

# Henri Brunengraber

## List of Publications by Year in descending order

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116  
papers

5,289  
citations

87723

38  
h-index

102304

66  
g-index

118  
all docs

118  
docs citations

118  
times ranked

6200  
citing authors

#	ARTICLE	IF	CITATIONS
1	A roadmap for interpreting $^{13}\text{C}$ metabolite labeling patterns from cells. <i>Current Opinion in Biotechnology</i> , 2015, 34, 189-201.	3.3	513
2	Correction of $^{13}\text{C}$ Mass Isotopomer Distributions for Natural Stable Isotope Abundance. , 1996, 31, 255-262.		347
3	Treatment of cardiomyopathy and rhabdomyolysis in long-chain fat oxidation disorders using an anaplerotic odd-chain triglyceride. <i>Journal of Clinical Investigation</i> , 2002, 110, 259-269.	3.9	215
4	Assessing Cardiac Metabolism. <i>Circulation Research</i> , 2016, 118, 1659-1701.	2.0	211
5	Oncogenic PIK3CA mutations reprogram glutamine metabolism in colorectal cancer. <i>Nature Communications</i> , 2016, 7, 11971.	5.8	203
6	Fatty Acid and $3\text{-}\beta\text{-}^{12}\text{C}$ -Hydroxysterol Synthesis in the Perfused Rat Liver. <i>Journal of Biological Chemistry</i> , 1973, 248, 2656-2669.	1.6	200
7	Anaplerotic molecules: Current and future. <i>Journal of Inherited Metabolic Disease</i> , 2006, 29, 327-331.	1.7	170
8	Pyruvate carboxylase deficiency: clinical and biochemical response to anaplerotic diet therapy. <i>Molecular Genetics and Metabolism</i> , 2005, 84, 305-312.	0.5	127
9	Treatment of cardiomyopathy and rhabdomyolysis in long-chain fat oxidation disorders using an anaplerotic odd-chain triglyceride. <i>Journal of Clinical Investigation</i> , 2002, 110, 259-269.	3.9	117
10	Therapeutic ketosis with ketone ester delays central nervous system oxygen toxicity seizures in rats. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2013, 304, R829-R836.	0.9	101
11	Isotopomer Analysis of Citric Acid Cycle and Gluconeogenesis in Rat Liver. <i>Journal of Biological Chemistry</i> , 1995, 270, 10027-10036.	1.6	100
12	APPLICATIONS OF MASS ISOTOPIOMER ANALYSIS TO NUTRITION RESEARCH. <i>Annual Review of Nutrition</i> , 1997, 17, 559-596.	4.3	100
13	Assay of Low Deuterium Enrichment of Water by Isotopic Exchange with $[\text{U-}^{13}\text{C}_3]$ Acetone and Gas Chromatography-Mass Spectrometry. <i>Analytical Biochemistry</i> , 1998, 258, 315-321.	1.1	99
14	Quantifying rates of protein synthesis in humans by use of $^2\text{H}_2\text{O}$ : application to patients with end-stage renal disease. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2004, 286, E665-E672.	1.8	81
15	Partitioning of pyruvate between oxidation and anaplerosis in swine hearts. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2000, 279, H2390-H2398.	1.5	80
16	Localization of the pre-squalene segment of the isoprenoid biosynthetic pathway in mammalian peroxisomes. <i>Histochemistry and Cell Biology</i> , 2007, 127, 273-290.	0.8	77
17	Limitations of the Mass Isotopomer Distribution Analysis of Glucose to Study Gluconeogenesis. <i>Journal of Biological Chemistry</i> , 1995, 270, 19806-19815.	1.6	72
18	Peroxisomal Fatty Acid Oxidation Is a Substantial Source of the Acetyl Moiety of Malonyl-CoA in Rat Heart. <i>Journal of Biological Chemistry</i> , 2004, 279, 19574-19579.	1.6	72

