Mathias Hoehn

List of Publications by Year
in descending order

113 papers	5,811 citations	81900 39 h-index	85541 71 g-index
114 all docs	114 docs citations	114 times ranked	7735 citing authors

#	Article	IF	Citations
1	Reactive astrocytes prevent maladaptive plasticity after ischemic stroke. Progress in Neurobiology, 2022, 209, 102199.	5.7	18
2	Lesion Size- and Location-Dependent Recruitment of Contralesional Thalamus and Motor Cortex Facilitates Recovery after Stroke in Mice. Translational Stroke Research, 2021, 12, 87-97.	4.2	22
3	Translating Functional Connectivity After Stroke: Functional Magnetic Resonance Imaging Detects Comparable Network Changes in Mice and Humans. Stroke, 2021, 52, 2948-2960.	2.0	18
4	The gut microbiota modulates brain network connectivity under physiological conditions and after acute brain ischemia. IScience, 2021, 24, 103095.	4.1	12
5	Monitoring Neuronal Network Disturbances of Brain Diseases: A Preclinical MRI Approach in the Rodent Brain. Frontiers in Cellular Neuroscience, 2021, 15, 815552.	3.7	4
6	In vivo Cell Tracking Using Non-invasive Imaging of Iron Oxide-Based Particles with Particular Relevance for Stem Cell-Based Treatments of Neurological and Cardiac Disease. Molecular Imaging and Biology, 2020, 22, 1469-1488.	2.6	14
7	Increased Mortality and Vascular Phenotype in a Knock-In Mouse Model of Retinal Vasculopathy With Cerebral Leukoencephalopathy and Systemic Manifestations. Stroke, 2020, 51, 300-307.	2.0	5
8	Human Neural Stem Cell Induced Functional Network Stabilization After Cortical Stroke: A Longitudinal Resting-State fMRI Study in Mice. Frontiers in Cellular Neuroscience, 2020, 14, 86.	3.7	12
9	In vivo bioluminescence imaging to elucidate stem cell graft differentiation. Neural Regeneration Research, 2020, 15, 61.	3.0	3
10	D-mannose-Coating of Maghemite Nanoparticles Improved Labeling of Neural Stem Cells and Allowed Their Visualization by <i>ex vivo</i> MRI after Transplantation in the Mouse Brain. Cell Transplantation, 2019, 28, 553-567.	2.5	17
11	Aging Reduces the Functional Brain Networks Strengthâ€"a Resting State fMRI Study of Healthy Mouse Brain. Frontiers in Aging Neuroscience, 2019, 11, 277.	3.4	19
12	Murine iPSC-derived microglia and macrophage cell culture models recapitulate distinct phenotypical and functional properties of classical and alternative neuro-immune polarisation. Brain, Behavior, and Immunity, 2019, 82, 406-421.	4.1	19
13	Individual in vivo Profiles of Microglia Polarization After Stroke, Represented by the Genes iNOS and Ym1. Frontiers in Immunology, 2019, 10, 1236.	4.8	37
14	Processing Pipeline for Atlas-Based Imaging Data Analysis of Structural and Functional Mouse Brain MRI (AIDAmri). Frontiers in Neuroinformatics, 2019, 13, 42.	2.5	39
15	Cortical tissue loss and major structural reorganization as result of distal middle cerebral artery occlusion in the chronic phase of nude mice. Scientific Reports, 2019, 9, 6823.	3.3	13
16	Functional networks are impaired by elevated tau-protein but reversible in a regulatable Alzheimerâ€™s disease mouse model. Molecular Neurodegeneration, 2019, 14, 13.	10.8	28
17	The in vivo timeline of differentiation of engrafted human neural progenitor cells. Stem Cell Research, 2019, 37, 101429.	0.7	17
18	Persistent Quantitative Vitality of Stem Cell Graft Is Necessary for Stabilization of Functional Brain Networks After Stroke. Frontiers in Neurology, 2019, 10, 335.	2.4	9

