The NASA Twins Study: A multidimensional analysis of

Science

364,

DOI: 10.1126/science.aau8650

Citation Report

#	Article	IF	Citations
1	The effects of spaceflight and fracture healing on distant skeletal sites. Scientific Reports, 2019, 9, 11419.	1.6	30
2	Reproducible changes in the gut microbiome suggest a shift in microbial and host metabolism during spaceflight. Microbiome, 2019, 7, 113.	4.9	67
3	Medications in Space: In Search of a Pharmacologistâ€™s Guide to the Galaxy. Pharmaceutical Research, 2019, 36, 148.	1.7	33
4	Twin Registries Moving Forward and Meeting the Future: A Review. Twin Research and Human Genetics, 2019, 22, 201-209.	0.3	4
5	Hypothesis: Etiologic and Molecular Mechanistic Leads for Sporadic Neurodegenerative Diseases Based on Experience With Western Pacific ALS/PDC. Frontiers in Neurology, 2019, 10, 754.	1.1	29
6	BMAL1 Disrupted Intrinsic Diurnal Oscillation in Rat Cerebrovascular Contractility of Simulated Microgravity Rats by Altering Circadian Regulation of miR-103/CaV1.2 Signal Pathway. International Journal of Molecular Sciences, 2019, 20, 3947.	1.8	15
7	Co-Twin Control Studies: Natural Events, Experimental Interventions and Rare Happenings/Twin Research: Cancer Risk in Overweight Twins; Prognosis After Fetal Loss of One Twin; Twin Concordance for Parkinsonâ€™s Disease; Neuroanatomy of Musically Discordant MZ Twins/News Articles: Twin Birth with Two Wombs; Twinsâ€™ Prenatal Interactions; Switched-at-Birth Twins; Fetus-in-Fetu; Unsolved Paternity. Twin Research and Human Genetics, 2019, 22, 272-276.	0.3	3
8	Epigenetic Priming in Immunodeficiencies. Frontiers in Cell and Developmental Biology, 2019, 7, 125.	1.8	12
9	Intestinal microbiota contributes to altered glucose metabolism in simulated microgravity mouse model. FASEB Journal, 2019, 33, 10140-10151.	0.2	27
10	Reptiles in Space Missions: Results and Perspectives. International Journal of Molecular Sciences, 2019, 20, 3019.	1.8	11
11	The Bright and Dark Side of DNA Methylation: A Matter of Balance. Cells, 2019, 8, 1243.	1.8	15
12	Specific Immunologic Countermeasure Protocol for Deep-Space Exploration Missions. Frontiers in Immunology, 2019, 10, 2407.	2.2	29
13	The Rare Sides of Twin Research: Important to Remember/Twin Research Reviews: Representation of Self-Image; Twins With Kleineâ€“Levin Syndrome; Heteropaternal Lemur Twins; Risk of Dental Caries/In the Media: High-Society Models; â€˜Winkeleviiâ€™ Super Bowl Twins; Multiple BirthÂÃ—ÂThree; Twin Sister Surrogate; A Presidential Twin?. Twin Research and Human Genetics, 2019, 22, 419-424.	0.3	1
14	Commentary: Introduction to the Frontiers Research Topic: Optimization of Exercise Countermeasures for Human Space Flightâ€“Lessons From Terrestrial Physiology and Operational Considerations. Frontiers in Physiology, 2019, 10, 915.	1.3	1
15	Effects of Spaceflight on Human Induced Pluripotent Stem Cell-Derived Cardiomyocyte Structure and Function. Stem Cell Reports, 2019, 13, 960-969.	2.3	62
16	Interrelationships between pulse arrival time and arterial blood pressure during postural transitions before and after spaceflight. Journal of Applied Physiology, 2019, 127, 1050-1057.	1.2	2
17	Mice Exposed to Combined Chronic Low-Dose Irradiation and Modeled Microgravity Develop Long-Term Neurological Sequelae. International Journal of Molecular Sciences, 2019, 20, 4094.	1.8	20
18	Expression Profile of Cell Cycle-Related Genes in Human Fibroblasts Exposed Simultaneously to Radiation and Simulated Microgravity. International Journal of Molecular Sciences, 2019, 20, 4791.	1.8	21

#	Article	IF	Citations
19	Simulated Weightlessness Perturbs the Intestinal Metabolomic Profile of Rats. Frontiers in Physiology, 2019, 10, 1279.	1.3	14
20	Why Human Enhancement is Necessary for Successful Human Deep-space Missions. New Bioethics, 2019, 25, 295-317.	0.5	12
21	Spaceflight influences gene expression, photoreceptor integrity, and oxidative stress-related damage in the murine retina. Scientific Reports, 2019, 9, 13304.	1.6	38
22	Systematic biomedical research of the NASA Twins Study facilitates the hazard risk assessment of long-term spaceflight missions. Protein and Cell, 2019, 10, 628-630.	4.8	5
23	Effects of skeletal unloading on the bone marrow antibody repertoire of tetanus toxoid and/or CpG treated C57BL/6J mice. Life Sciences in Space Research, 2019, 22, 16-28.	1.2	5
24	Anti-aging effects of long-term space missions, estimated by heart rate variability. Scientific Reports, 2019, 9, 8995.	1.6	22
25	Helium-Induced Changes in Circulating Caveolin in Mice Suggest a Novel Mechanism of Cardiac Protection. International Journal of Molecular Sciences, 2019, 20, 2640.	1.8	14
26	Cognitive function and mood at high altitude following acclimatization and use of supplemental oxygen and adaptive servoventilation sleep treatments. PLoS ONE, 2019, 14, e0217089.	1.1	37
27	Do astronauts get postural tachycardia syndrome? And other updates on recent autonomic research. Clinical Autonomic Research, 2019, 29, 263-265.	1.4	1
28	Oral Tissue Responses to Travel in Space. , 0, , .		2
29	A Value Assessment Engine for the International Space Station Program. , 2019, , .		0
30	Multisystem Toxicity in Cancer: Lessons from NASAâ€™s Countermeasures Program. Cell, 2019, 179, 1003-1009.	13.5	14
31	Remote Controlled Autonomous Microgravity Lab Platforms for Drug Research in Space. Pharmaceutical Research, 2019, 36, 183.	1.7	32
32	Exercise Countermeasures to Neuromuscular Deconditioning in Spaceflight. , 2019, 10, 171-196.		17
33	Impact of spaceflight on the murine thymus and mitigation by exposure to artificial gravity during spaceflight. Scientific Reports, 2019, 9, 19866.	1.6	19
34	Translating current biomedical therapies for long duration, deep space missions. Precision Clinical Medicine, 2019, 2, 259-269.	1.3	24
35	Long-Term Microgravity Exposure Increases ECG Repolarization Instability Manifested by Low-Frequency Oscillations of T-Wave Vector. Frontiers in Physiology, 2019, 10, 1510.	1.3	8
36	The Behavioral Biology of Teams: Multidisciplinary Contributions to Social Dynamics in Isolated, Confined, and Extreme Environments. Frontiers in Psychology, 2019, 10, 2571.	1.1	29

#	Article	IF	Citations
37	Ethical Challenges in Human Space Missions: A Space Refuge, Scientific Value, and Human Gene Editing for Space. Science and Engineering Ethics, 2020, 26, 1209-1227.	1.7	11
38	Altered fecal microbiomes and short chain fatty acids of crew members with periodic intake of prepackaged food in a ground-based space station simulator for 50 days. Travel Medicine and Infectious Disease, 2020, 36, 101480.	1.5	0
39	Following the Path That Heroes Carved into History: Space Tourism, Heritage, and Faith in the Future. Religions, 2020, 11, 23.	0.3	10
40	Axes of a revolution: challenges and promises of big data in healthcare. Nature Medicine, 2020, 26, 29-38.	15.2	206
41	Observation of the fastest chemical processes in the radiolysis of water. Science, 2020, 367, 179-182.	6.0	149
42	Pharmaceutical Research Enabled Through Microgravity: Perspectives on the Use of the International Space Station U.S. National Laboratory. Pharmaceutical Research, 2020, 37, 1.	1.7	76
43	Tissue Chips in Space: Modeling Human Diseases in Microgravity. Pharmaceutical Research, 2020, 37, 8.	1.7	40
44	Retrospective biodosimetry techniques: Focus on cytogenetics assays for individuals exposed to ionizing radiation. Mutation Research - Reviews in Mutation Research, 2020, 783, 108287.	2.4	20
45	Spaceflight-Induced Bone Tissue Changes that Affect Bone Quality and Increase Fracture Risk. Current Osteoporosis Reports, 2020, 18, 1-12.	1.5	28
46	Characterizing the effect of exposure to microgravity on anemia: more space is worse. American Journal of Hematology, 2020, 95, 267-273.	2.0	28
47	Is oral health affected in long period space missions only by microgravity? A systematic review. Acta Astronautica, 2020, 167, 343-350.	1.7	4
48	Effects of spaceflight on the mouse submandibular gland. Archives of Oral Biology, 2020, 110, 104621.	0.8	4
49	Microgravity and Cosmic Radiations During Space Exploration as a Window Into Neurodegeneration on Earth. JAMA Neurology, 2020, 77, 157.	4.5	8
50	A high-throughput alpha particle irradiation system for monitoring DNA damage repair, genome instability and screening in human cell and yeast model systems. Nucleic Acids Research, 2020, 48, e111-e111.	6.5	13
51	Gut Microbiome and Space Travelersâ€™ Health: State of the Art and Possible Pro/Prebiotic Strategies for Long-Term Space Missions. Frontiers in Physiology, 2020, 11, 553929.	1.3	56
52	Timeâ€restricted feeding alleviates cardiac dysfunction induced by simulated microgravity via restoring cardiac FGF21 signaling. FASEB Journal, 2020, 34, 15180-15196.	0.2	13
53	Beef heifer fertility: importance of management practices and technological advancements. Journal of Animal Science and Biotechnology, 2020, 11, 97.	2.1	26
54	Spaceflight-Associated Neuro-ocular Syndrome (SANS): a review of proposed mechanisms and analogs. Expert Review of Ophthalmology, 2020, 15, 249-258.	0.3	1