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19	Fatty acid synthesis by the liver perfused with deuterated and tritiated water. <i>Biochemistry</i> , 1973, 12, 2619-2624.	1.2	71
20	Anaplerotic treatment of long-chain fat oxidation disorders with triheptanoin: Review of 15years Experience. <i>Molecular Genetics and Metabolism</i> , 2015, 116, 260-268.	0.5	71
21	Glutamine Metabolism Regulates the Pluripotency Transcription Factor OCT4. <i>Cell Reports</i> , 2016, 16, 323-332.	2.9	70
22	Metabolism of S-3-hydroxybutyrate in the perfused rat liver. <i>Archives of Biochemistry and Biophysics</i> , 1987, 259, 149-156.	1.4	65
23	Interference of 3-hydroxyisobutyrate with measurements of ketone body concentration and isotopic enrichment by gas chromatography-mass spectrometry. <i>Analytical Biochemistry</i> , 1988, 173, 96-105.	1.1	64
24	Acute hibernation decreases myocardial pyruvate carboxylation and citrate release. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2001, 281, H1613-H1620.	1.5	56
25	Catabolism of 4-Hydroxyacids and 4-Hydroxynonenal via 4-Hydroxy-4-phosphoacyl-CoAs. <i>Journal of Biological Chemistry</i> , 2009, 284, 33521-33534.	1.6	56
26	Parenteral and enteral metabolism of anaplerotic triheptanoin in normal rats. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2006, 291, E860-E866.	1.8	55
27	Metabolomics, Pathway Regulation, and Pathway Discovery. <i>Journal of Biological Chemistry</i> , 2011, 286, 23631-23635.	1.6	53
28	Fatty Acid, 3-beta-Hydroxysterol, and Ketone Synthesis in the Perfused Rat Liver. Effects of (-)-Hydroxycitrate and Oleate. <i>FEBS Journal</i> , 1978, 82, 373-384.	0.2	52
29	Assay of the Deuterium Enrichment of Water via Acetylene. , 1996, 31, 639-642.		52
30	Assessing the Reversibility of the Anaplerotic Reactions of the Propionyl-CoA Pathway in Heart and Liver. <i>Journal of Biological Chemistry</i> , 2003, 278, 34959-34965.	1.6	49
31	Peroxisomal and Mitochondrial Oxidation of Fatty Acids in the Heart, Assessed from the <sup>13</sup> C Labeling of Malonyl-CoA and the Acetyl Moiety of Citrate. <i>Journal of Biological Chemistry</i> , 2005, 280, 9265-9271.	1.6	48
32	Assay of the Concentration and <sup>13</sup> C-Isotopic Enrichment of Malonyl-Coenzyme A by Gas Chromatography-Mass Spectrometry. <i>Analytical Biochemistry</i> , 2001, 298, 69-75.	1.1	47
33	Parenteral and enteral metabolism of anaplerotic triheptanoin in normal rats. II. Effects on lipolysis, glucose production, and liver acyl-CoA profile. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2010, 298, E362-E371.	1.8	47
34	NEW SECONDARY METABOLITES OF PHENYLBUTYRATE IN HUMANS AND RATS. <i>Drug Metabolism and Disposition</i> , 2004, 32, 10-19.	1.7	45
35	Effect of (α)-hydroxycitrate on ethanol metabolism. <i>FEBS Letters</i> , 1973, 36, 130-132.	1.3	44
36	Probing peroxisomal β-oxidation and the labelling of acetyl-CoA proxies with [1- <sup>13</sup> C]octanoate and [3- <sup>13</sup> C]octanoate in the perfused rat liver. <i>Biochemical Journal</i> , 2005, 389, 397-401.	1.7	42

