Christian Frezza

List of Publications by Year
in descending order

137 papers	29,419 citations	13087 68 h-index	11303 136 g-index
160 all docs	160 docs citations	160 times ranked	46591 citing authors

#	Article	IF	Citations
1	Nrf2 activation reprograms macrophage intermediary metabolism and suppresses the type I interferon response. IScience, 2022, 25, 103827.	1.9	51
2	Signaling metabolite L-2-hydroxyglutarate activates the transcription factor HIF-1Î± in lipopolysaccharide-activated macrophages. Journal of Biological Chemistry, 2022, 298, 101501.	1.6	15
3	Early Neutrophilia Marked by Aerobic Glycolysis Sustains Host Metabolism and Delays Cancer Cachexia. Cancers, 2022, 14, 963.	1.7	9
4	PLK1 inhibition selectively induces apoptosis in ARID1A deficient cells through uncoupling of oxygen consumption from ATP production. Oncogene, 2022, 41, 1986-2002.	2.6	5
5	Tumor-Derived Lactic Acid Modulates Activation and Metabolic Status of Draining Lymph Node Stroma. Cancer Immunology Research, 2022, 10, 482-497.	1.6	9
6	Fbxo7 promotes Cdk6 activity to inhibit PFKP and glycolysis in T cells. Journal of Cell Biology, 2022, 221, .	2.3	5
7	Mechanism of succinate efflux upon reperfusion of the ischaemic heart. Cardiovascular Research, 2021, 117, 1188-1201.	1.8	59
8	Crosstalk between mechanotransduction and metabolism. Nature Reviews Molecular Cell Biology, 2021, 22, 22-38.	16.1	193
9	TCA cycle signalling and the evolution of eukaryotes. Current Opinion in Biotechnology, 2021, 68, 72-88.	3.3	34
10	IL-10-Mediated Refueling of Exhausted T Cell Mitochondria Boosts Anti-Tumour Immunity. Immunometabolism, 2021, 3, e210030.	0.7	2
11	Succinate Anaplerosis Has an Onco-Driving Potential in Prostate Cancer Cells. Cancers, 2021, 13, 1727.	1.7	13
12	Control of endothelial quiescence by FOXO-regulated metabolites. Nature Cell Biology, 2021, 23, 413-423.	4.6	56
13	Neural stem cells traffic functional mitochondria via extracellular vesicles. PLoS Biology, 2021, 19, e3001166.	2.6	95
14	Two parallel pathways connect glutamine metabolism and mTORC1 activity to regulate glutamoptosis. Nature Communications, 2021, 12, 4814.	5.8	19
15	Genome and metabolome: chance and necessity. Genome Biology, 2021, 22, 276.	3.8	4
16	The context-specific roles of urea cycle enzymes in tumorigenesis. Molecular Cell, 2021, 81, 3749-3759.	4.5	34
17	Causal integration of multiâ€omics data with prior knowledge to generate mechanistic hypotheses. Molecular Systems Biology, 2021, 17, e9730.	3.2	78
18	Convergent somatic mutations in metabolism genes in chronic liver disease. Nature, 2021, 598, 473-478.	13.7	87

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19	Lung tumor growth promotion by tobacco-specific nitrosamines involves the Î²2-adrenergic receptors-dependent stimulation of mitochondrial REDOX signaling. Antioxidants and Redox Signaling, 2021, , .	2.5	2
20	Disruption of the TCA cycle reveals an ATF4-dependent integration of redox and amino acid metabolism. ELife, 2021, 10, .	2.8	44
21	Fumarate hydratase in cancer: A multifaceted tumour suppressor. Seminars in Cell and Developmental Biology, 2020, 98, 15-25.	2.3	103
22	Metabolic Drivers in Hereditary Cancer Syndromes. Annual Review of Cancer Biology, 2020, 4, 77-97.	2.3	32
23	Oncometabolites in renal cancer. Nature Reviews Nephrology, 2020, 16, 156-172.	4.1	113