#	Article	IF	Citations
55	The NASA Twins Study: The Effect of One Year in Space on Long-Chain Fatty Acid Desaturases and Elongases. Lifestyle Genomics, 2020, 13, 107-121.	0.6	13
56	Evidence for increased cardiovascular risk to crew during long duration space missions. Journal of Applied Physiology, 2020, 129, 1111-1112.	1.2	1
57	Fundamental Biological Features of Spaceflight: Advancing the Field to Enable Deep-Space Exploration. Cell, 2020, 183, 1162-1184.	13.5	185
58	Comprehensive Multi-omics Analysis Reveals Mitochondrial Stress as a Central Biological Hub for Spaceflight Impact. Cell, 2020, 183, 1185-1201.e20.	13.5	161
59	A Longitudinal Epigenetic Aging and Leukocyte Analysis of Simulated Space Travel: The Mars-500 Mission. Cell Reports, 2020, 33, 108406.	2.9	23
60	Clonal Hematopoiesis Before, During, and After Human Spaceflight. Cell Reports, 2020, 33, 108458.	2.9	30
61	Circulating miRNA Spaceflight Signature Reveals Targets for Countermeasure Development. Cell Reports, 2020, 33, 108448.	2.9	35
62	RNAseq Analysis of Rodent Spaceflight Experiments Is Confounded by Sample Collection Techniques. IScience, 2020, 23, 101733.	1.9	8
63	Beyond Low-Earth Orbit: Characterizing Immune and microRNA Differentials following Simulated Deep Spaceflight Conditions in Mice. IScience, 2020, 23, 101747.	1.9	17
64	Can a comparison of clinical and deep space irradiation scenarios shed light on the radiation response of the brain?. British Journal of Radiology, 2020, 93, 20200245.	1.0	6
65	Multi-omic, Single-Cell, and Biochemical Profiles of Astronauts Guide Pharmacological Strategies for Returning to Gravity. Cell Reports, 2020, 33, 108429.	2.9	37
66	Telomere Length Dynamics and DNA Damage Responses Associated with Long-Duration Spaceflight. Cell Reports, 2020, 33, 108457.	2.9	48
67	Cell-free DNA (cfDNA) and Exosome Profiling from a Year-Long Human Spaceflight Reveals Circulating Biomarkers. IScience, 2020, 23, 101844.	1.9	31
68	Immunological Changes During Space Travel: A Ground-Based Evaluation of the Impact of Neutron Dose Rate on Plasma Cytokine Levels in Human Whole Blood Cultures. Frontiers in Physics, 2020, 8, .	1.0	1
69	Improved gastrointestinal health for irritable bowel syndrome with metagenome-guided interventions. Precision Clinical Medicine, 2020, 3, 136-146.	1.3	12
70	Interactome of miRNAs and transcriptome of human umbilical cord endothelial cells exposed to short-term simulated microgravity. Npj Microgravity, 2020, 6, 18.	1.9	14
71	Approaching Gravity as a Continuum Using the Rat Partial Weight-Bearing Model. Life, 2020, 10, 235.	1.1	8
72	Integrative Analysis of Regulatory Module Reveals Associations of Microgravity with Dysfunctions of Multi-body Systems and Tumorigenesis. International Journal of Molecular Sciences, 2020, 21, 7585.	1.8	5

#	Article	IF	Citations
73	Diet-Epigenome Axis. Circulation Genomic and Precision Medicine, 2020, 13, e003129.	1.6	1
74	Gene Expression Profile of HDF in SMG Partially Overlaps with That in the NASA Twins Study. , 2020, , .		0
75	Vascular and Microvascular Dysfunction Induced by Microgravity and Its Analogs in Humans: Mechanisms and Countermeasures. Frontiers in Physiology, 2020, 11, 952.	1.3	28
76	The psychological consequences of (perceived) ionizing radiation exposure: a review on its role in radiation-induced cognitive dysfunction. International Journal of Radiation Biology, 2020, 96, 1104-1118.	1.0	9
77	Development of a computerised neurocognitive battery for children and adolescents with HIV in Botswana: study design and protocol for the Ntemoga study. BMJ Open, 2020, 10, e041099.	0.8	14
78	Why Do the Cosmic Rays Induce Aging?. Frontiers in Physiology, 2020, 11, 955.	1.3	5
79	Serum Metabolomics Associating With Circulating MicroRNA Profiles Reveal the Role of miR-383-5p in Rat Hippocampus Under Simulated Microgravity. Frontiers in Physiology, 2020, 11, 939.	1.3	8
80	Telomere length: how the length makes a difference. Molecular Biology Reports, 2020, 47, 7181-7188.	1.0	54
81	Comprehensive Analysis of Macrocirculation and Microcirculation in Microgravity During Parabolic Flights. Frontiers in Physiology, 2020, 11, 960.	1.3	7
82	Muscle and epidermal contributions of the structural protein Î²-spectrin promote hypergravity-induced motor neuron axon defects in C. elegans. Scientific Reports, 2020, 10, 21214.	1.6	4
83	Temporal Telomere and DNA Damage Responses in the Space Radiation Environment. Cell Reports, 2020, 33, 108435.	2.9	40
84	A New Era for Space Life Science: International Standards for Space Omics Processing. Patterns, 2020, 1, 100148.	3.1	28
85	High-throughput preparation of radioprotective polymers via Hantzschâ€™s reaction for in vivo X-ray damage determination. Nature Communications, 2020, 11, 6214.	5.8	35
86	The Importance of Earth Reference Controls in Spaceflight -Omics Research: Characterization of Nucleolin Mutants from the Seedling Growth Experiments. IScience, 2020, 23, 101686.	1.9	14
87	Neutrophil-to-Lymphocyte Ratio: A Biomarker to Monitor the Immune Status of Astronauts. Frontiers in Immunology, 2020, 11, 564950.	2.2	33
88	Solving the Issue of Ionizing Radiation Induced Neurotoxicity by Using Novel Cell Models and State of the Art Accelerator Facilities. Frontiers in Physics, 2020, 8, .	1.0	4
89	Acoustic Manipulation of Dense Nanorods in Microgravity. Microgravity Science and Technology, 2020, 32, 1159-1174.	0.7	15
90	Why Personalized Medicine Is the Frontier of Medicine and Performance for Humans in Space. New Space, 2020, 8, 63-76.	0.4	9

#	Article	IF	Citations
91	Whole genome-wide chromosome fusion and new gene birth in the Monopterus albus genome. Cell and Bioscience, 2020, 10, 67.	2.1	16
92	How does spaceflight affect the acquired immune system?. Npj Microgravity, 2020, 6, 14.	1.9	62
94	A brief history of spaceflight from 1961 to 2020: An analysis of missions and astronaut demographics. Acta Astronautica, 2020, 175, 290-299.	1.7	39
95	Arterial structure and function during and after long-duration spaceflight. Journal of Applied Physiology, 2020, 129, 108-123.	1.2	36
96	Radioprotective effects of induced astronaut torpor and advanced propulsion systems during deep space travel. Life Sciences in Space Research, 2020, 26, 105-113.	1.2	4
97	Optimal Human Functioning Requires Exercise Across the Lifespan: Mobility in a 1g Environment Is Intrinsic to the Integrity of Multiple Biological Systems. Frontiers in Physiology, 2020, 11, 156.	1.3	17
98	Comments on â€œAssociation of telomere length with chronic exposure to ionizing radiation among inhabitants of natural high background radiation areas of Ramsar, Iranâ€• International Journal of Radiation Biology, 2020, 96, 707-708.	1.0	1
99	Current Concepts in Pharmacometabolomics, Biomarker Discovery, and Precision Medicine. Metabolites, 2020, 10, 129.	1.3	56
100	The case for biotech on Mars. Nature Biotechnology, 2020, 38, 401-407.	9.4	53
101	Long-term spaceflight and the cardiovascular system. Precision Clinical Medicine, 2020, 3, 284-291.	1.3	60
102	The Effect of Five-Day Dry Immersion on the Nervous and Metabolic Mechanisms of the Circulatory System. Frontiers in Physiology, 2020, 11, 692.	1.3	6
103	Wandering along the epigenetic timeline. Clinical Epigenetics, 2020, 12, 97.	1.8	16
104	Current Progression: Application of High-Throughput Sequencing Technique in Space Microbiology. BioMed Research International, 2020, 2020, 1-13.	0.9	6
105	PyIOmica: longitudinal omics analysis and trend identification. Bioinformatics, 2020, 36, 2306-2307.	1.8	12
106	miRâ€137 and its target Tâ€type Ca_V3.1 channel modulate dedifferentiation and proliferation of cerebrovascular smooth muscle cells in simulated microgravity rats by regulating calcineurin/NFAT pathway. Cell Proliferation, 2020, 53, e12774.	2.4	15
107	Global metaâ€analysis of over 50Âyears of multidisciplinary and international collaborations on transmissible cancers. Evolutionary Applications, 2020, 13, 1745-1755.	1.5	8
108	NASA GeneLab Platform Utilized for Biological Response to Space Radiation in Animal Models. Cancers, 2020, 12, 381.	1.7	18
109	The twin model: A silent success story in brain, cognition and behaviour research. Neuroscience and Biobehavioral Reviews, 2020, 112, 361-362.	2.9	0

