Joshua D Rabinowitz

List of Publications by Year
in descending order

201 papers	42,989 citations	3264 94 h-index	2896 196 g-index
220 all docs	220 docs citations	220 times ranked	55407 citing authors

#	Article	IF	Citations
1	Cancer-associated IDH1 mutations produce 2-hydroxyglutarate. Nature, 2009, 462, 739-744.	13.7	3,315
2	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
3	Autophagy and Metabolism. Science, 2010, 330, 1344-1348.	6.0	1,669
4	Absolute metabolite concentrations and implied enzyme active site occupancy in Escherichia coli. Nature Chemical Biology, 2009, 5, 593-599.	3.9	1,588
5	Macropinocytosis of protein is an amino acid supply route in Ras-transformed cells. Nature, 2013, 497, 633-637.	13.7	1,316
6	One-Carbon Metabolism in Health and Disease. Cell Metabolism, 2017, 25, 27-42.	7.2	1,275
7	Glucose feeds the TCA cycle via circulating lactate. Nature, 2017, 551, 115-118.	13.7	1,112
8	Activated Ras requires autophagy to maintain oxidative metabolism and tumorigenesis. Genes and Development, 2011, 25, 460-470.	2.7	1,093
9	The return of metabolism: biochemistry and physiology of the pentose phosphate pathway. Biological Reviews, 2015, 90, 927-963.	4.7	908
10	Quantitative flux analysis reveals folate-dependent NADPH production. Nature, 2014, 510, 298-302.	13.7	892
11	Mitochondria and Cancer. Molecular Cell, 2016, 61, 667-676.	4.5	800
12	Human Pancreatic Cancer Tumors Are Nutrient Poor and Tumor Cells Actively Scavenge Extracellular Protein. Cancer Research, 2015, 75, 544-553.	0.4	673
13	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
14	Metabolomic Analysis and Visualization Engine for LCâ^'MS Data. Analytical Chemistry, 2010, 82, 9818-9826.	3.2	571
15	Systems-level metabolic flux profiling identifies fatty acid synthesis as a target for antiviral therapy. Nature Biotechnology, 2008, 26, 1179-1186.	9.4	562
16	Metabolomics and Isotope Tracing. Cell, 2018, 173, 822-837.	13.5	537
17	Separation and quantitation of water soluble cellular metabolites by hydrophilic interaction chromatography-tandem mass spectrometry. Journal of Chromatography A, 2006, 1125, 76-88.	1.8	529
18	Autophagy suppresses progression of K-ras-induced lung tumors to oncocytomas and maintains lipid homeostasis. Genes and Development, 2013, 27, 1447-1461.	2.7	529

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19	A roadmap for interpreting 13 C metabolite labeling patterns from cells. Current Opinion in Biotechnology, 2015, 34, 189-201.	3.3	513
20	Metabolomic Analysis via Reversed-Phase Ion-Pairing Liquid Chromatography Coupled to a Stand Alone Orbitrap Mass Spectrometer. Analytical Chemistry, 2010, 82, 3212-3221.	3.2	453
21	Autophagy Is Required for Glucose Homeostasis and Lung Tumor Maintenance. Cancer Discovery, 2014, 4, 914-927.	7.7	450
22	A branched-chain amino acid metabolite drives vascular fatty acid transport and causes insulin resistance. Nature Medicine, 2016, 22, 421-426.	15.2	421
23	Enhancing CD8+ T Cell Fatty Acid Catabolism withinÂa Metabolically Challenging Tumor Microenvironment Increases the Efficacy of Melanoma Immunotherapy. Cancer Cell, 2017, 32, 377-391.e9.	7.7	419
24	Analytical strategies for LCâ€"MS-based targeted metabolomics. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2008, 871, 236-242.	1.2	416
25	The Small Intestine Converts Dietary Fructose into Glucose and Organic Acids. Cell Metabolism, 2018, 27, 351-361.e3.	7.2	416
26	LCâ€MS Data Processing with MAVEN: A Metabolomic Analysis and Visualization Engine. Current Protocols in Bioinformatics, 2012, 37, Unit14.11.	25.8	406
