Afonso C Silva

List of Publications by Year
in descending order

142 papers	10,763 citations	22132 59 h-index	34964 98 g-index
146 all docs	146 docs citations	146 times ranked	9453 citing authors

#	Article	IF	Citations
1	Toward next-generation primate neuroscience: A collaboration-based strategic plan for integrative neuroimaging. Neuron, 2022, 110, 16-20.	3.8	22
2	An open access resource for functional brain connectivity from fully awake marmosets. NeuroImage, 2022, 252, 119030.	2.1	23
3	Marmoset Brain Mapping V3: Population multi-modal standard volumetric and surface-based templates. NeuroImage, 2021, 226, 117620.	2.1	50
4	Ultrahigh-resolution MRI Reveals Extensive Cortical Demyelination in a Nonhuman Primate Model of Multiple Sclerosis. Cerebral Cortex, 2021, 31, 439-447.	1.6	7
5	Histologyâ€Based Average Template of the Marmoset Cortex With Probabilistic Localization of Cytoarchitectural Areas. NeuroImage, 2021, 226, 117625.	2.1	25
6	Using non-invasive neuroimaging to enhance the care, well-being and experimental outcomes of laboratory non-human primates (monkeys). NeuroImage, 2021, 228, 117667.	2.1	13
7	Corpus callosum dysgenesis causes novel patterns of structural and functional brain connectivity. Brain Communications, 2021, 3, fcab057.	1.5	8
8	The Brain Circuits and Dynamics of Curiosity-Driven Behavior in Naturally Curious Marmosets. Cerebral Cortex, 2021, 31, 4220-4232.	1.6	4
9	Direct Interhemispheric Cortical Communication via Thalamic Commissures: A New White-Matter Pathway in the Rodent Brain. Cerebral Cortex, 2021, 31, 4642-4651.	1.6	9
10	The spectrum of spinal cord lesions in a primate model of multiple sclerosis. Multiple Sclerosis Journal, 2020, 26, 284-293.	1.4	8
11	Dynamic Interhemispheric Desynchronization in Marmosets and Humans With Disorders of the Corpus Callosum. Frontiers in Neural Circuits, 2020, 14, 612595.	1.4	4
12	Long-distance aberrant heterotopic connectivity in a mouse strain with a high incidence of callosal anomalies. NeuroImage, 2020, 217, 116875.	2.1	8
13	Accelerating the Evolution of Nonhuman Primate Neuroimaging. Neuron, 2020, 105, 600-603.	3.8	92
14	A resource for the detailed 3D mapping of white matter pathways in the marmoset brain. Nature Neuroscience, 2020, 23, 271-280.	7.1	77
15	Spatial organization of occipital white matter tracts in the common marmoset. Brain Structure and Function, 2020, 225, 1313-1326.	1.2	14
16	Magnetic Resonance Imaging of Marmoset Monkeys. ILAR Journal, 2020, 61, 274-285.	1.8	8
17	Cannabis and Cannabinoid Biology in Stroke. Stroke, 2019, 50, 2640-2645.	1.0	17
18	Anatomical and functional investigation of the marmoset default mode network. Nature Communications, 2019, 10, 1975.	5.8	82

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19	Generation of genetically engineered nonâ€human primate models of brain function and neurological disorders. American Journal of Primatology, 2019, 81, e22931.	0.8	34
20	Potential role of iron in repair of inflammatory demyelinating lesions. Journal of Clinical Investigation, 2019, 129, 4365-4376.	3.9	45
21	Spatiotemporal distribution of fibrinogen in marmoset and human inflammatory demyelination. Brain, 2018, 141, 1637-1649.	3.7	49
22	Neuroprotective Effects of MAGL (Monoacylglycerol Lipase) Inhibitors in Experimental Ischemic Stroke. Stroke, 2018, 49, 718-726.	1.0	31
23	Investigation of the BOLD and CBV fMRI responses to somatosensory stimulation in awake marmosets (<scp>Callithrix jacchus</scp>). NMR in Biomedicine, 2018, 31, e3864.	1.6	18