#	Article	IF	Citations
110	Endocrine adaptations across physical and psychological stressors in long-term space flights. Current Opinion in Endocrine and Metabolic Research, 2020, 11, 21-26.	0.6	5
111	Impacts of the Plateau Environment on the Gut Microbiota and Blood Clinical Indexes in Han and Tibetan Individuals. MSystems, 2020, 5, .	1.7	44
112	Obesity and eating behavior from the perspective of twin and genetic research. Neuroscience and Biobehavioral Reviews, 2020, 109, 150-165.	2.9	43
113	Relationship between the Gut Microbiome and Energy/Nutrient Intake in a Confined Bioregenerative Life Support System. Applied and Environmental Microbiology, 2020, 86, .	1.4	8
114	Nucleic acid detection aboard the International Space Station by colorimetric loopâ€mediated isothermal amplification (LAMP). FASEB BioAdvances, 2020, 2, 160-165.	1.3	16
115	Mitophagy contributes to endothelial adaptation to simulated microgravity. FASEB Journal, 2020, 34, 1833-1845.	0.2	26
116	Acid sphingomyelinase/ceramide mediates structural remodeling of cerebral artery and small mesenteric artery in simulated weightless rats. Life Sciences, 2020, 243, 117253.	2.0	4
117	Effects of spaceflight on the composition and function of the human gut microbiota. Gut Microbes, 2020, 11, 807-819.	4.3	32
118	Crewmember microbiome may influence microbial composition of ISS habitable surfaces. PLoS ONE, 2020, 15, e0231838.	1.1	54
119	The Effect of Microgravity-Like Conditions on High-Level Cognition: A Review. Frontiers in Astronomy and Space Sciences, 2020, 7, .	1.1	7
120	Transcriptional Profiling of the Probiotic Escherichia coli Nissle 1917 Strain under Simulated Microgravity. International Journal of Molecular Sciences, 2020, 21, 2666.	1.8	22
121	Challenges to the central nervous system during human spaceflight missions to Mars. Journal of Neurophysiology, 2020, 123, 2037-2063.	0.9	83
122	Early Developmental Crime Prevention Forged Through Knowledge Translation: a Window into a Century of Prevention Experiments. Journal of Developmental and Life-Course Criminology, 2021, 7, 1-16.	0.8	5
123	MMEASE: Online meta-analysis of metabolomic data by enhanced metabolite annotation, marker selection and enrichment analysis. Journal of Proteomics, 2021, 232, 104023.	1.2	50
124	Ionizing radiation-induced circulatory and metabolic diseases. Environment International, 2021, 146, 106235.	4.8	69
125	Gut microbiome and human health under the space environment. Journal of Applied Microbiology, 2021, 130, 14-24.	1.4	49
126	Optic Nerve Length before and after Spaceflight. Ophthalmology, 2021, 128, 309-316.	2.5	19
127	Animal physiology across the gravity continuum. Acta Astronautica, 2021, 178, 522-535.	1.7	9

#	Article	IF	Citations
128	Human torpor: translating insights from nature into manned deep space expedition. Biological Reviews, 2021, 96, 642-672.	4.7	8
129	Personality, Coping Strategies, and Mental Health in High-Performance Athletes During Confinement Derived From the COVID-19 Pandemic. Frontiers in Public Health, 2020, 8, 561198.	1.3	46
130	Forensic Applications of Microbiomics: A Review. Frontiers in Microbiology, 2020, 11, 608101.	1.5	38
131	Neurokinin-1 Receptor Antagonist Reverses Functional CNS Alteration Caused by Combined Î³-rays and Carbon Nuclei Irradiation. CNS and Neurological Disorders - Drug Targets, 2022, 21, 278-289.	0.8	7
132	Diseases & Disorders | Metabolomics: An Emerging Platform for Treatment and Diagnosis in Human Disease. , 2021, , 435-451.		0
133	Modern sources of environmental ionizing radiation exposure and associated health consequences. , 2021, , 603-619.		5
134	Effects of space radiation on the endovasculature: implications for future human deep space exploration. , 2021, , 147-155.		0
136	Life on Other Planets. , 2021, , 159-167.		0
137	Success Stories: Incremental Progress and Scientific Breakthroughs in Life Science Research. SpringerBriefs in Space Life Sciences, 2021, , 43-113.	0.1	1
138	Testâ€"retest reliability of the Turkish translation of the Penn Computerized Neurocognitive Battery. Applied Neuropsychology Adult, 2022, 29, 1258-1267.	0.7	5
139	Attenuation of Antiviral Immune Response Caused by Perturbation of TRIM25-Mediated RIG-I Activation under Simulated Microgravity. Cell Reports, 2021, 34, 108600.	2.9	11
140	Effects of Spaceflight Stressors on Brain Volume, Microstructure, and Intracranial Fluid Distribution. Cerebral Cortex Communications, 2021, 2, tgab022.	0.7	13
141	Twin studies on the epigenetics of selected neurological disorders and carotid artery disease. , 2021, , 193-211.		0
142	Destabilizing Effects of Ionizing Radiation on Chromosomes: Sizing up the Damage. Cytogenetic and Genome Research, 2021, 161, 328-351.	0.6	9
143	Longitudinal saliva omics responses to immune perturbation: a case study. Scientific Reports, 2021, 11, 710.	1.6	19
144	Changes in Exosome Release in Thyroid Cancer Cells after Prolonged Exposure to Real Microgravity in Space. International Journal of Molecular Sciences, 2021, 22, 2132.	1.8	10
145	Immunity in Space: Prokaryote Adaptations and Immune Response in Microgravity. Life, 2021, 11, 112.	1.1	13
146	Telomere length dynamics in response to DNA damage in malaria parasites. IScience, 2021, 24, 102082.	1.9	6

#	Article	IF	Citations
147	Spaceflight affects neuronal morphology and alters transcellular degradation of neuronal debris in adult Caenorhabditis elegans. IScience, 2021, 24, 102105.	1.9	12
148	Space Medicine: Why Do Recently Published Papers about Telomere Length Alterations Increase our Uncertainty Rather than Reduce it?. Journal of Biomedical Physics and Engineering, 2021, 11, 103-108.	0.5	1
149	The Emerging Role of Macrophages in Immune System Dysfunction under Real and Simulated Microgravity Conditions. International Journal of Molecular Sciences, 2021, 22, 2333.	1.8	15
150	A review of alterations to the brain during spaceflight and the potential relevance to crew in long-duration space exploration. Npj Microgravity, 2021, 7, 5.	1.9	53
151	Molecular pharming to support human life on the moon, mars, and beyond. Critical Reviews in Biotechnology, 2021, 41, 849-864.	5.1	25
152	Telomere Length Dynamics and Chromosomal Instability for Predicting Individual Radiosensitivity and Risk via Machine Learning. Journal of Personalized Medicine, 2021, 11, 188.	1.1	12
153	Effects of Low Dose Space Radiation Exposures on the Splenic Metabolome. International Journal of Molecular Sciences, 2021, 22, 3070.	1.8	12
154	The Growth and Sporulation of Bacillus subtilis in Nanotesla Magnetic Fields. Astrobiology, 2021, 21, 323-331.	1.5	3
155	The Impact of Spaceflight and Microgravity on the Human Islet-1+ Cardiovascular Progenitor Cell Transcriptome. International Journal of Molecular Sciences, 2021, 22, 3577.	1.8	11
156	Modeled microgravity alters lipopolysaccharide and outer membrane vesicle production of the beneficial symbiont Vibrio fischeri. Npj Microgravity, 2021, 7, 8.	1.9	14
157	Autonomy's Hierarchy of Needs: Smart City Ecosystems for Autonomous Space Habitats. , 2021, , .		5
158	Gravitational Experimental Platform for Animal Models, a New Platform at ESAâ€™s Terrestrial Facilities to Study the Effects of Micro- and Hypergravity on Aquatic and Rodent Animal Models. International Journal of Molecular Sciences, 2021, 22, 2961.	1.8	13
159	Analysis of the effects of spaceflight and local administration of thrombopoietin to a femoral defect injury on distal skeletal sites. Npj Microgravity, 2021, 7, 12.	1.9	9
160	Evaluating the effect of spaceflight on the hostâ€“pathogen interaction between human intestinal epithelial cells and Salmonella Typhimurium. Npj Microgravity, 2021, 7, 9.	1.9	10
162	Spaceflight Induced Disorders: Potential Nutritional Countermeasures. Frontiers in Bioengineering and Biotechnology, 2021, 9, 666683.	2.0	11
163	Radiation on Earth or in Space: What Does It Change?. International Journal of Molecular Sciences, 2021, 22, 3739.	1.8	23
165	Are Your Mitochondria Ready for a Space Odyssey?. Trends in Endocrinology and Metabolism, 2021, 32, 193-195.	3.1	1
166	Rocket science: what spaceflight can tell us about skeletal health on Earth. British Journal of Sports Medicine, 2021, 55, bjsports-2021-104164.	3.1	0

