ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2006

BUDGET ACTIVITY

PE NUMBER AND TITLE

4 - Advanced Component Development and Prototypes | 0603807A - Medical Systems - Adv Dev

| | COST (In Thousands) | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | FY 2010 Estimate | FY 2011 Estimate | Cost to Complete | Total Cost |
|-----|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| | Total Program Element (PE) Cost | 20277 | 23149 | 11973 | 13160 | 22085 | 21287 | 10870 | 0 | 146448 |
| 808 | DOD DRUG & VACC AD | 5251 | 6253 | 5490 | 6309 | 5915 | 5718 | 5627 | 0 | 50654 |
| 811 | MIL HIV VAC&DRUG DEV | 0 | 144 | 149 | 151 | 150 | 142 | 141 | 0 | 1005 |
| 836 | COMBAT MEDICAL MATL AD | 7322 | 5612 | 3814 | 4784 | 14200 | 13729 | 3411 | 0 | 60661 |
| 837 | SOLDIER SYS PROT-AD | 712 | 938 | 2520 | 1916 | 1820 | 1698 | 1691 | 0 | 13207 |
| A01 | COMBAT SUPPORT HOSPITAL - MOBILE SURGICAL UNIT | 0 | 4041 | 0 | 0 | 0 | 0 | 0 | 0 | 6429 |
| MD4 | FUTURE MEDICAL SHELTER | 5078 | 5175 | 0 | 0 | 0 | 0 | 0 | 0 | 11592 |
| MD8 | ELECTROSOMOTIC PAIN THERAPY SYSTEM (CA) | 957 | 986 | 0 | 0 | 0 | 0 | 0 | 0 | 1943 |
| MD9 | PORTABLE OXYGEN GENERATOR (CA) | 957 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 957 |

A. Mission Description and Budget Item Justification: This program element (PE) funds advanced development of medical materiel within the early system integration portion of the System Development and Demonstration phase of the acquisition life cycle. The PE supports transition of Science and Technology initiatives, prototypes, or candidate technologies into the first scale-up, integrated models for initial technical and operational test and evaluation, when applicable. These programs are aligned to meet Future Force (F2) requirements stressed within the concept documents and organizational structures. The PE provides funding for early Phase 1 and 2, U.S. Food and Drug Administration (FDA) regulated, human clinical trials. The major enablers supported by this PE are:

Infectious disease vaccines and preventive drugs that will reduce the risk of service members contracting debilitating or fatal diseases, an increasing risk with the growing potential for urban warfare and its associated disease hazards. Disease and non-battle injuries (DNBI) are the largest contributors to the level 3 medical footprint, and significant reductions of the medical footprint in theater is achieved by reducing the number of DNBI affected soldiers. More importantly, reduced patient evacuations within F2 units is a force multiplier, because timely replacement of these uniquely skilled and combat tested soldiers will be nearly impossible.

Combat Casualty Care devices and biologics, with two major focuses: enhance forward care at the first responder level and reduce the footprint of medical organizations for greater mobility and easier sustainment. The F2 concept places soldiers into a more austere environment with lengthened evacuation times (both arrival and transit). Supporting medics and first responders require greater lifesaving and extended stabilization capability to save lives. Reduction in weight, cube, and sustainment requirements, allows medical units to increase mobility and maintain contact with their supported Units of Action.

Soldier Performance Enhancers in the form of drugs or diagnostics that allow commanders to increase soldiers' cognitive awareness and stamina. Enhancers have a direct relationship to increased soldier capabilities and a potential to reduce casualties.

Military Human Immunodeficiency Virus (HIV) Vaccine and Drug Development - funds militarily relevant HIV medical countermeasures. These include advanced component

| ARMY RDT&E BUDGET ITEM J | USTIFICATION (R2 Exhibit) | February 2006 |
|--|---|---------------|
| BUDGET ACTIVITY 4 - Advanced Component Development and Prototype | PE NUMBER AND TITLE 0603807A - Medical Systems - Adv Dev | |
| development of multiple candidate vaccines and drugs for large-scale | e field testing. | |
| This program is managed by the U.S. Army Medical Research and M | lateriel Command. | |
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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2006

