Sara R Zwart

List of Publications by Year
in descending order

66 papers	3,849 citations	159358 30 h-index	133063 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. Science, 2019, 364, .	6.0	576
2	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, 1896-1906.	3.1	273
3	Immune System Dysregulation During Spaceflight: Potential Countermeasures for Deep Space Exploration Missions. Frontiers in Immunology, 2018, 9, 1437.	2.2	257
4	The Nutritional Status of Astronauts Is Altered after Long-Term Space Flight Aboard the International Space Station. Journal of Nutrition, 2005, 135, 437-443.	1.3	239
5	Fundamental Biological Features of Spaceflight: Advancing the Field to Enable Deep-Space Exploration. Cell, 2020, 183, 1162-1184.	13.5	185
6	Comprehensive Multi-omics Analysis Reveals Mitochondrial Stress as a Central Biological Hub for Spaceflight Impact. Cell, 2020, 183, 1185-1201.e20.	13.5	161
7	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.	1.9	148
8	Plasma Cytokine Concentrations Indicate That <i>In Vivo</i> Hormonal Regulation of Immunity Is Altered During Long-Duration Spaceflight. Journal of Interferon and Cytokine Research, 2014, 34, 778-786.	0.5	140
9	Bone metabolism and renal stone risk during International Space Station missions. Bone, 2015, 81, 712-720.	1.4	119
10	Vision Changes after Spaceflight Are Related to Alterations in Folate- and Vitamin B-12-Dependent One-Carbon Metabolism,. Journal of Nutrition, 2012, 142, 427-431.	1.3	96
11	Capacity of omega-3 fatty acids or eicosapentaenoic acid to counteract weightlessness-induced bone loss by inhibiting NF-ÎºB activation: From cells to bed rest to astronauts. Journal of Bone and Mineral Research, 2010, 25, 1049-1057.	3.1	95
12	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, 217-223.	2.2	76
13	Space Environmental Factor Impacts upon Murine Colon Microbiota and Mucosal Homeostasis. PLoS ONE, 2015, 10, e0125792.	1.1	73
14	Men and Women in Space: Bone Loss and Kidney Stone Risk After Long-Duration Spaceflight. Journal of Bone and Mineral Research, 2014, 29, 1639-1645.	3.1	72
15	Increased core body temperature in astronauts during long-duration space missions. Scientific Reports, 2017, 7, 16180.	1.6	68
16	Space Food for Thought: Challenges and Considerations for Food and Nutrition on Exploration Missions. Journal of Nutrition, 2020, 150, 2242-2244.	1.3	62
17	Long-Duration Space Flight and Bed Rest Effects on Testosterone and Other Steroids. Journal of Clinical Endocrinology and Metabolism, 2012, 97, 270-278.	1.8	61
18	Space Flight Calcium: Implications for Astronaut Health, Spacecraft Operations, and Earth. Nutrients, 2012, 4, 2047-2068.	1.7	59

#	Article	IF	Citations
19	Response to Vitamin D Supplementation during Antarctic Winter Is Related to BMI, and Supplementation Can Mitigate Epstein-Barr Virus Reactivation1â€“3. Journal of Nutrition, 2011, 141, 692-697.	1.3	58
20	Nutritional Status Assessment Before, During, and After Long-Duration Head-Down Bed Rest. Aviation, Space, and Environmental Medicine, 2009, 80, A15-A22.	0.6	55
21	Effects of shortâ€term mild hypercapnia during headâ€down tilt on intracranial pressure and ocular structures in healthy human subjects. Physiological Reports, 2017, 5, e13302.	0.7	55
22	Bone metabolism and nutritional status during 30-day head-down-tilt bed rest. Journal of Applied Physiology, 2012, 113, 1519-1529.	1.2	54
23	Genotype, Bâ€vitamin status, and androgens affect spaceflightâ€induced ophthalmic changes. FASEB Journal, 2016, 30, 141-148.	0.2	52
24	Telomere Length Dynamics and DNA Damage Responses Associated with Long-Duration Spaceflight. Cell Reports, 2020, 33, 108457.	2.9	48
25	Nutritional Status Is Altered in the Self-Neglecting Elderly. Journal of Nutrition, 2006, 136, 2534-2541.	1.3	42
26	Temporal Telomere and DNA Damage Responses in the Space Radiation Environment. Cell Reports, 2020, 33, 108435.	2.9	40
27	Astronaut ophthalmic syndrome. FASEB Journal, 2017, 31, 3746-3756.	0.2	39
28	Vitamin K status in spaceflight and ground-based models of spaceflight. Journal of Bone and Mineral Research, 2011, 26, 948-954.	3.1	38
29	Multi-omic, Single-Cell, and Biochemical Profiles of Astronauts Guide Pharmacological Strategies for Returning to Gravity. Cell Reports, 2020, 33, 108429.	2.9	37
30	Pre-flight exercise and bone metabolism predict unloading-induced bone loss due to spaceflight. British Journal of Sports Medicine, 2022, 56, 196-203.	3.1	37
31	Arterial structure and function during and after long-duration spaceflight. Journal of Applied Physiology, 2020, 129, 108-123.	1.2	36
32	Countermeasures-based Improvements in Stress, Immune System Dysregulation and Latent Herpesvirus Reactivation onboard the International Space Station â€“ Relevance for Deep Space Missions and Terrestrial Medicine. Neuroscience and Biobehavioral Reviews, 2020, 115, 68-76.	2.9	36
33	Nutritional Status Changes in Humans during a 14-Day Saturation Dive: The NASA Extreme Environment Mission Operations V Project. Journal of Nutrition, 2004, 134, 1765-1771.	1.3	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. JAMA Ophthalmology, 2019, 137, 1195.	1.4	32
35	Body Mass Changes During Long-Duration Spaceflight. Aviation, Space, and Environmental Medicine, 2014, 85, 897-904.	0.6	30
36	Spaceflight-related ocular changes. Current Opinion in Clinical Nutrition and Metabolic Care, 2018, 21, 481-488.	1.3	29