#	Article	IF	Citations
167	Patientâ€Specific Organoid and Organâ€onâ€aâ€Chip: 3D Cellâ€Culture Meets 3D Printing and Numerical Simulation. Advanced Biology, 2021, 5, e2000024.	1.4	31
168	The individual and combined effects of spaceflight radiation and microgravity on biologic systems and functional outcomes. Journal of Environmental Science and Health, Part C: Toxicology and Carcinogenesis, 2021, 39, 129-179.	0.4	12
169	A comprehensive metagenomics framework to characterize organisms relevant for planetary protection. Microbiome, 2021, 9, 82.	4.9	15
170	Synergistic Effects of Chronic Restraint-Induced Stress and Low-Dose 56Fe-particle Irradiation on Induction of Chromosomal Aberrations in Trp53-Heterozygous Mice. Radiation Research, 2021, 196, 100-112.	0.7	7
171	The Epigenome and Beyond: How Does Non-genetic Inheritance Change Our View of Evolution?. Integrative and Comparative Biology, 2021, , .	0.9	5
172	Advances in space microbiology. IScience, 2021, 24, 102395.	1.9	42
173	Findings from recent studies by the Japan Aerospace Exploration Agency examining musculoskeletal atrophy in space and on Earth. Npj Microgravity, 2021, 7, 18.	1.9	12
174	The Power of Stress: The Telo-Hormesis Hypothesis. Cells, 2021, 10, 1156.	1.8	22
175	Spaceflight decelerates the epigenetic clock orchestrated with a global alteration in DNA methylome and transcriptome in the mouse retina. Precision Clinical Medicine, 2021, 4, 93-108.	1.3	8
176	Ultrafast time-resolved x-ray absorption spectroscopy of ionized urea and its dimer through ab initio nonadiabatic dynamics. Structural Dynamics, 2021, 8, 034102.	0.9	3
177	Gravitational Influence on Human Living Systems and the Evolution of Species on Earth. Molecules, 2021, 26, 2784.	1.7	12
178	Precision medicine in women with epilepsy: The challenge, systematic review, and future direction. Epilepsy and Behavior, 2021, 118, 107928.	0.9	13
179	Investigation of Spaceflight Induced Changes to Astronaut Microbiomes. Frontiers in Microbiology, 2021, 12, 659179.	1.5	28
180	Thermal Comfort Under Weightlessness Exposure: A Discriminant Analysis. Microgravity Science and Technology, 2021, 33, 1.	0.7	1
181	Human immune system adaptations to simulated microgravity revealed by single-cell mass cytometry. Scientific Reports, 2021, 11, 11872.	1.6	15
182	Effects of Simulated Microgravity on Wild Type and Marfan hiPSCs-Derived Embryoid Bodies. Cellular and Molecular Bioengineering, 2021, 14, 613-626.	1.0	3
183	Haplotype diversity and sequence heterogeneity of human telomeres. Genome Research, 2021, 31, 1269-1279.	2.4	19
184	Metabolic Dynamics in Short- and Long-Term Microgravity in Human Primary Macrophages. International Journal of Molecular Sciences, 2021, 22, 6752.	1.8	7

#	Article	IF	Citations
185	Strong Shift to ATR-Dependent Regulation of the G2-Checkpoint after Exposure to High-LET Radiation. Life, 2021, 11, 560.	1.1	8
187	May the Force Be with You (Or Not): The Immune System under Microgravity. Cells, 2021, 10, 1941.	1.8	28
189	Recent advances and future directions in microbiome metabolomics. Current Opinion in Endocrine and Metabolic Research, 2021, 20, 100283.	0.6	8
190	The current state and future trends of space nutrition from a perspective of astronauts' physiology. International Journal of Gastronomy and Food Science, 2021, 24, 100324.	1.3	20
191	Alterations in the activity and sleep of Drosophila melanogaster under simulated microgravity. Npj Microgravity, 2021, 7, 27.	1.9	2
192	Astronauts well-being and possibly anti-aging improved during long-duration spaceflight. Scientific Reports, 2021, 11, 14907.	1.6	12
193	Ad Astra â€“ telomeres in space!. International Journal of Radiation Biology, 2022, 98, 395-403.	1.0	5
194	Update on the effects of microgravity on the musculoskeletal system. Npj Microgravity, 2021, 7, 28.	1.9	60
195	Psychosocial issues in isolated and confined extreme environments. Neuroscience and Biobehavioral Reviews, 2021, 126, 413-429.	2.9	40
196	What can space radiation protection learn from radiation oncology?. Life Sciences in Space Research, 2021, 30, 82-95.	1.2	8
197	Brains in space: the importance of understanding the impact of long-duration spaceflight on spatial cognition and its neural circuitry. Cognitive Processing, 2021, 22, 105-114.	0.7	19
198	An Analysis of the Effects of Spaceflight and Vaccination on Antibody Repertoire Diversity. ImmunoHorizons, 2021, 5, 675-686.	0.8	2
199	Spaceflight Modulates the Expression of Key Oxidative Stress and Cell Cycle Related Genes in Heart. International Journal of Molecular Sciences, 2021, 22, 9088.	1.8	11
200	Effects of chronic exposure to low levels of IR on Medaka (Oryzias latipes): a proteomic and bioinformatic approach. International Journal of Radiation Biology, 2021, 97, 1485-1501.	1.0	3
202	Meta-Analysis-Assisted Detection of Gravity-Sensitive Genes in Human Vascular Endothelial Cells. Frontiers in Cell and Developmental Biology, 2021, 9, 689662.	1.8	4
203	Adaptation and validation of a computerized neurocognitive battery in the Xhosa of South Africa.. Neuropsychology, 2021, 35, 581-594.	1.0	7
204	Clonal Hematopoiesis of Indeterminate Potential: an Expanding Genetic Cause of Cardiovascular Disease. Current Atherosclerosis Reports, 2021, 23, 66.	2.0	7
205	Secondary immunodeficiencies. Annals of Allergy, Asthma and Immunology, 2021, 127, 617-626.	0.5	39

#	Article	IF	Citations
206	Acceptability of the Cognition Test Battery in astronaut and astronaut-surrogate populations. Acta Astronautica, 2022, 190, 14-23.	1.7	5
207	Histone deacetylase HDA-4-mediated epigenetic regulation in space-flown C. elegans. Npj Microgravity, 2021, 7, 33.	1.9	7
208	Effect of Microgravity on Endothelial Cell Function, Angiogenesis, and Vessel Remodeling During Wound Healing. Frontiers in Bioengineering and Biotechnology, 2021, 9, 720091.	2.0	25
209	Key points for the development of antioxidant cocktails to prevent cellular stress and damage caused by reactive oxygen species (ROS) during manned space missions. Npj Microgravity, 2021, 7, 35.	1.9	37
210	Genomic Changes Driven by Radiation-Induced DNA Damage and Microgravity in Human Cells. International Journal of Molecular Sciences, 2021, 22, 10507.	1.8	19
211	Aging of the Retina: Molecular and Metabolic Turbulences and Potential Interventions. Annual Review of Vision Science, 2021, 7, 633-664.	2.3	28
212	Effect of Microgravity Environment on Gut Microbiome and Angiogenesis. Life, 2021, 11, 1008.	1.1	15
213	Metabolomics as a Truly Translational Tool for Precision Medicine. International Journal of Toxicology, 2021, 40, 413-426.	0.6	13
214	Evaluation of DNA damage and stress in wildlife chronically exposed to low-dose, low-dose rate radiation from the Fukushima Dai-ichi Nuclear Power Plant accident. Environment International, 2021, 155, 106675.	4.8	8
215	Fecal Bile Acids Profile of Crewmembers Consuming the Same Space Food in a Spacecraft Simulator. Frontiers in Physiology, 2021, 12, 593226.	1.3	0
216	The changes of bone vessels and their role in bone loss in tail-suspended rats. Acta Astronautica, 2021, 189, 368-378.	1.7	2
217	Cellular and molecular mechanotransduction in bone. , 2021, , 309-335.		2
218	Gene-metabolite networks associated with impediment of bone fracture repair in spaceflight. Computational and Structural Biotechnology Journal, 2021, 19, 3507-3520.	1.9	5
219	Revamping Space-omics in Europe. Cell Systems, 2020, 11, 555-556.	2.9	11
220	Noninvasive Brain Stimulation & Space Exploration: Opportunities and Challenges. Neuroscience and Biobehavioral Reviews, 2020, 119, 294-319.	2.9	23
221	Astronaut twins study spots subtle genetic changes caused by space travel. Nature, 2019, , .	13.7	1
222	Twins, Telomeres, and Agingâ€"in Space!. Plastic and Reconstructive Surgery, 2021, 147, 7S-14S.	0.7	13
225	Hazards of human spaceflight. Science, 2019, 364, 127-128.	6.0	46

