Craig B Thompson

List of Publications by Year
in descending order

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127 papers	84,846 citations	3151 92 h-index	14736 127 g-index
132 all docs	132 docs citations	132 times ranked	83614 citing authors

#	Article	IF	Citations
1	Understanding the Warburg Effect: The Metabolic Requirements of Cell Proliferation. Science, 2009, 324, 1029-1033.	6.0	12,186
2	The Emerging Hallmarks of Cancer Metabolism. Cell Metabolism, 2016, 23, 27-47.	7.2	3,943
3	Proapoptotic BAX and BAK: A Requisite Gateway to Mitochondrial Dysfunction and Death. Science, 2001, 292, 727-730.	6.0	3,602
4	The Biology of Cancer: Metabolic Reprogramming Fuels Cell Growth and Proliferation. Cell Metabolism, 2008, 7, 11-20.	7.2	3,421
5	Cancer-associated IDH1 mutations produce 2-hydroxyglutarate. Nature, 2009, 462, 739-744.	13.7	3,315
6	Guidelines for the use and interpretation of assays for monitoring autophagy. Autophagy, 2012, 8, 445-544.	4.3	3,122
7	Metabolic Reprogramming: A Cancer Hallmark Even Warburg Did Not Anticipate. Cancer Cell, 2012, 21, 297-308.	7.7	2,617
8	Leukemic IDH1 and IDH2 Mutations Result inÂa Hypermethylation Phenotype, Disrupt TET2 Function, and Impair Hematopoietic Differentiation. Cancer Cell, 2010, 18, 553-567.	7.7	2,328
9	Beyond aerobic glycolysis: Transformed cells can engage in glutamine metabolism that exceeds the requirement for protein and nucleotide synthesis. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 19345-19350.	3.3	2,127
10	CTLA-4 can function as a negative regulator of T cell activation. Immunity, 1994, 1, 405-413.	6.6	1,949
11	ATP-Citrate Lyase Links Cellular Metabolism to Histone Acetylation. Science, 2009, 324, 1076-1080.	6.0	1,776
12	Succinate links TCA cycle dysfunction to oncogenesis by inhibiting HIF-Î± prolyl hydroxylase. Cancer Cell, 2005, 7, 77-85.	7.7	1,764
13	The Common Feature of Leukemia-Associated IDH1 and IDH2 Mutations Is a Neomorphic Enzyme Activity Converting Î±-Ketoglutarate to 2-Hydroxyglutarate. Cancer Cell, 2010, 17, 225-234.	7.7	1,754
14	IDH mutation impairs histone demethylation and results in a block to cell differentiation. Nature, 2012, 483, 474-478.	13.7	1,693
15	IDH1 mutation is sufficient to establish the glioma hypermethylator phenotype. Nature, 2012, 483, 479-483.	13.7	1,668
16	Myc regulates a transcriptional program that stimulates mitochondrial glutaminolysis and leads to glutamine addiction. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 18782-18787.	3.3	1,655
17	CTLA-4 and PD-1 Receptors Inhibit T-Cell Activation by Distinct Mechanisms. Molecular and Cellular Biology, 2005, 25, 9543-9553.	1.1	1,609
18	X-ray and NMR structure of human Bcl-xL, an inhibitor of programmed cell death. Nature, 1996, 381, 335-341.	13.7	1,427

