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Government Bioscience Grant (GBG) Report
January 2017

	Title (Agency)	Opp. Number	Description	Deadline	Funding Level	Eligibility	Link
			CANCER				
1.	Quantitative Imaging Tools and Methods for Cancer Response Assessment (U01) (NIH)	PAR-17-129	This FOA aims to support research organizations interested in clinically translating already optimized quantitative imaging software tools capable of measuring or predicting the response of cancer to clinical therapies, or in translating imaging tools for planning and validating radiation therapy treatment strategies in clinical trials. The proposed research should be an extension of the research that completed the tasks of developing and optimizing the chosen software tools or data collection methods intended to facilitate clinical decision making during clinical trials. Projects proposed for are expected to advance QI methods to reduce the bias and variance in imaging platforms used in clinical trials, to create methods for extracting reliable and reproducible quantitative measurements from clinical images and/or to improve treatment planning during clinical trials.	Letter of intent Due: 4/9/17 Full Proposal Due: 5/9/17	Up to $500,000 per year for up to 5 years	Unrestricted	https://grants.nih.gov/grants/guide/pa-files/PAR-17-129.html
2.	Quantitative Imaging Tools and Methods for Cancer Therapy Response Assessment (UG3/UH3) (NIH)	PAR-17-128	This FOA encourages research project applications under the cooperative agreement mechanism to address the development, optimization and validation of quantitative imaging (QI) software tools and methods for prediction and/or measurement of response to cancer therapies or for planning and validating radiation therapy treatment strategies in clinical trials. The scientific scope of this FOA includes: Development and optimization of QI tools and/or methods for treatment planning, predicting or measuring response to therapy as open source tools that will translate into clinical trial decision support; Validation of the optimized tools in clinical settings to demonstrate their value for decision support in ongoing single-site or multi-site clinical trials.	Letter of intent Due: 4/9/17 Full Proposal Due: 5/9/17	Up to $500 per year for up to 5 years, depending on Phase	Unrestricted	https://grants.nih.gov/grants/guide/pa-files/PAR-17-128.html

3.	Department of Defense Ovarian Cancer Research Program: Pre-announcement (DoD/CDMRP)	N/A	The mission of the OCRP is to support patient-centered research to prevent, detect, treat, and cure ovarian cancer. Although not required, investigators are encouraged to address one of the FY17 Areas of Encouragement in their applications: Novel therapies and associated predictive biomarkers, Non-invasive surveillance and assessment of disease, Treatment resistance, Immunotherapy, Etiology, epidemiology, and prevention, Early detection, Rare subtypes, Host-tumor interactions, Survivorship and quality of life.	Estimated Publication Date: 2/2017	Funding levels range from $375,000 to $10 million for up to 4 years	Unrestricted	http://cdmrp.army.mil/pubs/press/2017/17ocrppreann
4.	Department of Defense Breast Cancer Research Program: Pre-announcement (DoD/ CDMRP)	N/A	Applications submitted to the FY17 BCRP must address one or more of the following overarching challenges: Prevent breast cancer (primary prevention), Identify determinants of breast cancer initiation, risk, or susceptibility, Distinguish deadly from non-deadly breast cancers, Conquer the problems of over-diagnosis and overtreatment, Identify what drives breast cancer growth; determine how to stop it, Identify why some breast cancers become metastatic, Determine why/how breast cancer cells lay dormant for years and then re-emerge (recurrence); determine how to prevent recurrence, Revolutionize treatment regimens by replacing them with ones that are more effective, less toxic, and impact survival, Eliminate the mortality associated with metastatic breast cancer.	Estimated Publication Date: 3/2017	Funding levels range from $250,000 to $750,000 for up to 4 years	Unrestricted	http://cdmrp.army.mil/pubs/press/2017/17bcrppreann
