Craig B Thompson

List of Publications by Year in Descending Order

125 papers	66,736 citations	85 h-index	132 g-index
132 ext. papers	76,887 ext. citations	19.9 avg, IF	8.08 L-index

#	Paper	IF	Citations
125	The hallmarks of cancer metabolism: Still emerging.. *Cell Metabolism*, **2022**,	24.6	22
124	Ketohexokinase-mediated fructose metabolism is lost in hepatocellular carcinoma and can be leveraged for metabolic imaging.. *Science Advances*, **2022**, 8, eabm7985	14.3	0
123	Hyperpolarized [5-C,4,4-H,5-N]-L-glutamine provides a means of annotating in vivo metabolic utilization of glutamine.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119, e2120595119	11.5	1
122	Fibroblast pyruvate carboxylase is required for collagen production in the tumour microenvironment. *Nature Metabolism*, **2021**, 3, 1484-1499	14.6	3
121	Mitochondrial NADP(H) generation is essential for proline biosynthesis. *Science*, **2021**, 372, 968-972	33.3	23
120	Inducible and reversible inhibition of miRNA-mediated gene repression in vivo. *ELife*, **2021**, 10,	8.9	3
119	Proline biosynthesis is a vent for TGF induced mitochondrial redox stress. *EMBO Journal*, **2020**, 39, e103334	13.4	45
118	Metabolic Profiling Reveals a Dependency of Human Metastatic Breast Cancer on Mitochondrial Serine and One-Carbon Unit Metabolism. *Molecular Cancer Research*, **2020**, 18, 599-611	6.6	27
117	Translation in amino-acid-poor environments is limited by tRNA charging. *ELife*, **2020**, 9,	8.9	8
116	Impaired mitochondrial oxidative phosphorylation limits the self-renewal of T cells exposed to persistent antigen. *Nature Immunology*, **2020**, 21, 1022-1033	19.1	79
115	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	11.5	112
114	Yap/Taz promote the scavenging of extracellular nutrients through macropinocytosis. *Genes and Development*, **2020**, 34, 1345-1358	12.6	19
113	Ketoglutarate links p53 to cell fate during tumour suppression. *Nature*, **2019**, 573, 595-599	50.4	90
112	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	11.5	15
111	Metabolic regulation of cell growth and proliferation. *Nature Reviews Molecular Cell Biology*, **2019**, 20, 436-450	48.7	247
110	Glutamine independence is a selectable feature of pluripotent stem cells. *Nature Metabolism*, **2019**, 1, 676-687	14.6	22
109	Growth factors stimulate anabolic metabolism by directing nutrient uptake. *Journal of Biological Chemistry*, **2019**, 294, 17883-17888	5.4	10

108	Transsulfuration Activity Can Support Cell Growth upon Extracellular Cysteine Limitation. *Cell Metabolism*, **2019**, 30, 865-876.e5	24.6	70
107	Cancer Cell Metabolism: Reexamining the Regulation of Anabolic Growth in Health and Disease. *FASEB Journal*, **2019**, 33, 226.1	0.9	1
106	Cancer Metabolism Drives a Stromal Regenerative Response. *Cell Metabolism*, **2019**, 29, 576-591	24.6	52
105	Role of Mitochondria in Ferroptosis. *Molecular Cell*, **2019**, 73, 354-363.e3	17.6	416
104	Attenuation of cGAS-STING signaling is mediated by a p62/SQSTM1-dependent autophagy pathway activated by TBK1. *EMBO Journal*, **2018**, 37,	13	152
103	Pluripotency transcription factors and Tet1/2 maintain Brd4-independent stem cell identity. *Nature Cell Biology*, **2018**, 20, 565-574	23.4	34
102	As Extracellular Glutamine Levels Decline, Asparagine Becomes an Essential Amino Acid. *Cell Metabolism*, **2018**, 27, 428-438.e5	24.6	139
101	The Canonical Wnt Pathway Drives Macropinocytosis in Cancer. *Cancer Research*, **2018**, 78, 4658-4670	10.1	48
100	Mutant-IDH1-dependent chromatin state reprogramming, reversibility, and persistence. *Nature Genetics*, **2018**, 50, 62-72	36.3	86
99	Metabolic regulation of chromatin modifications and gene expression. *Journal of Cell Biology*, **2018**, 217, 2247-2259	7.3	101
98	Acquired resistance to IDH inhibition through trans or cis dimer-interface mutations. *Nature*, **2018**, 559, 125-129	50.4	150
97	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	11.5	181
96	L-2-Hydroxyglutarate production arises from noncanonical enzyme function at acidic pH. *Nature Chemical Biology*, **2017**, 13, 494-500	11.7	129
95	Combination Targeted Therapy to Disrupt Aberrant Oncogenic Signaling and Reverse Epigenetic Dysfunction in - and -Mutant Acute Myeloid Leukemia. *Cancer Discovery*, **2017**, 7, 494-505	24.4	68
94	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	24.4	69
93	Cancer cell metabolism: the essential role of the nonessential amino acid, glutamine. *EMBO Journal* , **2017**, 36, 1302-1315	13	255
92	Nutrient acquisition strategies of mammalian cells. *Nature*, **2017**, 546, 234-242	50.4	202
91	Metabolic Reprogramming in Brain Tumors. *Annual Review of Pathology: Mechanisms of Disease*, **2017**, 12, 515-545	34	56

