HealthCare and Homeland Security Concentration

Master of Science in the dept. of Pharmacology & Toxicology Boonshoft School of Medicine, WSU
HOMELAND SECURITY

Homeland security is an American security term for the nation’s effort to protect the country by minimizing damage, and reducing the vulnerability of its people, technology and infrastructure against both natural disasters and man-made events.

The term, "Homeland Security" is not to be confused with the U.S. Department of Homeland Security (DHS).
Department of Homeland Security

16 critical infrastructure sectors considered so vital to the United States that their incapacitation or destruction would have a debilitating effect on the country.

FBI’s InfraGard

- Members working in the 16 sectors
- Local, state, and federal law enforcement
- Individuals who are involved in protected research at educational institutions.

The Healthcare and Public Health Sector

Hazards such as:

- Terrorism
- Infectious disease outbreaks
- Natural disasters

Commercial Facilities Sector

- Academic institutions included
### SARIN-RELATED GRANTS IN THE DEPT OF PHARMACOLOGY & TOXICOLOGY

| Grant #667044 | Biomarkers and Trmt Gulf War I Morris Army Medical R&D Command |
| Grant #666528 | Novel Neuroprotectants for Res Lucot Henry M. Jackson Foundation |
| Grant #664472 | Low Lvl Tox:ChemAgt Defense-M Morris Army Medical R&D Command |
| Grant #668426 | Gulf War Illness Research Deve Morris Army Medical R&D Command |
| Grant #667044 | Drugs Enhance Nerve Agent Trtm Lucot Henry M. Jackson Foundation |
| NIH- R21NS072103-01 | COOL (PI) $720,000 2010-2012 Protection against sarin-induced neurotoxicity via an in vivo caspase inhibitor |
| Grant #668188 | Cool (Pl) Protection Against Sarin induc Nat'l Institute of Neurological Disorders & Stroke (NINDS) |
| DOD- DAMD17-00-C-0020 | Cool (Co-I) $4,200,000, Low level chemical toxicity: relevance to chemical agent defense |

Getting back to our roots!
SARIN-RELATED **ANIMAL USE PROTOCOLS** IN THE DEPARTMENT OF PHARMACOLOGY & TOXICOLOGY

- **Autonomic Effects Of Sarin In Mice**
- **The Effect Of Low And Medium Dose of Sarin On The Cardiovascular System In Mice**
- **Sarin Dose Response and Cardiovascular Measurements Exposure In Mice**
- **Effects Of Low-level Sarin Exposure on Cardiac Function And Gene Expression**

Getting back to our roots!
1. Furman, Amanda
   Evaluation of CM-2,525 as a neuroprotectant against sarin: A comparison with 8-OH-DPAT
   MS, 2012

2. Joshi, Kaushal
   Novel Neuroprotectants for Sarin plus CBDP induced convulsions
   MS, 2009

3. Davidson, Molly
   Neurodegeneration and Neuroinflammation in a Mouse Model of Sarin Exposure
   MS, 2007

4. Shewale, Swapnil
   Low Dose Nerve Agent Sarin Causes Dilated Cardiomyopathy And Autonomic Imbalance In Mice,
   MS, 2011

5. Oswal, Dhawal
   Effect of low-dose sarin exposure on the neurochemistry of different brain structures in mice,
   MS, 2009

6. Shah, Ekta
   Effect of the Broad-Spectrum Caspase Inhibitor Q-VD-OPh on Neurodegeneration and Neuroinflammation of Sarin exposed mice, MS, 2014

7. Chmura, Douglas
   Response of Neuroinflammatory and Neurodegenerative Markers Following Sub-lethal Sarin Exposure and Subsequent Treatment via an in vivo Caspase Inhibitor
   MS, 2011

