

Defense Health Program
 Fiscal Year (FY) 2009 Budget Estimates
 Exhibit R-2, DHP RDT&E Budget Item Justification

Appropriation/Budget Activity
 Defense Health Program/BA: 2

DATE: February 2008
 R1 Item Nomenclature: 2
 Medical Technology (AFRRI)
 0602787HP

COST: (Dollars in Thousands)

	2007 Actual	2008 Estimate	2009 Estimate	2010 Estimate	2011 Estimate	2012 Estimate	2013 Estimate
Total PE 0602787	3.155	3.223	3.381	3.417	3.553	3.694	3.841
Biodosimetry	0.644	0.658	0.690	0.697	0.724	0.753	0.783
Internal Contamination	0.334	0.341	0.358	0.362	0.377	0.391	0.410
Radiation Countermeasures	2.177	2.224	2.333	2.358	2.452	2.550	2.648

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program supports developmental research to investigate new approaches that will lead to advancements in biomedical strategies for preventing, treating, assessing and predicting the health effects of human exposure to ionizing radiation. Program objectives focus on mitigating the health consequences from exposures to ionizing radiation that represent the highest probable threat to U.S. forces under current tactical, humanitarian and counter-terrorism mission environments. New protective and therapeutic strategies will broaden the military commander's options for operating within nuclear or radiological environments by minimizing both short-and long-term risks of adverse health consequences. Advancements in field-based biological dose assessment systems to measure radiation exposures will enhance triage, treatment decisions and risk assessment. Accurate models to predict casualties will promote effective command decisions and force structure planning to ensure mission success.

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B. PROGRAM CHANGE SUMMARY:

	<u>2007</u>	<u>2008</u>	<u>2009</u>
FY09 Budget Estimate RDT&E	3.155	3.306	3.381
SBIR	0.000	-0.083	0.000
FY09 Budget Submission RDT&E	3.155	3.223	3.381

PROGRAM CHANGE SUMMARY EXPLANATION: Not Required

C. OTHER PROGRAM FUNDING SUMMARY: Not Required

D. ACQUISITION STRATEGY: Not Required

E. PERFORMANCE METRICS:

Accomplishments: Identified 6 drugs or therapeutic approaches that are promising for treatment of radiation injury. Identified usefulness of multi-biomarker approach for biodosimetry. Hematological measures (neutrophil/lymphocyte ratios), C-reactive protein, and serum amylase are among the biomarkers that have shown promise.

By FY 2010 develop decision criteria for antibiotic use after radiation injury.

By FY 2012 identify 4 promising new drugs and/or therapeutic approaches for radiation injury.

By FY 2012 begin characterization of a new large animal model to supplement an alternative to the non-human primate.