Joseph A Frank

List of Publications by Year
in descending order

81 papers	8,047 citations	66234 42 h-index	69108 77 g-index
82 all docs	82 docs citations	82 times ranked	8429 citing authors

#	Article	IF	Citations
1	Neuroinflammation associated with ultrasound-mediated permeabilization of the bloodâ€“brain barrier. Trends in Neurosciences, 2022, 45, 459-470.	4.2	19
2	Cytosolic Ca²⁺ transients during pulsed focused ultrasound generate reactive oxygen species and cause DNA damage in tumor cells. Theranostics, 2021, 11, 602-613.	4.6	10
3	Temporally distinct myeloid cell responses mediate damage and repair after cerebrovascular injury. Nature Neuroscience, 2021, 24, 245-258.	7.1	64
4	Pulsed-Focused Ultrasound Slows B16 Melanoma and 4T1 Breast Tumor Growth through Differential Tumor Microenvironmental Changes. Cancers, 2021, 13, 1546.	1.7	7
5	Bloodâ€“brain barrier opening by intracarotid artery hyperosmolar mannitol induces sterile inflammatory and innate immune responses. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	33
6	Pulsed Focal Ultrasound as a Non-Invasive Method to Deliver Exosomes in the Brain/Stroke. Journal of Biomedical Nanotechnology, 2021, 17, 1170-1183.	0.5	6
7	Diffusion Tensor Imaging and Chemical Exchange Saturation Transfer MRI Evaluation on the Long-Term Effects of Pulsed Focused Ultrasound and Microbubbles Blood Brain Barrier Opening in the Rat. Frontiers in Neuroscience, 2020, 14, 908.	1.4	3
8	Acoustic Radiation or Cavitation Forces From Therapeutic Ultrasound Generate Prostaglandins and Increase Mesenchymal Stromal Cell Homing to Murine Muscle. Frontiers in Bioengineering and Biotechnology, 2020, 8, 870.	2.0	5
9	MRâ€guided pulsed focused ultrasound improves mesenchymal stromal cell homing to the myocardium. Journal of Cellular and Molecular Medicine, 2020, 24, 13278-13288.	1.6	7
10	The Impact of Focused Ultrasound in Two Tumor Models: Temporal Alterations in the Natural History on Tumor Microenvironment and Immune Cell Response. Cancers, 2020, 12, 350.	1.7	11
11	In vivo imaging of sterile microglial activation in rat brain after disrupting the blood-brain barrier with pulsed focused ultrasound: [18F]DPA-714 PET study. Journal of Neuroinflammation, 2019, 16, 155.	3.1	40
12	The Proteomic Effects of Pulsed Focused Ultrasound on Tumor Microenvironments of Murine Melanoma and Breast Cancer Models. Ultrasound in Medicine and Biology, 2019, 45, 3232-3245.	0.7	14
13	Ultrasound-Mediated Microbubble Destruction Suppresses Melanoma Tumor Growth. Ultrasound in Medicine and Biology, 2018, 44, 831-839.	0.7	11
14	On the detection of cerebral metabolic depression in experimental traumatic brain injury using Chemical Exchange Saturation Transfer (CEST)-weighted MRI. Scientific Reports, 2018, 8, 669.	1.6	13
15	Chlorotoxinâ€”A Multimodal Imaging Platform for Targeting Glioma Tumors. Toxins, 2018, 10, 496.	1.5	45
16	MRI and histological evaluation of pulsed focused ultrasound and microbubbles treatment effects in the brain. Theranostics, 2018, 8, 4837-4855.	4.6	53
17	Mesenchymal stromal cell potency to treat acute kidney injury increased by ultrasoundâ€activated interferonâ€Î³/interleukinâ€10 axis. Journal of Cellular and Molecular Medicine, 2018, 22, 6015-6025.	1.6	22
18	Focused ultrasound with microbubbles induces sterile inflammatory response proportional to the blood brain barrier opening: Attention to experimental conditions. Theranostics, 2018, 8, 2245-2248.	4.6	55

