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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Defense Threat Reduction Agency **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 1: <i>Basic Research</i>				PE 0601000BR: <i>DTRA Basic Research Initiative</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	39.951	47.412	47.737	-	47.737	48.071	48.493	48.925	49.757	Continuing	Continuing
RU: <i>Fundamental Research for Combating WMD</i>	39.951	47.412	47.737	-	47.737	48.071	48.493	48.925	49.757	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Threat Reduction Agency (DTRA) safeguards America and its allies from Weapons of Mass Destruction (chemical, biological, radiological, nuclear, and high explosives) by providing capabilities to reduce, eliminate, counter the threat, and mitigate its effects. The Basic Research Initiative program provides for the discovery and development of fundamental knowledge and understanding by research performers drawn primarily from academia and world-class research institutions in government and industry. This leverages Department of Defense's \$1 billion annual investment in basic research by ensuring a motivation within the scientific community to conduct research benefiting Weapons of Mass Destruction-related defense missions and by improving Agency knowledge of other research efforts of potential benefit to DTRA nonproliferation, counterproliferation and consequence management efforts.

These efforts are closely coordinated with the Chem-Bio Technology portfolio which executes a basic research program under the joint Chem-Bio Defense Program. Agency research interests are coordinated with those of Defense Advanced Research Projects Agency and Service basic research programs through the Defense Basic Research Advisory Group. DTRA reviews research interests annually to focus on technology areas not clearly addressed by other basic research efforts.

The increase from FY 2010 to FY 2011 is due to a FY 2010 Congressional budget reduction of \$7.500M which was levied on the program due to the rate of program growth. The FY 2011 to FY 2016 program reflects the DTRA corporate decision to fund the 6.1 Basic Research program to 8-10% of Total Obligation Authority.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	40.848	47.412	47.737	-	47.737
Current President's Budget	39.951	47.412	47.737	-	47.737
Total Adjustments	-0.897	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-0.061	-			
• SBIR/STTR Transfer	-0.836	-			

Change Summary Explanation

The FY 2010 decrease from the previous President's Budget submission is due to the internal SBIR reprogramming and

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the FY 10-11PA reprogramming action in support of higher priority Department needs.		

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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
RU: <i>Fundamental Research for Combating WMD</i>	39.951	47.412	47.737	-	47.737	48.071	48.493	48.925	49.757	Continuing	Continuing
A. Mission Description and Budget Item Justification <p>This project provides for the discovery and development of fundamental knowledge and understanding by research performers drawn primarily from academia and world-class research institutions in government and industry. This leverages the Department of Defense's (DoD) \$1 billion annual investment in basic research by ensuring a motivation within the scientific community to conduct research benefiting Weapons of Mass Destruction-related defense missions and by improving Agency knowledge of other research efforts of potential benefit to Defense Threat Reduction Agency (DTRA) nonproliferation, counterproliferation and consequence management efforts.</p> <p>These efforts are closely coordinated with the Chem-Bio Technology Portfolio which executes a basic research program under the joint Chem-Bio Defense Program. Agency research interests are coordinated with those of Defense Advanced Research Projects Agency and Service basic research programs through the Defense Basic Research Advisory Group. DTRA reviews research interests annually to focus on technology areas not clearly addressed by other basic research efforts.</p>											
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2010	FY 2011	FY 2012	
Title: Project RU: Fundamental Research for Combating WMD								39.951	47.412	47.737	
FY 2010 Accomplishments: <ul style="list-style-type: none"> - Expanded the FY 2009 basic research portfolio, adding an additional 180 research investigators to the basic research community dedicated to developing better and new understanding of science principals that can underwrite science and technology to meet strategic challenges. The expanded portfolio will include the Combating Weapon of Mass Destruction (CWMD) grand challenge for the DoD. The attained goal was to build a 6.1 basic research portfolio of approximately 8-10% of the DTRA research and development investment. - Conducted a technical review of each grant that assessed the scientific advancements and progress met by the award's technical objectives, which also fostered collaboration and built relationships within the scientific community. - Conducted an external panel review of the basic research program that was open to DoD research stakeholders, which assessed the focus and scope of the program with respect to the CWMD challenges, and assessed the coordination of CWMD basic research across the DoD mission space and across the broader basic research community to avoid unintended duplication and ensure successful partnerships. 											
FY 2011 Plans: <ul style="list-style-type: none"> - Program expected to be managing over 200 active basic research awards on a three year cycle. The Agency's 6.1 basic research portfolio is expected to continue the CWMD grand challenge for the DoD, and be capitalized at approximately 8-10% of the DTRA research and development investment. 											

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B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012		
<p>- Conduct a technical review of each grant to assess the scientific advancements and progress in meeting the award's technical objectives and to foster collaboration and build relationships within the scientific community.</p> <p>- Conduct an external panel review of the basic research program, open to DoD research stakeholders, to assess the focus and scope of the program with respect to the CWMD challenges, and to assess the coordination of CWMD basic research across DoD mission space and across the broader basic research community to avoid unintended duplication and ensure successful partnerships.</p> <p><i>FY 2012 Plans:</i></p> <p>- Program expected to be managing over 200 active basic research awards on a three year cycle. The Agency's 6.1 basic research portfolio is expected to continue the CWMD grand challenge for the DoD, and be capitalized at approximately 8-10% of the DTRA research and development investment.</p> <p>- Plan to conduct a technical review of each grant to assess the scientific advancements and progress in meeting the award's technical objectives and to foster collaboration and build relationships within the scientific community.</p> <p>- Plan to conduct an external panel review of the basic research program, which will be open to DoD research stakeholders, to assess the focus and scope of the program with respect to the CWMD challenges, and to assess the coordination of CWMD basic research across DoD mission space and across the broader basic research community to avoid unintended duplication and ensure successful partnerships.</p>											
Accomplishments/Planned Programs Subtotals							39.951	47.412	47.737		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• 20/0602718BR: <i>WMD Defeat Technologies</i>	13.876	10.385	8.631		8.631	8.065	7.754	7.530	7.583	Continuing	Continuing
D. Acquisition Strategy											
Procurement methods include in-scope award through Defense Threat Reduction Agency University Strategic Partnership, collaborative funding through other organizations, and competitive award through Broad Agency Announcement.											
E. Performance Metrics											
Project performance is measured via a combination of statistics including the number of publications generated, number of students trained in sciences and engineering supporting DoD educational goals, number of research organizations participating, and percentage of participating universities on the US News & World Report "Best Colleges" list.											

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