NIH funding opportunities

Faculty of Medicine and Health Sciences: Research Development and Support

[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)** <u>at least 60 days</u> before the submission date, Mr Eugene Baugaard (<u>eugeneb@sun.ac.za</u>), or as soon as you commit to apply for an NIH grant and that the grant is submitted institutionally. <u>All final application documents MUST reach the RGMO seven</u> (7) workdays before NIH application due date.

Important notices

<u>NIH unveils FY2016–2020 Strategic Plan</u>

1. Pediatric Diagnostic Biomarkers for Active Pulmonary TB Disease

Letter of Intent due date: N/A Hyperlink: (RFA-AI-15-057) Type: RO1 Application Due Date: March 11, 2016. 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 (of both Grants.gov and eRA Commons errors) on the application due date.

Purpose: The purpose of this Funding Opportunity Announcement (FOA) is to support projects to identify and/or validate biomarkers or biomarker combinations leading to improved diagnosis of active pulmonary tuberculosis (TB) in children, including HIV infected children. **Budget:** Application budgets are not limited but need to reflect the actual needs of the proposed project. The scope of the proposed project should determine the project period. The maximum project period is 5 years.

2. Tropical Medicine Research Centers

Letter of Intent due date: May 3, 2016 Hyperlink: (<u>RFA-AI-16-002</u>) Type: U19 Application Due Date: June 3, 2016. 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* (of both Grants.gov and eRA Commons errors) on the application due date.

Purpose: The purpose of this Funding Opportunity Announcement (FOA) is to solicit applications from institutions/organizations that propose to conduct research on the causes, diagnosis, prevention, and treatment of tropical diseases in endemic areas. The scope of the research to be supported is limited to select Neglected Tropical Diseases (NTDs) and their corresponding vectors. Research may be focused on a single pathogen or more than one pathogen causing NTDs. Multi-disciplinary research and/or study of multiple pathogens is encouraged. This program is not intended to support research which can be conducted primarily in U.S. institutions.

Budget: The budget for each TMRC cannot exceed \$500,000 in direct costs per year excluding consortia F&A costs. A maximum of 15% of the requested annual direct cost budget may be used to fund institutions in, and consultants from, economically developed countries (see http://siteresources.worldbank.org/DATASTATISTICS/Resources/CLASS.XLS). The scope of the proposed project should determine the project period. The maximum project period is 5 years.

3. Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research

Letter of Intent due date:30 days prior to the application due dateHyperlink:(RFA-CA-16-001)Type:R21Application Due Date:February 26, 2016. 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 (of both Grants.gov and eRA
Commons errors) on the application due date.

Purpose: This Funding Opportunity Announcement (FOA) solicits grant applications proposing exploratory research projects focused on the early-stage development of highly innovative molecular or cellular analysis technologies 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 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. This funding opportunity is part of a broader NCI-sponsored Innovative Molecular Analysis Technologies (IMAT) Program.

Budget: 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 actual needs of the proposed project. The total project period request may not exceed 3 years.

Letter of Intent due date: 30 days before each receipt date

Hyperlink: <u>(RFA-CA-16-002)</u> Type:

R33

Application Due Date: February 26, 2016; May 26, 2016; September 26, 2016. 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* (of both Grants.gov and eRA Commons errors) on the application due date.

Purpose: This Funding Opportunity Announcement (FOA) solicits grant applications proposing exploratory research projects focused on the advanced development of emerging molecular or cellular analysis technologies for basic or clinical cancer research. This FOA solicits R33 applications where proof-of-principle for the emerging technology or methodology has been provided with supportive preliminary data demonstrating a novel capability 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 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 to use established technologies where the novelty resides in the biological or clinical question being pur sued are not appropriate for this solicitation and will not be reviewed. This funding opportunity is part of a broader NCI-sponsored Innovative Molecular Analysis Technologies (IMAT) Program.

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

5. Innovative Technologies for Cancer-Relevant Biospecimen Science

Letter of Intent due date: 30 days prior to the application due date Hyperlink: (RFA-CA-16-003) Type: R21 Application Due Date: February 26, 2016; May 26, 2016; September 26, 2016. 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 (of both Grants.gov and eRA Commons errors) on the application due date.