27	Quorum Sensing Controls Biofilm Formation in <i>Vibrio cholerae</i> through Modulation of Cyclic Di-GMP Levels and Repression of <i>vpsT</i>. Journal of Bacteriology, 2008, 190, 2527-2536.	1.0	378
28	Lactate: the ugly duckling of energy metabolism. Nature Metabolism, 2020, 2, 566-571.	5.1	371
29	Quantitative Analysis of NAD Synthesis-Breakdown Fluxes. Cell Metabolism, 2018, 27, 1067-1080.e5.	7.2	363
30	Asparagine Plays a Critical Role in Regulating Cellular Adaptation to Glutamine Depletion. Molecular Cell, 2014, 56, 205-218.	4.5	347
31	Obesity Shapes Metabolism in the Tumor Microenvironment to Suppress Anti-Tumor Immunity. Cell, 2020, 183, 1848-1866.e26.	13.5	347
32	Absolute quantitation of intracellular metabolite concentrations by an isotope ratio-based approach. Nature Protocols, 2008, 3, 1299-1311.	5.5	346
33	Serine Catabolism Regulates Mitochondrial Redox Control during Hypoxia. Cancer Discovery, 2014, 4, 1406-1417.	7.7	342
34	Enzyme clustering accelerates processing of intermediates through metabolic channeling. Nature Biotechnology, 2014, 32, 1011-1018.	9.4	340
35	Glutamineâ€driven oxidative phosphorylation is a major ATP source in transformed mammalian cells in both normoxia and hypoxia. Molecular Systems Biology, 2013, 9, 712.	3.2	338
36	Metabolite concentrations, fluxes and free energies imply efficient enzyme usage. Nature Chemical Biology, 2016, 12, 482-489.	3.9	332

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37	Quiescent Fibroblasts Exhibit High Metabolic Activity. PLoS Biology, 2010, 8, e1000514.	2.6	323
38	Metabolite Measurement: Pitfalls to Avoid and Practices to Follow. Annual Review of Biochemistry, 2017, 86, 277-304.	5.0	322
39	Dietary fructose feeds hepatic lipogenesis via microbiota-derived acetate. Nature, 2020, 579, 586-591.	13.7	314
40	Macrophage de novo NAD+ synthesis specifies immune function in aging and inflammation. Nature Immunology, 2019, 20, 50-63.	7.0	304
41	Quantitative Analysis of the Whole-Body Metabolic Fate of Branched-Chain Amino Acids. Cell Metabolism, 2019, 29, 417-429.e4.	7.2	301
42	Reversal of Cytosolic One-Carbon Flux Compensates for Loss of the Mitochondrial Folate Pathway. Cell Metabolism, 2016, 23, 1140-1153.	7.2	296
43	Acidic Acetonitrile for Cellular Metabolome Extraction from<i>Escherichia coli</i>. Analytical Chemistry, 2007, 79, 6167-6173.	3.2	293
44	Autophagy provides metabolic substrates to maintain energy charge and nucleotide pools in Ras-driven lung cancer cells. Genes and Development, 2016, 30, 1704-1717.	2.7	291
45	Mitochondrial Biogenesis and Proteome Remodeling Promote One-Carbon Metabolism for T Cell Activation. Cell Metabolism, 2016, 24, 104-117.	7.2	282
46	Divergent Effects of Human Cytomegalovirus and Herpes Simplex Virus-1 on Cellular Metabolism. PLoS Pathogens, 2011, 7, e1002124.	2.1	280
47	Autophagy maintains tumour growth through circulating arginine. Nature, 2018, 563, 569-573.	13.7	279
48	Comprehensive quantification of fuel use by the failing and nonfailing human heart. Science, 2020, 370, 364-368.	6.0	276
49	Loss of NAD Homeostasis Leads to Progressive and Reversible Degeneration of Skeletal Muscle. Cell Metabolism, 2016, 24, 269-282.	7.2	273
50	Restoring metabolism of myeloid cells reverses cognitive decline in ageing. Nature, 2021, 590, 122-128.	13.7	264
51	Direct evidence for cancer-cell-autonomous extracellular protein catabolism in pancreatic tumors. Nature Medicine, 2017, 23, 235-241.	15.2	263