24	Investigating the spatiotemporal characteristics of the deoxyhemoglobin-related and deoxyhemoglobin-unrelated functional hemodynamic response across cortical layers in awake marmosets. NeuroImage, 2018, 164, 121-130.	2.1	20
25	A digital 3D atlas of the marmoset brain based on multi-modal MRI. NeuroImage, 2018, 169, 106-116.	2.1	127
26	Herpesvirus trigger accelerates neuroinflammation in a nonhuman primate model of multiple sclerosis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11292-11297.	3.3	40
27	Functional magnetic resonance imaging of auditory cortical fields in awake marmosets. NeuroImage, 2017, 162, 86-92.	2.1	21
28	Design and implementation of embedded 8â€channel receiveâ€only arrays for wholeâ€brain MRI and fMRI of conscious awake marmosets. Magnetic Resonance in Medicine, 2017, 78, 387-398.	1.9	18
29	Anatomical and functional neuroimaging in awake, behaving marmosets. Developmental Neurobiology, 2017, 77, 373-389.	1.5	35
30	Functional Connectivity Hubs and Networks in the Awake Marmoset Brain. Frontiers in Integrative Neuroscience, 2016, 10, 9.	1.0	22
31	Glutamate neurons are intermixed with midbrain dopamine neurons in nonhuman primates and humans. Scientific Reports, 2016, 6, 30615.	1.6	84
32	Marmosets: A Neuroscientific Model of Human Social Behavior. Neuron, 2016, 90, 219-233.	3.8	260
33	Two-photon imaging of cerebral hemodynamics and neural activity in awake and anesthetized marmosets. Journal of Neuroscience Methods, 2016, 271, 55-64.	1.3	38
34	Generation of transgenic marmosets expressing genetically encoded calcium indicators. Scientific Reports, 2016, 6, 34931.	1.6	81
35	Utilizing 3D Printing Technology to Merge MRI with Histology: A Protocol for Brain Sectioning. Journal of Visualized Experiments, 2016, , .	0.2	23
36	Sensory and optogenetically driven single-vessel fMRI. Nature Methods, 2016, 13, 337-340.	9.0	98

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37	Custom fit 3D-printed brain holders for comparison of histology with MRI in marmosets. Journal of Neuroscience Methods, 2016, 257, 55-63.	1.3	24
38	Functional Mapping of Face-Selective Regions in the Extrastriate Visual Cortex of the Marmoset. Journal of Neuroscience, 2015, 35, 1160-1172.	1.7	137
39	Functional MRI of visual responses in the awake, behaving marmoset. NeuroImage, 2015, 120, 1-11.	2.1	61
40	Contrast Agents in Functional Magnetic Resonance Imaging. , 2015, , 37-46.		1
41	Superficial white matter fiber systems impede detection of long-range cortical connections in diffusion MR tractography. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E2820-8.	3.3	364
42	Brains, Genes, and Primates. Neuron, 2015, 86, 617-631.	3.8	231
43	The formation of inflammatory demyelinated lesions in cerebral white matter. Annals of Neurology, 2014, 76, 594-608.	2.8	89
44	Impaired CBF regulation and high CBF threshold contribute to the increased sensitivity of spontaneously hypertensive rats to cerebral ischemia. Neuroscience, 2014, 269, 223-231.	1.1	17
45	Perivenular brain lesions in a primate multiple sclerosis model at 7-tesla magnetic resonance imaging. Multiple Sclerosis Journal, 2014, 20, 64-71.	1.4	25
46	Large-Scale Brain Networks in the Awake, Truly Resting Marmoset Monkey. Journal of Neuroscience, 2013, 33, 16796-16804.	1.7	133
47	Micro-compartment specific T2âŽ relaxation in the brain. NeuroImage, 2013, 77, 268-278.	2.1	182
48	fMRI in the awake marmoset: Somatosensory-evoked responses, functional connectivity, and comparison with propofol anesthesia. NeuroImage, 2013, 78, 186-195.	2.1	87
