Murali C Krishna

List of Publications by Year
in descending order

79 papers	2,088 citations	236925 25 h-index	265206 42 g-index
84 all docs	84 docs citations	84 times ranked	2527 citing authors

#	Article	IF	Citations
1	Hypoxia Imaging As a Guide for Hypoxia-Modulated and Hypoxia-Activated Therapy. Antioxidants and Redox Signaling, 2022, 36, 144-159.	5.4	13
2	Special Issues of AMR on the Occasion of the 85th Birthday of Harold M. Swartz (HMS): Overview of Part 2 Articles and HMSâ€™ Citations on Magnetic Resonance. Applied Magnetic Resonance, 2022, 53, 1-45.	1.2	2
3	The antioxidant tempol transforms gut microbiome to resist obesity in female C3H mice fed a high fat diet. Free Radical Biology and Medicine, 2022, 178, 380-390.	2.9	7
4	Structure-guided design enables development of a hyperpolarized molecular probe for the detection of aminopeptidase N activity in vivo. Science Advances, 2022, 8, eabj2667.	10.3	10
5	PEGPH20, a PEGylated human hyaluronidase, induces radiosensitization by reoxygenation in pancreatic cancer xenografts. A molecular imaging study. Neoplasia, 2022, 30, 100793.	5.3	6
6	Abstract 5974: Multimodal molecular imaging detects early reoxygenation induced by hyaluronan depletion in pancreatic cancer model mouse. Cancer Research, 2022, 82, 5974-5974.	0.9	0
7	Hypoxia-Activated Prodrug Evofosfamide Treatment in Pancreatic Ductal Adenocarcinoma Xenografts Alters the Tumor Redox Status to Potentiate Radiotherapy. Antioxidants and Redox Signaling, 2021, 35, 904-915.	5.4	26
8	Trehalose as an alternative to glycerol as a glassing agent for in vivo DNP MRI. Magnetic Resonance in Medicine, 2021, 85, 42-48.	3.0	6
9	Glycolytic metabolism of pathogenic T cells enables early detection of GVHD by 13C-MRI. Blood, 2021, 137, 126-137.	1.4	29
10	Multimodal Functional Imaging for Cancer/Tumor Microenvironments Based on MRI, EPRI, and PET. Molecules, 2021, 26, 1614.	3.8	17
11	Multimodal Molecular Imaging Detects Early Responses to Immune Checkpoint Blockade. Cancer Research, 2021, 81, 3693-3705.	0.9	15
12	Detection of metabolic change in glioblastoma cells after radiotherapy using hyperpolarized ¹³Câ€MRI. NMR in Biomedicine, 2021, 34, e4514.	2.8	6
13	Radiation-Induced Senescence Reprograms Secretory and Metabolic Pathways in Colon Cancer HCT-116 Cells. International Journal of Molecular Sciences, 2021, 22, 4835.	4.1	13
14	Real-Time insight into in vivo redox status utilizing hyperpolarized [1-13C] N-acetyl cysteine. Scientific Reports, 2021, 11, 12155.	3.3	6
15	Synthesis of [1â€¹³Câ€5â€¹²C]â€alphaâ€ketoglutarate enables noninvasive detection of 2â€hydroxyglutarate. NMR in Biomedicine, 2021, 34, e4588.	2.8	6
16	The Development of Time-Domain In Vivo EPR Imaging at NCI. Applied Magnetic Resonance, 2021, 52, 1291-1309.	1.2	1
17	Simple Esterification of [1-¹³C]-Alpha-Ketoglutarate Enhances Membrane Permeability and Allows for Noninvasive Tracing of Glutamate and Glutamine Production. ACS Chemical Biology, 2021, 16, 2144-2150.	3.4	6
18	Tensor image enhancement and optimal multichannel receiver combination analyses for human hyperpolarized ¹³C MRSI. Magnetic Resonance in Medicine, 2020, 84, 3351-3365.	3.0	27

