Marcia C Haigis

List of Publications by Year
in descending order

91 papers	21,208 citations	30070 54 h-index	58581 82 g-index
95 all docs	95 docs citations	95 times ranked	27749 citing authors

#	Article	IF	Citations
1	Mammalian Sirtuins: Biological Insights and Disease Relevance. Annual Review of Pathology: Mechanisms of Disease, 2010, 5, 253-295.	22.4	1,742
2	Glutamine supports pancreatic cancer growth through a KRAS-regulated metabolic pathway. Nature, 2013, 496, 101-105.	27.8	1,562
3	Mitochondria and Cancer. Cell, 2016, 166, 555-566.	28.9	1,203
4	Mammalian sirtuinsâ€"emerging roles in physiology, aging, and calorie restriction. Genes and Development, 2006, 20, 2913-2921.	5.9	1,138
5	Mammalian Sir2 Homolog SIRT3 Regulates Global Mitochondrial Lysine Acetylation. Molecular and Cellular Biology, 2007, 27, 8807-8814.	2.3	1,097
6	PGC-1Î± mediates mitochondrial biogenesis and oxidative phosphorylation in cancer cells to promoteÂmetastasis. Nature Cell Biology, 2014, 16, 992-1003.	10.3	1,073
7	SIRT4 Inhibits Glutamate Dehydrogenase and Opposes the Effects of Calorie Restriction in Pancreatic Î² Cells. Cell, 2006, 126, 941-954.	28.9	1,053
8	The multifaceted contributions of mitochondria to cellular metabolism. Nature Cell Biology, 2018, 20, 745-754.	10.3	969
9	SIRT3 Opposes Reprogramming of Cancer Cell Metabolism through HIF1Î± Destabilization. Cancer Cell, 2011, 19, 416-428.	16.8	690
10	SIRT5 Deacetylates Carbamoyl Phosphate Synthetase 1 and Regulates the Urea Cycle. Cell, 2009, 137, 560-570.	28.9	677
11	Calorie restriction extends yeast life span by lowering the level of NADH. Genes and Development, 2004, 18, 12-16.	5.9	566
12	Sirtuin regulation of mitochondria: energy production, apoptosis, and signaling. Trends in Biochemical Sciences, 2010, 35, 669-675.	7.5	549
13	The mTORC1 Pathway Stimulates Glutamine Metabolism and Cell Proliferation by Repressing SIRT4. Cell, 2013, 153, 840-854.	28.9	505
14	The Aging Stress Response. Molecular Cell, 2010, 40, 333-344.	9.7	451
15	SIRT4 Has Tumor-Suppressive Activity and Regulates the Cellular Metabolic Response to DNA Damage by Inhibiting Mitochondrial Glutamine Metabolism. Cancer Cell, 2013, 23, 450-463.	16.8	389
16	Accumulation of succinate controls activation of adipose tissue thermogenesis. Nature, 2018, 560, 102-106.	27.8	380
17	Obesity Shapes Metabolism in the Tumor Microenvironment to Suppress Anti-Tumor Immunity. Cell, 2020, 183, 1848-1866.e26.	28.9	347
18	SIRT4 Coordinates the Balance between Lipid Synthesis and Catabolism by Repressing Malonyl CoA Decarboxylase. Molecular Cell, 2013, 50, 686-698.	9.7	315

