

**Defense Health Program
Fiscal Year (FY) 2008/2009 Budget Estimates
Exhibit R-2, DHP RDT&E Budget Item Justification**

Appropriation/Budget Activity
Defense Health Program/BA: 2

DATE: February 2007
R1 Item Nomenclature: 3
Medical Advanced Technology (AFRRI)
0603002HP

COST: (Dollars in Thousands)

| | FY 2006 Actuals | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | FY 2010 Estimate | FY 2011 Estimate | FY 2012 Estimate | FY 2013 Estimate |
|---|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Total PE 0603002 | 1.914 | 0.799 | 0.817 | 0.836 | 0.737 | 0.752 | 0.767 | 0.783 |
| Biodosimetry | 0.449 | 0.470 | 0.488 | 0.836 | 0.737 | 0.752 | 0.767 | 0.783 |
| Radiation Countermeasures | 0.307 | 0.329 | 0.329 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Inositol Signaling Molecule-Based Radioprotectant Drug Development | 1.158 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

Reflects FY 2007 President's Budget Request. Current Continuing Resolution funding for RDT&E is \$379,603 thousand.

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The first two programs support 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 0602787D, 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 that represent the highest probable threat to US forces under current tactical, humanitarian and counter terrorism mission environments. Findings from basic and developmental research are integrated into highly 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 dose 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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The third program is a Congressionally mandated requirement for medical research into biomedical strategies for preventing, treating, assessing and predicting the health effects of human exposure to ionizing radiation. There is no out year funding for this program.

B. PROGRAM CHANGE SUMMARY:

| | <u>FY 2006</u> | <u>FY 2007</u> | <u>FY 2008</u> |
|------------------------------|----------------|----------------|----------------|
| FY08 Budget Estimate RDT&E | 1.607 | 0.470 | 0.474 |
| FY08 Budget Submission RDT&E | 1.607 | 0.470 | 0.474 |

PROGRAM CHANGE SUMMARY EXPLANATION: Not required

C. OTHER PROGRAM FUNDING SUMMARY: Not required

D. ACQUISITION STRATEGY: Not required

E. PERFORMANCE METRICS:

Accomplishments: 1) obtained "investigational new drug" status for a therapeutic agent to mitigate radiation injury and 2) provide software tools for biodosimetric assessment.

By FY 2010 transition 4 new drugs for FDA approval for treatment of radiation injury.

By FY 2010 provide forward-fieldable biodosimetric tools.