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19	Glutamine addiction: a new therapeutic target in cancer. Trends in Biochemical Sciences, 2010, 35, 427-433.	3.7	1,422
20	Growth Factor Regulation of Autophagy and Cell Survival in the Absence of Apoptosis. Cell, 2005, 120, 237-248.	13.5	1,364
21	Macropinocytosis of protein is an amino acid supply route in Ras-transformed cells. Nature, 2013, 497, 633-637.	13.7	1,316
22	Akt Stimulates Aerobic Glycolysis in Cancer Cells. Cancer Research, 2004, 64, 3892-3899.	0.4	1,297
23	The CD28 Signaling Pathway Regulates Glucose Metabolism. Immunity, 2002, 16, 769-777.	6.6	1,201
24	CD28 costimulation can promote T cell survival by enhancing the expression of Bcl-xL. Immunity, 1995, 3, 87-98.	6.6	1,099
25	Role of Mitochondria in Ferroptosis. Molecular Cell, 2019, 73, 354-363.e3.	4.5	1,050
26	Quantitative flux analysis reveals folate-dependent NADPH production. Nature, 2014, 510, 298-302.	13.7	892
27	Essential Regulation of Cell Bioenergetics by Constitutive InsP3 Receptor Ca2+ Transfer to Mitochondria. Cell, 2010, 142, 270-283.	13.5	888
28	ATP citrate lyase inhibition can suppress tumor cell growth. Cancer Cell, 2005, 8, 311-321.	7.7	866
29	Hypoxia promotes isocitrate dehydrogenase-dependent carboxylation of Î±-ketoglutarate to citrate to support cell growth and viability. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 19611-19616.	3.3	851
30	Intracellular Î±-ketoglutarate maintains the pluripotency of embryonic stem cells. Nature, 2015, 518, 413-416.	13.7	772
31	Fuel feeds function: energy metabolism and the T-cell response. Nature Reviews Immunology, 2005, 5, 844-852.	10.6	735
32	Human Pancreatic Cancer Tumors Are Nutrient Poor and Tumor Cells Actively Scavenge Extracellular Protein. Cancer Research, 2015, 75, 544-553.	0.4	673
33	Hypoxic and Ras-transformed cells support growth by scavenging unsaturated fatty acids from lysophospholipids. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8882-8887.	3.3	585
34	Metabolic regulation of cell growth and proliferation. Nature Reviews Molecular Cell Biology, 2019, 20, 436-450.	16.1	577
35	Akt Maintains Cell Size and Survival by Increasing mTOR-dependent Nutrient Uptake. Molecular Biology of the Cell, 2002, 13, 2276-2288.	0.9	538
36	Akt-Directed Glucose Metabolism Can Prevent Bax Conformation Change and Promote Growth Factor-Independent Survival. Molecular and Cellular Biology, 2003, 23, 7315-7328.	1.1	511

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37	Growth Factors Can Influence Cell Growth and Survival through Effects on Glucose Metabolism. Molecular and Cellular Biology, 2001, 21, 5899-5912.	1.1	466
38	ATP citrate lyase is an important component of cell growth and transformation. Oncogene, 2005, 24, 6314-6322.	2.6	463
39	Cancer cell metabolism: the essential role of the nonessential amino acid, glutamine. EMBO Journal, 2017, 36, 1302-1315.	3.5	424
40	Oncogenic activation of PI3K-AKT-mTOR signaling suppresses ferroptosis via SREBP-mediated lipogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 31189-31197.	3.3	423
41	Cellular Metabolic Stress: Considering How Cells Respond to Nutrient Excess. Molecular Cell, 2010, 40, 323-332.	4.5	422
42	In the Absence of Extrinsic Signals, Nutrient Utilization by Lymphocytes Is Insufficient to Maintain Either Cell Size or Viability. Molecular Cell, 2000, 6, 683-692.	4.5	396
43	Clinical implications of genomic alterations in the tumour and circulation of pancreatic cancer patients. Nature Communications, 2015, 6, 7686.	5.8	393
44	IL-7 Enhances the Survival and Maintains the Size of Naive T Cells. Journal of Immunology, 2001, 167, 6869-6876.	0.4	392
45	The hallmarks of cancer metabolism: Still emerging. Cell Metabolism, 2022, 34, 355-377.	7.2	386
46	Hypoxia Induces Production of L-2-Hydroxyglutarate. Cell Metabolism, 2015, 22, 304-311.	7.2	374
47	Cancer-associated IDH1 mutations produce 2-hydroxyglutarate. Nature, 2010, 465, 966-966.	13.7	360
48	Absence of B7-dependent responses in CD28-deficient mice. Immunity, 1994, 1, 501-508.	6.6	359
49	The Utilization of Extracellular Proteins as Nutrients Is Suppressed by mTORC1. Cell, 2015, 162, 259-270.	13.5	359
50	Asparagine Plays a Critical Role in Regulating Cellular Adaptation to Glutamine Depletion. Molecular Cell, 2014, 56, 205-218.	4.5	347
51	Serine Catabolism Regulates Mitochondrial Redox Control during Hypoxia. Cancer Discovery, 2014, 4, 1406-1417.	7.7	342
52	The transcription factor HIF-1Â plays a critical role in the growth factor-dependent regulation of both aerobic and anaerobic glycolysis. Genes and Development, 2007, 21, 1037-1049.	2.7	340
53	Histone H3K36 mutations promote sarcomagenesis through altered histone methylation landscape. Science, 2016, 352, 844-849.	6.0	327
54	Pyruvate kinase M2 promotes de novo serine synthesis to sustain mTORC1 activity and cell proliferation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6904-6909.	3.3	323

