Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Army

**DATE:** February 2010

#### APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

#### R-1 ITEM NOMENCLATURE

PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev

COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	<b>Total Cost</b>
Total Program Element	41.081	41.794	34.474	0.000	34.474	30.059	45.077	52.751	54.061	Continuing	Continuing
812: MIL HIV VAC&DRUG DEV	4.550	4.448	4.456	0.000	4.456	4.434	3.380	4.986	5.250	Continuing	Continuing
832: Field Medical Systems Engineering Development	14.392	15.634	17.791	0.000	17.791	16.849	27.054	31.800	32.264	Continuing	Continuing
834: SOLDIER SYS PROT-ED	1.726	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
849: INFEC DIS DRUG/VACC ED	13.236	13.634	12.227	0.000	12.227	8.776	14.643	15.965	16.547	Continuing	Continuing
A11: LSTAT MEDICAL TECHNOLOGY (CA)	2.393	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
CS5: MED MATERIEL/MED BIO DEFENSE INITIATIVES (CA)	4.784	8.078	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

#### A. Mission Description and Budget Item Justification

This program element (PE) funds advanced development of medical materiel within the System Demonstration and Low Rate Initial Production portions of the acquisition life cycle using 6.5 funding. It supports products successfully developed in the Systems Integration portion of the Systems Development and Demonstration phase through completion of the Milestone C Decision Review. When available, commercially-off-the-shelf (COTS) medical products are also tested and evaluated for military use. This PE primarily includes pivotal (conclusive) human clinical trials necessary for licensure by the US Food and Drug Administration, along with related product stability, production manufacturing, supportability analysis, and operational testing for biologics (products derived from living organisms) and devices to demonstrate that products are safe and effective. Combat Casualty Care devices and medicines: (1) enhance care at the first responder level to save lives, and (2) provide more effective post evacuation medical care and rehabilitation to shorten recovery time. The F2 concept places Soldiers into a more austerned with lengthened evacuation times (both arrival and transit). This requires medica and first responders to improve their ability to save lives and extend stabilization. Reduction in weight, cube, and sustainment 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, allow commanders to increase Soldiers cognitive awareness and stamina. This improves Soldiers operational capabilities and has the potential to reduce casualties. Disease and non-battle injuries (DNBI) are the largest contributor to the medical footprint. Infectious disease vaccines and preventive drugs reduce the risk of warfighters contracting debilitating or fatal diseases, reducing levels of DNBI affected Soldiers and in turn, significantly reducing a large portion of the requirement for supporting combat support hospitals in the th

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Army		<b>DATE:</b> February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	
2040: Research, Development, Test & Evaluation, Army	PE 0604807A: Medical Materiel/Medical Biological Defense Equi	ipment - Eng Dev
BA 5: Development & Demonstration (SDD)		

(HIV) Vaccine and Drug Development funds militarily relevant HIV medical countermeasures. These include advanced component development of candidate vaccines and drugs for large-scale field testing. This program is managed by U.S. Army Medical Materiel Development Activity (USAMMDA) and U.S. Army Medical Materiel Agency (USAMMA) of the US Army Medical Research and Materiel Command.

### **B. Program Change Summary (\$ in Millions)**

	FY 2009	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>
Previous President's Budget	45.222	33.893	34.527	0.000	34.527
Current President's Budget	41.081	41.794	34.474	0.000	34.474
Total Adjustments	-4.141	7.901	-0.053	0.000	-0.053
<ul> <li>Congressional General Reductions</li> </ul>		-0.219			
<ul> <li>Congressional Directed Reductions</li> </ul>		0.000			
<ul> <li>Congressional Rescissions</li> </ul>	0.000	0.000			
<ul> <li>Congressional Adds</li> </ul>		8.120			
<ul> <li>Congressional Directed Transfers</li> </ul>		0.000			
<ul> <li>Reprogrammings</li> </ul>	0.000	0.000			
<ul> <li>SBIR/STTR Transfer</li> </ul>	-0.951	0.000			
<ul> <li>Adjustments to Budget Years</li> </ul>	0.000	0.000	-0.053	0.000	-0.053

### **Change Summary Explanation**

Congressional Program reduction in FY 09 was due to Plasma Sterilizer project was moved to 0603002A, medical, project number MK8. Congressional increases in FY 10 was directed research in following areas: Army Portable Oxygen system, \$1.2 Million. Nanophotonic biosensor Detection of BioAgents and Pathogens, \$1.520 Million. Plasma Sterilizer, \$2.4 Million. Military applications for Medical Grade Chitosan, \$3.0 Million.

**DATE:** February 2010

5.250

Continuing

Continuing

L'Ambie R 211, RD 1 CE 11 oject dustii	reaction: 1 B 2	011 1111119							D11111.100	1 daily 2010		
APPROPRIATION/BUDGET ACTI	VITY			R-1 ITEM N	NOMENCLA	TURE		PROJECT				
2040: Research, Development, Test & E	Evaluation, Ai	rmy		PE 0604807.	A: Medical M	lateriel/Medic	ral	812: <i>MIL HI</i>	V VAC&DRU	JGDEV		
BA 5: Development & Demonstration (	SDD)			Biological D	efense Equip	ment - Eng De	ev					
COST (\$ in Millions)	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To		
COST (\$ III WILLIONS)	Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Complete	Total Cost	

4.456

4.434

3.380

4.986

### A. Mission Description and Budget Item Justification

812: MIL HIV VAC&DRUG DEV

Quantity of RDT&E Articles

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army

4.550

4.448

4.456

This project funds militarily relevant human immunodeficiency virus (HIV) medical countermeasures. These funds provide for engineering and manufacturing development of candidate vaccines and drugs to permit large-scale field testing. Development is focused on militarily unique needs effecting manning, mobilization, and deployment. The major contractor is The Henry M. Jackson Foundation for the Advancement of Military Medicine, Rockville, MD. Research efforts are coordinated with the National Institutes of Health.

