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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2022 Defense Health Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0130: <i>Defense Health Program I BA 2: RDT&amp;E</i>	<b>R-1 Program Element (Number/Name)</b> PE 0601101DHA / <i>In-House Laboratory Independent Research (ILIR)</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	23.972	4.013	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
010A: <i>CSI - Congressional Special Interests</i>	1.315	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
240A: <i>Infectious Disease (USUHS)</i>	3.110	0.490	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
240B: <i>Military Operational Medicine (USUHS)</i>	9.348	1.509	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
240C: <i>Combat Casualty Care (USUHS)</i>	9.949	2.014	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
468: <i>Metabolomics, Exposure Biomarkers, and Health Outcomes (USUHS)</i>	0.250	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**Note**

Funds were adjusted to higher priority programs in FY 2021-2025.

**A. Mission Description and Budget Item Justification**

For the Uniformed Services of the Health Sciences (USUHS), this program element supports basic medical research at the Uniformed Services University of the Health Sciences (USUHS). It facilitates the recruitment and retention of faculty; supports unique research training for military medical students and resident fellows; and allows the University's faculty researchers to collect pilot data towards military relevant medical research projects in order to secure research funds from extramural sources (estimated \$180 million annually). Approximately 48 intramural research projects are active each year, including 18 faculty start-ups. Projects are funded on a peer-reviewed, competitive basis. Results from these studies contribute to the knowledge base intended to enable technical approaches and investment strategies within Defense Science and Technology (S&T) programs. USU enriches the training of the next generation of physicians/scientists who directly benefit the quality, outcomes, and stability of the military health care delivery system.

Defense-Wide Review reductions permanently eliminates out-year funding for USU's ILIR program.

The ILIR program at USUHS is designed to answer fundamental questions of importance to the military medical mission of the Department of Defense in the areas of Combat Casualty Care, Infectious Diseases, Military Operational Medicine, and Chemical, Biological, and Radiologic Defense. The portfolio of research projects will vary annually because this research is investigator-initiated. Examples of typical research efforts are detailed in R-2a.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2022 Defense Health Agency	<b>Date:</b> May 2021
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<b>Appropriation/Budget Activity</b> 0130: <i>Defense Health Program I BA 2: RDT&amp;E</i>	<b>R-1 Program Element (Number/Name)</b> PE 0601101DHA I <i>In-House Laboratory Independent Research (ILIR)</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Previous President's Budget	4.013	0.000	0.000	-	0.000
Current President's Budget	4.013	0.000	0.000	-	0.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

FY 2021: Programmed effort and funding transferred to other higher priority programs.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2022 Defense Health Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0130 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0601101DHA / <i>In-House Laboratory Independent Research (ILIR)</i>	<b>Project (Number/Name)</b> 010A / <i>CSI - Congressional Special Interests</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
010A: <i>CSI - Congressional Special Interests</i>	1.315	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**  
Because of the CSI annual structure, out-year funding is not programmed.

**B. Accomplishments/Planned Programs (\$ in Millions)**  
N/A

**C. Other Program Funding Summary (\$ in Millions)**  
N/A

**Remarks**

**D. Acquisition Strategy**  
N/A

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**Exhibit R-2A, RDT&E Project Justification:** PB 2022 Defense Health Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0130 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0601101DHA / <i>In-House Laboratory Independent Research (ILIR)</i>	<b>Project (Number/Name)</b> 240A / <i>Infectious Disease (USUHS)</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
240A: <i>Infectious Disease (USUHS)</i>	3.110	0.490	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

For the Uniformed Services of the Health Sciences (USUHS), this program element supports basic medical research at the Uniformed Services University of the Health Sciences (USUHS). It facilitates the recruitment and retention of faculty; supports unique research training for military medical students and resident fellows; and allows the University's faculty researchers to collect pilot data towards military relevant medical research projects in order to secure research funds from extramural sources (estimated \$180 million annually).

