Research Funding Opportunities

Organization: Air Force Academy (AFA)  
Letter Name: Surface Modified Metal Nanoparticles for Compatibilization into Fluoropolymer Based Composites  
USAFA-BAA-2015-CALL-0006  
Due Date: October 27, 2018  
Summary: The Chemistry Research Center (CRC) is organized within the Department of Chemistry to plan, execute, and report research in the Department of Chemistry. The mission is to enhance cadet education through participation in research, provide professional development opportunities for faculty members, and support the technology base of the Air Force and Department of Defense. The CRC acquires and manages the resources needed to accomplish those missions. Those resources include: laboratories, shops and storerooms, analytical instrumentation, funds, projects amenable to cadet and faculty participation, and human resources. The CRC currently focuses on preparing functionalized polymer and hybrid polymer composites directed toward developing next-generation, high-performance materials to meet operational Air Force and broader Department of Defense (DoD) mission partner needs. Some specific projects thrusts include (1) development of high use temperature resins and composites for solid rocket motor case and insulation, (2) metastable composites for structural energetics, (3) conducting organic polymers for renewable “green” and efficient light harvesting materials, and (4) omniphobic and stimuli-responsive smart coatings for liquid rocket engine seals in collaboration with our program partners. Teamwork is an important feature of successful execution of research. A typical research project involves one or more faculty members, cadets, permanent support staff members, and temporary technical support staff members. The temporary staff members are crucial to the team, and they come in the form of National Research Council post-doctoral associates, Cooperative Research and Development Agreement (CRADA) collaborators, and R&D support contractors. The USAFA is seeking unclassified research white papers and proposals that do not contain proprietary information. If proprietary information is submitted it is the offerors’ responsibility to mark the relevant portions of the white paper/proposal as specified in USAFA-BAA-2015. Specific to this call, research in the area of developing new organofluorine methodologies using both experimental and computational means of approach towards fluoropolymer based composites will take place on site using the laboratories and analytical instrumentation located in the Department of Chemistry at the US Air Force Academy (USAFA).  
Link: https://www.usafa.edu/research/research-centers/chemistry-research-center
Organization: Department of Commerce (DOC) Letter Name: FY2019 Office of Weather and Air Quality Research Programs NOAA-OAR-OWAQ-2019-2005820 Due Date: March 20, 2019 Summary: There will be eight grant competitions from this notification valued at approximately $16,200,000 as follows: 1) High Impact Weather Testbeds, 2) Joint Technology Transfer Initiative (JTTI), 3) Air Quality Research and Forecasting, 4) Verification of the Origins of Rotation in Tornadoes Experiment - Southeast U.S. (VORTEX-SE), 5) Infrasound Detection of Tornadoes and High Impact Weather, 6) Next Generation of Mesoscale Weather Observing Platforms, 7) Snowpack and Soil Moisture Observations and Data Assimilation to Improve the National Water Model (NWM), and 8) Subseasonal to Seasonal (S2S).

These eight competitions in this notification of funding opportunity reflect multiple science objectives spanning time scales from the very short-term (hours) to seasonal and from weather and water observations and modeling to social and behavioral science. It is focused on improving NOAA’s understanding and ultimately its weather and water forecasting services through engagement with the external scientific community on key science gaps of mutual interest through funded grant opportunities.

One of the key themes is supporting applied research and development that leads to the demonstration in NOAA’s testbeds during the project period of new high impact weather, water, and air quality observing and forecasting applications, including new data or products, improved analysis techniques, better statistical or dynamic forecast models and techniques, and communication of that information to better inform the public. It is expected that NOAA’s support of these new capabilities will speed the transition of this new research into operations in order to improve NOAA weather and water services for the public. Link: https://www.grants.gov/web/grants/search-grants.html

Organization: AFRL Letter Name: AFRL/RXC Structural Materials Open BAA FA8650-18-S-5010 Due Date: September 20, 2023 Summary: Air Force Research Laboratory, Materials & Manufacturing Directorate, Structural Materials Division, AFRL/RXC, is soliciting white papers and potentially technical and cost proposals under this announcement that support the needs of its Structural Materials and Applications mission. Structural Materials technologies that range from materials and scientific discovery through technology development and transition are of interest. Descriptors of Materials and Manufacturing Directorate technology interests are presented in two contexts in the Statement of Objectives (BAA Attachment 1); that of structural materials science and engineering academic “competencies,” and that of Air Force application area needs. Link: https://www.grants.gov/web/grants/search-grants.html

Organization: Office of Science (OS)/Letter Name: Investigations and Novel Approaches in Isotope Science and Production at US Universities DE-FOA-0001982 Due Date: July 31, 2023 Summary: A primary emphasis of the USSOCOM Biomedical, Human Performance, and Canine Research Program is to identify and develop techniques, knowledge products, and materiel (medical devices, drugs, and
biologics) for early intervention in life-threatening injuries, prolonged field care (PFC), human performance optimization, and canine medicine/performance. Special Operations Forces (SOF) medical personnel place a premium on medical equipment that is small, lightweight, ruggedized, modular, multi-use, and designed for operation in extreme environments. The equipment must be easy to use, require minimum maintenance, and have low power consumption. Drugs and biologics should not require refrigeration or other special handling. All materiel and related techniques must be simple and effective, and easily modified for commercialization. Research projects may apply existing scientific and technical knowledge for which concept and/or patient care efficacy have already been demonstrated to meet SOF requirements. **Research Projects include:** Analgesia, Austere Surgical Stabilization, Medical Sensors and Devices, Occupational and Environmental Health Hazards, Optimal Acclimatization Strategy, Operational Monitoring, Wearable Devices, and Environmental Extremes.  

**Link:** [https://www.grants.gov/web/grants/search-grants.html](https://www.grants.gov/web/grants/search-grants.html)