24	Transcriptomic analysis of human primary breast cancer identifies fatty acid oxidation as a target for metformin. British Journal of Cancer, 2020, 122, 258-265.	2.9	28
25	Metabolism and cancer: the future is now. British Journal of Cancer, 2020, 122, 133-135.	2.9	67
26	Bone Marrow Mesenchymal Stem Cells Support Acute Myeloid Leukemia Bioenergetics and Enhance Antioxidant Defense and Escape from Chemotherapy. Cell Metabolism, 2020, 32, 829-843.e9.	7.2	122
27	ABHD11 maintains 2-oxoglutarate metabolism by preserving functional lipoylation of the 2-oxoglutarate dehydrogenase complex. Nature Communications, 2020, 11, 4046.	5.8	28
28	Eukaryotic cell biology is temporally coordinated to support the energetic demands of protein homeostasis. Nature Communications, 2020, 11, 4706.	5.8	23
29	BCAT1 affects mitochondrial metabolism independently of leucine transamination in activated human macrophages. Journal of Cell Science, 2020, 133, .	1.2	24
30	Targeting Metabolic Plasticity and Flexibility Dynamics for Cancer Therapy. Cancer Discovery, 2020, 10, 1797-1807.	7.7	137
31	A BAD portion of glucose can be good for inflamed beta cells. Nature Metabolism, 2020, 2, 383-384.	5.1	1
32	Cancer associated fibroblast FAK regulates malignant cell metabolism. Nature Communications, 2020, 11, 1290.	5.8	95
33	The breast cancer oncogene IKKÎµ coordinates mitochondrial function and serine metabolism. EMBO Reports, 2020, 21, e48260.	2.0	6
34	CHCHD4 regulates tumour proliferation and EMT-related phenotypes, through respiratory chain-mediated metabolism. Cancer & Metabolism, 2019, 7, 7.	2.4	13
35	Outcompeting p53-Mutant Cells in the Normal Esophagus by Redox Manipulation. Cell Stem Cell, 2019, 25, 329-341.e6.	5.2	88
36	Acute Iron Deprivation Reprograms Human Macrophage Metabolism and Reduces Inflammation InÂVivo. Cell Reports, 2019, 28, 498-511.e5.	2.9	75

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37	Mitochondrial DNA: the overlooked oncogenome?. BMC Biology, 2019, 17, 53.	1.7	92
38	Metabolite Exchange between Mammalian Organs Quantified in Pigs. Cell Metabolism, 2019, 30, 594-606.e3.	7.2	170
39	First-in-human in vivo non-invasive assessment of intra-tumoral metabolic heterogeneity in renal cell carcinoma. BJR|case Reports, 2019, 5, 20190003.	0.1	28
40	Succinate accumulation drives ischaemia-reperfusion injury during organ transplantation. Nature Metabolism, 2019, 1, 966-974.	5.1	103
41	Immunohistochemistry as a tool for screening rare renal cancers. Annals of Translational Medicine, 2019, 7, S314-S314.	0.7	0
42	Deletion of myeloid IRS2 enhances adipose tissue sympathetic nerve function and limits obesity. Molecular Metabolism, 2019, 20, 38-50.	3.0	18
43	Coupling Krebs cycle metabolites to signalling in immunity and cancer. Nature Metabolism, 2019, 1, 16-33.	5.1	260
44	Phytochemical profiles, antioxidant and anti-acetylcholinesterasic activities of the leaf extracts of Rhamnus lycioides subsp. oleoides (L.) Jahand. & Maire in different solvents. Natural Product Research, 2019, 33, 1456-1462.	1.0	8
45	Glutaminolysis is a metabolic dependency in FLT3ITD acute myeloid leukemia unmasked by FLT3 tyrosine kinase inhibition. Blood, 2018, 131, 1639-1653.	0.6	114