49	Novel Marmoset (Callithrix jacchus) Model of Human Herpesvirus 6A and 6B Infections: Immunologic, Virologic and Radiologic Characterization. PLoS Pathogens, 2013, 9, e1003138.	2.1	47
50	Traits of fear resistance and susceptibility in an advanced intercross line. European Journal of Neuroscience, 2013, 38, 3314-3324.	1.2	17
51	An embedded fourâ€channel receiveâ€only RF coil array for fMRI experiments of the somatosensory pathway in conscious awake marmosets. NMR in Biomedicine, 2013, 26, 1395-1402.	1.6	35
52	Quantification of BOLD fMRI parameters to infer cerebrovascular reactivity of the middle cerebral artery. Journal of Magnetic Resonance Imaging, 2013, 38, 1203-1209.	1.9	1
53	Visualizing Myeloarchitecture In Vivo with Magnetic Resonance Imaging in Common Marmosets (Callithrix jacchus). , 2013, , 221-237.		0
54	Assessing Cerebrovascular Reactivity in Carotid Steno-Occlusive Disease Using MRI BOLD and ASL Techniques. Radiology Research and Practice, 2012, 2012, 1-10.	0.6	24

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55	NO Production in Rat Brain â€“ Possible Nonenzymatic Pathways. Free Radical Biology and Medicine, 2012, 53, S185.	1.3	0
56	Phenylephrine-induced hypertension during transient middle cerebral artery occlusion alleviates ischemic brain injury in spontaneously hypertensive rats. Brain Research, 2012, 1477, 83-91.	1.1	10
57	Direct imaging of macrovascular and microvascular contributions to BOLD fMRI in layers IVâ€“V of the rat whiskerâ€“barrel cortex. NeuroImage, 2012, 59, 1451-1460.	2.1	89
58	In vivo quantification of T2âž anisotropy in white matter fibers in marmoset monkeys. NeuroImage, 2012, 59, 979-985.	2.1	70
59	The contribution of myelin to magnetic susceptibility-weighted contrasts in high-field MRI of the brain. NeuroImage, 2012, 59, 3967-3975.	2.1	186
60	Using manganese-enhanced MRI to understand BOLD. NeuroImage, 2012, 62, 1009-1013.	2.1	21
61	Arterial Spin Labeling Measurements of Cerebral Perfusion Territories in Experimental Ischemic Stroke. Translational Stroke Research, 2012, 3, 44-55.	2.3	7
62	Manganeseâ€enhanced magnetic resonance imaging detects mossy fiber sprouting in the pilocarpine model of epilepsy. Epilepsia, 2012, 53, 1225-1232.	2.6	23
63	Rapid high-resolution three-dimensional mapping of T1 and age-dependent variations in the non-human primate brain using magnetization-prepared rapid gradient-echo (MPRAGE) sequence. NeuroImage, 2011, 56, 1154-1163.	2.1	27
64	T 2 *-based fiber orientation mapping. NeuroImage, 2011, 57, 225-234.	2.1	118
65	Magnetic resonance imaging quantification of regional cerebral blood flow and cerebrovascular reactivity to carbon dioxide in normotensive and hypertensive rats. NeuroImage, 2011, 58, 75-81.	2.1	47
66	The role of nitrite in neurovascular coupling. Brain Research, 2011, 1407, 62-68.	1.1	37
67	Visualizing myeloarchitecture with magnetic resonance imaging in primates. Annals of the New York Academy of Sciences, 2011, 1225, E171-81.	1.8	35
68	Spatiotemporal Evolution of the Functional Magnetic Resonance Imaging Response to Ultrashort Stimuli. Journal of Neuroscience, 2011, 31, 1440-1447.	1.7	104
69	Longitudinal Functional Magnetic Resonance Imaging in Animal Models. Methods in Molecular Biology, 2011, 711, 281-302.	0.4	76
70	Highâ€field continuous arterial spin labeling with long labeling duration: Reduced confounds from blood transit time and postlabeling delay. Magnetic Resonance in Medicine, 2010, 64, 1557-1566.	1.9	10