#	Article	IF	Citations
19	Quantitative in vivo dual-color bioluminescence imaging in the mouse brain. Neurophotonics, 2019, 6, 1.	3.3	34
20	Sensorimotor Functional and Structural Networks after Intracerebral Stem Cell Grafts in the Ischemic Mouse Brain. Journal of Neuroscience, 2018, 38, 1648-1661.	3.6	41
21	Initial graft size and not the innate immune response limit survival of engrafted neural stem cells. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, 784-793.	2.7	19
22	Imaging Reporter Strategy to Monitor Gene Activation of Microglia Polarisation States under Stimulation. Journal of NeuroImmune Pharmacology, 2018, 13, 371-382.	4.1	7
23	Bioluminescence imaging visualizes osteopontin-induced neurogenesis and neuroblast migration in the mouse brain after stroke. Stem Cell Research and Therapy, 2018, 9, 182.	5.5	18
24	Targeted intracerebral delivery of the anti-inflammatory cytokine IL13 promotes alternative activation of both microglia and macrophages after stroke. Journal of Neuroinflammation, 2018, 15, 174.	7.2	57
25	Whole-brain 3D mapping of human neural transplant innervation. Nature Communications, 2017, 8, 14162.	12.8	46
26	Neurogenesis upregulation on the healthy hemisphere after stroke enhances compensation for age-dependent decrease of basal neurogenesis. Neurobiology of Disease, 2017, 99, 47-57.	4.4	36
27	Automated Ischemic Lesion Segmentation in MRI Mouse Brain Data after Transient Middle Cerebral Artery Occlusion. Frontiers in Neuroinformatics, 2017, 11, 3.	2.5	27
28	MRI Mouse Brain Data of Ischemic Lesion after Transient Middle Cerebral Artery Occlusion. Frontiers in Neuroinformatics, 2017, 11, 51.	2.5	9
29	Neurobiological insights from bioluminescence imaging. Oncotarget, 2017, 8, 69198-69199.	1.8	1
30	Perspectives of In Vivo Bioluminescence Imaging: Application to Basic and Translational Neuroscience. Current Pharmaceutical Design, 2017, 23, 1963-1973.	1.9	5
31	Glucose consumption of inflammatory cells masks metabolic deficits in the brain. NeuroImage, 2016, 128, 54-62.	4.2	52
32	Funnelâ€freezing versus heatâ€stabilization for the visualization of metabolites by mass spectrometry imaging in a mouse stroke model. Proteomics, 2016, 16, 1652-1659.	2.2	22
33	Targeted nanoparticles for the non-invasive detection of traumatic brain injury by optical imaging and fluorine magnetic resonance imaging. Nano Research, 2016, 9, 1276-1289.	10.4	26
34	Dynamic Modulation of Microglia/Macrophage Polarization by miR-124 after Focal Cerebral Ischemia. Journal of NeuroImmune Pharmacology, 2016, 11, 733-748.	4.1	79
35	The Neural Cell Adhesion Molecule-Derived (NCAM)-Peptide FG Loop (FGL) Mobilizes Endogenous Neural Stem Cells and Promotes Endogenous Regenerative Capacity after Stroke. Journal of NeuroImmune Pharmacology, 2016, 11, 708-720.	4.1	17
36	MiRNA-124 induces neuroprotection and functional improvement after focal cerebral ischemia. Biomaterials, 2016, 91, 151-165.	11.4	157

