



The Government Bioscience Grant (GBG) report is produced each month and is available at [www.biosciencefunding.com](http://www.biosciencefunding.com).  
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### Government Bioscience Grant (GBG) Report – November 2015

	Title (Agency)	Opp. Number	Description	Deadline	Funding Level	Eligibility	Link
			<b>BROAD AGENCY ANNOUNCEMENTS</b>				
1.	DoD Medical Countermeasure Systems Broad Agency Announcement	MCS-BAA-15-01	This BAA is continuously open and pre-proposals will be evaluated throughout the year. Applications should be based on data from experiments using specific CBRN warfare agents to demonstrate safety, efficacy, or mode of action. DoD is looking for studies on new and better ways to develop MCMs more rapidly and with increased efficiency through enabling technologies, life cycle bioinformatics, and improved logistics tracking.	Ongoing	Awards dependent on need and funding availability	Unrestricted	<a href="http://www3.natick.army.mil/docs/JPM%20MCS%20BAA%2015-01.pdf">http://www3.natick.army.mil/docs/JPM%20MCS%20BAA%2015-01.pdf</a>
			<b>CARDIOVASCULAR</b>				
2.	Pulmonary and Cardiovascular Consequences of Inhaled Nicotine (NIH - R01)	RFA-HL-17-008	This FOA seeks to stimulate mechanistic research on the pathophysiological effects of inhaled nicotine on the respiratory and cardiovascular systems in the context of non-cancer heart and lung diseases. This FOA invites applications that will investigate effects of nicotine exposure using cellular systems, animal models, and/or humans. Projects must include experiments at the molecular/cellular level as well as experiments at the tissue/organ/whole animal level. Applications should address hypotheses mechanistically linking nicotine-responsive molecular and cellular pathways with clinically relevant outcomes.	5/7/16	Estimated Total Program Funding: \$2,880,000 for up to 6 awards  Award Ceiling: \$300,000 per year	Unrestricted	<a href="http://grants.nih.gov/grants/guide/rfa-files/RFA-HL-17-008.html">http://grants.nih.gov/grants/guide/rfa-files/RFA-HL-17-008.html</a>

			<b>IMAGING</b>				
3.	Image-guided Drug Delivery (NIH - R01)	PAR-16-044	This FOA will support research in image-guided drug delivery (IGDD) for cancer and other diseases. The overarching goals of this FOA are to support the development of quantitative in vivo imaging methods for IGDD to guide, monitor, and evaluate drug delivery across different physical and physiological scales in order to interrogate biodistribution and target-drug interaction (pharmacokinetics and pharmacodynamics) and therapeutic response.	11/22/18	Awards dependent on need and funding availability	Unrestricted	<a href="http://grants.nih.gov/grants/guide/pa-files/PAR-16-044.html">http://grants.nih.gov/grants/guide/pa-files/PAR-16-044.html</a>
4.	Pre-Application: Stimulating Peripheral Activity to Relieve Conditions (SPARC): Foundational Functional Mapping of Neuroanatomy and Neurobiology of Organs (NIH – OT1)	RFA-RM-15-019	The OT1 SPARC OT pre-application is the required first step in the application process for the companion OT2 FOA, listed below.	1/15/16	N/A; Awards made through companion award listed below	Unrestricted	<a href="http://grants.nih.gov/grants/guide/rfa-files/RFA-RM-15-019.html">http://grants.nih.gov/grants/guide/rfa-files/RFA-RM-15-019.html</a>
	Limited Competition: SPARC Foundational Functional Mapping of Neuroanatomy and Neurobiology of organs (OT2)	RFA-RM-15-20	These projects will gather data and answer critical questions on functional neuroanatomy of organs, and organ function controlled by neural circuits, in order to begin mapping the neuroanatomy and enable development of Comprehensive Mapping Projects. Applications are only accepted after successful competition of the corresponding OT1 pre-application listed above, and invitation to the applicant to submit the OT2 application.	6/15/16	Estimated Total Program Funding: \$8,000,000  Award Ceiling: \$600,000	Unrestricted	<a href="http://grants.nih.gov/grants/guide/rfa-files/RFA-RM-15-020.html">http://grants.nih.gov/grants/guide/rfa-files/RFA-RM-15-020.html</a>

