1. **Announcement Number:** Open Broad Agency Announcement Number (OBAA) 14-003/Call 0008

2. **FBO Solicitation Number:** HSHQDC-14-R-B0009

3. **Solicitation Event Dates/Time (Local Eastern Time):**

- White Paper Opening Date – March 11, 2015
- White Paper Closing Date – April 10, 2015 3:00 PM
- Notification of Selection/Non Selection of White Papers– May 6, 2015
- Notification to Submit Full Proposals–May 6, 2015
- Full Proposal Due Date– June 5, 2015
- Notification of Selection/Non Selection of Full Proposals– July 10, 2015

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

Note: This Call will be conducted in accordance with the Two-Phased Evaluation Process as described under Section 1.6 of the OBAA. The OBAA Solicitation HSHQDC-14-R-B00009 was posted on Federal Business Opportunities on June 16, 2014. See
Link https://www.fbo.gov/index?mode=form&id=59fb4fd55df126478cb38df3945696f2&tab=ntype

This Call will consist of the solicitation, receipt, and evaluation of both White Papers and Full Proposals. Under this evaluation, Phase 1 will consist of the solicitation, receipt, and evaluation of the White Papers (using standardized DHS Chemical Biological Defense Division "Project Proposal Form" format) from potential performers. Entries in the various sections of the Project Proposal Forms (White Papers) should be concise and conform to the specified formatting and word count limitations. No formal transmittal letter is required for the Phase 1 responses. Once the white paper peer/scientific review process has been completed, offerors will be notified via e-mail, or in writing, whether as a result of its white paper submission, the offeror is "encouraged" or "not encouraged" to submit full proposals.

A down-selection process will then be conducted by DHS and those Phase 1 White Paper Proposal Form (OBAA Attachment A) proposals encouraged to submit full proposals will be invited to participate in Phase 2, which will 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 peer/scientific 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.01 – Diagnostics and Agent Characterization: Develop rapid, robust, and affordable diagnostic tools to support detection, response, recovery, and real-time bio-surveillance and situational awareness. Efforts include biological assays, sample preparation, and agent characterization of chemical and biological materials.

4.1. Research Opportunity Description

4.1.1. DHS S&T: RFID Sample Repository and Inventory Database Project

Background

The Homeland Security Act of 2002 (Public Law 107-296) states that Department of Homeland Security (DHS) Science and Technology Directorate (S&T) will "support basic and applied homeland security research to promote revolutionary changes in technologies; advance the development, testing and evaluation, and deployment of critical homeland security technologies; and accelerate the prototyping and deployment of technologies that would address homeland security vulnerabilities."

Pursuant to this mission the Chemical and Biological Defense Division (CBD) seeks technologies to increase the Nation's preparedness against chemical, biological and agricultural threats. The focus of this BAA is to "*Ensure biological Select Agents and toxins have appropriate security and personnel assurance practices to protect against theft, misuse or diversion of materials from unlawful activity*" per Executive Order 13486: *Strengthening Laboratory Bio-Security in the United States*.

The overall goal of this BAA is to develop, integrate and implement a standardized Radio Frequency Identification (RFID)-capable, user-friendly, inventory tracking system that ensures the safety of Select Agents from inappropriate access to biological agents of concern within select public health laboratory facilities nationwide.

Following the anthrax attacks of 2001, Congress significantly strengthened oversight and security of Select Agents through the following legislation:

1. *USA PATRIOT Act* (*Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001; Public Law 107-86*). This Act emphasized restrictions to Select Agents.

2. *Bioterrorism Act of 2002* (*Public Health Security and Bioterrorism Preparedness and Response Act, Public Health Law 107-188*); This Act increased safeguards and security measures as well as oversight for the possession and use of Select Agents.

3. On July 2, 2010, President Obama issued the following Executive Order: *Optimizing the Security of Biological Agents and Toxins in the United States*. This Executive Order was established to help the U.S. create a balance between increasing the Nation's defenses against the threat of biological weapons and reducing the hurdles that legitimate scientists face as they pursue research on potentially dangerous microbes.

Further changes in Select Agent regulations in 2012 strengthened the governments' requirements to work with Select Agents, especially those thought to pose the greatest threat to the U.S., specifically Select Agent Tier 1 agents.

There is estimated to be 384 registered entities in the Federal Select Agent program with nearly 11,000 individuals registered to participate in the program. The majority of registered entities are with Health and Human Services (HHS) / Center for Disease Control and Prevention (CDC) (320 entities) and United States Department of Agriculture (USDA)/ Animal and Plant Health Inspection Service (APHIS) (53 entities). Entities that are regulated with the Select Agent program include: Government (Federal) 16%; Government (Non-Federal) 34%, Academic (29%), Commercial (15%) and Private (6%) laboratories.