90	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	11.5	52
89	In Vivo Imaging of Glutamine Metabolism to the Oncometabolite 2-Hydroxyglutarate in IDH1/2 Mutant Tumors. *Cell Metabolism*, **2017**, 26, 830-841.e3	24.6	65
88	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	7.1	18
87	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	7.1	26
86	Lowered H3K27me3 and DNA hypomethylation define poorly prognostic pediatric posterior fossa ependymomas. *Science Translational Medicine*, **2016**, 8, 366ra161	17.5	109
85	PIKfyve Regulates Vacuole Maturation and Nutrient Recovery following Engulfment. *Developmental Cell*, **2016**, 38, 536-47	10.2	69
84	Coordinated Regulation of Cap-Dependent Translation and MicroRNA Function by Convergent Signaling Pathways. *Molecular and Cellular Biology*, **2016**, 36, 2360-73	4.8	5
83	The Emerging Hallmarks of Cancer Metabolism. *Cell Metabolism*, **2016**, 23, 27-47	24.6	2517
82	Reexamining How Cancer Cells Exploit the Body's Metabolic Resources. *Cold Spring Harbor Symposia on Quantitative Biology*, **2016**, 81, 67-72	3.9	4
81	Cancer Metabolism **2016**, 1-12		
80	Histone H3K36 mutations promote sarcomagenesis through altered histone methylation landscape. *Science*, **2016**, 352, 844-9	33.3	219
79	Into Thin Air: How We Sense and Respond to Hypoxia. *Cell*, **2016**, 167, 9-11	56.2	22
78	NRF2 Promotes Tumor Maintenance by Modulating mRNA Translation in Pancreatic Cancer. *Cell*, **2016**, 166, 963-976	56.2	214
77	Hypoxia Induces Production of L-2-Hydroxyglutarate. *Cell Metabolism*, **2015**, 22, 304-11	24.6	286
76	Clinical implications of genomic alterations in the tumour and circulation of pancreatic cancer patients. *Nature Communications*, **2015**, 6, 7686	17.4	279
75	The Utilization of Extracellular Proteins as Nutrients Is Suppressed by mTORC1. *Cell*, **2015**, 162, 259-270	56.2	286
74	GCN2 sustains mTORC1 suppression upon amino acid deprivation by inducing Sestrin2. *Genes and Development*, **2015**, 29, 2331-6	12.6	154
73	Intracellular -ketoglutarate maintains the pluripotency of embryonic stem cells. *Nature*, **2015**, 518, 413-6	50.4	571

72	Glutamine-based PET imaging facilitates enhanced metabolic evaluation of gliomas in vivo. *Science Translational Medicine*, **2015**, 7, 274ra17	17.5	206
71	Autophagy in cellular metabolism and cancer. *Journal of Clinical Investigation*, **2015**, 125, 47-54	15.9	153
70	Central role of ULK1 in type I interferon signaling. *Cell Reports*, **2015**, 11, 605-17	10.6	45
69	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, 767-72	11.5	80
68	Human pancreatic cancer tumors are nutrient poor and tumor cells actively scavenge extracellular protein. *Cancer Research*, **2015**, 75, 544-53	10.1	466
67	PTEN is a protein tyrosine phosphatase for IRS1. *Nature Structural and Molecular Biology*, **2014**, 21, 522-7	17.6	84
66	Serine catabolism regulates mitochondrial redox control during hypoxia. *Cancer Discovery*, **2014**, 4, 1406-17	24.4	264
65	Asparagine plays a critical role in regulating cellular adaptation to glutamine depletion. *Molecular Cell*, **2014**, 56, 205-218	17.6	234
64	Quantitative flux analysis reveals folate-dependent NADPH production. *Nature*, **2014**, 510, 298-302	50.4	671
63	Wnt meets Warburg: another piece in the puzzle?. *EMBO Journal*, **2014**, 33, 1420-2	13	40
62	Analysis of a lung defect in autophagy-deficient mouse strains. *Autophagy*, **2014**, 10, 45-56	10.2	46
61	DNA hydroxymethylation profiling reveals that WT1 mutations result in loss of TET2 function in acute myeloid leukemia. *Cell Reports*, **2014**, 9, 1841-1855	10.6	183
60	Evaluation of histone 3 lysine 27 trimethylation (H3K27me3) and enhancer of Zest 2 (EZH2) in pediatric glial and glioneuronal tumors shows decreased H3K27me3 in H3F3A K27M mutant glioblastomas. *Brain Pathology*, **2013**, 23, 558-64	6	158
59	Long-lived microRNA-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, 157-62	11.5	57
58	The potential for isocitrate dehydrogenase mutations to produce 2-hydroxyglutarate depends on allele specificity and subcellular compartmentalization. *Journal of Biological Chemistry*, **2013**, 288, 3804-15	5.4	116
57	At the bench: preclinical rationale for CTLA-4 and PD-1 blockade as cancer immunotherapy. *Journal of Leukocyte Biology*, **2013**, 94, 25-39	6.5	266
56	Macropinocytosis of protein is an amino acid supply route in Ras-transformed cells. *Nature*, **2013**, 497, 633-7	50.4	989
55	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	3.1	46

