Mary A Mclean

List of Publications by Year
in descending order

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84 papers	3,990 citations	126907 33 h-index	128289 60 g-index
88 all docs	88 docs citations	88 times ranked	4576 citing authors

#	Article	IF	Citations
1	Brain metabolite changes in cortical grey and normal-appearing white matter in clinically early relapsing-remitting multiple sclerosis. Brain, 2002, 125, 2342-2352.	7.6	255
2	Glutamate Dysfunction in People with Prodromal Symptoms of Psychosis: Relationship to Gray Matter Volume. Biological Psychiatry, 2009, 66, 533-539.	1.3	210
3	Elevated white matter myo-inositol in clinically isolated syndromes suggestive of multiple sclerosis. Brain, 2004, 127, 1361-1369.	7.6	193
4	Spinal cord spectroscopy and diffusion-based tractography to assess acute disability in multiple sclerosis. Brain, 2007, 130, 2220-2231.	7.6	154
5	Quantitative analysis of short echo time1H-MRSI of cerebral gray and white matter. Magnetic Resonance in Medicine, 2000, 44, 401-411.	3.0	145
6	Quantifying normal human brain metabolism using hyperpolarized [1â€“13C]pyruvate and magnetic resonance imaging. NeuroImage, 2019, 189, 171-179.	4.2	144
7	Imaging breast cancer using hyperpolarized carbon-13 MRI. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 2092-2098.	7.1	138
8	Preliminary evidence for neuronal damage in cortical grey matter and normal appearing white matter in short duration relapsing-remitting multiple sclerosis: a quantitative MR spectroscopic imaging study. Journal of Neurology, 2001, 248, 131-138.	3.6	136
9	Continuing Ischemic Damage After Acute Middle Cerebral Artery Infarction in Humans Demonstrated by Short-Echo Proton Spectroscopy. Stroke, 1995, 26, 1007-1013.	2.0	134
10	Short echo time single-voxel1H magnetic resonance spectroscopy in magnetic resonance imaging-negative temporal lobe epilepsy: Different biochemical profile compared with hippocampal sclerosis. Annals of Neurology, 1999, 45, 369-376.	5.3	131
11	Altered Relationship Between Hippocampal Glutamate Levels and Striatal Dopamine Function in Subjects at Ultra High Risk of Psychosis. Biological Psychiatry, 2010, 68, 599-602.	1.3	125
12	Metabolite Changes in Normal-Appearing Gray and White Matter Are Linked With Disability in Early Primary Progressive Multiple Sclerosis. Archives of Neurology, 2005, 62, 569.	4.5	109
13	Proton MRS reveals frontal lobe metabolite abnormalities in idiopathic generalized epilepsy. Neurology, 2003, 61, 897-902.	1.1	107
14	Advanced Ovarian Cancer: Multiparametric MR Imaging Demonstrates Response- and Metastasis-specific Effects. Radiology, 2012, 263, 149-159.	7.3	89
15	A comparison of quantitative methods for clinical imaging with hyperpolarized ‹sup›13‹/sup›Câ€pyruvate. NMR in Biomedicine, 2016, 29, 387-399.	2.8	83
16	Relationship Between Brain Glutamate Levels and Clinical Outcome in Individuals at Ultra High Risk of Psychosis. Neuropsychopharmacology, 2014, 39, 2891-2899.	5.4	76
17	A Short-echo-time Proton Magnetic Resonance Spectroscopic Imaging Study of Temporal Lobe Epilepsy. Epilepsia, 2002, 43, 1021-1031.	5.1	68
18	Metabolite changes in early relapsingâ€“remitting multiple sclerosis. Journal of Neurology, 2006, 253, 224-230.	3.6	68