46	Mitochondria-Endoplasmic Reticulum Contact Sites Function as Immunometabolic Hubs that Orchestrate the Rapid Recall Response of Memory CD8+ T Cells. Immunity, 2018, 48, 542-555.e6.	6.6	133
47	Macrophage-Derived Extracellular Succinate Licenses Neural Stem Cells to Suppress Chronic Neuroinflammation. Cell Stem Cell, 2018, 22, 355-368.e13.	5.2	216
48	Metabolomic Profiling in Acute STâ€Segmentâ€“Elevation Myocardial Infarction Identifies Succinate as an Early Marker of Human Ischemiaâ€“Reperfusion Injury. Journal of the American Heart Association, 2018, 7, .	1.6	66
49	NADH Shuttling Couples Cytosolic Reductive Carboxylation of Glutamine with Glycolysis in Cells with Mitochondrial Dysfunction. Molecular Cell, 2018, 69, 581-593.e7.	4.5	171
50	Itaconate is an anti-inflammatory metabolite that activates Nrf2 via alkylation of KEAP1. Nature, 2018, 556, 113-117.	13.7	1,115
51	Mammalian Circadian Period, But Not Phase and Amplitude, Is Robust Against Redox and Metabolic Perturbations. Antioxidants and Redox Signaling, 2018, 28, 507-520.	2.5	48
52	Post-translational regulation of metabolism in fumarate hydratase deficient cancer cells. Metabolic Engineering, 2018, 45, 149-157.	3.6	27
53	Dissection of metabolic reprogramming in polycystic kidney disease reveals coordinated rewiring of bioenergetic pathways. Communications Biology, 2018, 1, 194.	2.0	65
54	Genome editing in mitochondria corrects a pathogenic mtDNA mutation in vivo. Nature Medicine, 2018, 24, 1691-1695.	15.2	215

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55	Fumarate hydratase loss promotes mitotic entry in the presence of DNA damage after ionising radiation. Cell Death and Disease, 2018, 9, 913.	2.7	30
56	Integrated Pharmacodynamic Analysis Identifies Two Metabolic Adaption Pathways to Metformin in Breast Cancer. Cell Metabolism, 2018, 28, 679-688.e4.	7.2	92
57	mTORC1ÂUpregulation Leads to Accumulation of the Oncometabolite Fumarate in a Mouse Model of Renal Cell Carcinoma. Cell Reports, 2018, 24, 1093-1104.e6.	2.9	20
58	Histidine metabolism boosts cancer therapy. Nature, 2018, 559, 484-485.	13.7	21
59	Ischemic preconditioning protects against cardiac ischemia reperfusion injury without affecting succinate accumulation or oxidation. Journal of Molecular and Cellular Cardiology, 2018, 123, 88-91.	0.9	38
60	Serine Is an Essential Metabolite for Effector T Cell Expansion. Cell Metabolism, 2017, 25, 345-357.	7.2	429
61	Metabolic adaptations to targeted therapy in FLT3 mutated acute myeloid leukaemia. Lancet, The, 2017, 389, S37.	6.3	0
62	Metabolic reprogramming and epithelialâ€toâ€mesenchymal transition in cancer. FEBS Journal, 2017, 284, 3132-3144.	2.2	230
63	Mitochondrial metabolites: undercover signalling molecules. Interface Focus, 2017, 7, 20160100.	1.5	89
64	Metabolic synthetic lethality in cancer therapy. Biochimica Et Biophysica Acta - Bioenergetics, 2017, 1858, 723-731.	0.5	50
65	Fumarate Hydratase Loss Causes Combined Respiratory Chain Defects. Cell Reports, 2017, 21, 1036-1047.	2.9	61
66	Mitochondrial Metabolism: Yin and Yang for Tumor Progression. Trends in Endocrinology and Metabolism, 2017, 28, 748-757.	3.1	59
67	Extracellular vesicles are independent metabolic units with asparaginase activity. Nature Chemical Biology, 2017, 13, 951-955.	3.9	107
68	Fumarate drives EMT in renal cancer. Cell Death and Differentiation, 2017, 24, 1-2.	5.0	24
