

**Department of Homeland Security (DHS) Science and Technology Directorate (S&T)
Chemical and Biological Defense Division (CBD) OBAA 14-003/Call 0011**

1. **Announcement Number:** Open Broad Agency Announcement Number (OBAA) 14-003/Call 0011
2. **FBO Solicitation Number:** HSHQDC-14-R-B0009
3. **Call 11 Event Dates/Time (Local Eastern Time):**
 - Notification to Submit Full Proposals – February 24, 2016
 - Full Proposal Due Date – March 18, 2016
 - Notification of Selection/Non Selection of Full Proposals – April 26, 2016

There will be no exceptions to the time and date on which responses are due, unless determined otherwise by the Government. Full Proposals received after the designated closing date/time will not be considered.

Note: This Call will be conducted in accordance with the Single-Phased Evaluation Process as described under Section 1.6 of the OBAA. The OBAA 14-003/Solicitation HSHQDC-14-R-B0009 was posted on Federal Business Opportunities on June 16, 2014. See Link.

<https://www.fbo.gov/index?s=opportunity&mode=form&id=3935288433485a6ee877134ac7d2a8a9&tab=core>

This Call will consist of the consist of the solicitation, receipt, and evaluation of a Full Proposal, limited to 30 pages, excluding the Formal Transmittal Letter, Cover Page, Summary of Costs and Related Information, Table of Contents and resumes/biographical information for proposed performers. Once the Full Proposal review process has been completed, offerors will be notified via e-mail, or in writing, that its proposal has been selected, selected but not funded, or not selected for award.

4. OBAA Call Technical Topic Area (TTA) of Interest:

CBD.04 – System Studies: Research to conduct studies and analysis to identify gaps in technology and operational concepts and to support formulation of requirements for chemical and biological countermeasure development. Current specific areas of interests are transit system defensive architectures and surveillance architectures to detect and/or characterize a biological attack.

CBD.06 – CBRN Risk Analysis and the Biological Threat Characterization Program (BTCP): Research and development of next generation and novel methodological approaches to terrorism risk analysis, intentional attack analysis, scenario modeling and simulation to understand the impact of a biological attack on the country. Biological threat information requirements are identified and prioritized from internal DHS sources and other Federal Government partners. The BTCP includes experiments to characterize agents and their properties at the National Biodefense Analysis and Countermeasures Center (NBACC).

4.1. Research Opportunity Description

4.1.1. DHS S&T: Development of an Architecture for Defense against Malignant Synthetic Biothreat Agents

Background

Full proposals shall be accepted, no white papers are necessary.

4.1.2. Description Technical Topic Areas

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DHS S&T is committed to staying abreast of technological and scientific developments that may adversely impact the population, homeland and interests of the United States. Recent developments in the field of synthetic biology (the purposeful design and construction of new biological parts, devices and systems), have changed the biodefense landscape drastically. Aside from its potential to change industries and lives usefully, synthetic biology has vastly accelerated the capability to design, develop and produce biological organisms and/or threat agents that may harm United States' interests, individuals, and industries. To be prepared for such a possibility, decision-makers must incorporate into their thinking the threats and risks that may stem from these developments.

Consequently, DHS S&T/Chemical-Biological Defense Division solicits the development of an architecture to help it anticipate and defend against malignant biothreat agents of synthetic origin. This architecture should be based on sound scientific and technical principals, with component parts that complement and support each other and provide for a complete defensive posture. Responses should assess the potential feasibility and timelines for the development of synthetic biothreat agents, as well as the consequences of the use of such agents. Responses should also address gaps in the nation's ability to detect, protect against, respond to, and recover from attacks with these agents.

Over the past several years, DHS S&T's Chemical Biological Defense Division has undertaken the development of architectures to become aware of, and defend against, enhanced and advanced threat agents. These previous architectures have been organized around the categories outlined in the 2004 strategy for biodefense, *Biodefense for the 21st Century* (Homeland Security Presidential Directive 10): Threat Awareness, Prevention and Protection, Surveillance and Detection and Response and Recovery. The proposed synthetic agent threat architecture should conform to these organizational principles for biodefense, but not necessarily be limited to them. As a result, DHS S&T encourages performers' originality and discretion in understanding and exploiting the multiple dimensions of the threats and opportunities available in the genomic age. Architectures should address systems concepts such as found in systems engineering and systems biology and consider how they can improve the overall architecture.

Specific elements of the task areas to be included in the full proposal shall be:

- Development of a systematic, coherent architecture through which the government can become aware of, understand the nature of, and respond to attacks or releases using synthetic agents.
- Discuss the multifaceted impact(s) of attacks using synthetic means, gauging the importance to all aspects of society the proposer deems relevant.

The final deliverable will be a report detailing the results of the investigation into the threat from synthetically produced agents. Deliverables should be unclassified to the fullest extent possible but may contain classified portions that can be removed or redacted. Teaming is possible but not required.

