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Bioscience Grant Report - September 2014

	Title (Agency)	Opp. Number	Description	Deadline	Funding Level	Eligibility	Link
			THERAPEUTICS				
1.	Platform Delivery Technologies for Nucleic Acid Therapeutics (R43/R44)	PA-14-307	The purpose of this initiative is to incentivize small businesses to generate new technologies and products for delivering nucleic acids into cells and tissues for the purpose of treatment or prevention of human disease. There are thousands of rare diseases, and a substantial fraction of these are monogenic disorders, resulting from mutations in a single gene. While some recent progress has been made towards the delivery of certain types of nucleic acids into some tissues, there is a compelling need for novel delivery vehicles for different tissues and types of nucleic acids.	10/8/16	Budgets up to \$325,000 total costs/year for Phase I and up to \$2,000,000 total costs/year for Phase II may be requested.	Small Businesses	http://grants.nih.gov/grants/guide/pa-files/PA-14-307.html
			CANCER				
2.	New Approaches to Synthetic Lethality for Mutant KRas-Dependent Cancers (U01), National Cancer Institute	PAR-14-314	The purpose of this Funding Opportunity Announcement (FOA) is to encourage applications for projects to identify targets whose inhibition would induce synthetic lethality in cancers dependent on the expression of mutant KRas alleles. The NCI seeks to stimulate research that uses advanced or improved approaches for synthetic lethality screens that have greater specificity, reproducibility, and activity in physiologically relevant model systems than those used previously in first generation screening approaches.	7/8/15	Award Ceiling: \$750,000 Most requests in range of \$450,000 to \$500,000 per year.	Unrestricted	http://grants.nih.gov/grants/guide/pa-files/PAR-14-314.html

			NEURAL SYSTEMS				
3.	Immune and Inflammatory Mechanisms in Alzheimer's Disease (R01)	RFA-AG-15-018	The goal of this FOA is to establish the role of the brain innate immune system, the systemic immune system, and the crosstalk and changes with age between the two in the development and progression of Alzheimer's disease. An interdisciplinary and integrative research approach to identify the cell networks and mediators of the brain and systemic immune and inflammatory systems is expected to give greater insight into the etiological mechanisms underlying Alzheimer's disease.	1/29/15	Est. Total Program Funding: \$4 million (to fund 6 to 8 awards) Award Ceiling: Limited to no more than \$500,000 per year	Unrestricted	http://grants.nih.gov/grants/guide/rfa-files/RFA-AG-15-018.html
4.	Centers Without Walls for Collaborative Research in the Epilepsies: Developing Disease Modifying or Prevention Therapies (U54)	RFA-NS-15-001	The purpose of this FOA is to solicit applications for an Epilepsy Center without Walls (CWOW) focused on multidisciplinary, collaborative research to further the development of disease modifying or prevention therapies for epilepsy.	11/6/14	Est. Total Program Funding: \$9,000,000	Unrestricted	http://grants.nih.gov/grants/guide/rfa-files/RFA-NS-15-001.html

