Sara R Zwart

List of Publications by Citations

62 papers	2,267 citations	26 h-index	47 g-index
66 ext. papers	3,106 ext. citations	7.1 avg, IF	4.81 L-index

#	Paper	IF	Citations
62	The NASA Twins Study: A multidimensional analysis of a year-long human spaceflight. *Science*, **2019**, 364,	33.3	300
61	Benefits for bone from resistance exercise and nutrition in long-duration spaceflight: Evidence from biochemistry and densitometry. *Journal of Bone and Mineral Research*, **2012**, 27, 1896-906	6.3	218
60	The nutritional status of astronauts is altered after long-term space flight aboard the International Space Station. *Journal of Nutrition*, **2005**, 135, 437-43	4.1	183
59	Immune System Dysregulation During Spaceflight: Potential Countermeasures for Deep Space Exploration Missions. *Frontiers in Immunology*, **2018**, 9, 1437	8.4	132
58	Plasma cytokine concentrations indicate that in vivo hormonal regulation of immunity is altered during long-duration spaceflight. *Journal of Interferon and Cytokine Research*, **2014**, 34, 778-86	3.5	102
57	Bone metabolism and renal stone risk during International Space Station missions. *Bone*, **2015**, 81, 712-720	4.7	82
56	Vision changes after spaceflight are related to alterations in folate- and vitamin B-12-dependent one-carbon metabolism. *Journal of Nutrition*, **2012**, 142, 427-31	4.1	72
55	Capacity of omega-3 fatty acids or eicosapentaenoic acid to counteract weightlessness-induced bone loss by inhibiting NF-kappaB activation: from cells to bed rest to astronauts. *Journal of Bone and Mineral Research*, **2010**, 25, 1049-57	6.3	68
54	Comprehensive Multi-omics Analysis Reveals Mitochondrial Stress as a Central Biological Hub for Spaceflight Impact. *Cell*, **2020**, 183, 1185-1201.e20	56.2	58
53	Iron status and its relations with oxidative damage and bone loss during long-duration space flight on the International Space Station. *American Journal of Clinical Nutrition*, **2013**, 98, 217-23	7	55
52	Men and women in space: bone loss and kidney stone risk after long-duration spaceflight. *Journal of Bone and Mineral Research*, **2014**, 29, 1639-45	6.3	53
51	Fundamental Biological Features of Spaceflight: Advancing the Field to Enable Deep-Space Exploration. *Cell*, **2020**, 183, 1162-1184	56.2	50
50	Long-duration space flight and bed rest effects on testosterone and other steroids. *Journal of Clinical Endocrinology and Metabolism*, **2012**, 97, 270-8	5.6	49
49	Response to vitamin D supplementation during Antarctic winter is related to BMI, and supplementation can mitigate Epstein-Barr Virus Reactivation. *Journal of Nutrition*, **2011**, 141, 692-7	4.1	49
48	Space flight calcium: implications for astronaut health, spacecraft operations, and Earth. *Nutrients*, **2012**, 4, 2047-68	6.7	46
47	Bone metabolism and nutritional status during 30-day head-down-tilt bed rest. *Journal of Applied Physiology*, **2012**, 113, 1519-29	3.7	43
46	Nutritional status assessment before, during, and after long-duration head-down bed rest. *Aviation, Space, and Environmental Medicine*, **2009**, 80, A15-22		42

45	Increased core body temperature in astronauts during long-duration space missions. *Scientific Reports*, **2017**, 7, 16180	4.9	41
44	Space Environmental Factor Impacts upon Murine Colon Microbiota and Mucosal Homeostasis. *PLoS ONE*, **2015**, 10, e0125792	3.7	41
43	Effects of short-term mild hypercapnia during head-down tilt on intracranial pressure and ocular structures in healthy human subjects. *Physiological Reports*, **2017**, 5, e13302	2.6	37
42	Nutritional status is altered in the self-neglecting elderly. *Journal of Nutrition*, **2006**, 136, 2534-41	4.1	35
41	Red risks for a journey to the red planet: The highest priority human health risks for a mission to Mars. *Npj Microgravity*, **2020**, 6, 33	5.3	34
40	Genotype, B-vitamin status, and androgens affect spaceflight-induced ophthalmic changes. *FASEB Journal*, **2016**, 30, 141-8	0.9	32
39	Vitamin K status in spaceflight and ground-based models of spaceflight. *Journal of Bone and Mineral Research*, **2011**, 26, 948-54	6.3	31
38	Astronaut ophthalmic syndrome. *FASEB Journal*, **2017**, 31, 3746-3756	0.9	30
37	Nutritional status changes in humans during a 14-day saturation dive: the NASA Extreme Environment Mission Operations V project. *Journal of Nutrition*, **2004**, 134, 1765-71	4.1	29
36	Stability of analytes related to clinical chemistry and bone metabolism in blood specimens after delayed processing. *Clinical Biochemistry*, **2009**, 42, 907-10	3.5	22
35	Space Food for Thought: Challenges and Considerations for Food and Nutrition on Exploration Missions. *Journal of Nutrition*, **2020**, 150, 2242-2244	4.1	22
34	Body mass changes during long-duration spaceflight. *Aviation, Space, and Environmental Medicine*, **2014**, 85, 897-904		21
33	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. *Neuroscience and Biobehavioral Reviews*, **2020**, 115, 68-76	9	19
32	Association of Genetics and B Vitamin Status With the Magnitude of Optic Disc Edema During 30-Day Strict Head-Down Tilt Bed Rest. *JAMA Ophthalmology*, **2019**, 137, 1195-1200	3.9	19
31	Spaceflight-related ocular changes: the potential role of genetics, and the potential of B vitamins as a countermeasure. *Current Opinion in Clinical Nutrition and Metabolic Care*, **2018**, 21, 481-488	3.8	19
30	Temporal Telomere and DNA Damage Responses in the Space Radiation Environment. *Cell Reports*, **2020**, 33, 108435	10.6	17
29	Specific Immunologic Countermeasure Protocol for Deep-Space Exploration Missions. *Frontiers in Immunology*, **2019**, 10, 2407	8.4	16
28	Sex-specific responses of bone metabolism and renal stone risk during bed rest. *Physiological Reports*, **2014**, 2, e12119	2.6	16