Getting back to our roots!
| 8. Ruark, Christopher  
Quantitative Structure-Activity Relationships for Organophosphates Binding to Trypsin and Chymotrypsin,  
MS 2010 |
|---|
| 9. Ruark, Christopher  
The Guinea Pig Model For Organophosphate Toxicology and Therapeutic Development,  
PhD, 2015 |
| 10. Sharma, Monita  
Simulating hemodynamics in in vitro culture models: Implications on Nano-Biointeractions  
PhD, 2013 |
| 11. Bricker, Rebecca  
Q-VE-OPh, a control caspase inhibitor for analyzing neuronal death, MS, 2012,  
Microbiology and Immunology |
| 12. Harshman, Sean  
Effects of Chlorpyrifos-oxon on Prohormone Convertase Enzyme Activity,  
MS, 2009 |
| 13. Miller, Michele  
Anthrax Event Detection: Analysis of Public Opinion Using Twitter During Anthrax Scares, The Mueller Investigation, and North Korean Threats, 2020, Environmental Sciences PhD |

Getting back to our roots!


Rutherford, C.M., Grunwald, Jr., W. C., Garrett, C.M., Cool, D.R., Cutaneous effect of chlorpyrifos on acetylcholinesterase and endocrine tissues in rats. *J. Env. Imm. Toxicol.* (2014) 2(2) 63-71. 10.7178/jeit.27

Getting back to our roots!
### SARIN-RELATED PUBLICATIONS FROM THE DEPARTMENT OF PHARMACOLOGY & TOXICOLOGY

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Journal</th>
<th>Year</th>
</tr>
</thead>
</table>

**Getting back to our roots!**


Miller, M., Oroszi, T., Romaine, W., Williams, K., (2019), Ignorance is the parent of fear: utilizing social media in response, CBRNe World, Falcon Communications UK, Winchester, United Kingdom, August, p. 19-22.

Getting back to our roots!


Getting back to our roots!
Earlier work involved Gulf War Illness, development of a novel neuroprotectant against nerve agent status epilepticus-induced neurodegeneration and resolved and refined a new approach to treatment of nausea and vomiting.

**Dr. Jim Lucot Research**

Research Line 1: Protection against sarin-induced neurotoxicity via an in vivo caspase inhibitor.  
*This project was funded by a Countermeasures Against Chemical Threats (CounterACT) Exploratory/Developmental Projects in Translational Research (R21) NIH-R21NS072103 that ran from 2010 to 2013.*

Research Line 2: Proteomic changes in the hypothalamic-pituitary axis in response to chemical nerve agents, prophylactic treatments and insecticides. This research has developed along two connected pathways. In the first, we studied the effects of pyridostigmine (PB), physostigmine (PYR) and sarin (GB) to affect hypothalamic acetylcholinesterase activity and protein

Grant Review Study Sections

- **14X 2011-2021 NIH CounterAct Study Section Member** Molecular, Cellular & Developmental Neurosciences Integrated Review Group. U54/U01/ R21 Study Section Reviewer

- **4X 2009-2016 CDMRP-DOD** (Congressionally Directed Medical Research Program- Dept of Defense) Gulf War Illness Grant Review Panel IA

**Dr. David Cool Research**

Research Line 1: Protection against sarin-induced neurotoxicity via an in vivo caspase inhibitor.
HEALTHCARE AND HOMELAND SECURITY PROGRAM DESCRIPTION & OUTCOMES

“Our graduates will join the mission to create a secure and resilient Nation. By sharing with the communities their gained knowledge and experience, they will be working to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk.”

This concentration is appropriate for post-baccalaureate and post-master’s students in any academic field; e.g. business, education, engineering, liberal arts, mathematics, medicine, nursing, psychology, and sociology, among others and -

• Prepares Students For Board Certification as a National Healthcare Disaster Professional
• Graduate Certificate in Chemical, Biological, Radiological, and Nuclear Defense
• Graduate Certificate in Emergency Public Health
• Situational Awareness Specialists

The National Center for Medical Readiness (Calamityville) and is a designated National Disaster Life Support Regional Training Center.
The National Center for Medical Readiness (Calamityville) and is a designated National Disaster Life Support Regional Training Center.