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55	At the Bench: Preclinical rationale for CTLA-4 and PD-1 blockade as cancer immunotherapy. Journal of Leukocyte Biology, 2013, 94, 25-39.	1.5	317
56	The hexosamine biosynthetic pathway couples growth factor-induced glutamine uptake to glucose metabolism. Genes and Development, 2010, 24, 2784-2799.	2.7	315
57	Ammonia-induced autophagy is independent of ULK1/ULK2 kinases. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11121-11126.	3.3	311
58	ATF4 Regulates MYC-Mediated Neuroblastoma Cell Death upon Glutamine Deprivation. Cancer Cell, 2012, 22, 631-644.	7.7	309
59	Nutrient acquisition strategies of mammalian cells. Nature, 2017, 546, 234-242.	13.7	303
60	NRF2 Promotes Tumor Maintenance by Modulating mRNA Translation in Pancreatic Cancer. Cell, 2016, 166, 963-976.	13.5	294
61	Attenuation of c <scp>GAS</scp> â€•<scp>STING</scp> signaling is mediated by a p62/ <scp>SQSTM</scp> 1â€dependent autophagy pathway activated by TBK1. EMBO Journal, 2018, 37, .	3.5	283
62	Akt and Bcl-xL Promote Growth Factor-independent Survival through Distinct Effects on Mitochondrial Physiology. Journal of Biological Chemistry, 2001, 276, 12041-12048.	1.6	275
63	The CD28 and CTLA-4 Receptors Associate with the Serine/Threonine Phosphatase PP2A. Immunity, 2000, 13, 313-322.	6.6	268
64	Metabolic origins of spatial organization in the tumor microenvironment. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2934-2939.	3.3	259
65	Glutamine-based PET imaging facilitates enhanced metabolic evaluation of gliomas in vivo. Science Translational Medicine, 2015, 7, 274ra17.	5.8	257
66	Activation and inhibition of lymphocytes by costimulation. Journal of Clinical Investigation, 2002, 109, 295-299.	3.9	249
67	DNA Hydroxymethylation Profiling Reveals that WT1 Mutations Result in Loss of TET2 Function in Acute Myeloid Leukemia. Cell Reports, 2014, 9, 1841-1855.	2.9	237
68	Impaired mitochondrial oxidative phosphorylation limits the self-renewal of T cells exposed to persistent antigen. Nature Immunology, 2020, 21, 1022-1033.	7.0	227
69	Acquired resistance to IDH inhibition through trans or cis dimer-interface mutations. Nature, 2018, 559, 125-129.	13.7	223
70	As Extracellular Glutamine Levels Decline, Asparagine Becomes an Essential Amino Acid. Cell Metabolism, 2018, 27, 428-438.e5.	7.2	220
71	Structural Analysis of CTLA-4 Function In Vivo. Journal of Immunology, 2000, 164, 5319-5327.	0.4	215
72	GCN2 sustains mTORC1 suppression upon amino acid deprivation by inducing Sestrin2. Genes and Development, 2015, 29, 2331-2336.	2.7	211