#	Article	IF	Citations
37	Morphological maturation of the mouse brain: An in vivo MRI and histology investigation. NeuroImage, 2016, 125, 144-152.	4.2	120
38	In Vivo Non-Invasive Tracking of Macrophage Recruitment to Experimental Stroke. PLoS ONE, 2016, 11, e0156626.	2.5	7
39	In Vivo Fate Imaging of Intracerebral Stem Cell Grafts in Mouse Brain. PLoS ONE, 2015, 10, e0144262.	2.5	24
40	Poststroke Angiogenesis, Con. Stroke, 2015, 46, e103-4.	2.0	29
41	Multimodal MR imaging of acute and subacute experimental traumatic brain injury: Time course and correlation with cerebral energy metabolites. Acta Radiologica Short Reports, 2015, 4, 204798161455514.	0.7	18
42	Transcranial direct current stimulation promotes the mobility of engrafted NSCs in the rat brain. NMR in Biomedicine, 2015, 28, 231-239.	2.8	37
43	Human neural stem cell intracerebral grafts show spontaneous early neuronal differentiation after several weeks. Biomaterials, 2015, 44, 143-154.	11.4	45
44	Necrosis avid near infrared fluorescent cyanines for imaging cell death and their use to monitor therapeutic efficacy in mouse tumor models. Oncotarget, 2015, 6, 39036-39049.	1.8	28
45	Bioluminescent Imaging of Genetically Selected Induced Pluripotent Stem Cell-Derived Cardiomyocytes after Transplantation into Infarcted Heart of Syngeneic Recipients. PLoS ONE, 2014, 9, e107363.	2.5	21
46	In vivo bioluminescence imaging of vascular remodeling after stroke. Frontiers in Cellular Neuroscience, 2014, 8, 274.	3.7	29
47	Brain maturation of the adolescent rat cortex and striatum: Changes in volume and myelination. NeuroImage, 2014, 84, 35-44.	4.2	113
48	Dualâ€Frequency Calciumâ€Responsive MRI Agents. Chemistry - A European Journal, 2014, 20, 7351-7362.	3.3	44
49	A multi-modality platform to image stem cell graft survival in the naÃ¯ve and stroke-damaged mouse brain. Biomaterials, 2014, 35, 2218-2226.	11.4	47
50	Bioluminescence imaging of stroke-induced endogenous neural stem cell response. Neurobiology of Disease, 2014, 69, 144-155.	4.4	27
51	In-vivo detection of inflammation and neurodegeneration in the chronic phase after permanent embolic stroke in rats. Brain Research, 2014, 1581, 80-88.	2.2	43
52	Evaluating reporter genes of different luciferases for optimized <i>in vivo</i> bioluminescence imaging of transplanted neural stem cells in the brain. Contrast Media and Molecular Imaging, 2013, 8, 505-513.	0.8	60
53	Vascular changes after stroke in the rat: a longitudinal study using optimized magnetic resonance imaging. Contrast Media and Molecular Imaging, 2013, 8, 383-392.	0.8	21
54	Imaging microglial activation and glucose consumption in a mouse model of Alzheimer's disease. Neurobiology of Aging, 2013, 34, 351-354.	3.1	52

#	ARTICLE	IF	CITATIONS
55	Reliability and spatial specificity of rat brain sensorimotor functional connectivity networks are superior under sedation compared with general anesthesia. NMR in Biomedicine, 2013, 26, 638-650.	2.8	74
56	Boosting Bioluminescence Neuroimaging: An Optimized Protocol for Brain Studies. PLoS ONE, 2013, 8, e55662.	2.5	62
57	Analysis of the Growth Dynamics of Angiogenesis-Dependent and -Independent Experimental Glioblastomas by Multimodal Small-Animal PET and MRI. Journal of Nuclear Medicine, 2012, 53, 1135-1145.	5.0	38
58	Potential of Early [¹⁸ F]-2-Fluoro-2-Deoxy-D-Glucose Positron Emission Tomography for Identifying Hypoperfusion and Predicting Fate of Tissue in a Rat Embolic Stroke Model. Stroke, 2012, 43, 193-198.	2.0	32
59	Multicolor Fluorescence Imaging of Traumatic Brain Injury in a Cryolesion Mouse Model. ACS Chemical Neuroscience, 2012, 3, 530-537.	3.5	43
60	Polyelectrolyte coating of iron oxide nanoparticles for MRI-based cell tracking. Nanomedicine: Nanotechnology, Biology, and Medicine, 2012, 8, 682-691.	3.3	35
61	Labeling cells for inÂvivo tracking using 19F MRI. Biomaterials, 2012, 33, 8830-8840.	11.4	126
62	In vivo imaging of inhibitory, GABAergic neurons by MRI. NeuroImage, 2012, 62, 1685-1693.	4.2	17
63	In vivo imaging of cell transplants in experimental ischemia. Progress in Brain Research, 2012, 201, 55-78.	1.4	7
64	MRI Stem Cell Tracking for Therapy in Experimental Cerebral Ischemia. Translational Stroke Research, 2012, 3, 22-35.	4.2	10
65	Connectivity of thalamoâ€cortical pathway in rat brain: combined diffusion spectrum imaging and functional MRI at 11.7â€‰T. NMR in Biomedicine, 2012, 25, 943-952.	2.8	17
66	Functional connectivity in the rat at 11.7 T: Impact of physiological noise in resting state fMRI. NeuroImage, 2011, 54, 2828-2839.	4.2	103
67	Spatio-temporal dynamics, differentiation and viability of human neural stem cells after implantation into neonatal rat brain. European Journal of Neuroscience, 2011, 34, 382-393.	2.6	38
68	A Critical Re-Examination of the Intraluminal Filament MCAO Model: Impact of External Carotid Artery Transection. Translational Stroke Research, 2011, 2, 651-661.	4.2	43
69	Challenges towards MR imaging of the peripheral inflammatory response in the subacute and chronic stages of transient focal ischemia. NMR in Biomedicine, 2011, 24, 35-45.	2.8	24
70	How do we assess regenerative success after stem cell implantation? An experimental approach. Regenerative Medicine, 2011, 6, 417-419.	1.7	3
71	In-Vivo Visualization of Tumor Microvessel Density and Response to Anti-Angiogenic Treatment by High Resolution MRI in Mice. PLoS ONE, 2011, 6, e19592.	2.5	29
72	In Vivo Tracking of Human Neural Stem Cells with 19F Magnetic Resonance Imaging. PLoS ONE, 2011, 6, e29040.	2.5	107

