David J Marcinek

List of Publications by Year
in descending order

73 papers	4,366 citations	117625 34 h-index	110387 64 g-index
95 all docs	95 docs citations	95 times ranked	6552 citing authors

#	Article	IF	Citations
1	Mitochondrial Oxidative Stress Mediates Angiotensin IIâ€“Induced Cardiac Hypertrophy and GÎ±q Overexpressionâ€“Induced Heart Failure. Circulation Research, 2011, 108, 837-846.	4.5	450
2	Mice with Mitochondrial Complex I Deficiency Develop a Fatal Encephalomyopathy. Cell Metabolism, 2008, 7, 312-320.	16.2	357
3	Mitochondrial oxidative stress in aging and healthspan. Longevity & Healthspan, 2014, 3, 6.	6.7	354
4	Ageâ€dependent cardiomyopathy in mitochondrial mutator mice is attenuated by overexpression of catalase targeted to mitochondria. Aging Cell, 2010, 9, 536-544.	6.7	242
5	NAD ⁺ repletion improves muscle function in muscular dystrophy and counters global PARylation. Science Translational Medicine, 2016, 8, 361ra139.	12.4	208
6	Mild mitochondrial uncoupling impacts cellular aging in human muscles in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 1057-1062.	7.1	191
7	Mitochondrial protein interactome elucidated by chemical cross-linking mass spectrometry. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1732-1737.	7.1	165
8	Mitochondrial-targeted peptide rapidly improves mitochondrial energetics and skeletal muscle performance in aged mice. Aging Cell, 2013, 12, 763-771.	6.7	146
9	Reduced mitochondrial couplingin vivoalters cellular energetics in aged mouse skeletal muscle. Journal of Physiology, 2005, 569, 467-473.	2.9	104
10	Defects in mitochondrial localization and ATP synthesis in the mdx mouse model of Duchenne muscular dystrophy are not alleviated by PDE5 inhibition. Human Molecular Genetics, 2013, 22, 153-167.	2.9	101
11	Improving mitochondrial function with SS-31 reverses age-related redox stress and improves exercise tolerance in aged mice. Free Radical Biology and Medicine, 2019, 134, 268-281.	2.9	101
12	Mitochondrial dysfunction and age. Current Opinion in Clinical Nutrition and Metabolic Care, 2007, 10, 688-692.	2.5	94
13	Mitochondrial protein interaction landscape of SS-31. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 15363-15373.	7.1	88
14	The mitochondrial-targeted peptide, SS-31, improves glomerular architecture in mice of advanced age. Kidney International, 2017, 91, 1126-1145.	5.2	85
15	Depth and muscle temperature of Pacific bluefin tuna examined with acoustic and pop-up satellite archival tags. Marine Biology, 2001, 138, 869-885.	1.5	84
16	Mitochondrial function, fibre types and ageing: new insights from human musclein vivo. Experimental Physiology, 2007, 92, 333-339.	2.0	75
17	Mitochondrial coupling in vivo in mouse skeletal muscle. American Journal of Physiology - Cell Physiology, 2004, 286, C457-C463.	4.6	74
18	Respiratory chain protein turnover rates in mice are highly heterogeneous but strikingly conserved across tissues, ages, and treatments. FASEB Journal, 2015, 29, 3582-3592.	0.5	69

