Patrick J Stover

List of Publications by Year
in descending order

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122 papers	7,278 citations	53794 45 h-index	60623 81 g-index
126 all docs	126 docs citations	126 times ranked	7985 citing authors

#	Article	IF	Citations
1	Biomarkers of Nutrition for Developmentâ€"Folate Review. Journal of Nutrition, 2015, 145, 1636S-1680S.	2.9	570
2	Physiology of Folate and Vitamin B₁₂in Health and Disease. Nutrition Reviews, 2004, 62, S3-S12.	5.8	369
3	Chapter 1 Folateâ€Mediated Oneâ€Carbon Metabolism. Vitamins and Hormones, 2008, 79, 1-44.	1.7	312
4	NEWPERSPECTIVES ONFOLATECATABOLISM. Annual Review of Nutrition, 2001, 21, 255-282.	10.1	240
5	Cytoplasmic Serine Hydroxymethyltransferase Mediates Competition between Folate-dependent Deoxyribonucleotide andS-Adenosylmethionine Biosyntheses. Journal of Biological Chemistry, 2002, 277, 38381-38389.	3.4	233
6	Unprocessed Red Meat and Processed Meat Consumption: Dietary Guideline Recommendations From the Nutritional Recommendations (NutriRECS) Consortium. Annals of Internal Medicine, 2019, 171, 756.	3.9	227
7	One-Carbon Metabolismâ€"Genome Interactions in Folate-Associated Pathologies ,. Journal of Nutrition, 2009, 139, 2402-2405.	2.9	186
8	Biomarkers of vitamin B-12 status in NHANES: a roundtable summary. American Journal of Clinical Nutrition, 2011, 94, 313S-321S.	4.7	157
9	SHMT1 and SHMT2 Are Functionally Redundant in Nuclear De novo Thymidylate Biosynthesis. PLoS ONE, 2009, 4, e5839.	2.5	151
10	Identification of a de novo thymidylate biosynthesis pathway in mammalian mitochondria. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 15163-15168.	7.1	140
11	Insights into metabolic mechanisms underlying folateâ€responsive neural tube defects: A minireview. Birth Defects Research Part A: Clinical and Molecular Teratology, 2009, 85, 274-284.	1.6	131
12	Cytoplasmic Serine Hydroxymethyltransferase Regulates the Metabolic Partitioning of Methylenetetrahydrofolate but Is Not Essential in Mice. Journal of Biological Chemistry, 2008, 283, 25846-25853.	3.4	125
13	The metabolic role of leucovorin. Trends in Biochemical Sciences, 1993, 18, 102-106.	7.5	124
14	Molecular Cloning, Characterization, and Regulation of the Human Mitochondrial Serine Hydroxymethyltransferase Gene. Journal of Biological Chemistry, 1997, 272, 1842-1848.	3.4	117
15	Folateâ€mediated oneâ€carbon metabolism and neural tube defects: Balancing genome synthesis and gene expression. Birth Defects Research Part C: Embryo Today Reviews, 2007, 81, 183-203.	3.6	112
16	Safety of folic acid. Annals of the New York Academy of Sciences, 2018, 1414, 59-71.	3.8	112
17	Vitamin B-12 and Perinatal Health. Advances in Nutrition, 2015, 6, 552-563.	6.4	111
18	Evidence for Small Ubiquitin-like Modifier-dependent Nuclear Import of the Thymidylate Biosynthesis Pathway*. Journal of Biological Chemistry, 2007, 282, 17623-17631.	3.4	109

