

Russell E Jacobs

List of Publications by Year in descending order

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100
papers

8,037
citations

76294

40
h-index

49868

87
g-index

105
all docs

105
docs citations

105
times ranked

10246
citing authors

#	ARTICLE	IF	CITATIONS
1	Blood-Brain Barrier Breakdown in the Aging Human Hippocampus. <i>Neuron</i> , 2015, 85, 296-302.	3.8	1,436
2	In vivo visualization of gene expression using magnetic resonance imaging. <i>Nature Biotechnology</i> , 2000, 18, 321-325.	9.4	1,097
3	Vascular dysfunctionâ€”The disregarded partner of Alzheimer's disease. <i>Alzheimer's and Dementia</i> , 2019, 15, 158-167.	0.4	454
4	Spectroscopic studies of specifically deuterium labeled membrane systems. Nuclear magnetic resonance investigation of the effects of cholesterol in model systems. <i>Biochemistry</i> , 1978, 17, 2727-2740.	1.2	414
5	Simultaneous <i>in vivo</i> positron emission tomography and magnetic resonance imaging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 3705-3710.	3.3	301
6	A multimodal, multidimensional atlas of the C57BL/6J mouse brain. <i>Journal of Anatomy</i> , 2004, 204, 93-102.	0.9	198
7	Three-Dimensional Digital Mouse Atlas Using High-Resolution MRI. <i>Developmental Biology</i> , 2001, 232, 458-470.	0.9	191
8	Fluorescently Detectable Magnetic Resonance Imaging Agents. <i>Bioconjugate Chemistry</i> , 1998, 9, 242-249.	1.8	188
9	Dentate gyrus volume is reduced before onset of plaque formation in PDAPP mice: A magnetic resonance microscopy and stereologic analysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 1381-1386.	3.3	181
10	Statistical diffusion tensor histology reveals regional dysmyelination effects in the shiverer mouse mutant. <i>NeuroImage</i> , 2006, 29, 1058-1065.	2.1	164
11	Nuclear magnetic resonance investigation of the cytochrome oxidase-phospholipid interaction: a new model for boundary lipid. <i>Biochemistry</i> , 1979, 18, 3257-3267.	1.2	152
12	In vivo trans-synaptic tract tracing from the murine striatum and amygdala utilizing manganese enhanced MRI (MEMRI). <i>Magnetic Resonance in Medicine</i> , 2003, 50, 33-39.	1.9	135
13	Magnetic resonance microscopy: recent advances and applications. <i>Current Opinion in Biotechnology</i> , 2005, 16, 93-99.	3.3	118
14	Deuterium nuclear magnetic resonance investigation of dimyristoyllecithin-dipalmitoyllecithin and dimyristoyllecithin-cholesterol mixtures. <i>Biochemistry</i> , 1979, 18, 3280-3285.	1.2	116
15	Role of neuronal activity and kinesin on tract tracing by manganese-enhanced MRI (MEMRI). <i>NeuroImage</i> , 2007, 37, S37-S46.	2.1	92
16	Mechanism of age-dependent susceptibility and novel treatment strategy in glutaric acidemia type I. <i>Journal of Clinical Investigation</i> , 2007, 117, 3258-3270.	3.9	92
17	Cranial Suture Regeneration Mitigates Skull and Neurocognitive Defects in Craniosynostosis. <i>Cell</i> , 2021, 184, 243-256.e18.	13.5	88
18	Optimal acquisition and modeling parameters for accurate assessment of low K_{trans} blood-brain barrier permeability using dynamic contrast-enhanced MRI. <i>Magnetic Resonance in Medicine</i> , 2016, 75, 1967-1977.	1.9	87

