Battelle Life Sciences Research

BIOMEDICAL RESEARCH CENTER



HIGHLY SPECIALIZED DUAL-CONTAINMENT LABORATORIES FOR BIOLOGICAL AND CHEMICAL DEFENSE APPLIED RESEARCH

Battelle's Biomedical Research Center (BRC) contains the largest privately owned Biosafety Level 3 (BSL-3) facility in the United States and laboratories for working with chemical surety material.

The BRC conducts research and efficacy testing of medical countermeasures (MCMs) for biological and chemical defense. This includes prophylaxis, therapeutic, and diagnostic products using all routes of exposure in both large and small animal models. The BRC conducts secure, state-of-the-art research, development, testing, and evaluation using both highly toxic chemicals and highly pathogenic biological agents for a wide range of government agencies and private sector companies.

The BRC is certified by the U.S. Army for both chemical and biological agent work.

BRC staff are enrolled in biological/ chemical Personnel Reliability Programs. Additional certifications include: CDC/ UDA Select Agent; ISO 9001-2015; American Association for Accreditation of Laboratory Animal Care (AAALAC) accreditation; Office of Laboratory Animal Welfare (OLAW) assurance compliance; USDA Class R Research Facility under the Animal Welfare Act; and FDA for work according to Good Laboratory Practices (GLP). The 200,000+ ft² complex consists of the following:

- Biological Defense Research Facility 92,000 ft²; 22,000 ft² ABSL-3 containment area with 15 animal rooms and 22 ABSL-3 laboratories; 2 ABSL-2 animal rooms and 8 ABSL-2 laboratories.
- Aerosol Exposure Laboratory –
 Specialized laboratories for generating aerosol exposure challenges of ABSL-2 and -3 threat organisms and highly toxic materials.
- Highly Toxic Materials Laboratory 77,000 ft² area consisting of 29 ABSL-2 animal rooms; 15 laboratory areas with 144 linear feet of filtered chemical fume hoods for working with neat (pure) chemical warfare agents.

Mission

Design and execute biomedical research for development of medical countermeasures against pathogenic organisms and highly toxic materials.



Battelle's ARCA Chamber has been safely performing live biological agent testing since 2008.



Major Research, Development, Testing, and Evaluation Areas

- Vaccines Conduct efficacy testing of candidate and developmental vaccines.
- **Therapeutics** Determine the performance of drugs used to treat after exposure to chemical and biological warfare agents. Conducted all non-clinical work for the first FDA-approved anthrax and botulinum toxin treatments under the FDA Animal Rule.
- **Decontamination** Determine the persistence and effectiveness of decontaminants against biological and chemical threat contamination; assess the effects of agents and decontaminants on surfaces and equipment.
- **Detection** Test detection systems against chemical and biological warfare threats.
- Animal Model Development Development of new animal models for representative disease progression and human response.
- Clinical Trials Develop, qualify, and validate bioassays for supporting clinical and non-clinical sample analysis.



The BRC conducts research and efficacy testing of medical countermeasures for biological and chemical defense.



Battelle trains and equips our troops and first responders to deal with the most demanding threats to national security.

Every day, the people of Battelle apply science and technology to solving what matters most. At major technology centers and national laboratories around the world, Battelle conducts research and development, designs and manufactures products, and delivers critical services for government and commercial customers. Headquartered in Columbus, Ohio since its founding in 1929, Battelle serves the national security, health and life sciences, and energy and environmental industries. For more information, visit www.battelle.org.