Program Learning Outcomes

- Describe strategies for detecting, preventing, & responding to disasters
- Synthesize best practices disaster case studies
- Develop effective crisis communication strategies
- Identify gaps among current readiness strategies & policies
- Develop actionable policies to help stakeholders improve homeland security preparedness
- Identify shared responsibility between all levels of govt
- Gain strategic leadership competencies
- Identify strategies for detecting, preventing, & responding to disasters

The National Center for Medical Readiness (Calamityville) and is a designated National Disaster Life Support Regional Training Center.
HealthCare and Homeland Security Curriculum
CURRENT (APPROVED) COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTX 6002</td>
<td>Intro to Cell Biology or PTX 7003 Principles</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>of BK/BD</td>
<td></td>
</tr>
<tr>
<td>PTX 7002</td>
<td>Journal Club (Situational Awareness Specialist)</td>
<td>1</td>
</tr>
<tr>
<td>PTX 6003</td>
<td>Intro to Pharmacology PTX 7001 Cell Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Toxicology</td>
<td></td>
</tr>
<tr>
<td>PTX 8004</td>
<td>Med Chem Defense</td>
<td>3</td>
</tr>
<tr>
<td>PTX 8006</td>
<td>CBRN Case Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credit hours: (17/30)
HealthCare and Homeland Security Curriculum

Graduate CBRN Defense Certificate

- PTX 7003 Principles of BK/BD (3 CH)
- PTX 7001 Cell Pharmacology Toxicology (3 CH)
- PTX 7002 Situational Awareness Specialist (1 CH)
- PTX 7002 Journal Club (1 CH)
- PTX 8004 Med Chem Defense (3 CH)
- PTX 7003 Principles of BK/BD (3 CH)
- PTX 8004 Med Chem Defense (3 CH)
- PTX 8006 CBRN Case Studies (3 CH)

Total Credit hours (9/30)
COURSES IN DEVELOPMENT
PTX XXXX Healthcare and Homeland Security

Videos:
• Run, Hide, Fight
• DHS Suspicious Activity Reporting
• Disaster Preparedness
• 10 Pre-blackout Tips

Training:
• FEMA Independent Study IS-317: Introduction to CERT
• IS-100.a - Introduction to the Incident Command System
• IS-700.a - National Incident Management System
• AWR-160, WMD/Terrorism Awareness for Emergency Responders.
• WMD/Terrorism Awareness for Emergency Responders
• IS-100.c, Introduction to Incident Command System for Healthcare/Hospitals
• IS-200.c, ICS for Single Resources and Initial Action Incidents;
• IS-700.b, National Incident Management System, An Introduction.
• Operations-level CBRNE (chemical, biological, radiological, nuclear and explosive)
• Hazardous-materials training
• HERT PER-902

Excerpts from the syllabus, full syllabus available upon request.
COURSES IN DEVELOPMENT CONTINUED
PTX XXXX Capstone and Residency Dayton VAMC Simulations Center (2CH)

• BSOM Wound Class and Moulage SIM Wound
• Models Task Trainer and suture kits. Wound Care Basics: Staging, simple dressings and wound packing, documentation, Negative pressure therapy and Complex wound dressings, burn care.
• How to Identify a potential threat, natural or man-made
• BLS Training with Mannequins
• Advanced Cardiac Life Support (Demonstrate Basic life support skills.
• Recognition and early management of respiratory and cardiac arrest and effective communication as a member and leader of a resuscitation team.)
• Working with Standardized Patients (Rotating Breakouts)
• Behavioral Management for Community Based Workers
• Delivering Serious News
• Managing the Interview: Samantha Marshall
• Suicide Risk Assessment
• Behavioral Management for Community Based Workers
• Behavioral Management for Frontline Workers
• Delivering Serious News
• Managing the Interview: Samantha Marshall
• Suicide Risk Assessment
• List common medical emergencies that a lay person may happen upon.
• Demonstrate steps taken while awaiting the arrival of emergency medical