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19	MR microscopy of transgenic mice that spontaneously acquire experimental allergic encephalomyelitis. <i>Magnetic Resonance in Medicine</i> , 1998, 40, 119-132.	1.9	85
20	Complementary emerging techniques: high-resolution PET and MRI. <i>Current Opinion in Neurobiology</i> , 2001, 11, 621-629.	2.0	83
21	Towards Effective and Rewarding Data Sharing. <i>Neuroinformatics</i> , 2003, 1, 289-296.	1.5	78
22	APOE4 accelerates advanced-stage vascular and neurodegenerative disorder in old Alzheimer's mice via cyclophilin A independently of amyloid- β . <i>Nature Aging</i> , 2021, 1, 506-520.	5.3	77
23	NMR of membranes. <i>Progress in Nuclear Magnetic Resonance Spectroscopy</i> , 1980, 14, 113-136.	3.9	74
24	Senile plaques do not induce susceptibility effects in T2*-weighted MR microscopic images. <i>NMR in Biomedicine</i> , 2002, 15, 197-203.	1.6	70
25	The Integration of Positron Emission Tomography With Magnetic Resonance Imaging. <i>Proceedings of the IEEE</i> , 2008, 96, 416-438.	16.4	69
26	ROCKETSHIP: a flexible and modular software tool for the planning, processing and analysis of dynamic MRI studies. <i>BMC Medical Imaging</i> , 2015, 15, 19.	1.4	63
27	When tractography meets tracer injections: a systematic study of trends and variation sources of diffusion-based connectivity. <i>Brain Structure and Function</i> , 2018, 223, 2841-2858.	1.2	63
28	Multimodal, Multidimensional Models of Mouse Brain. <i>Epilepsia</i> , 2007, 48, 75-81.	2.6	62
29	Purkinje cell loss in experimental autoimmune encephalomyelitis. <i>NeuroImage</i> , 2009, 48, 637-651.	2.1	62
30	Mixtures of a series of homologous hydrophobic peptides with lipid bilayers: a simple model system for examining the protein-lipid interface. <i>Biochemistry</i> , 1986, 25, 2605-2612.	1.2	59
31	Cerebellar cortical atrophy in experimental autoimmune encephalomyelitis. <i>NeuroImage</i> , 2006, 32, 1016-1023.	2.1	58
32	Altered Neurocircuitry in the Dopamine Transporter Knockout Mouse Brain. <i>PLoS ONE</i> , 2010, 5, e11506.	1.1	54
33	Reward circuitry is perturbed in the absence of the serotonin transporter. <i>NeuroImage</i> , 2009, 46, 1091-1104.	2.1	53
34	Manganese-enhanced magnetic resonance imaging reveals increased DOI-induced brain activity in a mouse model of schizophrenia. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E2492-500.	3.3	53
35	Receptor-targeted iron oxide nanoparticles for molecular MR imaging of inflamed atherosclerotic plaques. <i>Biomaterials</i> , 2011, 32, 7209-7216.	5.7	51
36	Digital Three-Dimensional Atlas of Quail Development Using High-Resolution MRI. <i>Scientific World Journal</i> , 2007, 7, 592-604.	0.8	47

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37	Region-Specific Myelin Pathology in Mice Lacking the Golli Products of the Myelin Basic Protein Gene. <i>Journal of Neuroscience</i> , 2005, 25, 7004-7013.	1.7	46
38	Deficits in axonal transport in hippocampal-based circuitry and the visual pathway in APP knock-out animals witnessed by manganese enhanced MRI. <i>NeuroImage</i> , 2012, 60, 1856-1866.	2.1	43
39	Imaging Immune Response <i>in vivo</i> : Cytolytic Action of Genetically Altered T Cells Directed to Glioblastoma Multiforme. <i>Clinical Cancer Research</i> , 2008, 14, 3832-3839.	3.2	40
40	Imaging neuronal development with magnetic resonance imaging (NMR) microscopy. <i>Journal of Neuroscience Methods</i> , 1994, 54, 189-196.	1.3	37
41	Live imaging of neuronal connections by magnetic resonance: Robust transport in the hippocampal septal memory circuit in a mouse model of Down syndrome. <i>NeuroImage</i> , 2007, 37, 230-242.	2.1	37
42	Standard atlas space for C57BL/6J neonatal mouse brain. <i>Anatomy and Embryology</i> , 2005, 210, 245-263.	1.5	36
43	Lipid bilayer perturbations induced by simple hydrophobic peptides. <i>Biochemistry</i> , 1987, 26, 6127-6134.	1.2	35
44	A simple rapid process for semi-automated brain extraction from magnetic resonance images of the whole mouse head. <i>Journal of Neuroscience Methods</i> , 2016, 257, 185-193.	1.3	34
45	Myelin deficiencies visualized in vivo: Visually evoked potentials and T2-weighted magnetic resonance images of shiverer mutant and wild-type mice. <i>Journal of Neuroscience Research</i> , 2006, 84, 1716-1726.	1.3	33
46	Quantitative, Simultaneous PET/MRI for Intratumoral Imaging with an MRI-Compatible PET Scanner. <i>Journal of Nuclear Medicine</i> , 2012, 53, 1102-1109.	2.8	28
47	Estrogen treatment prevents gray matter atrophy in experimental autoimmune encephalomyelitis. <i>Journal of Neuroscience Research</i> , 2012, 90, 1310-1323.	1.3	28
48	Conditional Creation and Rescue of Nipbl-Deficiency in Mice Reveals Multiple Determinants of Risk for Congenital Heart Defects. <i>PLoS Biology</i> , 2016, 14, e2000197.	2.6	28
49	The ultraviolet transitions of the ethidium cation. <i>Biopolymers</i> , 1975, 14, 1309-1312.	1.2	26
50	Topographical localization of iron in brains of the aged fat-tailed dwarf lemur (<i>Cheirogaleus medius</i>) and gray lesser mouse lemur (<i>Microcebus murinus</i>). <i>American Journal of Primatology</i> , 1998, 45, 291-299.	0.8	26
51	Alterations of functional circuitry in aging brain and the impact of mutated APP expression. <i>Neurobiology of Aging</i> , 2018, 70, 276-290.	1.5	26
52	Altered Reward Circuitry in the Norepinephrine Transporter Knockout Mouse. <i>PLoS ONE</i> , 2013, 8, e57597.	1.1	25
53	Multimodality PET/MRI agents targeted to activated macrophages. <i>Journal of Biological Inorganic Chemistry</i> , 2014, 19, 247-258.	1.1	25
54	Mouse Lemur Microscopic MRI Brain Atlas. <i>NeuroImage</i> , 1994, 1, 345-349.	2.1	24

