## DHS Science & Technology Directorate

## Sources Sought / Request for Information

## Scientific Capabilities for Food, Agriculture and Veterinary Defense (FAV-D)

## 1.0 General Information

### 1.1 Subject

This is a Sources Sought / Request for Information (RFI) by the Department of Homeland Security (DHS) Science & Technology Directorate (S&T) regarding capabilities for Scientific Support (laboratory and vivarium physical, IT infrastructure, and subject matter expertise) for the S&T Food, Agriculture and Veterinary Defense (FAV-D) Program.

### 1.2 Introduction

The DHS S&T Office of National Laboratories (ONL) is conducting market research to determine if there are organizations capable of providing a range of scientific support capabilities, including both physical infrastructure and intellectual capital, to enable the DHS mission in the FAV-D domain.

The DHS S&T ONL is conducting market research to determine if there are organizations capable of providing expertise and laboratory capabilities in Research, Development, Test, and Evaluation (RDT&E) of technologies, techniques, and countermeasure prototypes and products against current or emerging transboundary animal diseases, zoonoses, high consequence plant/crop diseases, agricultural pests, or technologies which may harm the US agriculture industry. The Plum Island Animal Disease Center (PIADC), DHS' primary resource for executing RDT&E on transboundary animal diseases, will cease operations and much of the foundational and transitional transboundary animal disease RDT&E performed there will be transitioned to the National Bio and Agro-Defense Facility, to be owned and operated by the U.S. Department of Agriculture (USDA).

S&T, however, will retain a unique RDT&E mission in FAV-D, and is therefore issuing this Request for Information (RFI) to identify laboratory partners or other performers with capabilities to support the DHS S&T mission within this domain, beginning as soon as Calendar Year 2023.

This RFI is issued solely for market research, information, and planning purposes; it does not constitute a Request for Proposal (RFP) or any commitment or intent to issue an RFP, Broad Agency Announcement (BAA) or Long Range BAA. The RFI does not commit the DHS to contract for any supplies or services. DHS is not seeking proposals at this time. Responders are advised that the DHS will not pay any costs incurred in response to this RFI. All costs associated with responding to the RFI will be solely at the interested party's expense. Not responding to this RFI does not preclude participation in any future RFP or BAA.

The information provided in this RFI is subject to change and is not binding on DHS. All submissions become the property of DHS and will not be returned.

### 1.3 Agency Name

Department of Homeland Security (DHS)
Science and Technology (S&T) Directorate
45 Murray Lane, SW
Washington, DC 20528-0206

### 1.4 Program Information

Sources Sought/RFI Number: **70RSAT22RFI000014**
Program Name: Scientific Support (laboratory and vivarium physical, IT infrastructure, and subject matter expertise) for the S&T Food, Agriculture and Veterinary Defense (FAV-D) Program.

Managing Program Office: DHS S&T Office of National Laboratories

Likely NAICS: 541714 *Research and Development in the Physical, Engineering, and Life Sciences (except Nanobiotechnology)*

## 2.0 Background

The Department of Homeland Security (DHS) Science and Technology Directorate (S&T) has the mission to conduct research, development, test and evaluation (RDT&E) and facilitate the timely transition of capabilities to the DHS Enterprise, which includes operational units within DHS as well as federal, state, and local first responders, and critical infrastructure sector operational end-users.

DHS S&T has an enduring mission within the food and agriculture domain, "…to provide forward looking RDT&E solutions to close requirement gaps across the entire Food and Agriculture Defense continuum, with an emphasis on farm to fork," as articulated within the *DHS Food, Agriculture & Veterinary Defense Research, Development, Testing and Evaluation Strategic Plan* (March 2021). This mission, focused on defending the U.S. Food and Agriculture critical infrastructure sector from high consequence or catastrophic events (e.g., incursions of transboundary animal diseases, agro-terrorism, etc.), is derived from multiple sources, including Presidential Directives/Memoranda (HSPD-9, PPD-21) and other consensus sources (e.g., 6USC101 [HSA], 6USC311 [SAFA], National Response Framework, National Biodefense Strategy).

