Task Book Report Generated on: 04/25/2024

Pl Name: Burna, Sandeep Ph.D. Project Title: Molceular and Cellular Effects of Heavy Ion Fragmentation due to Shielding Briston Name: Human Research Program/Discipline- Element/Subdiscipline- Unit Agency Name: TechPort: No Human Research Program Elements: (1) SRSpace Radiation (1) Aus Risk of Acute Radiation Carcinogenesis (3) CNS/Risk of Acute (In-fight) and Late Central Nervous System Effects from Radiation Exposure and Secondary Spaceflight Stressors Space Biology Econet: None Space Biology From-Element None Space Biology Special Category: None Pl Email: Darma/fruthicea.edu Fax: FY Phone: 210-450-8981 Organization Type: UNIVERSITY Phone: 210-450-8981 Organization Name: University of Texas Health Sam Artonin Pl Address 1: Department of Neurosurgery, Department of Fisoehemistry and Structural Biology Pl Address 2: 7703 Floyd Card Drive, MC7843, Room 102F Pl Web Page: City: San Antonio State: TX Zip Code: 78229 Congressional District: 21 Comments: NOTF: Formetly at University of Texas Southwestern Medical Center at Dallas until fall 2019. Project Type: GROUND Sulcitation / Funding Source: NNH0AZI/LOOSN Natert Date: No. of Pab Degrees: No. of Pab Dese: No. of Master' Degrees: No. of Pab Dese: No. of Bachelor's Englisher No. of Bachelor's Candidates: No. of Bachelor's Degrees: No. of Master's Candidates: No. of Bachelor's Degrees: No. of Master's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Master's Candidates: No. of Bachelor's Candidates: No. of Master's Candi	Fiscal Year:	FY 2006	Task Last Updated:	FY 05/25/2006
Project Title: Molecular and Cellular Effects of Henvy Ion Fragmentation due to Shielding Division Name: Human Research Program/Discipline: HUMAN RISEARCH Program/Discipline: IIUMAN RISEARCH HUMAN RISEARCH Human Research Program Elements (I) SRS-Space Radiation (I) ARS Risk of Acade Radiation Syndromes Due to Solar Particle Events (SPFs) (2) Camer-Risk of Radiation Carcinogenesis (3) CNSN/Risk of Acade Radiation Syndromes Due to Solar Particle Events (SPFs) (2) Camer-Risk of Radiation Carcinogenesis (3) CNSN/Risk of Acade Radiation Syndromes Due to Solar Particle Events (SPFs) (2) Camer-Risk of Radiation Carcinogenesis (3) CNSN/Risk of Acade Radiation Syndromes Due to Solar Particle Events (SPFs) (2) Camer-Risk of Radiation Carcinogenesis (4) Degunskis of Cardiovascular Disease and Other Degenerative Tissue Effects From Radiation Exposure and Secondary Space Ribology Element: None Space Ribology Element: None None Ple Landit: None Ple Landit: None Ple Carcinogenesis (A) Degunstation Type: UNIVERSITY None Ple Carcinogenesis (A) Degunstation Type: UNIVERSITY Plone: 210-450-8981 University of Texas Health San Antonio Ple Address 2: Ple Address 2: Ple Address 2: Ple Address 3: Ple Address 3: Ple Address 3: Ple Address 4: Project Type: Girc 78229 Congressional Districe: 21 Comments: NoTE: Formetty at University of Texas Southwestern Medical Center at Dallas until fall 2019. Project Type: Girc 79220 Girc 78229 Congressional Districe: 22 Comments: No. of Post Dues: No. of Master's Candidates: No. of Master's Candidat			rush Dast Opuattu.	