71	Arterial spin labeling demonstrates that focal amygdalar glutamatergic agonist infusion leads to rapid diffuse cerebral activation. Acta Neurologica Scandinavica, 2010, 121, 209-216.	1.0	3
72	Cyclooxygenase-1 and -2 Differentially Modulate Lipopolysaccharide-Induced Bloodâ€“Brain Barrier Disruption through Matrix Metalloproteinase Activity. Journal of Cerebral Blood Flow and Metabolism, 2010, 30, 370-380.	2.4	61

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73	Sensitivity of MRI resonance frequency to the orientation of brain tissue microstructure. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 5130-5135.	3.3	238
74	The Stability of the Blood Oxygenation Level-Dependent Functional MRI Response to Motor Tasks Is Altered in Patients With Chronic Ischemic Stroke. Stroke, 2010, 41, 1921-1926.	1.0	24
75	Manganese-Enhanced Magnetic Resonance Imaging: Applications to Preclinical Research*. , 2010, , 199-219.		1
76	On the contribution of deoxy-hemoglobin to MRI grayâ€“white matter phase contrast at high field. NeuroImage, 2010, 49, 193-198.	2.1	61
77	In vivo visualization of reactive gliosis using manganese-enhanced magnetic resonance imaging. NeuroImage, 2010, 49, 3122-3131.	2.1	28
78	A combined histological and MRI brain atlas of the common marmoset monkey, Callithrix jacchus. Brain Research Reviews, 2009, 62, 1-18.	9.1	78
79	Manganeseâ€enhanced MRI visualizes V1 in the nonâ€human primate visual cortex. NMR in Biomedicine, 2009, 22, 730-736.	1.6	24
80	Visualizing the entire cortical myelination pattern in marmosets with magnetic resonance imaging. Journal of Neuroscience Methods, 2009, 185, 15-22.	1.3	127
81	Rapid BOLD Attenuation in Stroke Patients Detected by a Parametric Analysis. NeuroImage, 2009, 47, S94.	2.1	2
82	Layer specific tracing of corticocortical and thalamocortical connectivity in the rodent using manganese enhanced MRI. NeuroImage, 2009, 44, 923-931.	2.1	45
83	Manganese enhanced MRI reveals functional circuitry in response to odorant stimuliâ˜†. NeuroImage, 2009, 44, 363-372.	2.1	61
84	Dynamic Magnetic Resonance Imaging of Cerebral Blood Flow Using Arterial Spin Labeling. Methods in Molecular Biology, 2009, 489, 277-295.	0.4	5
85	Arterial spin labeling of cerebral perfusion territories using a separate labeling coil. Journal of Magnetic Resonance Imaging, 2008, 27, 970-977.	1.9	12
86	Fractionated manganeseâ€enhanced MRI. NMR in Biomedicine, 2008, 21, 473-478.	1.6	79
87	Detection of cortical laminar architecture using manganese-enhanced MRI. Journal of Neuroscience Methods, 2008, 167, 246-257.	1.3	72
88	Functional Reactivity of Cerebral Capillaries. Journal of Cerebral Blood Flow and Metabolism, 2008, 28, 961-972.	2.4	189
89	BOLD fMRI and somatosensory evoked potentials are well correlated over a broad range of frequency content of somatosensory stimulation of the rat forepaw. Brain Research, 2008, 1195, 67-76.	1.1	28
90	Cerebrospinal fluid to brain transport of manganese in a non-human primate revealed by MRI. Brain Research, 2008, 1198, 160-170.	1.1	72

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91	Animal Models in Functional Magnetic Resonance Imaging. , 2008, , 483-498.		0
92	Manganese-Enhanced MRI: An Exceptional Tool in Translational Neuroimaging. Schizophrenia Bulletin, 2007, 34, 595-604.	2.3	162
93	Manganese: a unique neuroimaging contrast agent. Future Neurology, 2007, 2, 297-305.	0.9	16
94	Measurement of cerebral perfusion territories using arterial spin labelling. NMR in Biomedicine, 2007, 20, 633-642.	1.6	48