#	Article	IF	Citations
37	Specific Immunologic Countermeasure Protocol for Deep-Space Exploration Missions. Frontiers in Immunology, 2019, 10, 2407.	2.2	29
38	Stability of analytes related to clinical chemistry and bone metabolism in blood specimens after delayed processing. Clinical Biochemistry, 2009, 42, 907-910.	0.8	28
39	Nutrition issues for space exploration. Acta Astronautica, 2008, 63, 609-613.	1.7	18
40	Body Iron Stores and Oxidative Damage in Humans Increased during and after a 10- to 12-Day Undersea Dive. Journal of Nutrition, 2009, 139, 90-95.	1.3	17
41	Sexâ€specific responses of bone metabolism and renal stone risk during bed rest. Physiological Reports, 2014, 2, e12119.	0.7	17
42	Beyond Low-Earth Orbit: Characterizing Immune and microRNA Differentials following Simulated Deep Spaceflight Conditions in Mice. IScience, 2020, 23, 101747.	1.9	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. Neuroscience and Biobehavioral Reviews, 2021, 127, 307-331.	2.9	17
44	Saturation Diving Alters Folate Status and Biomarkers of DNA Damage and Repair. PLoS ONE, 2012, 7, e31058.	1.1	17
45	Effects of high-protein intake on bone turnover in long-term bed rest in women. Applied Physiology, Nutrition and Metabolism, 2017, 42, 537-546.	0.9	16
46	Meal replacement in isolated and confined mission environments: Consumption, acceptability, and implications for physical and behavioral health. Physiology and Behavior, 2020, 219, 112829.	1.0	16
47	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, 1486-1498.	0.2	14
48	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.	1.9	14
49	Incomplete recovery of bone strength and trabecular microarchitecture at the distal tibia 1Âyear after return from long duration spaceflight. Scientific Reports, 2022, 12, .	1.6	14
50	Dermatitis during Spaceflight Associated with HSV-1 Reactivation. Viruses, 2022, 14, 789.	1.5	12
51	Vitamin D and COVID-19: Lessons from Spaceflight Analogs. Journal of Nutrition, 2020, 150, 2624-2627.	1.3	11
52	Ophthalmic changes in a spaceflight analog are associated with brain functional reorganization. Human Brain Mapping, 2021, 42, 4281-4297.	1.9	10
53	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.	0.5	9
54	Antioxidant Supplementation Does Not Affect Bone Turnover Markers During 60 Days of 6Â° Head-Down Tilt Bed Rest: Results from an Exploratory Randomized Controlled Trial. Journal of Nutrition, 2021, 151, 1527-1538.	1.3	9

#	Article	IF	Citations
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.	1.2	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.	1.2	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.	1.3	7
59	Spaceflight Metabolism and Nutritional Support. , 2019, , 413-439.		7
60	Magnesium and Space Flight. Nutrients, 2015, 7, 10209-10222.	1.7	5
61	Response to Vitamin D Intake: From the Antarctic to the Institute of Medicine1,2. Journal of Nutrition, 2011, 141, 985-986.	1.3	4
62	Nutritional Countermeasures for Spaceflight-Related Stress. , 2020, , 593-616.		4
63	Nutrition as Fuel for Human Spaceflight. Physiology, 2021, 36, 324-330.	1.6	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.	1.2	0