Jeff F Dunn

List of Publications by Citations

101 papers	2,938 citations	30 h-index	51 g-index
109 ext. papers	3,351 ext. citations	4.8 avg, IF	4.96 L-index

#	Paper	IF	Citations
101	Physical training improves skeletal muscle metabolism in patients with chronic heart failure. *Journal of the American College of Cardiology*, **1993**, 21, 1101-6	15.1	299
100	Proliferation of human glioblastoma stem cells occurs independently of exogenous mitogens. *Stem Cells*, **2009**, 27, 1722-33	5.8	152
99	Therapeutic activation of macrophages and microglia to suppress brain tumor-initiating cells. *Nature Neuroscience*, **2014**, 17, 46-55	25.5	136
98	Iron in multiple sclerosis: roles in neurodegeneration and repair. *Nature Reviews Neurology*, **2014**, 10, 459-68	15	134
97	Macroscopic structure of articular cartilage of the tibial plateau: influence of a characteristic matrix architecture on MRI appearance. *American Journal of Roentgenology*, **2004**, 182, 311-8	5.4	109
96	Changes in oxygenation of intracranial tumors with carbogen: a BOLD MRI and EPR oximetry study. *Journal of Magnetic Resonance Imaging*, **2002**, 16, 511-21	5.6	97
95	In vitro MR imaging of hyaline cartilage: correlation with scanning electron microscopy. *American Journal of Roentgenology*, **2000**, 174, 405-9	5.4	96
94	Assessment of cerebral pO2 by EPR oximetry in rodents: effects of anesthesia, ischemia, and breathing gas. *Brain Research*, **1995**, 685, 91-8	3.7	94
93	Delayed arteriogenesis in hypercholesterolemic mice. *Circulation*, **2005**, 112, 2501-9	16.7	89
92	Use of nitroxides for assessing perfusion, oxygenation, and viability of tissues: in vivo EPR and MRI studies. *Magnetic Resonance in Medicine*, **1996**, 35, 97-106	4.4	84
91	Multiexponential T2 and magnetization transfer MRI of demyelination and remyelination in murine spinal cord. *NeuroImage*, **2009**, 45, 1173-82	7.9	83
90	Near-infrared imaging in the small animal brain: optimization of fiber positions. *Journal of Biomedical Optics*, **2003**, 8, 102-10	3.5	69
89	Partial pressure of oxygen in the human body: a general review. *American Journal of Blood Research* , **2019**, 9, 1-14	1.6	68
88	Postictal behavioural impairments are due to a severe prolonged hypoperfusion/hypoxia event that is COX-2 dependent. *ELife*, **2016**, 5,	8.9	62
87	High-resolution in vivo measurements of transverse relaxation times in rats at 7 Tesla. *Magnetic Resonance in Medicine*, **1998**, 39, 285-90	4.4	59
86	Critical oxygen tension in rat brain: a combined (31)P-NMR and EPR oximetry study. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2000**, 279, R9-R16	3.2	53
85	In vivo electron paramagnetic resonance oximetry with particulate materials. *Methods*, **2003**, 30, 159-66	4.6	51