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19	Fatiguing contractions increase protein S-glutathionylation occupancy in mouse skeletal muscle. Redox Biology, 2018, 17, 367-376.	9.0	68
20	Late-life restoration of mitochondrial function reverses cardiac dysfunction in old mice. ELife, 2020, 9, .	6.0	68
21	Oxygen regulation and limitation to cellular respiration in mouse skeletal muscle in vivo. American Journal of Physiology - Heart and Circulatory Physiology, 2003, 285, H1900-H1908.	3.2	62
22	Age modifies respiratory complex I and protein homeostasis in a muscle typeâ€specific manner. Aging Cell, 2016, 15, 89-99.	6.7	62
23	Lactic acidosis in vivo: testing the link between lactate generation and H⁺ accumulation in ischemic mouse muscle. Journal of Applied Physiology, 2010, 108, 1479-1486.	2.5	61
24	Effect of Urolithin A Supplementation on Muscle Endurance and Mitochondrial Health in Older Adults. JAMA Network Open, 2022, 5, e2144279.	5.9	61
25	Mitochondrial Dysfunction. Exercise and Sport Sciences Reviews, 2007, 35, 43-49.	3.0	57
26	Chronic low-level exposure to the common seafood toxin domoic acid causes cognitive deficits in mice. Harmful Algae, 2017, 64, 20-29.	4.8	57
27	Reduction of elevated proton leak rejuvenates mitochondria in the aged cardiomyocyte. ELife, 2020, 9, .	6.0	54
28	Mitochondrial function in vivo: Spectroscopy provides window on cellular energetics. Methods, 2008, 46, 312-318.	3.8	52
29	Wavelength Shift Analysis: A Simple Method to Determine the Contribution of Hemoglobin and Myoglobin to In Vivo Optical Spectra. Applied Spectroscopy, 2007, 61, 665-669.	2.2	48
30	The Measurement of Reversible Redox Dependent Post-translational Modifications and Their Regulation of Mitochondrial and Skeletal Muscle Function. Frontiers in Physiology, 2015, 6, 347.	2.8	46
31	Acute and chronic dietary exposure to domoic acid in recreational harvesters: A survey of shellfish consumption behavior. Environment International, 2017, 101, 70-79.	10.0	44
32	Reduced Coupling of Oxidative Phosphorylation In Vivo Precedes Electron Transport Chain Defects Due to Mild Oxidative Stress in Mice. PLoS ONE, 2011, 6, e26963.	2.5	39
33	SSâ€31 and NMN: Two paths to improve metabolism and function in aged hearts. Aging Cell, 2020, 19, e13213.	6.7	38
34	Effect of contaminants of emerging concern on liver mitochondrial function in Chinook salmon. Aquatic Toxicology, 2017, 190, 21-31.	4.0	36
35	A Novel Antibody-Based Biomarker for Chronic Algal Toxin Exposure and Sub-Acute Neurotoxicity. PLoS ONE, 2012, 7, e36213.	2.5	35
36	Chronic low-level domoic acid exposure alters gene transcription and impairs mitochondrial function in the CNS. Aquatic Toxicology, 2014, 155, 151-159.	4.0	35

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37	Nitric Oxide Regulates Skeletal Muscle Fatigue, Fiber Type, Microtubule Organization, and Mitochondrial ATP Synthesis Efficiency Through cGMP-Dependent Mechanisms. Antioxidants and Redox Signaling, 2017, 26, 966-985.	5.4	33
38	Building strength, endurance, and mobility using an astaxanthin formulation with functional training in elderly. Journal of Cachexia, Sarcopenia and Muscle, 2018, 9, 826-833.	7.3	30
39	Mitochondrial dysfunction measured in vivo. Acta Physiologica Scandinavica, 2004, 182, 343-352.	2.2	29
40	Domoic acid in California sea lion fetal fluids indicates continuous exposure to a neuroteratogen poses risks to mammals. Harmful Algae, 2018, 79, 53-57.	4.8	29
41	Impaired adaptability of in vivo mitochondrial energetics to acute oxidative insult in aged skeletal muscle. Mechanisms of Ageing and Development, 2012, 133, 620-628.	4.6	28
42	Higher Mitochondrial Respiration and Uncoupling with Reduced Electron Transport Chain Contentin Vivoin Muscle of Sedentary Versus Active Subjects. Journal of Clinical Endocrinology and Metabolism, 2013, 98, 129-136.	3.6	28
43	Cyclophosphamide leads to persistent deficits in physical performance and in vivo mitochondria function in a mouse model of chemotherapy late effects. PLoS ONE, 2017, 12, e0181086.	2.5	27
44	Evaluation of in vivo mitochondrial bioenergetics in skeletal muscle using NMR and optical methods. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2016, 1862, 716-724.	3.8	21
45	In vivo mitochondrial ATP production is improved in older adult skeletal muscle after a single dose of elamipretide in a randomized trial. PLoS ONE, 2021, 16, e0253849.	2.5	21
46	A replication-linked mutational gradient drives somatic mutation accumulation and influences germline polymorphisms and genome composition in mitochondrial DNA. Nucleic Acids Research, 2021, 49, 11103-11118.	14.5	20
47	Olfactory Transcriptional Analysis of Salmon Exposed to Mixtures of Chlorpyrifos and Malathion Reveal Novel Molecular Pathways of Neurobehavioral Injury. Toxicological Sciences, 2016, 149, 145-157.	3.1	19
48	Effect of omega-3 fatty acid oxidation products on the cellular and mitochondrial toxicity of BDE 47. Toxicology in Vitro, 2015, 29, 672-680.	2.4	17
49	Elamipretide (SS-31) treatment attenuates age-associated post-translational modifications of heart proteins. GeroScience, 2021, 43, 2395-2412.	4.6	17
50	Movements and Temperature Preferences of Atlantic Bluefin Tuna (Thunnus thynnus) off North Carolina: A Comparison of Acoustic, Archival and Pop-Up Satellite Tags. Reviews: Methods and Technologies in Fish Biology and Fisheries, 2001, , 89-108.	0.6	14
51	Skeletal muscle bioenergetics in aging and heart failure. Heart Failure Reviews, 2017, 22, 167-178.	3.9	14
52	Targeting redox biology to reverse mitochondrial dysfunction. Aging, 2013, 5, 588-589.	3.1	13
53	Discovery of a Potential Human Serum Biomarker for Chronic Seafood Toxin Exposure Using an SPR Biosensor. Toxins, 2019, 11, 293.	3.4	11
54	High intensity muscle stimulation activates a systemic Nrf2-mediated redox stress response. Free Radical Biology and Medicine, 2021, 172, 82-89.	2.9	10

