



Bureau of Laboratories (BOL)

Jacksonville - Lantana - Miami - Pensacola - Tampa

Bioterrorism Defense Program



The Bureau of Laboratories' Bioterrorism Defense program consists of four laboratories that belong to the National Laboratory Response Network for Bioterrorism (LRN-B) and are located at the BOL-Jacksonville, Miami, Pensacola and Tampa laboratory facilities. There is also a surge facility located in Lantana. These LRN-B laboratories have Biosafety Level-3 containment rooms and the ability to detect and identify a range of threat organisms and toxins that could be used as biological weapons, such as *Bacillus anthracis* (causing anthrax), *Yersinia pestis* (causing plague), *Francisella tularensis* (causing tularemia), *Brucella* species (causing brucellosis), *Burkholderia* species (causing glanders disease and melioidosis), *Coxiella burnetii* (causing Q-fever), smallpox virus, ricin toxin and botulinum toxin. Additionally, personnel from these four facilities train hundreds of sentinel laboratory staff from hospital and commercial sector laboratories annually in the techniques used to perform rule-out testing for these organisms and procedures to follow to properly package and safely ship these and other dangerous infectious substances.

Highlights/specialties

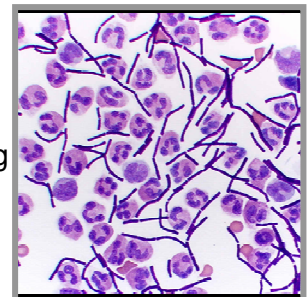
- All 4 BOL laboratory locations have the ability of perform rapid (i.e., less than 6 hours) detection for of the agents for which rapid LRN methods are available. Both environmental (i.e., "white powder") samples and clinical samples are routinely tested at these facilities. By providing a rapid response we are able to quickly alleviate fear and provide a basis for treatment of people who may have been exposed to these deadly agents. The detection methods available include:
Polymerase chain reaction (PCR) assay for *Bacillus anthracis*, *Yersinia pestis*, *Francisella tularensis*, *Brucella* species, *Burkholderia mallei*, *Burkholderia pseudomallei*, *Ricinus communis* (castor bean plant), Orthopox (e.g., smallpox virus and monkeypox virus), and *Coxiella burnetii*
Confirmatory culture methods for *Bacillus anthracis*, *Yersinia pestis*, *Francisella tularensis*, *Brucella* species, *Burkholderia mallei*, *Burkholderia pseudomallei*
- Provide confirmatory testing for the US Postal Service's Biodetection System.
- The BOL-Jacksonville, Tampa, and Miami provide participate in the Department of Homeland Security's BioWatch air monitoring laboratory program.

Work load since October 2001

- Over 10,000 suspicious environmental and clinical samples have been tested statewide since October 2001.
- 780 Sentinel Laboratory personnel have been trained to perform rule-out testing.
- 2,440 individuals have been trained to safely package and ship infectious substances.
- 3,100 first responders have been trained to correctly collect and transport samples to the laboratory.
- 593 individual laboratory partners have been trained via a web-based course curriculum.
- 100 sentinel laboratories per year participate in the College of American Pathologists laboratory proficiency challenges for the detection of bioterrorism agents in collaboration with the BOL.

Challenges

- Recruiting skilled and credentialed individuals.
- Maintaining a high level of readiness in the laboratory when the federal funding for biodefense diminishes.
- Maintaining our Biosafety Level-3 containment laboratories and sophisticated analytical instruments.



Bacillus anthracis bacteria

BOL — Your Laboratory Partner

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