5.	Biomarkers of Alzheimer's Disease in Down Syndrome (R01)	RFA-AG-15-011	The grant is to enable the identification of the longitudinal progression of Alzheimer's disease in adults with Down Syndrome using clinical, cognitive, imaging, genetic and biochemical biomarkers. Given the issue of pre-existing cognitive impairment, applicants are encouraged to develop and/or use neurocognitive measures appropriate for the DS population, including those with adequate ceilings and floors to capture the range of cognitive abilities. An essential feature of this initiative is rapid public access to the clinical, neurocognitive, imaging, and biological data, i.e., without embargo, and access to the biological samples by all qualified scientific investigators.	1/12/15	Est. Total Program Funding: \$5,000,000	Unrestricted	http://grants.nih.gov/grants/guide/rfa-files/RFA-AG-15-011.html
6.	Interdisciplinary Research to Understand the Vascular Contributions to Alzheimer's Disease (R01)	RFA-AG-15-010	This grant is to support interdisciplinary research that will lead to a greater understanding of the mechanisms by which vascular factors contribute to the complex etiology of Alzheimer's disease. Applicants are expected to leverage existing data or to generate new data in relevant human populations and integrate these with the use of animal models through the application of cutting edge research and analytical tools.	2/3/15	Est. Total Program Funding: \$4,000,000	Unrestricted	http://grants.nih.gov/grants/guide/rfa-files/RFA-AG-15-010.html
7.	Tools for Assessment and Improvement of Neurologic Outcomes in Perinatal Medicine (R41)	RFA-HD-15-005	The goal of this initiative is to develop tools and technology for diagnosis, intervention and improvement of outcomes for pregnancies and infants with known neurologic disease or infants at high risk for neurologic complications. There is a need to foster collaboration between clinical and bioengineering research investigators in the field of tools and technologies for assessment of pregnancies and infants with or at risk of neurologic complications. This FOA invites SBCs to propose innovative research that can lead to development of non-invasive, or minimally invasive, instruments, devices, tools, and technologies to assess, monitor, and treat women during pregnancy as well as neonates and infants with or at high risk for neurologic problems.	12/17/14	Est. Total Program Funding: \$1,000,000 Award Ceiling: \$150,000	Small Businesses	http://grants.nih.gov/grants/guide/rfa-files/RFA-HD-15-005.html

	Tools for Assessment and Improvement of Neurologic Outcomes in Perinatal Medicine (R43)	RFA-HD-15-006					http://grants.nih.gov/grants/guide/rfa-files/RFA-HD-15-006.html
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8.	Molecular and Cellular Substrates of Complex Brain Disorders (R01)	PAR-14-309	This Funding Opportunity Announcement (FOA) encourages research grant applications directed toward the discovery of the impact of alterations associated with complex brain disorders on the fundamental cellular and molecular substrates of neuronal function. This funding opportunity encourages the submission of innovative research grant applications at the interface between cellular and molecular mechanisms and that address gaps in understanding the biological mechanisms behind putative disease associated processes with the goal of accelerating progress in emerging research areas relevant to complex brain disorders.	9/7/17	Application budgets are not limited but need to reflect the actual needs of the proposed project.	Unrestricted	http://grants.nih.gov/grants/guide/pa-files/PAR-14-309.htm
	Molecular and Cellular Substrates of Complex Brain Disorders (R21)	PAR-14-310	The R21 activity code is intended to encourage exploratory and developmental research projects by providing support for the early and conceptual stages of these projects.		For R21, direct costs are limited to \$275,000 over a two-year period, with no more than \$200,000 in direct costs allowed in any single year.	Unrestricted	http://grants.nih.gov/grants/guide/pa-files/PAR-14-310.html

			DIABETES				
9.	Type 1 Diabetes TrialNet Clinical Centers (U01)	RFA-DK-14-016	Type 1 Diabetes TrialNet is an international consortium of clinical research centers aimed at the delay or prevention of type 1 diabetes (T1D). FOA provides infrastructure support for TrialNet Centers, allowing them to recruit treat, and follow subjects in TrialNet studies and trials. In additional, funding will be provided for Clinical Centers to support Affiliate Sites.	12/3/14	Est. Total Program Funding Program Funding: \$2,000,000	Unrestricted	http://grants.nih.gov/grants/guide/rfa-files/RFA-DK-14-016.html
	Translational Research to Improve Diabetes and Obesity Outcomes (R01)	PA-13-352	FOA (R01) to test practical, sustainable, and cost efficient adaptations of efficacious strategies or approaches to prevent and treat diabetes and/or obesity. Research focused on the prevention or reversal of obesity, prevention of type 2 diabetes, improved care of type 1 and type 2 diabetes, or the prevention or delay of the complications of these conditions is encouraged. The approaches tested should have the potential for wide dissemination and implementation outside of an academic setting such as in routine clinical practice or communities at risk.	01/07/17	Per grant funding levels contingent on number of grants received. Budgets not limited, but need to reflect actual needs of proposed project.	Unrestricted	http://www.grants.gov/web/grants/search-grants.html?keywords=Genetics