0.000

#### B. Accomplishments/Planned Program (\$ in Millions)

			1		
			FY 2011	FY 2011	FY 2011
	FY 2009	FY 2010	Base	OCO	Total
Program #1	4.550	0.000	0.000	0.000	0.000
In FY09, completed the observation and follow-up phase of the expanded safety/efficacy trial (> 16,000 subjects) in Thailand and begin data analysis for this HIV Vaccine (conduct Design Readiness Review (DRR).					
FY 2009 Accomplishments: FY 2009					
FY 2010 Plans: FY 2010					
FY 2011 Base Plans: FY 2011 Base					
FY 2011 OCO Plans: FY 2011 OCO					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: Febr	ruary 2010	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604807A: Medical Materiel/Medica Biological Defense Equipment - Eng De		PROJECT 812: MIL HI	V VAC&DRU		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Program #2		0.000	4.327	0.000	0.000	0.000
In FY10, prepare preliminary clinical study report on the completed of and conduct a critical design review (CDR) to determine future devel trial results. Follow up clinical trial for HIV positive for viral load in endpoint for use in HIV vaccine studies.  FY 2009 Accomplishments: FY 2010 Plans: FY 2010 Base Plans: FY 2011 Base Plans: FY 2011 Base	lopment of the prime-boost vaccine based on					
FY 2011 OCO Plans: FY 2011 OCO						
Program #3		0.000	0.000	4.456	0.000	4.456
In FY11, will finalize and submit to the Food and Drug Administration efficacy trial in Thailand, update/revise the clinical development plant HIV positive for viral load.						
FY 2009 Accomplishments: FY 2009						
FY 2010 Plans: FY 2010						

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			<b>DATE:</b> February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604807A: Medical Materiel/Medical	812: <i>MIL HI</i>	IV VAC&DRUG DEV
BA 5: Development & Demonstration (SDD)	Biological Defense Equipment - Eng Dev		

## B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans:					
FY 2011 Base					
FY 2011 OCO Plans:					
FY 2011 OCO					
Program #4	0.000	0.121	0.000	0.000	0.000
Small Business Innovative Research/Small Business Technology Transfer Programs.					
FY 2009 Accomplishments:					
FY 2009					
FY 2010 Plans:					
FY 2010					
FY 2011 Base Plans:					
FY 2011 Base					
FY 2011 OCO Plans:					
FY 2011 OCO					
Accomplishments/Planned Programs Subtotals	4.550	4.448	4.456	0.000	4.456

## C. Other Program Funding Summary (\$ in Millions)

N/A

## **D.** Acquisition Strategy

Test and evaluate commercially developed vaccine candidates in government-managed trials.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army		<b>DATE:</b> February 2010
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev	PROJECT 812: MIL HIV VAC&DRUG DEV
	Diviogram Digital Equipment Dig Dev	I
E. Performance Metrics	4. '.	Land Land Construction Development 2010
Performance metrics used in the preparation of this justification ma	terial may be found in the FY 2010 Army Performance Bud	get Justification Book, dated May 2010.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army

**DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)

PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev

812: MIL HIV VAC&DRUG DEV

**Product Development (\$ in Millions)** 

				FY	2010		2011 ase		2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	С	Henry M. Jackson Foundation Rockville, MD	15.280	3.093		3.231		0.000		3.231	Continuing	Continuing	0
		Subtotal	15.280	3.093		3.231		0.000		3.231			0.000

#### Remarks

**Support (\$ in Millions)** 

2 2 P P 2 2 2 ( + == 2 :== 2 :== 2 :== 2 :== 2 :== 2 :== 2 :=	-,													1
				FY	2010		2011 ase	FY 2011 OCO						
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
No product/contract costs greater than \$1M individually	С	Nothing entered for Activity and Location. Location could not be determined.	0.394	0.047		0.046		0.000		0.046	0	.579	0	
		Subtotal	0.394	0.047		0.046		0.000		0.046	0.000	0.579	0.000	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army

**DATE:** February 2010

### APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

#### R-1 ITEM NOMENCLATURE

PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev

PROJECT

812: MIL HIV VAC&DRUG DEV

### **Test and Evaluation (\$ in Millions)**

				FY	2010	FY 2 Ba	2011 ase	FY :	2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	С	Walter Reed Army Institute of Research (WRAIR) Silver Spring, MD	4.950	1.213		1.088		0.000		1.088	0	8.464	0
		Subtotal	4.950	1.213		1.088		0.000		1.088	0.000	8.464	0.000

#### Remarks

### **Management Services (\$ in Millions)**

				FY	2010	FY :	2011 ase	FY O	2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than \$1M individually	С	Nothing entered for Activity and Location. Location could not be determined.	0.483	0.095		0.091		0.000		0.091	0	.854	0
		Subtotal	0.483	0.095		0.091		0.000		0.091	0.000	0.854	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army			<b>DATE:</b> February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604807A: Medical Materiel/Medical	812: MIL HI	V VAC&DRUG DEV
BA 5: Development & Demonstration (SDD)	Biological Defense Equipment - Eng Dev		

	Total Prior Years Cost	FY 2010	FY:	2011 ase	FY 2	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	21.107	4.448	4.456		0.000	4.456			0.000

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Army			<b>DATE:</b> February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604807A: Medical Materiel/Medical	812: <i>MIL HI</i>	V VAC&DRUG DEV
BA 5: Development & Demonstration (SDD)	Biological Defense Equipment - Eng Dev		

	FY 2009			]	FY	201	0	]	F <b>Y</b> :	201	1	1	FY 2012			FY 2013			3	FY 2014			FY 2015		;			
	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	4
Prime-Boost HIV Vaccine (DRR)			#																									
HIV Vaccine (CDR)							#																					

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Army			<b>DATE:</b> February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604807A: Medical Materiel/Medical	812: <i>MIL HI</i>	V VAC&DRUG DEV
BA 5: Development & Demonstration (SDD)	Biological Defense Equipment - Eng Dev		

# Schedule Details

	Sta	art	End		
Event	Quarter	Year	Quarter	Year	
Prime-Boost HIV Vaccine (DRR)	3	2009	3	2009	
HIV Vaccine (CDR)	3	2010	3	2010	

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army										<b>DATE:</b> February 2010			
APPROPRIATION/BUDGET ACT 2040: Research, Development, Test & BA 5: Development & Demonstration	Evaluation, Ar	ту		R-1 ITEM NOMENCLATURE PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev  PROJECT 832: Field Medical Development					22: Field Medical Systems Engineering				
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost		
832: Field Medical Systems Engineering Development	14.392	15.634	17.791	0.000	17.791	16.849	27.054	31.800	32.264	Continuing	Continuing		
Quantity of RDT&E Articles													

#### A. Mission Description and Budget Item Justification

This project funds development of medical products for enhanced combat casualty care and follow-on care, including rehabilitation. This project funds pivotal (conclusive) human clinical trials or mechanical engineering evaluations for efficacy of devices or biologics (products derived from living organisms) to fulfill unique military requirements. Mature commercially-off-the-shelf (COTS) medical products are also evaluated for military use. Consideration will also be given to reducing the medical sustainment footprint through smaller weight and cube volume, or equipment independence from supporting materiel. This work is frequently completed through a laboratory/contractor team with the contractor obtaining the U.S. Food and Drug Administration (FDA) licensure for sale of the product. In FY10, Project 834 Soldier Sys Prot-ED will be consolidated into Project 832. Major contractors/intra-governmental agencies include: IGR Enterprises, Inc.; Army Medical Department Board Test Center; SeQual Technologies, Inc.; Enginivity, Inc.; Ultrasound Diagnostics, Inc.; HemCon Medical Technologies, Inc.; Cerdak Ltd; Hemerus Medical, LLC; Fast Track Drugs & Biologics, LLC; Integrated Medical Systems, Inc; the National Institutes of Health National Heart, Lung and Blood Institute (NHLBI), and the U.S. Army Aeromedical Research Laboratory Walter Reed Army Institute of Research (WRAIR) and Institute of Surgical Research (ISR) for user evaluation.

