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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Army										Date: March 2019		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev							
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	-	36.279	39.244	31.175	-	31.175	30.785	35.315	26.491	27.500	0.000	226.789
808: DoD Drug & Vacc Ad	-	13.305	13.988	11.315	-	11.315	11.781	9.329	8.884	9.432	0.000	78.034
811: Mil HIV Vac&Drug Dev	-	5.022	5.289	5.460	-	5.460	5.603	5.973	1.110	1.146	0.000	29.603
836: Field Medical Systems Advanced Development	-	13.678	14.674	14.107	-	14.107	13.099	19.702	16.497	16.922	0.000	108.679
CS4: MEDICAL SYSTEMS ADV DEV INITIATIVES (CA)	-	0.000	5.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	5.000
FF4: Counterdrug, DDR, Sys Development & Demonstration	-	4.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	4.000
VS7: MEDEVAC Mission Equipment Package (MEP) - Adv Dev	-	0.274	0.293	0.293	-	0.293	0.302	0.311	0.000	0.000	0.000	1.473

A. Mission Description and Budget Item Justification

This Program Element (PE) funds development of medical materiel within the early system integration portion of the System Development and Demonstration phase of the acquisition life cycle using 6.4 (Advanced Component Development and Prototype) funding. Program efforts support transition of promising Science and Technology candidate medical technologies (drugs, vaccines, medical devices, diagnostics, and mechanisms for detection and control of disease carrying insects) to larger scale testing in humans for safety and effectiveness. Programs are aligned to meet future force requirements identified within concept documents and organizational structures. This PE also provides funding for Food and Drug Administration (FDA) regulated human clinical trials to gain additional information about safety and effectiveness on the path to licensure for use in humans. These efforts are managed by U.S. Army Medical Materiel Development Activity (USAMMDA) and U.S. Army Medical Materiel Agency (USAMMA) of the U.S. Army Medical Research and Materiel Command.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Army				Date: March 2019		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
2040: Research, Development, Test & Evaluation, Army I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 0603807A I Medical Systems - Adv Dev				
B. Program Change Summary (\$ in Millions)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget		33.491	34.284	39.477	-	39.477
Current President's Budget		36.279	39.244	31.175	-	31.175
Total Adjustments		2.788	4.960	-8.302	-	-8.302
• Congressional General Reductions		-0.025	-0.040			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	5.000			
• Congressional Directed Transfers		-	-			
• Reprogrammings		4.000	-			
• SBIR/STTR Transfer		-1.187	-			
• Adjustments to Budget Years		-	-	-8.302	-	-8.302
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: CS4: MEDICAL SYSTEMS ADV DEV INITIATIVES (CA)						
Congressional Add: Transport Telemedicine						
Congressional Add Subtotals for Project: CS4						
Congressional Add Totals for all Projects						
Change Summary Explanation						
Funding reduced in FY 2020 to support the Army's modernization priorities in support of the National Defense Strategy.						

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Army										Date: March 2019		
Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) 808 / DoD Drug & Vacc Ad			
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
808: DoD Drug & Vacc Ad	-	13.305	13.988	11.315	-	11.315	11.781	9.329	8.884	9.432	0.000	78.034
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project funds development of candidate medical countermeasures for infectious diseases of military relevance. These efforts are in: vaccines, drugs, diagnostic kits/ devices, and studies to determine if insects infected with pathogenic organisms are capable of infecting service members/preventive medicine measures. These funds support human clinical effectiveness (capacity to produce a desired size of an effect under ideal or optimal conditions) trials of the drug/vaccine in larger groups that are designed to assess how well the drug/vaccine works and continue safety assessments in a larger group of volunteers. Funding supports both technical evaluations and human clinical testing to assure the safety and effectiveness of medical diagnostic kits and devices. This work, which is performed in military laboratories or civilian pharmaceutical firms, is directed toward the prevention of disease, early diagnosis, and accelerated recovery time once diagnosed to enhance battlefield readiness. All clinical trials are conducted in accordance with United States (U.S.) Food and Drug Administration (FDA) regulations, a mandatory obligation for all military products placed into the hands of medical providers or service members. Product development priorities are determined based upon four major factors: (1) the extent and threat 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). Products from this Project will transition to PE 0604807A/Project 849.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2018	FY 2019	FY 2020
Title: DoD Drug and Vaccine Advanced Development	13.305	13.511	11.315
Description: Funding is provided for the development of candidate medical countermeasures for military relevant infectious disease focusing on prevention, early diagnosis and accelerated recovery time. Funding supports both technical evaluations and human clinical testing to assure the safety and effectiveness of medical diagnostic kits and devices			
FY 2019 Plans: Dengue Vaccine Block II: Will continue the clinical development of the dengue human infection model (DHIM), a tool for rapid evaluation of efficacy of dengue vaccines and therapeutics. Treatment for Resistant Wound Infections: Will monitor technical maturity of candidate treatments for evidence of safety and efficacy in relevant animal models. Proposed solutions could be stand-alone treatments or adjuncts to established medical practice. Candidate treatments could be small-molecule drugs, biologicals such as bacteriophages, or antibodies. Next Generation Malaria Prophylaxis: Will continue the retinal (eye) safety study (3 year study) started in FY17. Address any FDA post-marketing approval requirements.			

