

Aspartate is a limiting metabolite for cancer cell proliferation in tumours

Nature Cell Biology

20, 775-781

DOI: [10.1038/s41556-018-0118-z](https://doi.org/10.1038/s41556-018-0118-z)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Metabolic Frugality Marks Cancer Cells for Immune Targeting. <i>Cell</i> , 2018, 174, 1344-1346.	13.5	5
2	Rewiring urea cycle metabolism in cancer to support anabolism. <i>Nature Reviews Cancer</i> , 2018, 18, 634-645.	12.8	192
3	Aspartate is an endogenous metabolic limitation for tumour growth. <i>Nature Cell Biology</i> , 2018, 20, 782-788.	4.6	240
4	Grasping for aspartate in tumour metabolism. <i>Nature Cell Biology</i> , 2018, 20, 738-739.	4.6	12
5	Reprogramming of Amino Acid Transporters to Support Aspartate and Glutamate Dependency Sustains Endocrine Resistance in Breast Cancer. <i>Cell Reports</i> , 2019, 28, 104-118.e8.	2.9	67
6	The Rise of Physiologic Media. <i>Trends in Cell Biology</i> , 2019, 29, 854-861.	3.6	59
7	Smart Nanotechnologies to Target Tumor with Deep Penetration Depth for Efficient Cancer Treatment and Imaging. <i>Advanced Therapeutics</i> , 2019, 2, 1900093.	1.6	14
8	Smart cancer nanomedicine. <i>Nature Nanotechnology</i> , 2019, 14, 1007-1017.	15.6	776
9	Glutamine Metabolism in Brain Tumors. <i>Cancers</i> , 2019, 11, 1628.	1.7	53
10	SLC1A3 contributes to asparaginase resistance in solid tumors. <i>EMBO Journal</i> , 2019, 38, e102147.	3.5	41
11	Maintaining cytosolic aspartate levels is a major function of the TCA cycle in proliferating cells. <i>Molecular and Cellular Oncology</i> , 2019, 6, e1536843.	0.3	19
12	Metabolic reprogramming and tumor immunity under hypoxic microenvironment. <i>Current Opinion in Physiology</i> , 2019, 7, 53-59.	0.9	9
13	Recognition of early and late stages of bladder cancer using metabolites and machine learning. <i>Metabolomics</i> , 2019, 15, 94.	1.4	34
14	Antibiotic Exposure Has Sex-Dependent Effects on the Gut Microbiota and Metabolism of Short-Chain Fatty Acids and Amino Acids in Mice. <i>MSystems</i> , 2019, 4, .	1.7	42
15	The roles of glucose metabolic reprogramming in chemo- and radio-resistance. <i>Journal of Experimental and Clinical Cancer Research</i> , 2019, 38, 218.	3.5	124
16	Superfluous glutamine synthetase activity in Chinese Hamster Ovary cells selected under glutamine limitation is growth limiting in glutamine-replete conditions and can be inhibited by serine. <i>Biotechnology Progress</i> , 2019, 35, e2856.	1.3	0
17	Circadian Clocks and Cancer: Timekeeping Governs Cellular Metabolism. <i>Trends in Endocrinology and Metabolism</i> , 2019, 30, 445-458.	3.1	73
18	HSP60 silencing promotes Warburg-like phenotypes and switches the mitochondrial function from ATP production to biosynthesis in ccRCC cells. <i>Redox Biology</i> , 2019, 24, 101218.	3.9	44

#	ARTICLE	IF	CITATIONS
19	Determination of Pyruvate Metabolic Fates Modulates Head and Neck Tumorigenesis. <i>Neoplasia</i> , 2019, 21, 641-652.	2.3	23
20	The molecular rationale for therapeutic targeting of glutamine metabolism in pulmonary hypertension. <i>Expert Opinion on Therapeutic Targets</i> , 2019, 23, 511-524.	1.5	19
21	The Fate of Glutamine in Human Metabolism. The Interplay with Glucose in Proliferating Cells. <i>Metabolites</i> , 2019, 9, 81.	1.3	20
22	Lysosome inhibition sensitizes pancreatic cancer to replication stress by aspartate depletion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 6842-6847.	3.3	40
23	Metabolic regulation of cell growth and proliferation. <i>Nature Reviews Molecular Cell Biology</i> , 2019, 20, 436-450.	16.1	577
24	Watch What You (Self-) Eat: Autophagic Mechanisms that Modulate Metabolism. <i>Cell Metabolism</i> , 2019, 29, 803-826.	7.2	206
25	HIF1 α Suppresses Tumor Cell Proliferation through Inhibition of Aspartate Biosynthesis. <i>Cell Reports</i> , 2019, 26, 2257-2265.e4.	2.9	69
26	Metabolomics Distinguishes DOCK8 Deficiency from Atopic Dermatitis: Towards a Biomarker Discovery. <i>Metabolites</i> , 2019, 9, 274.	1.3	23
27	What Does Reduced FDG Uptake Mean in High-Grade Gliomas?. <i>Clinical Nuclear Medicine</i> , 2019, 44, 936-942.	0.7	2
28	Starvation and Pseudo-Starvation as Drivers of Cancer Metastasis through Translation Reprogramming. <i>Cell Metabolism</i> , 2019, 29, 254-267.	7.2	88
29	Fuelling cancer cells. <i>Nature Reviews Endocrinology</i> , 2019, 15, 71-72.	4.3	10
30	Reactivation of Dihydroorotate Dehydrogenase-Driven Pyrimidine Biosynthesis Restores Tumor Growth of Respiration-Deficient Cancer Cells. <i>Cell Metabolism</i> , 2019, 29, 399-416.e10.	7.2	190
31	Mitochondrial complex III is necessary for endothelial cell proliferation during angiogenesis. <i>Nature Metabolism</i> , 2019, 1, 158-171.	5.1	141
32	Coordinative metabolism of glutamine carbon and nitrogen in proliferating cancer cells under hypoxia. <i>Nature Communications</i> , 2019, 10, 201.	5.8	140
33	Epigenetic upregulation and functional role of the mitochondrial aspartate/glutamate carrier isoform 1 in hepatocellular carcinoma. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2019, 1865, 38-47.	1.8	42
34	Mitochondria-driven elimination of cancer and senescent cells. <i>Biological Chemistry</i> , 2019, 400, 141-148.	1.2	13
35	Tumor-Stroma Mechanics Coordinate Amino Acid Availability to Sustain Tumor Growth and Malignancy. <i>Cell Metabolism</i> , 2019, 29, 124-140.e10.	7.2	232
36	Reconciling environment-mediated metabolic heterogeneity with the oncogene-driven cancer paradigm in precision oncology. <i>Seminars in Cell and Developmental Biology</i> , 2020, 98, 202-210.	2.3	23

