Task Book Report Generated on: 04/24/2024

Freed Year: FY 2010 Table Last Epidated: FY 0819/2010	Final Vacus	EV 2016	T-1. Y - 4 YY 1 4 Y	EV 09/10/2016
Project Title: Cong-Decision Space Exploration Missions Bivision Name: Human Research Frogram/Discipline: Program/Discipline: NSBRI—Human Factors and Performance Team John Agency Name: () HERP-Human Factors and Performance (IRP Rev H) Human Research Program Risis: () HERP-Human Factors & Behavioral Performance (IRP Rev H) Human Research Program Risis: () HERP-Human Factors & Behavioral Performance (IRP Rev H) Human Research Program Risis: () HERP-Human Factors & Behavioral Performance (IRP Rev H) Human Research Program Risis: () HERP-Human Factors & Behavioral Performance (IRP Rev H) Human Research Program Risis: () HERP-Human Factors & Behavioral Performance (IRP Rev H) Human Research Program Risis: () HERP-Human Factors & Behavioral Performance (IRP Rev H) Human Research Program Risis: () HERP-Human Factors & Behavioral Performance (IRP Rev H) Human Research Program Risis: () HERP-Human Factors & Behavioral Performance (IRP Rev H) Program Discipline: Program Discipline: Risis: Risis:	Fiscal Year:	FY 2016 Task Last Updated: FY 08/19/2016		
Division Name: Human Research Program/Discipline- Element/Subdiscipline- India Agency Name: None	PI Name:			
Program/Discipline: Program/Discipline- Element/Subhizcipline ASBRI-Human Factors and Performance Team Joint Agency Name: None Space Biology Cross-Element None Space Biology Cross-Element None Space Biology Special Category: None PI Email: Space Biology Cross-Element Space PI Address 1: Space Biology Special Category: None: PI Email: Space Biology Special Category: None: PI Email: Space Biology Cross-Element Space PI Email: Space PI Ema	Project Title:			
Program/Discipline- Element/Subdiscipline- Daint Agency Name: TechPorts No Human Research Program Elements: (1) HERP-Human Factors & Behavioral Performance (IRP Rev H)	Division Name:	Human Research		
Flement/Sholdscipline Shark-Human Factors & Behavioral Performance (IRP Rev. H)	Program/Discipline:			
Human Research Program Elements: (1) HEBP-Human Factors & Behavioral Performance (IRP Rev II)		NSBRIHuman Factors and Perform	nance Team	
Human Research Program Risks: (1) HSTA:Risk of Adverse Outcomes Due to Inadequate Human Systems Integration Architecture Space Biology Cross-Element Space Biology Cross-Element Space Biology Cross-Element Space Biology Cross-Element Space Biology Special Category: None PI Email: Subsequence or Fax: FY PI Organization Type: UNIVERSITY Phone: 781-960-3228 Organization Type: UNIVERSITY Phone: 781-960-3228 Organization Name: Brigham and Women's Hospital/Harvard Medical Center PI Address 1: 75 Francis Street PI Address 2: STRATUS Center for Medical Simulation PI Web Page: City: Boston State: MA Zip Code: O2115-6110 Congressional District: 7 Comments: Project Type: GROUND Solicitation / Funding (PLACSBUP, NSBRI, OMNBILIS), Appendix Cross-NSBRI, Appendix G-Commibus Start Date: 06-01/2016 End Date: 05/31/2017 No. of Post Does: No. of Master' Degrees: No. of PhD Candidates: No. of Master' Degrees: No. of PhD Candidates: No. of Master' Degrees: No. of Master' Degrees: No. of Bachelor's Degrees: No. of And Andress Commidates: Subsequence of Contact Phone: Contact Hone: Contact Honitor: Contact Phone: Contact Phone: Contact Honitor: Contact Phone: Contact Phone: Contact Phone: Contact Hone; Play (Ed., 1/19/17) Key Personnel Changes/Previous PI: COI Name (Institution): Lipiti, Suarr Sc.D. (Brigham And Women's Hospital/Harvard Medical School) Pozor, Charles M.D. (Brigham And Women's Hospital/Harvard Medical School) Pozor, Charles M.D. (Brigham And Women's Hospital/Harvard Medical School of Medicine) Proformance Goal No.:	Joint Agency Name:		TechPort:	No
Space Biology Element: None Space Biology Cross-Element Discipliner None Space Biology Special Category: None PI Email: syile@eartners.org Fax: FV PI Organization Type: UNIVERSITY Phone: 781-960-3228 Organization Name: Brigham and Women's Hospital/Harvard Medical Center PI Address 1: 75 Francis Street The Comment of Pi Address 2: STRATUS Center for Medical Simulation PI Address 2: STRATUS Center for Medical Simulation State: MA Pi Address 2: STRATUS Center for Medical Simulation State: MA Pi Address 2: STRATUS Center for Medical Simulation State: MA Proget Use Page: State: MA City: Boston State: MA Zip Code: 02115-61110 Congressional District: 7 Comments: Solicitation / Funding Element Medical School Natural Page Medical Medical School Natural	Human Research Program Elements:	(1) HFBP:Human Factors & Behavioral Performance (IRP Rev H)		