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55	Ice seals as sentinels for algal toxin presence in the Pacific Arctic and subarctic marine ecosystems. Marine Mammal Science, 2021, 37, 1292-1308.	1.8	9
56	Astaxanthin supplementation enhances metabolic adaptation with aerobic training in the elderly. Physiological Reports, 2021, 9, e14887.	1.7	9
57	Repeated low level domoic acid exposure increases CA1 VGluT1 levels, but not bouton density, VGluT2 or VGAT levels in the hippocampus of adult mice. Harmful Algae, 2018, 79, 74-86.	4.8	6
58	Are fat and sugar just as detrimental in old age?. GeroScience, 2021, 43, 1615-1625.	4.6	6
59	Basal glycogenolysis in mouse skeletal muscle: in vitro model predicts in vivo fluxes. Molecular Biology Reports, 2002, 29, 135-139.	2.3	5
60	Noninvasive In Vivo Small Animal MRI and MRS: Basic Experimental Procedures. Journal of Visualized Experiments, 2009, , .	0.3	5
61	In Vivo Metabolic Spectroscopy Identifies Deficits in Mitochondrial Quality and Capacity in Aging Skeletal Muscle. Clinical Pharmacology and Therapeutics, 2014, 96, 669-671.	4.7	5
62	An Analysis of Metabolic Changes in the Retina and Retinal Pigment Epithelium of Aging Mice. , 2021, 62, 20.		5
63	Functional recovery from eccentric injury is maintained in sarcopenic mouse muscle. JCSM Rapid Communications, 2021, 4, 222-231.	1.6	4
64	Fatiguing Contractions Induce Acute Redox Signaling in Mouse Muscle. Free Radical Biology and Medicine, 2017, 112, 191-192.	2.9	3
65	Comparative Skeletal Muscle Aging. , 2010, , 287-317.		3
66	Increased tumour burden alters skeletal muscle properties in the KPC mouse model of pancreatic cancer. JCSM Rapid Communications, 2020, 3, 44-55.	1.6	1
67	Reduced mitochondrial efficiency: dysfunction or defence in ageing muscle?. , 2006, , 30-31.		1
68	Mitochondrial Energy Coupling (ATP/O2) In Human Muscle. Medicine and Science in Sports and Exercise, 2005, 37, S455.	0.4	0
69	Does Mitochondrial Uncoupling Generate More Mitochondria in Muscle?. FASEB Journal, 2009, 23, 600.30.	0.5	0
70	Aging increases resting oxygen consumption in typeâ€I skeletal muscle. FASEB Journal, 2009, 23, 954.10.	0.5	0
71	Oxidative stress leads to reduced coupling of oxidative phosphorylation in in vivo resting mouse skeletal muscle. FASEB Journal, 2010, 24, 1045.11.	0.5	0
72	Oxidative Stressâ€Induced Maximal Oxygen Flux and Signaling Response is Muscle Fiberâ€Type Dependent. FASEB Journal, 2011, 25, 1114.6.	0.5	0

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73	Reversal of Ageâ€Related Mitochondrial Dysfunction In Vivo by Treatment with the Mitochondrially Targeted Therapeutic SSâ€•31. FASEB Journal, 2012, 26, 1144.10.	0.5	0