#### B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Program #1	14.392	0.000	0.000	0.000	0.000
In FY 09, Ceramic Oxygen Generator (COG): transitioned from project 836, conducted technical and user evaluations, obtained FDA clearance, conducted a Milestone C review in Qtr 3 FY 09 and transitioned to Production and Deployment. Rotary Valve Pressure Swing Adsorption Oxygen Generator (RVPSAOG): conducted Milestone C review of Omni II, and initiated low rate production, with an estimated completion of Qtr 4 FY 09. Battery Powered IV Fluid Warmer: In Qtr 4 FY 09 conducted a Milestone C review and transition to Production and Deployment. Field Sterilizer: following multiple vendor review, conducted technical and user evaluation to determine the best solution. 120 LPM (liter per minute) Oxygen Generator: initiated request for					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: Febr	uary 2010		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev	832	PROJECT 832: Field Medical Systems Engineering Development				
B. Accomplishments/Planned Program (\$ in Millions)							
	FY 20	)09 F	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
proposal for review of production capabilities - performance characterist commercial-off-the-shelf (COTS) solution can meet current capabilities refinement of a COTS system is feasible. Freeze-dried Plasma Program: on a down-select, manufacture clinical lots of a freeze-dried plasma proc safety/efficacy human clinical trial. Red Blood Cell Extended Life (RBC candidate - a new blood collection and storage system that extends the slewesks): transitioned from 836 and began a human safety/efficacy study practices validation of the blood collection and storage system. Lab, Blo COTS equipment to meet essential characteristics and enhance technology Woundstat Safety Study: completed testing and moved to production.  FY 2009 Accomplishments: FY 2010 Plans: FY 2010 Base Plans: FY 2011 Base FY 2011 OCO Plans: FY 2011 OCO	defined or if research and development transitioned from project 836 and based luct, and began pre-trial activities for a EXL) program (severe bleeding treatment nelf-life of red blood cells from 6 to 8 and performed good manufacturing od Bank, and Anatomical testing for						
Program #2	0	0.000	0.000	0.000	0.000	0.000	
Continued accomplishments for FY 09. Dental Field Unit:In FY09, com of production capabilities - performance characteristics was reviewed to (COTS) solution can meet current capabilities defined or if research and	determine if a commercial-off-the-shelf						

**DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev	!	PROJECT 832: Field M Developmen	ledical System	s Engineering	g
B. Accomplishments/Planned Program (\$ in Millions)	_					
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
system is feasible. Noise Immune Stethoscope: In 4Q FY09, transitioned for conducted Milestone C.	rom project 879 and successfully					
FY 2009 Accomplishments: FY 2009						
FY 2010 Plans: FY 2010						
FY 2011 Base Plans: FY 2011 Base						
FY 2011 OCO Plans: FY 2011 OCO						
Program #3		0.000	15.196	0.000	0.000	0.000
In FY 10, COG: conduct developmental and operational testing to obtain M report analysis will be performed to facilitate FDA and UL approval and as adhere to good manufacturing practices. Further analysis may be performed and ascertain that production capabilities adhere to good manufacturing prosubmit final reports for FDA clearance. Field Sterilizer: complete analysis a products in OT&E trials for final selection and movement to production and (UBI): transition from project 836, begin safety and effectiveness human cleavaluation of the prototype, and conduct a Milestone C for transition to Pro Plasma Program: initiate a multi-center safety/efficacy human clinical trial, product. Red blood cell extended life program: will prepare and complete estudy. Woundstat Safety Study: complete the study. Continue testing of conto include Hematology Analyzers, continue testing and evaluation for final	certain that production capabilities I to facilitate FDA and UL approval ocesses. In 2Q FY10 for the RVPSAOG and validation report of down select d deployment. Ultrasonic Brain Imager inical trial, conduct a human factor duction and Deployment.Freese Dried and perform stability studies on enrollment in human safety/efficacy mercial lab equipment: expand study					

# **UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			DATE: Feb	uary 2010			
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJEC					
2040: Research, Development, Test & Evaluation, Army	PE 0604807A: Medical Materiel/Medical		832: Field Medical Systems Engineering				
BA 5: Development & Demonstration (SDD)	Biological Defense Equipment - Eng Dev	Developn	ent				
B. Accomplishments/Planned Program (\$ in Millions)							
			FY 2011	FY 2011	FY 2011		
	FY 20	09 FY 201	) Base	OCO	Total		
stethoscope: conduct environmental/ transportation testing. Verify stethosc military environment. Conduct storage and operational temperature, drop a testing. Life Support for Trauma and Transport (LSTAT): transition from pand transition to Production and Deployment.  FY 2009 Accomplishments: FY 2010 Plans: FY 2010 Base Plans: FY 2011 Base	and vibration, as well as air-worthiness						
FY 2011 OCO Plans: FY 2011 OCO							
Program #4	0	000 0.0	00 17.791	0.000	17.791		
In FY11, Freeze-dried Plasma: will start enrollment in the multi-center limitrial and evaluate stability profile of the product. Red Blood Cell Extended human safety/efficacy study, conduct data analysis, and prepare and submit Hemostatic Agent (PDHA):will transition from project 836 to begin enrollmefficacy trial. Intranasal Ketamine (low dose pain management via nasal spassed and conduct pre-clinical trial activities for human drug use in aeromedi Hypertonic Saline Dextran (treatment of shock due to blood loss): will support trial for treatment of shock. Will continue market analysis and surveys for contract treatment of shock. Enhanced SAVe: will conduct clinical user evaluation a Diagnostic Access: will conduct Prototype field testing and refinement for	Life Program: will complete the report to the FDA. Platelet Derived nent/follow-up in the human safety/ oray): will transition from project cal evacuation and burn patients. port human expanded safety/efficacy andidate resuscitative fluids for and operational testing. Remote						

