

Bruce A Berkowitz

List of Publications by Year in descending order

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Version: 2024-02-01

78
papers

2,017
citations

361045

20
h-index

395343

33
g-index

80
all docs

80
docs citations

80
times ranked

1592
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Noninvasive and Simultaneous Imaging of Layer-Specific Retinal Functional Adaptation by Manganese-Enhanced MRI. , 2006, 47, 2668. | | 102 |
| 2 | Photoreceptors in diabetic retinopathy. Journal of Diabetes Investigation, 2015, 6, 371-380. | 1.1 | 98 |
| 3 | 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, 412-416. | 1.9 | 91 |
| 4 | Retinal Ion Regulation in a Mouse Model of Diabetic Retinopathy: Natural History and the Effect of Cu/Zn Superoxide Dismutase Overexpression. , 2009, 50, 2351. | | 74 |
| 5 | Manganese-enhanced MRI of layer-specific activity in the visual cortex from awake and free-moving rats. NeuroImage, 2009, 44, 627-635. | 2.1 | 68 |
| 6 | Dynamic Contrast-Enhanced MRI Measurements of Passive Permeability through Blood Retinal Barrier in Diabetic Rats. , 2004, 45, 2391. | | 58 |
| 7 | Oxidative Stress and Light-Evoked Responses of the Posterior Segment in a Mouse Model of Diabetic Retinopathy. Investigative Ophthalmology and Visual Science, 2015, 56, 606-615. | 3.3 | 57 |
| 8 | Catalase Therapy Corrects Oxidative Stress-Induced Pathophysiology in Incipient Diabetic Retinopathy. , 2015, 56, 3095. | | 55 |
| 9 | 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, 3885-3890. | 3.3 | 55 |
| 10 | Retinal oxygenation response and retinopathy. Progress in Retinal and Eye Research, 2005, 24, 259-274. | 7.3 | 54 |
| 11 | Manganese-Enhanced MRI Studies of Alterations of Intraretinal Ion Demand in Models of Ocular Injury. , 2007, 48, 3796. | | 52 |
| 12 | Same-session functional assessment of rat retina and brain with manganese-enhanced MRI. NeuroImage, 2011, 58, 749-760. | 2.1 | 48 |
| 13 | High-Resolution Manganese-Enhanced MRI of Experimental Retinopathy of Prematurity. , 2007, 48, 4733. | | 47 |
| 14 | Impaired Apparent Ion Demand in Experimental Diabetic Retinopathy: Correction by Lipoic Acid. , 2007, 48, 4753. | | 46 |
| 15 | Photobiomodulation Mitigates Diabetes-Induced Retinopathy by Direct and Indirect Mechanisms: Evidence from Intervention Studies in Pigmented Mice. PLoS ONE, 2015, 10, e0139003. | 1.1 | 45 |
| 16 | MR studies of retinal oxygenation. Vision Research, 2001, 41, 1307-1311. | 0.7 | 42 |
| 17 | Regulation of the Early Subnormal Retinal Oxygenation Response in Experimental Diabetes by Inducible Nitric Oxide Synthase. Diabetes, 2004, 53, 173-178. | 0.3 | 42 |
| 18 | In vivo quantification of T_1 , T_2 , and apparent diffusion coefficient in the mouse retina at 11.74T. Magnetic Resonance in Medicine, 2008, 59, 731-738. | 1.9 | 41 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Quantitative Mapping of Ion Channel Regulation by Visual Cycle Activity in Rodent Photoreceptors In Vivo. , 2009, 50, 1880. | | 34 |
| 20 | <i>In vivo</i> imaging of prodromal hippocampus CA1 subfield oxidative stress in models of Alzheimer disease and Angelman syndrome. FASEB Journal, 2017, 31, 4179-4186. | 0.2 | 34 |
| 21 | Sodium Iodate Produces a Strain-Dependent Retinal Oxidative Stress Response Measured In Vivo Using QUEST MRI. , 2017, 58, 3286. | | 32 |
| 22 | Confirming a prediction of the calcium hypothesis of photoreceptor aging in mice. Neurobiology of Aging, 2014, 35, 1883-1891. | 1.5 | 31 |
| 23 | MRI of Retinal Free Radical Production With Lamina Resolution In Vivo. , 2016, 57, 577. | | 31 |
| 24 | MRI of rod cell compartment-specific function in disease and treatment in vivo. Progress in Retinal and Eye Research, 2016, 51, 90-106. | 7.3 | 31 |
| 25 | Toward clinical application of manganese-enhanced MRI of retinal function. Brain Research Bulletin, 2010, 81, 333-338. | 1.4 | 30 |
| 26 | Measuring In Vivo Free Radical Production by the Outer Retina. , 2015, 56, 7931. | | 29 |
| 27 | Mitochondrial Respiration in Outer Retina Contributes to Light-Evoked Increase in Hydration In Vivo. , 2018, 59, 5957. | | 29 |
| 28 | Evidence for Diffuse Central Retinal Edema In Vivo in Diabetic Male Sprague Dawley Rats. PLoS ONE, 2012, 7, e29619. | 1.1 | 29 |
| 29 | Light-dependent changes in outer retinal water diffusion in rats in vivo. Molecular Vision, 2012, 18, 2561-xxx. | 1.1 | 26 |
| 30 | Ionic Dysregulatory Phenotyping of Pathologic Retinal Thinning with Manganese-Enhanced MRI. , 2008, 49, 3178. | | 25 |
| 31 | Oxidative stress measured in vivo without an exogenous contrast agent using QUEST MRI. Journal of Magnetic Resonance, 2018, 291, 94-100. | 1.2 | 25 |
| 32 | Systemic Retinaldehyde Treatment Corrects Retinal Oxidative Stress, Rod Dysfunction, and Impaired Visual Performance in Diabetic Mice. , 2015, 56, 6294. | | 24 |
| 33 | Drug Intervention Can Correct Subnormal Retinal Oxygenation Response in Experimental Diabetic Retinopathy. , 2005, 46, 2954. | | 23 |
| 34 | Melanopsin Phototransduction Contributes to Light-Evoked Choroidal Expansion and Rod L-Type Calcium Channel Function In Vivo. , 2016, 57, 5314. | | 23 |
| 35 | Acute systemic 11-cis-retinal intervention improves abnormal outer retinal ion channel closure in diabetic mice. Molecular Vision, 2012, 18, 372-6. | 1.1 | 23 |
| 36 | Cocaine-induced locomotor sensitization in rats correlates with nucleus accumbens activity on manganese-enhanced MRI. NMR in Biomedicine, 2015, 28, 1480-1488. | 1.6 | 22 |