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2020	FY 2021	FY 2022
<b>Title:</b> Infectious Disease	0.490	-	-
<b>Description:</b> For FY20 only, Immunology and molecular biology of bacterial, viral and parasitic disease threats to military operations. These threats include Bartonella bacilliformis, Clostridium difficile, Escherichia coli and their Shiga toxins, Henipaviruses (Hendra & Nipah), Cedar Virus, Hepatitis A, Helicobacter pylori, HIV, HTLV-1, Leishmaniasis, Litomosoides sigmodontis, Malaria, Neisseria gonorrhoeae, Shigella spp., Streptococcus, and Methicillin-resistant Staphylococcus aureus (MRSA).  The pre-pandemic Defense-Wide Review reductions permanently eliminates USU's infectious disease intramural research capability			
<b>Accomplishments/Planned Programs Subtotals</b>	0.490	-	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

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<b>Appropriation/Budget Activity</b> 0130 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0601101DHA / <i>In-House Laboratory Independent Research (ILIR)</i>	<b>Project (Number/Name)</b> 240B / <i>Military Operational Medicine (USUHS)</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
240B: <i>Military Operational Medicine (USUHS)</i>	9.348	1.509	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

For the Uniformed Services of the Health Sciences (USUHS), this program element supports basic medical research at the Uniformed Services University of the Health Sciences (USUHS). It facilitates the recruitment and retention of faculty; supports unique research training for military medical students and resident fellows; and allows the University's faculty researchers to collect pilot data towards military relevant medical research projects in order to secure research funds from extramural sources (estimated \$180 million annually).

Defense-Wide Review reductions permanently eliminates out-year funding for this program

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2020	FY 2021	FY 2022
<b>Title:</b> Military Operational Medicine	1.509	-	-
<b>Description:</b> For FY20 only, Sustainment of individual performance; mapping and managing deployment and operational stressors; cognitive enhancement; use of dietary and nutritional supplements and military and medical training readiness.			
Defense-Wide Review reductions permanently eliminates out-year funding for this program.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.509	-	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

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<b>Appropriation/Budget Activity</b> 0130 / 2	<b>R-1 Program Element (Number/Name)</b> PE 0601101DHA / <i>In-House Laboratory Independent Research (ILIR)</i>	<b>Project (Number/Name)</b> 240C / <i>Combat Casualty Care (USUHS)</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
240C: <i>Combat Casualty Care (USUHS)</i>	9.949	2.014	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

For the Uniformed Services of the Health Sciences (USUHS), this program element supports basic medical research at the Uniformed Services University of the Health Sciences (USUHS). It facilitates the recruitment and retention of faculty; supports unique research training for military medical students and resident fellows; and allows the University's faculty researchers to collect pilot data towards military relevant medical research projects in order to secure research funds from extramural sources (estimated \$180 million annually).

Defense-Wide Review reductions permanently eliminates out-year funding for this program.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	FY 2020	FY 2021	FY 2022
<b>Title:</b> Combat Casualty Care	2.014	-	-
<b>Description:</b> For FY20 only, Regenerative medicine, rehabilitation, neurological, limb loss, pain management, readiness, resilience.			
Defense-Wide Review reductions permanently eliminates out-year funding for this program.			
<b>Accomplishments/Planned Programs Subtotals</b>	2.014	-	-

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A

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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
468: <i>Metabolomics, Exposure Biomarkers, and Health Outcomes (USUHS)</i>	0.250	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

For the Uniformed Services of the Health Sciences (USUHS), this program element supports basic medical research at the Uniformed Services University of the Health Sciences (USUHS). It facilitates the recruitment and retention of faculty; supports unique research training for military medical students and resident fellows; and allows the University's faculty researchers to collect pilot data towards military relevant medical research projects in order to secure research funds from extramural sources (estimated \$180 million annually). Approximately 48 intramural research projects are active each year, including 18 faculty start-ups. Projects are funded on a peer-reviewed, competitive basis. Results from these studies contribute to the knowledge base intended to enable technical approaches and investment strategies within Defense Science and Technology (S&T) programs. USU enriches the training of the next generation of physicians/scientists who directly benefit the quality, outcomes, and stability of the military health care delivery system.

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**B. Accomplishments/Planned Programs (\$ in Millions)**

N/A

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

N/A