

NPHL Bioterrorism Testing Update

by Tony Sambol, MA, Assistant Director, NPHL

The Biosecurity and Special Pathogens Laboratory section of the NPHL has the capacity and capability to test for a variety of agents. Techniques include, culture, DNA detection by polymerase chain reaction (PCR), or detection of whole bacteria or biotoxins by an enzyme-linked immunoassay (ELISA) test known as time-resolved fluorescence (TRF) (**Table 1**). As the CDC develops and releases new assays to state public health laboratories, the NPHL will utilize these procedures and accompanying reagents to perform additional assays.

Table 1. Pathogens and select agents that can be tested at the NPHL.

Agent Type	Species
Bacterial	<i>Bacillus anthracis</i> , <i>Yersinia pestis</i> , <i>Francisella tularensis</i> , <i>Brucella</i> spp., <i>Burkholderia</i> spp., <i>Salmonella</i> spp., <i>Shigella</i> spp., <i>E. coli</i> O157:H7, <i>Vibrio cholerae</i> , <i>Coxiella burnetti</i> , <i>Chlamydia psittaci</i> , and <i>Mycobacterium tuberculosis</i> (multi-drug resistant)
Viral	SARS-associated Coronavirus, Variola virus (Smallpox virus), Monkeypox virus, Vaccinia virus, Varicella-Zoster virus, and Western and Eastern Equine Encephalitis viruses.
Parasitic	<i>Cryptosporidium</i>
Toxin	Ricin, <i>Staphylococcus</i> enterotoxin B, and <i>Clostridium botulinum</i> toxin