BUDGET ACTIVITY

PE NUMBER AND TITLE

4 - Advanced Component Development and Prototypes | 0603807A - Medical Systems - Adv Dev

| FY 2005 | FY 2006 | FY 2007 |
|---------|----------------------|--|
| | | |
| 20286 | 10134 | 11842 |
| 20277 | 23149 | 11973 |
| -9 | 13015 | 131 |
| | -102 | |
| | -233 | |
| | 13350 | |
| -9 | | |
| | | |
| | | 131 |
| | 20286 20277 -9 | 20277 23149 -9 13015 -102 -233 13350 |

FY2006 - Congressional Plus-Up (\$13,350) - Electro-oamotic Pain Theraphy System for Adjustable Rate Implanatable Drug Delivery (\$1,000); Leishmania Diagnostic Test (\$1,000); Lightweight Trauma Module (\$1,000); Non-Invasive Medical Sensors - Enhanced (\$1,000); Combat Support Hospital - Mobile Surgical Unit (\$4,100); Future Medical Shelter System - 21st Century Military Hospital System (\$5,250).

| ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit) February 2006 | | | | | | | | | | |
|---|---------------------|---------------------|-------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes | | | PE NUMBER A 0603807A - | | Systems - A | dv Dev | | | PRO 808 | JECT B |
| | COST (In Thousands) | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | FY 2010 Estimate | FY 2011 Estimate | Cost to Complete | Total Cost |
| 808 | DOD DRUG & VACC AD | 5251 | 6253 | 5490 | 6309 | 5915 | 5718 | 5627 | 0 | 50654 |

A. Mission Description and Budget Item Justification: This project funds technical development of candidate medical countermeasures for infectious diseases that occur within militarily relevant areas of the world. Current products fall within three major areas: vaccines, drugs, and diagnostic kits. The funds support Phase 1 and 2 human clinical trials for safety and small-scale efficacy testing. This work, which is performed in military laboratories or civilian pharmaceutical firms, is directed toward the prevention of disease, early diagnosis if contracted, and speeding recovery once diagnosed. These trials are required to meet U.S. Food and Drug Administration (FDA) regulatory approval guidance, a mandatory obligation for all military products placed into the hands of medical providers or service members. Priority is based upon four major factors: (1) the extent of the disease within the Combatant Commands' theater of operations, (2) the clinical severity of the disease, (3) the technical maturity of the proposed solution, and (4) the affordability of the solution (development and production).

| Accomplishments/Planned Program | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> |
|--|----------------|----------------|----------------|
| Reviews, evaluations, and trials of malarial/anti-malarial vaccines, drugs, and diagnostics: In FY05, began an FDA mandated Phase 3 Malaria Rapid Diagnostic Device (MRDD) clinical trial in the United States. Initiated a Phase 1/2 trial of the Recombinant Plasmodium falciparum Malaria Vaccine plus Adjuvant (RTS,S) in Kenya. In FY06 complete MRDD Phase 3 clinical trial and conduct a Milestone C IPR to transition MRDD to Full-Rate Production and Deployment, resulting in fielding of state-of-the-art malaria diagnostic capability for military physicians. Conduct a Critical Design Review (CDR) to determine if the Recombinant Plasmodium falciparum Malaria Vaccine plus Adjuvant (RTS,S) should continue as a single vaccine or be de-transitioned to Technology Development for testing with other Malaria vaccine candidates. In FY07, transition the anti-malarial drug, Artesunate (for intravenous treatment of severe and complicated malaria) to System Development and Demonstration (Milestone B) and initiate Phase 2b efficacy studies. | 2596 | 3243 | 4000 |
| Trials, evaluations, and reviews for grouped infectious disease vaccines and drugs (Dengue and Leishmania): In FY05, completed Phase 2 testing of the Dengue Tetravalent Vaccine (DTV) in Thailand and initiated analysis of results. Completed analysis of the data from a Phase 2 field trial of the current formulation of the Paromomycin/Gentamicin Topical Antileishmanial Cream. Awarded a contract for the production of a formulation of the Antileishmanial Topical for pivotal field testing and licensure. In FY06, conduct a Critical Design Review and initiate Phase 2b efficacy studies of the DTV; conduct a Critical Design Review and initiate pivotal field trials of the Paromomycin/Gentamicin Topical Antileishmanial Cream. In FY07, continue field trials of both the Antileishmanial Topical and the DTV. | 2655 | 3010 | 1490 |
| Total | 5251 | 6253 | 5490 |

