Defense Health Program
Fiscal Year (FY) 2013 Budget Estimates
Exhibit R-2, DHP RDT&E Budget Item Justification

Appropriation/Budget Activity
Defense Health Program/BA: 2

DATE: February 2012
R1 Item Nomenclature: 5
Medical Advanced Technology (AFRRI)
0603002HP

COST: (Dollars in Millions)

	2011 Actual	2012 Estimate	2013 Estimate	2014 Estimate	2015 Estimate	2016 Estimate	2017 Estimate
Total PE 0603002	0.733	0.748	0.298	0.304	0.310	0.321	0.326
Biodosimetry (USUHS)	0.440	0.449	0.179	0.183	0.186	0.193	0.195
Radiation Countermeasures (USUHS)	0.293	0.299	0.119	0.121	0.124	0.128	0.131

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: For the Uniformed Services University of the Health Sciences (USUHS/AFRRI), this program supports applied research for advanced development of biomedical strategies to prevent, treat and assess health consequences from exposure to ionizing radiation. It capitalizes on findings under PE 0602787HP, Medical Technology, and from industry and academia to advance novel medical countermeasures into and through pre-clinical studies toward newly licensed products. Program objectives focus on mitigating the health consequences from exposures to ionizing radiation(alone or in combination with other injuries) that represent the highest probable threat to US forces in current tactical, humanitarian and counterterrorism mission environments. Findings from basic and developmental research are integrated into focused advanced technology development studies to produce the following: (1) protective and therapeutic strategies; (2) novel biological markers and delivery platforms for rapid, field-based individual medical assessment; and (3) experimental data needed to build accurate models for predicting casualties from complex injuries involving radiation and other battlefield insults. The Armed Forces Radiobiology Research Institute (AFRRI), because of its multidisciplinary staff and exceptional laboratory and radiation facilities, is uniquely positioned to execute the program as prescribed by its mission.

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B. PROGRAM CHANGE SUMMARY:

	2011	2012	2013	2014
FY13 Budget Estimate RDT&E	0.733	0.767	0.295	0.301
Change Proposal	0.000	0.000	0.003	0.003
SBIR	0.000	-0.019	0.000	0.000
FY13 Budget Submission RDT&E	0.733	0.748	0.298	0.304

PROGRAM CHANGE SUMMARY EXPLANATION:
FY 2011: No Change.

FY 2012: SBIR Transfer from DHP RDT&E, PE 0603002 – Advanced Technology (AFRRI) (-$0.019 million) to DHP RDT&E, PE 0605502 – Small Business Innovation Research (SBIR) program (+$0.019 million).

FY 2013: Change Proposal for inflation adjustment to DHP RDT&E,PE 0603002 – Advanced Technology (AFRRI) (+$0.003 million).

FY 2014: Change Proposal for inflation adjustment to DHP RDT&E,PE 0603002 – Advanced Technology (AFRRI) (+$0.003 million).

C. OTHER PROGRAM FUNDING SUMMARY: None.

D. ACQUISITION STRATEGY: Not Required

E. PERFORMANCE METRICS:
By FY11- complete validation of a prototype automated radiation cytome assay; advance the development of progenitor cell bridging therapy; complete validation of multi-parameter biomarker interpretation in mouse and non-human primate.

By FY12- apply minipig model to pre-clinical trial of at least one lead candidate countermeasure as final step towards proceeding with an IND application to FDA

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By FY13- Apply minipig model to pre-clinical trial of at least one additional countermeasure, for isolated radiation injury and for radiation combined injury