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: Febr	uary 2010	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng De		PROJECT 832: Field M Development	edical System	s Engineerinį	g
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
phase of this device. Treatment Table for PM, HBCT Medical Mission Pack transition from Project 836. Will transition to production for use on PM, H for PM, HBCT for Medical Mission Package for Treatment Variant: will tree conduct environmental and operational testing. Shelter for PM, HBCT Tree Project 836. Will evaluate alternatives in operational setting. Shock and V Litters in Ground and Air Medical Evacuation Vehicles: will transition from Vibration Isolation System for patient litters - air worthiness and ground ve FY 2009 Accomplishments:  FY 2010 Plans:  FY 2011 Base Plans:  FY 2011 OCO Plans:  FY 2011 OCO Plans:  FY 2011 OCO	BCT Treatment Variant. Refrigerator ransition from Project 836. Will atment Variant: will transition from Vibration Isolation System for Patient in Project 836. Will conduct Shock and					
Program #5		0.000	0.000	0.000	0.000	0.000
Continued FY 11 projects: One-handed tourniquet update: Conduct study to product. Passive Cold Chain Capability for Temperature Sensitive Medical 836. Will conduct environmental testing and user testing.  FY 2009 Accomplishments:						
FY 2009						

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: Febr	uary 2010				
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng De		PROJECT 832: Field M Development	•	dical Systems Engineering				
B. Accomplishments/Planned Program (\$ in Millions)									
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total			
FY 2010 Plans: FY 2010									
FY 2011 Base Plans: FY 2011 Base									
FY 2011 OCO Plans: FY 2011 OCO									
Program #6		0.000	0.438	0.000	0.000	0.00			
Small Business Innovative Research/Small Business Technolog	y Transfer Programs.								
FY 2009 Accomplishments: FY 2009									
FY 2010 Plans: FY 2010									
FY 2011 Base Plans: FY 2011 Base									
FY 2011 OCO Plans: FY 2011 OCO									
	Accomplishments/Planned Programs Subtotals	14.392	15.634	17.791	0.000	17.79			

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army		<b>DATE:</b> February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
2040: Research, Development, Test & Evaluation, Army	PE 0604807A: Medical Materiel/Medical	832: Field Medical Systems Engineering
BA 5: Development & Demonstration (SDD)	Biological Defense Equipment - Eng Dev	Development
C. Other Program Funding Summary (\$ in Millions) N/A		
D. Acquisition Strategy		
Develop in-house or industrial prototypes in government-managed programs t	to meet military and regulatory requirements for produ	ction and fielding.
	The state of the s	
E. Performance Metrics		
Performance metrics used in the preparation of this justification material may	be found in the FY 2010 Army Performance Budget J	ustification Book, dated May 2010.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army

**DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

**R-1 ITEM NOMENCLATURE** 

PE 0604807A: Medical Materiel/Medical

Biological Defense Equipment - Eng Dev

**PROJECT** 

832: Field Medical Systems Engineering

Development

### **Product Development (\$ in Millions)**

							2011		2011	FY 2011			
			,	FY	2010	Ba	ase	00	CO	Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Rotary Valve Pressure Swing Adsorption oxygen Generator	С	Sequal Technologies Inc., San Diego, CA	3.197	0.000		0.000		0.000		0.000	Continuing	Continuing	0
Hypertonic Saline Dextran	С	National Institutes of Health National Heart, Lung and Blood Institute (NHLBI)	0.000	4.800		5.500		0.000		5.500	Continuing	Continuing	0
Freeze-dried Human Plasma	С	HemCon Medical Technologies Inc, Tigard, OR	0.000	7.150		0.500		0.000		0.500	Continuing	Continuing	0
Extended Life Red Blood Cell Product	С	Hemerus Medical LLC, St. Paul, MN	0.000	0.745		0.500		0.000		0.500	Continuing	Continuing	0
Virtual Imaging	С	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.450		0.000		0.000		0.000	Continuing	Continuing	0
No product/contract costs greater than \$1M individually	С	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.000		2.000		0.000		2.000	Continuing	Continuing	0
		Subtotal	3.197	13.145		8.500		0.000		8.500			0.000

Remarks

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army

**DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev

**PROJECT** 

832: Field Medical Systems Engineering

Development

### **Support (\$ in Millions)**

				FY	2010		2011 ase		2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Regulatory Support	С	Clinical Research Management Inc,. Hinckley, OH	0.000	1.400		1.400		0.000		1.400	Continuing	Continuing	0
No product/contract costs greater then \$1 Million individually	С	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.186		2.354		0.000		2.354	Continuing	Continuing	0
	·	Subtotal	0.000	1.586		3.754		0.000		3.754			0.000

#### Remarks

### **Test and Evaluation (\$ in Millions)**

				FY	2010		2011 ase	FY 2	2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Not Applicable	С	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.399		4.108		0.000		4.108	Continuing	Continuing	0
		Subtotal	0.000	0.399		4.108		0.000		4.108			0.000

### **UNCLASSIFIED**

### Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army

**DATE:** February 2010

### APPROPRIATION/BUDGET ACTIVITY

**R-1 ITEM NOMENCLATURE** 

**PROJECT** 

2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)

PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev

832: Field Medical Systems Engineering

Development

### **Management Services (\$ in Millions)**

				FY	2010		2011 ase	FY 2	2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than \$1M individually	С	Nothing entered for Activity and Location. Location could not be determined.	18.173	0.504		1.429		0.000		1.429	Continuing	Continuing	0
		Subtotal	18.173	0.504		1.429		0.000		1.429			0.000

#### Remarks

	Total Prior Years Cost	FY 2010	FY 2	FY:	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	21.370	15.634	17.791	0.000	17.791			0.000

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Army

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604807A: Medical Materiel/Medical

Biological Defense Equipment - Eng Dev

**PROJECT** 

832: Field Medical Systems Engineering

Development

	1	TY 2	2009		FY	201	0	]	F <b>Y</b> :	201	1	]	F <b>Y</b> 2	201	2	1	F <b>Y</b> 2	201	3	]	FY 2	201	4	I	Y 2	015	,
	1	2	3 4	1 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) Ceramic Oxygen Gen Sys (MS-C)		#																									
(2) Rotary Valve Press Swing Oxy (MS-C)			#																								
(3) Battery Powered Iv Fld Warm (MS-C)			#																								
(4) Field Sterilizer (MS-B)			#																								
(6) Ultrasonic Brain Imager (MS-C)				#																							
(7) Freeze-dried Human Plasma - clinical lots					#	#	#	#	#	#																	
(8)Red Blood Cell Extend Life - submit for FDA approval								#	#	#																	
(14) Noise Immune Stethoscope, (MS-C)			#																								
(15) Life Support for Trauma and Transport (LSTAT) (MS-C)						#																					

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Army			<b>DATE:</b> February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604807A: Medical Materiel/Medical	832: Field M	ledical Systems Engineering
BA 5: Development & Demonstration (SDD)	Biological Defense Equipment - Eng Dev	Developmen	t