#	ARTICLE	IF	CITATIONS
37	The mitochondrial carrier Citrin plays a role in regulating cellular energy during carcinogenesis. <i>Oncogene</i> , 2020, 39, 164-175.	2.6	16
38	Metabolic reprogramming in tumors: Contributions of the tumor microenvironment. <i>Genes and Diseases</i> , 2020, 7, 185-198.	1.5	45
39	Target Discovery of Selective Non-Small-Cell Lung Cancer Toxins Reveals Inhibitors of Mitochondrial Complex I. <i>ACS Chemical Biology</i> , 2020, 15, 158-170.	1.6	18
40	Metabolic Modifier Screen Reveals Secondary Targets of Protein Kinase Inhibitors within Nucleotide Metabolism. <i>Cell Chemical Biology</i> , 2020, 27, 197-205.e6.	2.5	16
41	New aspects of amino acid metabolism in cancer. <i>British Journal of Cancer</i> , 2020, 122, 150-156.	2.9	250
42	Activation of Oxidative Stress Response in Cancer Generates a Druggable Dependency on Exogenous Non-essential Amino Acids. <i>Cell Metabolism</i> , 2020, 31, 339-350.e4.	7.2	103
43	Targeting extracellular nutrient dependencies of cancer cells. <i>Molecular Metabolism</i> , 2020, 33, 67-82.	3.0	50
44	ASSigning purine dependency to cancer. <i>Nature Cancer</i> , 2020, 1, 862-863.	5.7	1
45	Respiratory Supercomplexes Promote Mitochondrial Efficiency and Growth in Severely Hypoxic Pancreatic Cancer. <i>Cell Reports</i> , 2020, 33, 108231.	2.9	70
46	Defining compartmentalized stem cell populations with distinct cell division dynamics in the ocular surface epithelium. <i>Development (Cambridge)</i> , 2020, 147, .	1.2	8
47	Functional screening identifies aryl hydrocarbon receptor as suppressor of lung cancer metastasis. <i>Oncogenesis</i> , 2020, 9, 102.	2.1	24
48	Deficiency of malate-aspartate shuttle component SLC25A12 induces pulmonary metastasis. <i>Cancer & Metabolism</i> , 2020, 8, 26.	2.4	11
49	Treatment of ErbB2 breast cancer by mitochondrial targeting. <i>Cancer & Metabolism</i> , 2020, 8, 17.	2.4	5
50	Chloroquine Triggers Cell Death and Inhibits PARPs in Cell Models of Aggressive Hepatoblastoma. <i>Frontiers in Oncology</i> , 2020, 10, 1138.	1.3	13
51	The malate-aspartate shuttle (Borst cycle): How it started and developed into a major metabolic pathway. <i>IUBMB Life</i> , 2020, 72, 2241-2259.	1.5	117
52	Inhibiting both proline biosynthesis and lipogenesis synergistically suppresses tumor growth. <i>Journal of Experimental Medicine</i> , 2020, 217, .	4.2	37
53	Oncogenic Mechanisms and Therapeutic Targeting of Metabolism in Leukemia and Lymphoma. <i>Cold Spring Harbor Perspectives in Medicine</i> , 2021, 11, a035477.	2.9	2
54	The Role of Pi, Glutamine and the Essential Amino Acids in Modulating the Metabolism in Diabetes and Cancer. <i>Journal of Diabetes and Metabolic Disorders</i> , 2020, 19, 1731-1775.	0.8	6