5.	Cancer Tissue Engineering Collaborative: Enabling Biomimetic Tissue-Engineered Technologies for Cancer Research (U01) (NIH/NCI)	PAR-16-105	This FOA will support the development and characterization of state-of-the-art biomimetic tissue-engineered technologies for cancer research. Applicants will be expected to take a novel engineering approach to define the critical features and parameters for the proposed system, how they are sufficient to mimic the physiology and pathology of the specific cancer question under study, and what characterization will be needed to validate the biological relevance of the system. Characterization could include the demonstration of relevant tissue structure, tumor biology, pathology, and physiological function that replicates the aspect of tumor biology that will be studied using the proposed system. The long-term goal is that the technologies might begin to have novel applications addressing questions in cancer biology, prevention, early detection of aggressive cancer, diagnosis and therapy.	Letter of Intent due: 4/6/17 Full Application due: 5/30/17 Open until 11/2018	Up to $400,000 per year for up to 5 years	Unrestricted	https://grants.nih.gov/grants/guide/pa-files/PAR-16-105.html

			CARDIOVASCULAR SYSTEM				
6.	Notice of Intent to Publish a Funding Opportunity Announcement for Catalyzing Innovation in Late Phase Clinical Trial Design and Statistical Analysis Plans (U34) (NIH)	NOT-HL-16-473	This initiative encourages trials in areas of heart, lung, blood, and sleep science that include, but are not limited to, studies of rare diseases and/or therapeutics, studies in sub-populations of more common diseases, e.g., precision medicine approaches to common disorders, and late-stage implementation trials. Eligible investigators will propose to conduct important clinical or implementation trials that require non-standard rather than traditional designs because randomized controlled approaches to the study questions are inadequate, limited, or suboptimal; and the incorporation of novel /innovative statistical analysis techniques.	Estimated Publication Date: 6/17 Estimated Application Due Date: 10/17	Total Program Funding: $937,500	Unrestricted	https://grants.nih.gov/grants/guide/notice-files/NOT-HL-16-473.html
			ORTHOPAEDIC				
7.	Department of Defense Peer Reviewed Orthopaedic Research Program: Pre-announcement (DoD/CDMRP)	N/A	The PRORP will only consider applications that specifically address the critical needs of the orthopaedic research community in one or more of the FY17 Focus Areas. The PRORP will solicit research applications that address focus areas in Surgical Care and Rehabilitative Care, which include: Peripheral Nerve Injuries, Prevention of Heterotopic Ossification, Volumetric Muscle Loss, Extremity Fractures, Pelvic Ring Injuries, Compartment Syndrome, Surgical Techniques to Optimize Gait, Soft Tissue Trauma, Osteoarthritis, Post-Operative Pain Management, Prosthetic and/or Orthotic Device Function, Secondary Physical Health Effects, Physical or Occupational Therapy, etc.	Estimated Publication Date: 3/2017	Funding ranges from $750,000 to $4.5 Million for up to 4 years	Independent investigators at all academic levels (or equivalent)	http://cdmrp.army.mil/pubs/press/2017/17prorppreann
			NEURAL SYSTEMS				
8.	Development and Evaluation of Sports Concussion Prevention Strategies (U-01) (CDC)	RFA-CE-17-002	The purpose of this research is to either (a) develop and pilot test a new intervention OR (b) rigorously evaluate an existing intervention that targets young athletes participating in sports programs. Interventions should be social and behavioral in nature and can represent either primary prevention or secondary prevention of sports-related concussion. Primary prevention interventions aim to prevent sports-related concussions before they occur, while secondary prevention interventions aim to reduce the impact of concussions that have already occurred.	Full proposal Due: 2/16/17 Letter of intent not required	Up to $550,000 for up to 3 years	Unrestricted	http://www.grants.gov/custom/viewOppDetails.jsp?oppId=286689

9.	NINDS Exploratory Clinical Trials (R01) (NIH)	PAR-17-122	The purpose of this FOA is to encourage grant applications for investigator-initiated exploratory clinical trials to the National Institute of Neurological Disorders and Stroke (NINDS). The trials must address questions within the mission and research interests of the NINDS and may evaluate drugs, biologics, and devices, as well as surgical, behavioral and rehabilitation therapies.	Full Proposal Due: 3/21/2017 Letter of Intent not requested Open until: 1/2020	Dependent upon application request, for up to 5 years	Unrestricted	https://grants.nih.gov/grants/guide/pa-files/PAR-17-122.html
