Michael D Delp

List of Publications by Citations

100 papers	5,341 citations	39 h-index	71 g-index
104 ext. papers	5,723 ext. citations	3.5 avg, IF	5.41 L-index

#	Paper	IF	Citations
100	Physiological parameter values for physiologically based pharmacokinetic models. *Toxicology and Industrial Health*, **1997**, 13, 407-84	1.8	1062
99	Aging impairs endothelium-dependent vasodilation in rat skeletal muscle arterioles. *American Journal of Physiology - Heart and Circulatory Physiology*, **2002**, 283, H1662-72	5.2	180
98	Effects of ageing and exercise training on endothelium-dependent vasodilatation and structure of rat skeletal muscle arterioles. *Journal of Physiology*, **2004**, 556, 947-58	3.9	159
97	Alterations in skeletal perfusion with simulated microgravity: a possible mechanism for bone remodeling. *Journal of Applied Physiology*, **2000**, 89, 1046-54	3.7	154
96	Regional variations of contractile activity in isolated rat lymphatics. *Microcirculation*, **2004**, 11, 477-92	2.9	145
95	Time course of enhanced endothelium-mediated dilation in aorta of trained rats. *Medicine and Science in Sports and Exercise*, **1997**, 29, 1454-61	1.2	132
94	Effects of aging on cardiac output, regional blood flow, and body composition in Fischer-344 rats. *Journal of Applied Physiology*, **1998**, 85, 1813-22	3.7	123
93	Aging reduces skeletal blood flow, endothelium-dependent vasodilation, and NO bioavailability in rats. *Journal of Bone and Mineral Research*, **2007**, 22, 1280-8	6.3	121
92	Effects of ageing and exercise training on eNOS uncoupling in skeletal muscle resistance arterioles. *Journal of Physiology*, **2009**, 587, 3885-97	3.9	117
91	Structural and functional remodeling of skeletal muscle microvasculature is induced by simulated microgravity. *American Journal of Physiology - Heart and Circulatory Physiology*, **2000**, 278, H1866-73	5.2	114
90	Ageing diminishes endothelium-dependent vasodilatation and tetrahydrobiopterin content in rat skeletal muscle arterioles. *Journal of Physiology*, **2008**, 586, 1161-8	3.9	113
89	Exercise increases blood flow to locomotor, vestibular, cardiorespiratory and visual regions of the brain in miniature swine. *Journal of Physiology*, **2001**, 533, 849-59	3.9	106
88	Apollo Lunar Astronauts Show Higher Cardiovascular Disease Mortality: Possible Deep Space Radiation Effects on the Vascular Endothelium. *Scientific Reports*, **2016**, 6, 29901	4.9	98
87	Effects of aging on vasoconstrictor and mechanical properties of rat skeletal muscle arterioles. *American Journal of Physiology - Heart and Circulatory Physiology*, **2002**, 282, H1843-54	5.2	94
86	Myogenic and vasoconstrictor responsiveness of skeletal muscle arterioles is diminished by hindlimb unloading. *Journal of Applied Physiology*, **1999**, 86, 1178-84	3.7	85
85	Effects of aging on microvascular oxygen pressures in rat skeletal muscle. *Respiratory Physiology and Neurobiology*, **2005**, 146, 259-68	2.8	81
84	Effects of hindlimb unloading on rat cerebral, splenic, and mesenteric resistance artery morphology. *Journal of Applied Physiology*, **1999**, 87, 2115-21	3.7	80