			GENETICS				
10.	Genetic and Genomic Analysis of Xenopus (R21)	PAR-12-249	FOA invites investigator-initiated applications designed to exploit and enhance the power of Xenopus as a vertebrate model for biomedical research. Applications may propose to develop new tools or genetic, genomic, or proteomic resources of high priority to the Xenopus research community to advance the detection and characterization of genes, pathways, and phenotypes of interest in development, organogenesis, and in cell biological processes such as cell division, signaling and migration. In addition, applications will be welcomed that utilize recently developed genetic, genomic, or proteomic tools or resources to advance these same goals particularly when these projects employ tools that have not previously been used in Xenopus research.	9/30/14	\$200,000 Award Ceiling	Unrestricted	http://www.grants.gov/web/grants/search-grants.html?keywords=Genetics
	Genetic and Genomic Analysis of Xenopus (R01)	PAR-12-250					

11.	Research Planning Infrastructure to Develop Therapeutic Target-ID Strategies Based on Favorable Genetic Variants of Human Longevity or Health Span (U24)	RFA-AG-15-014	Applications requested for a project for the development of a research planning infrastructure by a multidisciplinary collaborative team to develop target identification (ID) strategies based on effects of genetic factors reliably associated with increased human lifespan and/or health span. The phrase "target ID strategy" refers to a concerted set of applied research approaches leading to the identification of genetic factors, pathways, or molecules by which activities could be favorably modified.	11/6/14	Est. Total Program Funding: \$1,000,000 Award Ceiling: \$700,000 (one award up to \$1,000,000)	Unrestricted	http://grants.nih.gov/grants/guide/rfa-files/RFA-AG-15-014.html
			GENERAL				
12.	Prevention of Lower Urinary Tract Symptoms in Women: Bladder Health Scientific and Data Coordinating Center (PLUS-SDCC) (U01)	RFA-DK-14-018	Funding initiative invites cooperative agreement research applications to establish a multi-center, multi-disciplinary consortium to be known as the Prevention of Lower Urinary tract Symptoms (PLUS) Research Consortium. This FOA expands NIH's research emphasis from treatment of women with established lower urinary tract symptoms (LUTS) to prevention of LUTS. Objective is to plan, perform and analyze the research studies necessary to establish the scientific basis for future prevention intervention studies for lower urinary tract symptoms and conditions in women.	11/20/14	Est. Total Program Funding: \$4,500,000	Unrestricted	http://grants.nih.gov/grants/guide/rfa-files/RFA-DK-14-018.html

13.	Platform Delivery Technologies for Nucleic Acid Therapeutics (R41/R42) Platform Delivery Technologies for Nucleic Acid Therapeutics (R43/R44)	PA-14-308 PA-14-307	The purpose of this initiative is to incentivize small businesses to generate new technologies and products for delivering nucleic acids into cells and tissues for the purpose of treatment or prevention of human disease. For the purposes of this FOA, platform technologies are those that are able to deliver nucleic acids to tissues in a sequence-independent manner, and as such are in principle applicable to the treatment of multiple diseases.	9/7/16	Budgets up to \$325,000 total costs per year for Phase I and up to \$2M total costs per year for Phase II may be requested.	Small Businesses	http://grants.nih.gov/grants/guide/pa-files/PA-14-308.html http://grants.nih.gov/grants/guide/pa-files/PA-14-307.html
14.	Atoms to Product (A2P)	DARPA-BAA-14-56	Research proposals in the area of processes and technology for assembly of systems, components, and materials at millimeter scale or larger from nanometer scale constituents. Stress on innovative and novel scientific mechanisms for advancement. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice.	11/12/14	N/A	Unrestricted	http://www.grants.gov/web/grants/view-opportunity.html?oppId=263688
15.	(Re) Building a Kidney: Cells to Organ (UH2/UH3)	RFA-DK-14-010	Projects required that focused on the expansion of tools, resources, and knowledge that will guide studies on the in vivo regeneration of functional nephrons or in vitro generation of nephrons for kidney transplant. It is anticipated that the identification of progenitor cells, their microenvironment, and understanding the differentiation of renal and associated cell types and the development of scaffolds will spin-of key insights and reagents that can be utilized in the UH3 phase.	1/14/15	N/A	Unrestricted	http://www.grants.gov/web/grants/view-opportunity.html?oppId=263769