84	Monitoring angiogenesis in brain using steady-state quantification of DeltaR2 with MION infusion. *Magnetic Resonance in Medicine*, **2004**, 51, 55-61	4.4	47
83	Noninvasive assessment of cerebral oxygenation during acclimation to hypobaric hypoxia. *Journal of Cerebral Blood Flow and Metabolism*, **2000**, 20, 1632-5	7.3	47
82	Iron Oxide as an MRI Contrast Agent for Cell Tracking. *Magnetic Resonance Insights*, **2015**, 8, 15-29	5	45
81	Effects of acute hypoxia and hyperthermia on the permeability of the blood-brain barrier in adult rats. *Journal of Applied Physiology*, **2009**, 107, 1348-56	3.7	44
80	Quantitative magnetic resonance imaging of the mdx mouse model of Duchenne muscular dystrophy. *Muscle and Nerve*, **1999**, 22, 1367-71	3.4	44
79	Automated Processing of fNIRS Data-A Visual Guide to the Pitfalls and Consequences. *Algorithms*, **2018**, 11,	1.8	37
78	A method for measuring brain partial pressure of oxygen in unanesthetized unrestrained subjects: the effect of acute and chronic hypoxia on brain tissue PO(2). *Journal of Neuroscience Methods*, **2010**, 193, 217-25	3	37
77	Magnetic-resonance-imaging-coupled broadband near-infrared tomography system for small animal brain studies. *Applied Optics*, **2005**, 44, 2177-88	1.7	34
76	Susceptibility-weighted imaging in the experimental autoimmune encephalomyelitis model of multiple sclerosis indicates elevated deoxyhemoglobin, iron deposition and demyelination. *Multiple Sclerosis Journal*, **2013**, 19, 721-31	5	33
75	Understanding disease processes in multiple sclerosis through magnetic resonance imaging studies in animal models. *NeuroImage: Clinical*, **2014**, 4, 743-56	5.3	32
74	Quantitative T2 analysis: the effects of noise, regularization, and multivoxel approaches. *Magnetic Resonance in Medicine*, **2010**, 63, 212-7	4.4	32
73	Effect of hyperventilation on brain tissue oxygenation and cerebrovenous PO2 in rats. *Brain Research*, **2000**, 868, 150-6	3.7	32
72	The apparent diffusion constant measured by MRI correlates with pO2 in a RIF-1 tumor. *Magnetic Resonance in Medicine*, **1995**, 34, 515-9	4.4	30
71	Functional near-infrared spectroscopy reveals reduced interhemispheric cortical communication after pediatric concussion. *Journal of Neurotrauma*, **2015**, 32, 833-40	5.4	28
70	Functional brain mapping at 9.4T using a new MRI-compatible electrode chronically implanted in rats. *Magnetic Resonance in Medicine*, **2009**, 61, 222-8	4.4	28
69	Comparison of EPR oximetry and Eppendorf polarographic electrode assessments of rat brain PtO2. *Physiological Measurement*, **2004**, 25, 1413-23	2.9	26
68	Reduced cortical microvascular oxygenation in multiple sclerosis: a blinded, case-controlled study using a novel quantitative near-infrared spectroscopy method. *Scientific Reports*, **2015**, 5, 16477	4.9	26
67	Blood Oxygenation. *Advances in Experimental Medicine and Biology*, **1997**, 645-650	3.6	25

66	Reduced Functional Connectivity in Adults with Persistent Post-Concussion Symptoms: A Functional Near-Infrared Spectroscopy Study. *Journal of Neurotrauma*, **2018**, 35, 1224-1232	5.4	21
65	Multiple sclerosis disease progression: Contributions from a hypoxia-inflammation cycle. *Multiple Sclerosis Journal*, **2019**, 25, 1715-1718	5	21
64	Blood-oxygen-level-dependent magnetic resonance signal and cerebral oxygenation responses to brain activation are enhanced by concurrent transient hypertension in rats. *Journal of Cerebral Blood Flow and Metabolism*, **2007**, 27, 1280-9	7.3	21
63	What does EPR oximetry with solid particles measure--and how does this relate to other measures of PO2?. *Advances in Experimental Medicine and Biology*, **1997**, 428, 663-70	3.6	21
62	Near-infrared measurements of brain oxygenation in stroke. *Neurophotonics*, **2016**, 3, 031403	3.9	20
61	Gray Matter Hypoxia in the Brain of the Experimental Autoimmune Encephalomyelitis Model of Multiple Sclerosis. *PLoS ONE*, **2016**, 11, e0167196	3.7	20
60	Bold MRI vs. NIR Spectrophotometry. *Advances in Experimental Medicine and Biology*, **1998**, 103-113	3.6	20
59	Control of brain tumor growth by reactivating myeloid cells with niacin. *Science Translational Medicine*, **2020**, 12,	17.5	17
58	Training the brain to survive stroke. *PLoS ONE*, **2012**, 7, e45108	3.7	17
57	Central nervous system targeted autoimmunity causes regional atrophy: a 9.4T MRI study of the EAE mouse model of Multiple Sclerosis. *Scientific Reports*, **2019**, 9, 8488	4.9	16
56	MR Imaging of Tumor-Associated Macrophages: The Next Frontier in Cancer Imaging. *Magnetic Resonance Insights*, **2018**, 11, 1178623X18771974	5	16
55	Cortical excitability after pediatric mild traumatic brain injury. *Brain Stimulation*, **2017**, 10, 305-314	5.1	16
54	Functional MRI response and correlated electrophysiological changes during posterior hypothalamic nucleus deep brain stimulation. *NeuroImage*, **2011**, 56, 35-44	7.9	16
53	High resolution renal diffusion imaging using a modified steady-state free precession sequence. *Magnetic Resonance in Medicine*, **1995**, 34, 586-95	4.4	16
52	Methylphenidate-mediated reduction in prefrontal hemodynamic responses to working memory task: a functional near-infrared spectroscopy study. *Human Psychopharmacology*, **2012**, 27, 615-21	2.3	15
51	Near-infrared spectroscopy shows preictal haemodynamic changes in temporal lobe epilepsy. *Epileptic Disorders*, **2012**, 14, 371-8	1.9	14
50	The functional microstructure of tendon collagen revealed by high-field MRI. *Magnetic Resonance in Medicine*, **2011**, 66, 520-7	4.4	14
49	monitoring of tissue oxygen saturation in deep brain structures using a single fiber optical system. *Biomedical Optics Express*, **2016**, 7, 4685-4694	3.5	14