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Army		Date: March 2019	
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A / <i>Medical Systems - Adv Dev</i>	Project (Number/Name) 808 / <i>DoD Drug & Vacc Ad</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019
<p>Rapid Diagnostic and Detection Devices (Infectious Disease Diagnostics (Multiple)): The dengue and chikungunya assays will continue to be developed and evaluated. Clinical testing will be conducted for dengue and clinical sites identified for chikungunya.</p> <p>FY 2020 Plans: Dengue Vaccine Block II: Will continue the clinical development of the dengue human infection model (DHIM), a tool for rapid evaluation of efficacy of dengue vaccines and therapeutics.</p> <p>Treatment for Resistant Wound Infections: Will monitor technical maturity of candidate treatments for evidence of safety and efficacy in relevant animal models.</p> <p>Malaria Chemoprophylaxis ?Tafenoquine (formerly Next Generation Malaria Prophylaxis): Will continue the retinal (eye) safety study (3 year study) started in FY17. Address any FDA post-marketing approval requirements.</p> <p>Rapid Diagnostic and Detection Devices (Infectious Disease Diagnostics (Multiple)): The dengue assay transitioned to PE 0604807A Project 849 in FY19. The chikungunya assays will continue to be developed and evaluated. Clinical testing will be conducted for chikungunya.</p> <p>FY 2019 to FY 2020 Increase/Decrease Statement: Funding decrease in FY20 to support the Army's modernization priorities in support of the National Defense Strategy.</p>			
<p>Title: FY19 SBIR/ STTR Transfer</p> <p>Description: FY19 SBIR/STTR Transfer</p> <p>FY 2019 Plans: FY19 SBIR/STTR Transfer</p> <p>FY 2019 to FY 2020 Increase/Decrease Statement: FY19 SBIR/STTR Transfer</p>		-	0.477
Accomplishments/Planned Programs Subtotals		13.305	13.988
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Army		Date: March 2019
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev	Project (Number/Name) 808 / DoD Drug & Vacc Ad
D. Acquisition Strategy Test and evaluate in-house and commercially developed products in extensive commercial partner or government-managed clinical trials to gather data required for FDA licensure and Environmental Protection Agency registration ensuring government (military) requirements are met with judicious investment.		
E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army												Date: March 2019			
Appropriation/Budget Activity 2040 / 4						R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) 808 / DoD Drug & Vacc Ad					
Management Services (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development Management Services Cost	Various	Not Applicable : Not applicable	21.565	2.480		2.411		0.724		-		0.724	Continuing	Continuing	Continuing
Medical Product Development Management Services Cost	PO	General Dynamics Information Technology, : Frederick MD	4.579	2.409		2.322		0.774		-		0.774	0.000	10.084	-
Subtotal			26.144	4.889		4.733		1.498		-		1.498	Continuing	Continuing	N/A
Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development Cost	Various	Not applicable : Not applicable	30.466	2.753		-		5.373		-		5.373	Continuing	Continuing	Continuing
Rapid Diagnostic and Detection Devices	C/Various	Inbios, Inc : Seattle WA	-	-		2.051		2.428		-		2.428	0.000	4.479	-
FY19 SBIR/ STTR Transfer	TBD	N/A : N/A	-	-		0.477		-		-		-	0.000	0.477	-
Subtotal			30.466	2.753		2.528		7.801		-		7.801	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development Support Cost	Various	Not Applicable : Not applicable	15.721	-		1.020		0.107		-		0.107	Continuing	Continuing	Continuing
Subtotal			15.721	-		1.020		0.107		-		0.107	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army												Date: March 2019			
Appropriation/Budget Activity 2040 / 4						R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) 808 / DoD Drug & Vacc Ad					
Test and Evaluation (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development T&E Cost	Various	Not applicable : Not applicable	53.852	2.867		0.548		-		-		-	Continuing	Continuing	Continuing
Dengue Block II	IA	WRAIR and AFRIMS : Silver Spring MD	0.800	0.920		3.209		0.877		-		0.877	0.000	5.806	-
Malaria Prophylaxis clinical trial	TBD	TBD : TBD	7.299	1.876		1.950		1.032		-		1.032	0.000	12.157	-
Subtotal			61.951	5.663		5.707		1.909		-		1.909	Continuing	Continuing	N/A
			Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			134.282	13.305		13.988		11.315		-		11.315	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Army	Date: March 2019
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Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A / <i>Medical Systems - Adv Dev</i>	Project (Number/Name) 808 / <i>DoD Drug & Vacc Ad</i>
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Event Name	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Dengue Vaccine Block II Human Infection model studies																												
Treatment for Resistant Wound Infections Antifungal Drug Phase 2																												
D5P Next Generation Malaria Drug Phase 2 Safety trial																												
Rapid Human Diagnostic Devices																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Army			Date: March 2019
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A / <i>Medical Systems - Adv Dev</i>	Project (Number/Name) 808 / <i>DoD Drug & Vacc Ad</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Dengue Vaccine Block II Human Infection model studies	1	2016	4	2021
Treatment for Resistant Wound Infections Antifungal Drug Phase 2 safety trial	1	2016	4	2020
D5P Next Generation Malaria Drug Phase 2 Safety trial	4	2021	4	2023
Rapid Human Diagnostic Devices	4	2017	4	2022

