

The Division of Science and Research distributes a weekly e-mail update regarding current grant opportunities from a variety of funders, including the National Science Foundation, NASA, National Institute of Health and others. To sign up for alerts, contact [Dr. Jan Taylor](#).

GRANT OPPORTUNITIES

Division of Science and Research

Marshall University is still accepting applications for its Biomedical Sciences Ph.D. program. Accepted Biomedical Sciences PhD students for summer 2017 receive a \$25,000 annual stipend, health insurance, and a tuition waiver. To apply, click [here](#). Contact Diana Maue with questions, to learn more, and/or to arrange a visit! maue1@marshall.edu or 304-696-3365.

NSF
NIH
DOD

National Science Foundation

The [NSF-CBMS Regional Research Conferences in the Mathematical Sciences](#) are a series of five-day conferences each of which features a distinguished lecturer delivering ten lectures on a topic of important current research in one sharply focused area of the mathematical sciences. CBMS refers to the Conference Board of the Mathematical Sciences which publicizes the conferences and administers the resulting publications. Support is provided for about 30 participants at each conference. Proposals should address the unique characteristics of the NSF-CBMS conferences, outlined in the Program Description. Full Proposal Deadline Date: April 28, 2017.

The [Antarctic Artists and Writers Program](#) furnishes U.S. Antarctic Program operational support, and round-trip economy air tickets between the United States and the Southern Hemisphere, to artists and writers whose work requires them to be in the Antarctic to complete their proposed project. The Program does not provide any funding to participants, including for such items as salaries, materials, completion of the envisioned works, or any other purpose. U.S. Antarctic Program infrastructure consists of three year-round stations and numerous austral-summer research camps in Antarctica, research ships in the Southern Ocean, and surface and air transportation. These assets support the projects undertaken by the artists and writers. The main purpose of the U.S. Antarctic Program is scientific research and education. The Antarctic Artists and Writers Program supports writing and artistic projects specifically designed to increase the public's understanding and appreciation of the Antarctic and human endeavors on the southernmost continent. Priority will be given to projects that focus on interpreting and representing the scientific activities being conducted in and/or about the unique Antarctic region. Resulting projects must target audiences in the U.S. and be distributed/exhibited in the U.S. Full Proposal Deadline Date: June 1, 2017.

The long-range goal of the [Research Training Groups in the Mathematical Sciences \(RTG\)](#) program is to strengthen the nation's scientific competitiveness by increasing the number of well-prepared U.S. citizens, nationals, and permanent residents who pursue careers in the mathematical sciences. The RTG program supports efforts to improve research training by involving undergraduate students, graduate students, postdoctoral associates, and faculty members in structured research groups centered on a common research theme. Research groups supported by RTG must include vertically-integrated activities that span the entire spectrum of educational levels from undergraduates through postdoctoral associates. Full Proposal Deadline Date: June 6, 2017.

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National Institutes of Health

[Innovation Award for Mechanistic Studies to Optimize Mind and Body Interventions in NCCIH High Priority Research Topics \(R33\)](#) - Building on prior mechanistic research, the purpose of this funding opportunity announcement (FOA) is to encourage additional research to optimize the biological, neurological, physiological mechanisms or behavioral processes underlying Mind and Body Interventions. Applications submitted under

this FOA, using the R33 funding mechanism, can receive up to three years of support to: (1) optimize previously identified mechanisms or processes underlying a Mind and Body Intervention through further modifications to the interventions, (2) study the integration of approaches that may affect the same underlying mechanisms or processes, or (3) further study the relationship between the intervention and the underlying mechanism of action with a relevant target population. Applicants should also aim to provide preliminary evidence that the mechanisms or processes modulated by the intervention are associated with functional outcome or clinical benefit for specific conditions or disorders. This FOA is not appropriate for clinical trials with the primary objectives to determine efficacy or effectiveness. Companion Funding Opportunity is [PAR-17-149](#), [R61/R33 Exploratory/Developmental Phased Award](#). Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): New and revision applications are due June 1, 2017; February 1, 2018; October 1, 2018; May 31, 2019, by 5:00 PM local time of applicant organization. Resubmission applications are due on June 20, 2017; February 14, 2018; October 17, 2018; June 14, 2019.