C. Acquisition Strategy Test and evaluate in-house and commercially developed products in extensive government-managed clinical trials to gather data required for FDA licensure and Environmental Protection Agency registration.

| ARMY RDT&E COST ANALYSIS (R3) | | | | | | | | | February 2006 | | | | | | |
|---|------------------------------|--------------------------------|---------------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|---------------------|---------------|--------------------------------|--|--|--|
| BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes | | | PE NUMBE 0603807 . | | | ems - Ad | v Dev | | | | PROJECT 808 | | | | |
| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2005 Cost | FY 2005 Award Date | FY 2006 Cost | FY 2006 Award Date | FY 2007 Cost | FY 2007 Award Date | Cost To Complete | Total Cost | Target Value of Contract | | | |
| No product/contract costs greater than \$1M individually | | | 3850 | 471 | | 480 | | 486 | | Continue | 0 | Continue | | | |
| Subtota | al: | | 3850 | 471 | | 480 | | 486 | | Continue | 0 | Continue | | | |
| II. Support Costs | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2005 Cost | FY 2005 Award Date | FY 2006 Cost | FY 2006 Award Date | FY 2007 Cost | FY 2007 Award Date | Cost To Complete | Total Cost | Target Value of Contract | | | |
| No product/contract costs greater than \$1M individually | | | 698 | 158 | | 270 | | 162 | | Continue | 1131 | Continue | | | |
| Subtota | al: | | 698 | 158 | | 270 | | 162 | | Continue | 1131 | Continue | | | |
| III. Test And Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2005 Cost | FY 2005 Award Date | FY 2006 Cost | FY 2006 Award Date | FY 2007 Cost | FY 2007 Award Date | Cost To Complete | Total Cost | Target Value of Contract | | | |
| No product/contract costs greater than \$1M individually | | | 17120 | 3782 | | 4349 | | 3892 | | Continue | 25395 | Continue | | | |
| Subtota | al: | | 17120 | 3782 | | 4349 | | 3892 | | Continue | 25395 | Continue | | | |
| | | | | | | | | | | | | | | | |
| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2005 Cost | FY 2005 Award Date | FY 2006 Cost | FY 2006 Award Date | FY 2007 Cost | FY 2007 Award Date | Cost To Complete | Total Cost | Target Value of Contract | | | |
| No product/contract costs greater than \$1M individually | | | 3710 | 840 | | 1154 | | 950 | | Continue | 5820 | C | | | |
| | | | | | | | | | | | | | | | |

0603807A (808) DOD DRUG & VACC AD Item No. 73 Page 5 of 18 186 Exhibit R-3 ARMY RDT&E COST ANALYSIS

| ARMY RDT&E COST ANALYSIS (R3) BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes PE NUMBER AND TITLE 0603807A - Medical Systems - Adv Dev | | PROJECT 808 |
|--|-------------|-------------|
| | | |
| 2220 2220 2220 2220 | | 22245 |
| Project Total Cost: 25378 5251 6253 5490 0 | Continue | 32346 0 |
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| BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes Event Name PE NUMBER AND TITLE 0603807A - Medical Systems - Adv Dev FY 05 FY 06 FY 07 FY 08 FY 09 FY 1 | y 2006 | February 20 | | | | | | | | R4 Exhibit) | Schedule Profile (R4 |
|--|--------------------|------------------|-------|--------|-----------|------|-----------------------------|------|-------------------------|------------------------------|---|
| Event Name FY 05 FY 06 FY 07 FY 08 FY 09 FY 1 1 2 3 4 1 3 2 3 4 1 3 2 3 4 1 3 2 3 4 1 3 2 3 4 1 3 2 3 4 1 3 2 3 4 1 3 3 | PROJECT 808 | | | lv Dev | ems - Adv | Syst | D TITLE Iedical S | R AN | PE NUMBE 0603807 | | BUDGET ACTIVITY |
| 1) Dengue Tetravalent Vaccine Critical Design Review 2) Antimalarial, Artesunate 3) RTS, S Improved Adjuvant Malaria Vaccine Critical Design Review 3 MS B 4) Malaria Rapid Diag Device MS C | | FY 10 1 2 3 4 | | FY 08 | FY 07 | | Y 06 | F | FY 05 | | |
| 3) RTS, S Improved Adjuvant Malaria Vaccine Critical Design Review MS C | 4 1 2 3 | 1 2 3 4 | 2 3 4 | | 2 3 4 | 1 | 3 4 | | | | 1) Dengue Tetravalent Vaccine |
| 4) Malaria Rapid Diag Device MS C | | | | | | 2 | MS B | | | | 2) Antimalarial, Artesunate |
| | | | | | | | | ew 3 | esign Revie | ne Criti <mark>cal I</mark> | 3) RTS, S Improved Adjuvant Malaria Vaccine |
| 5) Paromomycin/Gent, (6) Paromomycin/Gent Critical Design Review MS C | | | | | | | | 4 | MSC | | 4) Malaria Rapid Diag Device |
| | | | 6 | M\$ (| | | | 5 | gn Review | t Critical <mark>Desi</mark> | 5) Paromomycin/Gent, (6) Paromomycin/Gent |
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Schedule Detail (R4a Exhibit) BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes PE NUMBER AND TITLE 0603807A - Medical Systems - Adv Dev ROBERT ACTIVITY 0603807A - Medical Systems - Adv Dev

