

Fiscal Year:	FY 2015	Task Last Updated:	FY 05/26/2015
PI Name:	Bershad, Eric M. M.D.		
Project Title:	SPACE-COT: Studying the Physiological and Anatomical Cerebral Effects of Carbon Dioxide and Tilt		
Division Name:	Human Research		
Program/Discipline:			
Program/Discipline--Element/Subdiscipline:	NSBRI--Smart Medical Systems and Technology Team		
Joint Agency Name:	TechPort:	No	
Human Research Program Elements:	(1) HHC: Human Health Countermeasures		
Human Research Program Risks:	(1) VIIIP: Risk of Spaceflight-Induced Intracranial Hypertension/Vision Alterations (IRP Rev E)		
Space Biology Element:	None		
Space Biology Cross-Element Discipline:	None		
Space Biology Special Category:	None		
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PI Organization Type:	UNIVERSITY	Phone:	713-798-8472
Organization Name:	Baylor College of Medicine		
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PI Address 2:	Section of Vascular Neurology and Neurocritical Care		
PI Web Page:			
City:	Houston	State:	TX
Zip Code:	77030-3411	Congressional District:	9
Comments:			
Project Type:	GROUND	Solicitation:	Directed Research
Start Date:	05/01/2015	End Date:	12/31/2016
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: Extended to 12/31/2016 per NSBRI (Ed., 4/11/16)		
Key Personnel Changes/Previous PI:			
COI Name (Institution):			
Grant/Contract No.:	NCC 9-58-SMST00008		
Performance Goal No.:			
Performance Goal Text:			
Task Description:	<p>The purpose of this study is to study the effects of carbon dioxide and body tilt on brain physiology in a ground-based analog of spaceflight. The goal is to develop a quantitative approach to measuring an individual's brain physiological response to CO2 and fluid shifting, using modern and innovative technologies. These results will allow for precise monitoring of an individual astronaut's response to CO2 and fluid shifting given the Visual Impairment Intracranial Pressure syndrome may be related to these factors. This approach may also be applicable to patients on Earth with neurological conditions such as traumatic brain injury, stroke, brain hemorrhages or hydrocephalus.</p>		
Rationale for HRP Directed Research:			

Research Impact/Earth Benefits:	The approach taken in this project may also be applicable to patients on Earth with neurological conditions such as traumatic brain injury, stroke, brain hemorrhages, or hydrocephalus.
Task Progress:	New project for FY2015.
Bibliography Type:	Description: (Last Updated: 10/30/2019)