95	Functional MRI impulse response for BOLD and CBV contrast in rat somatosensory cortex. Magnetic Resonance in Medicine, 2007, 57, 1110-1118.	1.9	126
96	Manganese-enhanced magnetic resonance imaging (MEMRI) of rat brain after systemic administration of MnCl2: Changes in T1 relaxation times during postnatal development. Journal of Magnetic Resonance Imaging, 2007, 25, 32-38.	1.9	20
97	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.	2.4	71
98	Modulatory role of cyclooxygenase-2 in cerebrovascular coupling. NeuroImage, 2006, 32, 23-32.	2.1	54
99	Spatial flow-volume dissociation of the cerebral microcirculatory response to mild hypercapnia. NeuroImage, 2006, 32, 520-530.	2.1	118
100	Cell labeling for magnetic resonance imaging with theT1 agent manganese chloride. NMR in Biomedicine, 2006, 19, 50-59.	1.6	77
101	BOLD and CBV-weighted functional magnetic resonance imaging of the rat somatosensory system. Magnetic Resonance in Medicine, 2006, 55, 316-324.	1.9	76
102	Direct magnetic resonance detection of neuronal electrical activity. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 16015-16020.	3.3	92
103	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.	1.7	66
104	Perfusion-based fMRI: Insights from animal models. Journal of Magnetic Resonance Imaging, 2005, 22, 745-750.	1.9	11
105	Elevated endogenous GABA level correlates with decreased fMRI signals in the rat brain during acute inhibition of GABA transaminase. Journal of Neuroscience Research, 2005, 79, 383-391.	1.3	78
106	Manganese-enhanced magnetic resonance imaging of mouse brain after systemic administration of MnCl2: Dose-dependent and temporal evolution ofT1 contrast. Magnetic Resonance in Medicine, 2005, 53, 640-648.	1.9	154
107	Temporal dynamics of the BOLD fMRI impulse response. NeuroImage, 2005, 24, 667-677.	2.1	110
108	MRI detection of regional blood flow using arterial spin labeling. , 2004, , 119-140.		0

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109	Functional MRI of the rodent somatosensory pathway using multislice echo planar imaging. Magnetic Resonance in Medicine, 2004, 52, 89-99.	1.9	97
110	Manganese-enhanced magnetic resonance imaging (MEMRI). NMR in Biomedicine, 2004, 17, 527-531.	1.6	217
111	Manganese-enhanced magnetic resonance imaging (MEMRI): methodological and practical considerations. NMR in Biomedicine, 2004, 17, 532-543.	1.6	457
112	In vivo detection of neuroarchitecture in the rodent brain using manganese-enhanced MRI. NeuroImage, 2004, 22, 1046-1046.	2.1	1
113	In vivo detection of neuroarchitecture in the rodent brain using manganese-enhanced MRI. NeuroImage, 2004, 22, 1046-1059.	2.1	246
114	MRI detection of ferritin iron overload and associated neuronal pathology in iron regulatory protein-2 knockout mice. Brain Research, 2003, 971, 95-106.	1.1	57
115	Perfusion-based functional magnetic resonance imaging. Concepts in Magnetic Resonance, 2003, 16A, 16-27.	1.3	17
116	Hardware considerations for functional magnetic resonance imaging. Concepts in Magnetic Resonance, 2003, 16A, 35-49.	1.3	19
117	Highly efficient endosomal labeling of progenitor and stem cells with large magnetic particles allows magnetic resonance imaging of single cells. Blood, 2003, 102, 867-872.	0.6	404
118	An open transversez-gradient coil design for magnetic resonance imaging. Review of Scientific Instruments, 2002, 73, 2208-2210.	0.6	2
119	Laminar specificity of functional MRI onset times during somatosensory stimulation in rat. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 15182-15187.	3.3	244