## Schedule Details

	Sta	art	En	ıd
Event	Quarter	Year	Quarter	Year
(1) Ceramic Oxygen Gen Sys (MS-C)	2	2009	2	2009
(2) Rotary Valve Press Swing Oxy (MS-C)	3	2009	3	2009
(3) Battery Powered Iv Fld Warm (MS-C)	3	2009	3	2009
(4) Field Sterilizer (MS-B)	3	2009	3	2009
(6) Ultrasonic Brain Imager (MS-C)	1	2010	1	2010
(7) Freeze-dried Human Plasma - clinical lots	2	2010	3	2011
(8)Red Blood Cell Extend Life - submit for FDA approval	1	2011	3	2011
(14) Noise Immune Stethoscope, (MS-C)	3	2009	3	2009
(15) Life Support for Trauma and Transport (LSTAT) (MS-C)	3	2010	3	2010

Exhibit R-2A, RDT&E Project Justif	ication: PB 2	011 Army							<b>DATE:</b> Feb	ruary 2010			
APPROPRIATION/BUDGET ACTI	VITY			R-1 ITEM N	NOMENCLA	TURE		PROJECT					
2040: Research, Development, Test & I	Evaluation, A	rmy		PE 0604807.	A: Medical M	ateriel/Medic	al	834: <i>SOLDI</i>	ER SYS PRO	T-ED			
BA 5: Development & Demonstration (		Biological D	efense Equipi	nent - Eng De	ev								
			EV 2011	EV 2011	EV 2011								

COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
834: SOLDIER SYS PROT-ED	1.726	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles											

#### A. Mission Description and Budget Item Justification

This project funds system development and demonstration of preventive medicine materiel, to include devices and medicines, in order to provide protection, sustainment, and enhancement of the physical and psychological capabilities of Soldiers engaged in combat operations across environmental conditions. The focus is on reduction of personnel losses due to preventable disease and non-battle injuries through development of environmental and physiological performance monitors and other preventive medicine countermeasures. In FY10, Project 834 will be consolidated into Project 832 Combat Medical Matl ED. Major contractors/performers are Pacific Technologies, Inc, Redwood, WA; Integrated Medical Systems, Inc, Signal Hill, CA, and the U.S. Army Aeromedical Research Laboratory, Fort Rucker, AL.

#### B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Program #1	1.726	0.000	0.000	0.000	0.000
Coliform Analyzer: In FY09, transition from project 837, performed operational testing, conduct Milestone C 4Q, and transition to Production and Deployment. In FY09, complete development of LSTAT-Lite, produce test articles, and conduct airworthiness, operational, and environmental testing. In FY10, transition to project 832. In FY09, conduct air worthiness testing on commercial off the shelf and non-developmental medical devices for military field use.					
FY 2009 Accomplishments: FY 2009					
FY 2010 Plans: FY 2010					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			<b>DATE:</b> February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604807A: Medical Materiel/Medical	834: <i>SOLDI</i>	ER SYS PROT-ED
BA 5: Development & Demonstration (SDD)	Biological Defense Equipment - Eng Dev		

### **B.** Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: FY 2011 Base					
FY 2011 OCO Plans: FY 2011 OCO					
Accomplishments/Planned Programs Subtotals	1.726	0.000	0.000	0.000	0.000

### C. Other Program Funding Summary (\$ in Millions)

N/A

### **D.** Acquisition Strategy

Test and evaluate in-house and commercially developed preventative medicine materiel to meet FDA and EPA regulatory requirements.

### **E. Performance Metrics**

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army

**DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

**R-1 ITEM NOMENCLATURE** 

**PROJECT** 

2040: Research, Development, Test & Evaluation, Army

PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev

834: SOLDIER SYS PROT-ED

BA 5: Development & Demonstration (SDD)

**Product Development (\$ in Millions)** 

				FY :	2010		FY 2011 FY 2011 Base OCO						
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than \$1M individually	С	Nothing entered for Activity and Location. Location could not be determined.	3.688	0.000		0.000		0.000		0.000	Continuing	Continuing	0
Congressional Add in Support of Chem-Bio Protection	С	Nothing entered for Activity and Location. Location could not be determined.	4.550	0.000		0.000		0.000		0.000	Continuing	Continuing	0
	·	Subtotal	8.238	0.000		0.000		0.000		0.000			0.000

#### Remarks

**Support (\$ in Millions)** 

				FY	2010	FY 2 Ba	2011 ase	FY:	2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than \$1M individually	С	Nothing entered for Activity and Location. Location could not be determined.	0.163	0.000		0.000		0.000		0.000	Continuing	Continuing	0
		Subtotal	0.163	0.000		0.000		0.000		0.000			0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army

**DATE:** February 2010

### APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

#### R-1 ITEM NOMENCLATURE

PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev

PROJECT

834: SOLDIER SYS PROT-ED

### **Support (\$ in Millions)**

				FY	2010		2011 ase		2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract

#### Remarks

#### **Test and Evaluation (\$ in Millions)**

				FY	2010	FY :	2011 ase		2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than \$1M individually	С	Nothing entered for Activity and Location. Location could not be determined.	1.046	0.000		0.000		0.000		0.000	Continuing	Continuing	0
		Subtotal	1.046	0.000		0.000		0.000		0.000			0.000

### Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army

**DATE:** February 2010

### APPROPRIATION/BUDGET ACTIVITY

**R-1 ITEM NOMENCLATURE** 

**PROJECT** 

2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)

PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev

834: SOLDIER SYS PROT-ED

**Management Services (\$ in Millions)** 

				FY	2010	FY :	2011 ase	FY 2	2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than \$1M individually	С	Nothing entered for Activity and Location. Location could not be determined.	1.792	0.000		0.000		0.000		0.000	Continuing	Continuing	0
		Subtotal	1.792	0.000		0.000		0.000		0.000			0.000

#### Remarks

									Target
	Total Prior Years Cost	FY 2010	FY : Ba	2011 ISE	FY:	FY 2011 Total	Cost To Complete	Total Cost	Value of Contract
						 	P		
Project Cost Totals	11.239	0.000	0.000		0.000	0.000			0.000

PROJECT

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Army

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army PE 0604807A: Medical Materiel/Medical 834: SOLDIER SYS PROT-ED

BA 5: Development & Demonstration (SDD)

Biological Defense Equipment - Eng Dev

	FY 2009		J	FY 2010			1	FY 2011			FY 2012			FY 2013			3	FY 2014			4	I	Y 2	201	5			
	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	4
Coliform Analyzer (MS C)			#																									

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Army			<b>DATE:</b> February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604807A: Medical Materiel/Medical	834: <i>SOLDII</i>	ER SYS PROT-ED
BA 5: Development & Demonstration (SDD)	Biological Defense Equipment - Eng Dev		

# Schedule Details

	Sta	art	End		
Event	Quarter	Year	Quarter	Year	
Coliform Analyzer (MS C)	3	2009	3	2009	

**DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY  2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)  R-1 ITEM NOMENCLATURE PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev  PROJECT 849: INFEC DIS DRUG/VACC ED											
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	<b>Total Cost</b>
849: INFEC DIS DRUG/VACC ED	13.236	13.634	12.227	0.000	12.227	8.776	14.643	15.965	16.547	Continuing	Continuing
Quantity of RDT&E Articles											

### A. Mission Description and Budget Item Justification

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army

This project funds development of candidate medical countermeasures for militarily relevant infectious diseases. These products fall within four major areas: vaccines, drugs, diagnostic kits/devices, and insect control measures to limit exposure and disease transmission. It funds research that supports conclusive human clinical trials for large-scale human efficacy testing, expanded human safety clinical trials, long-term animal studies, and related manufacturing tests. This work, which is jointly performed by military laboratories, civilian contracted pharmaceutical firms and foreign research partners, is directed toward the prevention of disease, early diagnosis, and speeding recovery once diagnosed. Medical products approved for human use must successfully complete a series of clinical trials that are required and regulated by the U.S. Food and Drug Administration (FDA). FDA approval is a mandatory obligation for all military products placed into the hands of medical providers or service members for human use. Development 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, production, and sustainment). Malaria, dysentery, hepatitis, and dengue diseases (a severe debilitating disease transmitted by mosquitoes), which are found in Africa Command, Central Command, European Command, Southern Command, and Pacific Command areas are at the top of the infectious diseases requirements list.

#### B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Program #1	7.536	0.000	0.000	0.000	0.000
In FY 09, conducted Clinical trials, developmental testing, and reviews of malarial/antimalarial vaccines, drugs, diagnostics and insect repellents. For Tafenoquine, conducted enrollment for small human clinical challenge trial exposing volunteers to the malaria parasite (using current FDA-approved malaria drug mefloquine) to gather a baseline of the human body's immune responses to malaria and collect blood samples to be used in the validation of a laboratory assay to be used as a tool to determine the rate of malaria infection. For Combined Camouflage Face Paint (CCFP), completed the Soldier acceptability clinical study, finalized the study report, and conducted a Milestone C for transition to Production and Deployment.					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			<b>DATE:</b> February 2010				
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng De	<b>PROJECT</b> 849: <i>INFEC</i>	DIS DRUG/V	ACC ED			
B. Accomplishments/Planned Program (\$ in Millions)							
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
FY 2009 Accomplishments: FY 2009							
FY 2010 Plans: FY 2010							
FY 2011 Base Plans: FY 2011 Base							
FY 2011 OCO Plans: FY 2011 OCO							
Program #2  For FY 10, conducted clinical trials, developmental testing, and reviews of diagnostics and insect repellents. For Tafenoquine, conduct data analysis at human challenge clinical trial, and will begin pre-trial activities for a large-trial (treatment indication) in a malaria endemic country.	nd prepare a final report on the small	0.000	6.459	0.000	0.000	0.000	
FY 2009 Accomplishments: FY 2009							
FY 2010 Plans: FY 2010							
FY 2011 Base Plans: FY 2011 Base							

**DATE:** February 2010

•			1		*			
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE		PROJECT					
2040: Research, Development, Test & Evaluation, Army	PE 0604807A: Medical Materiel/Medic	PE 0604807A: Medical Materiel/Medical			849: INFEC DIS DRUG/VACC ED			
BA 5: Development & Demonstration (SDD)	Biological Defense Equipment - Eng D	ev						
B. Accomplishments/Planned Program (\$ in Millions)	,							
				FY 2011	FY 2011	FY 2011		
		FY 2009	FY 2010	Base	oco	Total		
FY 2011 OCO Plans:								
FY 2011 OCO								
Program #3		0.000	0.000	4.568	0.000	4.568		
For FY 11, conduc clinical trials, developmental testing, and review	ws of malarial/antimalarial vaccines, drugs,							
diagnostics and insect repellents. For Tafenoquine, will complete	pre-trial activities for a large-scale safety/							
efficacy human clinical trial (treatment indication) in a malaria end	lemic country.							
FY 2009 Accomplishments:								
FY 2009								
FY 2010 Plans:								
FY 2010								
FY 2011 Base Plans:								
FY 2011 Base								
FY 2011 OCO Plans:								
FY 2011 OCO								
Program #4		5.700	0.000	0.000	0.000	0.000		
For FY 09, conducted clinical trials, developmental testing, and ap								
and diagnostics (Leishmaniasis (a skin-based disease caused by a p								
(a severe debilitating disease caused by a virus and transmitted by								
Topical Antileishmanial Cream, transitioned from project 808. The								
continued enrollment in the Tunisian large scale (> 300 subjects) p								
began enrollment in three small (<35 subjects) pharmacokinetic (d								
and Panama, and prepared for a second large scale (> 300 subjects)	) human trial in Central/South America. For							

# **UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army

Schibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: Febr	uary 2010	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604807A: Medical Materiel/Medic Biological Defense Equipment - Eng Do		PROJECT 849: INFEC DIS DRUG/VACC ED			
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Pentostam (intravenous drug treatment of skin lesions caused by the Leconsult and database management in support of the industry partner's F the Dengue Tetravalent Vaccine (DTV) vaccine, transitioned from protrial activities and completed enrollment and continued monitoring the trial in Puerto Rico, completed data analysis in the human safety and in completed subject follow-up for the expanded human safety and immuchildren and adult) in Thailand, and began preliminary data analysis, a expanded safety and efficacy trial in children in Thailand, For Hepatit study blood specimens kept under cold storage and continued monitori vaccine development effort.  FY 2009 Accomplishments: FY 2010 Plans: FY 2010 Plans: FY 2010	EDA licensure submission efforts. For ject 808 the overseas human clinical expanded human safety and immunity mune response trial (adults) in the U.S, ne response trials (three trials: infant, nd continued pre-trial planning for an is E vaccine, continued maintenance of					
FY 2011 Base Plans: FY 2011 Base						
FY 2011 OCO Plans: FY 2011 OCO						
Program #5		0.000	6.793	0.000	0.000	0.00
In FY10, Topical Antileishmanial Cream, continue subject enrollment/subjects) human safety/efficacy trial and begin the second large scale hamerica, and complete the three small scale (<35 subjects) pharmacok	numan safety/efficacy trial in Central/South inetic (drug metabolism) human trials					

### **UNCLASSIFIED**

in France, Peru and Panama. For Pentostam, monitor progress of industry partner's FDA licensure submission