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37	Interrelations between C4 Ketogenesis, C5 Ketogenesis, and Anaplerosis in the Perfused Rat Liver. <i>Journal of Biological Chemistry</i> , 2009, 284, 27799-27807.	1.6	42
38	Cholesterol in mouse retina originates primarily from in situ de novo biosynthesis. <i>Journal of Lipid Research</i> , 2016, 57, 258-264.	2.0	42
39	Tracing Hepatic Gluconeogenesis Relative to Citric Acid Cycle Activity in Vitro and in Vivo. <i>Journal of Biological Chemistry</i> , 1995, 270, 1509-1514.	1.6	41
40	Underestimation of metabolic rates owing to reincorporation of <sup>14</sup> CO <sub>2</sub> in the perfused rat liver. <i>Biochemical Journal</i> , 1982, 208, 231-234.	1.7	40
41	Assay of the concentration and stable isotope enrichment of short-chain fatty acids by gas chromatography/mass spectrometry. <i>Journal of Mass Spectrometry</i> , 1995, 30, 747-754.	0.7	40
42	Is There Glucose Production Outside of the Liver and Kidney?. <i>Annual Review of Nutrition</i> , 2009, 29, 43-57.	4.3	37
43	Colorectal cancers utilize glutamine as an anaplerotic substrate of the TCA cycle in vivo. <i>Scientific Reports</i> , 2019, 9, 19180.	1.6	37
44	Propionate-induced changes in cardiac metabolism, notably CoA trapping, are not altered by l-carnitine. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2018, 315, E622-E633.	1.8	36
45	Regulation of Malonyl-CoA Concentration and Turnover in the Normal Heart. <i>Journal of Biological Chemistry</i> , 2004, 279, 34298-34301.	1.6	35
46	Metabolomic and Mass Isotopomer Analysis of Liver Gluconeogenesis and Citric Acid Cycle. <i>Journal of Biological Chemistry</i> , 2008, 283, 21978-21987.	1.6	35
47	Investigations by mass isotopomer analysis of the formation of D-2-hydroxyglutarate by cultured lymphoblasts from two patients with D-2-hydroxyglutaric aciduria. <i>FEBS Letters</i> , 2004, 557, 115-120.	1.3	34
48	Serine and 1-carbon metabolism are required for HIF-mediated protection against retinopathy of prematurity. <i>JCI Insight</i> , 2019, 4, .	2.3	34
49	Inter-relations between 3-hydroxypropionate and propionate metabolism in rat liver: relevance to disorders of propionyl-CoA metabolism. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2017, 313, E413-E428.	1.8	33
50	Potential of ketone body esters for parenteral and oral nutrition. <i>Nutrition</i> , 1997, 13, 233-235.	1.1	32
51	Glutamate, a Window on Liver Intermediary Metabolism. <i>Journal of Nutrition</i> , 2000, 130, 991S-994S.	1.3	32
52	Zonation of Labeling of Lipogenic Acetyl-CoA across the Liver. <i>Journal of Biological Chemistry</i> , 2004, 279, 43207-43216.	1.6	31
53	Dog model of therapeutic ketosis induced by oral administration of R,S-1,3-butanediol diacetoacetate. <i>Journal of Nutritional Biochemistry</i> , 2000, 11, 281-287.	1.9	30
54	Quantitative assessment of anaplerosis from propionate in pig heart in vivo. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2003, 284, E351-E356.	1.8	30

