Faculty of Medicine and Health Sciences: Research Development and Support 14 Jan 2019 (#2)

[Click on blue hyperlink for further information]

The NIH funding opportunities listed below are only a **selection** of pre-screened, currently open health funding opportunities for which **South African institutions are eligible to apply**. For a comprehensive selection of NIH funding opportunities, please visit **www.grants.nih.gov** or **www.sun.ac.za/RDSfunding** (current & archive).

Confirm your intent to apply ASAP, but not later than **60 days** before the submission date.

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

Important Notices

• The Notice of Intent to Publish the FOAs for Phase 2 of the U.S.-South Africa Program for Collaborative Biomedical Research (R01 and U01): https://grants.nih.gov/grants/guide/notice-files/NOT-AI-19-032.html. The intent of this program is to foster, stimulate, and/or expand basic, translational, behavioral and applied research that will advance scientific discovery and engage U.S. and South African researchers working collaboratively in the areas of HIV/AIDS, HIV/AIDS-associated malignancies, and other infectious diseases.

Estimated Publication Date: 6 March 2019

o Estimated Application Due Date: 26 July 2019

Estimated Award Date: 1 April 2020
 Estimated Start Date: 1 April 2020

TIP: Potential applicants can start with updating biosketches using ScienCV https://www.ncbi.nlm.nih.gov/sciencv/ and contact RGMO to discuss timelines, requirements and

- AHRQ Implementation of Final Rule on the Federal Policy for the Protection of Human Subjects (Common Rule) (NOT-HS-19-008)
- NIH Policy for Review and Resubmission of New Investigator R01 Applications (NOT-OD-19-053)
- Register to Attend the NIH Regional Seminar on Program Funding and Grants Administration Baltimore, MD May 2019 (NOT-OD-19-058)
- Notice of NIAID's Participation in PAR-19-158 "Bioengineering Research Grants (BRG) (R01 Clinical Trial Not Allowed)" (NOT-AI-19-031)
- Notice of NIAMS Participation in "Exploratory/Developmental Bioengineering Research Grants (EBRG) (R21 Clinical Trial Not Allowed)" (NOT-AR-19-034)
- Notice of Special Interest in Understanding Factors in Infancy and Early Childhood (Birth to 24 months) That Influence Obesity Development (NOT-DK-19-007)
- Notice of NIMHD's Interest in Research on Disability in Health Disparity Populations (NOT-MD-19-007)
- Notice of Letter of Intent Guidance for PAR-19-098 Emerging Global Leader Award (K43; Independent Clinical Trial Not Allowed) and PAR-19-051 Emerging Global Leader Award (K43; Independent Clinical Trial Required) (NOT-TW-19-001)

1. Planning for Non-Communicable Diseases and Disorders Research Training Programs in Low and Middle Income Countries (D71)

Letter of Intent: 30 days prior to the application due date **Hyperlink:** PAR-17-097 **Type:** D71

Application Due Date: March 14, 2019. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) for research training program planning invites submissions from low- and middle-income country (LMIC) institution(s) with existing research and research training capacity in chronic, non-communicable diseases and disorders (NCDs). These institutions must propose to assess needs and develop a plan for a research training program within the LMIC(s) that will further strengthen the capacity of LMIC individuals, institution(s) and country(ies) to identify NCD priorities and conduct NCD research across the lifespan. The application from the LMIC institution(s) may include collaboration with United States (U.S) institutions and other LMIC institutions as justified and appropriate.

Budget: Application budgets are limited \$46,000 (total direct costs). The maximum project period is 1 year.

2. Chronic, Non-Communicable Diseases and Disorders Across the Lifespan: Fogarty International Research Training Award (NCD-LIFESPAN) (D43 Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date **Hyperlink:** PAR-18-901 **Type:** D43

Application Due Date: November 12, 2019. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This funding opportunity announcement (FOA) encourages applications for the Chronic, Non-Communicable Diseases and Disorders Across the Lifespan: Fogarty International Research Training Award (NCD-LIFESPAN) D43 program for institutional research training programs in low-and middle-income countries (LMICs, as defined by the World Bank classification system). Applications may be for collaborations between institutions in the U.S and an eligible LMIC or may involve just LMIC institutions if there is a previous track record of externally funded research and/or research training programs by the lead LMIC institution. The proposed institutional research training program is expected to sustainably strengthen the NCD research capacity of the LMIC institutions, and to train in-country experts to develop and conduct research on NCDs across the lifespan, with the long-range goal of developing and implementing evidence-based interventions relevant to their countries. The main focus of research training covered in the application must be relevant to the interests of at least one of the participating NIH ICs as stated by each in this FOA. Other NCD topics may be included as secondary and complementary focus areas. This Funding Opportunity Announcement (FOA) allows support of trainees as the lead investigator of an independent clinical trial; or a separate ancillary study to an existing trial; or to gain research experience in a clinical trial led by another investigator, as part of their research and career development.