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			<b>DATE:</b> February 2010				
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng De	<b>PROJECT</b> 849: <i>INFEC</i>	DIS DRUG/V	ACC ED			
B. Accomplishments/Planned Program (\$ in Millions)							
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
efforts. For Dengue Tetravalent Vaccine, complete subject follow-up and be human safety and immunity trial in Puerto Rico, complete the study report of response trial (adults) in the U.S., complete the study reports (infant, childres safety and immune response trial in Thailand, and complete pre-trial activity efficacy trial in children in Thailand. For Hepatitis E vaccine, maintenance cold storage and monitoring of industry partner's Hepatitis E vaccine developments:  FY 2009 Accomplishments:  FY 2010 Plans:  FY 2011 Base Plans:  FY 2011 Base	on the human safety and immune en and adult) on the expanded human ies for the expanded safety and of study blood specimens kept under						
FY 2011 OCO Plans: FY 2011 OCO							
Program #6  In FY11, for Topical Antileishmanial Cream, will analyze the data and preplarge scale human safety/efficacy trial, will continue enrollment/follow-up is subjects) human safety/efficacy trial in Central/South America, and will anareport for the three small scale (<35 subjects) pharmacokinetic (drug metab and Panama. For Pentostam, will monitor progress of industry partner's FD DTV vaccine, will complete the study report on the expanded human safety and begin the expanded safety and efficacy trial in children in Thailand. For	in the second large scale (> 300 alyze the data and prepare the final colism) human trials in France, Peru DA licensure submission efforts. For and immunity trial in Puerto Rico	0.000	0.000	7.659	0.000	7.659	

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			<b>DATE:</b> February 2010					
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE		PROJECT					
2040: Research, Development, Test & Evaluation, Army	PE 0604807A: Medical Materiel/Medical	849: INFEC DIS DRUG/VACC ED						
BA 5: Development & Demonstration (SDD)	Biological Defense Equipment - Eng De	ev .						
B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2011	FY 2011	FY 2011		
		FY 2009	FY 2010	Base	OCO	Total		
maintenance of study blood specimens kept under cold storage and monivaccine development effort.  FY 2009 Accomplishments: FY 2009	toring of industry partner's Hepatitis E							
FY 2010 Plans: FY 2010								
FY 2011 Base Plans: FY 2011 Base								
FY 2011 OCO Plans: FY 2011 OCO								
Program #7		0.000	0.382	0.000	0.000	0.000		
Small Business Innovative Research/Small Business Technology Transfe	er Programs.							
FY 2009 Accomplishments: FY 2009								
FY 2010 Plans: FY 2010								
FY 2011 Base Plans: FY 2011 Base								
FY 2011 OCO Plans: FY 2011 OCO								

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army		<b>DATE:</b> February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
2040: Research, Development, Test & Evaluation, Army	PE 0604807A: Medical Materiel/Medical	849: INFEC DIS DRUG/VACC ED
BA 5: Development & Demonstration (SDD)	Biological Defense Equipment - Eng Dev	

#### B. Accomplishments/Planned Program (\$ in Millions)

			FY 2011	FY 2011	FY 2011
	FY 2009	FY 2010	Base	OCO	Total
Accomplishments/Planned Programs Subtotals	13.236	13.634	12.227	0.000	12.227

### C. Other Program Funding Summary (\$ in Millions)

N/A

# **D.** Acquisition Strategy

Test and evaluate in-house and commercially developed products in government-managed trials to meet FDA requirements and Environmental Protection Agency registration.

### **E. Performance Metrics**

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army

**DATE:** February 2010

### APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

#### R-1 ITEM NOMENCLATURE

PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev

PROJECT

849: INFEC DIS DRUG/VACC ED

# **Product Development (\$ in Millions)**

				FY	2010		2011 ase	FY 2	2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than \$1M individually	С	Nothing entered for Activity and Location. Location could not be determined.	8.389	3.480		3.116		0.000		3.116	Continuing	Continuing	0
		Subtotal	8.389	3.480		3.116		0.000		3.116			0.000

#### Remarks

# **Support (\$ in Millions)**

				FY :	2010	FY :	2011 ase	FY 2	2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than \$1M individually	С	Nothing entered for Activity and Location. Location could not be determined.	0.595	2.783		2.492		0.000		2.492	Continuing	Continuing	0
		Subtotal	0.595	2.783		2.492		0.000		2.492			0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army

**DATE:** February 2010

### APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

#### **R-1 ITEM NOMENCLATURE**

PE 0604807A: Medical Materiel/Medical

Biological Defense Equipment - Eng Dev

### **PROJECT**

849: INFEC DIS DRUG/VACC ED

### **Test and Evaluation (\$ in Millions)**

				FY 2	2010		2011 ase	FY 2	2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than \$1M individually	С	Nothing entered for Activity and Location. Location could not be determined.	12.265	4.936		4.611		0.000		4.611	Continuing	Continuing	0
		Subtotal	12.265	4.936		4.611		0.000		4.611			0.000

#### Remarks

### **Management Services (\$ in Millions)**

				FY	2010	FY :	2011 ase	FY O	2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract costs greater than \$1M individually	С	Nothing entered for Activity and Location. Location could not be determined.	3.592	2.435		2.008		0.000		2.008	Continuing	Continuing	0
		Subtotal	3.592	2.435		2.008		0.000		2.008			0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army			<b>DATE:</b> February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604807A: Medical Materiel/Medical	849: <i>INFEC</i>	DIS DRUG/VACC ED
BA 5: Development & Demonstration (SDD)	Biological Defense Equipment - Eng Dev		

	Total Prior Years Cost	FY 2010		2011 ase	FY 2	2011 CO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	24.841	13.634	12.227		0.000		12.227			0.000

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army
BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE
PE 0604807A: Medical Materiel/Medical
Biological Defense Equipment - Eng Dev

DATE: February 2010

PROJECT
849: INFEC DIS DRUG/VACC ED

Biological Defense Equipment - Eng Dev

	]	F <b>Y</b>	200	9	]	FY	201	0	]	F <b>Y</b>	201	1	1	F <b>Y</b>	201	2	I	Y 20	13		FY	20	14		FY	7 20	15
	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	1 2	2 3	4
Combination Camouflage Face Paint/Insect Repellent (MS-C)			#																								

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Army			<b>DATE:</b> February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604807A: Medical Materiel/Medical	849: <i>INFEC</i>	DIS DRUG/VACC ED
BA 5: Development & Demonstration (SDD)	Biological Defense Equipment - Eng Dev		

# Schedule Details

	Sta	art	Eı	nd
Event	Quarter	Year	Quarter	Year
Combination Camouflage Face Paint/Insect Repellent (MS-C)	3	2009	3	2009

Exhibit R-2A, RDT&E Project Justif	ication: PB 2	011 Army							DATE: Febr	uary 2010	
APPROPRIATION/BUDGET ACTI 2040: Research, Development, Test & I BA 5: Development & Demonstration (		A: Medical M	ATURE  ateriel/Medic  ment - Eng De	PROJECT A11: LSTAT	MEDICAL T	ECHNOLOG	Y (CA)				
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
A11: LSTAT MEDICAL TECHNOLOGY (CA)	2.393	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles											

# A. Mission Description and Budget Item Justification

The LSTAT is a life support piece of combat medical equipment. It is a litter with imbedded life support equipment, which is capable of sustaining an injured soldier for an extended period of time. This equipment will allow a soldier to be transported while maintaining all medical surveillance and diagnostics continually intact.

