Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Chemical and Biological Defense Program	Date: March 2023
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605502BP / *Small Business Innovative Research - Chemical Biological Def*

COST ($ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	0.000	21.179	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	23.179
SB6: *Small Business Innovative Research (Mgmt Support)*	-	21.179	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	23.179

A. Mission Description and Budget Item Justification

The overall objective of the Chemical Biological Defense (CBD) Small Business Innovative Research (SBIR) program is to improve the transition or transfer of innovative CBD technologies between Department of Defense (DoD) components and the private sector for mutual benefit. The CBD SBIR program includes those technology efforts that maximize a strong defensive posture in a biological or chemical environment using passive and active means as deterrents. These technologies include chemical and biological detection; information assessment, which includes identification, modeling, and intelligence; contamination avoidance; and protection of both individual soldiers and equipment.

B. Program Change Summary ($ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	21.179	2.000	0.000	-	0.000
Total Adjustments	21.179	2.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	2.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	21.179	-			
• Other Adjustments	-	-	0.000	-	0.000

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2022	FY 2023
Project: SB6: *Small Business Innovative Research (Mgmt Support)*		
Congressional Add: *Infectious Disease Diagnostics*	-	2.000
Congressional Add Subtotals for Project: SB6	-	2.000
Congressional Add Totals for all Projects	-	2.000

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Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*	**R-1 Program Element (Number/Name)** PE 0605502BP *I Small Business Innovative Research - Chemical Biological Def*

Change Summary Explanation

Funding: FY2022 (+$21.179 Million): Funding transferred and applied to Small Business Innovative Research program.

FY2023 (+$2.000 Million): Congressional Add for infectious disease diagnostics.

Schedule: N/A

Technical: N/A

Exhibit R-2A, RDT&E Project Justification: PB 2024 Chemical and Biological Defense Program										Date: March 2023		
Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0605502BP / *Small Business Innovative Research - Chemical Biological Def*				Project (Number/Name) SB6 / *Small Business Innovative Research (Mgmt Support)*			
COST ($ in Millions)	**Prior Years**	**FY 2022**	**FY 2023**	**FY 2024 Base**	**FY 2024 OCO**	**FY 2024 Total**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**	**Cost To Complete**	**Total Cost**
SB6: *Small Business Innovative Research (Mgmt Support)*	-	21.179	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	23.179
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Small Business Innovative Research (SBIR) Program is a Congressionally mandated program established to increase the participation of small business in federal research and development (R&D). Currently, each participating Government agency must reserve 3.2% of its extramural R&D for SBIR awards to competing small businesses. The goal of the SBIR Program is to invest in the innovative capabilities of the small business community to help meet Government R&D objectives while allowing small companies to develop technologies and products which they can then commercialize through sales back to the Government or in the private sector.

The Small Business Technology Transfer (STTR) Program like SBIR, is a Government-wide program, mandated by the Small Business Research and Development Enhancement Act of 1992, Public Law (PL) 102-564. STTR was established as a companion program to the SBIR Program and is executed in essentially the same manner; however, there are several distinct differences. The STTR Program provides a mechanism for participation by university, Federally-Funded Research and Development Centers (FFRDCs), and other non-profit research institutions. Specifically, the STTR Program is designed to provide an incentive for small companies and research at academic institutions and non-profit research and development institutions to work together to move emerging technical ideas from the laboratory to the marketplace to foster high-tech economic development and to advance U.S. economic competitiveness. Each STTR proposal must be submitted by a team which includes a small business (as the prime contractor for contracting purposes) and at least one research institution, which have entered into a Cooperative Research and Development Agreement for the purposes of the STTR effort. Furthermore, the project must be divided up such that the small business performs at least 40% of the work and the research institution(s) performs at least 30% of the work. The remainder of the work may be performed by either party or a third party. The budget is separate from the SBIR budget and is significantly smaller (0.45% of the extramural R&D budget vs. 3.2% for the SBIR Program).

The overall objective of the CBD SBIR/STTR program is to improve the transition or transfer of innovative CBD technologies between DoD components and the private sector for mutual benefit. The CBD program includes those technology efforts that maximize a strong defensive posture in a biological or chemical environment using passive and active means as deterrents. These technologies include chemical and biological detection; information assessment, which includes identification, modeling, and intelligence; contamination avoidance; and protection of both individual soldiers and equipment. The executive agent for the SBIR/STTR portion of the CBDP is the Army Research Office-Washington.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2022**	**FY 2023**	**FY 2024**
Title: 1) ZSBIR	21.179	0.000	0.000
Description: Small Business Innovative Research/Small Business Technology Transfer (SBIR/STTR)			
FY 2023 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2024 Chemical and Biological Defense Program		Date: March 2023
Appropriation/Budget Activity 0400 / 6	**R-1 Program Element (Number/Name)** PE 0605502BP / *Small Business Innovative Research - Chemical Biological Def*	**Project (Number/Name)** SB6 / *Small Business Innovative Research (Mgmt Support)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2022	FY 2023	FY 2024
- Sensor – Battlespace Environments ($4.4 Million): Artificial Intelligence (AI)-based Real-time Automatic 3D Reconstruction and 3D Model Generation from Multiple Image Sources for Situational Awareness and Transport and Dispersion Modeling. - Detection – Sensors ($2.2 Million): Development and Testing of Contact-Free Methods for Classifying the Morphological Properties of Aerosols. - Individual Protection ($4.4 Million): Non-Perfluoroalkyl and Non-Polyfluoroalkyl Substances (PFAS) Elastomeric Chemical Barrier Materials; Non-PFAS (Perfluoroalkyl or Polyfluoroalkyl Substances) Liquid Repellant Coatings. - Canine Protection ($2.2 Million): Collapsible and Protective Portable Canine Shelter. - Point Detection ($3.3 Million): Millimeter Wave Imaging with High-Electron-Mobility Transistors (HEMT) or Schottky Diode Rectifiers. ***FY 2024 Plans:*** - Medical Pretreatments (estimated funding, $2.2 Million) - Medical Diagnostics (estimated funding, $2.2 Million) - Medical Therapeutics – Biological Countermeasures (estimated funding, $3.3 Million) - Medical Therapeutics – Chemical Countermeasures (estimated funding, $2.2 Million)			
Accomplishments/Planned Programs Subtotals	21.179	0.000	0.000

	FY 2022	FY 2023
Congressional Add: Infectious Disease Diagnostics ***FY 2023 Plans:*** Conduct infectious disease diagnostics.	-	2.000
Congressional Adds Subtotals	-	2.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A