

# Jeff F Dunn

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	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.. <i>JMIR Research Protocols</i> , <b>2022</b> , 11, e31308	2	0
100	Abnormal Oxidative Metabolism in the Cuprizone Mouse Model of Demyelination: an in vivo NIRS-MRI Study.. <i>NeuroImage</i> , <b>2022</b> , 250, 118935	7.9	1
99	Neurovascular coupling on trial: How the number of trials completed impacts the accuracy and precision of temporally derived neurovascular coupling estimates.. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2022</b> , 271678X221084400	7.3	1
98	PD-1 independent of PD-L1 ligation promotes glioblastoma growth through the NFB pathway. <i>Science Advances</i> , <b>2021</b> , 7, eabh2148	14.3	0
97	Quantification of cytochrome c oxidase and tissue oxygenation using CW-NIRS in a mouse cerebral cortex.. <i>Biomedical Optics Express</i> , <b>2021</b> , 12, 7632-7656	3.5	1
96	Insufficient sampling frequencies skew heart rate variability estimates: Implications for extracting heart rate metrics from neuroimaging and physiological data. <i>Journal of Biomedical Informatics</i> , <b>2021</b> , 123, 103934	10.2	2
95	Brain Oximetry and the Quest for Quantified Metabolic Rate: Applications Using MRI and Near-Infrared Spectroscopy. <i>Applied Magnetic Resonance</i> , <b>2021</b> , 52, 1343	0.8	2
94	The validity and reliability of an open source biosensing board to quantify heart rate variability. <i>Heliyon</i> , <b>2021</b> , 7, e07148	3.6	2
93	Cerebral blood flow and oxygenation in rat brain after soman exposure. <i>Toxicology Letters</i> , <b>2021</b> , 336, 50-56	4.4	2
92	Susceptibility weighted imaging detects prominent veins that precede or coincide with maximal motor disability in a model of multiple sclerosis: A pilot study. <i>Multiple Sclerosis and Related Disorders</i> , <b>2021</b> , 54, 103124	4	
91	The impact of hypoxia on blood-brain, blood-CSF, and CSF-brain barriers. <i>Journal of Applied Physiology</i> , <b>2021</b> , 131, 977-985	3.7	2
90	Acute Dilation of Venous Sinuses in Animal Models of Mild Traumatic Brain Injury Detected Using 9.4T MRI. <i>Frontiers in Neurology</i> , <b>2020</b> , 11, 307	4.1	0
89	Control of brain tumor growth by reactivating myeloid cells with niacin. <i>Science Translational Medicine</i> , <b>2020</b> , 12,	17.5	17
88	Fiber photometry for monitoring cerebral oxygen saturation in freely-moving rodents. <i>Biomedical Optics Express</i> , <b>2020</b> , 11, 3491-3506	3.5	5
87	Using a multimodal near-infrared spectroscopy and MRI to quantify gray matter metabolic rate for oxygen: A hypothermia validation study. <i>NeuroImage</i> , <b>2020</b> , 206, 116315	7.9	8
86	Quantitative T MRI is predictive of neurodegeneration following organophosphate exposure in a rat model. <i>Scientific Reports</i> , <b>2020</b> , 10, 13007	4.9	1
85	Central nervous system targeted autoimmunity causes regional atrophy: a 9.4T MRI study of the EAE mouse model of Multiple Sclerosis. <i>Scientific Reports</i> , <b>2019</b> , 9, 8488	4.9	16

84	Using Functional Near-Infrared Spectroscopy to Study the Effect of Repetitive Transcranial Magnetic Stimulation in Concussion: A Two-Patient Case Study. <i>Frontiers in Neurology</i> , <b>2019</b> , 10, 476	4.1	5
83	Multiple sclerosis disease progression: Contributions from a hypoxia-inflammation cycle. <i>Multiple Sclerosis Journal</i> , <b>2019</b> , 25, 1715-1718	5	21
82	Partial pressure of oxygen in the human body: a general review. <i>American Journal of Blood Research</i> , <b>2019</b> , 9, 1-14	1.6	68