69	Metabolic Reprogramming and Oncogenesis. International Review of Cell and Molecular Biology, 2017, 332, 213-231.	1.6	23
70	Mutations in mitochondrial DNA causing tubulointerstitial kidney disease. PLoS Genetics, 2017, 13, e1006620.	1.5	52
71	Exploiting tumour addiction with a serine and glycine-free diet. Cell Death and Differentiation, 2017, 24, 1311-1313.	5.0	13
72	High-grade ovarian serous carcinoma patients exhibit profound alterations in lipid metabolism. Oncotarget, 2017, 8, 102912-102922.	0.8	57

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73	Metabolic determinants of the immune modulatory function of neural stem cells. Journal of Neuroinflammation, 2016, 13, 232.	3.1	25
74	Oncometabolites: Unconventional triggers of oncogenic signalling cascades. Free Radical Biology and Medicine, 2016, 100, 175-181.	1.3	137
75	Addicted to serine. Nature Chemical Biology, 2016, 12, 389-390.	3.9	25
76	Succinate metabolism: a new therapeutic target for myocardial reperfusion injury. Cardiovascular Research, 2016, 111, 134-141.	1.8	107
77	Near-complete elimination of mutant mtDNA by iterative or dynamic dose-controlled treatment with mtZFNs. Nucleic Acids Research, 2016, 44, 7804-7816.	6.5	97
78	Fumarate is an epigenetic modifier that elicits epithelial-to-mesenchymal transition. Nature, 2016, 537, 544-547.	13.7	443
79	Succinate Dehydrogenase Supports Metabolic Repurposing of Mitochondria to Drive Inflammatory Macrophages. Cell, 2016, 167, 457-470.e13.	13.5	1,396
80	Distinct Metabolic Requirements of Exhausted and Functional Virus-Specific CD8ÂT Cells in the Same Host. Cell Reports, 2016, 16, 1243-1252.	2.9	176
81	Hypoxia-induced nitric oxide production and tumour perfusion is inhibited by pegylated arginine deiminase (ADI-PEG20). Scientific Reports, 2016, 6, 22950.	1.6	32
82	Mitochondrial Protein Lipoylation and the 2-Oxoglutarate Dehydrogenase Complex Controls HIF1Î± Stability in Aerobic Conditions. Cell Metabolism, 2016, 24, 740-752.	7.2	112
83	Tissue-specific and convergent metabolic transformation of cancer correlates with metastatic potential and patient survival. Nature Communications, 2016, 7, 13041.	5.8	271
84	A Unifying Mechanism for Mitochondrial Superoxide Production during Ischemia-Reperfusion Injury. Cell Metabolism, 2016, 23, 254-263.	7.2	527
85	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). Autophagy, 2016, 12, 1-222.	4.3	4,701
86	Mutant Kras copy number defines metabolic reprogramming and therapeutic susceptibilities. Nature, 2016, 531, 110-113.	13.7	256
87	Identification of methylated deoxyadenosines in vertebrates reveals diversity in DNA modifications. Nature Structural and Molecular Biology, 2016, 23, 24-30.	3.6	215
88	Accumulated Metabolites of Hydroxybutyric Acid Serve as Diagnostic and Prognostic Biomarkers of Ovarian High-Grade Serous Carcinomas. Cancer Research, 2016, 76, 796-804.	0.4	74
89	A three-dimensional engineered tumour for spatial snapshot analysis of cell metabolism andÂphenotype in hypoxic gradients. Nature Materials, 2016, 15, 227-234.	13.3	113
90	Identification of Methylated Deoxyadenosines in Genomic DNA by dA6m DNA Immunoprecipitation. Bio-protocol, 2016, 6, .	0.2	10

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91	Astrocyte power fuels neurons during stroke. Swiss Medical Weekly, 2016, 146, w14374.	0.8	8