Space Biology Cross-Element Discipline: None PI Email: Sude@partners.org Fax: FY PI Organization Type: UNIVERSITY Phone: 781-960-3228 Organization Type: UNIVERSITY Phone: 781-960-3228 Organization Name: Brigham and Women's Hospital/Harvard Medical Center PI Address 1: 75 Francis Street PI Address 2: STRATUS Center for Medical Simulation PI Web Page: City: Boston State: MA Zip Code: 02115-6110 Congressional District: 7 Comments: Project Type: GROUND Solicitation / Funding (FLACISHIR, NSBRI, OMNIBUS). Appendix Source: Accept lealth, Appendix B-NSBRI, Appendix Committed Source: Accept Sourc	Human Research Program Risks:	(1) HSIA:Risk of Adverse Outcomes Due to Inadequate Human Systems Integration Architecture		
Space Biology Special Category: None Space Biology Special Category: None: Space Biology Space Human Factors & Habitability Program: Space Human Factors & Habitability Program	Space Biology Element:	None		
Pi Email: Squis@partners.org Fax: FY Pl Organization Type: UNIVERSITY Phone: 781-960-3228 Pl Address I: 75 Francis Street Pl Address 2: 75 Francis Street Pl Address 2: STRATUS Center for Medical Simulation Pl Web Page:		None		
Phone: 781-960-3228	Space Biology Special Category:	None		
Organization Name: Brigham and Women's Hospital/Harvard Medical Center PI Address 1: 75 Francis Street PI Address 2: STRATUS Center for Medical Simulation PI Web Page: City: Boston State: MA Zip Code: 02115-6110 Congressional District: 7 Comments: Project Type: GROUND Solicitation / Funding (FLAGSHIP, NSBRI, OMNBUS) Appendix Appendix C-Omnibus (FLAGSHIP, NSBRI, OMNBUS) Appen	PI Email:	syule@partners.org	Fax:	FY
PI Address 1: 75 Francis Street PI Address 2: STRATUS Center for Medical Simulation PI Web Page: City: Boston State: MA Zip Code: 02115-6110 Congressional District: 7 Comments: Project Type: GROUND Solicitation / Funding (FLAGSHIP, NSBRI, OMNIBUS). Appendix Popendix C-Omnibus Start Date: 06/01/2016 End Date: 05/31/2017 No. of Post Docs: No. of PhD Degrees: No. of PhD Candidates: No. of Master' Degrees: No. of Master's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Bachelor's Contact Monitor: Contact Monito	PI Organization Type:	UNIVERSITY	Phone:	781-960-3228
PI Address 2: STRATUS Center for Medical Simulation PI Web Page: City: Boston State: MA Zip Code: 02115-6110 Congressional District: 7 Comments: Project Type: GROUND Solicitation / Funding (FLAGSHP, NSBR, OMNIBUS). Appendix P-NSBR, Appendix Commibus Start Date: 06/01/2016 End Date: 05/31/2017 No. of Post Docs: No. of PhD Candidates: No. of PhD Degrees: No. of Master' Degrees: No. of Master's Candidates: No. of Baschelor's Degrees: No. of Baschelor's Center (Planth). Program: No. of Baschelor's Candidates: No. of Baschelor's Degrees: No. of Sachelor's Center (Planth). Program: Flight Program: NOTE: Element change to Human Factors & Behavioral Performance; previously Space Human Factors & Habitability (Ed., 1/19/17) Key Personnel Changes/Previous PI: Lipsitz, Stuart Sc.D. (Brigham And Women's Hospital/Harvard Medical School) Pozner, Charles M.D. (Brigham And Women's Hospital/Harvard Medical School) Pozner, Charles M.D. (Brigham And Women's Hospital/Harvard Medical School) Musson, David M.D., Ph.D. (Non-U.S. Co-PI: Northern Ontario School of Medicine) Grant/Contract No.: NCC 9-58-HFP04501 Performance Goal No.:	Organization Name:	Brigham and Women's Hospital/Harvard Medical Center		
P1 Web Page: City:	PI Address 1:	75 Francis Street		
City: Boston State: MA Zip Code: 02115-6110 Congressional District: 7 Comments: Project Type: GROUND Solicitation / Funding (FLAGSHIP, NSBRI, OMNIBUS). Appendix Source: A-Crew Health, Appendix B-NSBRI, OMNIBUS). Appendix Source: No. of PhD Degrees: No. of Post Docs: No. of PhD Degrees: No. of PhD Candidates: No. of Master' Degrees: No. of Master's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: Monitoring Center: NSBRI Contact Monitor: Contact Phone: Contact Email: Flight Program: Flight Assignment: NOTE: Element change to Human Factors & Behavioral Performance; previously Space Human Factors & Habitability (Ed., 1/19/17) Key Personnel Changes/Previous PI: Lipsitz, Stuart Sc.D. (Brigham And Women's Hospital/Harvard Medical School) Pozner, Charles M.D. (Brigham And Women's Hospital/Harvard Medical School) Pozner, Charles M.D. (Singham And Women's Hospital/Harvard Medical School) Pozner, Charles M.D. (Non-U.S. Co-PI: Montact University, Canada) Musson, David M.D., Ph.D. (Non-U.S. Co-PI: Northern Ontario School of Medicine) Grant/Contract No.: NCC 9-58-HIFP04501 Performance Goal No.:	PI Address 2:	STRATUS Center for Medical Simulation		