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55	Towards a Tralfamadorian view of the embryo: multidimensional imaging of development. <i>Current Opinion in Neurobiology</i> , 2002, 12, 580-586.	2.0	24
56	Magnetic Resonance Imaging of Functional Anatomy: Use for Small Animal Epilepsy Models. <i>Epilepsia</i> , 2007, 48, 11-17.	2.6	24
57	Ultra-High-Field Magnetic Resonance Imaging of the Human Inner Ear at 11.7 Tesla. <i>Otology and Neurotology</i> , 2017, 38, 133-138.	0.7	24
58	Two-dimensional and three-dimensional time-lapse microscopic magnetic resonance imaging of <i>Xenopus</i> gastrulation movements using intrinsic tissue-specific contrast. <i>Developmental Dynamics</i> , 2007, 236, 494-501.	0.8	21
59	Low Dose Focused Ultrasound Induces Enhanced Tumor Accumulation of Natural Killer Cells. <i>PLoS ONE</i> , 2015, 10, e0142767.	1.1	21
60	Multi-Shell Hybrid Diffusion Imaging (HYDI) at 7 Tesla in TgF344-AD Transgenic Alzheimer Rats. <i>PLoS ONE</i> , 2015, 10, e0145205.	1.1	20
61	In Vivo Monitoring of Natural Killer Cell Trafficking during Tumor Immunotherapy. <i>Magnetic Resonance Insights</i> , 2014, 7, MRI.S13145.	2.5	19
62	Behavior of hexane dissolved in dioleoylphosphatidylcholine bilayers: an NMR and calorimetric study. <i>Journal of the American Chemical Society</i> , 1984, 106, 6909-6912.	6.6	18
63	Quantitative pharmacologic MRI: Mapping the cerebral blood volume response to cocaine in dopamine transporter knockout mice. <i>NeuroImage</i> , 2011, 55, 622-628.	2.1	18
64	Collagenase-cleavable Peptide Amphiphile Micelles as a Novel Theranostic Strategy in Atherosclerosis. <i>Advanced Therapeutics</i> , 2020, 3, 1900196.	1.6	18
65	Increased anatomical detail by in vitro MR microscopy with a modified Golgi impregnation method. <i>Magnetic Resonance in Medicine</i> , 2010, 63, 1391-1397.	1.9	17
66	Formation of the dorsal marginal zone in <i>Xenopus laevis</i> analyzed by time-lapse microscopic magnetic resonance imaging. <i>Developmental Biology</i> , 2007, 305, 161-171.	0.9	16
67	Micro-MRI at 11.7 T of a Murine Brain Tumor Model Using Delayed Contrast Enhancement. <i>Molecular Imaging</i> , 2003, 2, 150-158.	0.7	16
68	Topographical localization of lipofuscin pigment in the brain of the aged fat-tailed dwarf lemur (<i>Cheirogaleus Medius</i>) and grey lesser mouse lemur (<i>Microcebus Murinus</i>): Comparison to iron localization. <i>American Journal of Primatology</i> , 1999, 49, 183-193.	0.8	15
69	Time-lapse tracing of mitotic cell divisions in the early <i>Xenopus</i> embryo using microscopic MRI. <i>Developmental Dynamics</i> , 2006, 235, 3059-3062.	0.8	15
70	A robust coregistration method for <i>in vivo</i> studies using a first generation simultaneous PET/MR scanner. <i>Medical Physics</i> , 2010, 37, 1995-2003.	1.6	15
71	Quantitative pharmacologic MRI in mice. <i>NMR in Biomedicine</i> , 2012, 25, 498-505.	1.6	15
72	Prenatal disruption of blood-brain barrier formation via cyclooxygenase activation leads to lifelong brain inflammation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2113310119.	3.3	15

