



The Nation's Center of Excellence  
for Medical Chemical Defense

3100 Ricketts Point Rd, Aberdeen Proving Ground, Maryland 21010

# The United States Army Medical Research Institute of Chemical Defense (MRICD)

## - A Brief Overview -

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Commander

Web: <http://usamricd.apgea.army.mil>



Facebook: [www.facebook.com/USAMRICD](http://www.facebook.com/USAMRICD)

# Mission and Vision

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## Mission

Provide a strong medical defense against chemical warfare agents, toxins, and toxic industrial chemicals via research, training/education, and consultation.

## Vision

Maintain and strengthen MRICD's leadership as the Nation's Center of Excellence for Medical Chemical Defense via innovative and comprehensive solutions to protect Warfighters and Civilians



# Recapitalization | 2014

- Facts:

- \$280M
- 526,000 sq. ft. total  
(75% ↑)
- 50,000 sq. ft. animal  
holding (43% ↑)
- 24 acres
- 395 person capacity





# Research

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# Products in Advanced Development

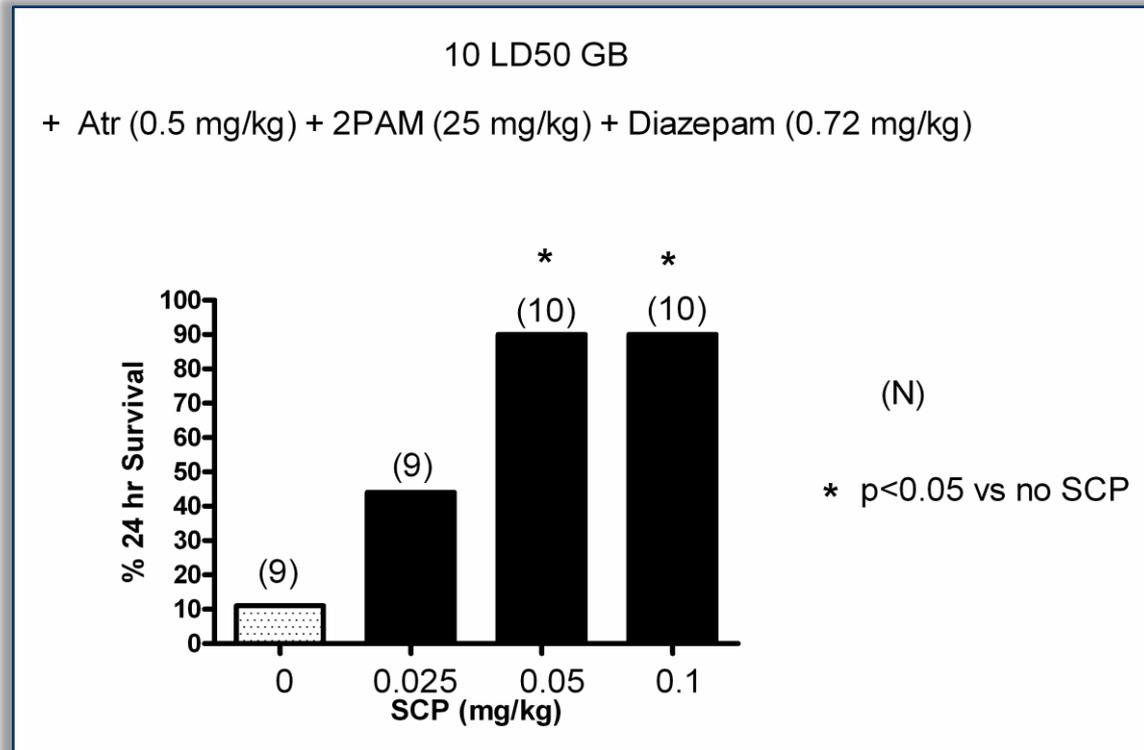
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- Advanced Anticonvulsant System (AAS)
  - Midazolam – stops seizures, prevents brain damage
- Bioscavenger (BSCAV) [pre- and post event]
  - Transgenic Goat Milk Derived
  - Human Plasma Derived
- Improved Nerve Agent Treatment System (INATS)
  - MMB4 (AChE reactivator)
  - Licensure Expansion of Pyridostigmine Bromide beyond Soman
- Soman Nerve Agent Pretreatment, Pyridostigmine (SNAPP)
  - Post-Marketing Studies