16.	Multi-Site Clinical Trials for the Pulmonary Trials Cooperative (PTC) (U01)	RFA-HL-15-015	Requests U01 applications proposing a single, pragmatic clinical trial in adults with chronic pulmonary diseases. Successful applicant will serve as a Protocol Leadership Group (PLG) for a new type of clinical research network: the Pulmonary Trials Cooperative (PTC). The PTC is a cooperative program that includes multiple PLGs and a Network Management Core (NEMO). The PTC is designed to conduct multiple clinical trials in both inpatient and outpatient settings in adults with a variety of chronic pulmonary diseases. Studies, will evaluate the efficacy or effectiveness of promising new or existing therapies.	10/21/14	Est. Total Program Funding: \$1,000,000	Unrestricted	http://grants.nih.gov/grants/guide/rfa-files/RFA-HL-15-015.html
17.	Developing Interventions for Health-Enhancing Physical Activity (R21/R33)	PAR-14-321	This FOA encourages innovative research to improve our understanding of how to increase and maintain health-enhancing physical activity to make meaningful and lasting change, with an emphasis on multi-level interventions that have the potential to be scalable, implementable, and sustained in real-world settings. Interventions to be tested should seek to increase participants' progression toward achieving the 2008 Physical Activity Guidelines for Americans as appropriate to the participants' health, abilities, and conditions.	9/7/17	R21 not to exceed \$325,000 R33 phase may not exceed \$525,000 in direct costs for the 3-year project period, with no more than \$250,000 in direct costs in any single year of the R33 phase.	Unrestricted	http://grants.nih.gov/grants/guide/pa-files/PAR-14-321.html
18.	Testing Interventions for Health-Enhancing Physical Activity (R01)	PAR-14-315	Purpose of this Funding Opportunity Announcement (FOA) is to fund highly innovative and promising research that tests multi-level intervention programs of 1 to 2 years in length that are designed to increase health-enhancing physical activity: 1) in persons or groups that can benefit from such activity; and 2) that could be made scalable and sustainable for broad use across the nation. This FOA provides support for up to 5 years for research planning, intervention delivery, and follow-up activities.	9/7/17	Number of awards contingent upon NIH appropriations and submission of a sufficient number of	Unrestricted	http://grants.nih.gov/grants/guide/pa-files/PAR-14-315.html

					meritorious applications. Budgets not limited but need to reflect the needs of the proposed project.		
19.	Patient Safety in the Context of Perinatal, Neonatal, and Pediatric Care (R03) Patient Safety in the Context of Perinatal, Neonatal, and Pediatric Care (R21)	PA-14-313 PA-14-311	This funding initiative encourages a wide range of collaborative research projects related to patient safety in the context of perinatal, neonatal and pediatric care both in routine hospital settings and in the intensive care units. The FOA welcomes applications related to (but not limited to): the epidemiology of various domains of medical errors and consequent patient harm; assessing the factors at various levels that contribute to such errors; and intervention strategies at individual, systems, and institutional levels to help reduce and eliminate medical errors. It is anticipated that knowledge gained from these projects will help develop strategies to deliver highest quality of healthcare to all newborn infants and children with utmost safety and effectiveness.	9/9/17	Award Ceiling: \$50,000	Unrestricted	http://www.grants.gov/web/grants/view-opportunity.html?oppId=261183