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19	Serine Hydroxymethyltransferase Anchors de Novo Thymidylate Synthesis Pathway to Nuclear Lamina for DNA Synthesis. Journal of Biological Chemistry, 2012, 287, 7051-7062.	3.4	106
20	Biomarkers of folate status in NHANES: a roundtable summary. American Journal of Clinical Nutrition, 2011, 94, 303S-312S.	4.7	104
21	Shmt1 and de novo thymidylate biosynthesis underlie folate-responsive neural tube defects in mice. American Journal of Clinical Nutrition, 2011, 93, 789-798.	4.7	104
22	5-Formyltetrahydrofolate Regulates Homocysteine Remethylation in Human Neuroblastoma. Journal of Biological Chemistry, 1997, 272, 4729-4734.	3.4	102
23	Physiology of Folate and Vitamin B₁₂ in Health and Disease. Nutrition Reviews, 2004, 62, 3-12.	5.8	102
24	Trafficking of Intracellular Folates. Advances in Nutrition, 2011, 2, 325-331.	6.4	99
25	Knowledge gaps in understanding the metabolic and clinical effects of excess folates/folic acid: a summary, and perspectives, from an NIH workshop. American Journal of Clinical Nutrition, 2020, 112, 1390-1403.	4.7	95
26	Molecular cloning, characterization and alternative splicing of the human cytoplasmic serine hydroxymethyltransferase gene. Gene, 1998, 210, 315-324.	2.2	93
27	Genetic and Epigenetic Contributions to Human Nutrition and Health: Managing Genomeâ€“Diet Interactions. Journal of the American Dietetic Association, 2008, 108, 1480-1487.	1.1	90
28	Regulation of Folate-mediated One-carbon Metabolism by 10-Formyltetrahydrofolate Dehydrogenase. Journal of Biological Chemistry, 2006, 281, 18335-18342.	3.4	86
29	PhenX: a toolkit for interdisciplinary genetics research. Current Opinion in Lipidology, 2010, 21, 136-140.	2.7	82
30	Polymorphisms in 1-Carbon Metabolism, Epigenetics and Folate-Related Pathologies. Journal of Nutrigenetics and Nutrigenomics, 2011, 4, 293-305.	1.3	81
31	Influence of human genetic variation on nutritional requirements. American Journal of Clinical Nutrition, 2006, 83, 436S-442S.	4.7	80
32	Structure of a Murine Cytoplasmic Serine Hydroxymethyltransferase Quinonoid Ternary Complex:â€‰ Evidence for Asymmetric Obligate Dimers. Biochemistry, 2000, 39, 13313-13323.	2.5	78
33	Vitamin B12 and older adults. Current Opinion in Clinical Nutrition and Metabolic Care, 2010, 13, 24-27.	2.5	74
34	Purification and Properties of a Folate-catabolizing Enzyme. Journal of Biological Chemistry, 2000, 275, 35646-35655.	3.4	68
35	Mthfd1 Is an Essential Gene in Mice and Alters Biomarkers of Impaired One-carbon Metabolism. Journal of Biological Chemistry, 2009, 284, 1533-1539.	3.4	67
36	Cell cycle regulation of folateâ€mediated oneâ€carbon metabolism. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2018, 10, e1426.	6.6	67

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37	Vitamin B-6. Advances in Nutrition, 2015, 6, 132-133.	6.4	64
38	Best practices in nutrition science to earn and keep the public's trust. American Journal of Clinical Nutrition, 2019, 109, 225-243.	4.7	63
39	Nuclear Enrichment of Folate Cofactors and Methylenetetrahydrofolate Dehydrogenase 1 (MTHFD1) Protect de Novo Thymidylate Biosynthesis during Folate Deficiency. Journal of Biological Chemistry, 2014, 289, 29642-29650.	3.4	62
40	Methenyltetrahydrofolate Synthetase Regulates Folate Turnover and Accumulation. Journal of Biological Chemistry, 2003, 278, 29856-29862.	3.4	60
41	Nuclear Localization of de Novo Thymidylate Biosynthesis Pathway Is Required to Prevent Uracil Accumulation in DNA. Journal of Biological Chemistry, 2011, 286, 44015-44022.	3.4	60
42	Competition between Sumoylation and Ubiquitination of Serine Hydroxymethyltransferase 1 Determines Its Nuclear Localization and Its Accumulation in the Nucleus. Journal of Biological Chemistry, 2012, 287, 4790-4799.	3.4	59
43	Heavy Chain Ferritin Enhances Serine Hydroxymethyltransferase Expression and de Novo Thymidine Biosynthesis. Journal of Biological Chemistry, 2001, 276, 19855-19861.	3.4	57
44	Small ubiquitin-like modifier-1 (SUMO-1) modification of thymidylate synthase and dihydrofolate reductase. Clinical Chemistry and Laboratory Medicine, 2007, 45, 1760-3.	2.3	57
45	Human mutations in methylenetetrahydrofolate dehydrogenase 1 impair nuclear de novo thymidylate biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 400-405.	7.1	56
46	Targeting nuclear thymidylate biosynthesis. Molecular Aspects of Medicine, 2017, 53, 48-56.	6.4	54
47	Nuclear Folate Metabolism. Annual Review of Nutrition, 2018, 38, 219-243.	10.1	52
48	Shmt1 Heterozygosity Impairs Folate-Dependent Thymidylate Synthesis Capacity and Modifies Risk of Apcmin-Mediated Intestinal Cancer Risk. Cancer Research, 2011, 71, 2098-2107.	0.9	50
49	Folate rescues vitamin B ₁₂ depletion-induced inhibition of nuclear thymidylate biosynthesis and genome instability. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E4095-E4102.	7.1	49
50	Regulation of de Novo Purine Biosynthesis by Methenyltetrahydrofolate Synthetase in Neuroblastoma. Journal of Biological Chemistry, 2006, 281, 4215-4221.	3.4	46
51	Dietary folate, but not choline, modifies neural tube defect risk in Shmt1 knockout mice. American Journal of Clinical Nutrition, 2012, 95, 109-114.	4.7	46
52	Engaging basic scientists in translational research: identifying opportunities, overcoming obstacles. Journal of Translational Medicine, 2012, 10, 72.	4.4	43
53	Folate nutrition and bloodâ€“brain barrier dysfunction. Current Opinion in Biotechnology, 2017, 44, 146-152.	6.6	43
54	Synthesis of (6S)-5-formyltetrahydropteroyl-polyglutamates and interconversion to other reduced pteroylpolyglutamate derivatives. Analytical Biochemistry, 1992, 202, 82-88.	2.4	42