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19	Abnormal Injury Response in Spontaneous Mild Ventriculomegaly Wistar Rat Brains: A Pathological Correlation Study of Diffusion Tensor and Magnetization Transfer Imaging in Mild Traumatic Brain Injury. Journal of Neurotrauma, 2017, 34, 248-256.	1.7	22
20	Abnormal neurogenesis and cortical growth in congenital heart disease. Science Translational Medicine, 2017, 9, .	5.8	69
21	Improving the therapeutic efficacy of mesenchymal stromal cells to restore perfusion in critical limb ischemia through pulsed focused ultrasound. Scientific Reports, 2017, 7, 41550.	1.6	34
22	Disrupting the bloodâ€"brain barrier by focused ultrasound induces sterile inflammation. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E75-E84.	3.3	306
23	Controlled Cortical Impact in the Rat. Current Protocols in Neuroscience, 2017, 81, 9.62.1-9.62.12.	2.6	10
24	Anti-inflammatory drugs suppress ultrasound-mediated mesenchymal stromal cell tropism to kidneys. Scientific Reports, 2017, 7, 8607.	1.6	11
25	Reply to Silburt et al.: Concerning sterile inflammation following focused ultrasound and microbubbles in the brain. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E6737-E6738.	3.3	20
26	Physicochemical characterization of ferumoxytol, heparin and protamine nanocomplexes for improved magnetic labeling of stem cells. Nanomedicine: Nanotechnology, Biology, and Medicine, 2017, 13, 503-513.	1.7	21
27	Molecular and histological effects of MR-guided pulsed focused ultrasound to the rat heart. Journal of Translational Medicine, 2017, 15, 252.	1.8	14
28	Superparamagnetic iron oxide nanoparticles for direct labeling of stem cells and <i>in vivo</i> MRI tracking. Contrast Media and Molecular Imaging, 2016, 11, 55-64.	0.4	68
29	Radiologicalâ€"pathological correlation of diffusion tensor and magnetization transfer imaging in a closed head traumatic brain injury model. Annals of Neurology, 2016, 79, 907-920.	2.8	79
30	Pulsed Focused Ultrasound Pretreatment Improves Mesenchymal Stromal Cell Efficacy in Preventing and Rescuing Established Acute Kidney Injury in Mice. Stem Cells, 2015, 33, 1241-1253.	1.4	42
31	Response to Cardiac regeneration validated. Nature Biotechnology, 2015, 33, 587-587.	9.4	2
32	Synthesis and characterization of gadoliniumâ€"Peptidomimetic complex as an Î±vÎ²3 integrin targeted MR contrast agent. Bioorganic and Medicinal Chemistry Letters, 2015, 25, 2056-2059.	1.0	6
33	Application of aziridinium ring opening for preparation of optically active diamine and triamine analogues: highly efficient synthesis and evaluation of DTPA-based MRI contrast enhancement agents. RSC Advances, 2015, 5, 94571-94581.	1.7	9
34	Failure of Intravenous or Intracardiac Delivery of Mesenchymal Stromal Cells to Improve Outcomes after Focal Traumatic Brain Injury in the Female Rat. PLoS ONE, 2015, 10, e0126551.	1.1	15
35	Abstract 19852: Depletion of Neurogenesis within Key Neural Stem/Progenitor Cell Pools Contributes to Brain Immaturity in Congenital Heart Disease. Circulation, 2015, 132, .	1.6	0
36	Clinical imaging in regenerative medicine. Nature Biotechnology, 2014, 32, 804-818.	9.4	207