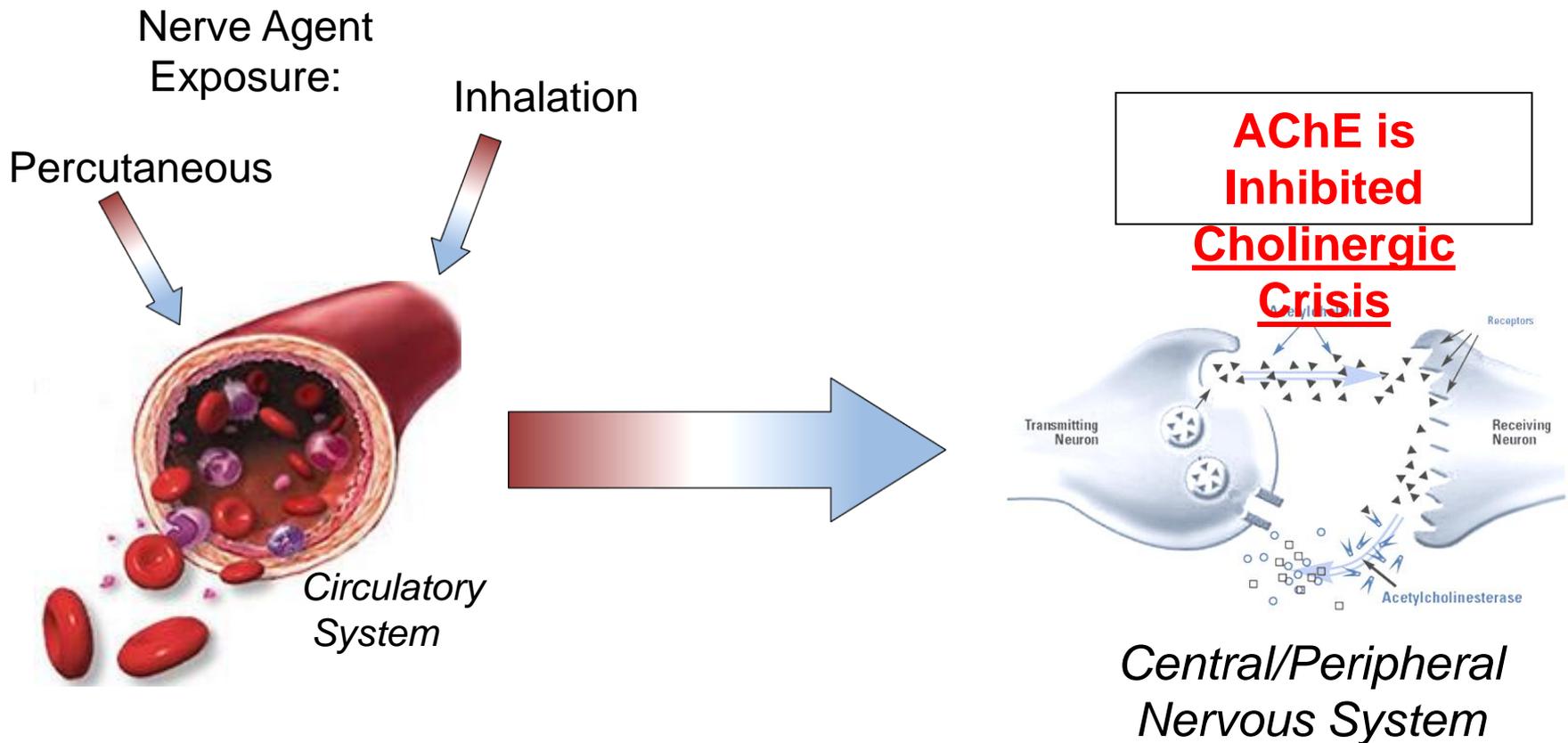


# Scopolamine

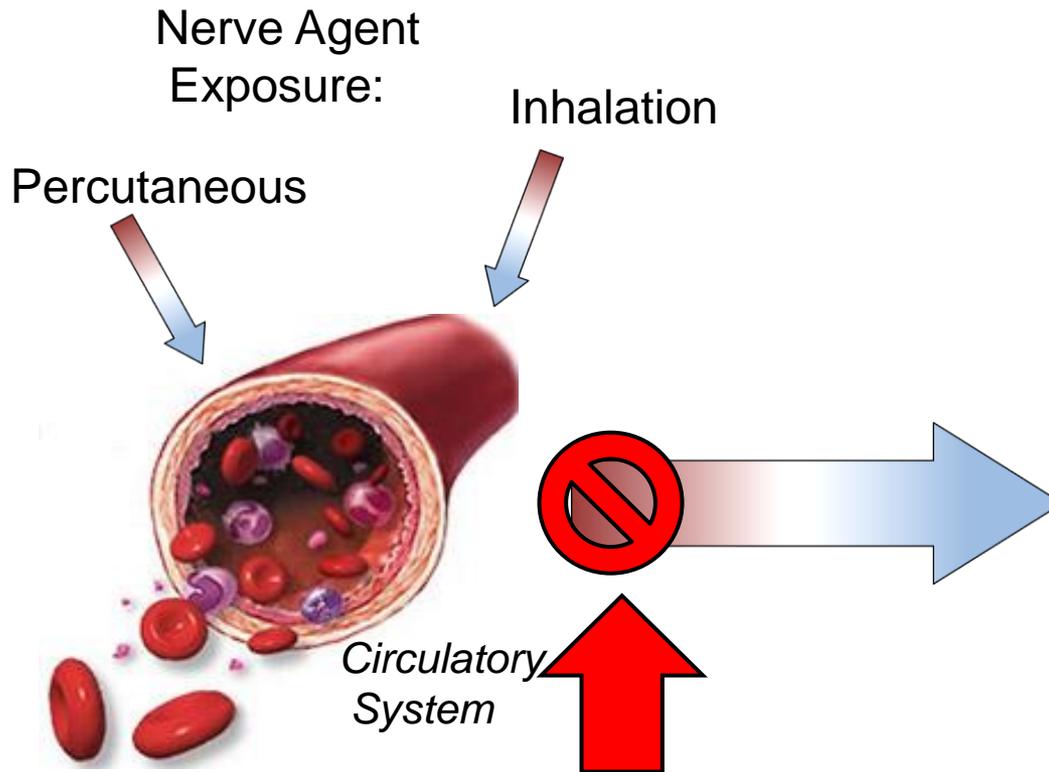
- Under investigation as an adjunct to medical countermeasures for nerve agent intoxication
- Stronger anticholinergic effects and more rapid CNS action than atropine