Bitsion Name: Human Research Program/Discipline: IRUMAN RISEARCH Radiation Biology Element/Subdiscipline: HUMAN RESEARCH-Radiation Biology Joint Agency Name: TechPort: No Human Research Program Elements: (1) SRSpace Radiation (1) ARS-Rise for Lear Radiation Syndromes Due to Solar Particle Events (SPEs) (2) Cancer Alsa for Radiation Carcinogenesis (3) Cancer Alsa for Radiation Carcinogenesis (4) They Risk of Cardiovascular Discase and Other Degenerative Tissue Effects From Radiation Exposure and Secondary Spaceflight Stressors None Space Biology Element: None Space Biology Special Category: None PI Elmail: In John Stressors None Space Biology Special Category: None PI Elmail: In John Stressors PI Committed Type: University of Texas Health Sun Antonio PI Address 1: Department of Nourosurgery, Department of Biochemistry and Structural Biology PI Address 2: 7703 Floyd Curl Drive, Mc7843, Room 102F PI Web Page: City: San Antonio State: TX Zip Code: 7829 Congressional District: 21 Comments: NOTE: Formerly at University of Texas Southwestern Medical Center at Dallas until fall 2019. Project Type: GROUND Solicitation / Funding Source: 2004 Radiation Biology None of Post Dese: No. of PhD Degrees: No. of Post Dese: No. of PhD Degrees: No. of Post Dese: No. of Master' Degrees: No. of Post Deser: No. of Master' Degrees: No. of Master' Candidates: No. of Master' Degrees: No. of Master' Candidates: No. of Master' Degrees: No. of Bachelor's Engrees: No. of Bachelor's Degrees: No. of Master' Degrees: No.				
Program/Discipline: HUMAN RESEARCH Program/Discipline- Element/Subdiscipline- Element/Subdiscipline- Element/Subdiscipline- Element/Subdiscipline- Human Research Program Elements: (1) SR-Space Radiation (1) Agr. Risk of Acute Radiation Syndromes Due to Solar Particle Events (SPFs) (2) Cancerer-Risk of Radiation Carcinogenesis (3) CNS, Risk of Acute (In-light) and Late Central Nervous System Effects from Radiation Exposure and Secondary Spacetlight Stressons Space Biology Element: None Space Biology Special Category: None PI Email: None Space Biology Special Category: None PI Email:	2.0,000 2.2220		genation due to omeiding	
Program/Discipline- Element/Subdiscipline- Element/Element/Element/Subdiscipline- Element/Elemen	Division Name:	Human Research		
Element/Subdiscipline: Joint Agency Name: Joint Agency Name: (1) ARS, Risk of Acute Radiation Syndromes Due to Solar Particle Events (SPEs) (2) Cancer-Risk of Radiation Carcinogenesis Human Research Program Elements: (3) CNS, Risk of Acute (In-Hight and Late Central Nervous System Effects from Radiation Exposure (4) Degen Risk of Cardiovascular Disease and Other Degenerative Tissue Effects From Radiation Exposure and Secondary Space Biology Element: None Space Biology Element: None Pl Email: None Pl Email: None Pl Cardious Type: UniVERSITY None Pl Organization Type: University of Texas Health Sun Antonio Pl Address 1: Department of Neurosurgery, Department of Biochemistry and Structural Biology Pl Address 2: 7703 Floyd Curl Drive, MC7843, Room 102F Pl Web Page: City: San Antonio State: TX Zip Code: 7829 Congressional District: 21 Comments: NOTE: Formerly at University of Texas Southwestern Medical Center at Dallas unifal 12019. No. of Phat Degrees: No. of Master's Candidates: No. of Master's Degrees: No. of Master's De	Program/Discipline:	HUMAN RESEARCH		