| Schedule Detail | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | FY 2010 | <u>FY 2011</u> |
|--|---------|---------|---------|---------|---------|---------|----------------|
| Paromomycin/Gentamicin (Critical Design Review) (MS C) | | 1Q | | | 2Q | | |
| RTS,S/Improved Adjuvant (P. falciparum) Malaria Vaccine (Critical Design Review) | | 2Q | | | | | |
| Malaria Rapid Diagnostic Device (MS C) | | 1Q | | | | | |
| Dengue Tetravalent Vaccine (Critical Design Review) | | 1Q | | | | | |
| Antimalarial, Artesunate (MS B) | | | 1Q | | | | |

| | ARMY RDT&E BUDGET IT | TEM JU | STIFIC | ATION | (R2a Ex | khibit) | |] | February 2 | 006 |
|---|------------------------|---------------------|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes | | | PE NUMBER A 0603807A - | | Systems - A | dv Dev | | | PRO 836 | JECT |
| | COST (In Thousands) | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | FY 2010 Estimate | FY 2011 Estimate | Cost to Complete | Total Cost |
| 836 | COMBAT MEDICAL MATL AD | 7322 | 5612 | 3814 | 4784 | 14200 | 13729 | 3411 | 0 | 60661 |

A. Mission Description and Budget Item Justification: This project funds technical development of candidate medical products for the advancement of combat casualty care; especially far forward on the battlefield for first responders, combat life savers, and field medics. This funds Phase 1 and 2 human clinical trials for safety and efficacy of devices unique to military operational requirements. These products will decrease mortality rates increase soldiers' morale and willingness to place themselves in danger. Additionally, several products will reduce the medical organizational sustainment footprint through smaller the weight and cube and equipment independence from supporting materials. Priority is given to those products that provide the greatest clinical benefit balanced with the technical and financial risks.

| Accomplishments/Planned Program | FY 2005 | FY 2006 | FY 2007 |
|---|---------|---------|---------|
| (1) Hemostatic Dressing (HD): In FY05, established contract with new subject matter expert of fibrin hemostat technologies and identified HD manufacturing equipment requirements. Began business case analysis to determine affordability, manufacturability, and commerciality of current and emerging fibrin hemostat technologies. In FY06, complete report on affordability, manufacturability, and commerciality of current and emerging fibrin hemostat technologies. (2) Chitosan Control Dressing (CCD): In FY05, continued work on development of long-term internal use dressing. Began development of new antimicrobial chitosan burn dressing. | 428 | 250 | 0 |
| Conduct/Perform development, testing and Milestone reviews for field medical treatment and treatment aid devices:(1)Ceramic Oxygen Generator (COG):In FY05, fabricated first portable oxygen generator prototype. In FY06, conduct user and technical testing. Conduct Milestone B. In FY07, develop engineering pre-production prototype and obtain FDA clearance. (2)Ventilatory Assist Device (VAD):In FY05, conducted technical and user testing, and made required modifications. Held Milestone C review. Supported the fielding process.(3)One-Handed Tourniquet (OHT):In FY05, completed project. (4)Non-Contact Respiration Monitor (NCRM):In FY05, completed prototype, conducted user evaluation and determined that product is not a requirement at this time. (5)Rotary Valve Pressure Swing Adsorption Oxygen Generator (RVPSAOG):In FY05, reduced oxygen generator weight and size. Found potentially more reliable air compressor. In FY06, Conduct Milestone B review. Develop engineering pre-production prototype. Conduct technical and user testing and evaluation. In FY07, conduct Milestone C review. Initiate low rate production. (6)Battery Powered IV Fluid Warmer: In FY05, delivered prototype units for test evaluations. In FY06 first quarter, completed technical testing. FDA testing to commence at WRAIR. Begin user evaluation. Conduct Milestone B. (7)Future Medical Shelter System (FMSS):In FY05, performed test and evaluation on future medical shelter system. Began working on 2nd Generation concept based on test results. Completed phase 1 for the concept of the Operating Room Module. (8)Future Combat System (FCS):In FY05, continued work in the System Design and Development phase. In FY06, begin preparing the System Functional Review. Requirements were finalized for the Medical Vehicle and a brass board litter system was constructed. (9)Electroosmotic Pain Therapy System (EPTS):In FY05, fabricated prototype units. Obtained animal use approval. In FY06, initiate FDA requirement testing. | 6894 | 5362 | 3814 |
| Total | 7322 | 5612 | 3814 |