- FDA approved, used clinically for decades
- Scheduled for Milestone A transition in FY14



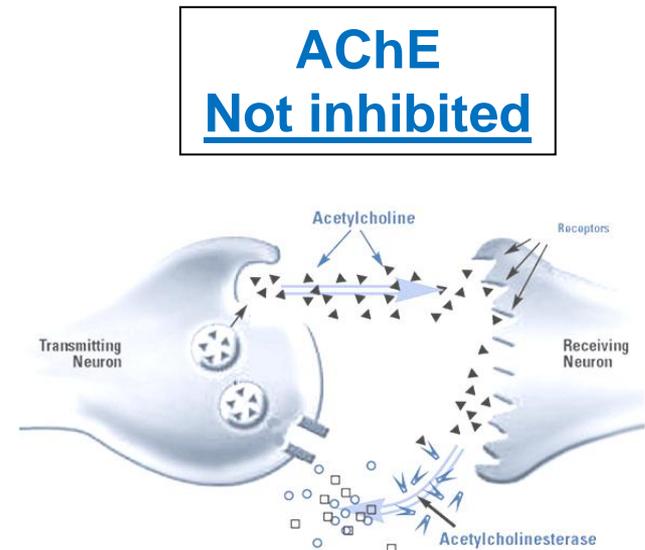
# Mechanism of OP Nerve Agent Toxicity



# Bioscavenger Preserves AChE



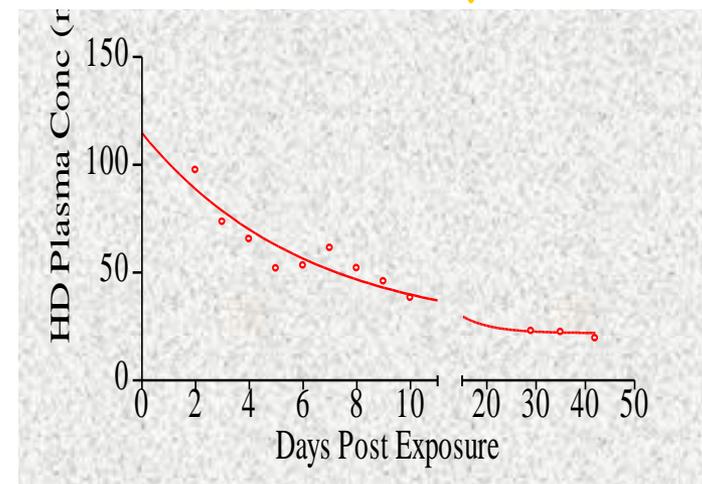
**With Bioscavenger  
(pre- or post-exposure)**