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37	Diffusion Tensor Imaging Reveals Acute Subcortical Changes after Mild Blast-Induced Traumatic Brain Injury. Scientific Reports, 2014, 4, 4809.	1.6	43
38	Noninvasive pulsed focused ultrasound allows spatiotemporal control of targeted homing for multiple stem cell types in murine skeletal muscle and the magnitude of cell homing can be increased through repeated applications. Stem Cells, 2013, 31, 2551-2560.	1.4	41
39	Investigation of Cellular and Molecular Responses to Pulsed Focused Ultrasound in a Mouse Model. PLoS ONE, 2011, 6, e24730.	1.1	60
40	Cellular Iron Metabolism Studies Demonstate Safety of Magnetic Tracking of Mesenchymal Stem Cells.. Blood, 2005, 106, 4320-4320.	0.6	0
41	Clinically Applicable Labeling of Mammalian and Stem Cells by Combining Superparamagnetic Iron Oxides and Transfection Agents. Radiology, 2003, 228, 480-487.	3.6	650
42	Magnetic Intracellular Labeling of Mammalian Cells by Combining (FDA-Approved) Superparamagnetic Iron Oxide MR Contrast Agents and Commonly Used Transfection Agents. Academic Radiology, 2002, 9, S484-S487.	1.3	200
43	Magnetodendrimers allow endosomal magnetic labeling and in vivo tracking of stem cells. Nature Biotechnology, 2001, 19, 1141-1147.	9.4	1,016
44	First Noncovalently Bound Calix[4]arene-GdIII-Albumin Complex. Angewandte Chemie - International Edition, 2000, 39, 1641-1643.	7.2	27
45	A protocol for assessing subtraction errors of arterial spin-tagging perfusion techniques in human brain. Magnetic Resonance in Medicine, 2000, 43, 896-900.	1.9	8
46	Noise reduction in 3D perfusion imaging by attenuating the static signal in arterial spin tagging (ASSIST). Magnetic Resonance in Medicine, 2000, 44, 92-100.	1.9	293
47	H215O PET validation of steady-state arterial spin tagging cerebral blood flow measurements in humans. Magnetic Resonance in Medicine, 2000, 44, 450-456.	1.9	297
48	Encephalitogenic potential of the myelin basic protein peptide (amino acids 83â€“99) in multiple sclerosis: Results of a phase II clinical trial with an altered peptide ligand. Nature Medicine, 2000, 6, 1167-1175.	15.2	783
49	H215O PET validation of steady-state arterial spin tagging cerebral blood flow measurements in humans. , 2000, 44, 450.		1
50	Optimization of fast acquisition methods for whole-brain relative cerebral blood volume (rCBV) mapping with susceptibility contrast agents. Journal of Magnetic Resonance Imaging, 1999, 9, 233-239.	1.9	24
51	Short- vs. long-circulating magnetoliposomes as bone marrow-seeking MR contrast agents. Journal of Magnetic Resonance Imaging, 1999, 9, 329-335.	1.9	84
52	Synthesis and relaxometry of high-generation (G = 5, 7, 9, and 10) PAMAM dendrimer-DOTA-gadolinium chelates. Journal of Magnetic Resonance Imaging, 1999, 9, 348-352.	1.9	234
53	Quantitation of regional cerebral blood flow increases during motor activation: A multislice, steady-state, arterial spin tagging study. Magnetic Resonance in Medicine, 1999, 42, 404-407.	1.9	26
54	Multislice perfusion imaging in human brain using the C-FOCI inversion pulse: Comparison with hyperbolic secant. Magnetic Resonance in Medicine, 1999, 42, 1098-1105.	1.9	64