83	Time course of vasodilatory responses in skeletal muscle arterioles: role in hyperemia at onset of exercise. *American Journal of Physiology - Heart and Circulatory Physiology*, **2000**, 279, H1715-23	5.2	77
82	Simulated microgravity enhances cerebral artery vasoconstriction and vascular resistance through endothelial nitric oxide mechanism. *American Journal of Physiology - Heart and Circulatory Physiology*, **2005**, 288, H1652-61	5.2	75
81	Changes in skeletal muscle biochemistry and histology relative to fiber type in rats with heart failure. *Journal of Applied Physiology*, **1997**, 83, 1291-9	3.7	74
80	Spaceflight-induced alterations in cerebral artery vasoconstrictor, mechanical, and structural properties: implications for elevated cerebral perfusion and intracranial pressure. *FASEB Journal*, **2013**, 27, 2282-92	0.9	72
79	Ageing and exercise training alter adrenergic vasomotor responses of rat skeletal muscle arterioles. *Journal of Physiology*, **2007**, 579, 115-25	3.9	69
78	Aging blunts the dynamics of vasodilation in isolated skeletal muscle resistance vessels. *Journal of Applied Physiology*, **2010**, 108, 14-20	3.7	65
77	Altered bone mass, geometry and mechanical properties during the development and progression of type 2 diabetes in the Zucker diabetic fatty rat. *Journal of Endocrinology*, **2008**, 199, 379-88	4.7	62
76	Integrative control of the skeletal muscle microcirculation in the maintenance of arterial pressure during exercise. *Journal of Applied Physiology*, **2004**, 97, 1112-8	3.7	62
75	The effects of aging and exercise training on endothelin-1 vasoconstrictor responses in rat skeletal muscle arterioles. *Cardiovascular Research*, **2005**, 66, 393-401	9.9	62
74	Morphological changes during fiber type transitions in low-frequency-stimulated rat fast-twitch muscle. *Cell and Tissue Research*, **1994**, 277, 363-71	4.2	62
73	Exercise training enhances flow-induced vasodilation in skeletal muscle resistance arteries of aged rats: role of PGI2 and nitric oxide. *American Journal of Physiology - Heart and Circulatory Physiology*, **2007**, 292, H3119-27	5.2	60
72	Effects of exercise training on endothelium-dependent peripheral vascular responsiveness. *Medicine and Science in Sports and Exercise*, **1995**, 27, 1152???1157	1.2	58
71	Differential effects of training on the control of skeletal muscle perfusion. *Medicine and Science in Sports and Exercise*, **1998**, 30, 361-74	1.2	58
70	Decreases in bone blood flow and bone material properties in aging Fischer-344 rats. *Clinical Orthopaedics and Related Research*, **2002**, 248-57	2.2	57
69	Effects of fiber composition and hindlimb unloading on the vasodilator properties of skeletal muscle arterioles. *Journal of Applied Physiology*, **2000**, 89, 398-405	3.7	54
68	Control of skeletal muscle perfusion at the onset of dynamic exercise. *Medicine and Science in Sports and Exercise*, **1999**, 31, 1011-8	1.2	54
67	Decreased NO signaling leads to enhanced vasoconstrictor responsiveness in skeletal muscle arterioles of the ZDF rat prior to overt diabetes and hypertension. *American Journal of Physiology - Heart and Circulatory Physiology*, **2008**, 294, H1840-50	5.2	53
66	Hindlimb unloading induces a collagen isoform shift in the soleus muscle of the rat. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2001**, 281, R1710-7	3.2	46

65	Increased nitric oxide-mediated vasodilation of bone resistance arteries is associated with increased trabecular bone volume after endurance training in rats. *Bone*, **2010**, 46, 813-9	4.7	44
64	Age and exercise training alter signaling through reactive oxygen species in the endothelium of skeletal muscle arterioles. *Journal of Applied Physiology*, **2013**, 114, 681-93	3.7	41
63	Inhibition of active lymph pump by simulated microgravity in rats. *American Journal of Physiology - Heart and Circulatory Physiology*, **2006**, 290, H2295-308	5.2	40
62	Exercise training enhances vasodilation responses to vascular endothelial growth factor in porcine coronary arterioles exposed to chronic coronary occlusion. *Circulation*, **2004**, 109, 664-70	16.7	39
61	Effects of acute and chronic exercise on vasoconstrictor responsiveness of rat abdominal aorta. *Journal of Applied Physiology*, **1999**, 87, 1752-7	3.7	36
60	Structural remodeling of coronary resistance arteries: effects of age and exercise training. *Journal of Applied Physiology*, **2014**, 117, 616-23	3.7	34
59	Influence of ageing and physical activity on vascular morphology in rat skeletal muscle. *Journal of Physiology*, **2006**, 575, 617-26	3.9	34
58	Myocardial heat shock protein 70 expression in young and old rats after identical exercise programs. *Journals of Gerontology - Series A Biological Sciences and Medical Sciences*, **2005**, 60, 963-9	6.4	34
57	Type 2 diabetes alters bone and marrow blood flow and vascular control mechanisms in the ZDF rat. *Journal of Endocrinology*, **2015**, 225, 47-58	4.7	33
56	Effects of spaceflight and ground recovery on mesenteric artery and vein constrictor properties in mice. *FASEB Journal*, **2013**, 27, 399-409	0.9	33
55	Age, gender, and hormonal status modulate the vascular toxicity of the diesel exhaust extract phenanthraquinone. *Journal of Toxicology and Environmental Health - Part A: Current Issues*, **2008**, 71, 464-70	3.2	33
54	Aging potentiates the effect of congestive heart failure on muscle microvascular oxygenation. *Journal of Applied Physiology*, **2007**, 103, 1757-63	3.7	33
53	Chronic ethanol increases fetal cerebral blood flow specific to the ethanol-sensitive cerebellum under normoxaemic, hypercapnic and acidaemic conditions: ovine model. *Experimental Physiology*, **2007**, 92, 933-43	2.4	32
52	Acute and chronic head-down tail suspension diminishes cerebral perfusion in rats. *American Journal of Physiology - Heart and Circulatory Physiology*, **2002**, 282, H328-34	5.2	32
51	Effects of aging and exercise training on skeletal muscle blood flow and resistance artery morphology. *Journal of Applied Physiology*, **2012**, 113, 1699-708	3.7	31
50	Spaceflight on the Bion-M1 biosatellite alters cerebral artery vasomotor and mechanical properties in mice. *Journal of Applied Physiology*, **2015**, 118, 830-8	3.7	30
49	Adrenergic control of vascular resistance varies in muscles composed of different fiber types: influence of the vascular endothelium. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2011**, 301, R783-90	3.2	30
48	Aging and estrogen status: a possible endothelium-dependent vascular coupling mechanism in bone remodeling. *PLoS ONE*, **2012**, 7, e48564	3.7	29