52	Four Key Steps Control Glycolytic Flux in Mammalian Cells. Cell Systems, 2018, 7, 49-62.e8.	2.9	249
53	Kinetic flux profiling for quantitation of cellular metabolic fluxes. Nature Protocols, 2008, 3, 1328-1340.	5.5	243
54	Metabolic control of methylation and acetylation. Current Opinion in Chemical Biology, 2016, 30, 52-60.	2.8	241

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55	Conservation of the metabolomic response to starvation across two divergent microbes. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 19302-19307.	3.3	239
56	Systems-level analysis of mechanisms regulating yeast metabolic flux. Science, 2016, 354, .	6.0	236
57	As Extracellular Glutamine Levels Decline, Asparagine Becomes an Essential Amino Acid. Cell Metabolism, 2018, 27, 428-438.e5.	7.2	220
58	Growth-limiting Intracellular Metabolites in Yeast Growing under Diverse Nutrient Limitations. Molecular Biology of the Cell, 2010, 21, 198-211.	0.9	217
59	Mitochondrial translation requires folate-dependent tRNA methylation. Nature, 2018, 554, 128-132.	13.7	213
60	Î±-ketoglutarate coordinates carbon and nitrogen utilization via enzyme I inhibition. Nature Chemical Biology, 2011, 7, 894-901.	3.9	212
61	NADPH production by the oxidative pentose-phosphate pathway supports folate metabolism. Nature Metabolism, 2019, 1, 404-415.	5.1	209
62	A Dual-Mechanism Antibiotic Kills Gram-Negative Bacteria and Avoids Drug Resistance. Cell, 2020, 181, 1518-1532.e14.	13.5	202
63	Metabolite Spectral Accuracy on Orbitraps. Analytical Chemistry, 2017, 89, 5940-5948.	3.2	201
64	Serine Metabolism Supports Macrophage IL-1Î² Production. Cell Metabolism, 2019, 29, 1003-1011.e4.	7.2	192
65	Human SHMT inhibitors reveal defective glycine import as a targetable metabolic vulnerability of diffuse large B-cell lymphoma. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11404-11409.	3.3	190
66	Oncogenic Myc Induces Expression of Glutamine Synthetase through Promoter Demethylation. Cell Metabolism, 2015, 22, 1068-1077.	7.2	189
67	The adverse metabolic effects of branched-chain amino acids are mediated by isoleucine and valine. Cell Metabolism, 2021, 33, 905-922.e6.	7.2	183
68	Metabolite Exchange between Mammalian Organs Quantified in Pigs. Cell Metabolism, 2019, 30, 594-606.e3.	7.2	170
69	Metabolomicsâ€driven quantitative analysis of ammonia assimilation in <i>E. coli</i>. Molecular Systems Biology, 2009, 5, 302.	3.2	168
70	Avoiding Misannotation of In-Source Fragmentation Products as Cellular Metabolites in Liquid Chromatographyâ€“Mass Spectrometry-Based Metabolomics. Analytical Chemistry, 2015, 87, 2273-2281.	3.2	160
71	A Unified Approach to Targeting the Lysosome's Degradative and Growth Signaling Roles. Cancer Discovery, 2017, 7, 1266-1283.	7.7	159
72	Post-transcriptional Regulation of De Novo Lipogenesis by mTORC1-S6K1-SRPK2 Signaling. Cell, 2017, 171, 1545-1558.e18.	13.5	159

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73	SLC25A51 is a mammalian mitochondrial NAD+ transporter. Nature, 2020, 588, 174-179.	13.7	158
74	CD38 ecto-enzyme in immune cells is induced during aging and regulates NAD+ and NMN levels. Nature Metabolism, 2020, 2, 1284-1304.	5.1	157
75	Distinct modes of mitochondrial metabolism uncouple T cell differentiation and function. Nature, 2019, 571, 403-407.	13.7	156
76	Diet-Induced Circadian Enhancer Remodeling Synchronizes Opposing Hepatic Lipid Metabolic Processes. Cell, 2018, 174, 831-842.e12.	13.5	150