54	Induction of sarcomas by mutant IDH2. *Genes and Development*, **2013**, 27, 1986-98	12.6	114
53	Cancer-associated IDH2 mutants drive an acute myeloid leukemia that is susceptible to Brd4 inhibition. *Genes and Development*, **2013**, 27, 1974-85	12.6	134
52	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, 8882-7	11.5	461
51	ATF4 regulates MYC-mediated neuroblastoma cell death upon glutamine deprivation. *Cancer Cell*, **2012**, 22, 631-44	24.3	236
50	Guidelines for the use and interpretation of assays for monitoring autophagy. *Autophagy*, **2012**, 8, 445-544	10.2	2783
49	IDH1 mutation is sufficient to establish the glioma hypermethylator phenotype. *Nature*, **2012**, 483, 479-83	50.4	1373
48	IDH mutation impairs histone demethylation and results in a block to cell differentiation. *Nature*, **2012**, 483, 474-8	50.4	1393
47	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, 6904-9	11.5	257
46	Metabolic reprogramming: a cancer hallmark even warburg did not anticipate. *Cancer Cell*, **2012**, 21, 297-308	24.3	2087
45	Ammonia-induced autophagy is independent of ULK1/ULK2 kinases. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 11121-6	11.5	261
44	Hypoxia promotes isocitrate dehydrogenase-dependent carboxylation of α-ketoglutarate to citrate to support cell growth and viability. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 19611-6	11.5	690
43	PET imaging of glutaminolysis in tumors by 18F-(2S,4R)4-fluoroglutamine. *Journal of Nuclear Medicine*, **2011**, 52, 1947-55	8.9	130
42	Cancer-associated IDH1 mutations produce 2-hydroxyglutarate. *Nature*, **2010**, 465, 966	50.4	303
41	The hexosamine biosynthetic pathway couples growth factor-induced glutamine uptake to glucose metabolism. *Genes and Development*, **2010**, 24, 2784-99	12.6	260
40	Cellular metabolic stress: considering how cells respond to nutrient excess. *Molecular Cell*, **2010**, 40, 323-32	17.6	348
39	Essential regulation of cell bioenergetics by constitutive InsP3 receptor Ca2+ transfer to mitochondria. *Cell*, **2010**, 142, 270-83	56.2	740
38	Glutamine addiction: a new therapeutic target in cancer. *Trends in Biochemical Sciences*, **2010**, 35, 427-33	10.3	1127
37	The common feature of leukemia-associated IDH1 and IDH2 mutations is a neomorphic enzyme activity converting alpha-ketoglutarate to 2-hydroxyglutarate. *Cancer Cell*, **2010**, 17, 225-34	24.3	1473