27	Nutrition issues for space exploration. *Acta Astronautica*, **2008**, 63, 609-613	2.9	16
26	Body iron stores and oxidative damage in humans increased during and after a 10- to 12-day undersea dive. *Journal of Nutrition*, **2009**, 139, 90-5	4.1	15
25	Saturation diving alters folate status and biomarkers of DNA damage and repair. *PLoS ONE*, **2012**, 7, e31958	3.7	15
24	Arterial structure and function during and after long-duration spaceflight. *Journal of Applied Physiology*, **2020**, 129, 108-123	3.7	14
23	Multi-omic, Single-Cell, and Biochemical Profiles of Astronauts Guide Pharmacological Strategies for Returning to Gravity. *Cell Reports*, **2020**, 33, 108429	10.6	14
22	Telomere Length Dynamics and DNA Damage Responses Associated with Long-Duration Spaceflight. *Cell Reports*, **2020**, 33, 108457	10.6	14
21	Effects of high-protein intake on bone turnover in long-term bed rest in women. *Applied Physiology, Nutrition and Metabolism*, **2017**, 42, 537-546	3	11
20	Pre-flight exercise and bone metabolism predict unloading-induced bone loss due to spaceflight. *British Journal of Sports Medicine*, **2021**,	10.3	11
19	Increased dietary iron and radiation in rats promote oxidative stress, induce localized and systemic immune system responses, and alter colon mucosal environment. *FASEB Journal*, **2014**, 28, 1486-98	0.9	9
18	High dietary iron increases oxidative stress and radiosensitivity in the rat retina and vasculature after exposure to fractionated gamma radiation. *Npj Microgravity*, **2016**, 2, 16014	5.3	9
17	Beyond Low-Earth Orbit: Characterizing Immune and microRNA Differentials following Simulated Deep Spaceflight Conditions in Mice. *IScience*, **2020**, 23, 101747	6.1	8
16	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. *Neuroscience and Biobehavioral Reviews*, **2021**, 127, 307-331	9	8
15	Vitamin D and COVID-19: Lessons from Spaceflight Analogs. *Journal of Nutrition*, **2020**, 150, 2624-2627	4.1	6
14	Meal replacement in isolated and confined mission environments: Consumption, acceptability, and implications for physical and behavioral health. *Physiology and Behavior*, **2020**, 219, 112829	3.5	5
13	A 250□g/week dose of vitamin D was as effective as a 50□g/d dose in healthy adults, but a regimen of four weekly followed by monthly doses of 1250□g raised the risk of hypercalciuria. *British Journal of Nutrition*, **2013**, 110, 1866-72	3.6	5
12	Response to vitamin D intake: from the Antarctic to the Institute of Medicine. *Journal of Nutrition*, **2011**, 141, 985-6	4.1	4
11	Spaceflight Metabolism and Nutritional Support **2019**, 413-439		4
10	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	4.1	3

List of Publications

9	Use of Quantitative Computed Tomography to Assess for Clinically-relevant Skeletal Effects of Prolonged Spaceflight on Astronaut Hips. *Journal of Clinical Densitometry*, **2020**, 23, 155-164	3.5	3
8	Ophthalmic changes in a spaceflight analog are associated with brain functional reorganization. *Human Brain Mapping*, **2021**, 42, 4281-4297	5.9	3
7	Magnesium and Space Flight. *Nutrients*, **2015**, 7, 10209-22	6.7	2
6	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. *Journal of Nutrition*, **2021**, 151, 1527-1538	4.1	2
5	Nutrition and Bone Health in Space **2015**, 687-705		1
4	Nutritional Countermeasures for Spaceflight-Related Stress **2020**, 593-616		0
3	Nutrition as Fuel for Human Spaceflight. *Physiology*, **2021**, 36, 324-330	9.8	0
2	Reply to Greaves et al. *Journal of Applied Physiology*, **2020**, 129, 1113	3.7	
1	Regulatory Physiology **2016**, 283-305		