#	ARTICLE	IF	CITATIONS
55	Autonomous glucose metabolic reprogramming of tumour cells under hypoxia: opportunities for targeted therapy. <i>Journal of Experimental and Clinical Cancer Research</i> , 2020, 39, 185.	3.5	13
56	A CRISPR knockout negative screen reveals synergy between CDKs inhibitor and metformin in the treatment of human cancer in vitro and in vivo. <i>Signal Transduction and Targeted Therapy</i> , 2020, 5, 152.	7.1	6
57	The Role of Mitochondrial Fat Oxidation in Cancer Cell Proliferation and Survival. <i>Cells</i> , 2020, 9, 2600.	1.8	38
58	Free Asparagine or Die: Cancer Cells Require Proteasomal Protein Breakdown to Survive Asparagine Depletion. <i>Cancer Discovery</i> , 2020, 10, 1632-1634.	7.7	1
59	SLC1A3 promotes gastric cancer progression via the PI3K/AKT signalling pathway. <i>Journal of Cellular and Molecular Medicine</i> , 2020, 24, 14392-14404.	1.6	36
60	Mitochondrial UQC3 Modulates Hypoxia Adaptation by Orchestrating OXPHOS and Glycolysis in Hepatocellular Carcinoma. <i>Cell Reports</i> , 2020, 33, 108340.	2.9	28
61	Bisphenol A exposure disrupts aspartate transport in HepG2 cells. <i>Journal of Biochemical and Molecular Toxicology</i> , 2020, 34, e22516.	1.4	4
62	Cyclodextrin as a magic switch in covalent and non-covalent anticancer drug release systems. <i>Carbohydrate Polymers</i> , 2020, 242, 116401.	5.1	38
63	The Amino Acid Sensor <i>Eif2ak4/GCN2</i> Is Required for Proliferation of Osteoblast Progenitors in Mice. <i>Journal of Bone and Mineral Research</i> , 2020, 35, 2004-2014.	3.1	21
64	Metabolic Reprogramming in Metastatic Melanoma with Acquired Resistance to Targeted Therapies: Integrative Metabolomic and Proteomic Analysis. <i>Cancers</i> , 2020, 12, 1323.	1.7	13
65	Limited Environmental Serine and Glycine Confer Brain Metastasis Sensitivity to PHGDH Inhibition. <i>Cancer Discovery</i> , 2020, 10, 1352-1373.	7.7	145
66	Induction of in vitro Metabolic Zonation in Primary Hepatocytes Requires Both Near-Physiological Oxygen Concentration and Flux. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 524.	2.0	20
67	Glutaminase-1 (GLS1) inhibition limits metastatic progression in osteosarcoma. <i>Cancer & Metabolism</i> , 2020, 8, 4.	2.4	69
68	Nitrogen Metabolism in Cancer and Immunity. <i>Trends in Cell Biology</i> , 2020, 30, 408-424.	3.6	72
69	Dihydroorotate dehydrogenase in oxidative phosphorylation and cancer. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2020, 1866, 165759.	1.8	73
70	Dietary modifications for enhanced cancer therapy. <i>Nature</i> , 2020, 579, 507-517.	13.7	219
71	Cellular adaptation to hypoxia through hypoxia inducible factors and beyond. <i>Nature Reviews Molecular Cell Biology</i> , 2020, 21, 268-283.	16.1	595
72	A redox-active switch in fructosamine-3-kinases expands the regulatory repertoire of the protein kinase superfamily. <i>Science Signaling</i> , 2020, 13, .	1.6	12

#	ARTICLE	IF	CITATIONS
73	Mitochondrial ubiquinol oxidation is necessary for tumour growth. <i>Nature</i> , 2020, 585, 288-292.	13.7	205
74	Nitrogen Trapping as a Therapeutic Strategy in Tumors with Mitochondrial Dysfunction. <i>Cancer Research</i> , 2020, 80, 3492-3506.	0.4	8
75	Metabolic pathway alterations in microvascular endothelial cells in response to hypoxia. <i>PLoS ONE</i> , 2020, 15, e0232072.	1.1	14
76	Spatial modeling of prostate cancer metabolic gene expression reveals extensive heterogeneity and selective vulnerabilities. <i>Scientific Reports</i> , 2020, 10, 3490.	1.6	43
77	Tumour metabolism and its unique properties in prostate adenocarcinoma. <i>Nature Reviews Urology</i> , 2020, 17, 214-231.	1.9	88
78	Maintaining Iron Homeostasis Is the Key Role of Lysosomal Acidity for Cell Proliferation. <i>Molecular Cell</i> , 2020, 77, 645-655.e7.	4.5	144
79	A link between metabolic energetics and pancreatic cancer mechanosensing. <i>Nature Metabolism</i> , 2020, 2, 5-6.	5.1	2
80	Amino Acid Transporters and Exchangers from the SLC1A Family: Structure, Mechanism and Roles in Physiology and Cancer. <i>Neurochemical Research</i> , 2020, 45, 1268-1286.	1.6	40
81	Targeting glutamine metabolism slows soft tissue sarcoma growth. <i>Nature Communications</i> , 2020, 11, 498.	5.8	63
82	Targeting Glutamine Addiction in Gliomas. <i>Cancers</i> , 2020, 12, 310.	1.7	59
83	Amino Acid Oncometabolism and Immunomodulation of the Tumor Microenvironment in Lung Cancer. <i>Frontiers in Oncology</i> , 2020, 10, 276.	1.3	23
84	In Silico Discovery of Candidate Drugs against Covid-19. <i>Viruses</i> , 2020, 12, 404.	1.5	156
85	Cancer cell metabolism: Rewiring the mitochondrial hub. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2021, 1867, 166016.	1.8	33
86	Fabrication of multi-functional carbon dots based on "one stone, three birds" strategy and their applications for the dual-mode Fe ³⁺ detection, effective promotion on cell proliferation and treatment on ferric toxicosis <i>in vitro</i> . <i>Journal of Materials Chemistry B</i> , 2021, 9, 767-782.	2.9	9
87	Metabolic markers for diagnosis and risk-prediction of multiple myeloma. <i>Life Sciences</i> , 2021, 265, 118852.	2.0	15
88	Uncovering the Metabolic Origin of Aspartate for Tumor Growth Using an Integrated Molecular Deactivator. <i>Nano Letters</i> , 2021, 21, 778-784.	4.5	13
89	Glioma stem cells and their roles within the hypoxic tumor microenvironment. <i>Theranostics</i> , 2021, 11, 665-683.	4.6	89
90	Mitochondrial and Metabolic Pathways Regulate Nuclear Gene Expression to Control Differentiation, Stem Cell Function, and Immune Response in Leukemia. <i>Cancer Discovery</i> , 2021, 11, 1052-1066.	7.7	24

