

Sara R Zwart

List of Publications by Year in descending order

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Version: 2024-02-01

66
papers

3,849
citations

159585

30
h-index

133252

59
g-index

66
all docs

66
docs citations

66
times ranked

2781
citing authors

#	ARTICLE	IF	CITATIONS
1	The NASA Twins Study: A multidimensional analysis of a year-long human spaceflight. <i>Science</i> , 2019, 364, .	12.6	576
2	Benefits for bone from resistance exercise and nutrition in long-duration spaceflight: Evidence from biochemistry and densitometry. <i>Journal of Bone and Mineral Research</i> , 2012, 27, 1896-1906.	2.8	273
3	Immune System Dysregulation During Spaceflight: Potential Countermeasures for Deep Space Exploration Missions. <i>Frontiers in Immunology</i> , 2018, 9, 1437.	4.8	257
4	The Nutritional Status of Astronauts Is Altered after Long-Term Space Flight Aboard the International Space Station. <i>Journal of Nutrition</i> , 2005, 135, 437-443.	2.9	239
5	Fundamental Biological Features of Spaceflight: Advancing the Field to Enable Deep-Space Exploration. <i>Cell</i> , 2020, 183, 1162-1184.	28.9	185
6	Comprehensive Multi-omics Analysis Reveals Mitochondrial Stress as a Central Biological Hub for Spaceflight Impact. <i>Cell</i> , 2020, 183, 1185-1201.e20.	28.9	161
7	Red risks for a journey to the red planet: The highest priority human health risks for a mission to Mars. <i>Npj Microgravity</i> , 2020, 6, 33.	3.7	148
8	Plasma Cytokine Concentrations Indicate That <i>In Vivo</i> Hormonal Regulation of Immunity Is Altered During Long-Duration Spaceflight. <i>Journal of Interferon and Cytokine Research</i> , 2014, 34, 778-786.	1.2	140
9	Bone metabolism and renal stone risk during International Space Station missions. <i>Bone</i> , 2015, 81, 712-720.	2.9	119
10	Vision Changes after Spaceflight Are Related to Alterations in Folate- and Vitamin B-12-Dependent One-Carbon Metabolism,. <i>Journal of Nutrition</i> , 2012, 142, 427-431.	2.9	96
11	Capacity of omega-3 fatty acids or eicosapentaenoic acid to counteract weightlessness-induced bone loss by inhibiting NF- κ B activation: From cells to bed rest to astronauts. <i>Journal of Bone and Mineral Research</i> , 2010, 25, 1049-1057.	2.8	95
12	Iron status and its relations with oxidative damage and bone loss during long-duration space flight on the International Space Station. <i>American Journal of Clinical Nutrition</i> , 2013, 98, 217-223.	4.7	76
13	Space Environmental Factor Impacts upon Murine Colon Microbiota and Mucosal Homeostasis. <i>PLoS ONE</i> , 2015, 10, e0125792.	2.5	73
14	Men and Women in Space: Bone Loss and Kidney Stone Risk After Long-Duration Spaceflight. <i>Journal of Bone and Mineral Research</i> , 2014, 29, 1639-1645.	2.8	72
15	Increased core body temperature in astronauts during long-duration space missions. <i>Scientific Reports</i> , 2017, 7, 16180.	3.3	68
16	Space Food for Thought: Challenges and Considerations for Food and Nutrition on Exploration Missions. <i>Journal of Nutrition</i> , 2020, 150, 2242-2244.	2.9	62
17	Long-Duration Space Flight and Bed Rest Effects on Testosterone and Other Steroids. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2012, 97, 270-278.	3.6	61
18	Space Flight Calcium: Implications for Astronaut Health, Spacecraft Operations, and Earth. <i>Nutrients</i> , 2012, 4, 2047-2068.	4.1	59