[Oral HIV Vaccination: Strategy Synergistic to Systemic Vaccination \(R01\)](#) - This Funding Opportunity Announcement (FOA) encourages hypothesis driven basic, translational and pre-clinical science research to develop novel approaches for prophylactic oral mucosal vaccine that will be synergistic with systemic vaccination for protection against HIV infection. Letter of Intent Due Date(s): October 24, 2017. Application Due Date(s): November 24, 2017.

[Formative and Pilot Intervention Research for Prevention and Treatment of HIV/AIDS \(R34\)](#) - This Funding Opportunity Announcement (FOA) encourages formative research, intervention development, and pilot-testing of interventions. Primary scientific areas of focus include the feasibility, tolerability, acceptability and safety of novel or adapted interventions that target HIV prevention or treatment. For the purposes of this FOA, intervention is defined to include behavioral, social, or structural approaches, as well as combination biomedical and behavioral, social, or structural approaches that prevent acquisition and transmission of HIV infection, or improve clinical outcomes for persons who are HIV infected, or both. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): [Standard AIDS dates](#) apply.

[NCATS Pilot Program for Collaborative Drug Discovery Research using Bio-printed Skin Tissue \(U18\)](#) - The goal of this Funding Opportunity Announcement (FOA) is to enable the development of 3D-bioprinted tissue models for drug discovery, including efficacy studies and toxicology research through a collaborative arrangement between the 3-D Bio-printing Program at the National Center for Advancing Translational Sciences (NCATS) and extramural scientists. NCATS intramural scientists will provide expertise for 3-D bio-printing, assay development and drug screening stages of the projects. Extramural investigators will provide appropriate cell resources, disease expertise and model validation in collaboration with NCATS to perform drug screening of bio-printed materials. The research application will involve 3-D bio-printing in a screening format of patient-derived cells supplied by the extramural investigators, characterization and validation of bio-printed materials by NCATS investigators and extramural collaborators, and screening of appropriate molecular libraries. Letter of Intent Due Date(s): February 28, 2017. Application Due Date(s): April 14, 2017.

[Research To Address Sleep Disorders in the Context of Medical Rehabilitation \(R01\)](#) - Patients with many disabilities report problems sleeping, but specific sleep disorders are often not diagnosed. Because sleep affects many physiological and behavioral parameters--depression, anxiety, pain, cancer, cardiovascular changes, immune function-- sleep disorders should be diagnosed and appropriately treated to maximize benefit of rehabilitation. Research is needed on ways to best approach this complexity in the context of medical rehabilitation for a primary, non-sleep disorder. Letter of Intent Due Date(s): 30 days prior to application due date. Application Due Date(s): April 21, 2017, March 30, 2018, March 29, 2019.

[Research Education Program Grants for CryoEM Curriculum Development \(R25\)](#) - The NIH Research Education Program (R25) supports research education activities in the mission areas of the NIH. The over-arching goal of this Common Fund R25 program is to support educational activities that complement and/or enhance the training of a workforce to meet the nations biomedical, behavioral and clinical research needs. To accomplish the stated over-arching goal, this FOA will support creative educational activities with a primary focus on Curriculum or Methods Development in cryo-electron microscopy (cryoEM) for structural biology research. Letter of Intent Due Date(s): June 25, 2017. Application Due Date(s): July 25, 2017.

[Early Phase Clinical Trials in Imaging and Image-Guided Interventions \(R01\)](#) - This Funding Opportunity Announcement (FOA) is intended to support clinical trials conducting preliminary evaluation of the safety and efficacy of imaging agents, as well as an assessment of imaging systems, image processing, image-guided planning and/or execution therapy, contrast kinetic modeling, 3-D reconstruction and other quantitative tools. As many such

preliminary evaluations are early in development, this FOA will provide investigators with support for pilot (Phase I and II) cancer imaging clinical trials, including patient monitoring and laboratory studies. This FOA supports novel uses of known/standard clinical imaging agents and methods as well as the evaluation of new agents, systems, or methods. The imaging and image-guided intervention (IGI) investigations, if proven successful in these early clinical trials, can then be validated in larger studies through competitive R01 mechanisms, or through clinical trials in the Specialized Programs of Research Excellence (SPOREs), Cancer Centers and/or the NCI's National Clinical Trials Network. Letter of Intent Due Date(s): 30 days before the application due date. Application Due Date(s): June 28, 2017; October 11, 2017; February 14, 2018, June 28, 2018; October 11, 2018; February 14, 2019; June 28, 2019; October 11, 2019; February 14, 2020.