#	Article	IF	Citations
19	Succinate Dehydrogenase Is a Direct Target of Sirtuin 3 Deacetylase Activity. PLoS ONE, 2011, 6, e23295.	2.5	310
20	Metabolic recycling of ammonia via glutamate dehydrogenase supports breast cancer biomass. Science, 2017, 358, 941-946.	12.6	303
21	Mitochondrial Biogenesis and Proteome Remodeling Promote One-Carbon Metabolism for T Cell Activation. Cell Metabolism, 2016, 24, 104-117.	16.2	282
22	Histone demethylase KDM6A directly senses oxygen to control chromatin and cell fate. Science, 2019, 363, 1217-1222.	12.6	281
23	Mitochondrial Sirtuin Network Reveals Dynamic SIRT3-Dependent Deacetylation in Response to Membrane Depolarization. Cell, 2016, 167, 985-1000.e21.	28.9	259
24	Metabolites and the tumour microenvironment: from cellular mechanisms to systemic metabolism. Nature Metabolism, 2021, 3, 21-32.	11.9	250
25	SIRT3 regulation of mitochondrial oxidative stress. Experimental Gerontology, 2013, 48, 634-639.	2.8	248
26	Mitochondrial Sirtuins and Molecular Mechanisms of Aging. Trends in Molecular Medicine, 2017, 23, 320-331.	6.7	242
27	Transaminase Inhibition by 2-Hydroxyglutarate Impairs Glutamate Biosynthesis and Redox Homeostasis in Glioma. Cell, 2018, 175, 101-116.e25.	28.9	234
28	Metformin and phenformin deplete tricarboxylic acid cycle and glycolytic intermediates during cell transformation and NTPs in cancer stem cells. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10574-10579.	7.1	227
29	From Sirtuin Biology to Human Diseases: An Update. Journal of Biological Chemistry, 2012, 287, 42444-42452.	3.4	218
30	Metabolic modeling of single Th17 cells reveals regulators of autoimmunity. Cell, 2021, 184, 4168-4185.e21.	28.9	203
31	Suppression by TFR cells leads to durable and selective inhibition of B cell effector function. Nature Immunology, 2016, 17, 1436-1446.	14.5	189
32	Acetylation-Dependent Regulation of Skp2 Function. Cell, 2012, 150, 179-193.	28.9	180
33	The aging lung: Physiology, disease, and immunity. Cell, 2021, 184, 1990-2019.	28.9	175
34	SIRT3 Is a Mitochondrial Tumor Suppressor: A Scientific Tale That Connects Aberrant Cellular ROS, the Warburg Effect, and Carcinogenesis. Cancer Research, 2012, 72, 2468-2472.	0.9	166
35	SIRT4 Represses Peroxisome Proliferator-Activated Receptor Î± Activity To Suppress Hepatic Fat Oxidation. Molecular and Cellular Biology, 2013, 33, 4552-4561.	2.3	132
36	HDAC6 and SIRT2 Regulate the Acetylation State and Oncogenic Activity of Mutant K-RAS. Molecular Cancer Research, 2013, 11, 1072-1077.	3.4	121