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55	Bringing Individuality to Public Health Recommendations. Journal of Nutrition, 2002, 132, 2476S-2480S.	2.9	42
56	Polymorphisms in Cytoplasmic Serine Hydroxymethyltransferase and Methylenetetrahydrofolate Reductase Affect the Risk of Cardiovascular Disease in Men. Journal of Nutrition, 2005, 135, 1989-1994.	2.9	41
57	Modeling cellular compartmentation in oneâ€carbon metabolism. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2013, 5, 343-365.	6.6	41
58	Effect of vitamin B6 availability on serine hydroxymethyltransferase in MCF-7 cells. Archives of Biochemistry and Biophysics, 2007, 462, 21-27.	3.0	40
59	Nutritional genomics. Physiological Genomics, 2004, 16, 161-165.	2.3	39
60	Astronaut ophthalmic syndrome. FASEB Journal, 2017, 31, 3746-3756.	0.5	39
61	Mimosine Attenuates Serine Hydroxymethyltransferase Transcription by Chelating Zinc. Journal of Biological Chemistry, 2005, 280, 396-400.	3.4	38
62	Emerging concepts on the role of epigenetics in the relationships between nutrition and health. Journal of Internal Medicine, 2018, 284, 37-49.	6.0	38
63	A UV-responsive Internal Ribosome Entry Site Enhances Serine Hydroxymethyltransferase 1 Expression for DNA Damage Repair. Journal of Biological Chemistry, 2009, 284, 31097-31108.	3.4	37
64	Mthfs is an Essential Gene in Mice and a Component of the Purinosome. Frontiers in Genetics, 2011, 2, 36.	2.3	36
65	A Ferritin-responsive Internal Ribosome Entry Site Regulates Folate Metabolism. Journal of Biological Chemistry, 2007, 282, 29927-29935.	3.4	35
66	Strengthening national nutrition research: rationale and options for a new coordinated federal research effort and authority. American Journal of Clinical Nutrition, 2020, 112, 721-769.	4.7	35
67	Maternal Mthfd1 disruption impairs fetal growth but does not cause neural tube defects in mice. American Journal of Clinical Nutrition, 2012, 95, 882-891.	4.7	31
68	The mitochondrial inner membrane protein MPV17 prevents uracil accumulation in mitochondrial DNA. Journal of Biological Chemistry, 2018, 293, 20285-20294.	3.4	31
69	Extracellular serine and glycine are required for mouse and human skeletal muscle stem and progenitor cell function. Molecular Metabolism, 2021, 43, 101106.	6.5	31
70	Nutrition research to affect food and a healthy life span. American Journal of Clinical Nutrition, 2013, 98, 620-625.	4.7	30
71	Arsenic trioxide targets MTHFD1 and SUMO-dependent nuclear de novo thymidylate biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E2319-E2326.	7.1	29
72	MTHFD1 regulates nuclear de novo thymidylate biosynthesis and genome stability. Biochimie, 2016, 126, 27-30.	2.6	28