#	ARTICLE	IF	CITATIONS
91	Therapeutic Assessment of Targeting ASNS Combined with <sc></sc>-Asparaginase Treatment in Solid Tumors and Investigation of Resistance Mechanisms. ACS Pharmacology and Translational Science, 2021, 4, 327-337.	2.5	13
92	Transcription Regulation of Gene Transcription by Hypoxia-Inducible Factor 1 α . , 2021, , 480-489.		1
93	Metabolic Reprogramming of Cancer Cells during Tumor Progression and Metastasis. Metabolites, 2021, 11, 28.	1.3	83
94	Metabolism of Amino Acids in Cancer. Frontiers in Cell and Developmental Biology, 2020, 8, 603837.	1.8	182
96	Increased demand for NAD ⁺ relative to ATP drives aerobic glycolysis. Molecular Cell, 2021, 81, 691-707.e6.	4.5	232
97	Transporters at the Interface between Cytosolic and Mitochondrial Amino Acid Metabolism. Metabolites, 2021, 11, 112.	1.3	21
98	l-Aspartate: An Essential Metabolite for Plant Growth and Stress Acclimation. Molecules, 2021, 26, 1887.	1.7	73
99	Hypoxia/HIF Modulates Immune Responses. Biomedicines, 2021, 9, 260.	1.4	40
101	Metabolomic Alteration of Oral Keratinocytes and Fibroblasts in Hypoxia. Journal of Clinical Medicine, 2021, 10, 1156.	1.0	2
102	Metabolic and Amino Acid Alterations of the Tumor Microenvironment. Current Medicinal Chemistry, 2021, 28, 1270-1289.	1.2	17
103	Cancer Cell Metabolism in Hypoxia: Role of HIF-1 as Key Regulator and Therapeutic Target. International Journal of Molecular Sciences, 2021, 22, 5703.	1.8	118
104	Serine Metabolism Regulates YAP Activity Through USP7 in Colon Cancer. Frontiers in Cell and Developmental Biology, 2021, 9, 639111.	1.8	17
105	Mammary epithelial cells have lineage-rooted metabolic identities. Nature Metabolism, 2021, 3, 665-681.	5.1	24
106	Mitochondria and the permeability transition pore in cancer metabolic reprogramming. Biochemical Pharmacology, 2021, 188, 114537.	2.0	12
108	Tumor Microenvironment-Derived Metabolites: A Guide to Find New Metabolic Therapeutic Targets and Biomarkers. Cancers, 2021, 13, 3230.	1.7	17
109	Reversing Hypoxia with PLGA-Encapsulated Manganese Dioxide Nanoparticles Improves Natural Killer Cell Response to Tumor Spheroids. Molecular Pharmaceutics, 2021, 18, 2935-2946.	2.3	31
110	Asparagine, a Key Metabolite in Cellular Response to Mitochondrial Dysfunction. Trends in Cancer, 2021, 7, 479-481.	3.8	5
112	Oncogenic KRAS creates an aspartate metabolism signature in colorectal cancer cells. FEBS Journal, 2021, 288, 6683-6699.	2.2	7