36	Leukemic IDH1 and IDH2 mutations result in a hypermethylation phenotype, disrupt TET2 function, and impair hematopoietic differentiation. *Cancer Cell*, **2010**, 18, 553-67	24.3	1933
35	Cancer-associated IDH1 mutations produce 2-hydroxyglutarate. *Nature*, **2009**, 462, 739-44	50.4	2558
34	Understanding the Warburg effect: the metabolic requirements of cell proliferation. *Science*, **2009**, 324, 1029-33	33.3	9509
33	ATP-citrate lyase links cellular metabolism to histone acetylation. *Science*, **2009**, 324, 1076-80	33.3	1402
32	The biology of cancer: metabolic reprogramming fuels cell growth and proliferation. *Cell Metabolism*, **2008**, 7, 11-20	24.6	2786
31	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, 18782-7	11.5	1379
30	The transcription factor HIF-1alpha plays a critical role in the growth factor-dependent regulation of both aerobic and anaerobic glycolysis. *Genes and Development*, **2007**, 21, 1037-49	12.6	270
29	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, 19345-50	11.5	1758
28	Phosphatidylinositol 3-kinase-dependent modulation of carnitine palmitoyltransferase 1A expression regulates lipid metabolism during hematopoietic cell growth. *Journal of Biological Chemistry*, **2006**, 281, 37372-80	5.4	175
27	Isoform-specific requirement for Akt1 in the developmental regulation of cellular metabolism during lactation. *Cell Metabolism*, **2006**, 4, 475-90	24.6	74
26	ATP citrate lyase inhibition can suppress tumor cell growth. *Cancer Cell*, **2005**, 8, 311-21	24.3	718
25	ATP citrate lyase is an important component of cell growth and transformation. *Oncogene*, **2005**, 24, 6314-22	9.2	389
24	Growth factor regulation of autophagy and cell survival in the absence of apoptosis. *Cell*, **2005**, 120, 237-48	36.2	1252
23	Fuel feeds function: energy metabolism and the T-cell response. *Nature Reviews Immunology*, **2005**, 5, 844-52	36.5	624
22	Succinate links TCA cycle dysfunction to oncogenesis by inhibiting HIF-alpha prolyl hydroxylase. *Cancer Cell*, **2005**, 7, 77-85	24.3	1481
21	CTLA-4 and PD-1 receptors inhibit T-cell activation by distinct mechanisms. *Molecular and Cellular Biology*, **2005**, 25, 9543-53	4.8	1273
20	Cytokine stimulation of aerobic glycolysis in hematopoietic cells exceeds proliferative demand. *FASEB Journal*, **2004**, 18, 1303-5	0.9	144
19	Akt stimulates aerobic glycolysis in cancer cells. *Cancer Research*, **2004**, 64, 3892-9	10.1	1120

18	Akt-directed glucose metabolism can prevent Bax conformation change and promote growth factor-independent survival. *Molecular and Cellular Biology*, **2003**, 23, 7315-28	4.8	463
17	The proapoptotic activities of Bax and Bak limit the size of the neural stem cell pool. *Journal of Neuroscience*, **2003**, 23, 11112-9	6.6	95
16	Akt maintains cell size and survival by increasing mTOR-dependent nutrient uptake. *Molecular Biology of the Cell*, **2002**, 13, 2276-88	3.5	493
15	The CD28 signaling pathway regulates glucose metabolism. *Immunity*, **2002**, 16, 769-77	32.3	970
14	Activation and inhibition of lymphocytes by costimulation. *Journal of Clinical Investigation*, **2002**, 109, 295-299	15.9	224
13	Activation and inhibition of lymphocytes by costimulation. *Journal of Clinical Investigation*, **2002**, 109, 295-9	15.9	90
12	Akt and Bcl-xL promote growth factor-independent survival through distinct effects on mitochondrial physiology. *Journal of Biological Chemistry*, **2001**, 276, 12041-8	5.4	240
11	IL-7 enhances the survival and maintains the size of naive T cells. *Journal of Immunology*, **2001**, 167, 6869-76	5.6	349
10	Growth factors can influence cell growth and survival through effects on glucose metabolism. *Molecular and Cellular Biology*, **2001**, 21, 5899-912	4.8	425
9	Proapoptotic BAX and BAK: a requisite gateway to mitochondrial dysfunction and death. *Science*, **2001**, 292, 727-30	33.3	3283
8	Structural analysis of CTLA-4 function in vivo. *Journal of Immunology*, **2000**, 164, 5319-27	5.3	183
7	The CD28 and CTLA-4 receptors associate with the serine/threonine phosphatase PP2A. *Immunity*, **2000**, 13, 313-22	32.3	229
6	In the absence of extrinsic signals, nutrient utilization by lymphocytes is insufficient to maintain either cell size or viability. *Molecular Cell*, **2000**, 6, 683-92	17.6	358
5	Apoptosis induced by differentiation or serum deprivation in an immortalized central nervous system neuronal cell line. *Journal of Neurochemistry*, **1996**, 67, 1908-20	6	50
4	X-ray and NMR structure of human Bcl-xL, an inhibitor of programmed cell death. *Nature*, **1996**, 381, 335-41	50.4	1303
3	CD28 costimulation can promote T cell survival by enhancing the expression of Bcl-XL. *Immunity*, **1995**, 3, 87-98	32.3	1003
2	Absence of B7-dependent responses in CD28-deficient mice. *Immunity*, **1994**, 1, 501-8	32.3	326
1	CTLA-4 can function as a negative regulator of T cell activation. *Immunity*, **1994**, 1, 405-13	32.3	1697