Bruce A Berkowitz

List of Publications by Year in Descending Order

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	Sildenafil-evoked photoreceptor oxidative stress in vivo is unrelated to impaired visual performance in mice. *PLoS ONE*, **2021**, 16, e0245161	3.7	8
75	Superoxide free radical spin-lattice relaxivity: A quench-assisted MR study. *Magnetic Resonance in Medicine*, **2021**, 86, 1058-1066	4.4	1
74	Functional regulation of an outer retina hyporeflective band on optical coherence tomography images. *Scientific Reports*, **2021**, 11, 10260	4.9	6
73	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
72	OCT imaging of rod mitochondrial respiration. *Experimental Biology and Medicine*, **2021**, 246, 2151-2158	3.7	7
71	Clinically relevant mitochondrial-targeted therapy improves chronic outcomes after traumatic brain injury.. *Brain*, **2021**, 144, 3788-3807	11.2	1
70	Photoreceptor Cell Calcium Dysregulation and Calpain Activation Promote Pathogenic Photoreceptor Oxidative Stress and Inflammation in Prodromal Diabetic Retinopathy. *American Journal of Pathology*, **2021**, 191, 1805-1821	5.8	4
69	Preventing diabetic retinopathy by mitigating subretinal space oxidative stress. *Visual Neuroscience*, **2020**, 37, E002	1.7	6
68	Age-related murine hippocampal CA1 laminae oxidative stress measured in vivo by QUEnch-assiSTed (QUEST) MRI: impact of isoflurane anesthesia. *GeroScience*, **2020**, 42, 563-574	8.9	5
67	Novel imaging biomarkers for mapping the impact of mild mitochondrial uncoupling in the outer retina in vivo. *PLoS ONE*, **2020**, 15, e0226840	3.7	11
66	Rod Photoreceptor Neuroprotection in Dark-Reared Pde6brd10 Mice **2020**, 61, 14		3
65	Novel imaging biomarkers for mapping the impact of mild mitochondrial uncoupling in the outer retina in vivo **2020**, 15, e0226840		
64	Novel imaging biomarkers for mapping the impact of mild mitochondrial uncoupling in the outer retina in vivo **2020**, 15, e0226840		
63	Novel imaging biomarkers for mapping the impact of mild mitochondrial uncoupling in the outer retina in vivo **2020**, 15, e0226840		
62	Novel imaging biomarkers for mapping the impact of mild mitochondrial uncoupling in the outer retina in vivo **2020**, 15, e0226840		
61	QUEST MRI assessment of fetal brain oxidative stress in utero. *NeuroImage*, **2019**, 200, 601-606	7.9	2
60	Outer Retinal Oxidative Stress Measured In Vivo Using QUEnch-assiSTed (QUEST) OCT **2019**, 60, 1566-1570		12