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19	Molecular Imaging of the Tumor Microenvironment Reveals the Relationship between Tumor Oxygenation, Glucose Uptake, and Glycolysis in Pancreatic Ductal Adenocarcinoma. Cancer Research, 2020, 80, 2087-2093.	0.9	24
20	Dynamic Imaging of LDH Inhibition in Tumors Reveals Rapid InÂVivo Metabolic Rewiring and Vulnerability to Combination Therapy. Cell Reports, 2020, 30, 1798-1810.e4.	6.4	73
21	Targeting Glycolysis through Inhibition of Lactate Dehydrogenase Impairs Tumor Growth in Preclinical Models of Ewing Sarcoma. Cancer Research, 2019, 79, 5060-5073.	0.9	86
22	Identification of high-risk drugs related to chemotherapy-induced peripheral neuropathyÂin Cancer Therapy Evaluation Programâ€“sponsored phase I trials. European Journal of Cancer, 2019, 115, 111-119.	2.8	9
23	Dynamic Imaging of Glucose and Lactate Metabolism by 13C-MRS without Hyperpolarization. Scientific Reports, 2019, 9, 3410.	3.3	56
24	Direct and indirect assessment of cancer metabolism explored by MRI. NMR in Biomedicine, 2019, 32, e3966.	2.8	6
25	Imaging Metabolic Processes to Predict Radiation Responses. Seminars in Radiation Oncology, 2019, 29, 81-89.	2.2	3
26	Effects of oxygen challenging to tissue redox and pO2 status. Free Radical Biology and Medicine, 2019, 130, 343-347.	2.9	7
27	Synthesis and evaluation of 13C-labeled 5-5-dimethyl-1-pyrroline-N-oxide aimed at in vivo detection of reactive oxygen species using hyperpolarized 13C-MRI. Free Radical Biology and Medicine, 2019, 131, 18-26.	2.9	9
28	Towards reduction of SAR in scaling up in vivo pulsed EPR imaging to larger objects. Journal of Magnetic Resonance, 2019, 299, 42-48.	2.1	3
29	A radical containing injectable in-situ-oleogel and emulgel for prolonged in-vivo oxygen measurements with CW EPR. Free Radical Biology and Medicine, 2019, 130, 120-127.	2.9	17
30	Imaging of glucose metabolism by 13C-MRI distinguishes pancreatic cancer subtypes in mice. ELife, 2019, 8, .	6.0	19
31	Cancer Incidence in C3H Mice Protected from Lethal Total-Body Radiation after Amifostine. Radiation Research, 2018, 189, 490-496.	1.5	7
32	Comparative studies with EPR and MRI on the in vivo tissue redox status estimation using redox-sensitive nitroxyl probes: influence of the choice of the region of interest. Free Radical Research, 2018, 52, 248-255.	3.3	14
33	Molecular imaging of tumor photoimmunotherapy: Evidence of photosensitized tumor necrosis and hemodynamic changes. Free Radical Biology and Medicine, 2018, 116, 1-10.	2.9	16
34	Wireless implantable coil with parametric amplification for in vivo electron paramagnetic resonance oximetric applications. Magnetic Resonance in Medicine, 2018, 80, 2288-2298.	3.0	2
35	<scp>EPR</scp>â€based oximetric imaging: a combination of single pointâ€based spatial encoding and <scp>T</scp>₁ weighting. Magnetic Resonance in Medicine, 2018, 80, 2275-2287.	3.0	12
36	Hyperpolarized [1-13C]-Pyruvate Magnetic Resonance Spectroscopic Imaging of Prostate Cancer In Vivo Predicts Efficacy of Targeting the Warburg Effect. Clinical Cancer Research, 2018, 24, 3137-3148.	7.0	36

