

<b>Fiscal Year:</b>	FY 2016	<b>Task Last Updated:</b>	FY 01/22/2016
<b>PI Name:</b>	Berdahl, John M.D.		
<b>Project Title:</b>	Equinox Balance Goggles: The Effects of Local Orbital Pressure Changes on Intraocular Pressure		
<b>Division Name:</b>	Human Research		
<b>Program/Discipline:</b>			
<b>Program/Discipline--Element/Subdiscipline:</b>	NSBRI--Smart Medical Systems and Technology Team		
<b>Joint Agency Name:</b>		<b>TechPort:</b>	No
<b>Human Research Program Elements:</b>	None		
<b>Human Research Program Risks:</b>	None		
<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>	57108	<b>Congressional District:</b>	1
<b>Comments:</b>			
<b>Project Type:</b>	GROUND	<b>Solicitation / Funding Source:</b>	NSBRI-RFA-SMARTCAP
<b>Start Date:</b>	10/01/2015	<b>End Date:</b>	10/01/2016
<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>	NSBRI
<b>Contact Monitor:</b>		<b>Contact Phone:</b>	
<b>Contact Email:</b>			
<b>Flight Program:</b>			
<b>Flight Assignment:</b>			
<b>Key Personnel Changes/Previous PI:</b>			
<b>COI Name (Institution):</b>			
<b>Grant/Contract No.:</b>	NCC 9-58-SMST00012		
<b>Performance Goal No.:</b>			
<b>Performance Goal Text:</b>			

<b>Task Description:</b>	The purpose of this study is to confirm the safety and efficacy of the Balance Goggles on humans when subjected to a change in pressure of the microenvironment of the eye. We will measure the safety of the Balance Goggles by measuring intraocular pressure (IOP), tear break up time (TBUT), refraction, keratometry, and performing a peripheral retinal exam both prior to pressure changes and after pressure changes. We will also measure optical coherence tomography (OCT) of the optic nerve prior, during, and after administering the change in orbital pressure to determine the ability of our device to change the morphology of the optic nerve head. Additionally we will assess qualitative measures such as comfort prior, during and after administration of the pressure change treatments.
<b>Rationale for HRP Directed Research:</b>	
<b>Research Impact/Earth Benefits:</b>	
<b>Task Progress:</b>	New project for FY2016.
<b>Bibliography Type:</b>	Description: (Last Updated: 10/30/2023)