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:	None		
Space Biology Element:	None		
Space Biology Cross-Element Discipline:	None		
Space Biology Special Category:	None		
PI Email:	bershad@bcm.edu	**Fax:**	FY 713-798-3091
PI Organization Type:	UNIVERSITY	**Phone:**	713-504-0223
Organization Name:	Baylor College of Medicine		
PI Address 1:	Department of Neurology, 1 Baylor Plaza		
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 / Funding Source:**	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:	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.		
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: 11/05/2023)