

Bruce A Berkowitz

List of Publications by Citations

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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.

76
papers

1,728
citations

25
h-index

38
g-index

80
ext. papers

1,878
ext. citations

4.8
avg, IF

4.93
L-index

#	Paper	IF	Citations
76	Noninvasive and simultaneous imaging of layer-specific retinal functional adaptation by manganese-enhanced MRI. <i>Investigative Ophthalmology and Visual Science</i> , 2006 , 47, 2668-74		100
75	Measuring the human retinal oxygenation response to a hyperoxic challenge using MRI: eliminating blinking artifacts and demonstrating proof of concept. <i>Magnetic Resonance in Medicine</i> , 2001 , 46, 412-6	4.4	81
74	Photoreceptors in diabetic retinopathy. <i>Journal of Diabetes Investigation</i> , 2015 , 6, 371-80	3.9	76
73	Retinal ion regulation in a mouse model of diabetic retinopathy: natural history and the effect of Cu/Zn superoxide dismutase overexpression 2009 , 50, 2351-8		68
72	Manganese-enhanced MRI of layer-specific activity in the visual cortex from awake and free-moving rats. <i>NeuroImage</i> , 2009 , 44, 627-35	7.9	67
71	Dynamic contrast-enhanced MRI measurements of passive permeability through blood retinal barrier in diabetic rats. <i>Investigative Ophthalmology and Visual Science</i> , 2004 , 45, 2391-8		54
70	Manganese-enhanced MRI studies of alterations of intraretinal ion demand in models of ocular injury. <i>Investigative Ophthalmology and Visual Science</i> , 2007 , 48, 3796-804		52
69	Retinal oxygenation response and retinopathy. <i>Progress in Retinal and Eye Research</i> , 2005 , 24, 259-74	20.5	51
68	Oxidative stress and light-evoked responses of the posterior segment in a mouse model of diabetic retinopathy. <i>Investigative Ophthalmology and Visual Science</i> , 2015 , 56, 606-15		48
67	Same-session functional assessment of rat retina and brain with manganese-enhanced MRI. <i>NeuroImage</i> , 2011 , 58, 749-60	7.9	48
66	Impaired apparent ion demand in experimental diabetic retinopathy: correction by lipoic Acid. <i>Investigative Ophthalmology and Visual Science</i> , 2007 , 48, 4753-8		45
65	Catalase therapy corrects oxidative stress-induced pathophysiology in incipient diabetic retinopathy 2015 , 56, 3095-102		44
64	Differential volume regulation and calcium signaling in two ciliary body cell types is subserved by TRPV4 channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 3885-90	11.5	40
63	High-resolution manganese-enhanced MRI of experimental retinopathy of prematurity. <i>Investigative Ophthalmology and Visual Science</i> , 2007 , 48, 4733-40		40
62	Regulation of the early subnormal retinal oxygenation response in experimental diabetes by inducible nitric oxide synthase. <i>Diabetes</i> , 2004 , 53, 173-8	0.9	40
61	MR studies of retinal oxygenation. <i>Vision Research</i> , 2001 , 41, 1307-11	2.1	38
60	In vivo quantification of T1, T2, and apparent diffusion coefficient in the mouse retina at 11.74T. <i>Magnetic Resonance in Medicine</i> , 2008 , 59, 731-8	4.4	37