#	Article	IF	Citations
226	Post-Translational Oxidation Modifications of Blood Plasma Proteins of Cosmonauts after a Long-term Flight: Part I. Human Physiology, 2020, 46, 531-539.	0.1	5
227	Do we have the guts to go? The abdominal compartment, intra-abdominal hypertension, the human microbiome and exploration class space missions. Canadian Journal of Surgery, 2020, 63, E581-E593.	0.5	15
228	DNA Break-Induced Epigenetic Drift as a Cause of Mammalian Aging. SSRN Electronic Journal, 0, , .	0.4	19
229	Potential Impact of Space Environments on Developmental and Maturational Programs Which Evolved to Meet the Boundary Conditions of Earth: Will Maturing Humans Be Able to Establish a Functional Biologic System Set Point under Non-Earth Conditions?. Journal of Biomedical Science and Engineering, 2019, 12, 500-513.	0.2	3
230	Simulated manned Mars exploration: effects of dietary and diurnal cycle variations on the gut microbiome of crew members in a controlled ecological life support system. PeerJ, 2019, 7, e7762.	0.9	9
231	The role of telomere dysfunction in genomic instability and age-related diseases. Genome Instability & Disease, 2021, 2, 292.	0.5	0
232	Mechano-Immunomodulation in Space: Mechanisms Involving Microgravity-Induced Changes in T Cells. Life, 2021, 11, 1043.	1.1	3
233	Shelf Life and Simulated Gastrointestinal Tract Survival of Selected Commercial Probiotics During a Simulated Round-Trip Journey to Mars. Frontiers in Microbiology, 2021, 12, 748950.	1.5	6
234	Platelets in Wound Healing: What Happens in Space?. Frontiers in Bioengineering and Biotechnology, 2021, 9, 716184.	2.0	24
236	To Other Planets With Upgraded Millennial Kombucha in Rhythms of Sustainability and Health Support. Frontiers in Astronomy and Space Sciences, 2021, 8, .	1.1	7
237	The Effects of Long Duration Spaceflight on Sensorimotor Control and Cognition. Frontiers in Neural Circuits, 2021, 15, 723504.	1.4	40
238	Influence of Space Environments in System Physiologic and Molecular Integrity: Redefining the Concept of Human Health beyond the Boundary Conditions of Earth. Journal of Biomedical Science and Engineering, 2019, 12, 400-408.	0.2	4
239	MISSION TO MARS: RADIATION SAFETY OR RADIATION DISASTER? SPACE TRANSIT AND MARS RADIATION EXPOSURE RISKS â€“ THE POTENTIAL SHIELDING EFFECT OF AN INTRAVEHICULAR GRAPHENE SPACE SUIT AND A STORM SHELTER DURING SPACE TRAVEL. Journal of the Australasian Society of Aerospace Medicine, 2020, 11, 1-9.	0.1	0
242	From a Quantum State to a Quantum State. Life as a Temporary Emergence of a Differentiated Physicality. American Journal of Educational Research, 2019, 7, 764-779.	0.1	0
243	What Is Stress?. , 2020, , 19-42.		5
244	Harnessing the Space Environment for the Discovery and Development of New Medicines. , 2020, , 1-35.		3
247	Effect of Environmental and Occupational Exposures on Human Telomere Length and Aging: A Review. Advances in Intelligent Systems and Computing, 2021, , 120-129.	0.5	0
249	The rising dominance of microbiology: what to expect in the next 15 years?. Microbial Biotechnology, 2022, 15, 110-128.	2.0	10

#	Article	IF	Citations
250	Does Physical Inactivity Induce Significant Changes in Human Gut Microbiota? New Answers Using the Dry Immersion Hypoactivity Model. Nutrients, 2021, 13, 3865.	1.7	12
251	Simulating microgravity using a random positioning machine for inducing cellular responses to mechanotransduction in human osteoblasts. Review of Scientific Instruments, 2021, 92, 114101.	0.6	5
252	Relationship of collagen as the component of the extracellular matrix with the mechanisms of autonomic regulation of the cardiovascular system under simulated conditions of long-term isolation. Life Sciences in Space Research, 2022, 32, 17-25.	1.2	2
253	Salivary Bioscience in Military, Space, and Operational Research. , 2020, , 585-610.		0
254	Stem Cell Culture Under Simulated Microgravity. Advances in Experimental Medicine and Biology, 2020, 1298, 105-132.	0.8	10
255	The OPG/RANKL/RANK system modulates calcification of common carotid artery in simulated microgravity rats by regulating NF-Î²B pathway. Canadian Journal of Physiology and Pharmacology, 2022, 100, 324-333.	0.7	5
256	The effects of real and simulated microgravity on cellular mitochondrial function. Npj Microgravity, 2021, 7, 44.	1.9	24
257	Neuro-consequences of the spaceflight environment. Neuroscience and Biobehavioral Reviews, 2022, 132, 908-935.	2.9	28
258	Oh G: The x, y and z of human physiological responses to acceleration. Experimental Physiology, 2021, 106, 2367-2384.	0.9	10
260	Some Aspects of the Effect of Combined Irradiation by Gamma-Rays and Carbon Nuclei (¹²C) on the Serotonergic System in Rat Brain. Journal Biomed, 2020, 16, 68-72.	0.1	3
265	The Final Frontier. Ulster Medical Journal, 2020, 89, 1-2.	0.2	0
266	Inflammation is involved in response of gastric mucosal epithelial cells under simulated microgravity by integrated transcriptomic analysis. American Journal of Translational Research (discontinued), 2021, 13, 9195-9207.	0.0	0
267	The relationship between telomere length and putative markers of vascular ageing: A systematic review and meta-analysis. Mechanisms of Ageing and Development, 2022, 201, 111604.	2.2	9
268	Changes in Exosomal miRNA Composition in Thyroid Cancer Cells after Prolonged Exposure to Real Microgravity in Space. International Journal of Molecular Sciences, 2021, 22, 12841.	1.8	9
269	Learning From Human Responses to Deconditioning Environments: Improved Understanding of the â€œUse It or Lose Itâ€•Principle. Frontiers in Sports and Active Living, 2021, 3, 685845.	0.9	12
270	Biologie und Verhalten. , 2021, , 87-130.		0
271	Biomanufacturing in low Earth orbit for regenerative medicine. Stem Cell Reports, 2022, 17, 1-13.	2.3	22
272	The use of the multidimensional protein identification technology (MudPIT) to analyze plasma proteome of astronauts collected before, during, and after spaceflights. Acta Astronautica, 2022, 193, 9-19.	1.7	5

#	Article	IF	Citations
273	EpigenÃ©tica: candados y llaves durante la lectura del ADN. Revista Digital Universitaria, 2020, 21, .	0.0	0
274	Mechanobiological Implications of Cancer Progression in Space. Frontiers in Cell and Developmental Biology, 2021, 9, 740009.	1.8	6
275	Emerging Role of Exosomal Long Non-coding RNAs in Spaceflight-Associated Risks in Astronauts. Frontiers in Genetics, 2021, 12, 812188.	1.1	7
277	Cells respond to space microgravity through cytoskeleton reorganization. FASEB Journal, 2022, 36, e22114.	0.2	9
278	MSCs in Space: Mesenchymal Stromal Cell Therapeutics as Enabling Technology for Long-Distance Manned Space Travel. Current Stem Cell Reports, 2022, 8, 1-13.	0.7	6
279	Simulated Microgravity Potentiates Hematopoietic Differentiation of Human Pluripotent Stem Cells and Supports Formation of 3D Hematopoietic Cluster. Frontiers in Cell and Developmental Biology, 2021, 9, 797060.	1.8	7
280	Decoding genome recombination and sex reversal. Trends in Endocrinology and Metabolism, 2022, 33, 175-185.	3.1	2
281	How to Live on Mars With a Proper Circadian Clock?. Frontiers in Astronomy and Space Sciences, 2022, 8, .	1.1	2
282	Irradiation Causes Alterations of Polyamine, Purine, and Sulfur Metabolism in Red Blood Cells and Multiple Organs. Journal of Proteome Research, 2022, 21, 519-534.	1.8	9
283	Hemolysis contributes to anemia during long-duration space flight. Nature Medicine, 2022, 28, 59-62.	15.2	46
284	Sleep deficiency in spaceflight is associated with degraded neurobehavioral functions and elevated stress in astronauts on six-month missions aboard the International Space Station. Sleep, 2022, 45, .	0.6	20
285	Ckip-1 3â€²-UTR Attenuates Simulated Microgravity-Induced Cardiac Atrophy. Frontiers in Cell and Developmental Biology, 2021, 9, 796902.	1.8	2
286	Dissociation of Bone Resorption and Formation in Spaceflight and Simulated Microgravity: Potential Role of Myokines and Osteokines?. Biomedicines, 2022, 10, 342.	1.4	14
287	The crewed journey to Mars and its implications for the human microbiome. Microbiome, 2022, 10, 26.	4.9	14
289	How spaceflight challenges human cardiovascular health. European Journal of Preventive Cardiology, 2022, 29, 1399-1411.	0.8	19
290	Harnessing the Space Environment for the Discovery and Development of New Medicines. , 2022, , 823-857.		0
291	Elucidating Diversity in Obesity-Related Phenotypes Using Longitudinal and Multi-omic Approaches. , 2022, , 63-75.		0
292	Innovative Vinci Power NapÂ® Neurotechnology Systemâ€"To Reset and Reconnect the Senses, Body and Mind; Reducing Stress, Improving Performance, Sleep, Health and Quality of Life. Advances in Science, Technology and Innovation, 2022, , 249-264.	0.2	1