*Central/Peripheral  
Nervous System*

# Consultation – NA and SM exposure

- COCOM reachback
- Use of solid phase microextraction (SPME) fibers in field kits
- SM Adducts detected by MS
- NA fluoride regeneration detected by MS
- CDC confirms results



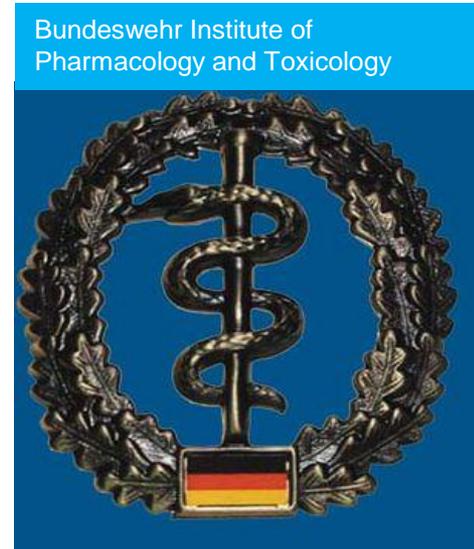
# Medical Chemical Defense for the Nation

## Federal Interagency Collaboration



**Complementary programs contributing to the  
Nation's defense against chemical threats**

# COLLABORATION



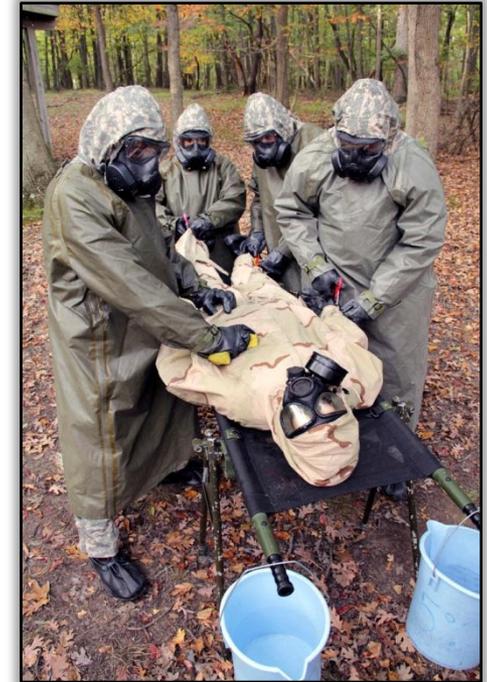
Defence Research and Development Canada

Recherche et développement pour la défense Canada



# Training and Education

- **MCBC** - Medical Management of Chemical and Biological Casualties
- **FCBC** - Field Management of Chemical and Biological Casualties
- **HM-CBRNE** - Hospital Management of Chemical, Biological, Radiological, Nuclear, and Explosive Incidents
- Off Site Courses
- Webinars



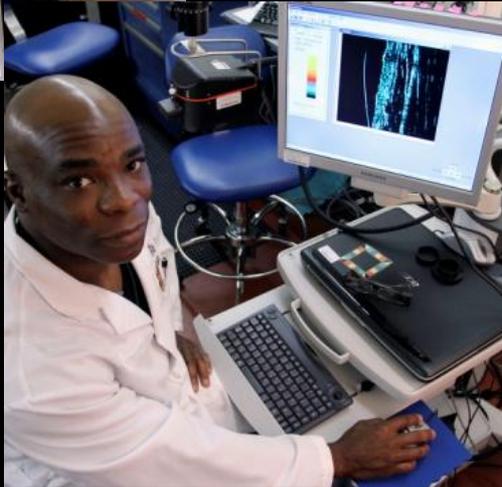


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**RESEARCH**

**TRAINING & EDUCATION**

**CONSULTATION**





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# COMMUNICATION

# CONTINUITY

# TEAMWORK



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