Task Book Report Generated on: 04/19/2024

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Element'Subdiscipline: Joint Agency Name: Joint Agency Name: Human Research Program Elements: None Space Biology Element: None Space Biology Cross-Element Space Biology Special Category: None PI Email: Indiana Research Program Risks: None PI Email: Rharperighms harvard.edu PI Organization Type: UNIVERSITY Phone: So753-2876 Organization Name: Brighan and Women's Hospital/Harvard Medical Center PI Address 1: Division of Sleep Medicine PI Address 2: 221 Longwood Ave, BL/488 PI Web Page: City: Boslon Solon Solon State: MA Address 2: 221 Longwood Ave, BL/488 PI Web Page: City: GROUND Solon Solicitation / Funding Source: Project Type: GROUND Solicitation / Funding Source: No. of Past Doces: No. of Phot Dearetes: No. of Phot Dearetes: No. of Phot Candidates: No. of Phot Candidates: No. of Bachelor's Candidates: No	Program/Discipline:	HUMAN RESEARCH	
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Human Research Program Rislss: (I) BMed:Risk of Adverse Cognitive or Behavioral Conditions and Psychiatric Disorders Space Biology Cross-Element Disocipline: None Space Biology Special Category: None PI Email: Reburger@hms.harvard.edu Fax: FY PI Organization Type: UNIVERSITY Phone: 530-753-2876 Organization Type: UNIVERSITY Phone: 530-753-2876 Organization Name: Brigham and Women's Hospital/Harvard Medical Center PI Address 1: Division of Sleep Medicine PI Address 2: 221 Longwood Ave, BLI438 PI Web Page: City: Boston State: MA Zip Code: 02115-5817 Congressional District: 7 Comments: Project Type: GROUND Solicitation / Funding Source: Solicitation / Funding Source: No. of PhD Degrees: No. of Bachelor's Candidates: Monitoring Center: NSAS JSC Contact Monitor: Shea, Camile Contact Phone: 281-244-2017 Contact Email: Shea@cdsls.usera.edu Flight Program: Flight Assignment: NOTE: Project extended to April 2010, per PI (12/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Siges, Waller (NASA Johnson Space Center) Brimand, George (Thomas Jefferson University) Gillland, Kirby (Oklahoma University) Gilland, Kirby (Oklahoma Univer	Joint Agency Name:	TechPort:	No
Space Biology Element: None Space Biology Cross-Element Disciplines None PI Email: Rharper/dhms.harvard.edu Fax: FY PI Organization Type: UNIVERSITY Phone: \$30-753-2876 Organization Name: Brigham and Women's Hospital/Harvard Medical Center PI Address 1: Division of Sleep Medicine PI Address 2: 221 Longwood Ave, BL1438 PI Web Page: City: Boston State: MA Zip Code: 02115-5817 Congressional District: 7 Comments: Project Type: GROUND Solicitation / Funding Source: Solicitation / Funding Source: No. of PhD Degrees: No. of PhD Candidates: No. of Master's Degrees: No. of PhD Degrees: No. of PhD Candidates: No. of Master's Degrees: No. of Master's Degrees: No. of Master's Degrees: No. of Master's Degrees: Share Contact Monitor: Shea, Camile Contact Phone: 281-244-2017 Contact Email: Shea/dods.hasra.edu Flight Program: Flight Assignment: NOTE: Project extended to April 2010, per PI (12/2009) Flow Personnel Changes/Previous PI: COI Name (Institution): Singe, Waller (NASA Johnson Space Center) Briminard, George (Thomas Jefferson University) Gilliand, Kirby (Oklahoma University) Grant/Contract No.: NNX08AD66A	Human Research Program Elements:	(1) BHP :Behavioral Health & Performance (archival in 2017)	
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Task Book Report Generated on: 04/19/2024

Task Description:

The NASA/JSC Behavioral Health and Performance (BHP) research program element is proposing to collaborate with its National Space Biomedical Research Institute (NSBRI) partner and the Space Medicine Behavioral Sciences group to develop countermeasures to treat fatigue, circadian misalignment, and sleep loss associated with the Phoenix Scout Lander mission. The proposed study provides an operational opportunity, in a Mars Time Analog, to apply these countermeasures and begin evaluating their acceptability, feasibility, and efficacy in a real-time, field setting. This study will evaluate countermeasures that may be used by ground personnel controlling current missions (Shuttle and International Space Station) as well as by those controlling future missions (Lunar and Mars) as there will continue to be rovers and unmanned space craft including orbiters, landers and rovers sent to Mars. The results of this work will benefit the current unmanned NASA robotic programs and ultimately human exploration missions to both the moon and Mars. The proposed study will examine both Phoenix Mars Lander controllers who work on a Mars sol schedule and those who work on a traditional Earth sol schedule. Major outcome measures include sleep duration (objective evaluation via actigraphy), subjective alertness (collected via daily log) and performance (evaluated with the Psychomotor Vigilance Task and other embedded and/or unobtrusive performance measures). The results of this countermeasure evaluation will benefit other operational NASA missions, such as Constellation, and also take advantage of an operational analog environment to inform gaps in knowledge of the risks of cognitive problems due to fatigue and other aspects during spaceflight.

Rationale for HRP Directed Research:

Research Impact/Earth Benefits:

New project for FY2008.

Task Progress:

[Ed. note: added to Task Book in Dec 2009]

Bibliography Type: Description: (Last Updated: 04/11/2021)