DHS S&T executes this mission through the S&T Food, Agriculture, Veterinary Defense (FAV-D) program area. S&T FAV-D involves cooperation among internal S&T offices performing RDT&E, including the Probabilistic Analysis for National Threats Hazards and Risks program, and the Office of Mission and Capability Support FAV-D program. These programs fill actionable knowledge gaps relative to prioritized FAV-D threats to homeland security, issue risk assessments for stakeholders, and fund RDT&E countermeasure development to protect the homeland against threats to the Food and Agriculture critical infrastructure sector. End user groups for knowledge products or technologies resulting from these programs include DHS Office of Health Security, Countering Weapons of Mass Destruction Directorate, Customs and Border Protection, Cybersecurity and Infrastructure Security Agency, the Federal Emergency Management Agency, interagency partners including USDA, and/or other external collaborators.

Since 2005, DHS S&T has operated an RDT&E program at PIADC to address high-consequence, non-zoonotic pathogens of economic importance to the U.S. livestock industry (e.g., Foot-and-Mouth Disease virus, African Swine Fever virus, and Classical Swine Fever virus). Following cessation of these RDT&E countermeasure activities DHS S&T will continue to prioritize RDT&E involving high consequence transboundary animal disease pathogens, given their status as prioritized threats/hazards with the potential to cause catastrophic effects on the U.S. food and agricultural infrastructure.

In addition, S&T will broaden the scope of the FAV-D portfolio to include RDT&E expertise and capabilities that focus on plant/crop defense, especially for those threats that impact the security and supply of food and feed crops. Effective countermeasures are critical to defend against pathogens, pests, and toxins that pose significant risks to major grain, legume, and other crops, and impact human and animal health through the food supply chain.

DHS is specifically interested in capabilities to expand the breadth and depth of the FAV-D program to include additional World Organisation for Animal Health (WOAH; formerly OIE) recognized and emerging transboundary animal diseases, zoonotic pathogens (with a specific focus on zoonoses of high consequence to animal health), and plant pathogens, pests, or toxins that may have catastrophic impact within the FAV-D domain.

DHS S&T is exploring options for performers with specific capabilities described in Section 3.0 to execute RDT&E involving high-consequence transboundary animal diseases, and/or plant diseases, pathogens and pests, as recognized by the WOAH and Food and Agriculture Organization of the United Nations (UNFAO).

DHS requests that parties interested in partnering or acting as a future S&T FAV-D performer, provide a description of their organization, expertise, and capabilities. DHS anticipates utilizing partners and performers as soon as Calendar Year 2023.

## 3.0 Request for Information

The information submitted in support of this RFI must be submitted via email to ST_FAVD@hq.dhs.gov (ST[underscore]FAVD). Emailed submissions must include the Sources Sought/RFI Number in the subject line of the email and be in either MS Word or PDF format. Responses must have a cover letter that includes the following information:
- Organization Name
- Organization Address
- DUNS Number (Unique Entity ID)
- Organization Size and Socio-Economic Status information (under NAICS code 541714)
- Technical Point of Contact(s) (Name, title, email, and phone number)
- Contracting Point of Contact(s) (Name, title, email, and phone number)
- List of all DHS indefinite delivery vehicles and GSA MAS contracts your company is an awardee under NAICS code 541714
- Identify if your company can perform the full "scope" of each area/topic in the two sections described below, or would you subcontract, team, or require some other partnership arrangement.

The following sections provide a recommended outline for a response to this RFI. This outline is intended to minimize the effort of the respondent and structure the responses for ease of analysis by the Government.