Budget: Application budgets are limited to \$230,000 per year for new awards and \$250,000 per year for renewal awards (total direct costs). The maximum project period is up to 5 years.

3. Planning Grant for Global Infectious Disease Research Training Program (D71)

Letter of Intent: 30 days prior to the application due date Hyperlink: PAR-17-058 Type: D71

Application Due Date: July 25, 2019. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) encourages applications for a planning grant from institutions in low- and middle-income countries (LMICs) to design a Global Infectious Disease (GID) Research Training Program in collaboration with U.S. institutions. The application should propose a collaborative process to design a training program that will strengthen the capacity of the LMIC institution to conduct infectious disease research. Planning grants should describe a detailed vision for a research-training program that focuses on a major endemic or life-threatening emerging infectious disease, neglected tropical disease, infections that frequently occur as a co-infection in HIV infected individuals or infections associated with non-communicable disease conditions of public health importance in LMICs.

Budget: Applications budgets are limited to \$46,000 (total direct costs). The maximum project period is 1 year.

4. Global Infectious Disease Research Training Program (D43 Clinical Trial Optional)

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

Hyperlink: PAR-18-840

Type: D43

Application Due Date: July 25, 2019. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) encourages applications for the Global Infectious Disease (GID) Research Training Program from U.S. and low- and middle-income country (LMIC) institutions. The application should propose a collaborative training program that will strengthen the capacity of an LMIC institution to conduct infectious disease research. FIC will support research-training programs that focus on major endemic or life-threatening emerging infectious diseases, neglected tropical diseases, infections that frequently occur as co-infections in HIV infected individuals or infections associated with non-communicable disease conditions of public health importance in LMICs. This Funding Opportunity Announcement (FOA) allows support of trainees as the lead investigator of an independent clinical trial; or a separate ancillary study to an existing trial; or to gain research experience in a clinical trial led by another investigator, as part of their research and career development.

Budget: Applications budgets are limited to \$230,000 per year for new awards and \$276,000 per year for renewal awards (total direct costs). The maximum project period is up to 5 years.

5. Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R21 Clinical Trials Not Allowed)

Letter of Intent: 30 days prior to the application due date Hyperlink: (RFA-CA-19-019) Type: R21

Application Due Date: March 7, 2019; May 28, 2019; September 27, 2019. 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 2020. 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. The total project period request may not exceed 3 years.

6. Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 Clinical Trials Not Allowed)

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

Hyperlink: (RFA-CA-19-020)

Type: R33

Application Due Date: March 7, 2019; May 28, 2019; September 27, 2019. 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 novelty resides in the biological or clinical target/question being pursued 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: NCI intends to fund an estimate of 10 awards, corresponding to a total of \$4,300,000, for fiscal year 2020. Future year amounts will depend on annual appropriations. Direct costs are limited to \$300,000 per year. Application budgets need to reflect the actual needs of the proposed project. The total project period request may not exceed 3 years.

7. Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R21 Clinical Trial Not Allowed)

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

Hyperlink: (RFA-CA-1)

Hyperlink: (RFA-CA-19-021) Type: R2

Application Due Date: March 7, 2019; May 28, 2019; September 27, 2019. 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 preanalytical 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 2020. 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 need to reflect the actual needs of the proposed project.

8. Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (R33 Clinical Trials Not Allowed)

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

Hyperlink: (RFA-CA-19-022)

Type: R33

Application Due Date: March 7, 2019; May 28, 2019; September 27, 2019. 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 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. 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. 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.

Budget: NCI intends to fund an estimate of 2 awards, corresponding to a total of \$900,000, for fiscal year 2020. Future year amounts will depend on annual appropriations. Direct costs are limited to \$300,000 per year. Application budgets need to reflect the actual needs of the proposed project. The total project period request may not exceed 3 years.

9. Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (R01 Clinical Trial Optional)

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

Hyperlink: (RFA-CA-19-023)

Type: Re

Application Due Date: March 7, 2019; May 28, 2019; September 27, 2019Apply by 5:00 PM local time of applicant organization. **Funding Opportunity Announcement**: The purpose of this Funding Opportunity Announcement (FOA) is to encourage revision applications (formerly called "competing revisions") from currently funded NCI R01 research projects proposing to expand upon the original research question(s) or otherwise accelerate progress for the parent study by incorporating a new technical approach or instrument developed through support from the NCI Innovative Molecular Analysis Technologies (IMAT) program. Awards from this FOA are meant to incentivize independent validation and accelerate the adoption of these emerging technologies by appropriate research communities. As a component of the NCI IMAT program, this FOA aims to promote interdisciplinary collaboration in the development of innovative tools and methods that enable cancer research and accelerate scientific discovery.

Budget: NCI intends to fund an estimate of 3 awards, corresponding to a total of \$600,000, for fiscal year 2020. Future year amounts will depend on annual appropriations. Application budgets may not exceed \$150,000 in direct costs per year. Applicants may request support for up to 2 years, not to exceed the remaining number of years on the parent grant. The parent grant must be active when the application is submitted. If a no-cost extension is needed on the parent grant, it must be in place before the revision application is submitted.

10. Improving Outcomes for Pediatric, Adolescent and Young Adult Cancer Survivors (U01 Clinical Trial Required)

Letter of Intent: 30 days prior to the application due date Hyperlink: (RFA-CA-19-033) Type: U01

Application Due Date: March 15, 2019; January 3, 2020. Apply by 5:00 PM local time of applicant organization.

Funding Opportunity Announcement: Through this Funding Opportunity Announcement (FOA), the National Cancer Institute (NCI) will stimulate the scientific development of effective, feasible, and scalable interventions to address adverse physical and psychosocial effects in survivors of pediatric and/or adolescent/young adult (AYA) cancers. These interventions may be delivered by providers, communities, and/or healthcare systems. This FOA is associated with the Childhood Cancer Survivorship, Treatment, Access, and Research (STAR) Act of 2018 that is intended to maximize and accelerate discovery, development, and availability of promising childhood cancer treatments. This FOA is also associated with the Beau Biden Cancer MoonshotSM Initiative that is intended to accelerate cancer research in general. This FOA requests applications from investigators to develop and test interventions that prevent, mitigate or manage adverse outcomes in pediatric and/or AYA cancer survivors and/or evaluate models of care that strengthen coordination, continuity, and quality, or that reduce access barriers to needed services including follow-up care, and that improve outcomes across the survivor's lifespan. Development of interventions to address disparities in outcomes and/or access to needed care, and to address the needs of minority or medically underserved pediatric and/or AYA populations is of high priority.

Budget: NCI intends to commit approximately \$4.8 million (total cost) in FY 2019 to fund up to eight awards. Application budget needs to reflect the actual needs of the proposed project but must not exceed \$500,000 (direct costs) per year. The scope of the proposed project should determine the project period. The maximum project period is 5 years.

11. Drug Discovery For Nervous System Disorders (R21 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date Hyperlink: (PAR-19-146) Type: R21 (PAR-19-147) R01

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

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) intends to support investigators who have interest and capability in the discovery of novel compounds for the prevention and treatment of nervous system disorders. This FOA is designed to stimulate research in 1) Identification, design, synthesis, and preclinical testing of compounds of candidate therapeutics, 2) Initial hit-to-lead chemistry to improve activity of compounds against the target of interest, 3) Later stage lead optimization to improve efficacy and pharmacokinetics, and 4) Initial drug metabolism and pharmacokinetics (DMPK). Emphasis will be placed on projects that provide novel approaches to identify potential therapeutic agents. The R21 grant mechanism is intended to encourage exploratory/developmental research by providing support for the early and conceptual stages of project development. High risk/high payoff projects that lack preliminary data may be most appropriate for this FOA. Applicants with preliminary data may wish to apply to the companion R01 mechanism (PAR-19-147)

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 for an application submitted in response to this funding opportunity announcement may not exceed two years. R01 - Application budgets are not limited but need to reflect the actual needs of the proposed project. Scope of the proposed project should determine the project period. The maximum period is 5 years.