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Army										Date: March 2019		
Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) 811 / Mil HIV Vac&Drug Dev			
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
811: Mil HIV Vac&Drug Dev	-	5.022	5.289	5.460	-	5.460	5.603	5.973	1.110	1.146	0.000	29.603
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project funds development of militarily relevant human immunodeficiency virus (HIV) medical countermeasures. It provides for the planning and conduct of human clinical trials in a group of healthy volunteers to assess for safety and tolerability of medical countermeasures, how the drug/vaccine is distributed through, metabolized in, and excreted from the body, and to investigate the appropriate dose. Development efforts are focused on militarily unique needs affecting manning, mobilization, and deployment. The cumulative cost of treating HIV-positive DoD personnel is estimated to be \$16.6 billion for 3000 personnel over a 50-year lifetime. All clinical trials are conducted in accordance with U.S. FDA regulations. Products from this Project will transition to PE 0604807A/Project 812.

Research efforts are coordinated with the National Institutes of Health and the National Institute of Allergy and Infectious Diseases (NIAID), Division of Acquired Immune Deficiency Syndrome (DAIDS).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2018	FY 2019	FY 2020
Title: Military HIV Vaccine & Drug Development	5.022	5.095	5.460
Description: This Project funds advanced development research to develop candidate HIV vaccines, assess their safety and effectiveness in evaluations with human subjects, and protect military personnel from risks associated with HIV infection.			
FY 2019 Plans: New components of the regional vaccine will be tested in FY19. This testing will determine if improved effectiveness can be achieved. This study will be conducted in three regions and is supported by the U.S. Army and DAIDS.			
The cohort studies in Thailand and Germany will be completed in FY19, with results available by the end of the FY. Selection of clinical sites for future effectiveness studies will be initiated.			
FY 2020 Plans: Regional Vaccine Candidate: Effort will not be funded in this BA until FY23 when the effort transitions to advanced development.			
Global Vaccine Candidate: Will continue to support clinical trial sites based on a Cooperative Research and Development Agreement (CRADA) with a commercial partner.			
FY 2019 to FY 2020 Increase/Decrease Statement: The increase of funding in FY20 was due to the inflation factor.			
Title: FY 2019 SBIR/ STTR Transfer	-	0.194	-

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Army		Date: March 2019	
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A / <i>Medical Systems - Adv Dev</i>	Project (Number/Name) 811 / <i>Mil HIV Vac&Drug Dev</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019
Description: FY19 SBIR/STTR Transfer			
FY 2019 Plans: FY19 SBIR/STTR Transfer			
FY 2019 to FY 2020 Increase/Decrease Statement: FY19 SBIR/STTR Transfer			
Accomplishments/Planned Programs Subtotals		5.022	5.289
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
Test and evaluate commercially developed drug/vaccine candidates in government-managed trials.			
E. Performance Metrics			
N/A			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army												Date: March 2019			
Appropriation/Budget Activity 2040 / 4						R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) 811 / Mil HIV Vac&Drug Dev					
Management Services (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development Management Services Cost	TBD	Not Applicable : Not Applicable	3.280	0.852		-		-		-		-	Continuing	Continuing	Continuing
Subtotal			3.280	0.852		-		-		-		-	Continuing	Continuing	N/A
Remarks Not Applicable															
Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development Cost	TBD	Not applicable : Not applicable	4.081	0.997		-		-		-		-	Continuing	Continuing	Continuing
FY19 SBIR/STTR Transfer	TBD	N/A : N/A	-	-		0.194		-		-		-	0.000	0.194	-
Subtotal			4.081	0.997		0.194		-		-		-	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development Support Cost	TBD	TBD : TBD	2.439	1.112		-		-		-		-	0.000	3.551	-
Subtotal			2.439	1.112		-		-		-		-	0.000	3.551	N/A
Remarks Not Applicable															

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army												Date: March 2019			
Appropriation/Budget Activity 2040 / 4						R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) 811 / Mil HIV Vac&Drug Dev					

Test and Evaluation (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development T&E Cost	TBD	Not applicable : Not Applicable	23.538	2.061		5.095		5.460		-		5.460	0.000	36.154	-
Subtotal			23.538	2.061		5.095		5.460		-		5.460	0.000	36.154	N/A

Remarks Not Applicable															
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	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	33.338	5.022		5.289		5.460		-		5.460	Continuing	Continuing	N/A

Remarks															
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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Army										Date: March 2019			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
2040 / 4					PE 0603807A / Medical Systems - Adv Dev					811 / Mil HIV Vac&Drug Dev			