47	Effect of concentric and eccentric muscle actions on muscle sympathetic nerve activity. *Journal of Applied Physiology*, **1999**, 86, 558-63	3.7	28
46	Thyroid status and exercise tolerance. Cardiovascular and metabolic considerations. *Sports Medicine*, **1995**, 20, 189-98	10.6	28
45	Impact of Spaceflight and Artificial Gravity on the Mouse Retina: Biochemical and Proteomic Analysis. *International Journal of Molecular Sciences*, **2018**, 19,	6.3	28
44	Chronic skeletal unloading of the rat femur: mechanisms and functional consequences of vascular remodeling. *Bone*, **2013**, 57, 355-60	4.7	27
43	Effect of short-term microgravity and long-term hindlimb unloading on rat cardiac mass and function. *Journal of Applied Physiology*, **2001**, 91, 1207-13	3.7	26
42	Spaceflight reduces vasoconstrictor responsiveness of skeletal muscle resistance arteries in mice. *Journal of Applied Physiology*, **2012**, 113, 1439-45	3.7	25
41	Endothelium-dependent vasodilation of cerebral arteries is altered with simulated microgravity through nitric oxide synthase and EDHF mechanisms. *Journal of Applied Physiology*, **2006**, 101, 348-53	3.7	25
40	Fiber composition and oxidative capacity of hamster skeletal muscle. *Journal of Histochemistry and Cytochemistry*, **2002**, 50, 1685-92	3.4	25
39	Effects of arterial hypotension on microvascular oxygen exchange in contracting skeletal muscle. *Journal of Applied Physiology*, **2006**, 100, 1019-26	3.7	24
38	Exercise training reverses age-induced diastolic dysfunction and restores coronary microvascular function. *Journal of Physiology*, **2017**, 595, 3703-3719	3.9	23
37	Effects of hindlimb unweighting on the mechanical and structure properties of the rat abdominal aorta. *Journal of Applied Physiology*, **2003**, 94, 439-45	3.7	23
36	Simulated microgravity alters rat mesenteric artery vasoconstrictor dynamics through an intracellular Ca(2+) release mechanism. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2008**, 294, R1577-85	3.2	21
35	Ocular and regional cerebral blood flow in aging Fischer-344 rats. *Journal of Applied Physiology*, **1998**, 85, 1024-9	3.7	20
34	Effects of aging, TNF-□and exercise training on angiotensin II-induced vasoconstriction of rat skeletal muscle arterioles. *Journal of Applied Physiology*, **2012**, 113, 1091-100	3.7	19
33	Diminished mesenteric vaso- and venoconstriction and elevated plasma ANP and BNP with simulated microgravity. *Journal of Applied Physiology*, **2008**, 104, 1273-80	3.7	19
32	Effects of High-LET Radiation Exposure and Hindlimb Unloading on Skeletal Muscle Resistance Artery Vasomotor Properties and Cancellous Bone Microarchitecture in Mice. *Radiation Research*, **2016**, 185, 257-66	3.1	18
31	Effects of skeletal unloading on the vasomotor properties of the rat femur principal nutrient artery. *Journal of Applied Physiology*, **2015**, 118, 980-8	3.7	18
30	Spaceflight induces oxidative damage to blood-brain barrier integrity in a mouse model. *FASEB Journal*, **2020**, 34, 15516-15530	0.9	18