<b>NEURAL SYSTEMS</b>							
5.	Drug Discovery for Nervous System Disorders (NIH - R01)	PAR-16-041	This FOA seeks to stimulate research in the discovery, design, and preclinical testing of innovative and effective therapeutics aimed at prevention or treatment of nervous system disorders of primary interest to the NIMH, NIAAA, and NIDA. Projects focused on novel approaches and targets are highly encouraged. The R01 funding data encourages applicants with preliminary data.	1/7/19	Awards dependent on need and funding availability	Unrestricted	<a href="http://grants.nih.gov/grants/guide/pa-files/PAR-16-041.html">http://grants.nih.gov/grants/guide/pa-files/PAR-16-041.html</a>
	Drug Discovery for Nervous System Disorders (NIH - R21)	PAR-16-042	This R21 grant opportunity is a companion grant, focused on high-risk/high payoff proposals lacking preliminary data.	1/7/19	Award Ceiling: \$200,000	Unrestricted	<a href="http://grants.nih.gov/grants/guide/pa-files/PAR-16-042.html">http://grants.nih.gov/grants/guide/pa-files/PAR-16-042.html</a>
6.	Clinical Trial Readiness for Rare Neurological and Neuromuscular Diseases (NIH - U01)	PAR-16-020	This FOA seeks to support clinical studies that will fill gaps in the design of upcoming clinical trials in rare neurological or neuromuscular diseases by validating clinical outcome measures or biomarkers, or by characterizing cohorts of relevant patients. Through the support of trial readiness studies, NINDS expects to accelerate the initiation of clinical trials for rare diseases.	8/17/18	Awards dependent on need and funding availability	Unrestricted	<a href="http://grants.nih.gov/grants/guide/pa-files/PAR-16-020.html">http://grants.nih.gov/grants/guide/pa-files/PAR-16-020.html</a>
7.	Innovation Grants to Nurture Initial Translational Efforts (IGNITE): Development and Validation of Model Systems and/or Pharmacodynamic Markers to Facilitate the Discovery of Neurotherapeutics (NIH - R21/R33)	RFA-NS-16-013	The goal of this FOA is to promote a significant improvement in the translational relevance of animal models, ex vivo systems, testing paradigms, and endpoints that will be utilized to facilitate the development of neurotherapeutics. Specifically, this FOA seeks to enable the exploratory and early stages of drug discovery.	1/7/18	Estimated Total Program Funding: \$750,000 Award Ceiling: \$250,000	Unrestricted	<a href="http://grants.nih.gov/grants/guide/rfa-files/RFA-NS-16-013.html">http://grants.nih.gov/grants/guide/rfa-files/RFA-NS-16-013.html</a>

8.	<p>BRAIN Initiative: New Technologies and Novel Approaches for Large-Scale Recording and Modulation in the Nervous System: Cooperative Agreements (NIH - U01)</p>	RFA-NS-16-006	<p>This FOA seeks applications for proof-of-concept testing and development of new technologies for large-scale recording and manipulation of neural activity to enable transformative understanding of dynamic signaling in the nervous system. In particular, NIH seeks exceptionally creative approaches to address major challenges associated with recording and manipulating neural activity, at or near cellular resolution, at multiple spatial and/or temporal scales, in any region and throughout the entire depth of the brain. It is expected that the proposed research may be high-risk, but if successful could profoundly change the course of neuroscience research.</p>	2/24/16	<p>Estimated Total Program Funding: \$4,000,000 for 6-8 awards</p>	Unrestricted	<p><a href="http://grants.nih.gov/grants/guide/rfa-files/RFA-NS-16-006.html">http://grants.nih.gov/grants/guide/rfa-files/RFA-NS-16-006.html</a></p>
	<p>BRAIN Initiative: Optimization of Transformative Technologies for Large Scale Recording and Modulation in the Nervous System (NIH - U01)</p>	RFA-NS-16-007	<p>This FOA seeks applications for existing and emerging technologies that have potential to address major challenges associated with recording and manipulating neural activity, at or near cellular resolution, at multiple spatial and temporal scales, in any region and throughout the entire depth of the brain. This FOA is intended for the refinement of emergent technologies that have already demonstrated their transformative potential through initial proof-of-concept testing, and are appropriate for accelerated development of hardware and software while scaling manufacturing techniques towards sustainable, broad dissemination and user-friendly incorporation into regular neuroscience practice.</p>	2/24/16	<p>Estimated Total Program Funding: \$3,800,000 for 5-7 awards</p>	Unrestricted	<p><a href="http://grants.nih.gov/grants/guide/rfa-files/RFA-NS-16-007.html">http://grants.nih.gov/grants/guide/rfa-files/RFA-NS-16-007.html</a></p>
	<p>BRAIN Initiative: Development and Validation of Novel Tools to Analyze Cell-Specific and Circuit-Specific Processes in the Brain (NIH - R01)</p>	RFA-MH-16-775	<p>This FOA is designed to support development and validation of tools to facilitate the analysis of cells and circuits and provide insights into the neural circuitry and structure underlying complex behaviors. The tools sought through this FOA can include novel genetic or non-genetic methods for targeted delivery of genes, proteins, and chemicals to specific cells or tightly defined cell types and circuits.</p>	2/2/16	<p>Estimated Total Program Funding: \$8,000,000 for 8-10 awards</p>	Unrestricted	<p><a href="http://grants.nih.gov/grants/guide/rfa-files/RFA-MH-16-775.html">http://grants.nih.gov/grants/guide/rfa-files/RFA-MH-16-775.html</a></p>