Event Name	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Global HIV (Ad26/Ad26+gp140) Phase 2B Clinical Trial																												
Global HIV (Ad26/Ad26+gp140) Phase 3 Efficacy Clinical Trial																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Army			Date: March 2019
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev	Project (Number/Name) 811 / Mil HIV Vac&Drug Dev	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Global HIV (Ad26/Ad26+gp140) Enters TMMR	2	2017	3	2017
Global HIV (Ad26/Ad26+gp140) Phase 2B Clinical Trial	1	2019	1	2021
Global HIV (Ad26/Ad26+gp140) Phase 3 Efficacy Clinical Trial	4	2020	1	2024

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Army										Date: March 2019		
Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) 836 / Field Medical Systems Advanced Development			
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
836: Field Medical Systems Advanced Development	-	13.678	14.674	14.107	-	14.107	13.099	19.702	16.497	16.922	0.000	108.679
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This Project funds the demonstration and validation of medical products for enhanced combat casualty care and follow-on care, including rehabilitation. This Project funds human clinical trials to test the safety and effectiveness of biologics (products derived from living organisms) and devices necessary to meet medical requirements. When available, commercial-off-the-shelf (COTS) medical products are also tested and evaluated for transition to engineering and manufacturing development. Consideration is also given to reducing the medical logistics footprint through smaller weight, volume, and equipment independence from supporting materials. All clinical trials are conducted in accordance with U.S. FDA regulations. Products from this project will transition to PE 0604807A/Project 832.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2018	FY 2019	FY 2020	
Title: Field Medical Systems Advanced Development - Program Management (PM) Medical Devices									10.991	8.249	2.982	
Description: Advanced Concept Development funding is provided for the following development of medical devices in support of enhanced combat casualty care.												
FY 2019 Plans: Field Anesthesia: Will continue clinical trials and prototype comparison.												
Temporary Corneal Repair (TCR): Will continue down select activities.												
Extracorporeal Life Support ? Lung/Renal (formerly Portable ECMO): Will continue clinical trials and device refinement.												
NINAD: Will continue FDA clinical trial for the indication for use of diagnosing mild traumatic brain injury.												
FY 2020 Plans: Temporary Corneal Repair (TCR): Continue down-select activities. Initiate pre-clinical segment of the Temporary Corneal Repair contract along with all of the Phase II SBIR?s supporting the TCR contract will be completed.												
Extracorporeal Life Support ?Lung/Renal (ECLS ?L/R) Continue clinical trials and device refinement. Conduct MS B review. Post MS B review, down select to most promising device and conduct FDA pre-submission meeting to finalize regulatory strategy.												

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Appropriation/Budget Activity 2040 / 4		R-1 Program Element (Number/Name) PE 0603807A / <i>Medical Systems - Adv Dev</i>		Project (Number/Name) 836 / <i>Field Medical Systems Advanced Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2018	FY 2019	FY 2020
Non-invasive neuro assessment device (NINAD): Will complete FDA clinical trial. If trial is successful, will initiate manufacturing efforts for NINAD device. Field Anesthesia: Product development eliminated due to CSA priorities.					
FY 2019 to FY 2020 Increase/Decrease Statement: Funding decrease in FY20 to support the Army's modernization priorities in support of the National Defense Strategy.					
Title: Field Medical Systems Advanced Development - PM Medical Support Systems			2.462	2.556	4.604
Description: Funding is provided for efforts to develop products that support the medical mission in combat casualty care and health care operations.					
FY 2019 Plans: Nett Warrior Enhanced Wearable Sensors: Will continue to collaborate with Program Executive Office Soldier on the development of wearable sensors.					
Semi-autonomous casualty evacuation (CASEVAC) Ground Platform (S-MET): Will collaborate with PEO Combat Systems & Combat Support Systems on the Ground Mobility Vehicle Infantry Squad Variant (GMVISV).					
FY 2020 Plans: Nett Warrior Enhanced Physiological Sensors (Wearable): Will continue to collaborate with Program Executive Office Soldier on the development of wearable sensors. Will develop a concussion dosimeter which is part of the Integrated Soldier Sensor System.					
Semi-autonomous casualty evacuation (CASEVAC) Ground Platform (S-MET): Will be adapting a medical evacuation package to a standardized Army Platform for the transport of a single casualty. Will transition to PE 0604807A Project 832					
Transport Telemedicine Systems (TTS) (Formerly named Operational Virtual Health): The Transport Telemedicine system develops MEDHUB (Medical Hands-free Ultra Wideband Broadcast), which will automatically capture, store, and forward medical data to provide lifesaving situational awareness of patient vitals en-route to the Medical Treatment Facility (MTF). Complete prototype design and operational test for the MEDHUB platform. MEDHUB supports Medical Treatment Facilities (MTF) situational awareness. Continue development of MEDHUB Drug Safety and Tracking peripheral.					
FY 2019 to FY 2020 Increase/Decrease Statement: The increase of funding in FY20 is due to the planned progression of medical products under development including transport telemedicine.					
Title: Field Medical Systems Advanced Development - PM Tissue Injury and Regenerative Medicine			0.225	2.250	1.880