[Environmental influences on Placental Origins of Development \(ePOD\) \(R01\)](#) - The purpose of this Funding Opportunity Announcement (FOA) is to stimulate multidisciplinary research projects from the scientific community that use a combination of animal/cell models and non-invasive human placenta tissues or biomarkers to investigate how early life exposures affect placental growth, development, and function, and the subsequent health of the offspring. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): June 30, 2017.

[Pre-application for the NIH-Industry Program: Discovering New Therapeutic Uses for Existing Molecules \(X02\)](#) - The NIH-Industry Program: Discovering New Therapeutic Uses for Existing Molecules [New Therapeutic Uses (NTU)] program is designed to develop partnerships between pharmaceutical companies and the biomedical research community to advance therapeutics development. This innovative program matches researchers with a selection of pharmaceutical industry assets to test ideas for new therapeutic uses with the ultimate goal of identifying promising new treatments for patients. The program was designed to enable efficient 3-way drug repositioning partnerships between academic, government, and pharmaceutical partners. Companion Funding Opportunities are [RFA-TR-17-002, UG3/UH3 Exploratory/Developmental Phased Innovation Awards Cooperative Agreement](#) and [RFA-TR-17-003, UG3/UH3 Exploratory/Developmental Phased Innovation Awards Cooperative Agreement](#). Letter of Intent Due Date(s): March 17, 2017. Application Due Date(s): April 17, 2017.

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Department of Defense

[DoD Precision Trauma Care Research Award](#) (click on Related Documents tab) - The intent of the Precision Trauma Care Research Award (PTCRA) is to support research applying precision medicine concepts to trauma care. In order to improve the care of combat casualties, the JPC-6/CCCRCP requires capabilities to more accurately diagnose and treat injuries. In general, the field of trauma care progresses as empirical evidence accumulates. Accumulated evidence supports the reduction of unwarranted practice variability (e.g., protocol-driven care). Reduction in practice variability leads to refinement of protocols through improved diagnostic and prognostic indicators that account for patient-specific variables such as injury pattern, co-morbidities, demographics, and morphometric data. These approaches are further refined by incorporation of near-term patient-specific variables such as injury progression, response to interventions, and theranostic indicators. The result is a precision medicine approach for trauma care that drives application of interventions to improve outcomes following trauma. Pre-Application Submission Deadline: 5:00 p.m. Eastern time (ET), March 17, 2017. Invitation to Submit an Application: April 25, 2017. Application Submission Deadline: 11:59 p.m. ET, June 15, 2017.

[RadioBio](#) - All RadioBio teams must propose specific electromagnetic signaling mechanisms. Through modeling and simulation, teams must quantify these hypotheses by clearly defining the biosystems and biosystem components that affect the communications channel, the electromagnetic spatial/spectral/temporal/frequency modes that mediate the communication, and the likely sources of background/clutter/noise that degrade the communication. These models must then be used to make quantitative, parametric predictions in multiple biosystems and multiple environments, which, if experimentally verified, would definitively prove the existence of the electromagnetic signaling channel. DARPA anticipates that cross-disciplinary teams will be necessary to accomplish these goals. Proposers Day: February 21, 2017. See Section VIII.C. Abstract Due Date: March 7, 2017, 4:00 p.m. FAQ Submission Deadline: April 5, 2017, 4:00 p.m. See Section VIII.A. Full Proposal Due Date: April 12, 2017, 4:00 p.m.

[OFFensive Swarm Enabled Tactics \(OFFSET\)](#) - The goal of OFFSET is the design, development, and demonstration of a swarm system architecture – encoded in a realistic game-based environment and embodied in physical swarm autonomous platforms – to advance the innovation, interaction, and integration of novel swarm tactics. Abstract Due: 01 March 2017, 12:00 noon (Eastern). Questions Due: 13 March 2017. Proposal Due *: 3 April 2017, 12:00 noon (Eastern). * Swarm Systems Integrators only (See Sections I.B.3.a and I.B.3.b).

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