81	Reduced Functional Connectivity in Adults with Persistent Post-Concussion Symptoms: A Functional Near-Infrared Spectroscopy Study. <i>Journal of Neurotrauma</i> , <b>2018</b> , 35, 1224-1232	5.4	21
80	MR Imaging of Tumor-Associated Macrophages: The Next Frontier in Cancer Imaging. <i>Magnetic Resonance Insights</i> , <b>2018</b> , 11, 1178623X18771974	5	16
79	Expanding the Potential Therapeutic Options for Remote Ischemic Preconditioning: Use in Multiple Sclerosis. <i>Frontiers in Neurology</i> , <b>2018</b> , 9, 475	4.1	3
78	Automated Processing of fNIRS Data-A Visual Guide to the Pitfalls and Consequences. <i>Algorithms</i> , <b>2018</b> , 11,	1.8	37
77	Repeated Pediatric Concussions Evoke Long-Term Oligodendrocyte and White Matter Microstructural Dysregulation Distant from the Injury. <i>Developmental Neuroscience</i> , <b>2018</b> , 40, 358-375	2.2	11
76	Assessment of brain oxygenation imbalance following soman exposure in rats. <i>NeuroToxicology</i> , <b>2018</b> , 65, 28-37	4.4	9
75	Cortical excitability after pediatric mild traumatic brain injury. <i>Brain Stimulation</i> , <b>2017</b> , 10, 305-314	5.1	16
74	MRI monitoring of monocytes to detect immune stimulating treatment response in brain tumor. <i>Neuro-Oncology</i> , <b>2017</b> , 19, 364-371	1	11
73	Hypoxia and Inflammation-Induced Disruptions of the Blood-Brain and Blood-Cerebrospinal Fluid Barriers Assessed Using a Novel T1-Based MRI Method. <i>Acta Neurochirurgica Supplementum</i> , <b>2016</b> , 121, 23-8	1.7	13
72	Near-infrared measurements of brain oxygenation in stroke. <i>Neurophotonics</i> , <b>2016</b> , 3, 031403	3.9	20
71	Gray Matter Hypoxia in the Brain of the Experimental Autoimmune Encephalomyelitis Model of Multiple Sclerosis. <i>PLoS ONE</i> , <b>2016</b> , 11, e0167196	3.7	20
70	Postictal behavioural impairments are due to a severe prolonged hypoperfusion/hypoxia event that is COX-2 dependent. <i>ELife</i> , <b>2016</b> , 5,	8.9	62
69	monitoring of tissue oxygen saturation in deep brain structures using a single fiber optical system. <i>Biomedical Optics Express</i> , <b>2016</b> , 7, 4685-4694	3.5	14
68	Studying cerebral hemodynamics and metabolism using simultaneous near-infrared spectroscopy and transcranial Doppler ultrasound: a hyperventilation and caffeine study. <i>Physiological Reports</i> , <b>2015</b> , 3, e12378	2.6	7
67	Artifact reduction in long-term monitoring of cerebral hemodynamics using near-infrared spectroscopy. <i>Neurophotonics</i> , <b>2015</b> , 2, 025004	3.9	7

66	Integrating psychosocial care into neuro-oncology: challenges and strategies. <i>Frontiers in Oncology</i> , <b>2015</b> , 5, 41	5.3	12
65	Functional near-infrared spectroscopy reveals reduced interhemispheric cortical communication after pediatric concussion. <i>Journal of Neurotrauma</i> , <b>2015</b> , 32, 833-40	5.4	28
64	Iron Oxide as an MRI Contrast Agent for Cell Tracking. <i>Magnetic Resonance Insights</i> , <b>2015</b> , 8, 15-29	5	45
63	Detecting deoxyhemoglobin in spinal cord vasculature of the experimental autoimmune encephalomyelitis mouse model of multiple sclerosis using susceptibility MRI and hyperoxygenation. <i>PLoS ONE</i> , <b>2015</b> , 10, e0127033	3.7	8
62	QuantitativeT2: interactive quantitative T2 MRI witnessed in mouse glioblastoma. <i>Journal of Medical Imaging</i> , <b>2015</b> , 2, 036002	2.6	6