C. Acquisition Strategy Evaluate commercially developed materiel in government-managed tests for hardening or other modification.

| JSTIFICATION (R2a Exhibit) | February 2006 |
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| PE NUMBER AND TITLE 0603807A - Medical Systems - Adv Dev | PROJECT 836 |
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| | PE NUMBER AND TITLE |

| AMMI MDIC | &E COST | Γ ANALYSIS | (R3) | | | | | | | February | 2006 | |
|---|---|--|------------------------------------|--|-----------------------------------|-------------------------|-----------------------------------|-------------------------|---------------------------|-------------------------------|-------------------|---|
| BUDGET ACTIVITY 4 - Advanced Component | Developme | nt and Prototypes | | NUMBER AND TITLE 603807A - Medical Systems - Adv Dev | | | | | | | PROJEC 836 | СТ |
| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2005 Cost | FY 2005 Award Date | FY 2006 Cost | FY 2006 Award Date | FY 2007 Cost | FY 2007 Award Date | Cost To Complete | Total Cost | Targe Value of Contrac |
| No other contract exceeds \$1M | | | 11824 | 0 | | 1918 | | 61 | | 0 | 13803 | (|
| Subtot | tal: | | 11824 | 0 | | 1918 | | 61 | | 0 | 13803 | C |
| II. Support Costs | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2005 Cost | FY 2005 Award Date | FY 2006 Cost | FY 2006 Award Date | FY 2007 Cost | FY 2007 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| Subtot | | | 0 | | | | | | | | | |
| | | | | | | | | | | | | |
| Remarks: No product/contract costs | greater than \$1N | I individually. | | | | | | | | | | |
| Remarks: No product/contract costs III. Test And Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2005 Cost | FY 2005 Award Date | FY 2006 Cost | FY 2006 Award Date | FY 2007 Cost | FY 2007 Award Date | Cost To Complete | Total Cost | Targe Value of Contrac |
| | Contract Method & Type | Performing Activity & | | | Award | | Award | | Award | | | Value o |
| III. Test And Evaluation Subtot | Contract Method & Type | Performing Activity & Location | PYs Cost | | Award | | Award | | Award | | | Value o |
| | Contract Method & Type | Performing Activity & Location | PYs Cost | | Award | | Award | | Award | Complete Cost To | | Value o |
| III. Test And Evaluation Subtot Remarks: No product/contract costs | Contract Method & Type tal: greater than \$1M Contract Method & | Performing Activity & Location I individually. Performing Activity & | PYs Cost 0 | Cost FY 2005 | Award Date FY 2005 Award | Cost FY 2006 | Award Date FY 2006 Award | Cost FY 2007 | Award Date FY 2007 Award | Complete Cost To | Cost | Value o Contrac Targe Value o |
| III. Test And Evaluation Subtot Remarks: No product/contract costs IV. Management Services No product/contract costs greater | Contract Method & Type tal: greater than \$1M Contract Method & Type | Performing Activity & Location I individually. Performing Activity & | PYs Cost O Total PYs Cost | Cost FY 2005 Cost | Award Date FY 2005 Award | Cost FY 2006 Cost | Award Date FY 2006 Award | Cost FY 2007 Cost | Award Date FY 2007 Award | Complete Cost To Complete | Cost Total Cost | Value o Contrac Targe Value o Contrac |
| III. Test And Evaluation Subtot Remarks: No product/contract costs IV. Management Services No product/contract costs greater than \$M individually. | Contract Method & Type tal: greater than \$1M Contract Method & Type | Performing Activity & Location I individually. Performing Activity & | PYs Cost O Total PYs Cost 10660 | FY 2005 Cost 7322 | Award Date FY 2005 Award | FY 2006 Cost 3694 | Award Date FY 2006 Award | FY 2007 Cost 3753 | Award Date FY 2007 Award | Complete Cost To Complete 0 | Total Cost | Value o Contrac Targe Value o Contrac |