20.	<p>Role of the Microbiome in HIV-1 Vaccine Responses (R21)</p> <p>Role of the Microbiome in HIV-1 Vaccine Responses (R01)</p>	<p>PAR-14-318</p> <p>PAR-14-317</p>	<p>Grant funding is to stimulate research focused on elucidating the role of the microbiome in shaping the host immune responses to HIV-1 transmission and vaccination in the gastrointestinal and genital mucosa. By understanding the positive and negative interactions of the microbiome and its relationship to host immune function, it is expected that the proposed research will lead to the development of innovative approaches to enhance mucosal and systemic responses to HIV vaccines and in the development of new vaccine strategies. The R21 mechanism is intended to encourage exploratory and developmental research projects by providing support for the early and conceptual stages of these projects.</p>	1/7/17	<p>R21: Award Ceiling: \$275,000</p> <p>R01: Budgets not limited but need to reflect the needs of the proposed project.</p>	Unrestricted	<p>http://www.grants.gov/web/grants/view-opportunity.html?oppld=261572</p> <p>https://grants.nih.gov/grants/guide/pa-files/PAR-14-317.html</p>
21.	Multi-Site Clinical Trials for the Pulmonary Trials Cooperative (PTC) (U01)	RFA-HL-15-015	<p>This funding opportunity announcement (FOA) requests U01 applications proposing a single, pragmatic clinical trial in adults with chronic pulmonary diseases. Each successful applicant will serve as a Protocol Leadership Group (PLG) for a new type of clinical research network: the Pulmonary Trials Cooperative (PTC). The PTC is a cooperative program that includes multiple PLGs and a Network Management Core (NEMO). The PTC is designed to conduct multiple clinical trials in both inpatient and outpatient settings in adults with a variety of chronic pulmonary diseases, including but not limited to interstitial lung disease (ILD), pulmonary hypertension (PH), chronic obstructive pulmonary disease (COPD), sarcoidosis, and obstructive sleep apnea, but excluding asthma and acute lung injury and critical care. Studies, which may include both Phase 2 and Phase 3 simple, pragmatic clinical trials, will evaluate the efficacy or effectiveness of promising new or existing therapies. This FOA solicits applications for PLGs, which will have primary responsibility for developing a protocol and supporting a Lead Investigator for that protocol in the conduct and analyses of the</p>	10/20/14	Est. Total Program Funding: \$1,000,000	Unrestricted	<p>http://www.grants.gov/web/grants/view-opportunity.html?oppld=261989</p>

			related trial.				
22.	Improving Health through Rehabilitation Robotic Technology (R43/R44)	RFA-HD-15-001	The NIH encourages research on robotic technology development to enhance health, lengthen life and reduce disability. This initiative encourages development of affordable and accessible rehabilitation robotic technology that utilizes rehabilitation robots to facilitate functional independence, improve quality of life, assist with behavior therapy, provide personalized care in the clinic and/or at home and promote wellness/health in persons with disabilities across the lifespan.	11/13/14	Est. Total Program Funding: \$150,000 Phase I, \$1,000,000 Phase II	Small Businesses	http://grants.nih.gov/grants/guide/rfa-files/RFA-HD-15-001.html
23.	Approaches to Eliminate HIV and Opportunistic Pathogens from Oral Reservoirs (R01)	RFA-DE-15-003	The goal of this Funding Opportunity Announcement (FOA) is to support novel basic and translational research projects that focus on the biology of residual oral reservoirs for HIV and opportunistic oral pathogens. These studies will advance our understanding of the immunologic, pathogenic, molecular and cellular mechanisms important for eliminating latently persistent, reactivation competent HIV and other opportunistic pathogens from residual oral reservoirs. Specifically, this FOA encourages studies on: 1) purging and abolishing these pathogens after using Highly Active Anti-Retroviral Therapy (HAART) to induce cytopathic killing and immunoclearance; or 2) developing alternative strategies that directly eliminate latently infected cells in which HAART resistant HIV and opportunistic pathogens persist in oral reservoirs.	7/28/15	Est. Total Program Funding: \$3,500,000	Unrestricted	http://www.grants.gov/web/grants/view-opportunity.html?oppId=263328
24.	Consortium on Beta-cell Death and Survival (HIRN-CBDS) (UC4)	RFA-DK-14-021	Funding grant requests applications for the development of medium- to high-throughput "omics" technologies that can be used to explore human pancreatic tissues with single cell- or near single cell- resolution. Successful applicants will join the Consortium on Beta cell Death and Survival (CBDS), whose mission is to identify the mechanisms of beta cell stress and destruction central to the development of Type 1 Diabetes	3/3/15	Est. Total Program Funding: \$8,000,000 Award Ceiling:	Unrestricted	http://www.grants.gov/web/grants/view-opportunity.html?oppId=263330

			(T1D) in humans, with the long-term goal of protecting the residual beta cell mass in T1D patients as early as possible in the disease process, and preventing the progression towards autoimmunity.		\$900,000		
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