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|----|---|-----|-----------|
| 37 | Diminished Vision in Healthy Aging Is Associated with Increased Retinal L-Type Voltage Gated Calcium Channel Ion Influx. PLoS ONE, 2013, 8, e56340. | 1.1 | 21 |
| 38 | Manganese-Enhanced MRI of the Brain in Healthy Volunteers. American Journal of Neuroradiology, 2019, 40, 1309-1316. | 1.2 | 21 |
| 39 | Clinically relevant mitochondrial-targeted therapy improves chronic outcomes after traumatic brain injury. Brain, 2021, 144, 3788-3807. | 3.7 | 21 |
| 40 | Manganese enhanced magnetic resonance imaging (MEMRI): A powerful new imaging method to study tinnitus. Hearing Research, 2014, 311, 49-62. | 0.9 | 20 |
| 41 | Prognostic MRI biomarkers of treatment efficacy for retinopathy. NMR in Biomedicine, 2008, 21, 957-967. | 1.6 | 18 |
| 42 | Intraretinal calcium channels and retinal morbidity in experimental retinopathy of prematurity. Molecular Vision, 2011, 17, 2516-26. | 1.1 | 18 |
| 43 | The effect of partial vitrectomy on blood-ocular barrier function in the rabbit. Current Eye Research, 2001, 23, 372-381. | 0.7 | 17 |
| 44 | MRI biomarkers for evaluation of treatment efficacy in preclinical diabetic retinopathy. Expert Opinion on Medical Diagnostics, 2013, 7, 393-403. | 1.6 | 17 |
| 45 | 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. | 1.1 | 17 |
| 46 | Diltiazem Can Produce Oxidative Stress in Healthy Depolarized Rods In Vivo. , 2018, 59, 2999. | | 15 |
| 47 | Outer Retinal Oxidative Stress Measured In Vivo Using QUEnch-assiSTed (QUEST) OCT. , 2019, 60, 1566. | | 15 |
| 48 | Functional regulation of an outer retina hyporeflexive band on optical coherence tomography images. Scientific Reports, 2021, 11, 10260. | 1.6 | 15 |
| 49 | Testing the calcium hypothesis of aging in the rat hippocampus in vivo using manganese-enhanced MRI. Neurobiology of Aging, 2014, 35, 1453-1458. | 1.5 | 14 |
| 50 | Novel imaging biomarkers for mapping the impact of mild mitochondrial uncoupling in the outer retina in vivo. PLoS ONE, 2020, 15, e0226840. | 1.1 | 14 |
| 51 | Effect of Methylimidazole-Induced Hypothyroidism in a Model of Low Retinal Neovascular Incidence. , 2004, 45, 919. | | 13 |
| 52 | SHORT COMMUNICATION: The vitreous protein concentration is increased prior to neovascularization in experimental ROP. Current Eye Research, 1998, 17, 218-221. | 0.7 | 12 |
| 53 | Tinnitus and temporary hearing loss result in differential noise-induced spatial reorganization of brain activity. Brain Structure and Function, 2018, 223, 2343-2360. | 1.2 | 11 |
| 54 | OCT imaging of rod mitochondrial respiration in vivo. Experimental Biology and Medicine, 2021, 246, 2151-2158. | 1.1 | 11 |