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55	Reproducibility of Proton Magnetic Resonance Spectroscopic Imaging in Patients with Schizophrenia. Neuropsychopharmacology, 1998, 18, 1-9.	2.8	69
56	Functional Magnetic Resonance Imaging Brain Mapping in Psychiatry: Methodological Issues Illustrated in a Study of Working Memory in Schizophrenia. Neuropsychopharmacology, 1998, 18, 186-196.	2.8	293
57	Study of relapsing remitting experimental allergic encephalomyelitis SJL mouse model using MION-46L enhanced in vivo MRI: Early histopathological correlation. Journal of Neuroscience Research, 1998, 52, 549-558.	1.3	78
58	A comparison of fast MR scan techniques for cerebral activation studies at 1.5 Tesla. Magnetic Resonance in Medicine, 1998, 39, 61-67.	1.9	63
59	Multislice imaging of quantitative cerebral perfusion with pulsed arterial spin labeling. Magnetic Resonance in Medicine, 1998, 39, 825-832.	1.9	153
60	Leukodystrophy in patients with ovarian dysgenesis. Annals of Neurology, 1997, 41, 654-661.	2.8	73
61	Increases in soluble VCAM-1 correlate with a decrease in MRI lesions in multiple sclerosis treated with interferon ?-1b. Annals of Neurology, 1997, 41, 669-674.	2.8	149
62	Localized echo-volume imaging methods for functional MRI. Journal of Magnetic Resonance Imaging, 1997, 7, 371-375.	1.9	31
63	Correspondence of closest gradient Voxelsâ€"A robust registration algorithm. Journal of Magnetic Resonance Imaging, 1997, 7, 410-415.	1.9	55
64	Correction for vascular artifacts in cerebral blood flow values measured by using arterial spin tagging techniques. Magnetic Resonance in Medicine, 1997, 37, 226-235.	1.9	289
65	Effect of magnetization transfer on the measurement of cerebral blood flow using steady-state arterial spin tagging approaches: A theoretical investigation. Magnetic Resonance in Medicine, 1997, 37, 501-510.	1.9	58
66	Hepatic hemosiderosis in non-human primates: Quantification of liver iron using different field strengths. Magnetic Resonance in Medicine, 1997, 37, 530-536.	1.9	89
67	Perfusion imaging with compensation for asymmetric magnetization transfer effects. Magnetic Resonance in Medicine, 1996, 35, 70-79.	1.9	150
68	Perfusion imaging of the human brain at 1.5 T using a single-shot EPI spin tagging approach. Magnetic Resonance in Medicine, 1996, 36, 219-224.	1.9	59
69	Fast 3D functional magnetic resonance imaging at 1.5 T with spiral acquisition. Magnetic Resonance in Medicine, 1996, 36, 620-626.	1.9	72
70	Reproducibility of human 3D fMRI brain maps acquired during a motor task. , 1996, 4, 113-121.		54
71	Incorporation of Lactate Measurement in Multi-Spin-Echo Proton Spectroscopic Imaging. Magnetic Resonance in Medicine, 1995, 33, 101-107.	1.9	30
72	Effects of large vessels in functional magnetic resonance imaging at 1.5T. International Journal of Imaging Systems and Technology, 1995, 6, 245-252.	2.7	10

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73	Time series for modelling counts from a relapsing-remitting disease: Application to modelling disease activity in multiple sclerosis. Statistics in Medicine, 1994, 13, 453-466.	0.8	43
74	3-dimensional functional imaging of human brain using echo-shifted FLASH MRI. Magnetic Resonance in Medicine, 1994, 32, 150-155.	1.9	65
75	Serial contrast-enhanced magnetic resonance imaging in patients with early relapsing-remitting multiple sclerosis: Implications for treatment trials. Annals of Neurology, 1994, 36, S86-S90.	2.8	80
76	Frequency dependence of MR relaxation times I. Paramagnetic ions. Journal of Magnetic Resonance Imaging, 1993, 3, 637-640.	1.9	45
77	Frequency dependence of MR relaxation times II. Iron oxides. Journal of Magnetic Resonance Imaging, 1993, 3, 641-648.	1.9	106
78	Dynamic Enhanced Magnetic Resonance Imaging of Testicular Perfusion in the Rat. Journal of Urology, 1993, 149, 1195-1197.	0.2	23
79	Using gadolinium-enhanced magnetic resonance imaging lesions to monitor disease activity in multiple sclerosis. Annals of Neurology, 1992, 32, 758-766.	2.8	351
80	Serial gadolinium-enhanced magnetic resonance imaging scans in patients with early, relapsing-remitting multiple sclerosis: Implications for clinical trials and natural history. Annals of Neurology, 1991, 29, 548-555.	2.8	306
81	Functional MR of the kidney. Magnetic Resonance in Medicine, 1991, 22, 319-323.	1.9	49