Purpose: This Funding Opportunity Announcement (FOA) solicits grant applications proposing exploratory research projects focused on the early-stage development of technologies that improve the quality of the samples used for cancer research or clinical care. This includes innovative technologies that address issues related to pre-analytical degradation of targeted analytes during the collection, processing, handling, and 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 assess sample quality, preserve/protect sample integrity, and establish verification criteria for quality assessment/quality control and handling under diverse conditions. These technologies are expected to potentially accelerate and/or enhance research in cancer biology, early detection, screening, clinical diagnosis, treatment, epidemiology, and 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:** 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 actual needs of the proposed project. The total project period request may not exceed 3 years.

6. Advanced Development and Validation of Emerging Technologies for Cancer-Relevant Biospecimen Science

Letter of Intent due date:30 days prior to the application due dateHyperlink:(RFA-CA-16-004)Type:R33Application Due Date:February 26, 2016; May 26, 2016; September 26, 2016. 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 (of both Grants.gov and eRA Commons errors) on the application due date.

Purpose: This Funding Opportunity Announcement (FOA) solicits grant applications proposing exploratory research projects focused on the advanced development and validation of emerging technologies that improve the quality of the samples used for cancer research or clinical care. This includes technologies that address issues related to pre-analytical degradation of targeted analytes during the collection, processing, handling, and storage of cancer-relevant biospecimens. This FOA solicits R33 applications where proof-of-principle for the emerging technology or methodology has been provided with supportive preliminary data demonstrating a novel capability for maximizing or otherwise interrogating the quality and utility of biological samples used for downstream analyses. 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 cancer health disparities. Projects proposing to use established technologies where the novelty resides in the biological or clinical question being pursued are not appropriate for this FOA and will not be reviewed. This funding opportunity is part of a broader NCI-sponsored Innovative Molecular Analysis Technologies (IMAT) Program.

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

7. Systems Biology Approaches in HIV/AIDS and Substance Use

Letter of Intent due date: March 4, 2016

Hyperlink: (RFA-DA-16-013)

RO1

Type:

Application Due Date: April 4, 2016. 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* (of both Grants.gov and eRA Commons errors) on the application due date.

Purpose: The purpose of this Funding Opportunity Announcement (FOA) is to support systems biology research projects that address critical questions in HIV/AIDS research in the context of drugs of abuse. Substance use and abuse present unique challenges for HIV prevention, treatment, disease progression, medical consequences, potential cure, and responses to vaccines or therapeutics. Understanding the complex biological intersection of HIV/AIDS and substance use and abuse is the central theme of this FOA. Budget: Application budgets are not limited but need to reflect the actual needs of the proposed project. The proposed project period may not exceed five years.

8. Seek, Test, Treat and Retain For Youth and Young Adults Living with or at High Risk for Acquiring HIV

Letter of Intent due date: February 2, 2016 Hyperlink: (RFA-DA-16-010) Type: RO1 Application Due Date: March 2, 2016. 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 (of both Grants.gov and eRA Commons errors) on the application due date.

Purpose: The purpose of this Funding Opportunity Announcement (FOA) is to examine seek, test, treat and retain approaches among youth and young adults (ages 13-25) who are at high risk for HIV acquisition or have already acquired HIV. Applications should incorporate substance use into study aims; objectives should address substance use prevention, screening, and/or treatment in ways that facilitate use of HIV prevention and treatment services. Youth are the target of this RFA because they demonstrate lower levels of screening and engagement across the HIV continuum of care and HIV+ youth are less likely to achieve viral suppression than those at older ages. These disparities are evident in US and foreign populations. The developmental, structural, and systemic factors related to serving youth need to be clearly incorporated into study aims, rather than simple incremental refocusing of existing interventions to younger people. Both domestic and international projects will be supported

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

9. Integration of Infectious Diseases and Substance Abuse Intervention Services for Individuals Living with HIV

Letter of Intent due date: February 2, 2016

Hyperlink: (RFA-DA-16-011)

RO1

Type: Application Due Date: March 2, 2016. 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 (of both Grants.gov and eRA Commons errors) on the application due date.

Purpose: The purpose of this Funding Opportunity Announcement (FOA) is to develop and test organizational and systems level interventions to determine how best to provide comprehensive, high quality, integrated, sustainable, cost-effective interventions to improve the health outcomes of people living with HIV (PLWH) with substance use disorders and other comorbid conditions. This FOA will support: 1) multidisciplinary research to enhance the adoption and integration of evidence-based screening and treatment of substance abuse in HIV centers and closely related medical settings; and 2) multidisciplinary research to increase the adoption and integration of effective HIV treatment (including adherence to antiretroviral therapy as well as linkage and long term retention in HIV care) in addiction treatment settings. In both HIV and addiction treatment settings, research to enhance the adoption and integration of treatment services for comorbid conditions (e.g. coinfections, psychiatric disorders) is encouraged.