59	Quantitative mapping of ion channel regulation by visual cycle activity in rodent photoreceptors in vivo 2009 , 50, 1880-5		33
58	Photobiomodulation Mitigates Diabetes-Induced Retinopathy by Direct and Indirect Mechanisms: Evidence from Intervention Studies in Pigmented Mice. <i>PLoS ONE</i> , 2015 , 10, e0139003	3.7	32
57	imaging of prodromal hippocampus CA1 subfield oxidative stress in models of Alzheimer disease and Angelman syndrome. <i>FASEB Journal</i> , 2017 , 31, 4179-4186	0.9	29
56	Confirming a prediction of the calcium hypothesis of photoreceptor aging in mice. <i>Neurobiology of Aging</i> , 2014 , 35, 1883-91	5.6	29
55	Toward clinical application of manganese-enhanced MRI of retinal function. <i>Brain Research Bulletin</i> , 2010 , 81, 333-8	3.9	29
54	MRI of rod cell compartment-specific function in disease and treatment in vivo. <i>Progress in Retinal and Eye Research</i> , 2016 , 51, 90-106	20.5	28
53	MRI of Retinal Free Radical Production With Laminar Resolution In Vivo 2016 , 57, 577-85		28
52	Sodium Iodate Produces a Strain-Dependent Retinal Oxidative Stress Response Measured In Vivo Using QUEST MRI 2017 , 58, 3286-3293		26
51	Ionic dysregulatory phenotyping of pathologic retinal thinning with manganese-enhanced MRI 2008 , 49, 3178-84		25
50	Light-dependent changes in outer retinal water diffusion in rats in vivo. <i>Molecular Vision</i> , 2012 , 18, 2561-2571	2.3	25
49	Measuring In Vivo Free Radical Production by the Outer Retina 2015 , 56, 7931-8		23
48	Evidence for diffuse central retinal edema in vivo in diabetic male Sprague Dawley rats. <i>PLoS ONE</i> , 2012 , 7, e29619	3.7	23
47	Acute systemic 11-cis-retinal intervention improves abnormal outer retinal ion channel closure in diabetic mice. <i>Molecular Vision</i> , 2012 , 18, 372-6	2.3	23
46	Diminished vision in healthy aging is associated with increased retinal L-type voltage gated calcium channel ion influx. <i>PLoS ONE</i> , 2013 , 8, e56340	3.7	21
45	Oxidative stress measured in vivo without an exogenous contrast agent using QUEST MRI. <i>Journal of Magnetic Resonance</i> , 2018 , 291, 94-100	3	20
44	Systemic Retinaldehyde Treatment Corrects Retinal Oxidative Stress, Rod Dysfunction, and Impaired Visual Performance in Diabetic Mice 2015 , 56, 6294-303		20
43	Drug intervention can correct subnormal retinal oxygenation response in experimental diabetic retinopathy. <i>Investigative Ophthalmology and Visual Science</i> , 2005 , 46, 2954-60		20
42	Melanopsin Phototransduction Contributes to Light-Evoked Choroidal Expansion and Rod L-Type Calcium Channel Function In Vivo 2016 , 57, 5314-5319		20

41	Mitochondrial Respiration in Outer Retina Contributes to Light-Evoked Increase in Hydration In Vivo 2018 , 59, 5957-5964		20
40	Cocaine-induced locomotor sensitization in rats correlates with nucleus accumbens activity on manganese-enhanced MRI. <i>NMR in Biomedicine</i> , 2015 , 28, 1480-8	4.4	18
39	Manganese enhanced magnetic resonance imaging (MEMRI): a powerful new imaging method to study tinnitus. <i>Hearing Research</i> , 2014 , 311, 49-62	3.9	17
38	Light-dependant intraretinal ion regulation by melanopsin in young awake and free moving mice evaluated with manganese-enhanced MRI. <i>Molecular Vision</i> , 2010 , 16, 1776-80	2.3	17
37	Intraretinal calcium channels and retinal morbidity in experimental retinopathy of prematurity. <i>Molecular Vision</i> , 2011 , 17, 2516-26	2.3	17
36	MRI biomarkers for evaluation of treatment efficacy in preclinical diabetic retinopathy. <i>Expert Opinion on Medical Diagnostics</i> , 2013 , 7, 393-403		16
35	Prognostic MRI biomarkers of treatment efficacy for retinopathy. <i>NMR in Biomedicine</i> , 2008 , 21, 957-67	4.4	16
34	The effect of partial vitrectomy on blood-ocular barrier function in the rabbit. <i>Current Eye Research</i> , 2001 , 23, 372-81	2.9	14
33	D-cis-Diltiazem Can Produce Oxidative Stress in Healthy Depolarized Rods In Vivo 2018 , 59, 2999-3010		13
32	Manganese-Enhanced MRI of the Brain in Healthy Volunteers. <i>American Journal of Neuroradiology</i> , 2019 , 40, 1309-1316	4.4	13
31	Testing the calcium hypothesis of aging in the rat hippocampus in vivo using manganese-enhanced MRI. <i>Neurobiology of Aging</i> , 2014 , 35, 1453-8	5.6	13
30	Outer Retinal Oxidative Stress Measured In Vivo Using QUEnch-assiSTed (QUEST) OCT 2019 , 60, 1566-1570		12
29	Effect of methylimidazole-induced hypothyroidism in a model of low retinal neovascular incidence. <i>Investigative Ophthalmology and Visual Science</i> , 2004 , 45, 919-21		12
28	Novel imaging biomarkers for mapping the impact of mild mitochondrial uncoupling in the outer retina in vivo. <i>PLoS ONE</i> , 2020 , 15, e0226840	3.7	11
27	The vitreous protein concentration is increased prior to neovascularization in experimental ROP. <i>Current Eye Research</i> , 1998 , 17, 218-21	2.9	11
26	Genetic dissection of horizontal cell inhibitory signaling in mice in complete darkness in vivo 2015 , 56, 3132-9		9
25	Evidence for a critical role of panretinal pathophysiology in experimental ROP. <i>Documenta Ophthalmologica</i> , 2010 , 120, 13-24	2.2	9
24	Dark Rearing Does Not Prevent Rod Oxidative Stress In Vivo in Pde6brd10 Mice 2018 , 59, 1659-1665		9