92	Abstract LB-200: Integrating dynamic 18F-FDG PET-CT, tumor metabolomics and functional genomics to understand metformin's pharmacodynamic effects in breast cancer: results of a phase 0 clinical trial. , 2016, , .		1
93	Editorial: The Metabolic Challenges of Immune Cells in Health and Disease. Frontiers in Immunology, 2015, 6, 293.	2.2	10
94	Metabolic Reprograming of Mononuclear Phagocytes in Progressive Multiple Sclerosis. Frontiers in Immunology, 2015, 6, 106.	2.2	33
95	Fumarate induces redox-dependent senescence by modifying glutathione metabolism. Nature Communications, 2015, 6, 6001.	5.8	208
96	Proteomics-Based Metabolic Modeling Reveals That Fatty Acid Oxidation (FAO) Controls Endothelial Cell (EC) Permeability. Molecular and Cellular Proteomics, 2015, 14, 621-634.	2.5	85
97	A roadmap for interpreting 13 C metabolite labeling patterns from cells. Current Opinion in Biotechnology, 2015, 34, 189-201.	3.3	513
98	Cell Surface Proteomic Map of HIV Infection RevealsÂAntagonism of Amino Acid Metabolism by Vpu and Nef. Cell Host and Microbe, 2015, 18, 409-423.	5.1	158
99	Dysregulated metabolism contributes to oncogenesis. Seminars in Cancer Biology, 2015, 35, S129-S150.	4.3	225
100	Designing a broad-spectrum integrative approach for cancer prevention and treatment. Seminars in Cancer Biology, 2015, 35, S276-S304.	4.3	220
101	Inhibition of glucose-6-phosphate dehydrogenase sensitizes cisplatin-resistant cells to death. Oncotarget, 2015, 6, 30102-30114.	0.8	101
102	Germline FH Mutations Presenting With Pheochromocytoma. Journal of Clinical Endocrinology and Metabolism, 2014, 99, E2046-E2050.	1.8	147
103	A computational study of the Warburg effect identifies metabolic targets inhibiting cancer migration. Molecular Systems Biology, 2014, 10, 744.	3.2	113
104	A computational study of the Warburg effect identifies metabolic targets inhibiting cancer migration. Molecular Systems Biology, 2014, 10, .	3.2	63
105	The role of mitochondria in the oncogenic signal transduction. International Journal of Biochemistry and Cell Biology, 2014, 48, 11-17.	1.2	43
106	Prognostic and Therapeutic Impact of Argininosuccinate Synthetase 1 Control in Bladder Cancer as Monitored Longitudinally by PET Imaging. Cancer Research, 2014, 74, 896-907.	0.4	122
107	Ischaemic accumulation of succinate controls reperfusion injury through mitochondrial ROS. Nature, 2014, 515, 431-435.	13.7	1,989
108	Nuclear <scp>ARRB</scp> 1 induces pseudohypoxia and cellular metabolism reprogramming in prostate cancer. EMBO Journal, 2014, 33, 1365-1382.	3.5	57

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109	Defects in mitochondrial metabolism and cancer. Cancer & Metabolism, 2014, 2, 10.	2.4	208
110	High throughput synthetic lethality screen reveals a tumorigenic role of adenylate cyclase in fumarate hydratase-deficient cancer cells. BMC Genomics, 2014, 15, 158.	1.2	16
111	The Metabolic Alterations of Cancer Cells. Methods in Enzymology, 2014, 542, 1-23.	0.4	87
112	Phenotype-based cell-specific metabolic modeling reveals metabolic liabilities of cancer. ELife, 2014, 3, .	2.8	116
113	Reversed argininosuccinate lyase activity in fumarate hydratase-deficient cancer cells. Cancer & Metabolism, 2013, 1, 12.	2.4	87
114	Mitochondrial Cristae Shape Determines Respiratory Chain Supercomplexes Assembly and Respiratory Efficiency. Cell, 2013, 155, 160-171.	13.5	955