Excerpts from the syllabus, full syllabus available upon request.
COURSES IN DEVELOPMENT CONTINUED

PTX XXXX Capstone and Residency Dayton VAMC Simulations Center (2CH)

• A person experiencing shortness of breath, a heart attack, or a gunshot wound.
• ALICE/Beyond ALICE
• Decisionsim - Ebola Virus Disease (EVD) Screening Algorithm
• Patient Triage and Assessment: Proper assessment and reassessment, Rapid triage and assessment, Multiple patient triage
• Sim Fellows and Mannequins
• Lecture Series: FEMA ICS and Emergency action plans
• Crisis Decision-making
• Break Out Crisis Decision-making
• Lecture Series: How to use this in daily life lecture
• Mass Shooting Scenario
• Sim Fellows and Mannequins
• Mass Shooting Scenario
• Sim Fellows and Mannequins Continued
• Chemical Spill Scenario
• Sim Fellows and Mannequins
• Chemical Spill Scenario
• Sim Fellows and Mannequins Continued
• Scenarios Debriefing
• Closing Remarks, Course Evaluation and Certificates

Excerpts from the syllabus, full syllabus available upon request.
Situation Awareness Specialist® (SAS)
• Professional certificate training program
• Designed to educate an individual in the craft of situational awareness

HEALTHCARE:
• Hospital Management and Department Heads
• Hospital Security Managers and Officers
• Nursing Home Operators
• Facilities Management and Staff

EDUCATION INSTITUTIONS:
• Universities and Colleges
• Trade Schools
• High School Systems and Districts
• School Staff, Faculty and Students

EXAMPLE: Terry L. Oroszi, Ed.D., SAS
San Francisco, CA: Police investigating "non-specific threat" at San Francisco State University on Holloway Ave; students advised to remain in doors, in-person classes cancelled
published to Topic: Education at September 28, 2021, 11:17:00 AM ET

Jacksonville, FL: Terry Parker High School and Parkwood Heights Elementary on Lansdowne Dr on lockdown due to suspicious activity in area; police investigating
published to Topic: Education at September 28, 2021, 10:10:00 AM ET

Pullman, WA: At least 2 injured in shooting on NE Williams St near Washington State University; residents in area advised to shelter-in-place, police on scene
published to Topic: Education at September 25, 2021, 08:13:00 AM ET

Newberry, FL: Newberry High School on SW 258th St evacuated due to bomb threat; police on scene
published to Topic: Education at September 24, 2021, 09:20:00 AM ET

Jeffersontown, KY: Police responding to "active aggressor" at Jeffersontown High School on Old 6 Mile Ln; lockdown in place
published to Topic: Education at September 23, 2021, 01:12:00 PM ET

Hartford County, CT: Evacuations reportedly underway at Newington High School on Willard Ave in Newington due to bomb threat; emergency services on scene
published to Topic: Education at September 22, 2021, 10:29:00 AM ET

Comal County, TX: Fire reported at Hoffman Lane Elementary School on FM-306 north of New Braunfels; students evacuated
published to Topic: Education at September 21, 2021, 04:38:00 PM ET

Wichita, KS: 3 students injured in shooting at East High School on E Douglas Ave; 3 suspects in custody, police on scene
published to Topic: Education at September 21, 2021, 03:09:00 PM ET

Lexington, KY: Frederick Douglass, Henry Clay, Lafayette, and Paul Laurence Dunbar high schools evacuated due to bomb threats; police on scene inspecting buildings
published to Topic: Education at September 21, 2021, 12:56:00 PM ET

San Joaquin County, CA: Mountain House High School on S Central Pkwy and surrounding area evacuated due to suspicious package; bomb squad on scene
published to Topic: Education at September 20, 2021, 06:45:00 PM ET

