Budgets are limited to \$499,999 Direct Costs per year. Application budgets should 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.

33. Strategic Alliances for Medications Development to Treat Substance Use Disorders (Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date Hyperlink: (PAR-18-218) Type: R01 Application Due Date: March 27, 2018; July 25, 2018; March 27, 2019; July 25, 2019. Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: The purpose of this Funding Opportunity Announcement (FOA) is to support research that advances compounds towards FDA approval by leveraging NIDA funds with the strengths and resources of outside organizations, such as for-profit and not-for-profit entities, including academic institutions, pharmaceutical and biotechnology companies, private and public foundations, and small businesses. Applications from single entities that possess considerable resources for medications development will also be considered, provided the entity demonstrates a significant resource commitment to the proposed project. A resource commitment from a single entity could, for example, consist of salary support for key personnel or production and formulation of clinical trial material. It is anticipated that in comparison with traditional grant-funded research, strategic alliances will increase the pace at which medications to treat Substance Use Disorders (SUDs) move through the drug development process. Both the project period and budget of the grant are consistent with the objective of accelerating the pace of medications development compared to traditional research project grant funding. Project aims can range from the development of a new molecular entity to the expansion of an existing medication's clinical indication(s). Each project should have a defined entry and exit point in the medications development pathway, with the objective of advancement in the FDA approval process. It is hoped that support for these collaborations will accelerate the rate of medications development for SUDs.

Budget: Application budgets for direct costs may be up to \$3,000,000 per year, but need to reflect the actual needs of the proposed project. The maximum period of support is 3 years.

34. Research To Address Sleep Disorders in the Context of Medical Rehabilitation (Clinical Trial Optional)

 Letter of Intent: 30 days prior to the application due date
 Hyperlink: (PAR-18-212)

 Application Due Date: March 30, 2018, March 29, 2019. Apply by 5:00 PM local time of applicant organization.

Type: **R01**

Application Due Date: March 30, 2018, March 29, 2019. Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: Patients with many disabilities report problems sleeping, but specific sleep disorders are often not diagnosed. Because sleep affects many physiological and behavioral parameters--depression, anxiety, pain, cancer, cardiovascular changes, immune function-- sleep disorders should be diagnosed and appropriately treated to maximize benefit of rehabilitation. Research is needed on ways to best approach this complexity in the context of medical rehabilitation for a primary, non-sleep disorder. Budget: Application budgets are limited \$499,999 or less direct costs per FY and should 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.

35. Grand Opportunity in Medications Development for Substance-Use Disorders (Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due dateHyperlink: (PAR-18-219)Type: U01Application Due Date: March 27, 2018; July 25, 2018; March 27, 2019; July 25, 2019. Apply by 5:00 PM local time of applicant organization.Funding Opportunity Announcement: The purpose of this Funding Opportunity Announcement (FOA) is to accelerate the developmentof medication for the treatment of Substance-Use Disorders (SUDs) by encouraging research applications to support a diverse array ofpreclinical and/or clinical research projects. The goal is to fund medication studies that will have high impact and quickly yield thenecessary results to advance medications closer to FDA approval. It is expected that these U01s will be short-term (funded for up to 3years) and large (up to \$5 million per year) cooperative agreements with close monitoring and significant scientific involvement of NIDAstaff. This funding opportunity will enable critical medications development studies that would not be feasible using the tra ditional R01activity code.

Budget: NIH intends to fund an estimate of 2-3 awards per year. Application budgets are limited to \$5 million per year for direct costs. The maximum project period is 3 years.

36. Novel Assays to Address Translational Gaps in Treatment Development (Clinical Trial Optional)

Hyperlink: (PAR-18-268) **Letter of Intent:** 30 days prior to the application due date Type: UG3/UH3 Application Due Date: February 23, 2018, June 26, 2018, October 24, 2018. Apply by 5:00 PM local time of applicant organization. Funding Opportunity Announcement: The overall goal of this initiative is to identify neurophysiological measures as potential assays for treatment development research. The FOA will support efforts to optimize and evaluate measures of neurophysiological processes that are disrupted within or across mental disorders in both healthy humans and in another species relevant to the therapeutic development pipeline. The initiative will support initial proof of concept studies aimed at identifying measures for potential development as preclinical assays for evaluating potential new drug and device therapies and their targets. Data will also reveal assay meas ures where the performance between preclinical animal species and humans is dissimilar, thus establishing a firm basis for limiting speculative extrapolations of preclinical animal findings to humans. The ultimate practical goal of this FOA is to improve the efficiency of the therapeutic development process by identifying coherence of measures and inconsistencies between the preclinical screening pipeline and clinical evaluation of new treatment candidates and thereby hasten the development of more effective treatments for mental disorders. The objectives of the FOA will be accomplished by supporting partnerships among basic and translational neuroscientists who are committed to advancing the discovery of in vivo physiological measures as tools for target validation and therapeutic development. Groups will be tasked with developing and optimizing in vivo assays of brain processes in both animals and in healthy humans. Groups will evaluate assay performance across both species in response to specific chemical, physiological, or behavioral manipulations. In this way, projects will reveal the potential of specific assays to translate from animals to humans, suggesting assays for further development as tools in the treatment development pipeline.

Budget: Application budgets are not limited but need to reflect the actual needs of the proposed project. The UG3 period may not exceed 2 years, the UH3 period may not exceed 3 years. The total duration of the UG3 and UH3 phases may not exceed 4 years.

37. Methodology and Measurement in the Behavioral and Social Sciences (Clinical Trials Optional)			
Letter of Intent: 30 days prior to the application due date	Hyperlink: <u>(PAR-18-352)</u>	Type: <i>R01</i>	
	<u>(PAR-18-378)</u>	R21	
Application Due Date: Standard dates and Standard AIDS dates Apply by 5:00 PM local time of applicant organization.			
Funding Opportunity Announcement: The purpose of this Funding Opportunity Announcement (FOA) is to invite qualified researchers			

to submit grant applications aimed at improving and developing methodology in the behavioral and social sciences through inno vations in research design, measurement, data collection and data analysis techniques. The participating NIH Institutes and Centers (ICs) encourage research that will improve the quality and scientific power of behavioral and social science data relevant to the IC missions. Applicants are strongly encouraged to contact the Scientific/Research Contact (see Section VII, Agency Contacts) of the IC that most closely matches their research focus to determine IC interest in the proposed research topic.

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 project period is 5 years. **R21** - Direct costs are limited to \$275,000 for the total two-year period, with no more than \$200,000 in direct costs allowed in any single year

38. Education and Health: New Frontiers (Clinical Trial Optiona	l)	
Letter of Intent: 30 days prior to the application due date	Hyperlink: <u>(PAR-18-362)</u>	Type: <i>R21</i>
	<u>(PAR-18-387)</u>	R01
	<u>(PAR-18-388)</u>	R03

Application Due Date: Standard dates Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: The goal of this funding opportunity announcement is to support research that will further elucidate the pathways involved in the relationship between education and health outcomes and in doing so to carefully identify the specific aspects and qualities of education that are responsible for this relationship and what the mediating factors are that affect the nature of the causal relationship.

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. The total project period may not exceed 2 years. **R01-** Application budgets are not limited but need to reflect the actual needs of the proposed project. The total project period may not exceed 2 years. **R03 -** The combined budget for direct costs for the two year project period may not exceed \$100,000. No more than \$50,000 in direct costs may be requested in any single year.

Brief definitions of some NIH grant mechanisms: <u>comprehensive list of extramural grant and cooperative agreement activity codes</u>

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).

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