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No. of Post Docs: No. of PhD Degrees: No. of PhD Candidates: No. of Master' Degrees: No. of Master's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Bachelor's Center: NSBRI Contact Monitor: Contact Phone: Contact Email: Flight Program: NOTE: Element change to Human Factors & Behavioral Performance; previously Space Human Factors & Habitability (Ed., 1/19/17) Key Personnel Changes/Previous PI: COI Name (Institution): Lipsitz, Stuart Sc.D. (Brigham And Women's Hospital/Harvard Medical School) Pozner, Charles M.D. (Brigham And Women's Hospital) Doyle, Thomas Ph.D. (Non-U.S. Co-PI: McMaster University, Canada) Musson, David M.D., Ph.D. (Non-U.S. Co-PI: Northern Ontario School of Medicine) Grant/Contract No.: NCC 9-58-HFP04501 Performance Goal No.:	Project Type:	GROUND		(FLAGSHIP, NSBRI, OMNIBUS). Appendix A-Crew Health, Appendix B-NSBRI,
No. of PhD Candidates: No. of Master's Candidates: No. of Master's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Bachelor's Degrees: No	Start Date:	06/01/2016	End Date:	05/31/2017
No. of Master's Candidates: No. of Bachelor's Candidates: No. of Bachelor's Candidates: Monitoring Center: NSBRI Contact Monitor: Contact Phone: Contact Email: Flight Program: NOTE: Element change to Human Factors & Behavioral Performance; previously Space Human Factors & Habitability (Ed., 1/19/17) Key Personnel Changes/Previous PI: COI Name (Institution): Lipsitz, Stuart Sc.D. (Brigham And Women's Hospital/Harvard Medical School) Pozner, Charles M.D. (Brigham And Women's Hospital) Doyle, Thomas Ph.D. (Non-U.S. Co-PI: McMaster University, Canada) Musson, David M.D., Ph.D. (Non-U.S. Co-PI: Northern Ontario School of Medicine) Grant/Contract No.: NCC 9-58-HFP04501 Performance Goal No.:	No. of Post Docs:	No. of PhD Degrees:		
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	Grant/Contract No.:	NCC 9-58-HFP04501		
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Astronauts on long duration space exploration missions are vulnerable if they suffer from an acute medical emergency in space. Effective diagnosis, stabilization, treatment, and transport are reliant on the skills and ability of fellow crew members. Without adequate skills and training to handle such emergencies, mission objectives can be compromised to the extent that the mission may fail. Extensive research in healthcare is showing that specific skills, often termed non-technical skills (situation awareness, decision making, coordination, leadership) are critical in successfully managing medical events and in improving patient outcomes. The complexity of medical emergencies in space will pose unique challenges and demand context-specific non-technical skills training of the crew. Identifying the essential non-technical skills of the crew for managing medical emergencies, and associated objective measures of proficiency is an essential first step to building training curricula to fill the gap.

Task Description:

In this proposal, we will gather data using mixed methods including literature review, focus groups, and Delphi panel to identify the essential medical non-technical skills for astronaut crew. We will do this in partnership with an expert panel of astronauts, scientists, and clinicians from NASA and extended networks. We will then develop and implement a series of simulations depicting medical emergencies in a ground-based spacecraft medical bay simulator. Video recordings of these scenarios will be analyzed to define and refine objective measures of non-technical skills proficiency for the management of medical emergencies in this spaceflight. The proposed study will form the basis of training curricula in medical non-technical skills, evaluation of training effectiveness and objective measurement of proficiency that will support crew health and safety, and reduce the likelihood of performance failures when managing medical emergencies in space.

Rationale for HRP Directed Research:

Research Impact/Earth Benefits:

Task Progress:

New project for FY2016.

Bibliography Type:

Description: (Last Updated: 11/09/2023)