			<b>THERAPEUTICS</b>				
9.	Advancing Erythroid Cell Biology (NIH - R01)	PA-16-039	Research supported through this FOA should identify fundamental mechanisms of hematologic development and cellular differentiation. The goals of this program are to 1) use the erythroid cell system to test hypotheses regarding coordination of gene expression and interaction of proteins during hematologic development and differentiation and 2) to elucidate structure-function relationships in normal and diseased erythroid blood cell states that will inform biology of other cell types.	1/7/19	Dependent on program funding and applicant needs	Unrestricted	<a href="http://grants.nih.gov/grants/guide/pa-files/PA-16-039.html">http://grants.nih.gov/grants/guide/pa-files/PA-16-039.html</a>
			<b>KIDNEY</b>				
10.	Stimulating Hematology Investigation: New Endeavors (SHINE)(NIH - R01)	PAS-16-033	In the SHINE program, NIDDK invites investigator-initiated research project grant applications in specific areas of basic and translational hematology research where needs and opportunities for progress are particularly timely. These areas are listed in the FOA and will change over time.	1/7/19	Estimated Total Program Funding: \$425,000 for 2-4 awards	Unrestricted	<a href="http://grants.nih.gov/grants/guide/pa-files/PAS-16-033.html">http://grants.nih.gov/grants/guide/pa-files/PAS-16-033.html</a>
			<b>DIABETES</b>				
11.	Development of New Technologies and Bioengineering Solutions for the Advancement of Cell Replacement Therapies for Type 1 Diabetes (NIH - R43/R44)	RFA-DK-16-004	This SBIR grant opportunity seeks to support applications that will develop/optimize novel/smart/safe biomaterials, scaffolds, bio-matrices and bio-barriers that may protect grafted cells from immune rejection and simultaneously promote appropriate vascularization/innervation with an efficient exchange of nutrients to optimize cellular long-term survival and proper function. It is also necessary to investigate methods to use different cell sources including human progenitor cells and induced pluripotent stem cells as a valid option for cell replacement therapy. Also, further research on the potential use of xenogeneic cells/islets is needed.	6/28/16	Estimated Total Program Funding: \$3,000,000 for 3-8  Award Ceiling: \$225,000 for Phase I and \$1,500,000 for Phase II	Unrestricted	<a href="http://grants.nih.gov/grants/guide/rfa-files/RFA-DK-16-004.html">http://grants.nih.gov/grants/guide/rfa-files/RFA-DK-16-004.html</a>

