Cross-Border Threat Screening and Supply Chain Defense (CBTS)
A Nationwide Consortium Led by Texas A&M University

A DHS Center of Excellence

CBTS researches and develops solutions, protocols, and capabilities to support Department of Homeland Security (DHS) operations that detect, assess, and respond to known and unknown biological threats and hazards that could adversely impact the nation's people, agriculture, and economy. Learning from and developing partnerships with stakeholders are key to successful projects. Typical projects focus on 1) improving data collection, applications, and management; 2) assessing innovations designed to extend our frontiers beyond our physical borders; 3) identifying novel tools and methods created to improve risk assessments; and 4) advancing workforce development and educational opportunities.

Research and Education Capabilities

- Detection of threats and disruptions to people and global supply chains
- Data integration and analytics
- Novel tools and technologies to reduce risk
- Systematic risk assessment
- Workforce development and student educational programs
- Time critical response support

About CBTS

LAUNCH	2018
PARTNERS	More than 35 universities, public and private sector partners
EXPERTISE	Research on the prevention, detection and response to biological threats and hazards for transportation, agriculture, public health, biodefense and supply chain defense; operational logistics; and support workforce development and educational programs
DHS ALIGNMENT	U.S. Customs and Border Protection (CBP), Office of Health Security (OHS), Science and Technology Directorate (S&T)

Feedback from Our Partners

"Working closely with CBTS and the U.S.-Mexico Task Force has yielded important insights about the development of tools, data, and dashboards needed to understand and respond to medical and public health issues along the border."

Thomas Wilkinson, MD, Chief Medical Information Officer, Office of Health Security

University Partners

Arizona State University*
Blinn College District
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Harvard University
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Kansas State University
Massachusetts Institute of Technology
North Carolina Central University*
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    Forwarders Association of America
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For a complete list of partners
and more information, please visit
www.cbts.tamu.edu

For more information on DHS
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**www.dhs.gov/science and
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Impacts

Help Ensure that Customs and Border Protection Training Curriculum is Addressing Most Up-to-Date Biothreats

Biological threats impact our nation's health, critical infrastructure, and economy in a globalized world of cross-border trade and flow of goods, services, people, and technologies. It is this convergence of humans, agricultural products, and other cargo that increases the potential for introduction of pathogens and invasive species. CBP officers, agricultural specialists and border patrol agents are at the front lines, safeguarding our nation from infectious diseases, invasive species, harmful insects, and other pest threats. CBTS continues to evaluate and improve the education and training of current and future CBP personnel on detection, interception, and deterrence of these biological threats and hazards, which is of paramount importance.

Borders of the Future

CBTS supports research to ensure CBP remains a leader among global customs agencies with respect to the safe and efficient movement of legitimate cargos and people across our borders. The COVID-19 pandemic exposed and exacerbated bottlenecks, while also spurring innovation and identifying opportunities for improvement. In addition, technologies (especially in terms of data analytics and scanning) have continued to evolve rapidly. This research takes stock of these developments, and reflects on how novel and leading-edge innovations could reshape the borders of the future based on international examples.

Protecting Against African Swine Fever Virus

CBTS supports several research efforts on African swine fever virus (ASFV), which represents a grave threat to U.S. pork production. One project identifies geographic locations where both the tick vector and known swine populations exist, as well as at-risk locations for the establishment of ASFV in wildlife through contact with competent tick vectors. A second effort determines the most appropriate methodology to maximize sensitivity of ASFV DNA detection on surfaces in the field. A third project assesses U.S.-based critical infrastructure and supply chain economic impacts from potential ASFV outbreaks. These projects will provide tools for both planners and field operators to anticipate and detect potential ASFV outbreaks and accurately predict their impacts on pork populations and U.S. supply chains.