48	Hypoxia and Inflammation-Induced Disruptions of the Blood-Brain and Blood-Cerebrospinal Fluid Barriers Assessed Using a Novel T1-Based MRI Method. *Acta Neurochirurgica Supplementum*, **2016**, 121, 23-8	1.7	13
47	In vivo open-bore MRI reveals region- and sub-arc-specific lengthening of the unloaded human posterior cruciate ligament. *PLoS ONE*, **2012**, 7, e48714	3.7	13
46	Integrating psychosocial care into neuro-oncology: challenges and strategies. *Frontiers in Oncology*, **2015**, 5, 41	5.3	12
45	Cerebral PtO2, acute hypoxia, and volatile anesthetics in the rat brain. *Advances in Experimental Medicine and Biology*, **2005**, 566, 179-85	3.6	12
44	Stabilization of hypoxia-inducible factor-1 in buffer containing cobalt chloride for Western blot analysis. *Analytical Biochemistry*, **2011**, 416, 120-2	3.1	11
43	MRI monitoring of monocytes to detect immune stimulating treatment response in brain tumor. *Neuro-Oncology*, **2017**, 19, 364-371	1	11
42	Repeated Pediatric Concussions Evoke Long-Term Oligodendrocyte and White Matter Microstructural Dysregulation Distant from the Injury. *Developmental Neuroscience*, **2018**, 40, 358-375	2.2	11
41	The effects of anesthesia on cerebral tissue oxygen tension: use of EPR oximetry to make repeated measurements. *Advances in Experimental Medicine and Biology*, **2003**, 530, 569-75	3.6	11
40	Assessment of the efficacy of MRI for detection of changes in bone morphology in a mouse model of bone injury. *Journal of Magnetic Resonance Imaging*, **2013**, 38, 231-7	5.6	10
39	Using magnetic resonance imaging in animal models to guide drug development in multiple sclerosis. *Multiple Sclerosis Journal*, **2014**, 20, 3-11	5	9
38	Assessment of brain oxygenation imbalance following soman exposure in rats. *NeuroToxicology*, **2018**, 65, 28-37	4.4	9
37	Detecting deoxyhemoglobin in spinal cord vasculature of the experimental autoimmune encephalomyelitis mouse model of multiple sclerosis using susceptibility MRI and hyperoxygenation. *PLoS ONE*, **2015**, 10, e0127033	3.7	8
36	Ventral medulla pHi measured in vivo by 31P NMR is not regulated during hypercapnia in anesthetized rat. *Respiratory Physiology and Neurobiology*, **2002**, 130, 139-49	2.8	8
35	Using a multimodal near-infrared spectroscopy and MRI to quantify gray matter metabolic rate for oxygen: A hypothermia validation study. *NeuroImage*, **2020**, 206, 116315	7.9	8
34	Brain tissue and sagittal sinus pO2 measurements using the lifetimes of oxygen-quenched luminescence of a ruthenium compound. *Advances in Experimental Medicine and Biology*, **2003**, 530, 101-11	3.6	8
33	Studying cerebral hemodynamics and metabolism using simultaneous near-infrared spectroscopy and transcranial Doppler ultrasound: a hyperventilation and caffeine study. *Physiological Reports*, **2015**, 3, e12378	2.6	7
32	Artifact reduction in long-term monitoring of cerebral hemodynamics using near-infrared spectroscopy. *Neurophotonics*, **2015**, 2, 025004	3.9	7
31	Detection of reduced interhemispheric cortical communication during task execution in multiple sclerosis patients using functional near-infrared spectroscopy. *Journal of Biomedical Optics*, **2014**, 19, 076008	3.5	7