SCHOOL SHOOTINGS/BOMB THREATS (2 weeks, 21 events)
Newport News, VA: 2 students injured in shooting at Heritage High School on Marshall Ave; suspect in custody, police on scene (Update)
published to Topic: Education at September 20, 2021, 03:38:00 PM ET

Mobile, AL: 1 injured in shooting on Bristol Ct near Kentan Dr; police on scene, lockdown issued for St. Ignatius Catholic School on Spring Hill Ave
published to Topic: Education at September 20, 2021, 12:22:00 PM ET

Newport News, VA: Police on scene of shooting with reported injuries at Heritage High School on Marshall Ave; students evacuated, lockdown issued for Achievable Dream Academy on Thomas Ct
published to Topic: Education at September 20, 2021, 12:11:00 PM ET

Winston-Salem, NC: Police on scene of shots fired at Parkland High School on Brewer Rd; suspect at large
published to Topic: Education at September 17, 2021, 05:17:00 PM ET

Provo, UT: Police investigating incident involving firearm at Provo High School on Lakeshore Dr; school on lockdown, students evacuated, avoid area
published to Topic: Education at September 16, 2021, 04:37:00 PM ET

Salisbury, NC: Salisbury High School on Lincolnton Rd placed on lockdown due to reports of shots fired in area; investigation ongoing
published to Topic: Education at September 16, 2021, 03:37:00 PM ET

South Burlington, VT: Police activity reported at South Burlington High School on Dorset St; lockdown orders in place
published to Topic: Education at September 16, 2021, 02:08:00 PM ET

Oklahoma City, OK: FD Moon Middle School on NE 13th St evacuated due to gas leak; crews on scene
published to Topic: Education at September 16, 2021, 01:01:00 PM ET

Mesa, AZ: Police investigating suspicious device at Mesa High School on E Southern Ave; school under lockdown, students evacuated
published to Topic: Education at September 15, 2021, 12:54:00 PM ET

Port Angeles, WA: Port Angeles High School on E Park Ave evacuated due to bomb threat; police investigating
published to Topic: Education at September 14, 2021, 02:51:00 PM ET

Bay County, FL: Large police presence reported at Arnold High School on Alf Coleman Rd due to threat; students evacuated, soft lockdown in place
published to Topic: Education at September 13, 2021, 04:16:00 PM ET
HealthCare and Homeland Security Curriculum

ELECTIVES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 7114-A90</td>
<td>Disaster Preparedness &amp; Response (3 CH)</td>
<td></td>
</tr>
<tr>
<td>NUR 7411</td>
<td>Disaster Nursing Management (3 CH)</td>
<td></td>
</tr>
<tr>
<td>PLS 6320</td>
<td>International Politics of Cyber Security (3 CH)</td>
<td></td>
</tr>
<tr>
<td>CEG 3400</td>
<td>Introduction to CyberSecurity</td>
<td></td>
</tr>
<tr>
<td>PLS 6750</td>
<td>Weapons of Mass Destruction (3 CH)</td>
<td></td>
</tr>
<tr>
<td>PLS 6720</td>
<td>Terrorism &amp; Counterterrorism (3 CH)</td>
<td></td>
</tr>
<tr>
<td>PLS 7981</td>
<td>Strategic Intelligence (3 CH)</td>
<td></td>
</tr>
<tr>
<td>PLS 7982</td>
<td>Intelligence and Homeland Security (3 CH)</td>
<td></td>
</tr>
<tr>
<td>PPH 7640</td>
<td>Principles of Emergency (3 CH)</td>
<td></td>
</tr>
<tr>
<td>PPH 7660</td>
<td>Public Health Terrorism Preparedness</td>
<td></td>
</tr>
<tr>
<td>PPH 7650</td>
<td>Public Health Crisis and Consequence</td>
<td></td>
</tr>
<tr>
<td>PPH 7671</td>
<td>Fundamentals of Intelligence Tradecraft: Research, Analysis, Writing, and Briefing (3 CH)</td>
<td></td>
</tr>
</tbody>
</table>

