National Biosafety and Biocontainment Training Program (NBBTP)

Jessica McCormick-Ell, Ph.D., CBSP, RBP, SM(NRCM)
Director, Division of Occupational Health and Safety
Program Director, NBBTP/IRTA
National Institutes of Health

Intramural Research Training Award (IRTA)
To seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.
Where is DOHS situated within NIH?

NIH Organization

Division of Occupational Health and Safety (DOHS)
Office of Research Services (ORS)
Office of Management (OM)
Office of the Director (OD)
National Institutes of Health (NIH)
NBBTP/IRTA Overview

Established in 2006

Two-year paid postbaccalaureate and postdoctoral fellowship in Bethesda, MD

DOHS & NIAID partnership

Mission:
To develop biorisk professionals who can meet the unique needs of the biomedical, emerging disease, and civilian biodefense research communities through the 21st century.

Strategic intent:
To graduate scientists capable of leading and directing biorisk management programs.
Jessica McCormick-Ell, NBBTP/IRTA Program Director

Jessica McCormick-Ell has served as Director of the Division of Occupational Health and Safety (DOHS) at NIH since April 2020. As a senior advisor and subject matter expert to NIH leadership, Dr. McCormick-Ell oversees the Occupational Medical Service, Technical Assistance, Safety Operations and Support, Biorisk Management, and Community Health branches within DOHS. She also serves as Program Director for the National Biosafety and Biocontainment Training Program. In her tenure at NIH, Dr. McCormick-Ell has received numerous awards for her role in leading the NIH COVID-19 response. Prior to NIH, Dr. McCormick-Ell served as the University Biosafety Officer and Responsible Official at Rutgers, the State University of New Jersey. She holds a Ph.D. in Microbiology and Molecular Genetics from Rutgers University and is a Certified and Registered Biological Safety Professional and a Specialist Microbiologist in Biological Safety Microbiology.
Captain Derek Newcomer is a Commissioned Officer with the US Public Health Service and serves as the Deputy Director for the National Institutes of Health's Division of Occupational Health and Safety as well as the National Biosafety and Biocontainment Training Program. Derek holds a BS in Environmental and Hazardous Materials Management, MS in Environmental Management from the University of Findlay, MS in Occupational Health from the Medical College of Ohio, and Doctor of Public Health from George Washington University. CAPT Newcomer's professional qualifications include Certified Industrial Hygienist and Certified Safety Professional.
Adam Clarkson, NBBTP/IRTA Curriculum Program Lead

Adam Clarkson is a Certified Biological Safety Professional at the National Institutes of Health with 19 years of experience in biorisk management. He serves as the Curriculum Program Lead for the National Biosafety and Biocontainment Training Program. Adam considers himself fortunate to have known every NBBTP cohort since its founding and to have mentored biorisk professionals throughout his career. He has served as a microbiologist in the Laboratory Response Network, as a high-containment manager, IBC Executive Secretary, Associate Biological Safety Officer, and Select Agent Program Responsible Official. Adam holds an MPH from the Johns Hopkins Bloomberg School of Public Health and a BS in Biology from Mary Washington College.
NBBTP/IRTA at a Glance

Program Length: 2 years
Average Class Size: 3
Current Fellows: 5
Alumni: 45
Campuses: 4
NBBTP/IRTA Core Program Elements

- Occupational Health and Safety
- Animal Health and Safety
- Biosafety
- Biocontainment
- Biosecurity
- Leadership and Management
- Applied Research
NBBTP/IRTA Topics

- Aerobiology
- Animal Care and Use
- Applied Research
- Biocontainment
- Biosafety
- Biosurety
- Biorisk
- Chemical Hygiene
- Communication
- Decontamination, Disinfection, and Sterilization
- Emergency Management
- Engineering for the Biosafety Professional
- Geographic Information Systems
- Hazardous Materials Packaging
- HAZWOPER Training
- High-Containment Training
- Import, Transfers, Exports
- Leadership
- Maximum-Containment Training
- Media
- Occupational Health
- Policy
- Primary Barriers
- Problem-Solving
- Risk Assessment
- Select Agents and Toxins
- Technology Control
Year 1: Foundation
Learn core subject matter relevant to the biorisk professional.

**Trainings & Coursework**
Learn basic biorisk elements in trainings ranging from less than an hour to a week or more.

**Guided Activities**
Participate in experiential learning through tours, hands-on application, field work, and projects.

**Conferences**
Attend classes, learn best practices, explore subject matter, and network with colleagues.

**Proposal**
Explore biorisk topics and propose a question you would like to research.
NBBTP/IRTA Curriculum: Year 2

Year 2: Advancement
Conduct independent biorisk practice and research.

Trainings & Coursework
Customize your curriculum by combining advanced courses and electives.

Developmental Assignments
Solve real-life biorisk challenges by partnering with high-containment and maximum containment laboratories nationwide.

Independent Practice
- Gain experience providing dedicated safety oversight to an NIH Institute or Center.
- Apply risk assessment and management strategies to facilitate Institutional Biosafety Committee meetings.
- Practice public speaking and training skills by teaching a safety course.

Conferences
Attend classes, learn best practices, explore subject matter, and network with colleagues.

Capstone
Complete a capstone project to demonstrate knowledge and contribute to the biorisk enterprise.
<table>
<thead>
<tr>
<th>What sets this program apart?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immersive, hands-on experience in biorisk management</td>
</tr>
<tr>
<td>Solid foundation in biorisk management training and experience</td>
</tr>
<tr>
<td>NIH has broad and extensive research portfolio</td>
</tr>
<tr>
<td>Unparalleled access to biorisk management subject matter experts and cutting-edge researchers</td>
</tr>
<tr>
<td>Opportunities to impact policy</td>
</tr>
<tr>
<td>Developmental Assignments and Capstone Project</td>
</tr>
<tr>
<td>In-depth BSL-4 training and project opportunities</td>
</tr>
<tr>
<td>Access to NIH OITE and NIAID resources</td>
</tr>
</tbody>
</table>
Where do program graduates work?

- Pfizer
- Battelle
- ATCC
- Cornell University
- APHL
- BAI Inc.
- CDC
- Consulting
- FDA
- Department of Defense
- Department of Homeland Security
- Department of Health and Human Services
- Howard Hughes Medical Institute
- MITRE Corporation
- Merrick & Company
- National Institutes of Health
- National Institutes of Health
- National Institutes of Health
- Department of Defense
- University of California - Berkeley
- Department of Health and Human Services
- Sandia National Laboratories
- University of Georgia
- MITRE Corporation
- University of Maryland
- University of Texas Medical Branch
- U.S. Public Health Service
- University of California - Davis
- U.S. Department of Agriculture
- University of Pittsburgh
- U.S. Department of Agriculture
- Thermo Fisher Scientific
- U.S. Department of Agriculture
- University of Pittsburgh
- U.S. Public Health Service
- U.S. Department of Agriculture
- University of Pittsburgh
- U.S. Public Health Service
- U.S. Department of Agriculture
- University of Pittsburgh
- U.S. Public Health Service
- U.S. Department of Agriculture
- University of Pittsburgh
- U.S. Public Health Service
- U.S. Department of Agriculture
- University of Pittsburgh
- U.S. Public Health Service
- U.S. Department of Agriculture
Contact Information

Visit https://www.niaid.nih.gov/research/nbbtp-irta

Email NBBTP@nih.gov
Email jessica.mccormick-ell@nih.gov
Email derek.newcomer@nih.gov

Call (301) 496-2960