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Army			Date: March 2019		
Appropriation/Budget Activity 2040 / 4		R-1 Program Element (Number/Name) PE 0603807A / <i>Medical Systems - Adv Dev</i>		Project (Number/Name) 836 / <i>Field Medical Systems Advanced Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2018	FY 2019	FY 2020
<p>Description: Funding for engineering and manufacturing development of tissue injury and regenerative medicine health products for enhanced medical capability and readiness.</p> <p>FY 2019 Plans: Topical Burn Conversion Prevention Product: Will submit an Investigational Device Exemption, and will prepare for safety and effectiveness trials for a product to prevent superficial burn wounds from developing into deep partial and full thickness burn injuries.</p> <p>Systemic Burn Conversion Prevention Product: Will initiate manufacturing of material and Phase 2 clinical trial (safety and effectiveness) for a product used as an intravenous treatment in burn injuries.</p> <p>Permanent Acellular Arterial Graft: Will initiate manufacturing of material and a Phase 2 (safety and efficacy) clinical trial to support vascular grafting for extremity repair and reconstruction.</p> <p>FY 2020 Plans: Field Expedient Large Defect Bone Repair: Will initiate manufacturing of material and pilot efficacy study for repair of damaged or injured bones.</p> <p>Topical Burn Conversion Prevention Product: Continue to prepare for safety and effectiveness trials. Product development efforts will be combined with Systemic Burn Conversion Prevention Product.</p> <p>Systemic Burn Conversion Prevention Product: Continue to prepare for Phase 2 clinical trial. Permanent Acellular Arterial Graft: Depending on FDA guidance at completion of Phase 2, will initiate pivotal study and/or develop trauma registry (database that patients are enrolled in and followed up outside of a randomized clinical trial.</p> <p>FY 2019 to FY 2020 Increase/Decrease Statement: Funding decrease in FY20 to support the Army's modernization priorities in support of the National Defense Strategy.</p>					
<p>Title: Field Medical Systems Advanced Development - PM Pharmaceutical Systems</p> <p>Description: Funding is provided for engineering and manufacturing development of medical products managed by Program Manager (PM) Pharmaceuticals for enhanced combat casualty care and follow-on care, including rehabilitation.</p> <p>FY 2019 Plans:</p>			-	1.121	4.641

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Army		Date: March 2019	
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A / <i>Medical Systems - Adv Dev</i>	Project (Number/Name) 836 / <i>Field Medical Systems Advanced Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019
Cold Stored Platelets in Platelet Additive Solution: Will complete studies for product characterization and labeling information and effectiveness.			
FY 2020 Plans: Cold Stored Platelets in Platelet Additive Solution: Will begin Phase II clinical trial based on FDA guidance as to patient population (type of injury/surgical procedure) and numbers to assess safety, effectiveness and dose of candidate product. FY20 is a planned progression of medical products under development.			
FY 2019 to FY 2020 Increase/Decrease Statement: The increase of funding in FY20 is due to the planned progression of medical products under development.			
Title: FY 2019 SBIR/ STTR Transfer		-	0.498
Description: FY19 SBIR/STTR Transfer			-
FY 2019 Plans: FY19 SBIR/STTR Transfer			
FY 2019 to FY 2020 Increase/Decrease Statement: FY19 SBIR/STTR Transfer			
Accomplishments/Planned Programs Subtotals		13.678	14.674
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
Develop in-house or industrial prototypes in government-managed programs to meet military and regulatory requirements for production and fielding.			
E. Performance Metrics			
N/A			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army												Date: March 2019			
Appropriation/Budget Activity 2040 / 4						R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) 836 / Field Medical Systems Advanced Development					
Management Services (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development Management Services Cost	Various	Not Applicable : Not applicable	44.935	1.009		0.974		0.996		-		0.996	Continuing	Continuing	Continuing
Medical Product Development Management Services Cost	C/IDIQ	Not applicable : Not applicable	1.200	-		1.185		-		-		-	0.000	2.385	-
Subtotal			46.135	1.009		2.159		0.996		-		0.996	Continuing	Continuing	N/A
Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	TBD	TBD : TBD	0.932	-		-		-		-		-	0.000	0.932	-
Medical Product Development	TBD	ALL Product : Various	3.014	0.895		2.263		-		-		-	Continuing	Continuing	Continuing
Product Development of Freeze-dried plasma	TBD	TBD : TBD	8.778	-		-		-		-		-	Continuing	Continuing	Continuing
Point of Care Coagulation Profiler	TBD	TBD : TBD	0.385	-		-		-		-		-	0.000	0.385	-
TBI Diagnostic Assay System - Increment II (benchtop/POC/ Bandits)	TBD	Banyan BioMarkers, Inc : Alachua FL	15.814	-		-		-		-		-	0.000	15.814	-
Impedance Threshold Device for the Treatment of Traumatic Brain Injury	TBD	Advance Circulatory Systems Inc. : Roseville, MN	2.322	0.726		-		-		-		-	0.000	3.048	-
Compartment Syndrome Pressure Device	TBD	Twinstar : Minniapolis, MN	1.871	-		-		-		-		-	0.000	1.871	-
Hydration Status Monitor	TBD	Gaia Medical : LaJolla CA	0.841	-		-		-		-		-	0.000	0.841	-
Noninvasive Neuromodulator TBI	TBD	TBD : TBD	2.036	2.241		-		-		-		-	0.000	4.277	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army												Date: March 2019			
Appropriation/Budget Activity 2040 / 4						R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) 836 / Field Medical Systems Advanced Development					
Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PTSD	Various	TBD : Various locations	2.032	2.243		-		-		-		-	0.000	4.275	-
Temporary Corneal Repair	Various	TBD : TBD	2.479	2.561		-		2.364		-		2.364	0.000	7.404	-
Field Anesthesia	TBD	TBD : Various	2.568	3.205		1.020		-		-		-	0.000	6.793	-
Field Sterilizer	TBD	TBD : TBD	3.515	-		3.121		-		-		-	0.000	6.636	-
Product Development	TBD	HemCon Medical Technologies : Tigard, Oregon	9.720	-		-		-		-		-	Continuing	Continuing	Continuing
Product Development	TBD	Banyan BioMarkers, Inc : Alachua FL	31.514	-		-		-		-		-	Continuing	Continuing	Continuing
Development of Platelet Derived Hemostatic agent	TBD	Fast Track Drugs & Biologics : Frederick, MD	1.800	-		-		-		-		-	Continuing	Continuing	Continuing
Non-invasive neuro assessment device (NINAD)	C/Various	TBD : TBD	0.800	-		2.874		-		-		-	0.000	3.674	-
Cold Stored Platelets in Platelet Additive Solution (CSP-PAS) (Formerly Advanced Refrigerated Platel	C/Various	TBD : TBD	-	-		0.975		4.641		-		4.641	0.000	5.616	-
Transport Telemedicine Systems (TTS) - MEDHUB Platform (Formerly named Operational Virtual Health)	TBD	TBD : TBD	-	-		-		2.000		-		2.000	Continuing	Continuing	Continuing
Permanent Acellular Graft (formerly Extremity Injury Repair - Vascular Graft)	TBD	SS/CPFF : HumaCyte: Morrisville, NC	-	-		-		1.003		-		1.003	Continuing	Continuing	Continuing
Nett Warrior Enhanced Physiological Sensors (Wearable)	TBD	Various : Various	-	-		-		1.153		-		1.153	Continuing	Continuing	Continuing
FY19 SBIR/ STTR Transfer	TBD	N/A : N/A	-	-		0.498		-		-		-	0.000	0.498	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army													Date: March 2019		
Appropriation/Budget Activity 2040 / 4						R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) 836 / Field Medical Systems Advanced Development					

Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			90.421	11.871		10.751		11.161		-		11.161	Continuing	Continuing	N/A

Support (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development Support Cost	Various	Not Applicable : Not applicable	46.464	0.548		1.152		1.200		-		1.200	Continuing	Continuing	Continuing
Subtotal			46.464	0.548		1.152		1.200		-		1.200	Continuing	Continuing	N/A

Remarks															
No product/contract costs greater than \$1M individually.															

Test and Evaluation (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development T&E Cost	TBD	Not applicable : Not applicable	38.414	0.250		0.612		0.750		-		0.750	Continuing	Continuing	Continuing
Subtotal			38.414	0.250		0.612		0.750		-		0.750	Continuing	Continuing	N/A

Remarks															
No product/contract costs greater than \$1M individually.															

			Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			221.434	13.678		14.674		14.107		-		14.107	Continuing	Continuing	N/A

Remarks															
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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Army			Date: March 2019		
Appropriation/Budget Activity 2040 / 4		R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev		Project (Number/Name) 836 / Field Medical Systems Advanced Development	

Event Name	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Temporary Corneal Repair																												
Noninvasive Neuro Assessment Device development																												
Cold Stored Platelets in Platelet Additive solution																												
Transport Telemedicine Systems (TTS)- MEDHUB Platform																												
Transport Telemedicine Systems (TTS)- MEDHUB Drug Safety																												
Permanent Acellular Arterial Graft - Vascular Pivotal Study																												
Permanent Acellular Arterial Graft - Vascular MS B																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Army			Date: March 2019
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A / <i>Medical Systems - Adv Dev</i>	Project (Number/Name) 836 / <i>Field Medical Systems Advanced Development</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Temporary Corneal Repair	2	2016	1	2022
Noninvasive Neuro Assessment Device development	1	2017	1	2024
Cold Stored Platelets in Platelet Additive solution	4	2017	4	2023
Transport Telemedicine Systems (TTS)- MEDHUB Platform	3	2013	3	2020
Transport Telemedicine Systems (TTS)- MEDHUB Drug Safety and Tracking	4	2017	3	2024
Permanent Acellular Arterial Graft - Vascular Pivotal Study	1	2021	3	2023
Permanent Acellular Arterial Graft - Vascular MS B	2	2021	2	2021