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73	Maternal dietary uridine causes, and deoxyuridine prevents, neural tube closure defects in a mouse model of folate-responsive neural tube defects. American Journal of Clinical Nutrition, 2015, 101, 860-869.	4.7	27
74	Convergence of Genetic, Nutritional and Inflammatory Factors in Gastrointestinal Cancers. Nutrition Reviews, 2007, 65, 157-166.	5.8	25
75	Convergence of Genetic, Nutritional and Inflammatory Factors in Gastrointestinal Cancers. Nutrition Reviews, 2007, 65, S157-S166.	5.8	24
76	Mthfd1 is a modifier of chemically induced intestinal carcinogenesis. Carcinogenesis, 2011, 32, 427-433.	2.8	24
77	Mechanism of the Internal Ribosome Entry Site-mediated Translation of Serine Hydroxymethyltransferase 1. Journal of Biological Chemistry, 2009, 284, 31085-31096.	3.4	23
78	High resolution mapping and positional cloning of ENU-induced mutations in the Rw region of mouse chromosome 5. BMC Genetics, 2010, 11, 106.	2.7	23
79	Lack of Catalytic Activity of a Murine mRNA Cytoplasmic Serine Hydroxymethyltransferase Splice Variant:â€‰ Evidence against Alternative Splicing as a Regulatory Mechanism. Biochemistry, 2001, 40, 4932-4939.	2.5	22
80	A hybrid stochastic model of folate-mediated one-carbon metabolism: Effect of the common C677T MTHFR variant on de novo thymidylate biosynthesis. Scientific Reports, 2017, 7, 797.	3.3	22
81	Inhibition of 5,10-methenyltetrahydrofolate synthetase. Archives of Biochemistry and Biophysics, 2007, 458, 194-201.	3.0	20
82	Reduced MTHFD1 Activity in Male Mice Perturbs Folate- and Choline-Dependent One-Carbon Metabolism as Well as Transsulfuration. Journal of Nutrition, 2013, 143, 41-45.	2.9	19
83	Deoxyuracil in DNA and disease: Genomic signal or managed situation?. DNA Repair, 2019, 77, 36-44.	2.8	18
84	The Roles of SUMO in Metabolic Regulation. Advances in Experimental Medicine and Biology, 2017, 963, 143-168.	1.6	18
85	Pyridoxal Phosphate Inhibits Dynamic Subunit Interchange among Serine Hydroxymethyltransferase Tetramers. Journal of Biological Chemistry, 2003, 278, 10142-10149.	3.4	17
86	Human Nutrition and Genetic Variation. Food and Nutrition Bulletin, 2007, 28, S101-S115.	1.4	17
87	Securing the Future of Nutritional Sciences Through Integrative Graduate Education. Journal of Nutrition, 2002, 132, 779-784.	2.9	16
88	Emerging Concepts in Nutrient Needs. Journal of Nutrition, 2020, 150, 2593S-2601S.	2.9	15
89	1. General introduction. Trends in Food Science and Technology, 2003, 14, 182-190.	15.1	14
90	Cloning, expression, and purification of 5,10-methenyltetrahydrofolate synthetase from Mus musculus. Protein Expression and Purification, 2004, 35, 276-283.	1.3	14