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37	Radiotherapy Synergizes with the Hypoxia-Activated Prodrug Evofosfamide: In Vitro and In Vivo Studies. Antioxidants and Redox Signaling, 2018, 28, 131-140.	5.4	27
38	In Vivo Application of Proton-Electron Double-Resonance Imaging. Antioxidants and Redox Signaling, 2018, 28, 1345-1364.	5.4	30
39	Effect of body temperature on the pharmacokinetics of a triarylmethylâ€type paramagnetic contrast agent used in EPR oximetry. Magnetic Resonance in Medicine, 2018, 79, 1212-1218.	3.0	4
40	Pulsed Electron Paramagnetic Resonance Imaging: Applications in the Studies of Tumor Physiology. Antioxidants and Redox Signaling, 2018, 28, 1378-1393.	5.4	33
41	A Multimodal Molecular Imaging Study Evaluates Pharmacological Alteration of the Tumor Microenvironment to Improve Radiation Response. Cancer Research, 2018, 78, 6828-6837.	0.9	16
42	Co-imaging of the tumor oxygenation and metabolism using electron paramagnetic resonance imaging and 13-C hyperpolarized magnetic resonance imaging before and after irradiation. Oncotarget, 2018, 9, 25089-25100.	1.8	8
43	Metabolic and Physiologic Imaging Biomarkers of the Tumor Microenvironment Predict Treatment Outcome with Radiation or a Hypoxia-Activated Prodrug in Mice. Cancer Research, 2018, 78, 3783-3792.	0.9	42
44	Three-dimensional alginate hydrogels for radiobiological and metabolic studies of cancer cells. Colloids and Surfaces B: Biointerfaces, 2018, 171, 197-204.	5.0	14
45	Oral administration of the nitroxide radical TEMPOL exhibits immunomodulatory and therapeutic properties in multiple sclerosis models. Brain, Behavior, and Immunity, 2017, 62, 332-343.	4.1	24
46	Quantitative imaging of pO₂ in orthotopic murine gliomas: hypoxia correlates with resistance to radiation. Free Radical Research, 2017, 51, 861-871.	3.3	16
47	Effect of amifostine, a radiation-protecting drug, on oxygen concentration in tissue measured by EPR oximetry and imaging. Journal of Clinical Biochemistry and Nutrition, 2017, 60, 151-155.	1.4	14
48	Multi-modality imaging to assess metabolic response to dichloroacetate treatment in tumor models. Oncotarget, 2016, 7, 81741-81749.	1.8	10
49	Multimodality Imaging Identifies Distinct Metabolic Profiles In Vitro and In Vivo. Neoplasia, 2016, 18, 742-752.	5.3	13
50	Electron paramagnetic resonance imaging. Resonance, 2016, 21, 717-740.	0.3	2
51	Electron Paramagnetic Resonance imaging. Resonance, 2016, 21, 597-619.	0.3	1
52	Evaluation of oxygen dependence on in vitro and in vivo cytotoxicity of photoimmunotherapy using IR-700â€“antibody conjugates. Free Radical Biology and Medicine, 2015, 85, 24-32.	2.9	45
53	Passive Decoupling Due to Low Q-Factors of Four-Channel Coils in 300-MHz Pulsed EPR Imaging. Applied Magnetic Resonance, 2015, 46, 671-683.	1.2	3
54	13C-MR Spectroscopic Imaging with Hyperpolarized [1-13C]pyruvate Detects Early Response to Radiotherapy in SCC Tumors and HT-29 Tumors. Clinical Cancer Research, 2015, 21, 5073-5081.	7.0	54