#	ARTICLE	IF	CITATIONS
113	Cancer metabolism: looking forward. <i>Nature Reviews Cancer</i> , 2021, 21, 669-680.	12.8	676
114	Metabolic Drivers of Invasion in Glioblastoma. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 683276.	1.8	31
115	Amino Acid Metabolic Vulnerabilities in Acute and Chronic Myeloid Leukemias. <i>Frontiers in Oncology</i> , 2021, 11, 694526.	1.3	5
116	Glycerol-3-phosphate biosynthesis regenerates cytosolic NAD ⁺ to alleviate mitochondrial disease. <i>Cell Metabolism</i> , 2021, 33, 1974-1987.e9.	7.2	55
117	Cyclodextrin-based gefitinib nanobubbles for synergistic apoptosis in lung cancer. <i>Materials Technology</i> , 2022, 37, 1665-1676.	1.5	6
118	Advanced Cancer Starvation Therapy by Simultaneous Deprivation of Lactate and Glucose Using a MOF Nanoplatfom. <i>Advanced Science</i> , 2021, 8, e2101467.	5.6	79
119	The Potential Relationship Between HIF-1 α and Amino Acid Metabolism After Hypoxic Ischemia and Dual Effects on Neurons. <i>Frontiers in Neuroscience</i> , 2021, 15, 676553.	1.4	6
120	Aspartate availability limits hematopoietic stem cell function during hematopoietic regeneration. <i>Cell Stem Cell</i> , 2021, 28, 1982-1999.e8.	5.2	38
121	AMPK α -mTOR Signaling and Cellular Adaptations in Hypoxia. <i>International Journal of Molecular Sciences</i> , 2021, 22, 9765.	1.8	56
123	The Intersection of Purine and Mitochondrial Metabolism in Cancer. <i>Cells</i> , 2021, 10, 2603.	1.8	29
124	Supply and demand: Cellular nutrient uptake and exchange in cancer. <i>Molecular Cell</i> , 2021, 81, 3731-3748.	4.5	18
125	LC-MS Based Metabolomics Study of the Effects of EGCG on A549 Cells. <i>Frontiers in Pharmacology</i> , 2021, 12, 732716.	1.6	10
126	New insights into the anti-hepatoma mechanism of triple-helix β -glucan by metabolomics profiling. <i>Carbohydrate Polymers</i> , 2021, 269, 118289.	5.1	10
127	Resveratrol improves muscle regeneration in obese mice through enhancing mitochondrial biogenesis. <i>Journal of Nutritional Biochemistry</i> , 2021, 98, 108804.	1.9	18
128	Tumor metabolic reprogramming in therapeutic resistance. , 2021, , 199-225.		0
129	Metabolomics study reveals the potential evidence of metabolic reprogramming towards the Warburg effect in precancerous lesions. <i>Journal of Cancer</i> , 2021, 12, 1563-1574.	1.2	17
130	Metabolites and the tumour microenvironment: from cellular mechanisms to systemic metabolism. <i>Nature Metabolism</i> , 2021, 3, 21-32.	5.1	250
131	Decreased glucose bioavailability and elevated aspartate metabolism in prostate cancer cells undergoing epithelial \rightarrow mesenchymal transition. <i>Journal of Cellular Physiology</i> , 2020, 235, 5602-5612.	2.0	15

#	ARTICLE	IF	CITATIONS
138	Hotspot SF3B1 mutations induce metabolic reprogramming and vulnerability to serine deprivation. <i>Journal of Clinical Investigation</i> , 2019, 129, 4708-4723.	3.9	41
139	Dysfunctional oxidative phosphorylation shunts branched-chain amino acid catabolism onto lipogenesis in skeletal muscle. <i>EMBO Journal</i> , 2020, 39, e103812.	3.5	33
140	Distinct pattern of one-carbon metabolism, a nutrient-sensitive pathway, in invasive breast cancer: A metabolomic study. <i>Oncotarget</i> , 2020, 11, 1637-1652.	0.8	2
141	Innate and adaptive resistance mechanisms to arginine deprivation therapies in sarcoma and other cancers. , 2019, 2, 516-526.		5
142	Targeting MAPK Signaling in Cancer: Mechanisms of Drug Resistance and Sensitivity. <i>International Journal of Molecular Sciences</i> , 2020, 21, 1102.	1.8	408
143	PCK1 and DHODH drive colorectal cancer liver metastatic colonization and hypoxic growth by promoting nucleotide synthesis. <i>ELife</i> , 2019, 8, .	2.8	59
144	Noncoding RNAs link metabolic reprogramming to immune microenvironment in cancers. <i>Journal of Hematology and Oncology</i> , 2021, 14, 169.	6.9	42
145	Metformin sensitises hepatocarcinoma cells to methotrexate by targeting dihydrofolate reductase. <i>Cell Death and Disease</i> , 2021, 12, 902.	2.7	6
146	Aspartate Metabolism Facilitates IL-1 β Production in Inflammatory Macrophages. <i>Frontiers in Immunology</i> , 2021, 12, 753092.	2.2	11
147	SLC1A5 provides glutamine and asparagine necessary for bone development in mice. <i>ELife</i> , 2021, 10, .	2.8	26
149	Metabolic Modifier Screen Reveals Secondary Targets of Protein Kinase Inhibitors within Nucleotide Metabolism. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
154	Oxygen and metabolic reprogramming in the tumor microenvironment influences metastasis homing. <i>Cancer Biology and Therapy</i> , 2021, 22, 493-512.	1.5	1
155	Biguanide drugs enhance cytotoxic effects of cisplatin by depleting aspartate and NAD ⁺ in sensitive cancer cells. <i>Cancer Biology and Therapy</i> , 2021, 22, 579-586.	1.5	4
156	Metabolic Pathways of Eukaryotes and Connection to Cell Mechanics. <i>Biological and Medical Physics Series</i> , 2020, , 825-891.	0.3	1
159	Mitochondrial Redox Metabolism: The Epicenter of Metabolism during Cancer Progression. <i>Antioxidants</i> , 2021, 10, 1838.	2.2	16
160	Profile of Basal Cell Carcinoma Mutations and Copy Number Alterations - Focus on Gene-Associated Noncoding Variants. <i>Frontiers in Oncology</i> , 2021, 11, 752579.	1.3	1
161	An Asp to Strike Out Cancer? Therapeutic Possibilities Arising from Aspartate's Emerging Roles in Cell Proliferation and Survival. <i>Biomolecules</i> , 2021, 11, 1666.	1.8	10
162	Targeting cancer metabolism in the era of precision oncology. <i>Nature Reviews Drug Discovery</i> , 2022, 21, 141-162.	21.5	385