| Schedule Profile (R4 Exhi | bit) | | | | | February 20 | 06 |
|--|----------------|---|-------------------|---------|------------------|------------------|---------------------|
| BUDGET ACTIVITY 4 - Advanced Component Development ar | PE NUME 060380 | BER AND TITLE 7A - Medical | Systems - Ad | v Dev | | | ROJEСТ 36 |
| Event Name | FY 05 | FY 06 | FY 07 | FY 08 | FY 09 1 2 3 4 | FY 10 1 2 3 4 | FY 11 1 2 3 4 |
| 1) Ceramic Oxygen Gen, (2) Ceramic Oxygen Gen | 1 2 3 4 | MS B 1 | 1 2 3 4 MS C 2 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4 |
| 3) Ventalitory Assist Device | MS C 🐧 | | | | | | |
| 4) One-handed Tourniquet | MS C 🛕 | | | | | | |
| (5) Rotary Valve Pressure Oxy Gen, (6) Rotary Valve Pressure OxyGene | | MS B 💰 | MS C 🔥 | | | | |
| (7) Battery-powered IV Fluid Warmer, (8) Battery- powered IV Fluid Warmer | | MS B | MS C | | | | |
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Schedule Detail (R4a Exhibit) BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes PE NUMBER AND TITLE 0603807A - Medical Systems - Adv Dev 836

| Schedule Detail | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | FY 2010 | FY 2011 |
|--|---------|---------|---------|---------|---------|---------|---------|
| Ceramic Oxygen Generator Systems (MS B, MS C) | | 3Q | 4Q | | | | |
| Ventilatory Assist Device (MS C) | 2Q | | | | | | |
| One-Handed Tourniquet (MS, C) | 3Q | | | | | | |
| Rotary Valve Pressure Swing Oxygen Generator (MSB, MS C) | | 3Q | 4Q | | | | |
| Battery-powered IV Fluid Warmer (MS B, MS C) | | 3Q | 3Q | | | | |

| | ARMY RDT&E BUDGET IT | TEM JU | STIFIC | ATION | (R2a Ex | khibit) | | 1 | February 2 | 2006 |
|-----|--|---------------------|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| | T ACTIVITY vanced Component Development and P | | PE NUMBER A 0603807A - | | Systems - A | dv Dev | | | PRO 837 | JECT 7 |
| ı | COST (In Thousands) | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | FY 2010 Estimate | FY 2011 Estimate | Cost to Complete | Total Cost |
| 837 | SOLDIER SYS PROT-AD | 712 | 938 | 2520 | 1916 | 1820 | 1698 | 1691 | 0 | 13207 |

A. Mission Description and Budget Item Justification: This project supports the conceptual and technical development of preventive medicine material including devices and medicines in order to provide protection, sustainment, and enhancement of the physical and psychological capabilities of soldiers across all conditions of combat. Focus is on the reduction of personnel losses due to preventable disease and non-battle injuries through the development of environmental and physiological performance monitors and other preventive medicine countermeasures.

| Accomplishments/Planned Program | FY 2005 | FY 2006 | FY 2007 |
|--|---------|---------|---------|
| In FY05, began termination phase of contract for Leishmania skin tests: In FY06, conduct a Design Readiness Review and close out Leishmania skin test contract. | 442 | 438 | 0 |
| Provide funding for the Air Worthiness Certification of the Special Medical Emergency Evacuation Device (SMEED) and Life Support for Trauma and Transport (LSTAT) Next Generation. | 270 | 500 | 2520 |
| Total | 712 | 938 | 2520 |