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

10. Effects of Drugs of Abuse on Latent HIV Reservoirs in the CNS

Letter of Intent due date: February 3, 2016 Hyperlink: (RFA-DA-16-014) Type: RO1 Application Due Date: March 3, 2016. 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 (of both Grants.gov and eRA Commons errors) on the application due date.

Purpose: The purpose of this FOA is to promote research to investigate the underlying molecular mechanisms by which HIV latency is initiated, established, and maintained in the CNS and to determine how drugs of abuse modulate HIV latency and the size and persistence of CNS HIV reservoirs. The ultimate goal is to obtain information for developing new or improved therapies for HIV treatment in drugabusing populations.

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

11. Small-Cell Lung Cancer (SCLC) Consortium: Innovative Approaches to the Prevention and Early Detection of Small Cell Lung Cancer

(PAR-16-051) Letter of Intent due date: 30 days prior to the application due date Hyperlink: U01 Type: Application Due Date: March 17, 2016; November 17, 2016; March 17, 2017; November 17, 2017. Apply by 5:00 PM local time of applicant organization. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date. Applicants should be aware that on-time submission means that an application is submitted error free (of both Grants.gov and eRA Commons errors) on the application due date.

Purpose: This Funding Opportunity Announcement (FOA) invites applications to establish research teams of the Small-Cell Lung Cancer (SCLC) Consortium to conduct research whose overall goals are: 1) to expand the understanding of the critical molecular changes in the lung that precede the development of frank SCLC and/or, 2) to identify populations at particularly high risk for SCLC. This FOA focuses on one of the five research priorities identified in the National Cancer Institute's 2014 Scientific Framework for Small Cell Lung Cancer (SCLC). The research supported by this FOA will be performed by individual research teams who are expected to collaborate with one another and with a central SCLC Coordinating Center. A third component of the SCLC Consortium focuses on therapeutic approaches and mechanisms of resistance in SCLC.

Budget: Budgets are limited to \$450,000 Direct Costs (excluding consortium F&A costs) per year. Budgets should reflect the actual needs of the proposed project and non-modular budgets require extensive justification. The maximum project period is five years.

> National Institutes of Health Turning Discovery Into Health

12. BRAIN Initiative: New Concepts and Early - Stage Research for Large - Scale Recording and Modulation in the Nervous System

Letter of Intent due date: N/A Hyperlink: (RFA-EY-16-001) Type: R21 Application Due Date: March 15, 2016. 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 (of both Grants.gov and eRA Commons errors) on the application due date.

Purpose: A central goal of the BRAIN Initiative is to understand how electrical and chemical signals code information in neural circuits and give rise to sensations, thoughts, emotions and actions. While currently available technologies can provide some understanding, they may not be sufficient to accomplish this goal. For example, non-invasive technologies are low resolution and/or provide indirect measures such as blood flow, which are imprecise; invasive technologies can provide information at the level of single neurons producing the fundamental biophysical signals, but they can only be applied to tens or hundreds of neurons, out of a total number in the human brain estimated at 85 billion. Other BRAIN FOAs seek to develop novel technology (RFA-NS-16-006) or to optimize existing technology ready for in-vivo proofof-concept testing and collection of preliminary data (RFA-NS-16-007) for recording or manipulating neural activity on a scale that is beyond what is currently possible. This FOA seeks applications for unique and innovative technologies that are in an even earlier stage of development than that sought in other FOAs, including new and untested ideas that are in the initial stages of conceptualization. In addition to experimental approaches, the support provided under this FOA might enable calculations, simulations, computational models, or other mathematical techniques for demonstrating that the signal sources and/or measurement technologies are theoretically capable of meeting the demands of large-scale recording or manipulation of circuit activity in humans or in animal models. The support might also be used for building and testing phantoms, prototypes, in-vitro or other bench-top models in order to validate underlying theoretical assumptions in preparation for future FOAs aimed at testing in animal models. Invasive or non-invasive approaches are sought that will ultimately enable or reduce the current barriers to large-scale recording or manipulation of neural activity, and that would ultimately be compatible with experiments in humans or behaving animals. Applications are encouraged from any qualified individuals, including physicists, engineers, theoreticians, and scientists, especially those not typically involved with neuroscience research.