Human Research Program Elements: (1) SR-Space Radiation (1) ARS-Risk of Acute Radiation Syndromes Due to Solar Particle Events (SPEs) (2) Cancer Risk of Radiation Carcinogenesis (3) CNS-Risk of Acute Radiation Syndromes Due to Solar Particle Events (SPEs) (2) Cancer Risk of Radiation Carcinogenesis (3) CNS-Risk of Acute Challight and Late Central Nervous System Effects from Radiation Exposure and Secondary Spacellight Stressors Space Biology Element: None Space Biology Special Category: None Space Biology Special Category: None PI Email: burna@authesa edu Fax: FY Phone: 210-450-8981 Organization Type: UNIVERSITY Phone: 210-450-8981 Organization Name: University of Texas Health San Antonio PI Address 2: 7703 Floyd Carl Drive, MC7843, Room 102F PI Web Page: City: San Antonio State: TX Zip Code: 78229 Congressional District: 21 Comments: NOTE: Formerly at University of Texas Southwestern Medical Center at Dallas until fall 2019. Project Type: GROUND Solicitation / Funding Source: No. of PhD Degress: No. of PhD Candidates: No. of PhD Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Bachelor's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Bachelor's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Bachelor's Candidates: No. of Bachelor's Candidates: No. of Bachelor's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Master' Degrees: No. of Chack Email: Flight Program: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (yep 4/2009)	Program/Discipline Element/Subdiscipline:	HUMAN RESEARCHRadiation Biology		
Content Note Cont	Joint Agency Name:		TechPort:	No
Human Research Program Risks: Canacer-Risk of Radiation Carcinogenesis (3) CXS-Risk of Actua (fin. High) and Latac Central Nervous System Effects from Radiation Exposure and Secondary Spaceflight Stressors Space Biology Cross-Element None	Human Research Program Elements:	(1) SR:Space Radiation		
Space Biology Cross-Element Discipline: Space Biology Special Category: None PI Email: PH Corganization Type: UNIVERSITY Phone: 210-450-8981 Organization Name: University of Texas Health San Antonio PI Address 1: Department of Neurosurgery, Department of Biochemistry and Structural Biology PI Address 2: 7703 Floyd Curl Drive, MC7843, Room 102F PI Web Page: City: San Antonio State: TX Zip Code: 78229 Congressional District: 21 Comments: NOTE: Formerly at University of Texas Southwestern Medical Center at Dallas until fall 2019. Project Type: GROUND Solicitation / Funding Source: No. of Post Does: No. of Post Does: No. of PhD Degrees: No. of PhD Degrees: No. of Master's Candidates: No. of Master' Degrees: No. of Master's Candidates: No. of Bachelor's Candidates: No. of Master's Candidates: No. of Bachelor's Candidates: No. of Bachelor's Candidates: No. of Bachelor's Candidates: No. of Bachelor's Candidates: No. of Master's Candidates: No. of Master's Candidates: No. of Bachelor's Candidates: No. of Master's Candidates: No. of Master's Candidates: No. of Bachelor's Candidates: No. of Bache	Human Research Program Risks:	 (2) Cancer:Risk of Radiation Carcinogenesis (3) CNS:Risk of Acute (In-flight) and Late Central Nervous System Effects from Radiation Exposure (4) Degen:Risk of Cardiovascular Disease and Other Degenerative Tissue Effects From Radiation Exposure and 		
Space Biology Special Category: None PI Email: burma@uthsesa.edu PI Corganization Type: University of Texas Health San Antonio University of Texas Health San Antonio PI Address 1: Department of Neurosurgery, Department of Biochemistry and Structural Biology PI Address 2: 7703 Floyd Curl Drive, MC7843, Room 102F PI Web Page: City: San Antonio State: TX Zip Code: 78229 Congressional District: Zip Code: NOTE: Formerly at University of Texas Southwestern Medical Center at Dallas until fall 2019. Project Type: GROUND Solicitation / Funding Source: No. of PhD Degrees: No. of PhD Degrees: No. of PhD Candidates: No. of PhD Candidates: No. of Master's Degrees: No. of Master's Degrees: No. of Bachelor's Candidates: No. of Master's Candidates: No. of Bachelor's Candidates: No. of	Space Biology Element:	None		