10.	NINDS Efficacy Clinical Trials (U01) (NIH)	PAR-17-102	The purpose of this FOA is to encourage grant applications for investigator-initiated efficacy clinical trials to the National Institute of Neurological Disorders and Stroke (NINDS). The trials must address questions within the mission and research interests of the NINDS and may evaluate drugs, biologics, and devices, as well as surgical, behavioral and rehabilitation therapies. For purposes of this FOA, the proposed study must be intended to clinically develop the interventions to prevent or treat a neurological disorder, or to compare the effectiveness of two or more established interventions. An application involving a clinical experiment that is not directly intended to develop a preventative or therapeutic intervention, or comparative the effectiveness of established interventions, is not suitable for this FOA. This would include, for instance, an experiment where the objective is to elucidate the pathogenesis of the disease or identify potential therapeutic targets for future clinical trials.	Full Proposal Due: 3/21/2017 Letter of Intent not requested Open until: 1/2020	Dependent upon application request, for up to 5 years	Unrestricted	https://grants.nih.gov/grants/guide/pa-files/PAR-17-102.html
11.	Stimulating Peripheral Activity to Relieve Conditions (SPARC): Foundational Peripheral Neuroanatomy and Functional Neurobiology in Under-Studied Organs (U01) (NIH)	RFA-RM-17-003	This FOA solicits applications for support of research to gather critical data and answer critical questions on functional peripheral neuroanatomy and neurobiology of organs and reveal the organ function controlled by neural circuits. Organs of interest include those where the peripheral neuroanatomy and functional neurobiology have been understudied. Furthermore, examples of structures that would not be appropriate as the primary target for SPARC projects include the sensory structures of the head and the named voluntary muscles, except as allowed below. Organs that are of interest under this announcement include, but are not limited to: bone, bone marrow, liver, esophagus, kidney, male and female reproductive organs, and spleen.	Letter of intent Due: 3/3/17 Full Proposal Due: 4/3/17	Up to $250,000 per year for up to 3 years	Unrestricted	https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-17-003.html

12.	Basic Mechanisms of Brain Development Mediating Substance Use and Dependence (R01) (NIH)	PA-17-119	This Funding Opportunity Announcement (FOA) encourages applications from investigators that propose to study the developing brain or brain areas that play significant roles in mediating emotional and motivated behavior and in substance use and dependence. Topics of interest pertaining to brain development of this initiative include, but are not limited to, the euphoric properties of abused substances, actions of psychotherapeutic agents, and their consequences on memory, cognitive and emotional processes. A major goal of this initiative is to understand how exposure to substances of abuse and environmental insults affects the cellular and molecular mechanisms underlying nervous system development and neural circuit functions implicated in substance use and addiction.	Full Proposal due: 3/5/17 No Letter of Intent Requested	Dependent upon application request, for up to 5 years	Unrestricted	https://grants.nih.gov/grants/guide/pa-files/PA-17-119.html
13.	Department of Defense Amyotrophic Lateral Sclerosis Research Program Research Program: Pre- announcement (DoD/CDMRP)	N/A	Supports hypothesis-driven drug discovery efforts and pre-clinical development focused on ALS therapeutics. Types of efforts that will be supported include: Validation of lead pharmacological agents up to IND submission, Optimization of potency and pharmacology, studies of formulation, stability and production methods based on Good Manufacturing Practices, Novel exploitation of pathways known to be relevant to ALS for the purpose of improving treatment and/or advancing a novel treatment modality, Development, validation and use of novel high-throughput screens and model systems based on novel targets or innovative drug systems, Development of methods for measuring engagement of mechanistic targets by drug candidates.	Estimated Publication Date: 3/2017	Funding ranges from $500,000 to $1 Million for up to 2 years	Independent investigators at all academic levels	http://cdmrp.army.mil/pubs/press/2017/17alsrppreann