Budget: The combined budget for direct costs for the two-year project period may not exceed \$300,000. No more than \$200,000 may be requested in any single year. The total project period may not exceed 2 years.

13. Environmental Influences on Child Health Outcomes (ECHO) Pediatric Cohorts

Letter of Intent due date: March 15, 2016 Hyperlink: (RFA-OD-16-004) Type: UG3/UH3 Application Due Date: April 15, 2016. 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* (of both Grants.gov and eRA Commons errors) on the application due date.

Purpose: This Funding Opportunity Announcement (FOA) is soliciting applications to support existing cohorts to address how pre-, peri-, and post-natal environmental exposures impact childhood development and health outcomes as part of the Environmental influences on Child Health Outcomes (ECHO) program. Increasing evidence suggests that exposures early in life (e.g. nicotine, diet, microbiome) can result in health deficits and lead to life-long consequences. The purpose of this FOA is to leverage and build upon existing cohort infrastructure to prospectively investigate the role of early life exposures and underlying biological mechanisms in childhood health and disease. This FOA runs in parallel with companion FOAs that solicit applications for the Coordinating Center (RFA-OD-16-006), Data Analysis Center (RFA-OD-16-005), Patient/Person Reported Outcomes Core (RFA-OD-16-003), Administrative Supplements to the Children's Health Exposure Analysis Resource (PA-16-046), IDeA States Pediatric Clinical Trials Network (RFA-OD-16-002 and RFA-OD-16-001), and a Genetics Core to be released in FY17. Funding for an exploratory UG3 phase will be used for planning, feasibility testing, and developing study documents, including the study protocol and Manual of Procedures. UG3 projects that have met milestones will be administratively considered for transition to the UH3 implementation phase. Applicants responding to this FOA must address objectives for both the UG3 and UH3 phases.

Budget: Direct costs should not exceed \$1,000,000 in FY16 (year 1) only, and must be well justified and appropriate for the size of the cohort available. Budgets for FY17-22 (years 2-7) 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 project period may be up to 7 years; the proposed project may be up to 2 years for the first phase (UG3) and up to 5 years for the second phase (UH3).

14. Small-Cell Lung Cancer (SCLC) Consortium: Therapeutic Development and Mechanisms of Resistance

Letter of Intent due date: 30 days prior to the application due date Hyperlink: (PAR-16-049) Type: UO1 Application Due Date: March 17, 2016; November 17, 2016; March 17, 2017; November 17, 2017, March 17, 2018; November 17, 2018. 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* (of both Grants.gov and eRA Commons errors) on the application due date.

Purpose: This Funding Opportunity Announcement (FOA) invites applications to establish research teams of the Small-Cell Lung Cancer (SCLC) Consortium to conduct research whose overall goals are: 1) to improve SCLC therapeutics, focusing on understanding how the molecular vulnerabilities of this cancer could be used to develop targeted agent combinations; and/or, 2) to gain a better understanding of the rapid development of clinical resistance to drug and radiation therapy. This FOA focuses on two of the five research priorities identified in the National Cancer Institute's 2014 Scientific Framework for Small Cell Lung Cancer (SCLC). Additional priorities of the Framework are stated in this FOA, as studies are expected to use or develop state-of-the-art research tools and –omic profiles to identify therapeutic strategies that are relevant to human SCLC disease progression and resistance. The research supported by this FOA will be performed by individual research teams who are expected to collaborate with one another and with a central SCLC Coordinating Center. A third component of the SCLC Consortium focuses on prevention and early detection of SCLC.

Budget: Budgets are limited to \$450,000 Direct Costs (excluding consortium F&A costs) per year. Budgets should reflect the actual needs of the proposed project and non-modular budgets require extensive justification. The maximum project period is five years.

15. Global Noncommunicable Diseases and Injury Across the Lifespan: Exploratory Research

Letter of Intent due date: 30 days prior to the application due date Hyperlink: (PAR-16-052) Type: R21 Application Due Date: February 24, 2016; February 22, 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* (of both Grants.gov and eRA Commons errors) on the application due date.