23	Photoreceptor degeneration changes magnetic resonance imaging features in a mouse model of retinitis pigmentosa. <i>Magnetic Resonance in Medicine</i> , 2011 , 65, 1793-8	4.4	8
22	Sildenafil-evoked photoreceptor oxidative stress in vivo is unrelated to impaired visual performance in mice. <i>PLoS ONE</i> , 2021 , 16, e0245161	3.7	8
21	Tinnitus and temporary hearing loss result in differential noise-induced spatial reorganization of brain activity. <i>Brain Structure and Function</i> , 2018 , 223, 2343-2360	4	7
20	Development of an MRI biomarker sensitive to tetrameric visual arrestin 1 and its reduction via light-evoked translocation in vivo. <i>FASEB Journal</i> , 2015 , 29, 554-64	0.9	7
19	Variable supplemental oxygen during recovery does not reduce retinal neovascular severity in experimental ROP. <i>Current Eye Research</i> , 2001 , 22, 401-4	2.9	7
18	OCT imaging of rod mitochondrial respiration. <i>Experimental Biology and Medicine</i> , 2021 , 246, 2151-2158	3.7	7
17	Preventing diabetic retinopathy by mitigating subretinal space oxidative stress. <i>Visual Neuroscience</i> , 2020 , 37, E002	1.7	6
16	Functional regulation of an outer retina hyporeflexive band on optical coherence tomography images. <i>Scientific Reports</i> , 2021 , 11, 10260	4.9	6
15	Age-related murine hippocampal CA1 laminae oxidative stress measured in vivo by QUENCH-assisted (QUEST) MRI: impact of isoflurane anesthesia. <i>GeroScience</i> , 2020 , 42, 563-574	8.9	5
14	Novel QUEST MRI In Vivo Measurement of Noise-induced Oxidative Stress in the Cochlea. <i>Scientific Reports</i> , 2019 , 9, 16265	4.9	5
13	Development of manganese-enhanced magnetic resonance imaging of the rostral ventrolateral medulla of conscious rats: Importance of normalization and comparison with other regions of interest. <i>NMR in Biomedicine</i> , 2018 , 31, e3887	4.4	4
12	Calcium/calmodulin-stimulated adenylyl cyclases 1 and 8 regulate reward-related brain activity and ethanol consumption. <i>Brain Imaging and Behavior</i> , 2019 , 13, 396-407	4.1	4
11	Photoreceptor Cell Calcium Dysregulation and Calpain Activation Promote Pathogenic Photoreceptor Oxidative Stress and Inflammation in Prodromal Diabetic Retinopathy. <i>American Journal of Pathology</i> , 2021 , 191, 1805-1821	5.8	4
10	Genetically heterogeneous mice show age-related vision deficits not related to increased rod cell L-type calcium channel function in vivo. <i>Neurobiology of Aging</i> , 2017 , 49, 198-203	5.6	3
9	Rod Photoreceptor Neuroprotection in Dark-Reared Pde6brd10 Mice 2020 , 61, 14		3
8	QUEST MRI assessment of fetal brain oxidative stress in utero. <i>NeuroImage</i> , 2019 , 200, 601-606	7.9	2
7	Correcting QUEST Magnetic Resonance Imaging-Sensitive Free Radical Production in the Outer Retina In Vivo Does Not Correct Reduced Visual Performance in 24-Month-Old C57BL/6J Mice 2021 , 62, 24		2
6	Superoxide free radical spin-lattice relaxivity: A quench-assisted MR study. <i>Magnetic Resonance in Medicine</i> , 2021 , 86, 1058-1066	4.4	1

- 5 Clinically relevant mitochondrial-targeted therapy improves chronic outcomes after traumatic brain injury.. *Brain*, **2021**, 144, 3788-3807 11.2 1
- 4 Novel imaging biomarkers for mapping the impact of mild mitochondrial uncoupling in the outer retina in vivo **2020**, 15, e0226840
- 3 Novel imaging biomarkers for mapping the impact of mild mitochondrial uncoupling in the outer retina in vivo **2020**, 15, e0226840
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