12. Exploratory/Developmental Bioengineering Research Grants (EBRG) (R21 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date Hyperlink: (PAR-19-149)

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

Funding Opportunity Announcement: The purpose of this engineering-oriented funding opportunity announcement (FOA) is to encourage submissions of exploratory/developmental Bioengineering Research Grant (EBRG) applications to demonstrate feasibility and potential utility of new capabilities or improvements in quality, speed, efficacy, operability, costs, and/or accessibility of solutions to problems in basic biomedical, pre-clinical, or clinical research, clinical care delivery, or accessibility. This FOA utilizes the Exploratory/Developmental Grant (R21) mechanism, which supports investigation of novel scientific ideas or new model systems, tools, or technologies that have the potential for significant impact on biomedical or biobehavioral research. An R21 grant application need not have extensive background material or preliminary information. Proposed research to solve a wide range of relevant problems is sought, and may explore, but is not limited to a 1) new multidisciplinary approach to a biomedical challenge; 2) high- or low-risk development of significance; or 3) data collection to support future research with potential significance. An EBRG application may propose, but is not limited to hypothesis-driven, discovery-driven, developmental, or design-directed research. It may draw upon engineering, physical sciences, biological/medical sciences, mathematics, informatics, machine learning or any other relevant source of science or knowhow. To facilitate these objectives, modifications of standard review criteria are made to accommodate features specific to engineering-oriented applications.

Type: R21

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 maximum project period is 2 years.

13. Exploratory/Developmental Bioengineering Research Grants (EBRG) (R21 Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date Hyperlink: (PAR-19-150) Type: R21

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

Funding Opportunity Announcement: The purpose of this engineering-oriented funding opportunity announcement (FOA) is to encourage submissions of Exploratory/Developmental Bioengineering Research Grant (EBRG) applications to demonstrate feasibility and potential utility of new capabilities or improvements in quality, speed, efficacy, operability, costs, and/or accessibility of solutions to problems in basic biomedical, pre-clinical, or clinical research, clinical care delivery, or accessibility. The purpose of this engineeringoriented funding opportunity announcement (FOA) is to encourage submissions of Exploratory/Developmental Bioengineering Research Grant (EBRG) applications to demonstrate feasibility and potential utility of new capabilities or improvements in quality, speed, efficacy, operability, costs, and/or accessibility of solutions to problems in basic biomedical, pre-clinical, or clinical research, clinical care delivery, or accessibility. The rationale is to support first steps toward delivery of new capabilities to meet evolving requirements for technologies and methods relevant to the advance of research and/or medical care in pre-clinical, clinical and non-clinical settings, domestic or foreign, for conditions and diseases within the missions of participating NIH Institutes and Centers. This FOA utilizes the Exploratory/Developmental Grant (R21) mechanism, which supports investigation of novel scientific ideas or new model systems, tools, or technologies that have the potential for significant impact on biomedical or biobehavioral research. An R21 grant application need not

have extensive background material or preliminary information. This FOA runs in parallel with another FOA of identical scientific scope, which only accepts applications that do not propose clinical trial(s). 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. End-of-Life and Palliative Needs of Adolescents and Young Adults (AYA) with Serious Illnesses (R21 Clinical Trial Optional)

Letter of Intent: 30 days prior to the application due date Hyperlink: (PAR-19-153) Type: R21

Application Due Date: Standard dates & 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 foster research on the unique perspectives, needs, wishes, and decision-making processes of adolescents and young adults (AYA; defined by the World Health Organization and the Centers for Disease Control and Prevention as youth between 12–24 years of age) with serious, advanced illnesses; and research focused on specific end-of-life/palliative care (EOLPC) models that support the physical, psychological, spiritual, and social needs of AYA with serious illness, their families and caregivers.

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.

15. Bioengineering Research Partnerships (U01 Clinical Trial Not Allowed)

Letter of Intent: 30 days prior to the application due date Hyperlink: (PAR-19-156) Type: U01

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

Funding Opportunity Announcement:

This Funding Opportunity Announcement (FOA) encourages bioengineering applications that will accelerate the development and adoption of promising tools and technologies that can address important biomedical problems. The objectives are to establish these tools and technologies as robust, well-characterized solutions that fulfill an unmet need and are capable of enhancing our understanding of life science processes or the practice of medicine. Awards will focus on supporting multidisciplinary teams that apply an integrative, quantitative bioengineering approach to developing technologies, and engage biomedical researchers or clinicians throughout the project. The goal of the program is to support projects that can realize meaningful solutions within 5 – 10 years.

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.