C. Acquisition Strategy Test and evaluate materiel in government-managed trials to meet fielding requirements.

| ARMY RDT8 | E COS | Γ ANALYSIS | (R3) | | | | | | February 2006 | | | |
|--|------------------------------|---|--|-----------------|--------------------------|-----------------|--------------------------|------------------------|--------------------------|---------------------|---------------|--------------------------------|
| BUDGET ACTIVITY 4 - Advanced Component | Developme | ent and Prototypes | PE NUMBER AND TITLE 0603807A - Medical Systems - Adv Dev | | | | | | PROJECT 837 | | | CT |
| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2005 Cost | FY 2005 Award Date | FY 2006 Cost | FY 2006 Award Date | FY 2007 Cost | FY 2007 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| No product/contract costs greater than \$1M individually | | | 1447 | 342 | | 458 | | 1203 | | Continue | 2939 | 0 |
| Subtot | al: | | 1447 | 342 | | 458 | | 1203 | | Continue | 2939 | 0 |
| II. Support Costs | Contract Method & | Performing Activity & Location | Total PYs Cost | FY 2005 Cost | FY 2005 Award | FY 2006 Cost | FY 2006 Award | FY 2007 Cost | FY 2007 Award | Cost To Complete | Total Cost | Target Value of |
| No product/contract costs greater than \$1M individually | Туре | | 79 | 23 | Date | 35 | Date | 75 | Date | Continue | 178 | Contract 0 |
| Subtot | al: | | 79 | 23 | | 35 | | 75 | | Continue | 178 | 0 |
| III. Test And Evaluation No product/contract costs greater than \$1M individually | Contract Method & Type | Performing Activity & Location Research and development; stability | Total PYs Cost | FY 2005 Cost | FY 2005 Award Date | FY 2006 Cost | FY 2006 Award Date | FY 2007 Cost 456 | FY 2007 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| than \$111 marvidually | | and potency testing | | | | | | | | | | |
| Subtot | al: | | 356 | 127 | | 160 | | 456 | | Continue | 907 | 0 |
| | | | | | | | | | | | | |
| IV. Management Services | Contract Method & | Performing Activity & Location | Total PYs Cost | FY 2005 Cost | FY 2005 Award | FY 2006 Cost | FY 2006 Award | FY 2007 Cost | FY 2007 Award | Cost To Complete | Total Cost | Target Value of |
| IV. Management Services No product/contract costs greater than \$1M individually | | | | | | | | | | | | _ |

0603807A (837) SOLDIER SYS PROT-AD Item No. 73 Page 15 of 18 196 Exhibit R-3 ARMY RDT&E COST ANALYSIS

| ARMY RDT&E COST ANALYSIS | (R3) | | | | February | 2006 | |
|---|---------------------------|------------------------|-----|-----------------------|----------|------|---|
| BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes | PE NUMBER 0603807A | AND TITLE - Medical Sy | | PROJECT 837 | | | |
| Project Total Cost: | 2767 | 712 | 938 | 2520 | Continue | 5874 | 0 |
| Project Total Cost: | 2707 | | 938 | 2520 | Continue | 50/4 | |
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| Schedule Profile (R4 Ex | hibit) | | | | | February 20 | 06 |
|------------------------------------|-------------------------|--------------|-------------|---------|---------|-------------|--------|
| BUDGET ACTIVITY | PE NI IMBER | AND TITLE | | | I | | ROJECT |
| 4 - Advanced Component Development | and Prototypes 0603807A | - Medical Sy | stems - Adv | v Dev | | 8 | 37 |
| Event Name | FY 05 | FY 06 | FY 07 | FY 08 | FY 09 | FY 10 | FY 11 |
| | 1 2 3 4 1 | 2 3 4 1 | 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 |
| (1) Leishmania Skin Test | Design Readiness Re | view 1 | | | | | |

| Schedule Detail (R4a Exhibit) | | | | | February 2006 | | |
|-------------------------------|----------------------------------|--------------------|---------|--------------------|---------------|---------|---------|
| | E NUMBER AND TI 603807A - Med | TLE ical System | | PROJECT 837 | | | |
| Schedule Detail | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | FY 2010 | FY 2011 |
| Leishmania Skin Test | | 3Q | | | | | |
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