77	Quantitative Fluxomics of Circulating Metabolites. Cell Metabolism, 2020, 32, 676-688.e4.	7.2	148
78	Yeast cells can access distinct quiescent states. Genes and Development, 2011, 25, 336-349.	2.7	143
79	Regulatory and metabolic rewiring during laboratory evolution of ethanol tolerance in <i>E. coli</i>. Molecular Systems Biology, 2010, 6, 378.	3.2	141
80	A PRDM16-Driven Metabolic Signal from Adipocytes Regulates Precursor Cell Fate. Cell Metabolism, 2019, 30, 174-189.e5.	7.2	141
81	The Tumor Metabolic Microenvironment: Lessons from Lactate. Cancer Research, 2019, 79, 3155-3162.	0.4	140
82	Extraction and Quantitation of Nicotinamide Adenine Dinucleotide Redox Cofactors. Antioxidants and Redox Signaling, 2018, 28, 167-179.	2.5	136
83	Lactate dehydrogenase inhibition synergizes with IL-21 to promote CD8 ⁺ T cell stemness and antitumor immunity. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6047-6055.	3.3	128
84	Ammonium Toxicity and Potassium Limitation in Yeast. PLoS Biology, 2006, 4, e351.	2.6	123
85	Systems-Level Metabolic Flux Profiling Elucidates a Complete, Bifurcated Tricarboxylic Acid Cycle in <i>Clostridium acetobutylicum</i>. Journal of Bacteriology, 2010, 192, 4452-4461.	1.0	122
86	A high-performance liquid chromatography-tandem mass spectrometry method for quantitation of nitrogen-containing intracellular metabolites. Journal of the American Society for Mass Spectrometry, 2006, 17, 37-50.	1.2	120
87	Serine Catabolism Feeds NADH when Respiration Is Impaired. Cell Metabolism, 2020, 31, 809-821.e6.	7.2	118
88	Kinetic flux profiling of nitrogen assimilation in Escherichia coli. , 2006, 2, 529-530.		117
89	T Cell Activation Depends on Extracellular Alanine. Cell Reports, 2019, 28, 3011-3021.e4.	2.9	117
90	Nicotinamide adenine dinucleotide is transported into mammalian mitochondria. ELife, 2018, 7, .	2.8	111

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91	Metabolomics in systems microbiology. Current Opinion in Biotechnology, 2011, 22, 17-25.	3.3	110
92	Glucose becomes one of the worst carbon sources for E.coli on poor nitrogen sources due to suboptimal levels of cAMP. Scientific Reports, 2016, 6, 24834.	1.6	110
93	Metabolite discovery through global annotation of untargeted metabolomics data. Nature Methods, 2021, 18, 1377-1385.	9.0	107
94	A domino effect in antifolate drug action in Escherichia coli. Nature Chemical Biology, 2008, 4, 602-608.	3.9	106
95	Metabolomic Changes Accompanying Transformation and Acquisition of Metastatic Potential in a Syngeneic Mouse Mammary Tumor Model. Journal of Biological Chemistry, 2010, 285, 9317-9321.	1.6	106
96	Riboneogenesis in Yeast. Cell, 2011, 145, 969-980.	13.5	105
97	Metabolome Remodeling during the Acidogenic-Solventogenic Transition in Clostridium acetobutylicum. Applied and Environmental Microbiology, 2011, 77, 7984-7997.	1.4	105
98	Malic enzyme tracers reveal hypoxia-induced switch in adipocyte NADPH pathway usage. Nature Chemical Biology, 2016, 12, 345-352.	3.9	103
99	The hepatocyte clock and feeding control chronophysiology of multiple liver cell types. Science, 2020, 369, 1388-1394.	6.0	103
100	Pyrimidine homeostasis is accomplished by directed overflow metabolism. Nature, 2013, 500, 237-241.	13.7	102
101	Peripheral TREM1 responses to brain and intestinal immunogens amplify stroke severity. Nature Immunology, 2019, 20, 1023-1034.	7.0	101
102	A small molecule G6PD inhibitor reveals immune dependence on pentose phosphate pathway. Nature Chemical Biology, 2020, 16, 731-739.	3.9	101