#	Article	IF	Citations
293	Omics Technologies in Spaceflight: Challenges and Considerations for Applying Single-Cell and Spatially Resolved Gene Expression Technologies to Samples Collected In-Flight. SSRN Electronic Journal, 0, , .	0.4	1
294	The Nutrition-Microbiota-Physical Activity Triad: An Inspiring New Concept for Health and Sports Performance. Nutrients, 2022, 14, 924.	1.7	9
295	Mechanical regulation of bone remodeling. Bone Research, 2022, 10, 16.	5.4	134
296	Basolateral Amygdala Mediates Central Mechanosensory Feedback of Musculoskeletal System. Frontiers in Molecular Neuroscience, 2022, 15, 834980.	1.4	0
297	India's Launch Into New Space: Leveraging the Constellation of Information Technology, Pharma, and Biotech. New Space, 2022, 10, 20-32.	0.4	1
298	Genetic and Epigenetic Inheritance at Telomeres. Epigenomes, 2022, 6, 9.	0.8	4
299	Drug-Targeted Genomes: Mutability of Ion Channels and GPCRs. Biomedicines, 2022, 10, 594.	1.4	6
300	Microbiotaâ€“muscle/immune interactions in rhesus macaque under simulated microgravity revealed by integrated multiâ€omics analysis. JCSM Rapid Communications, 2022, 5, 212-225.	0.6	2
301	The mitochondrial proteomic changes of rat hippocampus induced by 28-day simulated microgravity. PLoS ONE, 2022, 17, e0265108.	1.1	5
302	Leveraging Spaceflight to Advance Cardiovascular Research on Earth. Circulation Research, 2022, 130, 942-957.	2.0	17
303	The Effects of 30 Minutes of Artificial Gravity on Cognitive and Sensorimotor Performance in a Spaceflight Analog Environment. Frontiers in Neural Circuits, 2022, 16, 784280.	1.4	11
304	Cyanobacteria and microalgae in supporting human habitation on Mars. Biotechnology Advances, 2022, 59, 107946.	6.0	32
305	Understanding the Complexities and Changes of the Astronaut Microbiome for Successful Long-Duration Space Missions. Life, 2022, 12, 495.	1.1	18
306	Sex Differences in Biological Systems and the Conundrum of Menopause: Potential Commonalities in Post-Menopausal Disease Mechanisms. International Journal of Molecular Sciences, 2022, 23, 4119.	1.8	11
307	Urinary Proteomics Identifies Cathepsin D as a Biomarker of Rapid eGFR Decline in Type 1 Diabetes. Diabetes Care, 2022, 45, 1416-1427.	4.3	14
308	Late onset cardiovascular dysfunction in adult mice resulting from galactic cosmic ray exposure. IScience, 2022, 25, 104086.	1.9	9
309	Generalized Maximum Correntropy Kalman Filter for Target Tracking in TianGong-2 Space Laboratory. Space: Science & Technology, 2022, 2022, .	1.0	4
310	Potential protein markers associated with the functional state of vessels prior to long-term space missions and on the first post-landing day. Acta Astronautica, 2022, 195, 226-233.	1.7	0

#	Article	IF	Citations
312	The Cardiovascular System in Space: Focus on In Vivo and In Vitro Studies. Biomedicines, 2022, 10, 59.	1.4	40
313	Microgravity and space radiation inhibit autophagy in human capillary endothelial cells, through either opposite or synergistic effects on specific molecular pathways. Cellular and Molecular Life Sciences, 2022, 79, 1.	2.4	16
314	Simulated Microgravity Induces the Proliferative Inhibition and Morphological Changes in Porcine Granulosa Cells. Current Issues in Molecular Biology, 2021, 43, 2210-2219.	1.0	2
315	Nrf2 plays a critical role in the metabolic response during and after spaceflight. Communications Biology, 2021, 4, 1381.	2.0	10
316	Cancer Studies under Space Conditions: Finding Answers Abroad. Biomedicines, 2022, 10, 25.	1.4	10
317	A vision for spaceflight microbiology to enable human health and habitat sustainability. Nature Microbiology, 2022, 7, 471-474.	5.9	3
318	The Future of Personalized Medicine in Space: From Observations to Countermeasures. Frontiers in Bioengineering and Biotechnology, 2021, 9, 739747.	2.0	26
319	A Simple Protocol to Analyze the Effects of Simulated Microgravity on Nematodes. Biology Bulletin, 2021, 48, S22-S33.	0.1	1
320	Mental imagery of object motion in weightlessness. Npj Microgravity, 2021, 7, 50.	1.9	3
321	A Current Overview of the Biological Effects of Combined Space Environmental Factors in Mammals. Frontiers in Cell and Developmental Biology, 2022, 10, 861006.	1.8	5
329	Wide Range Applications of Spirulina: From Earth to Space Missions. Marine Drugs, 2022, 20, 299.	2.2	29
330	Space Medicines for Space Health. ACS Medicinal Chemistry Letters, 2022, 13, 1231-1247.	1.3	5
331	Preparing Civilians to Travel, Live, and Work in Space: A Human Research Agenda. New Space, 2022, 10, 240-245.	0.4	2
333	Plant telomere biology: The green solution to the end-replication problem. Plant Cell, 2022, 34, 2492-2504.	3.1	14
334	Biomechanics of healthy subjects during exercise on a simulated vibration isolation and stabilization system. Life Sciences in Space Research, 2022, 34, 16-20.	1.2	2
335	Space neuroscience: current understanding and future research. Neurological Sciences, 2022, 43, 4649-4654.	0.9	4
336	Delayed processing of blood samples impairs the accuracy of mRNA-based biomarkers. Scientific Reports, 2022, 12, 8196.	1.6	6
337	UZAY ORTAMINDA Ã–ÄžRENME VE BELLEÄžE ETKÄ° EDEBÄ°LECEK BAZI FAKTÃ–RLERÄ°N Ä°RDELENMESÄ°. Black Sea Journal of Health Science, 0, , .	0.4	0

#	Article	IF	Citations
338	Spaceflight Analogue Culture Enhances the Host-Pathogen Interaction Between Salmonella and a 3-D Biomimetic Intestinal Co-Culture Model. Frontiers in Cellular and Infection Microbiology, 0, 12, .	1.8	6
339	Alternative splicing diversifies the skeletal muscle transcriptome during prolonged spaceflight. Skeletal Muscle, 2022, 12, .	1.9	3
340	DNA methylation dynamics associated with long-term isolation of simulated space travel. IScience, 2022, 25, 104493.	1.9	2
341	Space flight associated changes in astronautsâ€™ plasmaâ€derived small extracellular vesicle microRNA: Biomarker identification. Clinical and Translational Medicine, 2022, 12, .	1.7	6
342	Changes in working memory brain activity and task-based connectivity after long-duration spaceflight. Cerebral Cortex, 2023, 33, 2641-2654.	1.6	6
343	Understanding the Behaviour of Human Cell Types under Simulated Microgravity Conditions: The Case of Erythrocytes. International Journal of Molecular Sciences, 2022, 23, 6876.	1.8	3
344	Astronauts Plasma-Derived Exosomes Induced Aberrant EZH2-Mediated H3K27me3 Epigenetic Regulation of the Vitamin D Receptor. Frontiers in Cardiovascular Medicine, 0, 9, .	1.1	0
345	To infinity and beyond: Strategies for fabricating medicines in outer space. International Journal of Pharmaceutics: X, 2022, 4, 100121.	1.2	3
347	Signatures of muscle disuse in spaceflight and bed rest revealed by single muscle fiber proteomics. , 2022, 1, .		22
348	Space flight and central nervous system: Friends or enemies? Challenges and opportunities for neuroscience and neuroâ€oncology. Journal of Neuroscience Research, 2022, 100, 1649-1663.	1.3	12
349	Enhanced self-renewal of human pluripotent stem cells by simulated microgravity. Npj Microgravity, 2022, 8, .	1.9	6
350	Telomere Length Regulation. Frontiers in Oncology, 0, 12, .	1.3	11
352	Unconscious mind activates central cardiovascular network and promotes adaptation to microgravity possibly anti-aging during 1-year-long spaceflight. Scientific Reports, 2022, 12, .	1.6	9
353	PINK1-Dependent Mitophagy Reduced Endothelial Hyperpermeability and Cell Migration Capacity Under Simulated Microgravity. Frontiers in Cell and Developmental Biology, 0, 10, .	1.8	5
354	Cognition in zero gravity: Effects of non-terrestrial gravity on human behaviour. Quarterly Journal of Experimental Psychology, 2023, 76, 979-994.	0.6	6
356	The Blood-Brain Barrier in Space: Implications for Space Travelers and for Human Health on Earth. Frontiers in Drug Delivery, 0, 2, .	0.4	2
357	The Lunar Cosmic-Ray and Neutron Spectrometer: Phase-A Design and Technology Studies. , 2022, , .		0
358	Long-Duration Space Travel Support Must Consider Wider Influences to Conserve Microbiota Composition and Function. Life, 2022, 12, 1163.	1.1	2