Many Select Agent laboratories are unable to afford the costs of RFID readers, databases, RFID tags as well as personnel costs for maintaining Select Agent security requirements and metrics. These laboratories would benefit from having RFID sample and inventory control systems in place to more efficiently track to protect against theft, misuse or diversion of Select Agents from unlawful activity.

4.1.2. Description Technical Topic Areas

The goal of this BAA is to ensure the safe and secure possession, use, and transfer of Select Agents and toxins (especially Tier 1 biological agent samples) that may pose a threat to public health and to the U.S. economy. To accomplish this objective, a standardized, secure, RFID tag-capable inventory tracking system for biological materials will be established for use within key State and Local public health laboratories. The intent is to evaluate laboratory tracking database systems that can be appropriately modified to meet government requirements in a more accurate, more-timely, more cost-effective, and more user-friendly way.

Requirements:

- Establish an automated RFID sample, inventory, and storage management system that is easy to use and simple to enter, locate, report on, and manipulate biological laboratory samples.
- The solution will not require costly investments in capital equipment, servers, database systems or new operating systems. The system will evaluate the use of existing desktop systems, along with use of provided RFID readers, tags and databases.
- The system must be user-friendly, allowing the user to easily check samples in and out and create a Chain of Custody for samples.
- Reports should easily be produced in a variety of formats with the ability to sort and select various characteristics of the samples.
- Facility security to ensure appropriate access rights of critical staff to select laboratory sample storage areas will be evaluated, as well as keeping those without appropriate credentials from accessing secure laboratory areas.
- System must track the maintenance, security, and transfer of Select Agents within their laboratories using easy to understand guidance.
- Databases must be user-customizable, easily backed up, and accessible.
- Relational database must be searchable for Select Agent data as well as create reports for regulatory compliance to meet the operational needs of the program.
- Databases must be accessible remotely via a secure, reliable and cost-effective, virtual private network (VPN).

Schedule and Phases:

Phase I: Conduct a survey of State and Local public health laboratories regarding their ability to meet Select Agent regulations using their existing laboratory sample tracking and inventory systems. **(20 days after contract award)**

Phase II: Facilitate "*Requirements Development*" meetings with SMEs from at least 3 three laboratory facilities to gather a better understanding of their current and/or desired capabilities for implementing a robust RFID laboratory sample tracking system that can be used for Select Agents and other samples as desired**.** This may include evaluating systems or processes already in place, or that are desired to put into place. **(30 days after contract award)**

Phase III: With the requirements collected from laboratory personnel, evaluate the RFID capabilities of up to four (4) laboratory sample inventory tracking systems. These systems must meet critical tracking and inventory control measures for Select Agents. **(60 days after contract award)**

Phase IV: After system architecture down-selection and Go/No Go decisions of specific RFID input/output devices and inventory tracking database architectures, testing will be conducted on each of the four (4) proposed inventory systems prior to implementation with three (3) DHS S&T Subject Matter Expert (SME) laboratories to allow DHS S&T to monitor the status of the desired inventory tracking systems in a cost effective manner. A cost/benefit analysis will be provided as part of the task completion report. **(90 days after contract award)**

Phase V: The Final selected technology/ solution(s) will be piloted within three partner/SME laboratory facilities that will allow DHS S&T remote access to inventory data. This will include a diversity of laboratories based upon the size of laboratory and level of expertise with RFID systems. **(120 days after contract award)**

Phase VI: Outcomes and accomplishments of the Pilot Laboratory RFID testing in three (3) laboratory facilities will be summarized in a final report with specific recommendations regarding RFID Inventory Tracking, Inventory and Security systems that are suitable for additional public health laboratory and Agency level implementation. A final report of the Cost estimates for full system implementation will be part of the task completion report. **(140 days after contract award)**

Deliverables:

1) A Report will be developed with information or survey data secured from external parties (such as the Association of Public Health Laboratories) or other appropriate organizations/agencies regarding abilities of public health laboratories to meet Select Agent regulations specific to RFID inventory management, controls and security. (30 days after contract award)
2) A Report will be developed that describes the desired capabilities and requirements of public health laboratory personnel in at least three (3) jurisdictions for implementing a robust laboratory sample tracking, inventory and security system. (45 days after contract award**)**
3) A Report of Findings will be developed that summarizes test and evaluation plans for up to four (4) down-selected inventory systems based upon desired laboratory metrics. (60 days after contract award).
4) Finalize Test plans of the multiple systems (90 days after contract award) (Test Plan Report)
5) Pilot site Testing:
    - Determine the most appropriate pilot site locations to conduct testing with on-site personnel that currently do not have inventory management, controls and security for Select Agent sample management.
    - Train pilot site personnel (100 days after contract award.) Develop a Personnel Training Plan for Laboratory staff.
    - Prepare, label, and ship materials to three pilot sites (100 days after contract award).
6) Mitigate any problems revealed in stability test run procedures (Observe pre-test Quality Assurance/Quality Control (QA/QC) qualification runs and provide recommended procedural changes as appropriate. (120 days after contract award).
7) Mitigate any issues revealed in pilot installations. (140 days after contract award and complete 12 months after contract award).
8) Prepare monthly reports (Submit every 30 days)
9) Provide RFID sample and inventory management systems to up to 25 public health laboratories nationwide to meet Select Agent tracking and inventory needs, at cost.