#	ARTICLE	IF	CITATIONS
163	Fumarate is a terminal electron acceptor in the mammalian electron transport chain. <i>Science</i> , 2021, 374, 1227-1237.	6.0	96
164	<i>Candida albicans</i> Enhances the Progression of Oral Squamous Cell Carcinoma <i>In Vitro</i> and <i>In Vivo</i> . <i>MBio</i> , 2022, 13, e0314421.	1.8	39
165	Glutamic oxaloacetic transaminase 1 as a potential target in human cancer. <i>European Journal of Pharmacology</i> , 2022, 917, 174754.	1.7	4
166	Rewired Cellular Metabolic Profiles in Response to Metformin under Different Oxygen and Nutrient Conditions. <i>International Journal of Molecular Sciences</i> , 2022, 23, 989.	1.8	3
167	Interactions with stromal cells promote a more oxidized cancer cell redox state in pancreatic tumors. <i>Science Advances</i> , 2022, 8, eabg6383.	4.7	20
169	Metabolic Reprogramming in Gastric Cancer: Trojan Horse Effect. <i>Frontiers in Oncology</i> , 2021, 11, 745209.	1.3	9
170	Glutamine-Derived Aspartate Biosynthesis in Cancer Cells: Role of Mitochondrial Transporters and New Therapeutic Perspectives. <i>Cancers</i> , 2022, 14, 245.	1.7	12
173	A Short Isoform of Spermatogenic Enzyme GAPDHS Functions as a Metabolic Switch and Limits Metastasis in Melanoma. <i>Cancer Research</i> , 2022, 82, 1251-1266.	0.4	4
174	Valine tRNA levels and availability regulate complex I assembly in leukaemia. <i>Nature</i> , 2022, 601, 428-433.	13.7	34
175	Metabo-reciprocity in cell mechanics: feeling the demands/feeding the demand. <i>Trends in Cell Biology</i> , 2022, 32, 624-636.	3.6	11
177	TKTL1 Knockdown Impairs Hypoxia-Induced Glucose-6-phosphate Dehydrogenase and Glyceraldehyde-3-phosphate Dehydrogenase Overexpression. <i>International Journal of Molecular Sciences</i> , 2022, 23, 3574.	1.8	7
178	Peroxisome Proliferator-activated Receptor Gamma Coactivator-1 Alpha: A Double-edged Sword in Prostate Cancer. <i>Current Cancer Drug Targets</i> , 2022, 22, 541-559.	0.8	7
179	Impact of cancer metabolism on therapy resistance – Clinical implications. <i>Drug Resistance Updates</i> , 2021, 59, 100797.	6.5	43
180	Metabolic regulation of somatic stem cells in vivo. <i>Nature Reviews Molecular Cell Biology</i> , 2022, 23, 428-443.	16.1	35
181	SHMT2 promotes cell viability and inhibits ROS-dependent, mitochondrial-mediated apoptosis via the intrinsic signaling pathway in bladder cancer cells. <i>Cancer Gene Therapy</i> , 2022, 29, 1514-1527.	2.2	15
182	Cardio-onco-metabolism: metabolic remodelling in cardiovascular disease and cancer. <i>Nature Reviews Cardiology</i> , 2022, 19, 414-425.	6.1	23
189	Diaminobutoxy-substituted Isoflavonoid (DBI-1) Enhances the Therapeutic Efficacy of GLUT1 Inhibitor BAY-876 by Modulating Metabolic Pathways in Colon Cancer Cells. <i>Molecular Cancer Therapeutics</i> , 2022, 21, 740-750.	1.9	6
190	Germline mutations in mitochondrial complex I reveal genetic and targetable vulnerability in IDH1-mutant acute myeloid leukaemia. <i>Nature Communications</i> , 2022, 13, 2614.	5.8	9