#	Article	IF	Citations
73	Stem Cell Mediation of Functional Recovery after Stroke in the Rat. PLoS ONE, 2010, 5, e12779.	2.5	69
74	No Increase of the Blood Oxygenation Level-Dependent Functional Magnetic Resonance Imaging Signal with Higher Field Strength: Implications for Brain Activation Studies. Journal of Neuroscience, 2010, 30, 5234-5241.	3.6	25
75	Noninvasive Imaging of Endogenous Neural Stem Cell Mobilization<i>In Vivo</i>Using Positron Emission Tomography. Journal of Neuroscience, 2010, 30, 6454-6460.	3.6	97
76	High field BOLD response to forepaw stimulation in the mouse. NeuroImage, 2010, 51, 704-712.	4.2	89
77	Synthetic and biogenic magnetite nanoparticles for tracking of stem cells and dendritic cells. Journal of Magnetism and Magnetic Materials, 2009, 321, 1533-1538.	2.3	41
78	Reproducible imaging of rat corticothalamic pathway by longitudinal manganese-enhanced MRI (L-MEMRI). NeuroImage, 2008, 41, 668-674.	4.2	25
79	Stem cell labeling for magnetic resonance imaging. Minimally Invasive Therapy and Allied Technologies, 2008, 17, 132-142.	1.2	44
80	MRI Detection of Secondary Damage After Stroke. Stroke, 2008, 39, 1541-1547.	2.0	65
81	Early Prediction of Functional Recovery after Experimental Stroke: Functional Magnetic Resonance Imaging, Electrophysiology, and Behavioral Testing in Rats. Journal of Neuroscience, 2008, 28, 1022-1029.	3.6	108
82	In Vivo Optical Imaging of Neurogenesis: Watching New Neurons in the Intact Brain. Molecular Imaging, 2008, 7, 7290.2008.0004.	1.4	56
83	Switching on the Lights for Gene Therapy. PLoS ONE, 2007, 2, e528.	2.5	24
84	Cell tracking using magnetic resonance imaging. Journal of Physiology, 2007, 584, 25-30.	2.9	80
85	Functional Uncoupling of Hemodynamic from Neuronal Response by Inhibition of Neuronal Nitric Oxide Synthase. Journal of Cerebral Blood Flow and Metabolism, 2007, 27, 741-754.	4.3	71
86	Correlation between MR-spectroscopic rat hippocampal choline levels and phospholipase A2. World Journal of Biological Psychiatry, 2006, 7, 246-250.	2.6	9
87	A fully noninvasive and robust experimental protocol for longitudinal fMRI studies in the rat. NeuroImage, 2006, 29, 1303-1310.	4.2	200
88	Temporal profile of T2-Weighted MRI Distinguishes between Pannecrosis and Selective Neuronal Death after Transient Focal Cerebral Ischemia in the Rat. Journal of Cerebral Blood Flow and Metabolism, 2006, 26, 38-47.	4.3	70
89	Present Status of Magnetic Resonance Imaging and Spectroscopy in Animal Stroke Models. Journal of Cerebral Blood Flow and Metabolism, 2006, 26, 591-604.	4.3	68
90	Locus Ceruleus Degeneration Promotes Alzheimer Pathogenesis in Amyloid Precursor Protein 23 Transgenic Mice. Journal of Neuroscience, 2006, 26, 1343-1354.	3.6	268