61	Reduced cortical microvascular oxygenation in multiple sclerosis: a blinded, case-controlled study using a novel quantitative near-infrared spectroscopy method. <i>Scientific Reports</i> , <b>2015</b> , 5, 16477	4.9	26
60	Using magnetic resonance imaging in animal models to guide drug development in multiple sclerosis. <i>Multiple Sclerosis Journal</i> , <b>2014</b> , 20, 3-11	5	9
59	Therapeutic activation of macrophages and microglia to suppress brain tumor-initiating cells. <i>Nature Neuroscience</i> , <b>2014</b> , 17, 46-55	25.5	136
58	Iron in multiple sclerosis: roles in neurodegeneration and repair. <i>Nature Reviews Neurology</i> , <b>2014</b> , 10, 459-68	15	134
57	Understanding disease processes in multiple sclerosis through magnetic resonance imaging studies in animal models. <i>NeuroImage: Clinical</i> , <b>2014</b> , 4, 743-56	5.3	32
56	Detection of reduced interhemispheric cortical communication during task execution in multiple sclerosis patients using functional near-infrared spectroscopy. <i>Journal of Biomedical Optics</i> , <b>2014</b> , 19, 076008	3.5	7
55	A tale of two methods: combining near-infrared spectroscopy with MRI for studies of brain oxygenation and metabolism. <i>Advances in Experimental Medicine and Biology</i> , <b>2014</b> , 812, 65-71	3.6	2
54	Local metabolic rate during whole body vibration. <i>Journal of Applied Physiology</i> , <b>2013</b> , 114, 1421-5	3.7	5
53	Monitoring angiogenesis using a human compatible calibration for broadband near-infrared spectroscopy. <i>Journal of Biomedical Optics</i> , <b>2013</b> , 18, 16011	3.5	5
52	Assessment of the efficacy of MRI for detection of changes in bone morphology in a mouse model of bone injury. <i>Journal of Magnetic Resonance Imaging</i> , <b>2013</b> , 38, 231-7	5.6	10
51	Susceptibility-weighted imaging in the experimental autoimmune encephalomyelitis model of multiple sclerosis indicates elevated deoxyhemoglobin, iron deposition and demyelination. <i>Multiple Sclerosis Journal</i> , <b>2013</b> , 19, 721-31	5	33
50	Methylphenidate-mediated reduction in prefrontal hemodynamic responses to working memory task: a functional near-infrared spectroscopy study. <i>Human Psychopharmacology</i> , <b>2012</b> , 27, 615-21	2.3	15
49	Near-infrared spectroscopy shows preictal haemodynamic changes in temporal lobe epilepsy. <i>Epileptic Disorders</i> , <b>2012</b> , 14, 371-8	1.9	14

48	Training the brain to survive stroke. <i>PLoS ONE</i> , <b>2012</b> , 7, e45108	3.7	17
47	In vivo open-bore MRI reveals region- and sub-arc-specific lengthening of the unloaded human posterior cruciate ligament. <i>PLoS ONE</i> , <b>2012</b> , 7, e48714	3.7	13
46	Functional MRI response and correlated electrophysiological changes during posterior hypothalamic nucleus deep brain stimulation. <i>NeuroImage</i> , <b>2011</b> , 56, 35-44	7.9	16
45	Persistent enhancement of functional MRI responsiveness to sensory stimulation following repeated seizures. <i>Epilepsia</i> , <b>2011</b> , 52, 2285-92	6.4	4
44	The functional microstructure of tendon collagen revealed by high-field MRI. <i>Magnetic Resonance in Medicine</i> , <b>2011</b> , 66, 520-7	4.4	14
43	Stabilization of hypoxia-inducible factor-1 $\alpha$ in buffer containing cobalt chloride for Western blot analysis. <i>Analytical Biochemistry</i> , <b>2011</b> , 416, 120-2	3.1	11
42	Cerebral oxygenation in awake rats during acclimation and deacclimation to hypoxia: an in vivo electron paramagnetic resonance study. <i>High Altitude Medicine and Biology</i> , <b>2011</b> , 12, 71-7	1.9	7