#	ARTICLE	IF	CITATIONS
191	Expression of GOT2 Is Epigenetically Regulated by DNA Methylation and Correlates with Immune Infiltrates in Clear-Cell Renal Cell Carcinoma. <i>Current Issues in Molecular Biology</i> , 2022, 44, 2472-2489.	1.0	7
192	A Multi-Omics Approach to Evaluate the Toxicity Mechanisms Associated with Silver Nanoparticles Exposure. <i>Nanomaterials</i> , 2022, 12, 1762.	1.9	6
194	New Insight into Aspartate Metabolic Pathways in Populus: Linking the Root Responsive Isoenzymes with Amino Acid Biosynthesis during Incompatible Interactions of <i>Fusarium solani</i> . <i>International Journal of Molecular Sciences</i> , 2022, 23, 6368.	1.8	4
195	Characterizing unexpected interactions of a glutamine transporter inhibitor with members of the SLC1A transporter family. <i>Journal of Biological Chemistry</i> , 2022, 298, 102178.	1.6	5
196	Adaptive stimulation of macropinocytosis overcomes aspartate limitation in cancer cells under hypoxia. <i>Nature Metabolism</i> , 2022, 4, 724-738.	5.1	20
197	Metabolic-scale gene activation screens identify SLCO2B1 as a heme transporter that enhances cellular iron availability. <i>Molecular Cell</i> , 2022, 82, 2832-2843.e7.	4.5	13
198	Insight of a Metabolic Prognostic Model to Identify Tumor Environment and Drug Vulnerability for Lung Adenocarcinoma. <i>Frontiers in Immunology</i> , 0, 13, .	2.2	4
199	Research progress on the function of the amino acid transporter gene <i>SLC1A3</i> and its regulation mechanism of action in the nervous system and mitochondria. <i>Chinese Science Bulletin</i> , 2022, , .	0.4	0
201	Metabolic requirement for GOT2 in pancreatic cancer depends on environmental context. <i>ELife</i> , 0, 11, .	2.8	32
202	Exogenous proline enhances susceptibility of NSCLC to cisplatin via metabolic reprogramming and PLK1-mediated cell cycle arrest. <i>Frontiers in Pharmacology</i> , 0, 13, .	1.6	3
203	BIOSENSOR FOR ALT MEASUREMENT. <i>Sensor Electronics and Microsystem Technologies</i> , 2022, 19, 30-44.	0.1	0
204	Metabolic analysis as a driver for discovery, diagnosis, and therapy. <i>Cell</i> , 2022, 185, 2678-2689.	13.5	51
205	Pyruvate and uridine rescue the metabolic profile of OXPHOS dysfunction. <i>Molecular Metabolism</i> , 2022, 63, 101537.	3.0	9
206	Activated amino acid response pathway generates apatinib resistance by reprogramming glutamine metabolism in non-small-cell lung cancer. <i>Cell Death and Disease</i> , 2022, 13, .	2.7	7
207	Glioblastoma Stem-Like Cells (GSCs) with Mesenchymal Signature: Lipid Profiles of Mobile Lipids Obtained with MRS before and after Radio/Chemical Treatments. <i>Biomolecules</i> , 2022, 12, 1051.	1.8	3
208	Skeletal progenitors preserve proliferation and self-renewal upon inhibition of mitochondrial respiration by rerouting the TCA cycle. <i>Cell Reports</i> , 2022, 40, 111105.	2.9	10
210	Metabolic targeting of malignant tumors: a need for systemic approach. <i>Journal of Cancer Research and Clinical Oncology</i> , 2023, 149, 2115-2138.	1.2	2
211	Recent insights into the microRNA-dependent modulation of gliomas from pathogenesis to diagnosis and treatment. <i>Cellular and Molecular Biology Letters</i> , 2022, 27, .	2.7	26

#	ARTICLE	IF	CITATIONS
212	Chemical genomics with pyrvinium identifies Clorf115 as a regulator of drug efflux. <i>Nature Chemical Biology</i> , 0, , .	3.9	1
213	Glutamine Metabolism Mediates Sensitivity to Respiratory Complex II Inhibition in Acute Myeloid Leukemia. <i>Molecular Cancer Research</i> , 2022, 20, 1659-1673.	1.5	5
214	Fatty acid metabolism in aggressive B-cell lymphoma is inhibited by tetraspanin CD37. <i>Nature Communications</i> , 2022, 13, .	5.8	9
216	Dual Effect of Tryptamine on Prostate Cancer Cell Growth Regulation: A Pilot Study. <i>International Journal of Molecular Sciences</i> , 2022, 23, 11087.	1.8	3
217	YY1 promotes pancreatic cancer cell proliferation by enhancing mitochondrial respiration. <i>Cancer Cell International</i> , 2022, 22, .	1.8	1
218	GOT2 consider the tumor microenvironment. <i>Trends in Cancer</i> , 2022, 8, 884-886.	3.8	1
219	Mitochondrial metabolic determinants of multiple myeloma growth, survival, and therapy efficacy. <i>Frontiers in Oncology</i> , 0, 12, .	1.3	6
221	Ferritinophagy, a form of autophagic ferroptosis: New insights into cancer treatment. <i>Frontiers in Pharmacology</i> , 0, 13, .	1.6	15
222	An asparagine metabolism-based classification reveals the metabolic and immune heterogeneity of hepatocellular carcinoma. <i>BMC Medical Genomics</i> , 2022, 15, .	0.7	5
223	Targeting Asparagine Synthetase in Tumorigenicity Using Patient-Derived Tumor-Initiating Cells. <i>Cells</i> , 2022, 11, 3273.	1.8	4
224	Targeting PDAC metabolism: Environment determines what has GOT2 give. <i>Cell Metabolism</i> , 2022, 34, 1617-1619.	7.2	0
225	Progress in research on the role of amino acid metabolic reprogramming in tumour therapy: A review. <i>Biomedicine and Pharmacotherapy</i> , 2022, 156, 113923.	2.5	7
226	NNMT&DNMT1 Axis is Essential for Maintaining Cancer Cell Sensitivity to Oxidative Phosphorylation Inhibition. <i>Advanced Science</i> , 2023, 10, .	5.6	9
227	Metabolomics Analysis Revealed Significant Metabolic Changes in Brain Cancer Cells Treated with Paclitaxel and/or Etoposide. <i>International Journal of Molecular Sciences</i> , 2022, 23, 13940.	1.8	6
228	MicroRNA-based therapy for glioblastoma: Opportunities and challenges. <i>European Journal of Pharmacology</i> , 2023, 938, 175388.	1.7	8
229	Differential integrated stress response and asparagine production drive symbiosis and therapy resistance of pancreatic adenocarcinoma cells. <i>Nature Cancer</i> , 2022, 3, 1386-1403.	5.7	15
231	Dynamic partitioning of branched-chain amino acids-derived nitrogen supports renal cancer progression. <i>Nature Communications</i> , 2022, 13, .	5.8	7
232	Opa1 and Drp1 reciprocally regulate cristae morphology, ETC function, and NAD+ regeneration in KRas-mutant lung adenocarcinoma. <i>Cell Reports</i> , 2022, 41, 111818.	2.9	12

