

<b>Fiscal Year:</b>	FY 2007	<b>Task Last Updated:</b>	FY 09/08/2009
<b>PI Name:</b>	Smith, Scott M Ph.D.		
<b>Project Title:</b>	Vitamin D Supplementation in an Antarctic Ground Analog of Space Flight: Study of Supplementation Protocol and Relationship to Immune System Function		
<b>Division Name:</b>	Human Research		
<b>Program/Discipline:</b>	HUMAN RESEARCH		
<b>Program/Discipline--Element/Subdiscipline:</b>	HUMAN RESEARCH--Biomedical countermeasures		
<b>Joint Agency Name:</b>	<b>TechPort:</b>	No	
<b>Human Research Program Elements:</b>	(1) <b>HHC:</b> Human Health Countermeasures		
<b>Human Research Program Risks:</b>	(1) <b>Nutrition:</b> Risk of Inadequate Nutrition		
<b>Space Biology Element:</b>	None		
<b>Space Biology Cross-Element Discipline:</b>	None		
<b>Space Biology Special Category:</b>	None		
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<b>Zip Code:</b>	77058-3607	<b>Congressional District:</b>	36
<b>Comments:</b>			
<b>Project Type:</b>	GROUND	<b>Solicitation / Funding Source:</b>	Directed Research
<b>Start Date:</b>	10/01/2006	<b>End Date:</b>	09/30/2010
<b>No. of Post Docs:</b>		<b>No. of PhD Degrees:</b>	
<b>No. of PhD Candidates:</b>		<b>No. of Master' Degrees:</b>	
<b>No. of Master's Candidates:</b>		<b>No. of Bachelor's Degrees:</b>	
<b>No. of Bachelor's Candidates:</b>		<b>Monitoring Center:</b>	NASA JSC
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<b>Flight Program:</b>			
<b>Flight Assignment:</b>			
<b>Key Personnel Changes/Previous PI:</b>			
<b>COI Name (Institution):</b>	Zwart, Sara ( USRA/NASA Johnson Space Center ) Locke, Jim ( NASA Johnson Space Center ) Pierson, Duane ( NASA Johnson Space Center ) Mehta, Satish ( NASA Johnson Space Center ) Bourbeau, YaVonne ( Wyle/NASA Johnson Space Center )		
<b>Grant/Contract No.:</b>			
<b>Performance Goal No.:</b>			
<b>Performance Goal Text:</b>			

<b>Task Description:</b>	We recently completed a ground-based investigation evaluating the efficacy of vitamin D supplementation during the winter months in Antarctica, when UV-B radiation levels are zero. A supplement dose of 2,000 IU/d raised serum 25-hydroxyvitamin D to acceptable levels, but compliance was an issue that needs to be overcome. In this study, we will investigate whether a weekly dose of 10,000 IU vitamin D could be substituted for this daily 2,000-IU dose during the winter months in Antarctica at McMurdo Station. A secondary goal of this study is to investigate the effects of vitamin D supplementation and status on immune function in an environment known to suppress immune function. This ground analog study will enable us to provide long-duration space flight crewmembers with evidence-based recommendations for using a vitamin D supplement to achieve optimal vitamin D status before, during, and after flight.
<b>Rationale for HRP Directed Research:</b>	
<b>Research Impact/Earth Benefits:</b>	0
<b>Task Progress:</b>	New project for FY2007. [Note: project added September 2009 when received information--editor]
<b>Bibliography Type:</b>	Description: (Last Updated: 03/19/2022)