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19	DCE and DW MRI in monitoring response to androgen deprivation therapy in patients with prostate cancer: A feasibility study. Magnetic Resonance in Medicine, 2012, 67, 778-785.	3.0	68
20	Multi-site repeatability and reproducibility of MR fingerprinting of the healthy brain at 1.5 and 3.0â€¯T. NeuroImage, 2019, 195, 362-372.	4.2	67
21	Approaches to Studies on Neuronal/Glial Relationships by ¹³C-MRS Analysis. Developmental Neuroscience, 1996, 18, 434-442.	2.0	66
22	Quantitative 1H MRS imaging 14 years after presenting with a clinically isolated syndrome suggestive of multiple sclerosis. Multiple Sclerosis Journal, 2002, 8, 207-210.	3.0	62
23	A Proton Magnetic Resonance Spectroscopy Study of Metabolites in the Occipital Lobes in Epilepsy. Epilepsia, 2003, 44, 550-558.	5.1	61
24	Apparent diffusion coefficient and vascular signal fraction measurements with magnetic resonance imaging: feasibility in metastatic ovarian cancer at 3 Tesla. European Radiology, 2010, 20, 491-496.	4.5	59
25	Quantitative short echo time proton magnetic resonance spectroscopic imaging study of malformations of cortical development causing epilepsy. Brain, 2001, 124, 427-436.	7.6	55
26	Multimodal MR Imaging: Functional, Diffusion Tensor, and Chemical Shift Imaging in a Patient with Localizationâ€Related Epilepsy. Epilepsia, 1999, 40, 1459-1462.	5.1	54
27	Assessment of early treatment response to neoadjuvant chemotherapy in breast cancer using non-mono-exponential diffusion models: a feasibility study comparing the baseline and mid-treatment MRI examinations. European Radiology, 2017, 27, 2726-2736.	4.5	51
28	Multiâ€institutional validation of a novel textural analysis tool for preoperative stratification of suspected thyroid tumors on diffusionâ€weighted MRI. Magnetic Resonance in Medicine, 2016, 75, 1708-1716.	3.0	50
29	Hyperpolarized ¹³C MRI: A novel approach for probing cerebral metabolism in health and neurological disease. Journal of Cerebral Blood Flow and Metabolism, 2020, 40, 1137-1147.	4.3	49
30	Dynamic contrast-enhanced MRI in ovarian cancer: Initial experience at 3 tesla in primary and metastatic disease. Magnetic Resonance in Medicine, 2010, 63, 1044-1049.	3.0	44
31	Reproducibility of in vivo metabolite quantification with proton magnetic resonance spectroscopic imaging. Journal of Magnetic Resonance Imaging, 2002, 15, 219-225.	3.4	43
32	Multimodal MRI can identify perfusion and metabolic changes in the invasive margin of glioblastomas. Journal of Magnetic Resonance Imaging, 2016, 43, 487-494.	3.4	41
33	Hyperpolarized ¹³C MRI of Tumor Metabolism Demonstrates Early Metabolic Response to Neoadjuvant Chemotherapy in Breast Cancer. Radiology Imaging Cancer, 2020, 2, e200017.	1.6	40
34	Proton magnetic resonance spectroscopy of malformations of cortical development causing epilepsy. Epilepsy Research, 2007, 74, 107-115.	1.6	34
35	In Vivo Short Echo Time 1H-Magnetic Resonance Spectroscopic Imaging (MRSI) of the Temporal Lobes. NeuroImage, 2001, 14, 501-509.	4.2	33
36	Metabolic characterization of primary and metastatic ovarian cancer by ¹Hâ€MRS in vivo at 3T. Magnetic Resonance in Medicine, 2009, 62, 855-861.	3.0	33

