

Defense Health Program
Fiscal Year (FY) 2012 Budget Estimates
Exhibit R-2, DHP RDT&E Budget Item Justification

Appropriation/Budget Activity
Defense Health Program/BA: 2

DATE: February 2011
R1 Item Nomenclature: 3
Applied Biomedical Technology
0602115HP

COST: (Dollars in Millions)

	2010 Actual	2011 Estimate	2012 Estimate	2013 Estimate	2014 Estimate	2015 Estimate	2016 Estimate
Total PE 0602115	116.662	28.658	33.805	35.725	29.797	47.023	48.669
Advanced Diagnostics & Therapeutics Clinical Translational Applied Research (Air Force)	0.000	0.000	3.479	3.566	3.637	3.710	3.840
GDF-Applied Biomedical Technology (GDF-ABT)	84.873	25.264	30.326	32.159	26.160	43.313	44.829
USAF Advanced Diagnostics & Therapeutics (Air Force)	3.127	3.394	0.000	0.000	0.000	0.000	0.000
WWE-Applied Biomedical Technology (WWE-ABT)	28.662	0.000	0.000	0.000	0.000	0.000	0.000

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Funding in this program element supports the Air Force Medical Service Biomedical Research & Development program to address the Air Force Surgeon General's (AF/SG's) vision for medical modernization and the capabilities and objectives outlined in the AFMS Concept document & AFMS CRRA in the defined modernization thrust areas of 1) Expeditionary Medicine; 2) Enroute Care; 3) Force Health Protection; 4) Operational Medicine and 5) Human Performance. The Air Force Medical Service utilizes a Research Management Working Group (RMWG) to identify, evaluate, review, consolidate and prioritize critical gaps in applied research and advanced concepts needed to ensure and improve efficiency and efficacy of care across the spectrum of clinical Diagnosis, Identification, Quantification and Mitigation (DIQM) methods, techniques protocols, guidelines and practices for wounded, ill and/or injured beneficiaries within the established modernization thrust areas identified herein. To that end, the Air Force Medical Support Agency Research and Development Division working in close concert with warfighter and stakeholder representatives from the Air Force Major Operating Commands and the RMWG construct

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conduct a gap assessment of the requirements in these areas and identifies, validates and prioritizes knowledge product solutions for same through established procedures for program / focus area broad area announcements and solicitations, assessment, review, prioritization and selection for award and execution. Funding in this program element provides for validated knowledge capability gaps to be addressed through applied scientific research to develop new and improved medical protocols and practices.

Applied Biomedical Technology: This project funds applied research to refine concepts and ideas into potential solutions to military health and performance problems, with a view towards evaluating technical feasibility. Included are studies and investigations leading to candidate solutions that may involve use of animal models for testing in preparation for initial human testing. Research in this project is designed to address the following: areas of interest to the Secretary of Defense regarding Wounded Warriors, capabilities identified through the Joint Capabilities Integration and Development System (JCIDS), and the strategy and initiatives described in the Quadrennial Defense Review (QDR). Program development and execution is peer-reviewed and fully coordinated with all Military Services, appropriate Defense Agencies or Activities, and other federal agencies, to include the Department of Veterans Affairs, the Department of Health and Human Services, and the Department of Homeland Security. This coordination occurs through the planning and execution activities of the Joint Program Committees (JPCs), established for the Defense Health Program enhanced RDT&E funding. Research supported by this project includes polytrauma and blast injury, rehabilitation, diagnosis and treatment of brain injury, operational health and performance, and psychological health and well-being for military personnel and families.

The Defense Health Program appropriation also received Congressional Special Interest (CSI) directed research programs.

In FY10, funding was provided to stimulate innovative research at intramural and extramural research sites for Wounded Warrior Enhancement. This effort included funding for operational health and performance, polytrauma and blast, psychological health and well-being for military personnel and families, rehabilitation, and traumatic brain injury.

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B. PROGRAM CHANGE SUMMARY:

	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
FY12 Budget Estimate RDT&E	90.525	28.658	33.805	35.725
Reprogramming	28.662	0.000	0.000	0.000
SBIR	-2.525	0.000	0.000	0.000
FY12 Budget Submission RDT&E	116.662	28.658	33.805	35.725

PROGRAM CHANGE SUMMARY EXPLANATION:

FY 2010: Prior Approval Reprogramming, FY 10-17 PA, from DHP O&M to DHP RDT&E, PE 0602115 - Applied Biomedical Technology for Congressional Special Interest item Wounded Warrior Enhancement (WWE) program (+\$28.662 million).

SBIR Transfer from DHP RDT&E, PE 0602115 - Applied Biomedical Technology (-\$2.525 million) to DHP RDT&E, PE 0605502 - Small Business Innovation Research (SBIR) program (+\$2.525 million).

FY 2011: No Change.

FY 2012: No Change.

FY 2013: No Change.

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C. OTHER PROGRAM FUNDING SUMMARY:

	FY 2010 <u>Estimate</u>	FY 2011 <u>Estimate</u>	FY 2012 <u>Estimate</u>	FY 2013 <u>Estimate</u>	FY 2014 <u>Estimate</u>	FY 2015 <u>Estimate</u>	FY 2016 <u>Estimate</u>
DHP Operation & Maintenance	0.747	0.769	0.000	0.000	0.000	0.000	0.000
BA-1, PE 0807714	0.747	0.769	0.000	0.000	0.000	0.000	0.000

D. ACQUISITION STRATEGY: Not Required

E. PERFORMANCE METRICS:

The benchmark performance metric for transition of research conducted with applied research funding will be the attainment of a maturity level that is at least TRL4, and typically TRL5, or the equivalent for knowledge products. Products nearing attainment of TRL5 will be considered for transition.