103	Functional Role of Autophagy-Mediated Proteome Remodeling in Cell Survival Signaling and Innate Immunity. Molecular Cell, 2014, 55, 916-930.	4.5	96
104	Survival of starving yeast is correlated with oxidative stress response and nonrespiratory mitochondrial function. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E1089-98.	3.3	93
105	Ketohexokinase C blockade ameliorates fructose-induced metabolic dysfunction in fructose-sensitive mice. Journal of Clinical Investigation, 2018, 128, 2226-2238.	3.9	89
106	NADPH production by the oxidative pentose-phosphate pathway supports folate metabolism. Nature Metabolism, 2019, 1, 404-415.	5.1	84
107	Liquid Chromatographyâ€"High Resolution Mass Spectrometry Analysis of Fatty Acid Metabolism. Analytical Chemistry, 2011, 83, 9114-9122.	3.2	82
108	The small intestine shields the liver from fructose-induced steatosis. Nature Metabolism, 2020, 2, 586-593.	5.1	81

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109	The Source of Glycolytic Intermediates in Mammalian Tissues. Cell Metabolism, 2021, 33, 367-378.e5.	7.2	80
110	mTOR Inhibition Restores Amino Acid Balance in Cells Dependent on Catabolism of Extracellular Protein. Molecular Cell, 2017, 67, 936-946.e5.	4.5	78
111	Characterizing the in vivo role of trehalose in <i>Saccharomyces cerevisiae</i> using the <i>AGT1</i> transporter. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6116-6121.	3.3	77
112	Treatment of Pancreatic Cancer Patientâ€"Derived Xenograft Panel with Metabolic Inhibitors Reveals Efficacy of Phenformin. Clinical Cancer Research, 2017, 23, 5639-5647.	3.2	76
113	MTHFD2 is a metabolic checkpoint controlling effector and regulatory TÂcell fate and function. Immunity, 2022, 55, 65-81.e9.	6.6	74
114	Fatty Acid Elongase 7 Catalyzes Lipidome Remodeling Essential for Human Cytomegalovirus Replication. Cell Reports, 2015, 10, 1375-1385.	2.9	73
115	Identifying decomposition products in extracts of cellular metabolites. Analytical Biochemistry, 2006, 358, 273-280.	1.1	72
116	Ultrasensitive regulation of anapleurosis via allosteric activation of PEP carboxylase. Nature Chemical Biology, 2012, 8, 562-568.	3.9	72
117	Peak Annotation and Verification Engine for Untargeted LCâ€"MS Metabolomics. Analytical Chemistry, 2019, 91, 1838-1846.	3.2	72
118	Chemical Basis for Deuterium Labeling of Fat and NADPH. Journal of the American Chemical Society, 2017, 139, 14368-14371.	6.6	71
119	SHMT inhibition is effective and synergizes with methotrexate in T-cell acute lymphoblastic leukemia. Leukemia, 2021, 35, 377-388.	3.3	68
120	Autophagy promotes growth of tumors with high mutational burden by inhibiting a T-cell immune response. Nature Cancer, 2020, 1, 923-934.	5.7	67
121	Spatially resolved isotope tracing reveals tissue metabolic activity. Nature Methods, 2022, 19, 223-230.	9.0	67
122	Cellular metabolomics ofEscherchia coli. Expert Review of Proteomics, 2007, 4, 187-198.	1.3	66
123	Fast Onset Medications through Thermally Generated Aerosols. Journal of Pharmacology and Experimental Therapeutics, 2004, 309, 769-775.	1.3	62
124	PRDM16 Maintains Homeostasis of the Intestinal Epithelium by Controlling Region-Specific Metabolism. Cell Stem Cell, 2019, 25, 830-845.e8.	5.2	62
125	Near-equilibrium glycolysis supports metabolic homeostasis and energy yield. Nature Chemical Biology, 2019, 15, 1001-1008.	3.9	60
126	Chaperone-mediated autophagy regulates the pluripotency of embryonic stem cells. Science, 2020, 369, 397-403.	6.0	60