			<b>GENOMICS</b>				
12.	Applying Metabolomics to Drive Biomarker Discovery in Symptom Science: Exploratory / Developmental Grant (NIH - R21)	PA-16-029	This FOA focuses on both preclinical and clinical research studying how biomarkers can manage symptoms that may precede or coincide with various conditions/illnesses detailed in the FOA.	1/7/19	Award Ceiling: \$200,000	Unrestricted	<a href="http://grants.nih.gov/grants/guide/pa-files/PA-16-029.html">http://grants.nih.gov/grants/guide/pa-files/PA-16-029.html</a>
	Research Project Grant (NIH - R01)	PA-16-030		1/7/19	Dependent on program funding and applicant needs		<a href="http://grants.nih.gov/grants/guide/pa-files/PA-16-030.html">http://grants.nih.gov/grants/guide/pa-files/PA-16-030.html</a>
13.	Innovative Questions in Symptom Science and Genomics: Exploratory / Developmental Grant (NIH - R21)	PA-16-023	This suite of companion funding opportunities seeks to optimize innovation, insight and cutting edge conceptual and technological breakthroughs by catalyzing research that emanates from questions in symptom and genomic nursing science. A full list of the research objectives is listed within the FOA.	1/7/19	Award Ceiling: \$200,000	Unrestricted	<a href="http://grants.nih.gov/grants/guide/pa-files/PA-16-023.html">http://grants.nih.gov/grants/guide/pa-files/PA-16-023.html</a>
	Research Project Grant (NIH - R01)	PA-16-024			Dependent on program funding and applicant needs		<a href="http://grants.nih.gov/grants/guide/pa-files/PA-16-024.html">http://grants.nih.gov/grants/guide/pa-files/PA-16-024.html</a>

14.	NHLBI TOPMed: Omics Phenotypes of Heart, Lung, and Blood Disorders (NIH - X01)	PAR-16-021	This FOA invites applications to use NIH-funded omics capacity to carry out studies of the genetic basis and/or omics signatures of common, complex heart, lung, and blood disorders. Successful applicants will provide biospecimens for whole genome sequencing or other omics assays. No funding will be provided under this FOA. The omics data and related phenotypic data will be deposited in a public database such as dbGaP.	1/18/19	N/A	Unrestricted	<a href="http://grants.nih.gov/grants/guide/pa-files/PAR-16-021.html">http://grants.nih.gov/grants/guide/pa-files/PAR-16-021.html</a>
15.	<i>NIH Novel Genomic Technology Grants:</i> Exploratory / Developmental Grant (R01)	PAR-16-014	This suite of FOAs encourages grant applications to catalyze major advances in genomics through technology development (beyond developing novel nucleic acid sequencing technologies). The goal is to provide a mechanism for support of very novel and high impact work from across this gamut of genomics technology development. This initiative seeks to support technologies that will have a major impact in the next five to seven years.	1/11/18	Award Ceiling: \$700,000	Unrestricted	<a href="http://grants.nih.gov/grants/guide/pa-files/0014.html">http://grants.nih.gov/grants/guide/pa-files/0014.html</a>
	Development Exploratory/ Developmental Grant (R21)	PAR-16-015		1/11/18	Award Ceiling: \$200,000	Unrestricted	<a href="http://grants.nih.gov/grants/guide/pa-files/PAR-16-015.html">http://grants.nih.gov/grants/guide/pa-files/PAR-16-015.html</a>
	Small Business Research Grant (R43/R44)	PAR-16-016		1/11/18	Award Ceiling: \$150,000 for Phase I and \$1,000,000 for Phase II	Small Businesses	<a href="http://grants.nih.gov/grants/guide/pa-files/PAR-16-016.html">http://grants.nih.gov/grants/guide/pa-files/PAR-16-016.html</a>
	Direct to Phase II SBIR Grant	PAR-16-017		1/11/17	Award Ceiling: \$1,000,000	Small Businesses	<a href="http://grants.nih.gov/grants/guide/pa-files/PAR-16-017.html">http://grants.nih.gov/grants/guide/pa-files/PAR-16-017.html</a>

			<b>CANCER</b>				
16.	Improving Outcomes in Cancer Treatment-Related Cardiotoxicity: Research Project Grant (NIH - R01)	PA-16-035	The purpose of these two FOAs is to stimulate collaborative applications that will contribute to the identification and characterization of patients at risk of developing cancer treatment-related cardiotoxicity with the primary intent to mitigate cardiovascular dysfunction while optimizing cancer outcomes. To accomplish this, methods that evaluate cardiac risk prior to treatment and integrate evidence-based cancer treatment regimens with screening, diagnostic, and/or management strategies throughout the cancer continuum are sought. The R01 award is for a Research Project Grant.	1/7/19	Awards dependent on application need and funding availability	Unrestricted	<a href="http://grants.nih.gov/grants/guide/pa-files/PA-16-035.html">http://grants.nih.gov/grants/guide/pa-files/PA-16-035.html</a>
	Exploratory / Developmental Grant (NIH - R21)	PA-16-036	This award, parallel to the R01 award above, will be made in support of an Exploratory/Developmental Grant (R21). Applications for this R21 funding need not have extensive background material or preliminary research information.	1/7/19	Award Ceiling: \$200,000 for a single year and not to exceed \$275,000 over project maximum of 2 years	Unrestricted	<a href="http://grants.nih.gov/grants/guide/pa-files/PA-16-036.html">http://grants.nih.gov/grants/guide/pa-files/PA-16-036.html</a>