120	Comparison of diffusion-weighted high-resolution CBF and spin-echo BOLD fMRI at 9.4 T. Magnetic Resonance in Medicine, 2002, 47, 736-741.	1.9	62
121	Dynamic activity-induced manganese-dependent contrast magnetic resonance imaging (DAIM MRI). Magnetic Resonance in Medicine, 2002, 48, 927-933.	1.9	126
122	Perfusion imaging using dynamic arterial spin labeling (DASL). Magnetic Resonance in Medicine, 2001, 45, 1021-1029.	1.9	69
123	Functional MRI of calcium-dependent synaptic activity: Cross correlation with CBF and BOLD measurements. Magnetic Resonance in Medicine, 2000, 43, 383-392.	1.9	242
124	Imaging blood flow in brain tumors using arterial spin labeling. Magnetic Resonance in Medicine, 2000, 44, 169-173.	1.9	109
125	Early Temporal Characteristics of Cerebral Blood Flow and Deoxyhemoglobin Changes during Somatosensory Stimulation. Journal of Cerebral Blood Flow and Metabolism, 2000, 20, 201-206.	2.4	157
126	Perfusion analysis using dynamic arterial spin labeling (DASL). Magnetic Resonance in Medicine, 1999, 41, 299-308.	1.9	42

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127	Pseudo-continuous arterial spin labeling technique for measuring CBF dynamics with high temporal resolution. Magnetic Resonance in Medicine, 1999, 42, 425-429.	1.9	83
128	Diffusion-weighted spin-echo fMRI at 9.4 T: Microvascular/tissue contribution to BOLD signal changes. Magnetic Resonance in Medicine, 1999, 42, 919-928.	1.9	279
129	Simultaneous Blood Oxygenation Level-Dependent and Cerebral Blood Flow Functional Magnetic Resonance Imaging during Forepaw Stimulation in the Rat. Journal of Cerebral Blood Flow and Metabolism, 1999, 19, 871-879.	2.4	230
130	Perfusion analysis using dynamic arterial spin labeling (DASL). , 1999, 41, 299.		1
131	Pseudoâ€continuous arterial spin labeling technique for measuring CBF dynamics with high temporal resolution. Magnetic Resonance in Medicine, 1999, 42, 425-429.	1.9	3
132	Diffusion-weighted spin-echo fMRI at 9.4 T: Microvascular/tissue contribution to BOLD signal changes. , 1999, 42, 919.		2
133	Simultaneous Glutamate and Perfusion fMRI Responses to Regional Brain Stimulation. Journal of Cerebral Blood Flow and Metabolism, 1998, 18, 1064-1070.	2.4	15
134	Radial Echo-Planar Imaging. Journal of Magnetic Resonance, 1998, 135, 242-247.	1.2	16
135	In vivo neuronal tract tracing using manganese-enhanced magnetic resonance imaging. Magnetic Resonance in Medicine, 1998, 40, 740-748.	1.9	434
136	Estimation of water extraction fractions in rat brain using magnetic resonance measurement of perfusion with arterial spin labeling. Magnetic Resonance in Medicine, 1997, 37, 58-68.	1.9	102
137	Evidence for the exchange of arterial spin-labeled water with tissue water in rat brain from diffusion-sensitized measurements of perfusion. Magnetic Resonance in Medicine, 1997, 38, 232-237.	1.9	92
138	Multi-Slice MRI of Rat Brain Perfusion During Amphetamine Stimulation Using Arterial Spin Labeling. Magnetic Resonance in Medicine, 1995, 33, 209-214.	1.9	149
139	NMR Measurement of Perfusion Using Arterial Spin Labeling Without Saturation of Macromolecular Spins. Magnetic Resonance in Medicine, 1995, 33, 370-376.	1.9	147
140	Tissue specific perfusion imaging using arterial spin labeling. NMR in Biomedicine, 1994, 7, 75-82.	1.6	301
141	Detection of regional blood flow using arterial spin labeling. , 0, , 94-112.		0
142	Current Topics in Research, Care, and Welfare of Common Marmosets. ILAR Journal, 0, , .	1.8	0