PI Email: burma@uthsesa.edu Fax: FY PI Organization Type: UNIVERSITY Phone: 210.450-8981 Organization Name: University of Texas Health San Antonio PI Address 1: Department of Neurosurgery, Department of Biochemistry and Structural Biology PI Address 2: 7703 Floyd Curl Drive, MC7843, Room 102F PI Web Page: City: San Antonio State: TX Zip Code: 78229 Congressional District: 21 Comments: NOTE: Formerly at University of Texas Southwestern Medical Center at Dallas until fall 2019. Project Type: GROUND Solicitation / Funding Source: NNH04ZUU005N Start Date: 10/01/2005 End Date: 09/30/2009 No. of Post Does: 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 ARC Contact Monitor: Contact Monitor: Contact Monitor: Contact Phone: Contact Monitor: Contact Phone: Flight Assignment: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (ivp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G Performance Goal No.:	Space Biology Cross-Element Discipline:	None		
Pl Organization Type: UNIVERSITY Phone: 210-450-8981 Organization Name: University of Texas Health San Antonio Pl Address 1: Department of Neurosurgery, Department of Biochemistry and Structural Biology Pl Address 2: 7703 Floyd Curl Drive, MC7843, Room 102F Pl Web Page: City: San Antonio State: TX Zip Code: 78229 Congressional District: 21 Comments: NOTE: Formerly at University of Texas Southwestern Medical Center at Dallas until fall 2019. Project Type: GROUND Solicitation / Funding Source: NNII04ZUU005N Start Date: 10/01/2005 End Date: 9/30/2009 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 Master's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Monitoring Center: NASA ARC Contact Monitor: Contact Email: Flight Program: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (iyp 4/2009) Key Personnel Changes/Previous P1: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G Performance Goal No.:	Space Biology Special Category:	None		
Organization Name: University of Texas Health San Antonio PI Address 1: Department of Neurosurgery, Department of Biochemistry and Structural Biology PI Address 2: 7703 Floyd Curl Drive, MC7843, Room 102F PI Web Page: City: San Antonio State: TX Zip Code: 78229 Congressional District: 21 Comments: NOTE: Formerly at University of Texas Southwestern Medical Center at Dallas until fall 2019. Project Type: GROUND Solicitation / Funding Source: 2004 Radiation Biology NiHo4ZUU005N Start Date: 10/01/2005 End Date: 09/30/2009 No. of Post Does: 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: No. of Bachelor's Degrees: No. of Bachelor's Candidates: Monitoring Center: NASA ARC Contact Monitor: Contact Phone: Contact Email: Flight Program: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G	PI Email:	burma@uthscsa.edu	Fax:	FY
PI Address 1: Department of Neurosurgery, Department of Biochemistry and Structural Biology PI Address 2: 7703 Floyd Curl Drive, MC7843, Room 102F PI Web Page: City: San Antonio State: TX Zip Code: 78229 Congressional District: 21 Comments: NOTE: Formerly at University of Texas Southwestern Medical Center at Dallas until fall 2019. Project Type: GROUND Solicitation / Funding Source: 2004 Radiation Biology NNH04ZUU005N Start Date: 10/01/2005 End Date: 09/30/2009 No. of Post Does: 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: No. of Bachelor's Degrees: No. of Bachelor's Candidates: Monitoring Center: NASA ARC Contact Monitor: Contact Phone: Contact Email: Flight Program: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No: NNA05CS97G Performance Goal No:	PI Organization Type:	UNIVERSITY	Phone:	210-450-8981
PI Address 2: 7703 Floyd Curl Drive, MC7843, Room 102F PI Web Page: City: San Antonio State: TX Zip Code: 78229 Congressional District: 21 Comments: NOTE: Formerly at University of Texas Southwestern Medical Center at Dallas until fall 2019. Project Type: GROUND Solicitation / Funding Source: 2004 Radiation Biology NNH04ZUU005N Start Date: 10/01/2005 End Date: 09/30/2009 No. of Post Does: 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: No. of Bachelor's Degrees: No. of Bachelor's Candidates: Contact Phone: Contact Honitor: Contact Phone: Contact Email: Flight Program: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G Performance Goal No.:	Organization Name:	University of Texas Health San Antonio		