**Section 1 – Program Details and Input (no longer than 15 pages)**

Interested parties should briefly describe any capabilities relevant to the following potential programmatic areas/topics:

- Program areas involving current, new, emerging, or transboundary animal and zoonotic diseases, plant diseases, pathogens, or pests.
- Expertise, experience, and capabilities to perform studies involving existing, new or emerging high consequence food, agriculture, veterinary pathogens (may include in silico studies) of livestock or poultry, or plant pests, pathogens and toxins.
- Major programmatic and/or organizational accomplishments in contributing to the advancement of food, animal, and/or veterinary defense, and the impact(s) of those accomplishments, including transfer of technology to industry.
- Provide reference to relevant, peer-reviewed, published research in current or emerging transboundary animal diseases, zoonoses, plant/crop diseases, agricultural pests, or technologies which may harm the U.S. agriculture industry.
- Any special relationships/partnerships with other performers that may augment your ability to support DHS S&T.
- Capabilities to support threat-driven analyses. Specifically, this should include mechanisms to support:
  - Pathogen or pest characterization, e.g., natural history, virulence, transmissibility, dissemination, etc.
  - Pathogen stability, e.g., agent fate, survival on various matrices, impacts of environmental variations (temperature, heat, light exposure, etc.)
  - Disinfection and decontamination
- Capabilities to support and/or conduct biological countermeasure RDT&E involving:
  - Vaccines
  - Diagnostics and detection technologies, for plants and/or animal pathogens
  - Decontamination and disinfection
  - Disposal of diseased or pest-ridden agricultural materials (animal or plant)
- Capabilities to support and/or conduct technology transfer involving:
  - Industry partnerships
  - Translational approaches
  - Abilities to enable regulatory licensing studies for agricultural countermeasures
- Any other capabilities or planned capabilities for RDT&E involving current, new, emerging, or transboundary animal and zoonotic diseases, plant pathogens or pests that were not captured in the bullets above but would be pertinent for DHS S&T to consider.
- Please identify and provide a rationale for infectious diseases, pathogens, pests, or other areas for investment that your organization considers as priorities for DHS S&T to address as part of its FAV-D program portfolio.

**Section 2 – Infrastructure (no longer than 15 pages)**

Interested parties should briefly describe any capabilities relevant to the following potential programmatic areas/topics:

- Available physical infrastructure to support DHS FAV-D programs. This may include, but is not limited to the following:
    - Biocontainment spaces for:
        - laboratory activities
        - small and large animal housing (please specify species types and capacities)
        - plant activities
    - Any ancillary capabilities available to augment program execution
        - core services
        - bioproduction/manufacturing facilities
        - specialized capabilities, e.g., imaging, telemetry, animal disease models, next generation sequencing, omics, aerobiology, feed and food processing, etc.
- Personnel and expertise that could assist with execution of DHS FAV-D studies, to include disciplines represented and level of availability. For example, DHS S&T is potentially interested in an interdisciplinary team approach to include veterinarians, engineers, chemists, data scientists, social and behavioral scientists, molecular biologists, virologists, vaccinologists, biochemists, bio computational scientists, etc.
- Systems for Pathogen Handling
    - Please provide your capabilities for acquiring, storing, using, and disposing of agricultural pathogens
    - Please list the Select Agents (transboundary animal diseases, high-consequence agricultural) for which your organization maintains regulatory approval for use.
- Security/Information Handling
    - Does your organization possess a facility security clearance?
    - Does your organization or individuals have the ability to handle classified or restricted government information? If so, please describe.
    - Is your organization able to restrict access (physical, information) to US citizens only?

**4.0 Vendor Submission of Responses and Contact Information**

Please follow the following response format:
- S&T requests a written response to address any or all of the questions above. Responses should not exceed thirty (30) pages, plus the cover page(s). The written response shall be in either read-only Word or PDF format.
- Respondents should also include contact information should S&T have questions or want to hold further discussion.

- Written responses shall be submitted no later than **4pm ET on September 9<sup>th</sup>, 2022** to ST_FAVD@hq.dhs.gov.

**5.0 Review of Responses**

The Government will review responses for market research purposes only. The Government does not intend to provide a response to submissions for this RFI, but the Government reserves the right to hold a technical information exchange meeting after the RFI review at the agency's discretion. These meetings will be scheduled at the discretion of the Government and may not be scheduled with all organizations that respond to the RFI.