PROTECTING AMERICA

Anthrax Detector Developed Using NASA Technology

(NAPSA)—To protect homes and businesses against biological weapons, a device is being developed that uses NASA technology to continuously sample and analyze air for a possible anthrax incursion. Essentially functioning as an "anthrax smoke detector," the device, developed by Universal Detection Technology (UDT) in collaboration with NASA's Jet Propulsion Laboratory (JPL), is capable of providing an alert within 15 minutes of such an event, more than enough time to save lives.

The Problem

According to the U.S. Centers for Disease Control, biological agents such as anthrax are infectious through one or more of the following mechanisms of exposure, depending on the particular type of agent:

- Inhalation, with infection through respiratory mucosa or lung tissues;
- Ingestion;
- Contact with the mucous membranes of the eyes or with nasal tissues;
- Penetration of the skin through open cuts (even very small cuts and abrasions of which you may be unaware).

Symptoms of Anthrax Inhalation

Anthrax is odorless and colorless, so there is no immediate indication that one is inhaling the airborne pathogen.

1. Release of two pounds of weapons-grade anthrax can result in 100,000 deaths.
2. The only solution for such large scale disasters can be early detection.
3. UDT, in cooperation with NASA's Jet Propulsion Laboratory (JPL), has developed a bio-terror "smoke" detector capable of detecting anthrax spores in the air.
4. The attacks of Sept. 11th, 2001, and the subsequent spread of anthrax spores, have created a new sense of urgency in public health systems across the world, and especially in the United States.

Once you do, the disease develops quickly. Within a week—possibly within a day—the victim may experience tiredness, muscle aches as well as mild chest discomfort and dry cough. Two to three days later, there may appear to be a brief improvement, followed by a rapid progression of shortness of breath; chest pain, hypoxia, stridor and sweating occur. Neck swelling may be seen with chest X-ray findings of a (characteristic) widened mediastinum. Death typically occurs 24 to 36 hours later.

How Anthrax Can Be Detected

The device from UDT continuously monitors the air for anthrax spores. A chemical unique to bacterial spores instantaneously reacts with a chemical reagent. If an increase in spore concentration is detected, an alarm sounds, notifying both a building's internal security and local emergency services. The device's response time is 15 minutes, fast enough to help prevent widespread contamination.

Constant Monitoring

The system is designed for constant and unattended monitoring of spaces such as public facilities and commercial buildings. To minimize its intrusiveness, the device has two features to help prevent false alarms—JPL's detection technology discriminates against detecting aerosol components such as dust, and the device only sounds an alarm when it detects a significant increase in spore count.

Universal Detection Technology has specialized in manufacturing airborne particulate and pollutant detection devices for 30 years. With the emergence of the bioterrorism threat, the company focused its research and development efforts on developing a real-time bioweapon detection device.

To learn more about guarding your facility against even minor bioterror threats, visit www.udetection.com.