14.	Department of Defense Tuberous Sclerosis Complex Research Program: Pre- announcement (DoD/CDMRP)	N/A	The goal of the FY17 TSCRP is to fund pioneering and transformative science that promotes new discoveries in TSC, from mechanistic insights to clinical application. Within this context, the FY17 TSCRP encourages applications that address the critical needs of the TSC community in one or more of the following FY17 Focus Areas: Understanding phenotypic heterogeneity in TSC, Gaining a deeper knowledge of TSC signaling pathways and the cellular consequences of TSC deficiency, Improving TSC disease models, Developing clinical biomarkers for TSC, Facilitating therapeutics and clinical trials research.	Estimated Publication Date: 4/2017	Funding ranges from $150,000 to $600,000 for up to 4 years	Independent investigators at all academic levels, including post-doctoral	http://cdmrp.army.mil/pubs/press/2017/17tscrppreann

			KIDNEY				
15.	Biomarkers for Diabetes, Digestive, Kidney and Urologic Diseases Using Biosamples from the NIDDK Repository (R01) (NIH)	PAR-17-123	This FOA will provide support for assays (and associated data analysis) of repository-held samples for studies focused on an NIDDK relevant disease. The review of applications to this FOA will consider both access to repository-held samples and funding for assays using the samples. These studies are expected to generate scientific discoveries on disease mechanisms, disease pathogenic processes, disease progression, or clinical responses. Projects that make good use of the associated data from the clinical trials and studies, the original intent of the clinical study and/or trial are highly encouraged.	Letter of intent Due: 5/5/17 Full Proposal Due: 6/5/17 Open until: 5/2020	Up to $250,000 per year for up to 3 years	Unrestricted	https://grants.nih.gov/grants/guide/pa-files/PAR-17-123.html
			GENETICS				
16.	Discovering Novel Targets: The Molecular Genetics of Drug Addiction and Related Co-Morbidities (R01) (NIH)	PA-17-120	This FOA is for research projects that identify, validate and/or functionally characterize loci, genetic variations and haplotypes that are associated with vulnerability to addiction and that potentially inform the likelihood of responsiveness to treatment. Applications that propose to examine intermediate phenotypes or endophenotypes to assess the molecular genetics of drug addiction, addiction vulnerability and/or their associated co-morbidities and how they are related to drug addiction are especially encouraged. Also encouraged are large-scale genomic approaches, which may include linkage, linkage disequilibrium, case-control or family-based studies, and integration of data from other databases that may supplement substance abuse genetics and genomics data.	Full Application Due: 2/5/17 Letter of intent not requested	Dependent upon application request, for up to 5 years	Unrestricted	https://grants.nih.gov/grants/guide/pa-files/PA-17-120.html
			SBIR/STTR				
17.	Development of Socially-Assistive Robots (SARs) to Engage Persons with Alzheimer's Disease (AD) and AD-Related Dementias (ADRD), and their Caregivers (R43/R44) (NIH)	PAR-17-108	The purpose of this Small Business Innovation Research (SBIR) FOA is to encourage small businesses to develop assistive robotics and related technology that would enhance health and reduce illness and disability in older Americans suffering from Alzheimer's Disease (AD), AD-related dementias (ADRD), and other comorbidities. In addition, this FOA encourages small businesses to develop assistive robotics addressing the needs and conditions of caregivers to older Americans suffering from AD and ADRD.	Letter of intent due: 3/5/17 Full Proposal Due: 4/5/17	Up to $350,000 for Phase 1 and up to $2 million per year for Phase II	Small Businesses	https://grants.nih.gov/grants/guide/pa-files/PAR-17-108.html

18.	Lead Optimization and Preclinical Development of Therapeutic Candidates for Diseases of Interest to the NIDDK (R41/R42) (NIH)	PA-17-131	The process of identifying and validating drug targets, small molecule chemical scaffolds, or biologics for the treatment of human disease begins with a hypothesis and can be viewed as progressing along a continuum of increasing confidence leading to widespread acceptance of its use in patient populations. This FOA is intended to support only later-stage efforts in lead optimization and preclinical development. For the purposes of this FOA, these stages are defined as: Identification of prototype therapeutic leads, early-stage preclinical validation, lead optimization and preclinical development, and clinical therapeutic validation	Letter of intent due: 3/5/17 Full Proposal Due: 4/5/17	Up to $150,000 for Phase I awards and up to $1 million for Phase II awards	Small Businesses	https://grants.nih.gov/grants/guide/pa-files/PA-17-131.html
			THERAPEUTICS				