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Army										Date: March 2019		
Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) CS4 / MEDICAL SYSTEMS ADV DEV INITIATIVES (CA)			
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
CS4: MEDICAL SYSTEMS ADV DEV INITIATIVES (CA)	-	0.000	5.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	5.000
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Congressional Interest Item funding for medical systems advanced development initiatives in Transport Telemedicine - Initiate Joint Advanced Technology Demonstration for MEDHUB to provide Medical Treatment Facility (MTF) automatic situational awareness system to identify patients en-route to MTFs and automate paramedic tasks.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2018	FY 2019
<i>Congressional Add:</i> Transport Telemedicine	-	5.000
<i>FY 2019 Plans:</i> Transport Telemedicine		
Congressional Adds Subtotals	-	5.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army												Date: March 2019			
Appropriation/Budget Activity 2040 / 4						R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) CS4 / MEDICAL SYSTEMS ADV DEV INITIATIVES (CA)					

Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Telemedicine product development	C/TBD	TBD/ : TBD	7.500	-		5.000		-		-		-	0.000	12.500	-
Subtotal			7.500	-		5.000		-		-		-	0.000	12.500	N/A

			Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			7.500	-		5.000		-		-		-	0.000	12.500	N/A

Remarks

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PE 0603807A: *Medical Systems - Adv Dev*
Army

R-1 Line #86

Project (Number/Name)	Start Date	End Date	Status	Manager	Budget (USD)	Actual Cost (USD)	Progress (%)	Risks	Notes
101/Alpha	2023-01-15	2023-03-31	Completed	J. Doe	120,000	118,500	100	Low	Exceeded budget by 1.25%
102/Beta	2023-02-01	2023-05-15	In Progress	A. Smith	250,000	180,000	72	Medium	Minor delays in procurement
103/Gamma	2023-03-10	2023-06-30	On Hold	M. Chen	80,000	0	0	High	Waiting for client approval
104/Delta	2023-04-01	2023-07-31	Planned	S. Kim	150,000	0	0	Low	Initial planning phase
105/Epsilon	2023-05-01	2023-08-31	On Hold	L. Garcia	90,000	0	0	Medium	Resource allocation pending
106/Zeta	2023-06-01	2023-09-30	Planned	K. Lee	110,000	0	0	Low	Market research ongoing
107/Eta	2023-07-01	2023-10-31	Planned	H. Patel	130,000	0	0	Medium	Vendor selection in progress
108/Theta	2023-08-01	2023-11-30	Planned	B. Singh	160,000	0	0	Low	Concept development phase
109/Iota	2023-09-01	2023-12-31	Planned	N. Wong	140,000	0	0	Medium	Initial requirements gathering
110/Kappa	2023-10-01	2024-01-31	Planned	D. Brown	170,000	0	0	Low	Feasibility study underway

CS4 / MEDICAL SYSTEMS ADV DEV
INITIATIVES (CA)

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Army			Date: March 2019
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A / <i>Medical Systems - Adv Dev</i>	Project (Number/Name) CS4 / <i>MEDICAL SYSTEMS ADV DEV INITIATIVES (CA)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Telemedicine product development (MEDHUB) - Develop MEDHUB Prototype	2	2018	1	2019
Telemedicine product development (MEDHUB) - Peripheral Integration	1	2018	1	2019
Telemedicine product development (MEDHUB) - Software Development	1	2018	1	2019

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Army										Date: March 2019		
Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) FF4 / Counterdrug, DDR, Sys Development & Demonstration			
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
FF4: Counterdrug, DDR, Sys Development & Demonstration	-	4.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	4.000
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification
 Supports the Secretary of Defense approved counterdrug advanced development efforts used in a major re-design of the Forensic Toxicology Drug Testing Laboratory (FTDTL) information management system used to test urine samples for the presence of illegal drugs. The Drug Testing Program - Client Collection System (DTP-CSS) is comprised of several variations of a desktop application used to select service members for random drug testing, prepare labels for urine specimen bottles, and print corresponding chain-of-custody documents. This Project will standardize DTP-CSS across all services and migrate it to a Web-based system.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2018	FY 2019	FY 2020
Title: Counterdrug, DDR System Development	4.000	-	-
Accomplishments/Planned Programs Subtotals	4.000	-	-

C. Other Program Funding Summary (\$ in Millions)
 N/A

Remarks

D. Acquisition Strategy
 N/A

E. Performance Metrics
 N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army												Date: March 2019			
Appropriation/Budget Activity 2040 / 4						R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) FF4 / Counterdrug, DDR, Sys Development & Demonstration					

Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	C/UCA	Alliant Corps LLC : San Antonio, TX	8.400	4.000		-		-		-		-	0.000	12.400	-
Subtotal			8.400	4.000		-		-		-		-	0.000	12.400	N/A

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	8.400	4.000	0.000	-	-	-	0.000	12.400	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Army										Date: March 2019			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
2040 / 4					PE 0603807A / Medical Systems - Adv Dev					FF4 / Counterdrug, DDR, Sys Development & Demonstration			

Event Name	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Coding and Development Testing																												
User Testing																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Army		Date: March 2019
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev	Project (Number/Name) FF4 / Counterdrug, DDR, Sys Development & Demonstration

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Coding and Development Testing	3	2017	1	2019
User Testing	1	2019	2	2019