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37	Diagnostic evaluation of magnetization transfer and diffusion kurtosis imaging for prostate cancer detection in a re-biopsy population. European Radiology, 2018, 28, 3141-3150.	4.5	31
38	Quantification of Total and Intracellular Sodium Concentration in Primary Prostate Cancer and Adjacent Normal Prostate Tissue With Magnetic Resonance Imaging. Investigative Radiology, 2018, 53, 450-456.	6.2	28
39	Proton MR spectroscopy of metabolite concentrations in temporal lobe epilepsy and effect of temporal lobe resection. Epilepsy Research, 2009, 83, 168-176.	1.6	27
40	Non-invasive assessment of glioma microstructure using VERDICT MRI: correlation with histology. European Radiology, 2019, 29, 5559-5566.	4.5	27
41	Hyperpolarised 13C-MRI identifies the emergence of a glycolytic cell population within intermediate-risk human prostate cancer. Nature Communications, 2022, 13, 466.	12.8	27
42	Deuterium metabolic imaging and hyperpolarized 13C-MRI of the normal human brain at clinical field strength reveals differential cerebral metabolism. NeuroImage, 2022, 257, 119284.	4.2	27
43	Magnetic resonance neurography of the median nerve. British Journal of Radiology, 1994, 67, 1169-1172.	2.2	26
44	Hyperpolarized Carbon-13 MRI for Early Response Assessment of Neoadjuvant Chemotherapy in Breast Cancer Patients. Cancer Research, 2021, 81, 6004-6017.	0.9	25
45	Creating a clinical platform for carbonâ€13 studies using the sodiumâ€23 and proton resonances. Magnetic Resonance in Medicine, 2020, 84, 1817-1827.	3.0	24
46	Concentrations and magnetization transfer ratios of metabolites in gray and white matter. Magnetic Resonance in Medicine, 2006, 56, 1365-1370.	3.0	23
47	Prostate cancer metabolite quantification relative to water in ¹Hâ€MRSI in vivo at 3 Tesla. Magnetic Resonance in Medicine, 2011, 65, 914-919.	3.0	22
48	Magnetic resonance spectroscopy: principles and applications in neurosurgery. British Journal of Neurosurgery, 2009, 23, 5-13.	0.8	20
49	Hyperpolarized carbon-13 magnetic resonance spectroscopic imaging: a clinical tool for studying tumour metabolism. British Journal of Radiology, 2018, 91, 20170688.	2.2	20
50	The effect of sodium valproate on proton MRS visible neurochemical concentrations. Epilepsy Research, 2007, 74, 215-219.	1.6	19
51	Hyperpolarized 13C-Pyruvate Metabolism as a Surrogate for Tumor Grade and Poor Outcome in Renal Cell Carcinomaâ€"A Proof of Principle Study. Cancers, 2022, 14, 335.	3.7	18
52	Effect of Radiofrequency Transmit Field Correction on Quantitative Dynamic Contrast-enhanced MR Imaging of the Breast at 3.0 T. Radiology, 2016, 279, 368-377.	7.3	17
53	Multi-parametric and multi-regional histogram analysis of MRI: modality integration reveals imaging phenotypes of glioblastoma. European Radiology, 2019, 29, 4718-4729.	4.5	17
54	Measuring tissue sodium concentration: Crossâ€vendor repeatability and reproducibility of ²³Naâ€MRI across two sites. Journal of Magnetic Resonance Imaging, 2019, 50, 1278-1284.	3.4	17