41	MR oximetry. <i>Methods in Molecular Biology</i> , <b>2011</b> , 771, 227-40	1.4	3
40	Quantitative T2 analysis: the effects of noise, regularization, and multivoxel approaches. <i>Magnetic Resonance in Medicine</i> , <b>2010</b> , 63, 212-7	4.4	32
39	A near-infrared calibration method suitable for quantification of broadband data in humans. <i>Journal of Neuroscience Methods</i> , <b>2010</b> , 188, 181-6	3	7
38	A method for measuring brain partial pressure of oxygen in unanesthetized unrestrained subjects: the effect of acute and chronic hypoxia on brain tissue PO <sub>2</sub> . <i>Journal of Neuroscience Methods</i> , <b>2010</b> , 193, 217-25	3	37
37	Functional brain mapping at 9.4T using a new MRI-compatible electrode chronically implanted in rats. <i>Magnetic Resonance in Medicine</i> , <b>2009</b> , 61, 222-8	4.4	28
36	Proliferation of human glioblastoma stem cells occurs independently of exogenous mitogens. <i>Stem Cells</i> , <b>2009</b> , 27, 1722-33	5.8	152
35	Multiexponential T2 and magnetization transfer MRI of demyelination and remyelination in murine spinal cord. <i>NeuroImage</i> , <b>2009</b> , 45, 1173-82	7.9	83
34	Effects of acute hypoxia and hyperthermia on the permeability of the blood-brain barrier in adult rats. <i>Journal of Applied Physiology</i> , <b>2009</b> , 107, 1348-56	3.7	44
33	Measuring oxygenation in vivo with MRS/MRI--from gas exchange to the cell. <i>Antioxidants and Redox Signaling</i> , <b>2007</b> , 9, 1157-68	8.4	4
32	Blood-oxygen-level-dependent magnetic resonance signal and cerebral oxygenation responses to brain activation are enhanced by concurrent transient hypertension in rats. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2007</b> , 27, 1280-9	7.3	21
31	Magnetic-resonance-imaging-coupled broadband near-infrared tomography system for small animal brain studies. <i>Applied Optics</i> , <b>2005</b> , 44, 2177-88	1.7	34

30	Modeling of the response of ptO <sub>2</sub> in rat brain to changes in physiological parameters. <i>Advances in Experimental Medicine and Biology</i> , <b>2005</b> , 566, 111-8	3.6	6
29	Cerebral PtO <sub>2</sub> , acute hypoxia, and volatile anesthetics in the rat brain. <i>Advances in Experimental Medicine and Biology</i> , <b>2005</b> , 566, 179-85	3.6	12
28	Delayed arteriogenesis in hypercholesterolemic mice. <i>Circulation</i> , <b>2005</b> , 112, 2501-9	16.7	89
27	Comparison of EPR oximetry and Eppendorf polarographic electrode assessments of rat brain PtO <sub>2</sub> . <i>Physiological Measurement</i> , <b>2004</b> , 25, 1413-23	2.9	26
26	Macroscopic structure of articular cartilage of the tibial plateau: influence of a characteristic matrix architecture on MRI appearance. <i>American Journal of Roentgenology</i> , <b>2004</b> , 182, 311-8	5.4	109
25	Monitoring angiogenesis in brain using steady-state quantification of DeltaR2 with MION infusion. <i>Magnetic Resonance in Medicine</i> , <b>2004</b> , 51, 55-61	4.4	47
24	Absorption and scattering imaging of tissue with steady-state second-differential spectral-analysis tomography. <i>Optics Letters</i> , <b>2004</b> , 29, 2043-5	3	6
23	In vivo electron paramagnetic resonance oximetry with particulate materials. <i>Methods</i> , <b>2003</b> , 30, 159-66	4.6	51
22	Near-infrared imaging in the small animal brain: optimization of fiber positions. <i>Journal of Biomedical Optics</i> , <b>2003</b> , 8, 102-10	3.5	69
21	Steady-state MR imaging with MION for quantification of angiogenesis in normal brain and in brain tumors. <i>Advances in Experimental Medicine and Biology</i> , <b>2003</b> , 540, 221-6	3.6	