Total Credit hours (9/30)
HealthCare and Homeland Security Curriculum

ELECTIVES

Prepares Students For Board Certification as a National Healthcare Disaster Professional

Total Credit hours (9/30)
### HealthCare and Homeland Security Curriculum

**ELECTIVES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 7114-A90</td>
<td>Disaster Preparedness &amp; Response (3 CH)</td>
</tr>
<tr>
<td>NUR 7411</td>
<td>Disaster Nursing Management (3 CH)</td>
</tr>
<tr>
<td>PLS 6320</td>
<td>International Politics of Cyber Security (3 CH)</td>
</tr>
<tr>
<td>CEG 3400</td>
<td>Introduction to CyberSecurity</td>
</tr>
<tr>
<td>PLS 6750</td>
<td>Weapons of Mass Destruction (3 CH)</td>
</tr>
<tr>
<td>PLS 6720</td>
<td>Terrorism &amp; Counterterrorism (3 CH)</td>
</tr>
<tr>
<td>PLS 7981</td>
<td>Strategic Intelligence (3 CH)</td>
</tr>
<tr>
<td>PPH 7640</td>
<td>Principles of Emergency</td>
</tr>
<tr>
<td>PPH 7660</td>
<td>Public Health Terrorism Preparedness</td>
</tr>
<tr>
<td>PPH 7650</td>
<td>Public Health Crisis and Consequence</td>
</tr>
<tr>
<td>PLS 7982</td>
<td>Intelligence and Homeland Security (3 CH)</td>
</tr>
<tr>
<td>PLS 6871</td>
<td>Fundamentals of Intelligence Tradecraft: Research, Analysis, Writing, and Briefing (3 CH)</td>
</tr>
</tbody>
</table>

**Total Credit hours (9/30)**

**Public Health Emergency Preparedness Certificate**
HealthCare and Homeland Security Curriculum

ELECTIVES

NUR 7114-A90 Disaster Preparedness & Response (3 CH)
NUR 7411 Disaster Nursing Management (3 CH)
PLS 6320 International Politics of Cyber Security (3 CH)
CEG 3400 Introduction to CyberSecurity

PLS 6750 Weapons of Mass Destruction (3 CH)

PPH 7640 Principles of Emergency
PPH 7660 Public Health Terrorism Preparedness
PPH 7650 Public Health Crisis and Consequence
PLS 6871 Fundamentals of Intelligence Tradecraft: Research, Analysis, Writing, and Briefing (3 CH)

Cyber is not just for Computer Science majors!

Total Credit hours (9/30)
Health & Science

The Department of Homeland Security offers a number of programs to support students pursuing degrees in health and science-focused courses of study.
CAREER OPPORTUNITIES
SCIENCE & HOMELAND SECURITY FBI

A) Successful completion of a four-year bachelor’s degree (or higher) in a biological science, chemistry, or forensic science with a biology emphasis

B) A combination of education and experience with course work equivalent to a major, plus appropriate experience or additional education.

MUST have successfully completed coursework (graduate or undergraduate level) covering the subject of biochemistry, genetics, and molecular biology (molecular genetics, recombinant DNA technology) or other subjects which provide basic understanding of the foundations of forensic DNA analysis.

*Education may be substituted for specialized experience at the GS-7 (bachelor’s degree), GS-9 (master’s degree), and GS-11 (doctorate degree) levels.*
Pharmacologist Food and Drug Administration
Department of Health And Human Services Silver Spring, Maryland Center for Biologics Evaluation and Research Starting at $122,530 (GS 14) 09/27/2021 to 10/08/2021

Biological Sciences Family Department of the Air Force - Agency Wide
Department of the Air Force Location Negotiable After Selection, United States Starting at $19,543 (GS 1-15) Open 11/30/2020 to 11/30/2021

Life Scientist/Environmental Engineer/Physical Scientist/Geologist/Toxicologist Environmental Protection Agency
Other Agencies and Independent Organizations New York, New York Starting at $106,471 (GS 13) Permanent • Full-time Open 09/15/2021 to 09/29/2021