#	Article	IF	Citations
91	Differential Effects of NMDA and AMPA Glutamate Receptors on Functional Magnetic Resonance Imaging Signals and Evoked Neuronal Activity during Forepaw Stimulation of the Rat. Journal of Neuroscience, 2006, 26, 8409-8416.	3.6	66
92	Improved Stem Cell MR Detectability in Animal Models by Modification of the Inhalation Gas. Molecular Imaging, 2005, 4, 153535002005041.	1.4	35
93	Improved stem cell MR detectability in animal models by modification of the inhalation gas. Molecular Imaging, 2005, 4, 104-9.	1.4	16
94	Characterization of a Novel Chronic Photothrombotic Ring Stroke Model in Rats by Magnetic Resonance Imaging, Biochemical Imaging, and Histology. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 789-797.	4.3	24
95	Functional Magnetic Resonance Imaging and Somatosensory Evoked Potentials in Rats with a Neonatally Induced Freeze Lesion of the Somatosensory Cortex. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 1409-1418.	4.3	17
96	Time course of circulatory and metabolic recovery of cat brain after cardiac arrest assessed by perfusion- and diffusion-weighted imaging and MR-spectroscopy. Resuscitation, 2003, 58, 337-348.	3.0	38
97	Host-Dependent Tumorigenesis of Embryonic Stem Cell Transplantation in Experimental Stroke. Journal of Cerebral Blood Flow and Metabolism, 2003, 23, 780-785.	4.3	342
98	Choline rise in the rat hippocampus induced by electroconvulsive shock treatment. Biological Psychiatry, 2003, 53, 620-623.	1.3	27
99	Differences in Clot Preparation Determine Outcome of Recombinant Tissue Plasminogen Activator Treatment in Experimental Thromboembolic Stroke. Stroke, 2003, 34, 2019-2024.	2.0	81
100	Specific creatine rise in learned helplessness induced by electroconvulsive shock treatment. NeuroReport, 2003, 14, 2199-2201.	1.2	39
101	Diffusion-Weighted Imaging in Acute Stroke â€“ A Tool of Uncertain Value?. Cerebrovascular Diseases, 2002, 14, 187-196.	1.7	48
102	Thrombolytic Treatment of Clot Embolism in Rat. Stroke, 2002, 33, 2999-3005.	2.0	35
103	Monitoring of implanted stem cell migration <i>in vivo</i> : A highly resolved <i>in vivo</i> magnetic resonance imaging investigation of experimental stroke in rat. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 16267-16272.	7.1	708
104	Investigation of insect morphology by MRI: assessment of spatial and temporal resolution. Magnetic Resonance Imaging, 2002, 20, 105-111.	1.8	36
105	Magnetic Resonance Angiography of Thromboembolic Stroke in Rats: Indicator of Recanalization Probability and Tissue Survival after Recombinant Tissue Plasminogen Activator Treatment. Journal of Cerebral Blood Flow and Metabolism, 2002, 22, 652-662.	4.3	35
106	Magnetic resonance prediction of outcome after thrombolytic treatment. Magnetic Resonance Imaging, 2001, 19, 143-152.	1.8	32
107	Relation of Apparent Diffusion Coefficient Changes and Metabolic Disturbances after 1 Hour of Focal Cerebral Ischemia and at Different Reperfusion Phases in Rats. Journal of Cerebral Blood Flow and Metabolism, 2001, 21, 430-439.	4.3	64
108	CO ₂ Reactivity Measured by Perfusion MRI During Transient Focal Cerebral Ischemia in Rats. Stroke, 2000, 31, 2236-2244.	2.0	23

#	Article	IF	Citations
109	The effect of transient hypercapnia on task-related changes in cerebral blood flow and blood oxygenation in awake normal humans: a functional magnetic resonance imaging study. NMR in Biomedicine, 2000, 13, 415-419.	2.8	5
110	Probability of Metabolic Tissue Recovery after Thrombolytic Treatment of Experimental Stroke: A Magnetic Resonance Spectroscopic Imaging Study in Rat Brain. Journal of Cerebral Blood Flow and Metabolism, 2000, 20, 583-591.	4.3	30
111	Secondary Deterioration of Apparent Diffusion Coefficient After 1-Hour Transient Focal Cerebral Ischemia in Rats. Journal of Cerebral Blood Flow and Metabolism, 2000, 20, 1474-1482.	4.3	71
112	Diffusion- and perfusion-weighted MR imaging of transient focal cerebral ischaemia in mice. NMR in Biomedicine, 1999, 12, 525-534.	2.8	60
113	Nitrogen-14 and proton ENDOR of nitrosylhemoglobin. Journal of the American Chemical Society, 1983, 105, 109-115.	13.7	35