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73	Serial Diffusion MRI to Monitor and Model Treatment Response of the Targeted Nanotherapy CRLX101. <i>Clinical Cancer Research</i> , 2013, 19, 2518-2527.	3.2	13
74	Superiority of 3D wavelet-packet denoising in MR microscopy. <i>Magnetic Resonance Imaging</i> , 2003, 21, 913-921.	1.0	12
75	T2-weighted $\frac{1}{4}$ MRI and Evoked Potential of the Visual System Measurements During the Development of Hypomyelinated Transgenic Mice. <i>Neurochemical Research</i> , 2007, 32, 159-165.	1.6	11
76	Comparison of Biomarkers in Transgenic Alzheimer Rats Using Multi-Shell Diffusion MRI. <i>Mathematics and Visualization</i> , 2017, , 187-199.	0.4	11
77	Neuroanatomical Micromagnetic Resonance Imaging. , 2002, , 399-426.		9
78	7T multi-shell hybrid diffusion imaging (HYDI) for mapping brain connectivity in mice. <i>Proceedings of SPIE</i> , 2015, 9413, .	0.8	9
79	Evolution of brain-wide activity in the awake behaving mouse after acute fear by longitudinal manganese-enhanced MRI. <i>NeuroImage</i> , 2020, 222, 116975.	2.1	9
80	MR Imaging with Phase Encoding of Intermolecular Multiple Quantum Coherences. <i>Journal of Magnetic Resonance</i> , 2001, 152, 189-194.	1.2	8
81	MRI: volumetric imaging for vital imaging and atlas construction. <i>Nature Reviews Molecular Cell Biology</i> , 2003, Suppl, S510-6.	16.1	8
82	Longitudinal manganese-enhanced magnetic resonance imaging of neural projections and activity. <i>NMR in Biomedicine</i> , 2022, 35, e4675.	1.6	8
83	MRI in Developmental Biology and the Construction of Developmental Atlases. <i>Cold Spring Harbor Protocols</i> , 2011, 2011, top100.	0.2	6
84	Decoupling the Effects of the Amyloid Precursor Protein From Amyloid- β^2 Plaques on Axonal Transport Dynamics in the Living Brain. <i>Frontiers in Cellular Neuroscience</i> , 2019, 13, 501.	1.8	6
85	Spatio-temporal biodistribution of ^{89}Zr -oxine labeled huLym-1-A-BB3z-CAR T-cells by PET imaging in a preclinical tumor model. <i>Scientific Reports</i> , 2021, 11, 15077.	1.6	6
86	Imaging Brain Development. , 2000, , 561-589.		6
87	Mbnl1 and Mbnl2 regulate brain structural integrity in mice. <i>Communications Biology</i> , 2021, 4, 1342.	2.0	6
88	Studying Axonal Transport in the Brain by Manganese-Enhanced Magnetic Resonance Imaging (MEMRI). <i>Methods in Molecular Biology</i> , 2022, 2431, 111-142.	0.4	6
89	Microscopy in Magnetic Resonance Imaging. <i>Annual Reports on NMR Spectroscopy</i> , 2005, 55, 259-297.	0.7	5
90	Digital Three-Dimensional Atlas of Quail Development Using High-Resolution MRI. <i>TSW Development & Embryology</i> , 2007, 2, 47-59.	0.2	3

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91	Diffusion MRI Connections in the Octopus Brain. Experimental Neurobiology, 2022, 31, 17-28.	0.7	3
92	SPECTROSCOPIC STUDIES OF SPECIFICALLY DEUTERIUM LABELLED MEMBRANE SYSTEMS. , 1978, , 55-64.		2
93	Neural activation imaged by MEMRI in mouse models of PTSD: Early Life Stress and Role of the Serotonergic System in Prolonged Response to Fear. Proceedings of the International Society for Magnetic Resonance in Medicine ... Scientific Meeting and Exhibition., 2018, 2018, .	0.5	2
94	Micro-MRI at 11.7 T of a Murine Brain Tumor Model Using Delayed Contrast Enhancement. Molecular Imaging, 2003, 2, 153535002003031.	0.7	1
95	Solubility of Volatile Hydrocarbons in Lipid Bilayers. , 1986, , 279-295.		1
96	Other Organs. , 0, , 311-332.		0
97	Axonal diameter and density estimated with 7-Tesla hybrid diffusion imaging in transgenic Alzheimer rats. Proceedings of SPIE, 2016, , .	0.8	0
98	Magnetic Resonance Imaging in Developmental Biology. , 2007, , 283-294.		0
99	Brain connectivity and activity during Alzheimer's disease progression in a mouse model by manganese-enhanced MRI in living brain correlated with post-mortem histopathology.. FASEB Journal, 2020, 34, 1-1.	0.2	0
100	Imaging the evolution acute fear: Longitudinal whole brain imaging in living mice of neural activity with MEMRI. Proceedings of the International Society for Magnetic Resonance in Medicine ... Scientific Meeting and Exhibition., 2019, 27, .	0.5	0