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91	5,10-Methenyltetrahydrofolate synthetase activity is increased in tumors and modifies the efficacy of antipurine LY309887. Archives of Biochemistry and Biophysics, 2009, 481, 145-150.	3.0	14
92	Folate Biochemical Pathways and Their Regulation. , 2009, , 49-74.		14
93	Disruption of Shmt1 Impairs Hippocampal Neurogenesis and Mnemonic Function in Mice1â€“3. Journal of Nutrition, 2013, 143, 1028-1035.	2.9	13
94	Dietary folic acid protects against genotoxicity in the red blood cells of mice. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2015, 779, 105-111.	1.0	13
95	The 5-formyltetrahydrofolate futile cycle reduces pathway stochasticity in an extended hybrid-stochastic model of folate-mediated one-carbon metabolism. Scientific Reports, 2019, 9, 4322.	3.3	13
96	Polymorphisms in Serine Hydroxymethyltransferase 1 and Methylenetetrahydrofolate Reductase Interact to Increase Cardiovascular Disease Risk in Humans. Journal of Nutrition, 2011, 141, 255-260.	2.9	10
97	Folate Network Genetic Variation Predicts Cardiovascular Disease Risk in Non-Hispanic White Males. Journal of Nutrition, 2012, 142, 1272-1279.	2.9	10
98	More Nutrition Precision, Better Decisions for the Health of Our Nation. Journal of Nutrition, 2020, 150, 3058-3060.	2.9	10
99	New insights into the metabolic and nutritional determinants of severe combined immunodeficiency. Rare Diseases (Austin, Tex), 2015, 3, e1112479.	1.8	9
100	Provision of folic acid for reducing arsenic toxicity in arsenic-exposed children and adults. The Cochrane Library, 0, , .	2.8	9
101	Provision of folic acid for reducing arsenic toxicity in arsenic-exposed children and adults. The Cochrane Library, 2021, 2021, CD012649.	2.8	9
102	Discussion: Folate and Vitamin B12 Metabolism: Overview and Interaction with Riboflavin, Vitamin B6, and Polymorphisms. Food and Nutrition Bulletin, 2008, 29, S17-S19.	1.4	8
103	Sensitizing Cancer Cells: Is It Really All about U?. Cancer Cell, 2012, 22, 3-4.	16.8	8
104	Alcohol Dehydrogenase 5 Is a Source of Formate for De Novo Purine Biosynthesis in HepG2 Cells. Journal of Nutrition, 2017, 147, 499-505.	2.9	8
105	The Role of Brain Barriers in Maintaining Brain Vitamin Levels. Annual Review of Nutrition, 2019, 39, 147-173.	10.1	8
106	Methenyltetrahydrofolate synthetase is a high-affinity catecholamine-binding protein. Archives of Biochemistry and Biophysics, 2006, 455, 175-187.	3.0	6
107	Dietary and genetic manipulations of folate metabolism differentially affect neocortical functions in mice. Neurotoxicology and Teratology, 2013, 38, 79-91.	2.4	6
108	Azoxymethane-Induced Colon Carcinogenesis in Mice Occurs Independently of De Novo Thymidylate Synthesis Capacity. Journal of Nutrition, 2014, 144, 419-424.	2.9	6

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109	p53 Disruption Increases Uracil Accumulation in DNA of Murine Embryonic Fibroblasts and Leads to Folic Acidâ€“Nonresponsive Neural Tube Defects in Mice. Journal of Nutrition, 2020, 150, 1705-1712.	2.9	6
110	Mouse models to elucidate mechanisms of folate-related cancer pathologies. Nutrition Reviews, 2008, 66, S54-S58.	5.8	5
111	Bringing clarity to the role of MTHFR variants in neural tube defect prevention. American Journal of Clinical Nutrition, 2015, 101, 1111-1112.	4.7	5
112	Dietary Uridine Decreases Tumorigenesis in the Apc Model of Intestinal Cancer. Current Developments in Nutrition, 2018, 2, nzy013.	0.3	5
113	Nutrition and Developmental Biology-Implications for Public Health. Nutrition Reviews, 2008, 64, S60-S71.	5.8	4
114	Deoxyuracil in DNA in health and disease. Current Opinion in Clinical Nutrition and Metabolic Care, 2020, 23, 247-252.	2.5	4
115	Healthy diet sustains the environment too. Nature, 2015, 522, 287-287.	27.8	3
116	Editorial overview: Food biotechnology. Current Opinion in Biotechnology, 2017, 44, v-vi.	6.6	3
117	Nutrition and stem cell integrity in aging. Journal of Internal Medicine, 0, , .	6.0	2
118	Ferritin and Serine Hydroxymethyltransferase. , 2006, , 213-236.		0
119	Regulation of de novo thymidylate biosynthesis by ubiquitination. FASEB Journal, 2010, 24, 892.5.	0.5	0
120	Role of Dihydroquinonoid Formation in Substrate Specificity of Escherichia coli Dihydrofolate Synthetaseâ€•Folylpolyglutamate Synthetase.. FASEB Journal, 2013, 27, 789.15.	0.5	0
121	Dual RN-RDN program: Training for the future of health and nutrition. Clinical Nutrition ESPEN, 2022, 47, 288-292.	1.2	0
122	OUP accepted manuscript. American Journal of Clinical Nutrition, 2022, , .	4.7	0