#	Article	IF	Citations
359	Routine omics collection is a golden opportunity for European human research in space and analog environments. Patterns, 2022, , 100550.	3.1	3
360	Cell Responses to Simulated Microgravity and Hydrodynamic Stress Can Be Distinguished by Comparative Transcriptomics. International Journal of Translational Medicine, 2022, 2, 364-386.	0.1	0
361	Future research directions to identify risks and mitigation strategies for neurostructural, ocular, and behavioral changes induced by human spaceflight: A NASA-ESA expert group consensus report. Frontiers in Neural Circuits, 0, 16, .	1.4	8
362	Gender-specific visual perturbation effects on muscle activation during incline treadmill walking: a virtual reality study. Ergonomics, 2023, 66, 704-715.	1.1	0
363	Neuroplasticity as a Foundation for Decision-Making in Space. NeuroSci, 2022, 3, 457-475.	0.4	3
364	Comparison of biological measurement and physical estimates of space radiation in the International Space Station. Heliyon, 2022, 8, e10266.	1.4	4
365	Enabling Innovative Research on the International Space Station to Solve the Challenges of a Human Mission to Mars: Results of the ISS4Mars International Workshops 2020-2021. Reach, 2022, , 100047.	0.4	0
366	Implementation of exercise countermeasures during spaceflight and microgravity analogue studies: Developing countermeasure protocols for bedrest in older adults (BROA). Frontiers in Physiology, 0, 13, .	1.3	12
367	Look-alike humans identified by facial recognition algorithms show genetic similarities. Cell Reports, 2022, 40, 111257.	2.9	9
368	The Protective Role of Neurogenetic Components in Reducing Stress-Related Effects during Spaceflights: Evidence from the Age-Related Positive Memory Approach. Life, 2022, 12, 1176.	1.1	4
369	Cellular senescence and senolytics: the path to the clinic. Nature Medicine, 2022, 28, 1556-1568.	15.2	257
370	MUC5B, telomere length and longitudinal quantitative interstitial lung changes: the MESA Lung Study. Thorax, 2023, 78, 566-573.	2.7	5
371	Machine learning algorithm to characterize antimicrobial resistance associated with the International Space Station surface microbiome. Microbiome, 2022, 10, .	4.9	14
373	The Role of 4-Phenylbutyric Acid in Gut Microbial Dysbiosis in a Mouse Model of Simulated Microgravity. Life, 2022, 12, 1301.	1.1	6
374	Modeled microgravity alters apoptotic gene expression and caspase activity in the squid-vibrio symbiosis. BMC Microbiology, 2022, 22, .	1.3	4
375	Application of radiation omics in the development of adverse outcome pathway networks: an example of radiation-induced cardiovascular disease. International Journal of Radiation Biology, 2022, 98, 1722-1751.	1.0	12
376	Carcinogenesis induced by space radiation: A systematic review. Neoplasia, 2022, 32, 100828.	2.3	9
377	Time Domains of Hypoxia Responses and -Omics Insights. Frontiers in Physiology, 0, 13, .	1.3	10

#	Article	IF	Citations
378	Research progress on the effects of microgravity and space radiation on astronautsâ€™ health and nursing measures. Open Astronomy, 2022, 31, 300-309.	0.2	3
379	Ad Astra! Sort ofâ€¦. Anticipation Science, 2022, , 151-195.	0.1	0
380	An experiment in cotwin control: Adaptation to space travel. , 2022, , 617-624.		0
381	Directed Operational Research. , 2022, , 1-18.		0
382	Using Twins to Assess What Might Have Been: The Co-twin Control Design. Research on Social Work Practice, 0, , 104973152211206.	1.1	1
383	Impact of 60â€Šdays of head-down bed rest on large arteries. Journal of Hypertension, 2022, 40, 2058-2067.	0.3	3
384	Reducing Virus Infection Risk in Space Environments through Nutrient Supplementation. Genes, 2022, 13, 1536.	1.0	0
385	The landscape of aging. Science China Life Sciences, 2022, 65, 2354-2454.	2.3	110
386	Telomeres and Telomerase in the Control of Stem Cells. Biomedicines, 2022, 10, 2335.	1.4	10
387	Atherogenic potential of microgravity hemodynamics in the carotid bifurcation: a numerical investigation. Npj Microgravity, 2022, 8, .	1.9	4
388	Effects of longâ€term simulated microgravity on liver metabolism in rhesus macaques. FASEB Journal, 2022, 36, .	0.2	7
389	Muscle atrophy phenotype gene expression during spaceflight is linked to a metabolic crosstalk in both the liver and the muscle in mice. IScience, 2022, 25, 105213.	1.9	6
390	Artificial gravity partially protects space-induced neurological deficits in Drosophila melanogaster. Cell Reports, 2022, 40, 111279.	2.9	7
391	A multi-omics longitudinal study of the murine retinal response to chronic low-dose irradiation and simulated microgravity. Scientific Reports, 2022, 12, .	1.6	2
393	Integrating bioinformatic strategies in spatial life science research. Briefings in Bioinformatics, 2022, 23, .	3.2	1
394	Multi-system responses to altered gravity and spaceflight: Insights from Drosophila melanogaster. Neuroscience and Biobehavioral Reviews, 2022, 142, 104880.	2.9	3
395	Challenges and considerations for single-cell and spatially resolved transcriptomics sample collection during spaceflight. Cell Reports Methods, 2022, 2, 100325.	1.4	3
396	Multiscale modeling in the framework of biological systems and its potential for spaceflight biology studies. IScience, 2022, 25, 105421.	1.9	0

#	Article	IF	Citations
398	The Characteristic Response of the Human Leukocyte Transcriptome to 60 Days of Bed Rest and to Reambulation. Medicine and Science in Sports and Exercise, 2023, 55, 365-375.	0.2	2
399	Longitudinal metabolomic profiles reveal sex-specific adjustments to long-duration spaceflight and return to Earth. Cellular and Molecular Life Sciences, 2022, 79, .	2.4	6
400	Phenotypic and genomic assessment of the potential threat of human spaceflight-relevant Staphylococcus capitis isolates under stress conditions. Frontiers in Microbiology, 0, 13, .	1.5	1
401	Late effects of heavy-ion space radiation on splenocyte subpopulations and NK cytotoxic function. Frontiers in Astronomy and Space Sciences, 0, 9, .	1.1	0
402	Matrix-assisted laser desorption/ionization analysis of the brain proteome of microgravity-exposed mice from the International Space Station. Frontiers in Space Technologies, 0, 3, .	0.8	0
403	Effect of Microgravity on the Gut Microbiota Bacterial Composition in a Hindlimb Unloading Model. Life, 2022, 12, 1865.	1.1	5
404	Sedentary behavior and the biological hallmarks of aging. Ageing Research Reviews, 2023, 83, 101807.	5.0	12
405	Correlating 13C Isotope in Oligomeric Proanthocyanidins with their Anticancer Properties. Journal of Cancer Genetics and Biomarkers, 2019, 1, 33-69.	0.0	0
406	Confinement induces oxidative damage and synaptic dysfunction in mice. Frontiers in Physiology, 0, 13, .	1.3	1
407	Development and application of novel performance validity metrics for computerized neurocognitive batteries. Journal of the International Neuropsychological Society, 2023, 29, 789-797.	1.2	3
408	Plasma proteome profiling of healthy subjects undergoing bed rest reveals unloadingâ€dependent changes linked to muscle atrophy. Journal of Cachexia, Sarcopenia and Muscle, 2023, 14, 439-451.	2.9	6
409	Prolonged Exposure to Simulated Microgravity Changes Release of Small Extracellular Vesicle in Breast Cancer Cells. International Journal of Molecular Sciences, 2022, 23, 16095.	1.8	3
410	Multidrug-resistant Acinetobacter pittii is adapting to and exhibiting potential succession aboard the International Space Station. Microbiome, 2022, 10, .	4.9	7
411	Overview of lunar dust toxicity risk. Npj Microgravity, 2022, 8, .	1.9	12
412	Are head-down tilt bedrest studies capturing the true nature of spaceflight-induced cognitive changes? A review. Frontiers in Physiology, 0, 13, .	1.3	3
413	Human Health during Space Travel: State-of-the-Art Review. Cells, 2023, 12, 40.	1.8	13
414	Microgravity and Lymphatics: Why Space Programs Need Lymphedema Physiology Specialists. Lymphatic Research and Biology, 0, , .	0.5	2
415	Transcriptomic Signature of the Simulated Microgravity Response in Caenorhabditis elegans and Comparison to Spaceflight Experiments. Cells, 2023, 12, 270.	1.8	2