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55	Visualization of sodium dynamics in the kidney by magnetic resonance imaging in a multi-site study. Kidney International, 2020, 98, 1174-1178.	5.2	17
56	Imaging Glioblastoma Metabolism by Using Hyperpolarized [1-¹³C]Pyruvate Demonstrates Heterogeneity in Lactate Labeling: A Proof of Principle Study. Radiology Imaging Cancer, 2022, 4, .	1.6	17
57	Absolute metabolite quantification by in vivo NMR spectroscopy: IV. multicentre trial on MRSI localisation tests. Magnetic Resonance Imaging, 1998, 16, 1113-1125.	1.8	15
58	3T diffusion-weighted MRI of the thyroid gland with reduced distortion: preliminary results. British Journal of Radiology, 2013, 86, 20130022.	2.2	15
59	Low perfusion compartments in glioblastoma quantified by advanced magnetic resonance imaging and correlated with patient survival. Radiotherapy and Oncology, 2019, 134, 17-24.	0.6	15
60	Discrimination between neurochemical and macromolecular signals in human frontal lobes using short echo time proton magnetic resonance spectroscopy. Faraday Discussions, 2004, 126, 93.	3.2	13
61	Magnetisation transfer ratio of choline is reduced following epileptic seizures. NMR in Biomedicine, 2006, 19, 217-222.	2.8	13
62	Feasibility of Quantitative Magnetic Resonance Fingerprinting in Ovarian Tumors for T₁ and T₂ Mapping in a PET/MR Setting. IEEE Transactions on Radiation and Plasma Medical Sciences, 2019, 3, 509-515.	3.7	13
63	Multiparametric MRI of early tumor response to immune checkpoint blockade in metastatic melanoma. , 2021, 9, e003125.		13
64	Sodium accumulation in breast cancer predicts malignancy and treatment response. British Journal of Cancer, 2022, 127, 337-349.	6.4	13
65	Magnetization transfer effect on human brain metabolites and macromolecules. Magnetic Resonance in Medicine, 2005, 54, 1281-1285.	3.0	12
66	Sodium MRI with 3D-cones as a measure of tumour cellularity in high grade serous ovarian cancer. European Journal of Radiology Open, 2019, 6, 156-162.	1.6	12
67	Magnetic resonance fingerprinting of the pancreas at 1.5ÂT and 3.0ÂT. Scientific Reports, 2020, 10, 17563.	3.3	12
68	Fumarate Metabolic Signature for the Detection of Reed Syndrome in Humans. Clinical Cancer Research, 2020, 26, 391-396.	7.0	11
69	Imaging intralesional heterogeneity of sodium concentration in multiple sclerosis: Initial evidence from 23 Na-MRI. Journal of the Neurological Sciences, 2018, 387, 111-114.	0.6	10
70	Diffusion kurtosis MRI as a predictive biomarker of response to neoadjuvant chemotherapy in high grade serous ovarian cancer. Scientific Reports, 2019, 9, 10742.	3.3	10
71	Multi-site benchmarking of clinical 13C RF coils at 3T. Journal of Magnetic Resonance, 2020, 318, 106798.	2.1	10
72	The effect of epileptic seizures on proton MRS visible neurochemical concentrations. Epilepsy Research, 2008, 81, 36-43.	1.6	9

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73	Repeatability of edited lactate and other metabolites in astrocytoma at 3T. Journal of Magnetic Resonance Imaging, 2012, 36, 468-475.	3.4	9
74	Quantitative and textural analysis of magnetization transfer and diffusion images in the early detection of brain metastases. Magnetic Resonance in Medicine, 2017, 77, 1987-1995.	3.0	9
75	Molecular imaging of the prostate: Comparing total sodium concentration quantification in prostate cancer and normal tissue using dedicated ¹³C and ²³Na endorectal coils. Journal of Magnetic Resonance Imaging, 2020, 51, 90-97.	3.4	9
76	Slice-selective broadband refocusing pulses for the robust generation of crushed spin-echoes. Journal of Magnetic Resonance, 2012, 223, 129-137.	2.1	8
77	Enhancing the spatial resolution of hyperpolarized carbonâ€13 MRI of human brain metabolism using structure guidance. Magnetic Resonance in Medicine, 2022, 87, 1301-1312.	3.0	8
78	Characterization and correction of centerâ€frequency effects in Xâ€nuclear eddy current compensations on a clinical MR system. Magnetic Resonance in Medicine, 2021, 85, 2370-2376.	3.0	7
79	Investigating the relationship between diffusion kurtosis tensor imaging (DKTI) and histology within the normal human brain. Scientific Reports, 2021, 11, 8857.	3.3	7
80	Combined ²³Na and ¹³C imaging at 3.0ÂTesla using a singleâ€tuned large FOV birdcage coil. Magnetic Resonance in Medicine, 2021, 86, 1734-1745.	3.0	5
81	Detecting gasâ€induced vasomotor changes via blood oxygenation levelâ€dependent contrast in healthy breast parenchyma and breast carcinoma. Journal of Magnetic Resonance Imaging, 2016, 44, 335-345.	3.4	3
82	Magnetic resonance spectroscopy of cerebral cortex is normal in hereditary hyperekplexia due to mutations in the GLRA1 gene. Movement Disorders, 2003, 18, 1538-1541.	3.9	2
83	Reply to: Hippocampal Glutamate Levels and Striatal Dopamine D2/3 Receptor Occupancy in Subjects at Ultra High Risk of Psychosis. Biological Psychiatry, 2011, 70, e3-e4.	1.3	0
84	Magnetization transfer imaging of ovarian cancer: initial experiences of correlation with tissue cellularity and changes following neoadjuvant chemotherapy. BJR|Open, 2022, 4, .	0.6	0