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127	Regulation of Yeast Pyruvate Kinase by Ultrasensitive Allostery Independent of Phosphorylation. Molecular Cell, 2012, 48, 52-62.	4.5	59
128	Physiological Suppression of Lipotoxic Liver DamageÂby Complementary Actions of HDAC3 andÂSCAP/SREBP. Cell Metabolism, 2016, 24, 863-874.	7.2	59
129	Remodeling of the Metabolome during Early Frog Development. PLoS ONE, 2011, 6, e16881.	1.1	59
130	Nucleotide degradation and ribose salvage in yeast. Molecular Systems Biology, 2013, 9, 665.	3.2	58
131	Robust Control of Nitrogen Assimilation by a Bifunctional Enzyme in E.Âcoli. Molecular Cell, 2011, 41, 117-127.	4.5	56
132	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
133	Ultra-Fast Absorption of Amorphous Pure Drug Aerosols via Deep Lung Inhalation. Journal of Pharmaceutical Sciences, 2006, 95, 2438-2451.	1.6	55
134	A comprehensive genome-scale model for Rhodosporidium toruloides IFO0880 accounting for functional genomics and phenotypic data. Metabolic Engineering Communications, 2019, 9, e00101.	1.9	55
135	Genetic Basis of Metabolome Variation in Yeast. PLoS Genetics, 2014, 10, e1004142.	1.5	53
136	Isotope ratio-based profiling of microbial folates. Journal of the American Society for Mass Spectrometry, 2007, 18, 898-909.	1.2	51
137	NAD+ flux is maintained in aged mice despite lower tissue concentrations. Cell Systems, 2021, 12, 1160-1172.e4.	2.9	51
138	Targeting hepatic glutaminase activity to ameliorate hyperglycemia. Nature Medicine, 2018, 24, 518-524.	15.2	50
139	mTORC1 promotes cell growth via m6A-dependent mRNA degradation. Molecular Cell, 2021, 81, 2064-2075.e8.	4.5	50
140	RNA Futile Cycling in Model Persisters Derived from MazF Accumulation. MBio, 2015, 6, e01588-15.	1.8	48
141	Bisphosphoglycerate mutase controls serine pathway flux via 3-phosphoglycerate. Nature Chemical Biology, 2017, 13, 1081-1087.	3.9	47
142	Mass Spectrometry-Based Metabolomics of Yeast. Methods in Enzymology, 2010, 470, 393-426.	0.4	45
143	Sex and genetic background define the metabolic, physiologic, and molecular response to protein restriction. Cell Metabolism, 2022, 34, 209-226.e5.	7.2	44
144	Activation of the NRF2 antioxidant program sensitizes tumors to G6PD inhibition. Science Advances, 2021, 7, eabk1023.	4.7	43

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145	Quantitation of Cellular Metabolic Fluxes of Methionine. Analytical Chemistry, 2014, 86, 1583-1591.	3.2	42
146	The metabolites NADP+ and NADPH are the targets of the circadian protein Nocturnin (Curled). Nature Communications, 2019, 10, 2367.	5.8	41
147	An LC-MS chemical derivatization method for the measurement of five different one-carbon states of cellular tetrahydrofolate. Analytical and Bioanalytical Chemistry, 2017, 409, 5955-5964.	1.9	40
148	Enhancing Chimeric Antigen Receptor T Cell Anti-tumor Function through Advanced Media Design. Molecular Therapy - Methods and Clinical Development, 2020, 18, 595-606.	1.8	39
149	Upregulation of Antioxidant Capacity and Nucleotide Precursor Availability Suffices for Oncogenic Transformation. Cell Metabolism, 2021, 33, 94-109.e8.	7.2	39
150	Hierarchy in Pentose Sugar Metabolism in Clostridium acetobutylicum. Applied and Environmental Microbiology, 2015, 81, 1452-1462.	1.4	38
151	Novel Pyrrolo[3,2-<i>d</i>]pyrimidine Compounds Target Mitochondrial and Cytosolic One-carbon Metabolism with Broad-spectrum Antitumor Efficacy. Molecular Cancer Therapeutics, 2019, 18, 1787-1799.	1.9	38