16. Bioengineering Research Partnerships (U01 Clinical Trial Required)

Letter of Intent: 30 days prior to the application due date Hyperlink: (PAR-19-157) Type: U01

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

Funding Opportunity Announcement: This Funding Opportunity Announcement (FOA) encourages bioengineering applications that will accelerate the development and adoption of promising tools and technologies that can address important biomedical problems. The objectives are to establish these tools and technologies as robust, well-characterized solutions that fulfill an unmet need and are capable of enhancing our understanding of life science processes or the practice of medicine. Awards will focus on supporting multidisciplinary teams that apply an integrative, quantitative bioengineering approach to developing technologies, and engage biomedical researchers or clinicians throughout the project. The goal of the program is to support projects that can realize meaningful solutions within 5 – 10 years. The goal of a Bioengineering Research Partnership (BRP) is to drive the development and speed the adoption of promising tools and technologies that can address important biomedical problems for which insufficient or no solutions exist. The use of engineering principles is encouraged to establish these tools and technologies as robust, well-characterized solutions that fulfill an unmet need. A synergistic partnership between engineering and the life, physical, and computational sciences is also encouraged, where the unique skills of each discipline combine to enhance our understanding of life science processes or the practice of medicine.

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.

17. Bioengineering Research Grants (BRG) (R01 Clinical Trial Required)

Letter of Intent: 30 days prior to the application due date Hyperlink: (PAR-19-159) Type: R01

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

Funding Opportunity Announcement: The purpose of this funding opportunity announcement is to encourage collaborations between the life and physical sciences that: 1) apply a multidisciplinary bioengineering approach to the solution of a biomedical problem; and 2) integrate, optimize, validate, translate or otherwise accelerate the adoption of promising tools, methods and techniques for a specific research or clinical problem in basic, translational, or clinical science and practice. An application may propose design-directed, developmental, discovery-driven, or hypothesis-driven research and is appropriate for small teams applying an integrative approach to increase our understanding of and solve problems in biological, clinical or translational science.

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.

18. Bioengineering Research Grants (BRG) (R01 Clinical Trial Not Allowed)

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

Hyperlink: (PAR-19-158)

Type: R01

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

Funding Opportunity Announcement: The purpose of this funding opportunity announcement is to encourage collaborations between the life and physical sciences that: 1) apply a multidisciplinary bioengineering approach to the solution of a biomedical problem; and 2) integrate, optimize, validate, translate or otherwise accelerate the adoption of promising tools, methods and techniques for a specific research or clinical problem in basic, translational, or clinical science and practice. An application may propose design-directed, developmental, discovery-driven, or hypothesis-driven research and is appropriate for small teams applying an integrative approach to increase our understanding of and solve problems in biological, clinical or translational science.

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.

19. Accelerating the Pace of Child Health Research Using Existing Data from the Adolescent Brain Cognitive Development (ABCD) Study (R01-Clinical Trial Not Allowed)

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

Hyperlink: (PAR-19-162) Type: R01

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

Funding Opportunity Announcement: The Adolescent Brain Cognitive Development (ABCD) Study is collecting data on health and mental health, cognitive function, substance use, cultural and environmental factors, and brain structure and function from youth starting when they are 9-10 years-old and following them longitudinally to early adulthood. These data will be made available to the scientific community through the NIMH Data Archive. The purpose of this Funding Opportunity Announcement (FOA) is to encourage applications proposing the analysis of this public use dataset to increase knowledge of adolescent health and development. More information about the ABCD Study may be found on the ABCD Study web page (www.abcdstudy.org).

Budget: Budgets for direct costs of up to \$250,000 per year and a project duration of up to five years may be requested, for a maximum of \$1,250,000 direct costs over a five-year project period. The maximum project period is 5 years.

20. Accelerating the Pace of Child Health Research Using Existing Data from the Adolescent Brain Cognitive Development (ABCD) Study (R21-Clinical Trial Not Allowed)

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

Hyperlink: (PAR-19-163)

Type: R21

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

Funding Opportunity Announcement: The Adolescent Brain Cognitive Development (ABCD) Study is collecting data on health and mental health, cognitive function, substance use, cultural and environmental factors, and brain structure and function from youth starting when they are 9-10 years-old and following them longitudinally to early adulthood. These data will be made available to the scientific community through the NIMH Data Archive. The purpose of this Funding Opportunity Announcement (FOA) is to encourage applications proposing the analysis of this public use dataset to increase knowledge of adolescent health and development. More information about the ABCD Study may be found on the ABCD Study web page (www.abcdstudy.org).

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.

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