LEWIS–BURKE ASSOCIATES LLC

Funding Opportunity: DOD Releases FY 2017 MURI BAA

Lewis-Burke Associates LLC – April 15, 2016

On April 13, the Department of Defense (DOD) released the broad agency announcement (BAA) for the fiscal year (FY) 2017 Multidisciplinary University Research Initiative (MURI) as part of the larger University Research Initiative (URI) aimed at institutions of higher education. MURI remains one of the signature DOD research programs for the university community and stands as the benchmark for building a defense-oriented research capability on campus. The funding amount of $145 million is the same as last year's award, even though the DOD's proposed basic and applied research budget for FY 2017 has decreased. This year's 23 topics from the basic research offices of the Air Force, Navy, and Army include:

Air Force Office of Scientific Research (AFOSR)

1. Foundations of Interactive Protocols for Quantum Computation and Communications
2. Bioinspired Low-Energy Information Processing
3. Autonomous Research Systems for Materials Development
4. Beam/Wave Dynamics in Geometrically Complex Systems with Emitting Boundaries
5. Atmospheric Disturbances at High Altitudes
6. Revolutionary Advances in Computational Quantum Many Body Physics
7. Melanin: Unique Biopolymers for Functional Precision Nanoscale Materials
8. Adaptive Oxides for Biomimetic Synapse Design via Modulation of Internal States

Office of Naval Research (ONR)

9. Physics, Chemistry and Mechanics of Polymer Dielectric Breakdown
10. Percept Formation and Scene Analysis in Echolocating Systems
11. Phase Change Materials for Photonics
12. Event Representation and Episodic Memory
13. Nonlinear Phenomena and Interactions Induced by Short and Ultra-Short Pulsed Lasers in the Long-Wave Infrared Regime
14. High-Fidelity Simulation Methodologies for Multi-Phase Flows
15. Novel Approaches to Modeling Factions and Conflict
16. Assuring Composability and Correctness for Intelligent and Learning Systems that Interact with Unstructured Physical Environments

Army Research Office (ARO)

17. Additive 3D Self-Assembly of Responsive Materials
18. Anyons in 2D materials and Cold Atomic Gases
19. Characterization of Information Content in Data for Multimodal Data Analysis
20. Nutritional and Environmental Effects on the Gut Microbiome and Cognition
21. Spectral Decomposition and Control of Strongly Coupled Nonlinear Interacting Systems
22. Toward Room Temperature Exciton-Polaritonics
23. Cyber Deception through Active Leverage of Adversaries' Cognition Process

The FY 2017 topics continue to reflect the research priorities of Dr. Robin Staffin, the Director for Basic Research in the Office of Assistant Secretary Defense for Research and Engineering. Priorities include quantum and materials science, with a new focus on biology and bioengineering.

DOD encourages faculty to engage with the Research Topic Chiefs assigned to each topic area (see section VIII) through the white paper process to assess the feasibility of proposed topics. Topics listed above describe the focus areas important to each Service and are not meant to restrict the possible directions awarded research could take. DOD notes that for Topic 19 above, faculty are encouraged to partner with universities from the United Kingdom in an effort to expand DOD's capabilities in these fields.

Letters of Intent: Not required. Prospective awardees are encouraged to submit white papers to minimize the labor and cost associated with the production of detailed full proposals.

Time Line for Submission:

- Questions regarding white papers are due on **Monday, July 18** at 11:59 PM Eastern
- White papers are due on **Monday, August 1** at 11:59 PM Eastern
- DOD will send notification of initial DOD evaluations of white papers on **August 22**.
- Questions regarding full proposals are due **Tuesday, October 25** at 11:59 PM Eastern
- Full proposals are due **Tuesday, November 15** at 11:59 PM Eastern
- Notification of selection for award will be made **on April 5, 2017**
- Grants will start on **June 1, 2017**

Total Funding and Award Size: DOD expects $145 million to be made available, pending congressional appropriations. Individual awards are expected to be $1.25 to $1.5 million per year for up to five years.

Eligibility and Limitations: The competition is open to U.S. institutions of higher education, including DOD institutions of higher education, with degree-granting programs in science, mathematics, or engineering. While industry, DOD laboratories, and foreign universities may not receive funding, DOD encourages universities to collaborate with entities focused on applied and transitional research for potential commercial applications of MURI-funded research.

Sources and Additional Background:

- The full solicitation can be found on grants.gov by searching for "N00014-16-R-FO05."
- Information on the solicitation can be found at http://www.grants.gov/web/grants/view-opportunity.html?oppId=282951.
- A full list of past winners can be found at http://www.acq.osd.mil/rd/basic_research/program_info/muri_partners/list.html.