

Defense Health Program
 Fiscal Year (FY) 2010 Budget Estimates
 Exhibit R-2, DHP RDT&E Budget Item Justification

Appropriation/Budget Activity
 Defense Health Program/BA: 2

DATE: May 2009
 R1 Item Nomenclature: 4
 Medical Technology (AFRRI)
 0602787HP

COST: (Dollars in Millions)

	2008 Actual	2009 Estimate	2010 Estimate
Total PE 0602787	3.223	3.297	3.417
Biodosimetry (USUHS)	0.658	0.673	0.697
Internal Contamination (USUHS)	0.341	0.349	0.362
Radiation Countermeasures (USUHS)	2.224	2.275	2.358

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: For the Uniformed Services University of the Health Sciences (USUHS), Armed Forces Radiobiology Research Institute (AFRRI), 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>2008</u>	<u>2009</u>	<u>2010</u>
FY10 Budget Estimate RDT&E	3.223	3.381	3.417
SBIR	0.000	-0.084	0.000
FY10 Budget Submission RDT&E	3.223	3.297	3.417

PROGRAM CHANGE SUMMARY EXPLANATION:

FY08:
- No Change

FY09:
- SBIR Transfer from DHP RDT&E Program Element 0602787-Medical Technology (AFRRI) to DHP RDT&E Program Element 0605502-Small Business Innovation Research (SBIR) (\$0.084 million) for proper execution

FY10:
- No Change

C. OTHER PROGRAM FUNDING SUMMARY: None.

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.