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55	Pyruvate Induces Transient Tumor Hypoxia by Enhancing Mitochondrial Oxygen Consumption and Potentiates the Anti-Tumor Effect of a Hypoxia-Activated Prodrug TH-302. PLoS ONE, 2014, 9, e107995.	2.5	35
56	In VivoImaging of Tumor Physiological, Metabolic, and Redox Changes in Response to the Anti-Angiogenic Agent Sunitinib: Longitudinal Assessment to Identify Transient Vascular Renormalization. Antioxidants and Redox Signaling, 2014, 21, 1145-1155.	5.4	41
57	Targeting ABL1-Mediated Oxidative Stress Adaptation in Fumarate Hydratase-Deficient Cancer. Cancer Cell, 2014, 26, 840-850.	16.8	87
58	An efficient synthesis of 3-(N-piperidinemethyl)-2,2,5,5-tetramethyl-1-oxy-3-pyrroline, a promising radioprotector for cancer radiotherapy. Tetrahedron Letters, 2014, 55, 5570-5571.	1.4	3
59	Magnetic Resonance Imaging of the Tumor Microenvironment in Radiotherapy: Perfusion, Hypoxia, and Metabolism. Seminars in Radiation Oncology, 2014, 24, 210-217.	2.2	61
60	Suberoylanilide hydroxamic acid radiosensitizes tumor hypoxic cells in vitro through the oxidation of nitroxyl to nitric oxide. Free Radical Biology and Medicine, 2014, 73, 291-298.	2.9	23
61	Magnetic resonance imaging of tumor oxygenation and metabolic profile. Acta OncolÃ³gica, 2013, 52, 1248-1256.	1.8	17
62	EPR oxygen imaging and hyperpolarized 13 C MRI of pyruvate metabolism as noninvasive biomarkers of tumor treatment response to a glycolysis inhibitor 3-bromopyruvate. Magnetic Resonance in Medicine, 2013, 69, spcone-spcone.	3.0	1
63	Electron Paramagnetic Resonance Imaging of Tumor pO₂. Radiation Research, 2012, 177, 376-386.	1.5	61
64	A Feature Identification System for Electron Magnetic Resonance Tomography: Fusion of Principal Components Transform, Color Quantization and Boundary Information. Journal of Mathematical Imaging and Vision, 2008, 30, 284-297.	1.3	2
65	Redox Mapping of Biological Samples Using EPR Imaging. Israel Journal of Chemistry, 2008, 48, 27-31.	2.3	5
66	Maximum Entropy Reconstruction Methods in Electron Paramagnetic Resonance Imaging. Annals of Operations Research, 2003, 119, 101-118.	4.1	15
67	Gadolinium-labeled dendrimers as biometric nanoprobes to detect vascular permeability. Journal of Materials Chemistry, 2003, 13, 1523.	6.7	44
68	Overhauser enhanced magnetic resonance imaging for tumor oximetry: Coregistration of tumor anatomy and tissue oxygen concentration. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 2216-2221.	7.1	284
69	Nitroxides as Radiation Protectors. Military Medicine, 2002, 167, 49-50.	0.8	19
70	Nitroxides as antioxidants: Tempol protects against EO9 cytotoxicity. Molecular and Cellular Biochemistry, 2002, 234/235, 327-333.	3.1	27
71	Protection Against Oxidative Stress by Nitroxides. Experimental Biology and Medicine, 2001, 226, 620-621.	2.4	30
72	Three-dimensional whole body imaging of spin probes in mice by time-domain radiofrequency electron paramagnetic resonance. Magnetic Resonance in Medicine, 2000, 43, 375-382.	3.0	58

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73	Radiation, Radicals, and Images. Annals of the New York Academy of Sciences, 2000, 899, 28-43.	3.8	62
74	A broadband pulsed radio frequency electron paramagnetic resonance spectrometer for biological applications. Review of Scientific Instruments, 1998, 69, 1869-1876.	1.3	55
75	Development of Functional Electron Paramagnetic Resonance Imaging. Breast Disease, 1998, 10, 209-220.	0.8	8
76	In vivo imaging of a stable paramagnetic probe by pulsed-radiofrequency electron paramagnetic resonance spectroscopy. Magnetic Resonance in Medicine, 1997, 38, 409-414.	3.0	84
77	Highâ€speed digitizer/averager dataâ€acquisition system for Fourier transform electron paramagnetic resonance spectroscopy. Review of Scientific Instruments, 1994, 65, 2500-2504.	1.3	19
78	Nitric Oxide Protects against the Cytotoxic Effects of Reactive Oxygen Species. Annals of the New York Academy of Sciences, 1994, 738, 265-278.	3.8	89
79	Special Issues of AMR on the Occasion of the 85th Birthday of Harold M. Swartz. Applied Magnetic Resonance, 0, , 1.	1.2	0