59	Novel QUEST MRI In Vivo Measurement of Noise-induced Oxidative Stress in the Cochlea. *Scientific Reports*, **2019**, 9, 16265	4.9	5
58	Manganese-Enhanced MRI of the Brain in Healthy Volunteers. *American Journal of Neuroradiology*, **2019**, 40, 1309-1316	4.4	13
57	Calcium/calmodulin-stimulated adenylyl cyclases 1 and 8 regulate reward-related brain activity and ethanol consumption. *Brain Imaging and Behavior*, **2019**, 13, 396-407	4.1	4
56	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. *NMR in Biomedicine*, **2018**, 31, e3887	4.4	4
55	Tinnitus and temporary hearing loss result in differential noise-induced spatial reorganization of brain activity. *Brain Structure and Function*, **2018**, 223, 2343-2360	4	7
54	Oxidative stress measured in vivo without an exogenous contrast agent using QUEST MRI. *Journal of Magnetic Resonance*, **2018**, 291, 94-100	3	20
53	D-cis-Diltiazem Can Produce Oxidative Stress in Healthy Depolarized Rods In Vivo **2018**, 59, 2999-3010		13
52	Dark Rearing Does Not Prevent Rod Oxidative Stress In Vivo in Pde6brd10 Mice **2018**, 59, 1659-1665		9
51	Mitochondrial Respiration in Outer Retina Contributes to Light-Evoked Increase in Hydration In Vivo **2018**, 59, 5957-5964		20
50	imaging of prodromal hippocampus CA1 subfield oxidative stress in models of Alzheimer disease and Angelman syndrome. *FASEB Journal*, **2017**, 31, 4179-4186	0.9	29
49	Sodium Iodate Produces a Strain-Dependent Retinal Oxidative Stress Response Measured In Vivo Using QUEST MRI **2017**, 58, 3286-3293		26
48	Genetically heterogeneous mice show age-related vision deficits not related to increased rod cell L-type calcium channel function in vivo. *Neurobiology of Aging*, **2017**, 49, 198-203	5.6	3
47	MRI of rod cell compartment-specific function in disease and treatment in vivo. *Progress in Retinal and Eye Research*, **2016**, 51, 90-106	20.5	28
46	Differential volume regulation and calcium signaling in two ciliary body cell types is subserved by TRPV4 channels. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 3885-90	11.5	40
45	MRI of Retinal Free Radical Production With Laminar Resolution In Vivo **2016**, 57, 577-85		28
44	Melanopsin Phototransduction Contributes to Light-Evoked Choroidal Expansion and Rod L-Type Calcium Channel Function In Vivo **2016**, 57, 5314-5319		20
43	Photoreceptors in diabetic retinopathy. *Journal of Diabetes Investigation*, **2015**, 6, 371-80	3.9	76
42	Cocaine-induced locomotor sensitization in rats correlates with nucleus accumbens activity on manganese-enhanced MRI. *NMR in Biomedicine*, **2015**, 28, 1480-8	4.4	18

41	Systemic Retinaldehyde Treatment Corrects Retinal Oxidative Stress, Rod Dysfunction, and Impaired Visual Performance in Diabetic Mice **2015**, 56, 6294-303		20
40	Catalase therapy corrects oxidative stress-induced pathophysiology in incipient diabetic retinopathy **2015**, 56, 3095-102		44
39	Measuring In Vivo Free Radical Production by the Outer Retina **2015**, 56, 7931-8		23
38	Photobiomodulation Mitigates Diabetes-Induced Retinopathy by Direct and Indirect Mechanisms: Evidence from Intervention Studies in Pigmented Mice. *PLoS ONE*, **2015**, 10, e0139003	3.7	32
37	Genetic dissection of horizontal cell inhibitory signaling in mice in complete darkness in vivo **2015**, 56, 3132-9		9
36	Development of an MRI biomarker sensitive to tetrameric visual arrestin 1 and its reduction via light-evoked translocation in vivo. *FASEB Journal*, **2015**, 29, 554-64	0.9	7
35	Oxidative stress and light-evoked responses of the posterior segment in a mouse model of diabetic retinopathy. *Investigative Ophthalmology and Visual Science*, **2015**, 56, 606-15		48
34	Testing the calcium hypothesis of aging in the rat hippocampus in vivo using manganese-enhanced MRI. *Neurobiology of Aging*, **2014**, 35, 1453-8	5.6	13
33	Confirming a prediction of the calcium hypothesis of photoreceptor aging in mice. *Neurobiology of Aging*, **2014**, 35, 1883-91	5.6	29
32	Manganese enhanced magnetic resonance imaging (MEMRI): a powerful new imaging method to study tinnitus. *Hearing Research*, **2014**, 311, 49-62	3.9	17
31	MRI biomarkers for evaluation of treatment efficacy in preclinical diabetic retinopathy. *Expert Opinion on Medical Diagnostics*, **2013**, 7, 393-403		16
30	Diminished vision in healthy aging is associated with increased retinal L-type voltage gated calcium channel ion influx. *PLoS ONE*, **2013**, 8, e56340	3.7	21
29	Evidence for diffuse central retinal edema in vivo in diabetic male Sprague Dawley rats. *PLoS ONE*, **2012**, 7, e29619	3.7	23
28	Acute systemic 11-cis-retinal intervention improves abnormal outer retinal ion channel closure in diabetic mice. *Molecular Vision*, **2012**, 18, 372-6	2.3	23
27	Light-dependent changes in outer retinal water diffusion in rats in vivo. *Molecular Vision*, **2012**, 18, 2561-xxx	2.3	25
26	Same-session functional assessment of rat retina and brain with manganese-enhanced MRI. *NeuroImage*, **2011**, 58, 749-60	7.9	48
25	Photoreceptor degeneration changes magnetic resonance imaging features in a mouse model of retinitis pigmentosa. *Magnetic Resonance in Medicine*, **2011**, 65, 1793-8	4.4	8
24	Intraretinal calcium channels and retinal morbidity in experimental retinopathy of prematurity. *Molecular Vision*, **2011**, 17, 2516-26	2.3	17