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Army										Date: March 2019		
Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) VS7 / MEDEVAC Mission Equipment Package (MEP) - Adv Dev			
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
VS7: MEDEVAC Mission Equipment Package (MEP) - Adv Dev	-	0.274	0.293	0.293	-	0.293	0.302	0.311	0.000	0.000	0.000	1.473
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project is funded to achieve the required operational capability and common capability across the MEDEVAC fleet. The MEDEVAC MEP program modernizes and retrofits MEDEVAC legacy helicopters to achieve the medical capability provided by a limited number of mission specific MEDEVAC helicopters, model HH-60M. The Medevac Mission Equipment on the Army MEDEVAC helicopters is critical to maintaining high US troop survival rates during current and future conflicts by evacuating wounded troops quickly while providing good care enroute. To better meet operational needs, in 2009 the Vice Chief of Staff of the Army (VCSA) approved the force design update increasing the number of air frames for MEDEVAC companies. In 2010, the Army Medical Department (US Army) accepted life-cycle management of the MEDEVAC MEP from PEO Aviation. Ongoing research and design efforts are required to prepare and optimize the MEDEVAC fleet with mission equipment. All products from this Project will transition to PE 0604807A/Project VS8.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2018	FY 2019	FY 2020
Title: Medical Evacuation Development	0.274	0.293	0.293
Description: This effort involves Aeromedical Evacuation Cabin and Technology Research to determine the optimum space and configuration for performing necessary life-saving paramedic-level tasks. Efforts will develop patient handling system components and prototypes to ensure paramedic skills and tasks are performed to standard to save Soldiers' lives during point of injury MEDEVAC Missions.			
FY 2019 Plans: Future Vertical Lift (FVL) Aeromedical Evacuation Cabin Space and Technology Research and Design (Medical Evacuation Development): Determine optimum space and configuration to perform life-saving paramedic-level tasks in current and future evacuation platforms. Will develop patient handling system components and prototypes to ensure paramedic skills and tasks are performed to standard to save Soldiers' lives during MEDEVAC Missions.			
FY 2020 Plans: Future Vertical Lift (FVL) and UH60 Aeromedical Evacuation Cabin Space and Technology Research and Patient Handling System Design (Medical Evacuation Advanced Development): Continue to develop and design optimum helicopter cabin space configuration and illumination so medics can effectively treat patients during MEDEVAC Missions. Continue to develop patient handling system components and prototypes to ensure paramedics have the ability to perform life-saving tasks in both current and future evacuation platforms. Initiate planning for			

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Army		Date: March 2019	
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A / <i>Medical Systems - Adv Dev</i>	Project (Number/Name) VS7 / <i>MEDEVAC Mission Equipment Package (MEP) - Adv Dev</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019
modernization of the UH60 helicopter medical interior system by reducing weight and designing modularity allowing greater mission flexibility.			
Accomplishments/Planned Programs Subtotals		0.274	0.293
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy Develop in-house or industrial prototypes in government-managed programs to meet military MEDEVAC and regulatory requirements for production and fielding.			
E. Performance Metrics N/A			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army												Date: March 2019			
Appropriation/Budget Activity 2040 / 4						R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev				Project (Number/Name) VS7 / MEDEVAC Mission Equipment Package (MEP) - Adv Dev					
Management Services (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development Management Services Cost	TBD	APM MEDEVAC : Huntsville, AL	0.189	0.129		0.293		0.161		-		0.161	0.000	0.772	-
Subtotal			0.189	0.129		0.293		0.161		-		0.161	0.000	0.772	N/A
Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development Cost	TBD	APM MEDEVAC PEO Aviation : Huntsville AL	1.479	0.145		-		0.132		-		0.132	0.000	1.756	-
Subtotal			1.479	0.145		-		0.132		-		0.132	0.000	1.756	N/A
Support (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development Support Cost	TBD	APM MEDEVAC : Huntsville, AL	0.911	-		-		-		-		-	0.000	0.911	-
Subtotal			0.911	-		-		-		-		-	0.000	0.911	N/A
Test and Evaluation (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development T&E Cost	MIPR	APM MEDEVAC PEO Aviation : Huntsville, AL	0.199	-		-		-		-		-	0.000	0.199	-
Subtotal			0.199	-		-		-		-		-	0.000	0.199	N/A

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Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0603807A / <i>Medical Systems - Adv Dev</i>					Project (Number/Name) VS7 / <i>MEDEVAC Mission Equipment Package (MEP) - Adv Dev</i>			
	Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	2.778	0.274		0.293		0.293		-		0.293	0.000	3.638	N/A
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Army																Date: March 2019												
Appropriation/Budget Activity 2040 / 4										R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev								Project (Number/Name) VS7 / MEDEVAC Mission Equipment Package (MEP) - Adv Dev										
Event Name	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Future Vertical Lift (FVL) and UH60 Aeromedical Evac Cabin Sp																												
	Research and development																											

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Army		Date: March 2019
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A / Medical Systems - Adv Dev	Project (Number/Name) VS7 / MEDEVAC Mission Equipment Package (MEP) - Adv Dev

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Future Vertical Lift (FVL) and UH60 Aeromedical Evac Cabin Space and Technology	1	2017	4	2024