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19	Response to Vitamin D Supplementation during Antarctic Winter Is Related to BMI, and Supplementation Can Mitigate Epstein-Barr Virus Reactivation ^{1&#x2013;3} . <i>Journal of Nutrition</i> , 2011, 141, 692-697.	2.9	58
20	Nutritional Status Assessment Before, During, and After Long-Duration Head-Down Bed Rest. <i>Aviation, Space, and Environmental Medicine</i> , 2009, 80, A15-A22.	0.5	55
21	Effects of short-term mild hypercapnia during head-down tilt on intracranial pressure and ocular structures in healthy human subjects. <i>Physiological Reports</i> , 2017, 5, e13302.	1.7	55
22	Bone metabolism and nutritional status during 30-day head-down-tilt bed rest. <i>Journal of Applied Physiology</i> , 2012, 113, 1519-1529.	2.5	54
23	Genotype, B-vitamin status, and androgens affect spaceflight-induced ocular changes. <i>FASEB Journal</i> , 2016, 30, 141-148.	0.5	52
24	Telomere Length Dynamics and DNA Damage Responses Associated with Long-Duration Spaceflight. <i>Cell Reports</i> , 2020, 33, 108457.	6.4	48
25	Nutritional Status Is Altered in the Self-Neglecting Elderly. <i>Journal of Nutrition</i> , 2006, 136, 2534-2541.	2.9	42
26	Temporal Telomere and DNA Damage Responses in the Space Radiation Environment. <i>Cell Reports</i> , 2020, 33, 108435.	6.4	40
27	Astronaut ocular changes. <i>FASEB Journal</i> , 2017, 31, 3746-3756.	0.5	39
28	Vitamin K status in spaceflight and ground-based models of spaceflight. <i>Journal of Bone and Mineral Research</i> , 2011, 26, 948-954.	2.8	38
29	Multi-omic, Single-Cell, and Biochemical Profiles of Astronauts Guide Pharmacological Strategies for Returning to Gravity. <i>Cell Reports</i> , 2020, 33, 108429.	6.4	37
30	Pre-flight exercise and bone metabolism predict unloading-induced bone loss due to spaceflight. <i>British Journal of Sports Medicine</i> , 2022, 56, 196-203.	6.7	37
31	Arterial structure and function during and after long-duration spaceflight. <i>Journal of Applied Physiology</i> , 2020, 129, 108-123.	2.5	36
32	Countermeasures-based Improvements in Stress, Immune System Dysregulation and Latent Herpesvirus Reactivation onboard the International Space Station “ Relevance for Deep Space Missions and Terrestrial Medicine. <i>Neuroscience and Biobehavioral Reviews</i> , 2020, 115, 68-76.	6.1	36
33	Nutritional Status Changes in Humans during a 14-Day Saturation Dive: The NASA Extreme Environment Mission Operations V Project. <i>Journal of Nutrition</i> , 2004, 134, 1765-1771.	2.9	35
34	Association of Genetics and B Vitamin Status With the Magnitude of Optic Disc Edema During 30-Day Strict Head-Down Tilt Bed Rest. <i>JAMA Ophthalmology</i> , 2019, 137, 1195.	2.5	32
35	Body Mass Changes During Long-Duration Spaceflight. <i>Aviation, Space, and Environmental Medicine</i> , 2014, 85, 897-904.	0.5	30
36	Spaceflight-related ocular changes. <i>Current Opinion in Clinical Nutrition and Metabolic Care</i> , 2018, 21, 481-488.	2.5	29

