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Exhibit R-2, PB 2010 Defense Threat Reduction Agency RDT&E Budget Item Justification								DATE: May 2009		
APPROPRIATION/BUDGET ACTIVITY 0400 - Research, Development, Test & Evaluation, Defense-Wide/BA 1 - Basic Research					R-1 ITEM NOMENCLATURE PE 0601000BR DTRA Basic Research Initiative					
COST (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	14.708	22.329	48.544						Continuing	Continuing
RU: *Fundamental Research for Combating WMD	14.708	22.329	48.544						Continuing	Continuing

Note

*Project title change from Basic Research for WMD Knowledge Gaps starting in FY 2010

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, and 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 \$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 non-proliferation, counter proliferation 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.

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B. Program Change Summary (\$ in Millions)

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
Previous President's Budget	10.831	18.000	18.544	
Current BES/President's Budget	14.708	22.329	48.544	
Total Adjustments	3.877	4.329	30.000	
Congressional Program Reductions	0.000	-0.071		
Congressional Rescissions	0.000	0.000		
Total Congressional Increases	0.000	4.400		
Total Reprogrammings	4.061	0.000		
SBIR/STTR Transfer	-0.184	0.000		
Realignment	0.000	0.000	30.000	

Congressional Increase Details (\$ in Millions)

Project: RU, Dual Use Technologies for Bio Defense Drug & Novel Therapeutics

Project: RU, University Strategic Partnership

	<u>FY 2008</u>	<u>FY 2009</u>
		1.200
		3.200

Change Summary Explanation

Basic Research Initiative provides expanded and detailed justification to include specific and articulable benefits to the Warfighter to support the increase of \$30 million in FY 2010. The Defense Threat Reduction Agency basic research program is supporting high-payoff, novel research that will provide benefits to the warfighter in important areas of the countering Weapon of Mass Destruction (WMD) mission. Three exemplary areas are: (1) remote detection of fissile material; (2) defeat of WMD-related facilities and materials with acceptable collateral damage; and (3) advances in physical and social network analyses that fosters the means for countering electromagnetic pulse attacks and terrorism. Another very important benefit of basic research is the training of the next generation of scientists, who will be needed to support the warfighter in future operations against emerging WMD threats. The realignment in funding to basic research and systems engineering is to grow the scientific community in support of WMD research to provide far sighted, high payoff research to reduce, eliminate, and mitigate the effects of WMD to achieve the Department of Defense investment goal for Basic Research of 10-12% of total obligation authority.

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B. Accomplishments/Planned Program (\$ in Millions)

	FY 2008	FY 2009	FY 2010	FY 2011
Project RU: Fundamental Research for Combating WMD	14.708	22.329	48.544	
<p><i>FY 2008 Accomplishments:</i></p> <ul style="list-style-type: none"> - Expanded the FY 2007 basic research portfolio to 80 basic research initiatives dedicated to advancing knowledge across a broad spectrum of science and multi-disciplined research areas. The initial 30 grantees in FY 2007 were composed of universities and the FY 2008 portfolio expanded the portfolio to include research by Service and National Laboratories, as well as non-profit entities with university partners. - Conducted a technical review of each grant to assess the scientific advancements and progress in meeting the award's technical objectives and to foster collaborations and build relationships within the scientific community. 				

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B. Accomplishments/Planned Program (\$ in Millions)							FY 2008	FY 2009	FY 2010	FY 2011		
<p>- Conducted an external panel review of the basic research program, open to Department of Defense (DoD) research stakeholders, to assess the focus and scope of the program with respect to the Counter Weapons of Mass Destruction (CWMD) Challenges, and to assess the coordination of CWMD basic research across DoD mission space and across broader basic research community to avoid unintended duplication and ensure successful partnerships.</p> <p><i>FY 2009 Plans:</i></p> <p>- Expand the FY 2008 basic research portfolio to 100 basic research initiatives dedicated to developing better and new understanding of science principles that can underwrite science and technology to meet strategic challenges. Expand opportunities to include foreign universities. The overall research goal is to build a 6.1 portfolio that represents approximately 10-12% of the Defense Threat Reduction Agency (DTRA) research and development investment beginning in the FY 2010 timeframe.</p> <p><i>FY 2010 Plans:</i></p> <p>- Expand the FY 2009 basic research portfolio by 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 (WMD) grand challenge for the DoD. The goal is to build a 6.1 basic research portfolio of approximately 10-12% of the DTRA research and development investment.</p>												
C. Other Program Funding Summary (\$ in Millions)												
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost		
20/0602718BR/WMD Defeat Technologies	20.287	19.456	11.564						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.												

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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 Department of Defense educational goals, number of research organizations participating, and percentage of participating universities on the US News & World Report "Best Colleges" list.