30	Cerebral oxygenation in awake rats during acclimation and deacclimation to hypoxia: an in vivo electron paramagnetic resonance study. *High Altitude Medicine and Biology*, **2011**, 12, 71-7	1.9	7
29	A near-infrared calibration method suitable for quantification of broadband data in humans. *Journal of Neuroscience Methods*, **2010**, 188, 181-6	3	7
28	QuantitativeT2: interactive quantitative T2 MRI witnessed in mouse glioblastoma. *Journal of Medical Imaging*, **2015**, 2, 036002	2.6	6
27	Absorption and scattering imaging of tissue with steady-state second-differential spectral-analysis tomography. *Optics Letters*, **2004**, 29, 2043-5	3	6
26	Modeling of the response of ptO2 in rat brain to changes in physiological parameters. *Advances in Experimental Medicine and Biology*, **2005**, 566, 111-8	3.6	6
25	Using Functional Near-Infrared Spectroscopy to Study the Effect of Repetitive Transcranial Magnetic Stimulation in Concussion: A Two-Patient Case Study. *Frontiers in Neurology*, **2019**, 10, 476	4.1	5
24	Local metabolic rate during whole body vibration. *Journal of Applied Physiology*, **2013**, 114, 1421-5	3.7	5
23	Monitoring angiogenesis using a human compatible calibration for broadband near-infrared spectroscopy. *Journal of Biomedical Optics*, **2013**, 18, 16011	3.5	5
22	Fiber photometry for monitoring cerebral oxygen saturation in freely-moving rodents. *Biomedical Optics Express*, **2020**, 11, 3491-3506	3.5	5
21	Persistent enhancement of functional MRI responsiveness to sensory stimulation following repeated seizures. *Epilepsia*, **2011**, 52, 2285-92	6.4	4
20	Measuring oxygenation in vivo with MRS/MRI--from gas exchange to the cell. *Antioxidants and Redox Signaling*, **2007**, 9, 1157-68	8.4	4
19	Expanding the Potential Therapeutic Options for Remote Ischemic Preconditioning: Use in Multiple Sclerosis. *Frontiers in Neurology*, **2018**, 9, 475	4.1	3
18	Proton buffering in human skeletal muscle studied in vivo by phosphorus magnetic resonance spectroscopy. *Biochemical Society Transactions*, **1991**, 19, 207S	5.1	3
17	MR oximetry. *Methods in Molecular Biology*, **2011**, 771, 227-40	1.4	3
16	Insufficient sampling frequencies skew heart rate variability estimates: Implications for extracting heart rate metrics from neuroimaging and physiological data. *Journal of Biomedical Informatics*, **2021**, 123, 103934	10.2	2
15	A tale of two methods: combining near-infrared spectroscopy with MRI for studies of brain oxygenation and metabolism. *Advances in Experimental Medicine and Biology*, **2014**, 812, 65-71	3.6	2
14	Brain Oximetry and the Quest for Quantified Metabolic Rate: Applications Using MRI and Near-Infrared Spectroscopy. *Applied Magnetic Resonance*, **2021**, 52, 1343	0.8	2
13	The validity and reliability of an open source biosensing board to quantify heart rate variability. *Heliyon*, **2021**, 7, e07148	3.6	2

12	Cerebral blood flow and oxygenation in rat brain after soman exposure. *Toxicology Letters*, **2021**, 336, 50-56	4.4	2
11	The impact of hypoxia on blood-brain, blood-CSF, and CSF-brain barriers. *Journal of Applied Physiology*, **2021**, 131, 977-985	3.7	2
10	Abnormal Oxidative Metabolism in the Cuprizone Mouse Model of Demyelination: an in vivo NIRS-MRI Study.. *NeuroImage*, **2022**, 250, 118935	7.9	1
9	Quantification of cytochrome c oxidase and tissue oxygenation using CW-NIRS in a mouse cerebral cortex.. *Biomedical Optics Express*, **2021**, 12, 7632-7656	3.5	1
8	Quantitative T MRI is predictive of neurodegeneration following organophosphate exposure in a rat model. *Scientific Reports*, **2020**, 10, 13007	4.9	1
7	Neurovascular coupling on trial: How the number of trials completed impacts the accuracy and precision of temporally derived neurovascular coupling estimates.. *Journal of Cerebral Blood Flow and Metabolism*, **2022**, 271678X221084400	7.3	1
6	Acute Dilation of Venous Sinuses in Animal Models of Mild Traumatic Brain Injury Detected Using 9.4T MRI. *Frontiers in Neurology*, **2020**, 11, 307	4.1	0
5	Treatment of Persistent Postconcussion Syndrome With Repetitive Transcranial Magnetic Stimulation Using Functional Near-Infrared Spectroscopy as a Biomarker of Response: Protocol for a Randomized Controlled Clinical Trial.. *JMIR Research Protocols*, **2022**, 11, e31308	2	0
4	PD-1 independent of PD-L1 ligation promotes glioblastoma growth through the NFB pathway. *Science Advances*, **2021**, 7, eabh2148	14.3	0
3	Renal pH regulation in hypertension. *Biochemical Society Transactions*, **1991**, 19, 421S	5.1	
2	Steady-state MR imaging with MION for quantification of angiogenesis in normal brain and in brain tumors. *Advances in Experimental Medicine and Biology*, **2003**, 540, 221-6	3.6	
1	Susceptibility weighted imaging detects prominent veins that precede or coincide with maximal motor disability in a model of multiple sclerosis: A pilot study. *Multiple Sclerosis and Related Disorders*, **2021**, 54, 103124	4	