#	Article	IF	Citations
416	Impact of Microgravity on Virulence, Antibiotic Resistance and Gene Expression in Beneficial and Pathogenic Microorganisms. Mini-Reviews in Medicinal Chemistry, 2023, 23, 1608-1622.	1.1	2
417	The foundation and architecture of precision medicine in neurology and psychiatry. Trends in Neurosciences, 2023, 46, 176-198.	4.2	29
418	Effects of High Glucose on Human Endothelial Cells Exposed to Simulated Microgravity. Biomolecules, 2023, 13, 189.	1.8	3
419	Isolation and Purification of Various Mammalian Cells: Single Cell Isolation. , 2023, , 1-57.		0
420	Asperosaponin VI Protects Against Bone Loss Due to Hindlimb Unloading in Skeletally Growing Mice Through Regulating Microbial Dysbiosis Altering the 5-HT Pathway. Calcified Tissue International, 2023, 112, 389-402.	1.5	1
421	Exceeding the Ordinary: A Framework for Examining Teams Across the Extremeness Continuum and Its Impact on Future Research. Group and Organization Management, 2023, 48, 581-628.	2.7	3
422	Exercise counteracts vascular aging in long-term spaceflight: challenges and perspective. Current Opinion in Physiology, 2023, 31, 100628.	0.9	2
424	Potential Roles of YAP/TAZ Mechanotransduction in Spaceflight-Induced Liver Dysfunction. International Journal of Molecular Sciences, 2023, 24, 2197.	1.8	3
425	The Sociotechnical Imaginaries of Contemporary Commercial Space: Explicating Homo Galacticus, Techno-Utopianism, and Capitalistkind. , 2023, , .		0
426	Musculoskeletal research in human space flight â€“ unmet needs for the success of crewed deep space exploration. Npj Microgravity, 2023, 9, .	1.9	3
427	Could exposure to spaceflight cause mutations in genes that affect male fertility?. Life Sciences in Space Research, 2023, 37, 15-17.	1.2	0
428	Impacts of microgravity on amino acid metabolism during spaceflight. Experimental Biology and Medicine, 2023, 248, 380-393.	1.1	1
430	Microgravity alters the expressions of DNA repair genes and their regulatory miRNAs in space-flown Caenorhabditis elegans. Life Sciences in Space Research, 2023, 37, 25-38.	1.2	3
431	Mechano-immunology in microgravity. Life Sciences in Space Research, 2023, 37, 50-64.	1.2	0
432	Long-term human spaceflight and inflammaging: Does it promote aging?. Ageing Research Reviews, 2023, 87, 101909.	5.0	7
433	Current challenges and future implications of exploiting the omics data into nutrigenetics and nutrigenomics for personalized diagnosis and nutrition-based care. Nutrition, 2023, 110, 112002.	1.1	7
434	An integrated multi-level analysis reveals learning-memory deficits and synaptic dysfunction in the rat model exposure to austere environment. Journal of Proteomics, 2023, 279, 104887.	1.2	1
436	Human challenges to adaptation to extreme professional environments: A systematic review. Neuroscience and Biobehavioral Reviews, 2023, 146, 105054.	2.9	8

#	Article	IF	Citations
437	Combined space stressors induce independent behavioral deficits predicted by early peripheral blood monocytes. Scientific Reports, 2023, 13, .	1.6	2
438	Stress, Sleep, and Cognition in Microgravity. , 2023, , 1-50.		0
439	Effects of exercise countermeasures on multisystem function in long duration spaceflight astronauts. Npj Microgravity, 2023, 9, .	1.9	12
440	THE CONCEPTUAL APPROACH TO THE USE OF POSTBIOTICS BASED ON BACTERIAL MEMBRANE NANOVESICLES FOR PROPHYLAXIS OF ASTRONAUTSâ€™ HEALTH DISORDERS. KosmÃ¬Äna Nauka Ã¬ TehnologÃ¬Ã¶, 2022, 28, 34-51.	0.1	2
442	The Biological Implication of Semicarbazide-Sensitive Amine Oxidase (SSAO) Upregulation in Rat Systemic Inflammatory Response under Simulated Aerospace Environment. International Journal of Molecular Sciences, 2023, 24, 3666.	1.8	0
443	Microgravity and immune cells. Journal of the Royal Society Interface, 2023, 20, .	1.5	7
444	Transcriptomic Effects on the Mouse Heart Following 30 Days on the International Space Station. Biomolecules, 2023, 13, 371.	1.8	3
445	Designing a Novel Monitoring Approach for the Effects of Space Travel on Astronautsâ€™ Health. Life, 2023, 13, 576.	1.1	2
446	Addressing Spaceflight Biology through the Lens of a Histologistâ€“Embryologist. Life, 2023, 13, 588.	1.1	0
448	Bacterial Virulence and Prevention for Human Spaceflight. Life, 2023, 13, 656.	1.1	0
449	The Effects of Galactic Cosmic Rays on the Central Nervous System: From Negative to Unexpectedly Positive Effects That Astronauts May Encounter. Biology, 2023, 12, 400.	1.3	1
450	Human neural network activity reacts to gravity changes in vitro. Frontiers in Neuroscience, 0, 17, .	1.4	2
451	Space brain research: progress and prospect. Scientia Sinica Vitae, 2024, 54, 325-337.	0.1	0
452	Homo sapiensâ€”A Species Not Designed for Space Flight: Health Risks in Low Earth Orbit and Beyond, Including Potential Risks When Traveling beyond the Geomagnetic Field of Earth. Life, 2023, 13, 757.	1.1	5
453	Hydrogen Inhalation Ameliorates Oxidative Stress and Glucose Metabolism Disorder in the Brain of Hindlimb Unloading Rats. Space: Science & Technology, 2023, 3, .	1.0	0
455	Biomonitoring and precision health in deep space supported by artificial intelligence. Nature Machine Intelligence, 2023, 5, 196-207.	8.3	5
456	è^ªå©ç”Ÿç‰©åŒ»å¦æ£€æµ‹åŠæœªæ¥å•†ä¸. Zhongguo Kexue Jishu Kexue/Scientia Sinica Technologica, 2023, , .	0.3	0
457	Daily artificial gravity is associated with greater neural efficiency during sensorimotor adaptation. Cerebral Cortex, 2023, 33, 8011-8023.	1.6	1

#	Article	IF	Citations
458	Weak geneâ€“gene interaction facilitates the evolution of gene expression plasticity. BMC Biology, 2023, 21, .	1.7	4
459	Microbiota and probiotics: chances and challenges â€“ a symposium report. Gut Microbiome, 2023, 4, .	0.8	1
460	Optimizing transcranial magnetic stimulation for spaceflight applications. Npj Microgravity, 2023, 9, .	1.9	1
461	Bioeffects of Microgravity and Hypergravity on Animals. Chinese Journal of Electrical Engineering, 2023, 9, 29-46.	2.3	0
462	Medical Astro-Microbiology: Current Role and Future Challenges. Journal of the Indian Institute of Science, 2023, 103, 771-796.	0.9	4
463	Effects of 60Âdays of 6Â° head-down bed rest on the composition and function of the human gut microbiota. IScience, 2023, 26, 106615.	1.9	2
464	Microbiome-based enrichment pattern mining has enabled a deeper understanding of the biomeâ€“speciesâ€“function relationship. Communications Biology, 2023, 6, .	2.0	0
465	Foreword: Festschrift in honor of David Dinges, scientist and mentor extraordinaire. SLEEP Advances, 2023, 4, .	0.1	1
466	Biomarkers of aging. Science China Life Sciences, 2023, 66, 893-1066.	2.3	60
467	Specific host metabolite and gut microbiome alterations are associated with bone loss during spaceflight. Cell Reports, 2023, 42, 112299.	2.9	4
468	Holobiont Urbanism: sampling urban beehives reveals citiesâ€™ metagenomes. Environmental Microbiomes, 2023, 18, .	2.2	2
474	Space Renaissance and Neurodegeneration. , 2022, , 123-132.		0
482	Synthetic Biology-Related Multiomics Data Integration and Data Mining Techniques. , 2023, , 31-38.		0
488	Maximizing the value of twin studies in health and behaviour. Nature Human Behaviour, 2023, 7, 849-860.	6.2	6
492	Next generation of astronauts or ESA astronaut 2.0 concept and spotlight on immunity. Npj Microgravity, 2023, 9, .	1.9	3
503	Paving the way to better understand the effects of prolonged spaceflight on operational performance and its neural bases. Npj Microgravity, 2023, 9, .	1.9	3
511	Space Radiobiology. , 2023, , 503-569.		0
528	Long-term spaceflight composite stress induces depression and cognitive impairment in astronautsâ€”insights from neuroplasticity. Translational Psychiatry, 2023, 13, .	2.4	0

#	Article	IF	Citations
561	Influence of gut microbiome on metabolic diseases: a new perspective based on microgravity. Journal of Diabetes and Metabolic Disorders, 0, , .	0.8	0
563	Artificial intelligence in civil engineering. , 2024, , 1-74.		0
565	Circadian Clocks in Ageing. , 2024, , 505-535.		0
570	Specific Pathways to Prevent Early Vascular Aging. , 2024, , 545-560.		0