PI Web Page: City: San Antonio State: TX Zip Code: 78229 Congressional District: 21 Comments: NOTE: Formerly at University of Texas Southwestern Medical Center at Dallas until fall 2019. Project Type: GROUND Solicitation / Funding Source: 2004 Radiation Biology NNH04ZUU00SN Start Date: 10/01/2005 End Date: 09/30/2009 No. of Post Does: No. of PhD Degrees: No. of PD Candidates: No. of Master' Degrees: No. of Master's Candidates: No. of Master' Degrees: No. of Bachelor's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Center: NASA ARC Contact Monitor: Contact Phone: Flight Program: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (iyp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G Performance Goal No.:	PI Address 1:	Department of Neurosurgery, Department of Biochemistry and Structural Biology		
City: San Antonio State: TX Zip Code: 78229 Congressional District: 21 Comments: NOTE: Formerly at University of Texas Southwestern Medical Center at Dallas until fall 2019. Project Type: GROUND Solicitation / Funding Source: NNH04ZUU005N Start Date: 10/01/2005 End Date: 09/30/2009 No. of Post Docs: No. of PhD Degrees: No. of PhD Candidates: No. of Master' Degrees: No. of Master's Candidates: No. of Master' Degrees: No. of Bachelor's Degrees: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: Contact Phone: Contact Monitor: Contact Phone: Flight Program: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) NNA05CS97G Performance Goal No.:	PI Address 2:	7703 Floyd Curl Drive, MC7843, Room 102F		
Zip Code: 78229 Congressional District: 21 Comments: NOTE: Formerly at University of Texas Southwestern Medical Center at Dallas until fall 2019. Project Type: GROUND Solicitation / Funding Source: 2004 Radiation Biology NNH04ZUU005N Start Date: 10/01/2005 End Date: 09/30/2009 No. of Post Docs: No. of PhD Degrees: No. of PhD Candidates: No. of Master' Degrees: No. of Master's Candidates: No. of Master' Degrees: No. of Bachelor's Candidates: Monitoring Center: NASA ARC Contact Monitor: Contact Phone: Contact Email: Flight Program: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) NNA05CS97G Performance Goal No.:	PI Web Page:			
Comments: NOTE: Formerly at University of Texas Southwestern Medical Center at Dallas until fall 2019. Project Type: GROUND Solicitation / Funding Source: 2004 Radiation Biology NNH04ZUU005N Start Date: 10/01/2005 End Date: 09/30/2009 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 ARC Contact Monitor: Contact Phone: Contact Email: Flight Program: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G Performance Goal No.:	City:	San Antonio	State:	TX
Project Type: GROUND Solicitation / Funding Source: 2004 Radiation Biology NNH04ZUU005N Start Date: 10/01/2005 End Date: 09/30/2009 No. of Post Docs: No. of PhD Degrees: No. of PhD Candidates: No. of Master' Degrees: No. of Master's Candidates: No. of Master's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Bachelor's Candidates: No. of Bachelor's Contact Phone: Contact Monitor: Contact Email: Flight Program: Flight Assignment: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G	Zip Code:	78229	Congressional District:	21
Start Date: 10/01/2005 End Date: 09/30/2009 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 ARC Contact Monitor: Contact Phone: Contact Email: Flight Program: Flight Assignment: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G Performance Goal No.:	Comments:	NOTE: Formerly at University of Texas Sout	hwestern Medical Center at Dallas	s until fall 2019.