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73	Evaluation of <scp>H</scp>istone 3 Lysine 27 Trimethylation (<scp>H3K27me3</scp>) and Enhancer of Zest 2 (<scp>EZH</scp>2) in Pediatric Glial and Glioneuronal Tumors Shows Decreased <scp>H3K27me3</scp> in <scp>H3F3A K27M</scp> Mutant Glioblastomas. Brain Pathology, 2013, 23, 558-564.	2.1	195
74	Phosphatidylinositol 3-Kinase-dependent Modulation of Carnitine Palmitoyltransferase 1A Expression Regulates Lipid Metabolism during Hematopoietic Cell Growth*. Journal of Biological Chemistry, 2006, 281, 37372-37380.	1.6	191
75	L-2-Hydroxyglutarate production arises from noncanonical enzyme function at acidic pH. Nature Chemical Biology, 2017, 13, 494-500.	3.9	190
76	Î±-Ketoglutarate links p53 to cell fate during tumour suppression. Nature, 2019, 573, 595-599.	13.7	187
77	Autophagy in cellular metabolism and cancer. Journal of Clinical Investigation, 2015, 125, 47-54.	3.9	173
78	Cancer-associated IDH2 mutants drive an acute myeloid leukemia that is susceptible to Brd4 inhibition. Genes and Development, 2013, 27, 1974-1985.	2.7	165
79	Metabolic regulation of chromatin modifications and gene expression. Journal of Cell Biology, 2018, 217, 2247-2259.	2.3	163
80	Cytokine stimulation of aerobic glycolysis in hematopoietic cells exceeds proliferative demand. FASEB Journal, 2004, 18, 1303-1305.	0.2	157
81	Transsulfuration Activity Can Support Cell Growth upon Extracellular Cysteine Limitation. Cell Metabolism, 2019, 30, 865-876.e5.	7.2	155
82	PET Imaging of Glutaminolysis in Tumors by ¹⁸F-(2S,4R)4-Fluoroglutamine. Journal of Nuclear Medicine, 2011, 52, 1947-1955.	2.8	149
83	Lowered H3K27me3 and DNA hypomethylation define poorly prognostic pediatric posterior fossa ependymomas. Science Translational Medicine, 2016, 8, 366ra161.	5.8	144
84	The Potential for Isocitrate Dehydrogenase Mutations to Produce 2-Hydroxyglutarate Depends on Allele Specificity and Subcellular Compartmentalization. Journal of Biological Chemistry, 2013, 288, 3804-3815.	1.6	141
85	Activation and inhibition of lymphocytes by costimulation. Journal of Clinical Investigation, 2002, 109, 295-299.	3.9	140
86	Mutant-IDH1-dependent chromatin state reprogramming, reversibility, and persistence. Nature Genetics, 2018, 50, 62-72.	9.4	137
87	Induction of sarcomas by mutant IDH2. Genes and Development, 2013, 27, 1986-1998.	2.7	135
88	PIKfyve Regulates Vacuole Maturation and Nutrient Recovery following Engulfment. Developmental Cell, 2016, 38, 536-547.	3.1	118
89	PTEN is a protein tyrosine phosphatase for IRS1. Nature Structural and Molecular Biology, 2014, 21, 522-527.	3.6	116
90	In vivo, Argonaute-bound microRNAs exist predominantly in a reservoir of low molecular weight complexes not associated with mRNA. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 767-772.	3.3	108

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91	Epigenetic Identity in AML Depends on Disruption of Nonpromoter Regulatory Elements and Is Affected by Antagonistic Effects of Mutations in Epigenetic Modifiers. Cancer Discovery, 2017, 7, 868-883.	7.7	101
92	The Proapoptotic Activities of Bax and Bak Limit the Size of the Neural Stem Cell Pool. Journal of Neuroscience, 2003, 23, 11112-11119.	1.7	99
93	Isoform-specific requirement for Akt1 in the developmental regulation of cellular metabolism during lactation. Cell Metabolism, 2006, 4, 475-490.	7.2	98
94	Proline biosynthesis is a vent for TGFÎ²â€‐induced mitochondrial redox stress. EMBO Journal, 2020, 39, e103334.	3.5	98
95	Combination Targeted Therapy to Disrupt Aberrant Oncogenic Signaling and Reverse Epigenetic Dysfunction in IDH2- and TET2-Mutant Acute Myeloid Leukemia. Cancer Discovery, 2017, 7, 494-505.	7.7	94
96	Cancer Metabolism Drives a Stromal Regenerative Response. Cell Metabolism, 2019, 29, 576-591.	7.2	92
97	Metabolic Reprogramming in Brain Tumors. Annual Review of Pathology: Mechanisms of Disease, 2017, 12, 515-545.	9.6	82
98	InÂVivo Imaging of Glutamine Metabolism to the Oncometabolite 2-Hydroxyglutarate in IDH1/2 Mutant Tumors. Cell Metabolism, 2017, 26, 830-841.e3.	7.2	82
99	Long-lived microRNAâ€“Argonaute complexes in quiescent cells can be activated to regulate mitogenic responses. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 157-162.	3.3	79
100	The Canonical Wnt Pathway Drives Macropinocytosis in Cancer. Cancer Research, 2018, 78, 4658-4670.	0.4	75
101	Critical role for PI3-kinase in regulating the use of proteins as an amino acid source. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E8628-E8636.	3.3	71
102	Central Role of ULK1 in Type I Interferon Signaling. Cell Reports, 2015, 11, 605-617.	2.9	66
103	Mitochondrial NADP(H) generation is essential for proline biosynthesis. Science, 2021, 372, 968-972.	6.0	66
104	Into Thin Air: How We Sense and Respond to Hypoxia. Cell, 2016, 167, 9-11.	13.5	63
105	Analysis of a lung defect in autophagy-deficient mouse strains. Autophagy, 2014, 10, 45-56.	4.3	59
106	Metabolic Profiling Reveals a Dependency of Human Metastatic Breast Cancer on Mitochondrial Serine and One-Carbon Unit Metabolism. Molecular Cancer Research, 2022, 18, 599-611.	1.5	56
107	Apoptosis Induced by Differentiation or Serum Deprivation in an Immortalized Central Nervous System Neuronal Cell Line. Journal of Neurochemistry, 2002, 67, 1908-1920.	2.1	55
108	Wnt meets Warburg: another piece in the puzzle?. EMBO Journal, 2014, 33, 1420-1422.	3.5	53