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55	Dynamics of glutathione and ophthalmate traced with $^2\text{H}$ -enriched body water in rats and humans. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2009, 297, E260-E269.	1.8	29
56	Metabolomic assays of the concentration and mass isotopomer distribution of gluconeogenic and citric acid cycle intermediates. <i>Metabolomics</i> , 2006, 2, 85-94.	1.4	28
57	Zonation of acetate labeling across the liver: implications for studies of lipogenesis by MIDA. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 1999, 277, E1022-E1027.	1.8	27
58	Using Isotopic Tools to Dissect and Quantitate Parallel Metabolic Pathways. <i>Journal of the American Chemical Society</i> , 2010, 132, 6309-6311.	6.6	27
59	Methods for measuring gluconeogenesis in vivo. <i>Current Opinion in Clinical Nutrition and Metabolic Care</i> , 1998, 1, 461-465.	1.3	27
60	Probing the link between citrate and malonyl-CoA in perfused rat hearts. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2002, 283, H1379-H1386.	1.5	26
61	Assay of the Concentration and $^{13}\text{C}$ Isotopic Enrichment of Propionyl-CoA, Methylmalonyl-CoA, and Succinyl-CoA by Gas Chromatography-Mass Spectrometry. <i>Analytical Biochemistry</i> , 2002, 305, 90-96.	1.1	26
62	[36] Hydroxycitrate. <i>Methods in Enzymology</i> , 1981, 72, 486-497.	0.4	25
63	[12] Shunt pathway of mevalonate metabolism. <i>Methods in Enzymology</i> , 1985, 110, 100-114.	0.4	25
64	Identification of phenylbutyrylglutamine, a new metabolite of phenylbutyrate metabolism in humans. <i>Journal of Mass Spectrometry</i> , 2002, 37, 581-590.	0.7	25
65	Limitations of the Mass Isotopomer Distribution Analysis of Glucose to Study Gluconeogenesis. <i>Journal of Biological Chemistry</i> , 1998, 273, 16853-16859.	1.6	24
66	Metabolomic and Mass Isotopomer Analysis of Liver Gluconeogenesis and Citric Acid Cycle. <i>Journal of Biological Chemistry</i> , 2008, 283, 21988-21996.	1.6	24
67	R,S-1,3-butanediol acetoacetate esters, potential alternates to lipid emulsions for total parenteral nutrition. <i>Journal of Nutritional Biochemistry</i> , 1995, 6, 111-118.	1.9	23
68	Mass isotopomer study of anaplerosis from propionate in the perfused rat heart. <i>Archives of Biochemistry and Biophysics</i> , 2007, 463, 110-117.	1.4	22
69	Multiple Mass Isotopomer Tracing of Acetyl-CoA Metabolism in Langendorff-perfused Rat Hearts. <i>Journal of Biological Chemistry</i> , 2015, 290, 8121-8132.	1.6	22
70	Stable Isotope Model for Assessing Production of Short Chain Fatty Acids from Colon-Derived Sugar: Application in Pigs. <i>Journal of Nutrition</i> , 1996, 126, 3069-3076.	1.3	20
71	Determination of $(^{13}\text{C})$ urea enrichment by gas chromatography/mass spectrometry and gas chromatography/isotope ratio mass spectrometry. <i>Biological Mass Spectrometry</i> , 1994, 23, 510-513.	0.5	19
72	Limitations in estimating gluconeogenesis and Cori cycling from mass isotopomer distributions using $[\text{U-}^{13}\text{C}_6]$ glucose. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 1998, 274, E954-E961.	1.8	19