#	Article	IF	Citations
37	PHD3 Loss in Cancer Enables Metabolic Reliance on Fatty Acid Oxidation via Deactivation of ACC2. Molecular Cell, 2016, 63, 1006-1020.	9.7	120
38	Lipid metabolism in sickness and in health: Emerging regulators of lipotoxicity. Molecular Cell, 2021, 81, 3708-3730.	9.7	118
39	T Cell Activation Depends on Extracellular Alanine. Cell Reports, 2019, 28, 3011-3021.e4.	6.4	117
40	Defective TFH Cell Function and Increased TFR Cells Contribute to Defective Antibody Production in Aging. Cell Reports, 2015, 12, 163-171.	6.4	112
41	Metabolic regulation by SIRT3: implications for tumorigenesis. Trends in Molecular Medicine, 2012, 18, 516-523.	6.7	108
42	SIRT4 Protein Suppresses Tumor Formation in Genetic Models of Myc-induced B Cell Lymphoma. Journal of Biological Chemistry, 2014, 289, 4135-4144.	3.4	106
43	Sirtuins regulate key aspects of lipid metabolism. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 1652-1657.	2.3	102
44	Skeletal muscle transcriptional coactivator PGC-1Î± mediates mitochondrial, but not metabolic, changes during calorie restriction. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2931-2936.	7.1	94
45	Defective respiration and one-carbon metabolism contribute to impaired naÃ¯ve T cell activation in aged mice. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 13347-13352.	7.1	93
46	mTOR and HDAC Inhibitors Converge on the TXNIP/Thioredoxin Pathway to Cause Catastrophic Oxidative Stress and Regression of RAS-Driven Tumors. Cancer Discovery, 2017, 7, 1450-1463.	9.4	87
47	A novel AMPK-dependent FoxO3A-SIRT3 intramitochondrial complex sensing glucose levels. Cellular and Molecular Life Sciences, 2013, 70, 2015-2029.	5.4	85
48	Mitochondria: Their relevance during oocyte ageing. Ageing Research Reviews, 2021, 70, 101378.	10.9	80
49	Induction of a Timed Metabolic Collapse to Overcome Cancer Chemoresistance. Cell Metabolism, 2020, 32, 391-403.e6.	16.2	79
50	Tumor cells dictate anti-tumor immune responses by altering pyruvate utilization and succinate signaling in CD8+ TÂcells. Cell Metabolism, 2022, 34, 1137-1150.e6.	16.2	78
51	Neurotrophin receptor TrkB promotes lung adenocarcinoma metastasis. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10299-10304.	7.1	77
52	Pharmacologic Screening Identifies Metabolic Vulnerabilities of CD8+ T Cells. Cancer Immunology Research, 2021, 9, 184-199.	3.4	74
53	Nitrogen Metabolism in Cancer and Immunity. Trends in Cell Biology, 2020, 30, 408-424.	7.9	72
54	Nuclear respiratory factor 2 induces <scp>SIRT</scp>3 expression. Aging Cell, 2015, 14, 818-825.	6.7	68

#	Article	IF	Citations
55	Localized Metabolomic Gradients in Patient-Derived Xenograft Models of Glioblastoma. Cancer Research, 2020, 80, 1258-1267.	0.9	67
56	Sirtuins and the Metabolic Hurdles in Cancer. Current Biology, 2015, 25, R569-R583.	3.9	60
57	Sirtuins in Cancer: a Balancing Act between Genome Stability and Metabolism. Molecules and Cells, 2015, 38, 750-758.	2.6	56
58	Inhibition of epithelial cell migration and Src/FAK signaling by SIRT3. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 7057-7062.	7.1	55
59	Mitochondrial Metabolism in T Cell Activation and Senescence: A Mini-Review. Gerontology, 2015, 61, 131-138.	2.8	50
60	Adaptation of Human iPSC-Derived Cardiomyocytes to Tyrosine Kinase Inhibitors Reduces Acute Cardiotoxicity via Metabolic Reprogramming. Cell Systems, 2019, 8, 412-426.e7.	6.2	49
61	Dynamic Regulation of Long-Chain Fatty Acid Oxidation by a Noncanonical Interaction between the MCL-1 BH3 Helix and VLCAD. Molecular Cell, 2018, 69, 729-743.e7.	9.7	45
62	Chemical and Physiological Features of Mitochondrial Acylation. Molecular Cell, 2018, 72, 610-624.	9.7	34
63	The human mitochondrial 12S rRNA m4C methyltransferase METTL15 is required for mitochondrial function. Journal of Biological Chemistry, 2020, 295, 8505-8513.	3.4	34
64	The effects of age and systemic metabolism on anti-tumor T cell responses. ELife, 2020, 9, .	6.0	34
65	l-Alanine activates hepatic AMP-activated protein kinase and modulates systemic glucose metabolism. Molecular Metabolism, 2018, 17, 61-70.	6.5	33
66	SIRT4 is an early regulator of branched-chain amino acid catabolism that promotes adipogenesis. Cell Reports, 2021, 36, 109345.	6.4	32
67	Small-Molecule Screen Identifies De Novo Nucleotide Synthesis as a Vulnerability of Cells Lacking SIRT3. Cell Reports, 2018, 22, 1945-1955.	6.4	31
68	The Protein Deacetylase SIRT3 Prevents Oxidative Stress-induced Keratinocyte Differentiation. Journal of Biological Chemistry, 2013, 288, 36484-36491.	3.4	30
69	Cell-specific transcriptional control of mitochondrial metabolism by TIF1Î³ drives erythropoiesis. Science, 2021, 372, 716-721.	12.6	25
70	SIRT4 Is a Regulator of Insulin Secretion. Cell Chemical Biology, 2017, 24, 656-658.	5.2	24
71	Astrocyte deletion of Î±2-Na/K ATPase triggers episodic motor paralysis in mice via a metabolic pathway. Nature Communications, 2020, 11, 6164.	12.8	23
72	PHD3 Loss Promotes Exercise Capacity and Fat Oxidation in Skeletal Muscle. Cell Metabolism, 2020, 32, 215-228.e7.	16.2	22