Supervisory Biologist/Toxicologist/Physical Scientist/Chemist Environmental Protection Agency
Other Agencies and Independent Organizations Washington, District of Columbia Starting at $144,128 (GS 15) Open 09/20/2021 to 09/30/2021

INTERDISCIPLINARY-BIOLOGIST/TOXICOLOGIST/INDUSTRIAL HYGIENIST/ENVIRONMENTAL ENGINEER Naval Medical Command Department of the Navy Naval Medical Center, Portsmouth, Virginia Starting at $92,588 (GS 13) Open 09/20/2021 to 09/29/2021

Interdisciplinary Scientist Food and Drug Administration
Department of Health And Human Services College Park, Maryland Center for Food Safety and Applied Nutrition (CFSAN) Starting at $72,750 (GS 11-12) Permanent • Full-time Open 09/22/2021 to 09/28/2021

Senior Science Advisor Environmental Protection Agency
Other Agencies and Independent Organizations Washington, District of Columbia Starting at $172,501 (SL 00) Open 09/28/2021 to 10/27/2021

(Research Experience is helpful for most of the jobs listed)
CAREER OPPORTUNITIES
SCIENCE & HOMELAND SECURITY

Chemical/Biological Scientist
Systems Planning and Analysis, Inc. 3.8 ★
Reston, VA
- SPA provides expertise across the full range of chemical, biological, radiological, nuclear and high-yield explosives (CBRNE) WMD, Counter Improvised Threat and...
13 days ago

Counter WMD Biologist
Systems Planning and Analysis, Inc. 3.8 ★
Reston, VA
- SPA provides expertise across the full range of chemical, biological, radiological, nuclear and high-yield explosives (CBRNE) WMD, Counter Improvised Threat and...
30+ days ago

Military Ops Research Analyst
Systems Planning and Analysis, Inc. 3.8 ★
Springfield, VA
- SPA provides expertise across the full range of chemical, biological, radiological, nuclear and high-yield explosives (CBRNE) WMD, Counter Improvised Threat and...
30+ days ago · More...

Molecular Biologist I
Battelle 3.8 ★
Columbus, OH 43201 (Dennison Place area)
- Perform experiments independently with guidance from senior scientists.
- Battelle’s Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) Business...
13 days ago · More...

Counter WMD Chemist
Systems Planning and Analysis, Inc. 3.8 ★
Reston, VA
- SPA provides expertise across the full range of chemical, biological, radiological, nuclear and high-yield explosives (CBRNE) WMD, Counter Improvised Threat and...
30+ days ago
CAREER OPPORTUNITIES

SCIENCE & HOMELAND SECURITY

**Virologist I**
Battelle 3.8★
Columbus, OH 43201 (Derrison Place area)
- Developing new assays under the guidance of senior scientists;
- Battelle’s Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) Business Line is...

**Proteomics Mass Spectrometrist**
Battelle 3.8★
Columbus, OH 43210 (Olentangy River Road area)
- Provide technical direction to and coordinate the efforts of small teams of scientists and technical support staff in the performance of assigned projects...

**Counter WMD Chemist**
Systems Planning and Analysis, Inc. 3.8★
Reston, VA
- SPA provides expertise across the full range of chemical, biological, radiological, nuclear and high-yield explosives (CBRNE) WMD, Counter Improvised Threat and...

**Military Ops Research Analyst**
Systems Planning and Analysis, Inc. 3.8★
Springfield, VA
- SPA provides expertise across the full range of chemical, biological, radiological, nuclear and high-yield explosives (CBRNE) WMD, Counter Improvised Threat and...

**Ops Research Analyst**
Systems Planning and Analysis, Inc. 3.8★
Arlington, VA 22202 (Aurora Highlands area)
- SPA provides expertise across the full range of chemical, biological, radiological, nuclear and high-yield explosives (CBRNE) WMD, Counter Improvised Threat and...