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73	Metabolism of Levulinate in Perfused Rat Livers and Live Rats. <i>Journal of Biological Chemistry</i> , 2011, 286, 5895-5904.	1.6	19
74	Compartmentation of Metabolism of the C12-, C9-, and C5-n-dicarboxylates in Rat Liver, Investigated by Mass Isotopomer Analysis. <i>Journal of Biological Chemistry</i> , 2015, 290, 18671-18677.	1.6	19
75	In Vitro Modeling of Fatty Acid Synthesis under Conditions Simulating the Zonation of Lipogenic [13C]Acetyl-CoA Enrichment in the Liver. <i>Journal of Biological Chemistry</i> , 2004, 279, 43217-43226.	1.6	18
76	Differential effects of heptanoate and hexanoate on myocardial citric acid cycle intermediates following ischemia-reperfusion. <i>Journal of Applied Physiology</i> , 2006, 100, 76-82.	1.2	18
77	Microcarrier culture: Applications in biological production and cell biology. <i>Biotechnology and Bioengineering</i> , 1981, 23, 2673-2689.	1.7	17
78	Analysis of the Citric Acid Cycle Intermediates Using Gas Chromatography-Mass Spectrometry. <i>Methods in Molecular Biology</i> , 2011, 708, 147-157.	0.4	17
79	Tracing Gluconeogenesis with Deuterated Water: Measurement of Low Deuterium Enrichments on Carbons 6 and 2 of Glucose. <i>Analytical Biochemistry</i> , 1997, 248, 158-167.	1.1	16
80	Post-ischemic treatment with dipyruvyl-acetyl-glycerol decreases myocardial infarct size in the pig. <i>Cardiovascular Drugs and Therapy</i> , 2003, 17, 209-216.	1.3	16
81	Metabolism of $\beta^3$ -hydroxybutyrate in perfused rat livers. <i>Biochemical Journal</i> , 2012, 444, 333-341.	1.7	15
82	Association of Uremic Solutes With Cardiovascular Death in Diabetic Kidney Disease. <i>American Journal of Kidney Diseases</i> , 2022, 80, 502-512.e1.	2.1	15
83	Integrative physiology of splanchnic glutamine and ammonium metabolism. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2000, 278, E469-E476.	1.8	14
84	Ex-Vivo Normothermic Limb Perfusion With a Hemoglobin-Based Oxygen Carrier Perfusate. <i>Military Medicine</i> , 2020, 185, 110-120.	0.4	13
85	Delineation of substrate selection and anaplerosis in tricarboxylic acid cycle of the heart by $^{13}\text{C}$ NMR spectroscopy and mass spectrometry. <i>NMR in Biomedicine</i> , 2011, 24, 176-187.	1.6	11
86	Glutathione species and metabolomic prints in subjects with liver disease as biological markers for the detection of hepatocellular carcinoma. <i>Hpb</i> , 2016, 18, 979-990.	0.1	11
87	Assessment of the flux of mitochondrial acetyl-CoA in liver and kidney by using the differential production of $^{14}\text{CO}_2$ from tracers of (1- $^{14}\text{C}$ )- and (2- $^{14}\text{C}$ )-labelled 4-methyl-2-oxovalerate. <i>Biochemical Journal</i> , 1983, 210, 265-268.	1.7	10
88	Competition between acetate and oleate for the formation of malonyl-CoA and mitochondrial acetyl-CoA in the perfused rat heart. <i>Journal of Molecular and Cellular Cardiology</i> , 2006, 41, 868-875.	0.9	9
89	Metabolomics and Mass Isotopomer Analysis as a Strategy for Pathway Discovery: Pyrrolyl and Cyclopentenyl Derivatives of the Pro-Drug of Abuse, Levulinate. <i>Chemical Research in Toxicology</i> , 2013, 26, 213-220.	1.7	9
90	Lipogenesis from ketone bodies in the perfused rat liver: effects of acetate and ethanol. <i>Biochemistry and Cell Biology</i> , 1987, 65, 989-996.	0.9	8