#	Article	IF	Citations
73	Intersections between mitochondrial sirtuin signaling and tumor cell metabolism. Critical Reviews in Biochemistry and Molecular Biology, 2015, 50, 242-255.	5.2	18
74	An LC-MS Approach to Quantitative Measurement of Ammonia Isotopologues. Scientific Reports, 2017, 7, 10304.	3.3	18
75	Metabolomic and transcriptomic signatures of chemogenetic heart failure. American Journal of Physiology - Heart and Circulatory Physiology, 2022, 322, H451-H465.	3.2	14
76	Sweet Temptation: From Sugar Metabolism to Gene Regulation. Immunity, 2019, 51, 980-981.	14.3	10
77	Development of a colorimetric Î±-ketoglutarate detection assay for prolyl hydroxylase domain (PHD) proteins. Journal of Biological Chemistry, 2021, 296, 100397.	3.4	10
78	Dangerous dynamic duo: Lactic acid and PD-1 blockade. Cancer Cell, 2022, 40, 127-130.	16.8	10
79	Luciferase-Based Reporter to Monitor the Transcriptional Activity of the SIRT3 Promoter. Methods in Enzymology, 2014, 543, 141-163.	1.0	8
80	Sirtuins in Aging and Age-Related Diseases. , 2011, , 243-274.		7
81	Strength in numbers: Phosphofructokinase polymerization prevails in the liver. Journal of Cell Biology, 2017, 216, 2239-2241.	5.2	4
82	Combined epigenetic and metabolic treatments overcome differentiation blockade in acute myeloid leukemia. IScience, 2021, 24, 102651.	4.1	4
83	Leveraging insights into cancer metabolismâ€"a symposium report. Annals of the New York Academy of Sciences, 2020, 1462, 5-13.	3.8	3
84	Mitochondrial Sirtuins. , 2018, , 95-115.		1
85	Sirtuins in Cancer â€" Emerging Role as Modulators of Metabolic Reprogramming. , 2016, , 171-190.		0
86	New roles for sirtuins in mitochondrial metabolism. FASEB Journal, 2010, 24, 198.2.	0.5	0
87	Transcriptional Regulation of Coenzyme Q Biosynthesis By TIF1Î³ Drives Erythropoiesis. Blood, 2019, 134, 152-152.	1.4	0
88	The Distinctive Metabolic Environment of the Bone Marrow Niche Drives Leukemia Chemoresistance. Blood, 2019, 134, 3725-3725.	1.4	0
89	Induction of a Timed Metabolic Collapse to Overcome Cancer Chemoresistance. SSRN Electronic Journal, 0, , .	0.4	0
90	Metabolic Competition in the Tumor Microenvironment. FASEB Journal, 2020, 34, 1-1.	0.5	0

#	Article	IF	Citations
91	The Role of Mitochondria in Aging and Cancer. Innovation in Aging, 2021, 5, 454-454.	0.1	0