

Fiscal Year:	FY 2017	Task Last Updated:	FY 09/29/2016
PI Name:	Schreurs, Ann-Sofie Ph.D.		
Project Title:	Candidate Nutritional Countermeasure to Mitigate Adverse Effects of Spaceflight		
Division Name:	Human Research		
Program/Discipline:			
Program/Discipline--Element/Subdiscipline:	HUMAN RESEARCH--Biomedical countermeasures		
Joint Agency Name:	TechPort:	Yes	
Human Research Program Elements:	(1) HHC :Human Health Countermeasures		
Human Research Program Risks:	(1) Bone Fracture :Risk of Bone Fracture due to Spaceflight-induced Changes to Bone (2) Cardiovascular :Risk of Cardiovascular Adaptations Contributing to Adverse Mission Performance and Health Outcomes (3) Osteo :Risk Of Early Onset Osteoporosis Due To Spaceflight		
Space Biology Element:	None		
Space Biology Cross-Element Discipline:	None		
Space Biology Special Category:	None		
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PI Organization Type:	NASA CENTER	Phone:	650-604-6390
Organization Name:	NASA Ames Research Center		
PI Address 1:	Bone and Signaling Laboratory, Space Biosciences Division		
PI Address 2:	Bldg N236, Room 219		
PI Web Page:			
City:	Moffett Field	State:	CA
Zip Code:	94035	Congressional District:	18
Comments:			
Project Type:	GROUND	Solicitation / Funding Source:	2015-16 HERO NNJ15ZSA001N-Crew Health (FLAGSHIP, NSBRI, OMNIBUS). Appendix A-Crew Health, Appendix B-NSBRI, Appendix C-Omnibus
Start Date:	01/01/2017	End Date:	01/31/2019
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: NASA JSC		
Contact Monitor:	Norsk, Peter	Contact Phone:	
Contact Email:	Peter.norsk@nasa.gov		
Flight Program:			
Flight Assignment:	NOTE: Period of performance changed to 1/1/2017-1/31/2019 per PI information; previously 10/1/2016-9/30/2018 (Ed., 7/15/19) NOTE: Extended to 9/30/2018 per PI; original end date was 9/30/2017 (Ed., 5/3/18)		
Key Personnel Changes/Previous PI:			
COI Name (Institution):	Tahimic, Candice Ph.D. (NASA Ames Research Center) Globus, Ruth Ph.D. (NASA Ames Research Center)		
Grant/Contract No.:	Internal Project		
Performance Goal No.:			

Performance Goal Text:	
Task Description:	In recent findings, we showed that dried plum (DP) diet conferred complete protection from the rapid bone loss induced by exposure to radiations, including gamma, protons, and High Z-High Energy (HZE) ions. Based on these very promising results on a new potential countermeasure for space radiation tissue damage, we propose to conduct additional studies and analyses, which are critical for moving the potential countermeasure to a higher countermeasure readiness level (CRL) level. We aim to test the DP diet to prevent bone loss induced by simulated spaceflight. This will be achieved by exposing mice to each factor (weightlessness and radiation) alone and combined. Furthermore, we will establish if DP protects other tissues at risk for astronauts, such as the central nervous system.
Rationale for HRP Directed Research:	
Research Impact/Earth Benefits:	
Task Progress:	New project for FY2017.
Bibliography Type:	Description: (Last Updated: 08/21/2020)