			<b>INFECTIOUS DISEASE CONTROL</b>				
17.	<p>Advancing Understanding, Prevention and Management of Infections Transmitted from Women to their Infants Exploratory / Developmental Grant (NIH - R21)</p> <p>Research Project Grant (NIH - R01)</p>	<p>PA-16-031</p> <p>PA-16-032</p>	<p>The purpose of this FOA is to stimulate investigations including translational, epidemiologic and clinical studies and trials that improve the understanding, prevention and clinical outcomes of non-HIV infections transmitted from women to their offspring during pregnancy, labor and delivery, and breastfeeding. NICHD is committed to supporting research that will increase scientific understanding of and treatments for high-priority perinatal infections.</p>	9/7/19	Unrestricted	<p>Award Ceiling: \$200,000</p> <p>Dependent on program funding and applicant needs</p>	<p><a href="http://grants.nih.gov/grants/guide/pa-files/PA-16-031.html">http://grants.nih.gov/grants/guide/pa-files/PA-16-031.html</a></p> <p><a href="http://grants.nih.gov/grants/guide/pa-files/PA-16-032.html">http://grants.nih.gov/grants/guide/pa-files/PA-16-032.html</a></p>
18.	<p>Deployed Warfighter Protection Program FY16 Call for Research (DoD)</p>	DWFP-16-S-01	<p>The Armed Forces Pest Management Board (AFPMB) seeks pre-proposals for research on interventions for protection of deployed military personnel from diseases caused by arthropod-borne pathogens and to improve control of filth flies. Diseases of concern include malaria, dengue fever, chikungunya fever, and other arboviruses. Research should be product-oriented, consisting of research related to a particular product, evaluation of experimental products for military uses, or research directed towards development of an existing product for commercial manufacture. The research must be primarily applicable to the military but products should be transferable to civilian uses.</p>	1/8/16	<p>Estimated Total Program Funding: \$2,000,000</p> <p>Award Ceiling: \$250,000</p>	Unrestricted	<p><a href="http://www.grants.gov.net/grants.gov_display.php?program=DWFP-16-S-01">http://www.grants.gov.net/grants.gov_display.php?program=DWFP-16-S-01</a></p>

19.	Research on Technical Improvement of Personal Protective Equipment (PPE) to be used in Healthcare Settings for Infection Control, including Ebola and other Emerging Pathogens (CDC)	RFA-CK-16-006	The purpose of this announcement is to fund research to improve personal protective equipment (PPE) to be used in healthcare settings for infection control. Specifically, it will focus on improving the design of and the material used in isolation gowns and respirators to address challenges related to comfort, ease of communication, reprocessing for re-use, fluid penetration through materials, fit and sizing, and ease of safe donning and doffing.	1/19/16	Estimated Total Program Funding: \$3,000,000  Award Ceiling: \$3,000,000  Award Floor: \$2,000,000	Unrestricted	<a href="https://www.acf.hhs.gov/hhsgrantsforecast/index.cfm?switch=grant.view&amp;gff_grants_forecastInfoID=100001004">https://www.acf.hhs.gov/hhsgrantsforecast/index.cfm?switch=grant.view&amp;gff_grants_forecastInfoID=100001004</a>
20.	Human Immunology Project Consortium (NIH - U19)	RFA-AI-15-041	This FOA invites applicants to participate in a network of human immunology profiling research groups on infectious disease in order to characterize human immune responses/mechanisms triggered by vaccines, adjuvants, and naturally occurring infection by capitalizing on recent advances in immune profiling technologies. An additional goal of this program is to advance research by promoting rapid public access to HIPC-supported data and results through public portals, as well as the development of new methods for data integration, analysis, presentation, and visualization to further research and development in this field.	3/17/16	Unrestricted	Estimated Total Program Funding: \$10,700,000 for 4-6 awards Award Ceiling: \$1,500,000	<a href="http://grants.nih.gov/grants/guide/rfa-files/RFA-AI-15-041.html">http://grants.nih.gov/grants/guide/rfa-files/RFA-AI-15-041.html</a>