10) Prepare final report (12 months after contract award).

To the exclusion of exceptions negotiated at time of award, deliverables associated with this program may be released to outside organizations, both U.S. government and nongovernment, in support of S&T efforts. The bidder may recommend a preferred format for each deliverable, but the government will determine the final format. For each phase, monthly status reports are due within one week after the last day of each month; quarterly reports are due one week before the quarterly reviews; and phase deliverables are due within two weeks of the conclusion of each phase.

5. **Number of Selections:** It is anticipated that 1 (one) selection will be made depending on the quality of the White Papers and availability of funds.

6. **Anticipated Ceiling:** Although subject to official fiscal appropriation and availability, it is anticipated that approximately $524,000 of Fiscal Year (FY) 2015 funds will be available for any resultant awards under this BAA Call. **The Government will reserve the right to incrementally fund any resultant contracts awarded from this BAA 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 12 months from the date of contract award. However, Offerors will be able to propose a base year effort with additional option years. Proposals that build on current or previous work are encouraged. If Offerors are extending work performed under other projects, it must clearly identify the point of departure and what existing work will be brought forward and what new effort will be performed under this BAA

7. **Anticipated Award Type:** Award type is anticipated to be in the form of Cost Reimbursement type contracts However the Government reserves the right to award firm-fixed price 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 (DOE) 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 2015 is when the government anticipates making any resultant contract awards under this Call for those White Papers that 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:** Offerors shall submit their White Papers in accordance with BAA 14-003, Section 5.3 - Format and Content of White Paper (Attachment A White Paper Proposal Form).

10. **Full Proposal Instructions:** Offerors shall submit their Full Proposals in accordance with BAA 14-003, Section 5.4 - Format and Content of Full Proposals.

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

    Criterion I: Utility to DHS: Potential of the proposed work for providing technology or solutions that address one or more of the four Technical Topic Areas set forth in Section 1.8.3 of the BAA. Utility to

DHS will also be assessed on the criteria used to conduct programmatic analysis reviews of the entire S&T portfolio.

- Impact on client mission (High Impact Potential & High Technical Feasibility)
  - Will the deliverable(s) make a positive impact on tracking and inventory of select agents?
  - Will the deliverable significantly improve existing capabilities?
- Transitioning of relevant products to the field (High Relevance & High Transition Likelihood)
  - Is the customer community waiting to implement the deliverable?
  - Will the deliverable(s) be easily transitioned to the laboratories who maintain select agents
- Technical investment positioning the organization for the future (High Research Leadership & Low Technical Maturity)
  - Is the research positioning the organization and its customers for the future?
- Clarity of purpose (High Clarity of Customer Need & High Project Clarity
  - Is the project clear on what it is trying to achieve?
- Appropriate level of customer involvement (High level of customer involvement through whole project lifecycle.
  - Is the project lined up with well understood customer requirements?
- Sufficient innovation to approach the challenges (High Degree of Innovation & Significant Novel Thinking)
  - Is the project using a new approach or leveraging best practices from projects in other domains?

Criterion II: Sound Technical Approach: Presentation of a sound technical approach to the proposed work that demonstrates reasonableness and responsiveness, as well as, an understanding of the challenges presented by one or more of the Technical Topic Areas. Illustration of a unique and clear path to address the challenge(s), as well as knowledge, understanding and integration of the legal aspects associated with the admissibility of scientific evidence on the basis of relevance and reliability (Daubert Challenges and the Federal Rules of Evidence).

Criterion III: 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 IV: 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. Proposals that utilize industry-academic partnering or utilize industry-Government partnering which enhances the development of novel S&T advances will be given favorable consideration.

Criterion V: 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. The cost of procurement of final products will also be considered. Members of the Evaluation 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. Any such restrictions shall be reviewed on an individual award basis.

13. **Questions**: Any questions concerning this call must be submitted via email to the Contract Specialist at Aaryn.Jefferson@hq.dhs.gov and copy the Contracting Officer at Michael. Jones@hq.dhs.gov no later than **March 25, 2015 3:00 PM EST** in the following format**:**

Question #	Reference	Contractors' Question
1	General (if there is no specific document reference)	
2	(Example) BAA 14-003, page 15, Section 5.2, first paragraph, second sentence	
3	(Example) BAA 14-003/Call 0008, page 2, Section 9, first sentence	

Please include "Questions for BAA 14-003/ Call 0008" 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.