Purpose: This Funding Opportunity Announcement (FOA) supports planning, design and initial pilots for locally relevant and catalytic research on non-communicable diseases (NCDs) or injury in low and middle-income countries (LMICs). Research addressing multiple NCDs and their risk factors and research addressing NCDs as comorbidities for/with infectious diseases including HIV/AIDS is encouraged. Scientists in the United States (U.S.) or upper middle income countries (UMICs) are eligible to partner with scientists in LMIC institutions. Income categories used are defined by the World Bank at http://data.worldbank.org/about/country-classifications/country-and-lending-groups. Pilot activities and research are expected to inform the development of more comprehensive research programs that contribute to the long-term goals of building sustainable research capacity in LMICs to address NCDs and injury throughout life and to lead to diagnostics, prevention, treatment and implementation strategies. The proposed work may also contribute to developing a base for research networking and evidence-based policy beyond the specific research project. For applications on any research topic related to the brain, nervous system, mental health and substance abuse please see the companion FOA: PAR-14-331 "Global brain and nervous system disorders research across the lifespan (R21)". Applications on those topics are not appropriate for this FOA.

Budget: Application budgets are limited to \$125,000 per year in direct costs, but need to reflect the actual needs of the proposed project. Up to two years

16. Research Projects to Enhance Applicability of Mammalian Models for Translational Research

Letter of Intent due date: 30 days prior to the application due dateHyperlink:(PAR-16-059)Type:RO1Application 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 (of both Grants.gov and eRA
Commons errors) on the application due date.

Purpose: The purpose of this Funding Opportunity Announcement (FOA) is to invite applications for projects to expand, improve, or transform the utility of mammalian cancer and tumor models for translational research. This FOA replaces PAR-14-241, "Research Projects to Enhance Applicability of Mouse Models for Translational Research (R01)". This FOA continues the goals of PAR-14-241, except that these goals are no longer limited to mouse models but are expanded to cover any mammalian cancer models. The NCI supports many hypothesis-driven, mechanistic R01 projects that employ mammals, or develop and use mammalian cancer models or transplanted tumor models for many aspects of oncology research. However, the NCI has not previously supported projects devoted to ensuring that mammalian models used for translational research questions are appropriate for those purposes and that the models provide reliable and informative data for patient benefit. Applications to this FOA could propose to overcome limitations of mammalian oncology models, define a new translational use of mammalian models or their genetics for unmet needs, advance standard practices for modeling human cancers and tumors and for validating and credentialing models, or develop widely applicable tool strains or resources that enable cross-species comparisons.

Budget: Application budgets are limited to \$450,000 direct costs per year. Applicants may request support for up to 3 years

17. Natural History of Disorders Identifiable by Screening of Newborns

Letter of Intent due date: 30 days prior to the application due date Hyperlink: (PAR-16-061) Type: RO1 Application Due Date: Standard dates and Standard AIDS 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* (of both Grants.gov and eRA Commons errors) on the application due date.

Purpose: This funding opportunity announcement (FOA) encourages applications that propose to develop studies that will lead to a broad understanding of the natural history of disorders that already do or could potentially benefit from early identification by newborn screening. A comprehensive understanding of the natural history of a disorder has been identified as a necessary element to facilitate appropriate interventions for infants identified by newborn screening. By defining the sequence and timing of the onset of symptoms and complications of a disorder, a valuable resource will be developed for the field. In addition, for some disorders, specific genotype-phenotype correlations may allow prediction of the clinical course, and for other disorders, identification of modifying genetic, epigenetic, or environmental factors will enhance an understanding of the clinical outcomes for an individual with such a condition. Comprehensive data on natural history will facilitate the field's ability to: 1) accurately diagnose the disorder; 2) understand the genetic and clinical heterogeneity and phenotypic expression of the disorder; 3) identify underlying mechanisms related to basic defects; 4) potentially prevent, manage, and treat symptoms and complications of the disorder; and 5) provide children and their families with needed support and predictive information about the disorder.

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

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

DP3 – Institutional Training and Director Program Projects -Type 1 Diabetes Targeted Research Award: To support research tackling major challenges in type 1 diabetes and promoting new approaches to these challenges by scientific teams.

P20 – Research Program Projects and Centers -Exploratory Grant: To support planning for new programs, expansion or modification of existing resources, and feasibility studies to explore various approaches to the development of interdisciplinary programs that offer potential solutions to problems of special significance to the mission of the NIH. These exploratory studies may lead to specialized or comprehensive centers.

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.

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).

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.

Complete Glossary and acronym list of NIH Terms

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