29	Effects of spaceflight on the murine mandible: Possible factors mediating skeletal changes in non-weight bearing bones of the head. *Bone*, **2016**, 83, 156-161	4.7	17
28	Exercise training augments regional bone and marrow blood flow during exercise. *Medicine and Science in Sports and Exercise*, **2014**, 46, 2107-12	1.2	17
27	Unraveling the complex web of impaired wound healing with mechanical unloading and physical deconditioning. *Journal of Applied Physiology*, **2008**, 104, 1262-3	3.7	17
26	Spaceflight influences gene expression, photoreceptor integrity, and oxidative stress-related damage in the murine retina. *Scientific Reports*, **2019**, 9, 13304	4.9	16
25	Exercise training reverses aging-induced impairment of myogenic constriction in skeletal muscle arterioles. *Journal of Applied Physiology*, **2015**, 118, 904-11	3.7	16
24	Effects of hindlimb unloading and ionizing radiation on skeletal muscle resistance artery vasodilation and its relation to cancellous bone in mice. *Journal of Applied Physiology*, **2016**, 120, 97-106	3.7	15
23	Differential effects of aging and exercise on intra-abdominal adipose arteriolar function and blood flow regulation. *Journal of Applied Physiology*, **2013**, 114, 808-15	3.7	14
22	Effects of aging on adipose resistance artery vasoconstriction: possible implications for orthostatic blood pressure regulation. *Journal of Applied Physiology*, **2007**, 103, 1636-43	3.7	14
21	Arterial adaptations in microgravity contribute to orthostatic tolerance. *Journal of Applied Physiology*, **2007**, 102, 836	3.7	13
20	Rat hindlimb muscle blood flow during level and downhill locomotion. *Journal of Applied Physiology* , **1999**, 86, 564-8	3.7	13
19	The functional and structural changes in the basilar artery due to overpressure blast injury. *Journal of Cerebral Blood Flow and Metabolism*, **2015**, 35, 1950-6	7.3	12
18	Neuropilin-1 is essential for enhanced VEGF(165)-mediated vasodilatation in collateral-dependent coronary arterioles of exercise-trained pigs. *Journal of Vascular Research*, **2009**, 46, 152-61	1.9	11
17	Effects of age and exercise training on coronary microvascular smooth muscle phenotype and function. *Journal of Applied Physiology*, **2018**, 124, 140-149	3.7	10
16	The effects of aging on the functional and structural properties of the rat basilar artery. *Physiological Reports*, **2014**, 2, e12031	2.6	10
15	The G protein-coupled estrogen receptor agonist, G-1, attenuates BK channel activation in cerebral arterial smooth muscle cells. *Pharmacology Research and Perspectives*, **2018**, 6, e00409	3.1	8
14	A comparison of methods used to determine &OV0312;o2 of exercising humans and animals. *Medicine and Science in Sports and Exercise*, **1989**, 21, 480???486	1.2	5
13	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	1.6	3
12	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	6.7	3

List of Publications

11	Spaceflight and hind limb unloading induces an arthritic phenotype in knee articular cartilage and menisci of rodents. *Scientific Reports*, **2021**, 11, 10469	4.9	3
10	Simulated Microgravity Induces Regionally Distinct Neurovascular and Structural Remodeling of Skeletal Muscle and Cutaneous Arteries in the Rat. *Frontiers in Physiology*, **2020**, 11, 675	4.6	2
9	Aerobic exercise training reduces cardiac function and coronary flow-induced vasodilation in mice lacking adiponectin. *American Journal of Physiology - Heart and Circulatory Physiology*, **2021**, 321, H1-H14	5.2	2
8	Reply to Zhang. *Journal of Applied Physiology*, **2015**, 119, 1244	3.7	1
7	Altered rodent gait characteristics after ~35 days in orbit aboard the International Space Station. *Life Sciences in Space Research*, **2020**, 24, 9-17	2.4	1
6	MECHANISM OF ANGIOTENSIN II VASOREACTIVITY IN RAT SOLEUS MUSCLE ARTERIOLES: EFFECTS OF AGING AND EXERCISE TRAINING. *FASEB Journal*, **2006**, 20, A285	0.9	
5	Aging Diminishes Adrenergic Vasoconstriction in Adipose Tissue Resistance Arteries. *FASEB Journal* , **2007**, 21, A481	0.9	
4	Aging alters regional vascular conductance and arterial pressure during orthostatic stress.. *FASEB Journal*, **2007**, 21, A486	0.9	
3	Exercise-induced increases in trabecular bone volume are associated with increased nitric oxide-mediated vasodilation in osseous vasculature of young and old rats. *FASEB Journal*, **2009**, 23, 955.21	0.9	
2	Aerobic exercise affects body weight differently in young and old rats. *FASEB Journal*, **2012**, 26, lb731	0.9	
1	Endurance exercise training enhances regional femoral and tibial bone blood flow during exercise. *FASEB Journal*, **2012**, 26, 1142.47	0.9	