23	Toward clinical application of manganese-enhanced MRI of retinal function. *Brain Research Bulletin*, **2010**, 81, 333-8	3.9	29
22	Evidence for a critical role of panretinal pathophysiology in experimental ROP. *Documenta Ophthalmologica*, **2010**, 120, 13-24	2.2	9
21	Light-dependant intraretinal ion regulation by melanopsin in young awake and free moving mice evaluated with manganese-enhanced MRI. *Molecular Vision*, **2010**, 16, 1776-80	2.3	17
20	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
19	Quantitative mapping of ion channel regulation by visual cycle activity in rodent photoreceptors in vivo **2009**, 50, 1880-5		33
18	Manganese-enhanced MRI of layer-specific activity in the visual cortex from awake and free-moving rats. *NeuroImage*, **2009**, 44, 627-35	7.9	67
17	Ionic dysregulatory phenotyping of pathologic retinal thinning with manganese-enhanced MRI **2008**, 49, 3178-84		25
16	In vivo quantification of T1, T2, and apparent diffusion coefficient in the mouse retina at 11.74T. *Magnetic Resonance in Medicine*, **2008**, 59, 731-8	4.4	37
15	Prognostic MRI biomarkers of treatment efficacy for retinopathy. *NMR in Biomedicine*, **2008**, 21, 957-67	4.4	16
14	Impaired apparent ion demand in experimental diabetic retinopathy: correction by lipoic Acid. *Investigative Ophthalmology and Visual Science*, **2007**, 48, 4753-8		45
13	Manganese-enhanced MRI studies of alterations of intraretinal ion demand in models of ocular injury. *Investigative Ophthalmology and Visual Science*, **2007**, 48, 3796-804		52
12	High-resolution manganese-enhanced MRI of experimental retinopathy of prematurity. *Investigative Ophthalmology and Visual Science*, **2007**, 48, 4733-40		40
11	Noninvasive and simultaneous imaging of layer-specific retinal functional adaptation by manganese-enhanced MRI. *Investigative Ophthalmology and Visual Science*, **2006**, 47, 2668-74		100
10	Retinal oxygenation response and retinopathy. *Progress in Retinal and Eye Research*, **2005**, 24, 259-74	20.5	51
9	Drug intervention can correct subnormal retinal oxygenation response in experimental diabetic retinopathy. *Investigative Ophthalmology and Visual Science*, **2005**, 46, 2954-60		20
8	Dynamic contrast-enhanced MRI measurements of passive permeability through blood retinal barrier in diabetic rats. *Investigative Ophthalmology and Visual Science*, **2004**, 45, 2391-8		54
7	Effect of methylimidazole-induced hypothyroidism in a model of low retinal neovascular incidence. *Investigative Ophthalmology and Visual Science*, **2004**, 45, 919-21		12
6	Regulation of the early subnormal retinal oxygenation response in experimental diabetes by inducible nitric oxide synthase. *Diabetes*, **2004**, 53, 173-8	0.9	40

5	Measuring the human retinal oxygenation response to a hyperoxic challenge using MRI: eliminating blinking artifacts and demonstrating proof of concept. *Magnetic Resonance in Medicine*, **2001**, 46, 412-6	4.4	81
4	Variable supplemental oxygen during recovery does not reduce retinal neovascular severity in experimental ROP. *Current Eye Research*, **2001**, 22, 401-4	2.9	7
3	MR studies of retinal oxygenation. *Vision Research*, **2001**, 41, 1307-11	2.1	38
2	The effect of partial vitrectomy on blood-ocular barrier function in the rabbit. *Current Eye Research*, **2001**, 23, 372-81	2.9	14
1	The vitreous protein concentration is increased prior to neovascularization in experimental ROP. *Current Eye Research*, **1998**, 17, 218-21	2.9	11