Chemical Biological Medical Systems–Prophylaxis

**MISSION**
Provides the warfighter with safe, robust, and affordable medical countermeasures against a broad spectrum of chemical, biological, radiological, and nuclear (CBRN) threats.

**DESCRIPTION**
Chemical Biological Medical Systems–Prophylaxis consists of the following components:

**Anthrax Vaccine Absorbed (AVA):**
The Anthrax Vaccine Absorbed is the only Food and Drug Administration (FDA)-licensed anthrax vaccine in the United States that provides cutaneous, gastrointestinal and aerosol infection by battlefield exposure to Bacillus anthracis.

**Recombinant Plague Vaccine (rF1V):**
The Recombinant Plague Vaccine is a highly purified polypeptide produced from non-sporforming bacterial cells transfected with a recombinant vector from Yersinia pestis to prevent pneumonic plague.

**Recombinant Botulinum Toxin Vaccine A/B (rBV A/B):**
The Recombinant Botulinum Bivalent Vaccine is comprised of nontoxic botulinum toxin heavy chain (Hc) fragments of serotypes A and B formulated with an aluminum hydroxide adjuvant and delivered intramuscularly prior to potential exposure to botulinum toxins.

**Bioscavenger II (BSCAV II):**
The Bioscavenger program fills an urgent capability gap in the warfighter’s defense against nerve agents by development of a nerve agent prophylactic by rendering protective equipment, in theory, unnecessary. Bioscavenger Increment II consists of Protezix®, recombinant human butyrylcholinesterase produced in the milk of transgenic goats and modified with polyethylene glycol.

**Smallpox Vaccine System (SVS):**
The Smallpox Vaccine System (SVS) Program provides both the ACAM2000™ smallpox vaccine and the Vaccinia Immune Globulin, Intravenous (VIGIV) to vaccinate and protect the warfighter from potential exposure to smallpox. Both products are FDA approved.

**SYSTEM INTERDEPENDENCIES**
None

**PROGRAM STATUS**
- **1QFY09:** Plague Vaccine Phase 2a clinical study complete; Plague Vaccine manufacture scale-up and validation initiated; rBV Phase 1b clinical study complete; rBV Phase 2 clinical study initiated
- **1QFY10:** Bioscavenger Phase 1 clinical study complete; Bioscavenger large-scale manufacturing, process qualification, and validation begins
- **3QFY10:** Plague Vaccine Phase 2b clinical study begins
- **4QFY10:** rBV Phase 2 clinical study complete
- **Current:** Smallpox and AVA in Sustainment

**PROJECTED ACTIVITIES**
- **4QFY11:** rBV A/B large-scale manufacturing process validation complete
- **2QFY13:** rBV A/B Milestone C decision
FOREIGN MILITARY SALES
Plague Vaccine:
Canada, United Kingdom

CONTRACTORS
AVA:
Emergent BioSolutions (Bioport), (Lansing, MI)

rF1V:
DynPort Vaccine (Frederick, MD)

rBV A/B:
DynPort Vaccine (Frederick, MD)

BSCAV II:
PharmAthene (Annapolis, MD)

SVS:
Acambis plc (Cambridge, MA)
Cangene, Corp. (Winnipeg, Manitoba, Canada)