

Mission To provide integrated science and technology solutions to address chemical and biological vulnerabilities.

<u>Vision</u> To be the premier national resource for chemical and biological defense. The Edgewood Chemical Biological Center (ECBC) is the U.S. Army's principal research and development center for chemical and biological defense technology, engineering and field operations. ECBC has achieved major technological advances for the warfighter and for our national defense, with a long and distinguished history of providing the Armed Forces with quality systems and outstanding customer service. ECBC is a U.S. Army Research, Development and Engineering Command laboratory located at the Edgewood Area of Aberdeen Proving Ground, Maryland.

For additional information about ECBC, please visit our website at http://www.ecbc.army.mil.

The ECBC Research and Technology Directorate is your resource for chemical and biological defense.



For more information, please call 410.436.3250.

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Edgewood Chemical Biological Center RESEARCH 2 20 20 TECHNOLOGY



Chemical and Biological Defense Solutions









PUBLIC RELEASE

The Research and Technology (R&T) Directorate operates within the Edgewood Chemical Biological Center (ECBC). R&T has more than 400 employees, including more than 100 PhD staff members, with chemistry, biology, physiology and engineering expertise.



The R&T Directorate specializes in the research and development of innovative technological solutions to solve chemical and biological defense threats to our nation—both abroad and on the homeland. R&T is funded by many government and private-industry agencies for scientific research and development work, including the Department of the Army, Department of Defense, the Federal Bureau of Investigation, Centers for Disease Control and Prevention, and the Environmental Protection Agency.



As a trusted consultant and solution provider, R&T has played a lead advisory role during recent national emergencies. For example, during the nationwide anthrax scare, R&T employees identified the risks associated with handling mail laced with anthrax. R&T also held educational trainings with United States Postal Service workers and first responders throughout the Baltimore-Washington region. R&T employees supported nearly all domestic agencies following the events of September 11, 2001.



The R&T Directorate comprises six divisions and multiple branches with experts in specific areas.

Biosciences Division

Conducts basic and applied biological/chemical research to the development of cutting-edge sensor hardware, biological warfare field detection assays, bioremediation and CB-related materials, microbiological testing including biosafety level 3 efforts, bioforensic analysis and full-service bioprocess manufacturing capability.

Chemical Biological (CB) Detection Division

Provides state-of-the-art technologies, services and products to enhance performance in the area of chemical and biological threat detection.

CB Protection and Decontamination Division

Executes fundamental and applied studies to enhance capabilities of filtration, decontamination and respiratory protection technologies.

Chemical Sciences Division

Provides chemical agent synthesis, analysis and methods development, environmental fate studies, forensics, attribution and agent science support to the defense, intelligence, law enforcement and compliance communities.

Physics and Computational Sciences Division

Supports the R&T mission to protect and defend against dynamic CBRNE threats and effects by providing basic physical research, solid analysis and integrated technological solutions.

Toxicology and Obscurants Division

Provides toxicology and obscuration research and development to support requirements for Army and Joint Service materiel developers, program managers, other government agencies and CB defense customers. Develops toxicology, aerosol and CB threat databases for operational requirements. R&T executes fundamental studies to enhance the knowledge of chemical and biological weapon agent detection, filtration and decontamination; mask technology; agent synthesis and properties; and the effects of threat agents on materials. Our staff are the source of chemistry, biology, toxicology, and aerosol physics expertise for chemical and biological technologies; we couple basic science with applied research to identify technology for future development.

R&T Accreditations

- ISO/IEC 17025 Accreditation
- ISO 9001 Certification
- AAALAC Accredited Toxicology Laboratories

In addition to our award-winning programs and highly talented staff, our facilities serve as a critical resource for CB Defense. R&T has more than 30 operational buildings consisting of administrative and laboratory space.



R&T Surety Resources

- 144 chemical agent reliability program personnel
- 85 chemical agent laboratories/rooms
- 260 chemical agent hoods
- 75 biological agent reliability program personnel
- 31 biological agent laboratories/rooms
- 50 biological agent hoods