115	Succinate is an inflammatory signal that induces IL-1Î² through HIF-1Î±. Nature, 2013, 496, 238-242.	13.7	2,845
116	The Mitochondrial Chaperone TRAP1 Promotes Neoplastic Growth by Inhibiting Succinate Dehydrogenase. Cell Metabolism, 2013, 17, 988-999.	7.2	217
117	HIF-independent role of prolyl hydroxylases in the cellular response to amino acids. Oncogene, 2013, 32, 4549-4556.	2.6	106
118	From tumor prevention to therapy: Empowering p53 to fight back. Drug Resistance Updates, 2012, 15, 258-267.	6.5	22
119	Serine is a natural ligand and allosteric activator of pyruvate kinase M2. Nature, 2012, 491, 458-462.	13.7	519
120	The music of lipids: How lipid composition orchestrates cellular behaviour. Acta OncolÃ³gica, 2012, 51, 301-310.	0.8	41
121	Metabolic Profiling of Hypoxic Cells Revealed a Catabolic Signature Required for Cell Survival. PLoS ONE, 2011, 6, e24411.	1.1	150
122	Predicting selective drug targets in cancer through metabolic networks. Molecular Systems Biology, 2011, 7, .	3.2	48
123	Haem oxygenase is synthetically lethal with the tumour suppressor fumarate hydratase. Nature, 2011, 477, 225-228.	13.7	433
124	Inborn and acquired metabolic defects in cancer. Journal of Molecular Medicine, 2011, 89, 213-220.	1.7	132
125	Predicting selective drug targets in cancer through metabolic networks. Molecular Systems Biology, 2011, 7, 501.	3.2	418
126	Predicting selective drug targets in cancer through metabolic networks. Molecular Systems Biology, 2011, 7, .	3.2	10

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127	IDH1 Mutations in Gliomas: When an Enzyme Loses Its Grip. Cancer Cell, 2010, 17, 7-9.	7.7	63
128	Mitochondria in cancer: Not just innocent bystanders. Seminars in Cancer Biology, 2009, 19, 4-11.	4.3	230
129	Parkinson's disease mutations in PINK1 result in decreased Complex I activity and deficient synaptic function. EMBO Molecular Medicine, 2009, 1, 99-111.	3.3	360
130	Reactivating HIF prolyl hydroxylases under hypoxia results in metabolic catastrophe and cell death. Oncogene, 2009, 28, 4009-4021.	2.6	108
131	S9.7 Dominant optic atrophy caused by a novel OPA1 mutation: Disruption of the mitochondrial network with preserved bioenergetics. Biochimica Et Biophysica Acta - Bioenergetics, 2008, 1777, S56.	0.5	0
132	A novel deletion in the GTPase domain of OPA1 causes defects in mitochondrial morphology and distribution, but not in function. Human Molecular Genetics, 2008, 17, 3291-3302.	1.4	91
133	Organelle isolation: functional mitochondria from mouse liver, muscle and cultured filroblasts. Nature Protocols, 2007, 2, 287-295.	5.5	1,021
134	Measuring Mitochondrial Shape Changes and Their Consequences on Mitochondrial Involvement During Apoptosis. Methods in Molecular Biology, 2007, 372, 405-420.	0.4	23
135	Mitochondrial Rhomboid PARL Regulates Cytochrome c Release during Apoptosis via OPA1-Dependent Cristae Remodeling. Cell, 2006, 126, 163-175.	13.5	648
136	OPA1 Controls Apoptotic Cristae Remodeling Independently from Mitochondrial Fusion. Cell, 2006, 126, 177-189.	13.5	1,403
137	4-Hydroxymethyl-1,6,8-trimethylfuro[2,3-h]quinolin-2(1H)-one Induces Mitochondrial Dysfunction and Apoptosis upon Its Intracellular Oxidation. Journal of Medicinal Chemistry, 2005, 48, 192-199.	2.9	32