152	Achieving Optimal Growth through Product Feedback Inhibition in Metabolism. PLoS Computational Biology, 2010, 6, e1000802.	1.5	37
153	Serine catabolism generates liver NADPH and supports hepatic lipogenesis. Nature Metabolism, 2021, 3, 1608-1620.	5.1	37
154	Natural human genetic variation determines basal and inducible expression of <i>PM20D1</i> , an obesity-associated gene. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23232-23242.	3.3	35
155	Quantitative flux analysis in mammals. Nature Metabolism, 2021, 3, 896-908.	5.1	35
156	PDK4 Inhibits Cardiac Pyruvate Oxidation in Late Pregnancy. Circulation Research, 2017, 121, 1370-1378.	2.0	33
157	Glucose-6-Phosphate Dehydrogenase Is Not Essential for K-Rasâ€"Driven Tumor Growth or Metastasis. Cancer Research, 2020, 80, 3820-3829.	0.4	33
158	Energy budget of Drosophila embryogenesis. Current Biology, 2019, 29, R566-R567.	1.8	32
159	Chemical Genetics of Rapamycin-Insensitive TORC2 in S.Âcerevisiae. Cell Reports, 2013, 5, 1725-1736.	2.9	31
160	Ketogenic diet and chemotherapy combine to disrupt pancreatic cancer metabolism and growth. Med, 2022, 3, 119-136.e8.	2.2	31
161	Dynamic Control of dNTP Synthesis in Early Embryos. Developmental Cell, 2017, 42, 301-308.e3.	3.1	30
162	Local production of lactate, ribose phosphate, and amino acids by human triple-negative breast cancer. Med, 2021, 2, 736-754.e6.	2.2	28

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163	A Two-Enzyme Adaptive Unit within Bacterial Folate Metabolism. Cell Reports, 2019, 27, 3359-3370.e7.	2.9	27
164	SHMT2 inhibition disrupts the TCF3 transcriptional survival program in Burkitt lymphoma. Blood, 2022, 139, 538-553.	0.6	27
165	Teaching the design principles of metabolism. Nature Chemical Biology, 2012, 8, 497-501.	3.9	26
166	Circulating metabolite homeostasis achieved through mass action. Nature Metabolism, 2022, 4, 141-152.	5.1	26
167	A systematic genetic screen for genes involved in sensing inorganic phosphate availability in Saccharomyces cerevisiae. PLoS ONE, 2017, 12, e0176085.	1.1	25
168	Perinatal high fat diet and early life methyl donor supplementation alter one carbon metabolism and <scp>DNA</scp> methylation in the brain. Journal of Neurochemistry, 2018, 145, 362-373.	2.1	25
169	Downregulation of the tyrosine degradation pathway extends Drosophila lifespan. ELife, 2020, 9, .	2.8	25
170	Methionine synthase supports tumour tetrahydrofolate pools. Nature Metabolism, 2021, 3, 1512-1520.	5.1	24
171	Genome-scale metabolic reconstruction of the non-model yeast Issatchenkia orientalis SD108 and its application to organic acids production. Metabolic Engineering Communications, 2020, 11, e00148.	1.9	20
172	Improved Annotation of Untargeted Metabolomics Data through Buffer Modifications That Shift Adduct Mass and Intensity. Analytical Chemistry, 2020, 92, 11573-11581.	3.2	20
173	A metabolic strategy to reverse fibrosis?. Nature Metabolism, 2019, 1, 12-13.	5.1	19
174	NADK is activated by oncogenic signaling to sustain pancreatic ductal adenocarcinoma. Cell Reports, 2021, 35, 109238.	2.9	19
175	5,10-methenyltetrahydrofolate synthetase deficiency causes a neurometabolic disorder associated with microcephaly, epilepsy, and cerebral hypomyelination. Molecular Genetics and Metabolism, 2018, 125, 118-126.	0.5	18
176	Inhibition of glucose transport synergizes with chemical or genetic disruption of mitochondrial metabolism and suppresses TCA cycle-deficient tumors. Cell Chemical Biology, 2022, 29, 423-435.e10.	2.5	18
