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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Defense Health Program **DATE:** March 2013

APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE							
0130: <i>Defense Health Program</i> BA 2: <i>RDT&E</i>					PE 0607100HP: <i>Medical Products and Capabilities Enhancement Activities</i>							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013[#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	14.146	15.815	14.646	-	14.646	18.231	18.995	19.315	19.663	Continuing	Continuing
377A: <i>GDF-Medical Products and Capabilities Enhancement Activities</i>	-	14.146	15.815	14.646	-	14.646	18.231	18.995	19.315	19.663	Continuing	Continuing

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Guidance for Development of the Force-Medical Products and Capabilities Enhancement Activities Program Element (PE) funds efforts to enhance fielded medical products or for pre-planned improvement of fielded medical products, including information management/information technology (IM/IT) systems. Additionally, work will be funded that provides clinical outcome follow-ups to military unique clinical practice guidelines. Research in this PE is designed to address areas of interest to the Secretary of Defense regarding Wounded Warriors, to address capabilities identified through the Joint Capabilities Integration and Development System, and to address the strategy and initiatives described in the Quadrennial Defense Review. Program development and execution is fully coordinated with appropriate Program Managers of fielded medical systems and with the relevant Senior Officials/stakeholders of clinical practice guidelines.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014 Base</u>	<u>FY 2014 OCO</u>	<u>FY 2014 Total</u>
Previous President's Budget	14.396	15.815	14.646	-	14.646
Current President's Budget	14.146	15.815	14.646	-	14.646
Total Adjustments	-0.250	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.250	-			

Change Summary Explanation

FY 2012: Realignment from DHP RDT&E, PE 0607100-Medical Products and Capabilities Enhancement Activities (-\$0.250 million) to DHP RDT&E PE 0605502-Small Business Innovation Research (SBIR) Program (+\$0.250 million).

FY 2013: No Change

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PE 0607100HP: *Medical Products and Capabilities Enhancement Acti...*
Defense Health Program

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Defense Health Program										DATE: March 2013		
APPROPRIATION/BUDGET ACTIVITY 0130: <i>Defense Health Program</i> BA 2: <i>RDT&E</i>					R-1 ITEM NOMENCLATURE PE 0607100HP: <i>Medical Products and Capabilities Enhancement Activities</i>				PROJECT 377A: <i>GDF-Medical Products and Capabilities Enhancement Activities</i>			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
377A: <i>GDF-Medical Products and Capabilities Enhancement Activities</i>	-	14.146	15.815	14.646	-	14.646	18.231	18.995	19.315	19.663	Continuing	Continuing
[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012 ^{##} The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification Guidance for Development of the Force-Medical Products and Capabilities Enhancement Activities: Funds will enhance modify, upgrade, test, and evaluate fielded medical materiel to ensure required performance of such materiel (such as medical sets, kits and outfits), in an expanded or altered environment from which they originally entered service. In addition, medical IM/IT systems will be upgraded with product improvements that will integrate medical injury and autopsy data with non-medical and live fire testing data, and blast sensor field data will be analyzed to determine if the data can be used to confidently predict head injury. These IM/IT enhancements will allow improved prediction of injuries, the knowledge of which will impact improvements to fighting/support vehicles and equipment that will ultimately reduce injuries.												
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2012	FY 2013	FY 2014
Title: 377A: GDF – Medical Products and Capabilities Enhancement Activities										14.146	15.815	14.646
Description: Provide support for development efforts to upgrade medical products and capabilities that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.												
FY 2012 Accomplishments: For support to fielded systems: efforts were completed to improve the computer assisted rehabilitation environment, and to improve arthropod repellents and the insect bed netting system. Arthropods, such as ticks, fleas, mosquitoes, and other insects, are the vectors of numerous military-relevant diseases such as dengue, malaria, plague, and yellow fever. Efforts continued to enhance medical IM/IT systems that (a) capture and forward real time injury profiles back to the intelligence and materiel developer communities, (b) analyze blast sensor field data to determine if the data can be used to confidently predict head injury, (c) provide anatomical and other model enhancements to improve injury prediction, and (d) integrate the medical injury and autopsy data with non-medical and live fire testing data. The ultimate goal of all these IM/IT enhancements is to improve the combat performance of fighting and support vehicles and equipment. Additional projects undertaken with FY12 funds included: (a) improvements to the Combat Application Tourniquet (CAT) and modification to decontaminable litters; (b) testing of mosquito control measures, acupuncture as a means for rapid extremity pain relief, improvements to portable ventilators, intravenous infusion pumps, and biological dressings for hemorrhage control; (c) studies of medical practices to identify opportunities for improvement for injured personnel with ostomies (surgical procedures that create an artificial opening for the elimination of bodily												

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013
wastes) and personnel who have undergone refractive eye surgery (e.g., LASIK); and (d) enhancements to training devices for spatial disorientation and hypoxia (insufficient levels of oxygen in blood or tissue) and for medical simulation. <i>FY 2013 Plans:</i> Funds will be used to enhance, modify, upgrade, test, and evaluate fielded medical materiel. The focus will be to ensure that performance requirements of materiel such as medical sets, kits and outfits in an expanded or altered environment from which they originally entered service are met. Support to fielded systems and IM/IT product improvement enhances medical systems. The systems capture and forward real time injury profiles to intelligence and materiel developer communities, analyze blast sensor field data to determine if the data can be used to confidently predict head injury, use anatomical and other models to improve injury prediction, and integrate medical injury and autopsy data with non medical and live fire testing data. This leads to improvements in combat performance of fighting and support vehicles, equipment, and medical best practices. <i>FY 2014 Plans:</i> Funds will be used to enhance, modify, upgrade, test, and evaluate fielded medical materiel. The focus will be to ensure that performance requirements of materiel such as medical sets, kits and outfits in an expanded or altered environment from which they originally entered service are met. Investments lead to improvements in combat performance of fighting and support vehicles, equipment, and medical best practices.			
Accomplishments/Planned Programs Subtotals		14.146	15.815
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
Integrate product improvements and enhancements resulting from post marketing studies and surveillance.			
E. Performance Metrics			
Performance is measured based on the number of products for which testing either certifies use in a given environment (e.g., sufficiently ruggedized, airworthiness testing) and/or results in a recommendation of a specific product, and delivery of an enhanced product or knowledge product. The benchmark performance metric for research supported in this PE will be the enhancement of a maturity level that is typical of TRL 9.			