#	ARTICLE	IF	CITATIONS
233	Hypoxic activation of PFKFB4 in breast tumor microenvironment shapes metabolic and cellular plasticity to accentuate metastatic competence. <i>Cell Reports</i> , 2022, 41, 111756.	2.9	3
234	Effects of metabolic cancer therapy on tumor microenvironment. <i>Frontiers in Oncology</i> , 0, 12, .	1.3	5
235	Hindering NAT8L expression in hepatocellular carcinoma increases cytosolic aspartate delivery that fosters pentose phosphate pathway and purine biosynthesis promoting cell proliferation. <i>Redox Biology</i> , 2023, 59, 102585.	3.9	2
237	Development of pseudo-targeted profiling of isotopic metabolomics using combined platform of high resolution mass spectrometry and triple quadrupole mass spectrometry with application of ¹³ C6-glucose tracing in HepG2 cells. <i>Journal of Chromatography A</i> , 2023, 1696, 463923.	1.8	2
239	The role of glutamate receptors in the regulation of the tumor microenvironment. <i>Frontiers in Immunology</i> , 0, 14, .	2.2	6
241	Physiological responses to acute hypoxia in the liver of largemouth bass by alteration of mitochondrial function and Ca ²⁺ exchange. <i>Aquatic Toxicology</i> , 2023, 256, 106436.	1.9	1
242	Metabolomics in oncology. <i>Cancer Reports</i> , 2023, 6, .	0.6	3
243	NRF2 activation induces NADH-reductive stress, providing a metabolic vulnerability in lung cancer. <i>Cell Metabolism</i> , 2023, 35, 487-503.e7.	7.2	26
244	What is cancer metabolism?. <i>Cell</i> , 2023, 186, 1670-1688.	13.5	41
245	Aspartate and Acetate Fuel Gastrointestinal Stromal Tumors Beyond the Warburg Effect. <i>Annals of Surgery Open</i> , 2022, 3, e224.	0.7	0
246	Mitochondrial pyruvate metabolism regulates the activation of quiescent adult neural stem cells. <i>Science Advances</i> , 2023, 9, .	4.7	19
247	Metabolic rewiring in keratinocytes by miR-31a-5p identifies therapeutic intervention for psoriasis. <i>EMBO Molecular Medicine</i> , 2023, 15, .	3.3	4
248	Short term starvation potentiates the efficacy of chemotherapy in triple negative breast cancer via metabolic reprogramming. <i>Journal of Translational Medicine</i> , 2023, 21, .	1.8	7
249	Mitochondrial redox adaptations enable alternative aspartate synthesis in SDH-deficient cells. <i>ELife</i> , 0, 12, .	2.8	8
250	Integrated transcriptomics and metabolomics analysis reveals the biomolecular mechanisms associated to the antitumoral potential of a novel silver-based core@shell nanosystem. <i>Mikrochimica Acta</i> , 2023, 190, .	2.5	1
251	Metabolic reprogramming in cancer: Mechanisms and therapeutics. <i>MedComm</i> , 2023, 4, .	3.1	18
252	A nomogram based on metabolic profiling to discriminate lung cancer among patients with lung nodules. <i>Journal of International Medical Research</i> , 2023, 51, 030006052311612.	0.4	0
253	Tumor microenvironment signaling and therapeutics in cancer progression. <i>Cancer Communications</i> , 2023, 43, 525-561.	3.7	25

#	ARTICLE	IF	CITATIONS
254	Glioblastoma Microenvironment and Invasiveness: New Insights and Therapeutic Targets. International Journal of Molecular Sciences, 2023, 24, 7047.	1.8	14
255	The metabolic cross-talk between cancer and T cells. Trends in Biochemical Sciences, 2023, 48, 597-609.	3.7	1
257	Colorectal cancer liver metastasis: genomic evolution and crosstalk with the liver microenvironment. Cancer and Metastasis Reviews, 2023, 42, 575-587.	2.7	3
281	Participation of protein metabolism in cancer progression and its potential targeting for the management of cancer. Amino Acids, 2023, 55, 1223-1246.	1.2	2
283	Amino acid metabolism in health and disease. Signal Transduction and Targeted Therapy, 2023, 8, .	7.1	14
311	Basic Insights into Tumor Microenvironment in Prostate Cancer. , 2024, , 43-71.		0