No. of Post Docs: No. of PhD Degrees: No. of PhD Candidates: No. of Master's Degrees: No. of Master's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Bachelor's Degrees: NASA ARC Contact Monitor: Contact Monitor: Contact Phone: Flight Program: Flight Program: Flight Assignment: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G	Project Type:	GROUND	Solicitation / Funding Source:	
No. of PhD Candidates: No. of Master' Degrees: No. of Master's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: No. of Bachelor's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Poegrees: No. of Bachelor's Degrees: No. of Master' Degrees: No. of Bachelor's Degrees: No. of Bachelor's Degrees: No. of Master' D	Start Date:	10/01/2005	End Date:	09/30/2009
No. of Master's Candidates: No. of Bachelor's Degrees: No. of Bachelor's Candidates: Monitoring Center: NASA ARC Contact Monitor: Contact Email: Flight Program: Flight Assignment: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G Performance Goal No.:	No. of Post Docs:		No. of PhD Degrees:	
No. of Bachelor's Candidates: Contact Monitor: Contact Email: Flight Program: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G Performance Goal No.:	No. of PhD Candidates:		No. of Master' Degrees:	
Contact Monitor: Contact Email: Flight Program: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G Performance Goal No.:	No. of Master's Candidates:		No. of Bachelor's Degrees:	
Contact Email: Flight Program: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G Performance Goal No.:	No. of Bachelor's Candidates:		Monitoring Center:	NASA ARC
Flight Program: NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G Performance Goal No.:	Contact Monitor:		Contact Phone:	
NOTE: Changed Division and Discipline/Program to HRP as of FY2006, per program changes at that time, per JSC/A. Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G Performance Goal No.:	Contact Email:			
Flight Assignment: Chu-ARC (jvp 4/2009) Key Personnel Changes/Previous PI: COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G Performance Goal No.:	Flight Program:			
COI Name (Institution): Chen, David (University of Texas Southwestern Medical Center at Dallas) Grant/Contract No.: NNA05CS97G Performance Goal No.:	Flight Assignment:		gram to HRP as of FY2006, per p	rogram changes at that time, per JSC/A.
Grant/Contract No.: NNA05CS97G Performance Goal No.:	Key Personnel Changes/Previous PI:			
Performance Goal No.:	COI Name (Institution):	Chen, David (University of Texas Southwe	stern Medical Center at Dallas)	
	Grant/Contract No.:	NNA05CS97G		
Performance Goal Text:	Performance Goal No.:			
	Performance Goal Text:			

Task Book Report Generated on: 04/25/2024

Task Description:

Galactic cosmic rays (GCRs) represent a major risk to human crews on long-term missions outside the Earth's magnetic field. The GCR consists of protons, helium nuclei and HZE (High Z and Energy) particles such as iron. Understanding the radiobiology HZE particles is of enormous interest as the energy of these particles can be sufficient in many cases to penetrate the spacecraft hull and interior materials. While traversing through matter, high energy radiation fragments into a large number of secondary particles with generally lower energy but with higher ranges and biological effects than the incident cosmic rays. Therefore, an exact knowledge of the biological effects of shielding is important not only for understanding the risks to humans on space flights but also for determining optimal shielding for space crafts. Previous studies have used relatively late end points such as chromosome aberrations and cells survival to elucidate the biological consequences of fragmentation due to shielding. The early response of a mammalian cell to ionizing radiation has recently been very clearly elucidated at the molecular level in the context of the relocation and modification of damage-responsive factors and these very early events have a very important bearing on the repair of DNA damage and the ultimate fate of the cell. In this proposal we aim to study the biological effects of shielding using these pertinent early molecular responses as end points. Specific Aims are: 1) To test the hypothesis that shielded heavy ions may result in more complex DNA damage to the cells as compared to unshielded heavy ions, 2) To test the hypothesis that the molecular response to shielded radiation is different from that induced by unshielded radiation, and 3) To test the hypothesis that shielded radiation may have more deleterious effects on the cell as compared to unshielded radiation and to elucidate the mechanisms involved in repair of DNA damage. Preliminary studies carried out during the first experimental run at Brookhaven National Laboratory (NSRL-6A) indicate that significant differences exist between DNA damage caused by unshielded Fe particles versus particles that have passed through different shielding materials. Future studies will be aimed at elucidating the molecular and cellular consequences of HZE-induced DNA damage of differing complexities.

Rationale for HRP Directed Research:

Research Impact/Earth Benefits:

Task Progress:

Bibliography Type:

This is a new grant for the FY2006 year. For more information on this project, please contact the help desk at taskbook@nasaprs.com.

Description: (Last Updated: 04/27/2023)