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109	Histone 3 Lysine 9 Trimethylation Is Differentially Associated With Isocitrate Dehydrogenase Mutations in Oligodendrogliomas and High-Grade Astrocytomas. Journal of Neuropathology and Experimental Neurology, 2013, 72, 298-306.	0.9	51
110	Pluripotency transcription factors and Tet1/2 maintain Brd4-independent stem cell identity. Nature Cell Biology, 2018, 20, 565-574.	4.6	49
111	Glutamine independence is a selectable feature of pluripotent stem cells. Nature Metabolism, 2019, 1, 676-687.	5.1	46
112	Yap/Taz promote the scavenging of extracellular nutrients through macropinocytosis. Genes and Development, 2020, 34, 1345-1358.	2.7	35
113	Translation in amino-acid-poor environments is limited by tRNAGln charging. ELife, 2020, 9, .	2.8	31
114	2-hydroxyglutarate inhibits MyoD-mediated differentiation by preventing H3K9 demethylation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12851-12856.	3.3	28
115	Metabolic Alterations in Cancer and Their Potential as Therapeutic Targets. American Society of Clinical Oncology Educational Book / ASCO American Society of Clinical Oncology Meeting, 2017, 37, 825-832.	1.8	28
116	Fibroblast pyruvate carboxylase is required for collagen production in the tumour microenvironment. Nature Metabolism, 2021, 3, 1484-1499.	5.1	28
117	Metabolic Alterations in Cancer and Their Potential as Therapeutic Targets. American Society of Clinical Oncology Educational Book / ASCO American Society of Clinical Oncology Meeting, 2017, 37, 825-832.	1.8	25
118	Inducible and reversible inhibition of miRNA-mediated gene repression in vivo. ELife, 2021, 10, .	2.8	23
119	Growth factors stimulate anabolic metabolism by directing nutrient uptake. Journal of Biological Chemistry, 2019, 294, 17883-17888.	1.6	15
120	A fate worse than death. Nature, 1996, 382, 492-493.	13.7	14
121	Coordinated Regulation of Cap-Dependent Translation and MicroRNA Function by Convergent Signaling Pathways. Molecular and Cellular Biology, 2016, 36, 2360-2373.	1.1	14
122	Leucine retention in lysosomes is regulated by starvation. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	10
123	A mitochondrial long-chain fatty acid oxidation defect leads to transfer RNA uncharging and activation of the integrated stress response in the mouse heart. Cardiovascular Research, 2022, 118, 3198-3210.	1.8	9
124	Ketohexokinase-mediated fructose metabolism is lost in hepatocellular carcinoma and can be leveraged for metabolic imaging. Science Advances, 2022, 8, eabm7985.	4.7	9
125	Hyperpolarized [5- ¹³ C,4,4- ² H ₂ ,5- ¹⁵ N]-L-glutamine provides a means of annotating inÂvivo metabolic utilization of glutamine. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2120595119.	3.3	8
126	Reexamining How Cancer Cells Exploit the Body's Metabolic Resources. Cold Spring Harbor Symposia on Quantitative Biology, 2016, 81, 67-72.	2.0	6

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127	Cancer Cell Metabolism: Reexamining the Regulation of Anabolic Growth in Health and Disease. FASEB Journal, 2019, 33, 226.1.	0.2	1