5. Number of Selections: DHS S&T expects to make one award using its FY 2016 funds.

6. Anticipated Ceiling: Although subject to official fiscal appropriation and availability, it is anticipated that approximately \$200,000 of Fiscal Year (FY) 2016 funds will be available for any resultant awards under this OBAA Call. **The Government will reserve the right to incrementally fund any resultant contracts awarded from this OBAA Call as provided by the FAR 52.232-22, "Limitation of Funds."** Contracts or other agreements that obligate funds will not have an initial period of performance that exceeds 18 months from the date of contract award. However, Offerors will be able to propose a base effort with additional option years.

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- 7. Anticipated Award Type:** Award type is anticipated to be in the form of a firm fixed price type contracts however the Government reserves the right to award cost reimbursement contracts, cooperative agreements, Other Transactions (OTs) (if authorized by law at time of award), or interagency agreements to appropriate parties should the situation warrant.

In the event an offeror or subcontractor is a Federally Funded Research and Development Center (FFRDC), Department of Energy National Laboratory, or other Federally funded entity, DHS/S&T will work with the appropriate sponsoring agency to issue an interagency agreement pursuant to the Economy Act (31 U.S.C. 1535) or other appropriate authority.

- 8. Anticipated Award Dates:** The 3rd Quarter of Fiscal Year 2016 is when the government anticipates making any resultant contract awards under this Call for those Proposals are selected. However, the award date for any resultant contract award may vary based on the quality of the proposals received and the availability of funds.

- 9. White Paper Instructions:** NA – No white papers are being requested in response to this Call.

- 10. Full Proposal Instructions:** Offerors shall submit their Full Proposals in accordance with OBAA 14-003, Section 5.4 - Format and Content of Full Proposals. See FBO link above for access to OBAA 14-003/Solicitation Number HSHQDC-14-R-B0009.

- 11. Evaluation Criteria:** Full Proposals will be evaluated in accordance with the following evaluation criteria:

Criterion I: Scientific Merit: The Offeror must demonstrate understanding of the critical technological, scientific and system elements of the architecture described in Section 4.1.2 of the Call 11 Announcement. The proposal shall demonstrate an awareness of the state-of-the-art, and should be well prepared with supportive, self-explanatory information. Specific requirements:

1. Demonstrate understanding of scientific details of synthetic agents and processes, and of recent applicable laboratory developments.
2. Demonstrate understanding of scientific and technical architectures, with component parts that complement and support each other and provide for a complete defensive posture.
3. Demonstrate understanding of systems perspectives, such as systems engineering and systems biology, and their relationship(s) to threats from synthetic agents.

Criterion II: Sound Management Approach: Presentation of a sound managerial approach to the proposed work, including a demonstrated understanding of the issues and challenges associated with achieving the goals of the topic, and a strategy to address those issues and challenges. A successful team will possess multidisciplinary expertise to address the complexity of the effort.

Criterion III: Capability to Perform and History of Performance: Demonstration of a capability to perform the proposed work, including history of previous performance in developing related solutions and technologies. Specific considerations will include:

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- Offeror must possess clear and convincing qualifications and must have a proven record of experience delivering multi-faceted assessments of the threat and/or risk from biological, chemical, and/or biopharmaceutical agents. Bibliographic information from previously published assessments should be provided; publications may be on open literature or assessments done for Government clients.

- Offeror's team is sufficiently complete: key personnel are identified with the required range of competencies to execute this effort and the team includes appropriate experience and publication record.

Criterion IV: Cost Realism/Reasonableness: Presentation of accurate, well-founded and reasonable estimates of all costs related to performance of the proposed effort, including an appropriate allocation of labor resources. Members of the Review panel will be looking for overall best value to the government.

12. Foreign Concerns: Foreign persons are advised that their participation may be subject to Export Control restrictions in accordance with OBAA 14-003 Section 8.3. Any such restrictions shall be reviewed on an individual award basis.

13. iDURC Requirements: When applicable, the performer and any proposed sub-performer(s) working under any award resulting from this BAA Call shall conduct all research involving agents and toxins identified in sections III.1 and 6.2.1 of the USG Policy for Oversight of Dual Use Research of Concern and USG Policy for the Institutional Oversight of Dual Use Research of Concern, respectively, in accordance with both policies referenced above and in accordance with any additional requirements set forth in related DHS policies and instructions. Each performer and any sub-performer(s) planning to perform research involving agents and toxins identified in sections III.1 and 6.2.1 of the USG DURC policies under this award must attest at the time of seeking funding that they are in compliance with all aspects of the Policies.

14. Questions: Any questions concerning this call must be submitted via email to the Contracting Officer at Michael.Jones@hq.dhs.gov no later than **March 4, 2016 3:00 PM EST** in the following format:

Question #	Reference	Contractors' Question
1	General (if there is no specific document reference)	
2	(Example) OBAA 14-003, page 15, Section 5.2, first paragraph, second sentence	
3	(Example) OBAA 14-003/Call 0011, page 2, Section 9, first sentence	

Please include "Questions for OBAA 14-003/ Call 0011" in the subject line. All questions and responses will be posted on the Federal Business Opportunities website <http://www.fbo.gov> and <https://baa2.st.dhs.gov>. Questions will only be accepted or answered electronically.