

<b>Fiscal Year:</b>	FY 2018	<b>Task Last Updated:</b>	FY 06/18/2018
<b>PI Name:</b>	Zenhausen, Frederic Ph.D.		
<b>Project Title:</b>	Development of a Vertical Flow Paper-based Platform (VFP) for Monitoring Health Outcomes in Inflight Condition		
<b>Division Name:</b>	Human Research		
<b>Program/Discipline:</b>			
<b>Program/Discipline--Element/Subdiscipline:</b>	TRISH--TRISH		
<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>PI Organization Type:</b>	UNIVERSITY	<b>Phone:</b>	
<b>Organization Name:</b>	University of Arizona College of Medicine		
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<b>Zip Code:</b>	85004	<b>Congressional District:</b>	7
<b>Comments:</b>			
<b>Project Type:</b>	GROUND	<b>Solicitation / Funding Source:</b>	TRISH--Synergy
<b>Start Date:</b>	05/01/2018	<b>End Date:</b>	04/30/2019
<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>	TRISH
<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>	Porada, Christopher Ph.D. ( Wake Forest University School of Medicine )		
<b>Grant/Contract No.:</b>	NNX16AO69A-SYN0003		
<b>Performance Goal No.:</b>			
<b>Performance Goal Text:</b>			
<b>Task Description:</b>	<p>Synergy Project</p> <p>This project will design and characterize a novel Vertical Flow Paper-based Platform (VFP) built within a miniaturized "syringe-like" cartridge that will perform multiplexed detection of bio-agents and up to hundreds of biomarkers in small or large volumes of bodily fluids suitable for diagnosis in long space travel condition. This project will study bacterial agents (e.g., gut bacteria or other environmental exposure on the International Space Station-ISS), and also nucleic acid detection in order to develop a hybrid platform able to multiplex different types of biomarkers for enabling the diagnosis of multiple conditions. This is a synergy project with TRISH-funded Wake Forest University's project ("Novel Microfluidic Biomarker Detection Platforms to Monitor In Vivo Effects of Solar Particle Events and Galactic Cosmic Rays Radiation, Using Mice with Human Hematopoietic Systems ") by Principal Investigator (PI) Christopher Porada, Ph.D.</p>		

Rationale for HRP Directed Research:	
Research Impact/Earth Benefits:	
Task Progress:	New project for FY2018.
Bibliography Type:	Description: (Last Updated: 04/10/2024)