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91	Biosynthesis and characterization of 3-hydroxyalkan-2-ones and 2,3-alkanediols: Potential products of aldehyde metabolism. <i>Biological Mass Spectrometry</i> , 1992, 21, 242-248.	0.5	8
92	Dipropionylcysteine Ethyl Ester Compensates for Loss of Citric Acid Cycle Intermediates During Post Ischemia Reperfusion in the Pig Heart. <i>Cardiovascular Drugs and Therapy</i> , 2009, 23, 459-469.	1.3	8
93	Ultrastructure and Intercellular Vacuolization of Isolated Perfused and Control Rat Testes. <i>Journal of Andrology</i> , 1983, 4, 361-370.	2.0	7
94	<sup>15</sup> N enrichment of ammonium, glutamine-amide and urea, measured via mass isotopomer analysis of hexamethylenetetramine. , 1999, 34, 1130-1136.		7
95	Effect of (α)-hydroxycitrate on ketone production by the perfused liver. <i>FEBS Letters</i> , 1976, 65, 251-253.	1.3	6
96	One-stage hepatectomy in the dog. <i>Journal of Surgical Research</i> , 1990, 48, 33-37.	0.8	6
97	Assay of the <sup>13</sup> C and <sup>2</sup> H Mass Isotopomer Distribution of Phosphoenolpyruvate by Gas Chromatography/Mass Spectrometry. , 1996, 31, 643-648.		6
98	Composite Vascularized Allograft Machine Preservation: State of the Art. <i>Current Transplantation Reports</i> , 2019, 6, 265-276.	0.9	6
99	Assay of the activity of malonyl-“coenzyme A decarboxylase by gas chromatography-“mass spectrometry. <i>Analytical Biochemistry</i> , 2007, 363, 169-174.	1.1	5
100	What is the proper precursor-to-product labeling relationship for calculating the fractional synthetic rate of muscle triglyceride ?. <i>Journal of Lipid Research</i> , 2012, 53, 1-3.	2.0	5
101	Metabolic Profiling of Skeletal Muscle During Ex-Vivo Normothermic Limb Perfusion. <i>Military Medicine</i> , 2021, 186, 358-363.	0.4	4
102	Effects of hydroxyurea and benzo(a)pyrene on DNA synthesis in the isolated perfused rat lung. <i>Bulletin of Environmental Contamination and Toxicology</i> , 1982, 28, 135-140.	1.3	3
103	Quantitation of 1,3-butanediol and its acidic metabolites by gas chromatography-mass spectrometry. <i>Analytical Biochemistry</i> , 1990, 186, 101-107.	1.1	3
104	An improved procedure for the synthesis of labelled fatty acids utilizing diethyl malonate. <i>Journal of Labelled Compounds and Radiopharmaceuticals</i> , 2006, 49, 171-176.	0.5	2
105	Overcompensation of CoA Trapping by Di(2-ethylhexyl) Phthalate (DEHP) Metabolites in Livers of Wistar Rats. <i>International Journal of Molecular Sciences</i> , 2021, 22, 13489.	1.8	2
106	New mechanisms by which statins lower plasma cholesterol. <i>Journal of Lipid Research</i> , 2016, 57, 1325-1326.	2.0	1
107	Acetyl-CoA generated in peroxisomes of CHO and HepG2 cells is preferentially incorporated into sterols versus fatty acids: studies with [ <sup>13</sup> C <sub>12</sub> ]dodecanedioate. <i>FASEB Journal</i> , 2006, 20, A1467.	0.2	1
108	Anaplerosis from heptanoate → propionyl-CoA precursor in mouse brain. <i>FASEB Journal</i> , 2007, 21, A340.	0.2	1

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109	Assay of the concentration and $^{13}\text{C}$ -isotopic enrichment of gluconeogenic and citric acid cycle intermediates by gas chromatography-mass spectrometry. FASEB Journal, 2006, 20, A1466.	0.2	0
110	Measurements of the kinetics of the pentose phosphate pathway (PPP) in perfused hearts and livers, using [ $^{13}\text{C}$ ]gluconolactone. FASEB Journal, 2007, 21, A836.	0.2	0
111	Partial beta-oxidation of gamma-hydroxybutyrate (GHB) in perfused rat livers. FASEB Journal, 2007, 21, A664.	0.2	0
112	Interference of ethanol with the metabolism of gamma-hydroxybutyrate (GHB) in the perfused rat liver. FASEB Journal, 2007, 21, A664.	0.2	0
113	Interrelations between C 4 -ketogenesis and C 5 -ketogenesis in the perfused rat liver. FASEB Journal, 2009, 23, .	0.2	0
114	Cyclical C7-CoA esters derived from calcium levulinate, a pro-drug of abuse. FASEB Journal, 2012, 26, 551.1.	0.2	0
115	Metabolic fate of lactate after anoxia at 20°C in the Western painted turtle. FASEB Journal, 2013, 27, 714.14.	0.2	0
116	Hepatic Metabolism of 3-Hydroxypropionate a Byproduct in Propionic Acidemia. FASEB Journal, 2015, 29, .	0.2	0