20	Brain tissue and sagittal sinus pO <sub>2</sub> measurements using the lifetimes of oxygen-quenched luminescence of a ruthenium compound. <i>Advances in Experimental Medicine and Biology</i> , <b>2003</b> , 530, 101-11	3.6	8
19	The effects of anesthesia on cerebral tissue oxygen tension: use of EPR oximetry to make repeated measurements. <i>Advances in Experimental Medicine and Biology</i> , <b>2003</b> , 530, 569-75	3.6	11
18	Changes in oxygenation of intracranial tumors with carbogen: a BOLD MRI and EPR oximetry study. <i>Journal of Magnetic Resonance Imaging</i> , <b>2002</b> , 16, 511-21	5.6	97
17	Ventral medulla pHi measured in vivo by <sup>31</sup> P NMR is not regulated during hypercapnia in anesthetized rat. <i>Respiratory Physiology and Neurobiology</i> , <b>2002</b> , 130, 139-49	2.8	8
16	Noninvasive assessment of cerebral oxygenation during acclimation to hypobaric hypoxia. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2000</b> , 20, 1632-5	7.3	47
15	Effect of hyperventilation on brain tissue oxygenation and cerebrovenous PO <sub>2</sub> in rats. <i>Brain Research</i> , <b>2000</b> , 868, 150-6	3.7	32
14	Critical oxygen tension in rat brain: a combined ( <sup>31</sup> P)-NMR and EPR oximetry study. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , <b>2000</b> , 279, R9-R16	3.2	53
13	In vitro MR imaging of hyaline cartilage: correlation with scanning electron microscopy. <i>American Journal of Roentgenology</i> , <b>2000</b> , 174, 405-9	5.4	96

12	Quantitative magnetic resonance imaging of the mdx mouse model of Duchenne muscular dystrophy. <i>Muscle and Nerve</i> , <b>1999</b> , 22, 1367-71	3.4	44
11	High-resolution in vivo measurements of transverse relaxation times in rats at 7 Tesla. <i>Magnetic Resonance in Medicine</i> , <b>1998</b> , 39, 285-90	4.4	59
10	Bold MRI vs. NIR Spectrophotometry. <i>Advances in Experimental Medicine and Biology</i> , <b>1998</b> , 103-113	3.6	20
9	Blood Oxygenation. <i>Advances in Experimental Medicine and Biology</i> , <b>1997</b> , 645-650	3.6	25
8	What does EPR oximetry with solid particles measure--and how does this relate to other measures of PO <sub>2</sub> ? <i>Advances in Experimental Medicine and Biology</i> , <b>1997</b> , 428, 663-70	3.6	21
7	Use of nitroxides for assessing perfusion, oxygenation, and viability of tissues: in vivo EPR and MRI studies. <i>Magnetic Resonance in Medicine</i> , <b>1996</b> , 35, 97-106	4.4	84
6	Assessment of cerebral pO <sub>2</sub> by EPR oximetry in rodents: effects of anesthesia, ischemia, and breathing gas. <i>Brain Research</i> , <b>1995</b> , 685, 91-8	3.7	94
5	The apparent diffusion constant measured by MRI correlates with pO <sub>2</sub> in a RIF-1 tumor. <i>Magnetic Resonance in Medicine</i> , <b>1995</b> , 34, 515-9	4.4	30
4	High resolution renal diffusion imaging using a modified steady-state free precession sequence. <i>Magnetic Resonance in Medicine</i> , <b>1995</b> , 34, 586-95	4.4	16
3	Physical training improves skeletal muscle metabolism in patients with chronic heart failure. <i>Journal of the American College of Cardiology</i> , <b>1993</b> , 21, 1101-6	15.1	299
2	Proton buffering in human skeletal muscle studied in vivo by phosphorus magnetic resonance spectroscopy. <i>Biochemical Society Transactions</i> , <b>1991</b> , 19, 207S	5.1	3
1	Renal pH regulation in hypertension. <i>Biochemical Society Transactions</i> , <b>1991</b> , 19, 421S	5.1	