### B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Program #1	2.393	0.000	0.000	0.000	0.000
Congressional Add					
FY 2009 Accomplishments: FY 2009					
FY 2010 Plans: FY 2010					
FY 2011 Base Plans: FY 2011 Base					
FY 2011 OCO Plans: FY 2011 OCO					
Accomplishments/Planned Programs Subtotals	2.393	0.000	0.000	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army		<b>DATE:</b> February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev	A11: LSTAT MEDICAL TECHNOLOGY (CA)
C. Other Program Funding Summary (\$ in Millions) N/A		1
D. Acquisition Strategy N/A		
E. Performance Metrics		
Performance metrics used in the preparation of this justification material may	be found in the FY 2010 Army Performance Budget 3	Justification Book, dated May 2010.

# Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army

**DATE:** February 2010

### APPROPRIATION/BUDGET ACTIVITY

**R-1 ITEM NOMENCLATURE** 

PROJECT

2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)

PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev

A11: LSTAT MEDICAL TECHNOLOGY (CA)

# **Product Development (\$ in Millions)**

				FY 2	2010	FY :	2011 ase	FY :	2011 CO	FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
No product/contract cost greater than \$1M individually	С	Nothing entered for Activity and Location. Location could not be determined.	2.078	0.000		0.000		0.000		0.000	Continuing	Continuing	0
		Subtotal	2.078	0.000		0.000		0.000		0.000			0.000

#### Remarks

										Target
	Total Prior		FY	2011	FY	2011	FY 2011	Cost To		Value of
	Years Cost	FY 2010	Ba	ase	O	CO	Total	Complete	<b>Total Cost</b>	Contract
Project Cost Totals	2.078	0.000	0.000		0.000		0.000			0.000

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army									DATE: Febr	uary 2010	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)			PE 0604807	NOMENCLA A: Medical M efense Equip	ateriel/Medic		PROJECT CS5: MED N INITIATIVE	MATERIEL/MED BIO DEFENSE S (CA)			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
CS5: MED MATERIEL/MED BIO DEFENSE INITIATIVES (CA)	4.784	8.078	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles											

# A. Mission Description and Budget Item Justification

Congressional Special Interest funding for medical materiel/medical biological Defense initiatives.

# **B.** Accomplishments/Planned Program (\$ in Millions)

			1	ή	
			FY 2011	FY 2011	FY 2011
	FY 2009	FY 2010	Base	OCO	Total
Program #1	1.550	0.000	0.000	0.000	0.000
Congressionally directed advanced development research in Advanced Packaging Solutions for Biotherapeutics.					
FY 2009 Accomplishments:					
FY 2009					
FY 2010 Plans:					
FY 2010					
FY 2011 Base Plans:					
FY 2011 Base					
FY 2011 OCO Plans:					
FY 2011 OCO					
Program #2	2.400	0.000	0.000	0.000	0.000
Congressionally directed advanced development research in Lightweight Trauma Module					

	UNCLASSIFIED					
Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: Febr	uary 2010	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604807A: Medical Materiel/Medic Biological Defense Equipment - Eng D		PROJECT CS5: MED MATERIEL/MED BIO DEI INITIATIVES (CA)			ENSE
B. Accomplishments/Planned Program (\$ in Millions)	·					
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2009 Accomplishments: FY 2009						
FY 2010 Plans: FY 2010						
FY 2011 Base Plans: FY 2011 Base						
FY 2011 OCO Plans: FY 2011 OCO						
Program #3		0.834	0.000	0.000	0.000	0.000
Congressionally directed advanced development research in Ro Generator	stary Valve Pressure Swing Absorption Oxygen					
FY 2009 Accomplishments: FY 2009						
FY 2010 Plans: FY 2010						
FY 2011 Base Plans: FY 2011 Base						
FY 2011 OCO Plans: FY 2011 OCO						
Program #4		0.000	2.390	0.000	0.000	0.000

# UNCLASSIFIED

R-1 Line Item #108 Page 47 of 50 1543 of 1922

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: Febr	uary 2010						
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng De		PROJECT CS5: MED MATERIEL/MED BIO DEFENSE INITIATIVES (CA)								
B. Accomplishments/Planned Program (\$ in Millions)											
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total					
Congressionally directed advanced development research in Plasma Steriliz	zer.										
FY 2009 Accomplishments: FY 2009											
FY 2010 Plans: FY 2010											
FY 2011 Base Plans: FY 2011 Base											
FY 2011 OCO Plans: FY 2011 OCO											
Program #5		0.000	1.510	0.000	0.000	0.000					
Congressionally directed advanced development research in Nanophotonic Pathogens	biosensor Detection of bioagents and										
FY 2009 Accomplishments: FY 2009											
FY 2010 Plans: FY 2010											
FY 2011 Base Plans: FY 2011 Base											
FY 2011 OCO Plans: FY 2011 OCO											

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army	Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			DATE: Febr	ruary 2010			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng Dev			PROJECT CS5: MED MATERIEL/MED BIO DEFENSE INITIATIVES (CA)			
B. Accomplishments/Planned Program (\$ in Millions)								
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total		
Program #6		0.000	1.190	0.000	0.000	0.000		
Congressionally directed advanced development research in Army Po FY 2009 Accomplishments:	ortable Oxygen Concentration System							
FY 2009								
FY 2010 Plans: FY 2010								
FY 2011 Base Plans: FY 2011 Base								
FY 2011 OCO Plans: FY 2011 OCO								
Program #7		0.000	2.988	0.000	0.000	0.000		
Congressionally directed advanced development research project to c Grade Chitosan	conduct military applications for Medical							
FY 2009 Accomplishments: FY 2009								
FY 2010 Plans: FY 2010								
FY 2011 Base Plans: FY 2011 Base								

**DATE:** February 2010

, , , , , , , , , , , , , , , , , , , ,						
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604807A: Medical Materiel/Medical Biological Defense Equipment - Eng De		PROJECT CS5: MED I INITIATIVE	MATERIEL/M S (CA)	ED BIO DEF	ENSE
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 OCO Plans: FY 2011 OCO						
	Accomplishments/Planned Programs Subtotals	4.784	8.078	0.000	0.000	0.000

# C. Other Program Funding Summary (\$ in Millions)

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army

N/A

# **D.** Acquisition Strategy

N/A

### **E. Performance Metrics**

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.