177	Dissecting Enzyme Regulation by Multiple Allosteric Effectors: Nucleotide Regulation of Aspartate Transcarbamoylase. Biochemistry, 2008, 47, 5881-5888.	1.2	17
178	Metabolic excretion associated with nutrientâ€"growth dysregulation promotes the rapid evolution of an overt metabolic defect. PLoS Biology, 2020, 18, e3000757.	2.6	17
179	Monitoring mammalian mitochondrial translation with MitoRiboSeq. Nature Protocols, 2021, 16, 2802-2825.	5.5	16
180	Biochemical and Structural Studies of Conserved Maf Proteins Revealed Nucleotide Pyrophosphatases with a Preference for Modified Nucleotides. Chemistry and Biology, 2013, 20, 1386-1398.	6.2	15

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181	Minor Isozymes Tailor Yeast Metabolism to Carbon Availability. MSystems, 2019, 4, .	1.7	14
182	ZMP: A Master Regulator of One-Carbon Metabolism. Molecular Cell, 2015, 57, 203-204.	4.5	13
183	Elevated Choline Kinase Î±â€"Mediated Choline Metabolism Supports the Prolonged Survival of TRAF3-Deficient B Lymphocytes. Journal of Immunology, 2020, 204, 459-471.	0.4	13
184	A network flow model for biclustering via optimal re-ordering of data matrices. Journal of Global Optimization, 2010, 47, 343-354.	1.1	12
185	Discovery and Functional Characterization of a Yeast Sugar Alcohol Phosphatase. ACS Chemical Biology, 2018, 13, 3011-3020.	1.6	12
186	GCN2 adapts protein synthesis to scavenging-dependent growth. Cell Systems, 2022, 13, 158-172.e9.	2.9	12
187	Partners in the Warburg effect. ELife, 2016, 5, e15938.	2.8	10
188	Inhibition of <i>de novo</i> pyrimidine synthesis augments Gemcitabine induced growth inhibition in an immunocompetent model of pancreatic cancer. International Journal of Biological Sciences, 2021, 17, 2240-2251.	2.6	8
189	A genetic model of methionine restriction extends <i>Drosophila</i> health- and lifespan. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	8
190	Bisphosphoglycerate Mutase Deficiency Protects against Cerebral Malaria and Severe Malaria-Induced Anemia. Cell Reports, 2020, 32, 108170.	2.9	7
191	CAR T-Cells Depend on the Coupling of NADH Oxidation with ATP Production. Cells, 2021, 10, 2334.	1.8	7
192	Metabolic decisions in development and diseaseâ€"a Keystone Symposia report. Annals of the New York Academy of Sciences, 2021, 1506, 55-73.	1.8	6
193	Live-Cell Imaging of NADPH Production from Specific Pathways. CCS Chemistry, 2021, 3, 1642-1648.	4.6	5
194	Late-gestation maternal dietary methyl donor and cofactor supplementation in sheep partially reverses protection against allergic sensitization by IUGR. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2018, 314, R22-R33.	0.9	4
195	LC-MS and GC-MS based metabolomics platform for cancer research. Cancer & Metabolism, 2014, 2, .	2.4	3
196	Ribosomes on the night shift. Science, 2018, 360, 710-711.	6.0	3
197	OPTIMAL METHODS FOR RE-ORDERING DATA MATRICES IN SYSTEMS BIOLOGY AND DRUG DISCOVERY APPLICATIONS. Biophysical Reviews and Letters, 2008, 03, 19-42.	0.9	1
198	Enhancing molecular discovery using descriptorâ€free rearrangement clustering techniques for sparse data sets. AIChE Journal, 2010, 56, 405-418.	1.8	1

#	Article	IF	Citations
199	OPTIMAL METHODS FOR RE-ORDERING DATA MATRICES IN SYSTEMS BIOLOGY AND DRUG DISCOVERY APPLICATIONS. , 2008, , .		1
200	Development of laboratory and computational techniques for optimal and quantitative understanding of cellular metabolic networks. , 2008, , .		0
201	Quantitative Survey of NAD + Flux in Aged Mice. FASEB Journal, 2019, 33, 794.14.	0.2	0