19.	Notice of Intent to Publish a Funding Opportunity Announcement for NHLBI Early Phase Clinical Trials for Therapeutics and/or Diagnostics (R61/R33) (NIH)	NOT-HL-16-475	The National Heart, Lung, and Blood Institute intends to promote a new initiative by publishing a Funding Opportunity Announcement (FOA) to solicit applications for investigator-initiated, phase 0 and I clinical trials (including bridging studies) for diagnosis and therapeutic interventions (e.g., drugs, devices, and biologics, including cells and cell products) for heart, lung, blood, and sleep (HLBS) disorders in adults and children. This Notice is being provided to allow potential applicants sufficient time to develop meaningful collaborations and responsive projects.	Estimated Publication Date: 8/17 Estimated Proposal Due Date: 10/17	Estimated up to $250,000	Unrestricted	https://grants.nih.gov/grants/guide/notice-files/NOT-HL-16-475.html
			OTHER				
20.	Juvenile Protective Factors and Their Effects on Aging (R01) (NIH)	Juvenile Protective Factors and Their Effects on Aging (R01)	The purpose of this FOA is to invite descriptive studies to identify putative Juvenile Protective Factors (JPFs), experimental studies to test hypotheses about their effects on aging, and translational studies to explore the potential risks and benefits of maintaining or modulating the levels of JPFs across the adult years. This FOA is uniquely focused on studies which involve comparisons between juvenile versus adult states or studies on transitions between maturational stages of the postnatal period. For any putative JPF to be studied, inclusion of studies on both humans (or human cells or tissues) and laboratory animals is encouraged where feasible. Examples of physiological systems or organs of interest include but are not limited to musculoskeletal, cardiovascular, immune and nervous systems.	Letter of intent due: 5/5/17 Full Proposal Due: 6/5/17	Dependent upon application request, for up to 5 years	Unrestricted	https://grants.nih.gov/grants/guide/pa-files/PAR-17-126.html

21.	Biological Technologies (DARPA BAA)	DARPA-BAA-16-33	The Defense Advanced Research Projects Agency (DARPA) is soliciting innovative research proposals of interest to the Biological Technologies Office (BTO). Proposed research should investigate leading edge approaches that enable revolutionary advances in science, technologies, or systems at the intersection of biology with engineering and the physical and computer sciences. Topics of interest include: Developing new tools and capabilities for forward engineering of biological systems (cells, tissues, organs, organisms, and complex communities) to both develop new products and functional systems as well as to gain new insights into underlying mechanisms; Developing and validating new theories and computational models that identify factors and principles underlying collective and interactive behaviors of biological organisms at all scales from individual cells to global ecosystems; Developing and leveraging new insights into non-human biology across and between populations of microbes, insects, plants, marine life, and other non-human biologic entities; Developing new technologies and approaches that ensure biosafety, biosecurity, and protection of the bioeconomy.	Proposal Abstracts and Full Proposals will be submitted on a rolling basis until April 28, 2017	Dependent upon agency funding	Unrestricted	https://www.fbo.gov/index?s=opportunity&mode=form&id=554fc440fe8689512243aabe0a1fb789&tab=core&_cview=0
22.	Biological Technologies EZ (DARPA BAA)	HR001117S0005	Topics of interest include but are not limited to: Discovering and leveraging novel findings from neuroscience, psychology, cognitive science, and related disciplines to advance treatment and resilience in neurological health and optimize human aptitude and performance; Developing new technologies and approaches that ensure biosafety, biosecurity, and protection of the bioeconomy; Understanding emerging threats to global food and water supplies and developing countermeasures that can be implemented on regional or global scales; Developing new technologies to treat, prevent, and predict the emergence and spread of infectious diseases that have the potential to cause significant health, economic, and social burden; Developing new platform technologies that integrate, automate, and miniaturize the collection, processing, and analysis of biological samples in extreme environments (marine, microgravity, desert, etc.).	Proposal Abstracts and Full Proposals will be submitted on a rolling basis until November 21, 2017	Dependent upon agency funding	Unrestricted	https://www.fbo.gov/index?s=opportunity&mode=form&id=bfea8ee32cadf55d41bd5672d998c0e2&tab=core&_cview=0