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|----|--|-----|-----------|
| 55 | Functional Changes Within the Rod Inner Segment Ellipsoid in Wildtype Mice: An Optical Coherence Tomography and Electron Microscopy Study. , 2022, 63, 8. | | 11 |
| 56 | Variable supplemental oxygen during recovery does not reduce retinal neovascular severity in experimental ROP. Current Eye Research, 2001, 22, 401-404. | 0.7 | 10 |
| 57 | Evidence for a critical role of panretinal pathophysiology in experimental ROP. Documenta Ophthalmologica, 2010, 120, 13-24. | 1.0 | 10 |
| 58 | Preventing diabetic retinopathy by mitigating subretinal space oxidative stress<i>in vivo</i>. Visual Neuroscience, 2020, 37, E002. | 0.5 | 10 |
| 59 | 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. | 2.1 | 10 |
| 60 | Sildenafil-evoked photoreceptor oxidative stress in vivo is unrelated to impaired visual performance in mice. PLoS ONE, 2021, 16, e0245161. | 1.1 | 10 |
| 61 | 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. | 1.9 | 10 |
| 62 | Photoreceptor degeneration changes magnetic resonance imaging features in a mouse model of retinitis pigmentosa. Magnetic Resonance in Medicine, 2011, 65, 1793-1798. | 1.9 | 9 |
| 63 | Genetic Dissection of Horizontal Cell Inhibitory Signaling in Mice in Complete Darkness In Vivo. , 2015, 56, 3132. | | 9 |
| 64 | Dark Rearing Does Not Prevent Rod Oxidative Stress In Vivo in <i>Pde6b</i>^{rd10} Mice. , 2018, 59, 1659. | | 9 |
| 65 | Novel QUEST MRI In Vivo Measurement of Noise-induced Oxidative Stress in the Cochlea. Scientific Reports, 2019, 9, 16265. | 1.6 | 9 |
| 66 | Development of an MRI biomarker sensitive to tetrameric visual arrestin 1 and its reduction <i>via</i> light-€evoked translocation <i>in vivo</i>. FASEB Journal, 2015, 29, 554-564. | 0.2 | 7 |
| 67 | Calcium/calmodulin-stimulated adenylyl cyclases 1 and 8 regulate reward-related brain activity and ethanol consumption. Brain Imaging and Behavior, 2019, 13, 396-407. | 1.1 | 7 |
| 68 | Rod Photoreceptor Neuroprotection in Dark-Reared<i>Pde6brd10</i>Mice. , 2020, 61, 14. | | 7 |
| 69 | MRI of retinal and optic nerve physiology. NMR in Biomedicine, 2008, 21, 927-927. | 1.6 | 6 |
| 70 | 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. | 1.6 | 4 |
| 71 | QUEST MRI assessment of fetal brain oxidative stress in utero. NeuroImage, 2019, 200, 601-606. | 2.1 | 4 |
| 72 | 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. | 1.5 | 3 |

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|----|--|-----|-----------|
| 73 | Correcting QUEST Magnetic Resonance Imagingâ€™s 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. | | 3 |
| 74 | Superoxide free radical spinâ€™lattice relaxivity: A quenchâ€™assisted MR study. Magnetic Resonance in Medicine, 2021, 86, 1058-1066. | 1.9 | 2 |
| 75 | Title is missing!. , 2020, 15, e0226840. | | 0 |
| 76 | Title is missing!. , 2020, 15, e0226840. | | 0 |
| 77 | Title is missing!. , 2020, 15, e0226840. | | 0 |
| 78 | Title is missing!. , 2020, 15, e0226840. | | 0 |