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37	Specific Immunologic Countermeasure Protocol for Deep-Space Exploration Missions. <i>Frontiers in Immunology</i> , 2019, 10, 2407.	4.8	29
38	Stability of analytes related to clinical chemistry and bone metabolism in blood specimens after delayed processing. <i>Clinical Biochemistry</i> , 2009, 42, 907-910.	1.9	28
39	Nutrition issues for space exploration. <i>Acta Astronautica</i> , 2008, 63, 609-613.	3.2	18
40	Body Iron Stores and Oxidative Damage in Humans Increased during and after a 10- to 12-Day Undersea Dive. <i>Journal of Nutrition</i> , 2009, 139, 90-95.	2.9	17
41	Sex-specific responses of bone metabolism and renal stone risk during bed rest. <i>Physiological Reports</i> , 2014, 2, e12119.	1.7	17
42	Beyond Low-Earth Orbit: Characterizing Immune and microRNA Differentials following Simulated Deep Spaceflight Conditions in Mice. <i>IScience</i> , 2020, 23, 101747.	4.1	17
43	The role of nutrition in space exploration: Implications for sensorimotor, cognition, behavior and the cerebral changes due to the exposure to radiation, altered gravity, and isolation/confinement hazards of spaceflight. <i>Neuroscience and Biobehavioral Reviews</i> , 2021, 127, 307-331.	6.1	17
44	Saturation Diving Alters Folate Status and Biomarkers of DNA Damage and Repair. <i>PLoS ONE</i> , 2012, 7, e31058.	2.5	17
45	Effects of high-protein intake on bone turnover in long-term bed rest in women. <i>Applied Physiology, Nutrition and Metabolism</i> , 2017, 42, 537-546.	1.9	16
46	Meal replacement in isolated and confined mission environments: Consumption, acceptability, and implications for physical and behavioral health. <i>Physiology and Behavior</i> , 2020, 219, 112829.	2.1	16
47	Increased dietary iron and radiation in rats promote oxidative stress, induce localized and systemic immune system responses, and alter colon mucosal environment. <i>FASEB Journal</i> , 2014, 28, 1486-1498.	0.5	14
48	High dietary iron increases oxidative stress and radiosensitivity in the rat retina and vasculature after exposure to fractionated gamma radiation. <i>Npj Microgravity</i> , 2016, 2, 16014.	3.7	14
49	Incomplete recovery of bone strength and trabecular microarchitecture at the distal tibia 1 year after return from long duration spaceflight. <i>Scientific Reports</i> , 2022, 12, .	3.3	14
50	Dermatitis during Spaceflight Associated with HSV-1 Reactivation. <i>Viruses</i> , 2022, 14, 789.	3.3	12
51	Vitamin D and COVID-19: Lessons from Spaceflight Analogs. <i>Journal of Nutrition</i> , 2020, 150, 2624-2627.	2.9	11
52	Ophthalmic changes in a spaceflight analog are associated with brain functional reorganization. <i>Human Brain Mapping</i> , 2021, 42, 4281-4297.	3.6	10
53	Use of Quantitative Computed Tomography to Assess for Clinically-relevant Skeletal Effects of Prolonged Spaceflight on Astronaut Hips. <i>Journal of Clinical Densitometry</i> , 2020, 23, 155-164.	1.2	9
54	Antioxidant Supplementation Does Not Affect Bone Turnover Markers During 60 Days of 6° Head-Down Tilt Bed Rest: Results from an Exploratory Randomized Controlled Trial. <i>Journal of Nutrition</i> , 2021, 151, 1527-1538.	2.9	9

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55	Nutrition and Bone Health in Space. , 2015, , 687-705.		8
56	Albumin, oral contraceptives, and venous thromboembolism risk in astronauts. Journal of Applied Physiology, 2022, 132, 1232-1239.	2.5	8
57	A 250Âµg/week dose of vitamin D was as effective as a 50Âµg/d dose in healthy adults, but a regimen of four weekly followed by monthly doses of 1250Âµg raised the risk of hypercalciuria. British Journal of Nutrition, 2013, 110, 1866-1872.	2.3	7
58	Excretion of Zinc and Copper Increases in Men during 3 Weeks of Bed Rest, with or without Artificial Gravity. Journal of Nutrition, 2017, 147, 1113-1120.	2.9	7
59	Spaceflight Metabolism and Nutritional Support. , 2019, , 413-439.		7
60	Magnesium and Space Flight. Nutrients, 2015, 7, 10209-10222.	4.1	5
61	Response to Vitamin D Intake: From the Antarctic to the Institute of Medicine ^{1,2} . Journal of Nutrition, 2011, 141, 985-986.	2.9	4
62	Nutritional Countermeasures for Spaceflight-Related Stress. , 2020, , 593-616.		4
63	Nutrition as Fuel for Human Spaceflight. Physiology, 2021, 36, 324-330.	3.1	1
64	Artificial Gravity During Bed Rest Deconditioning: A Case Report. , 2006, , .		0
65	Regulatory Physiology. , 2016, , 283-305.		0
66	Reply to Greaves et al.. Journal of Applied Physiology, 2020, 129, 1113-1113.	2.5	0