Steven H Zeisel

List of Publications by Citations

306 papers	17,299 citations	76 h-index	121 g-index
330 ext. papers	19,247 ext. citations	4.6 avg, IF	7.1 L-index

#	Paper	IF	Citations
306	Choline: an essential nutrient for public health. *Nutrition Reviews*, **2009**, 67, 615-23	6.4	566
305	Concentrations of choline-containing compounds and betaine in common foods. *Journal of Nutrition*, **2003**, 133, 1302-7	4.1	498
304	Choline: critical role during fetal development and dietary requirements in adults. *Annual Review of Nutrition*, **2006**, 26, 229-50	9.9	480
303	Association between composition of the human gastrointestinal microbiome and development of fatty liver with choline deficiency. *Gastroenterology*, **2011**, 140, 976-86	13.3	424
302	Choline, an essential nutrient for humans. *FASEB Journal*, **1991**, 5, 2093-2098	0.9	370
301	Maternal nutrition at conception modulates DNA methylation of human metastable epialleles. *Nature Communications*, **2014**, 5, 3746	17.4	362
300	Diet, methyl donors and DNA methylation: interactions between dietary folate, methionine and choline. *Journal of Nutrition*, **2002**, 132, 2333S-2335S	4.1	359
299	Dietary choline: biochemistry, physiology, and pharmacology. *Annual Review of Nutrition*, **1981**, 1, 95-121	9.9	336
298	Choline metabolism provides novel insights into nonalcoholic fatty liver disease and its progression. *Current Opinion in Gastroenterology*, **2012**, 28, 159-65	3	258
297	Dietary choline deficiency alters global and gene-specific DNA methylation in the developing hippocampus of mouse fetal brains. *FASEB Journal*, **2006**, 20, 43-9	0.9	248
296	Choline: an essential nutrient for humans. *Nutrition*, **2000**, 16, 669-71	4.8	239
295	Quantitation of choline and its metabolites in tissues and foods by liquid chromatography/electrospray ionization-isotope dilution mass spectrometry. *Analytical Chemistry*, **2002**, 74, 4734-40	7.8	232
294	Clinical characteristics and pharmacokinetics of purified soy isoflavones: single-dose administration to healthy men. *American Journal of Clinical Nutrition*, **2002**, 75, 126-36	7	223
293	Sex and menopausal status influence human dietary requirements for the nutrient choline. *American Journal of Clinical Nutrition*, **2007**, 85, 1275-85	7	216
292	Trimethylamine N-Oxide, the Microbiome, and Heart and Kidney Disease. *Annual Review of Nutrition*, **2017**, 37, 157-181	9.9	204
291	S-adenosylhomocysteine hydrolase deficiency in a human: a genetic disorder of methionine metabolism. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 4234-9	11.5	178
290	Diet and carcinogenesis. *Carcinogenesis*, **1993**, 14, 2205-17	4.6	178

289	Polymorphism of the PEMT gene and susceptibility to nonalcoholic fatty liver disease (NAFLD). *FASEB Journal*, **2005**, 19, 1266-71	0.9	174
288	Importance of methyl donors during reproduction. *American Journal of Clinical Nutrition*, **2009**, 89, 673S-7S	7	171
287	Effect of egg ingestion on trimethylamine-N-oxide production in humans: a randomized, controlled, dose-response study. *American Journal of Clinical Nutrition*, **2014**, 100, 778-86	7	165
286	Common genetic polymorphisms affect the human requirement for the nutrient choline. *FASEB Journal*, **2006**, 20, 1336-44	0.9	163
285	Dietary choline and betaine assessed by food-frequency questionnaire in relation to plasma total homocysteine concentration in the Framingham Offspring Study. *American Journal of Clinical Nutrition*, **2006**, 83, 905-11	7	163
284	Genetic variation of folate-mediated one-carbon transfer pathway predicts susceptibility to choline deficiency in humans. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 16025-30	11.5	157
283	The fetal origins of memory: the role of dietary choline in optimal brain development. *Journal of Pediatrics*, **2006**, 149, S131-6	3.6	154
282	Epigenetic mechanisms for nutrition determinants of later health outcomes. *American Journal of Clinical Nutrition*, **2009**, 89, 1488S-1493S	7	152
281	Phosphatidylethanolamine N-methyltransferase (PEMT) gene expression is induced by estrogen in human and mouse primary hepatocytes. *FASEB Journal*, **2007**, 21, 2622-32	0.9	150
280	Choline availability alters embryonic development of the hippocampus and septum in the rat. *Developmental Brain Research*, **1999**, 113, 13-20		149
279	Choline, phosphatidylcholine and sphingomyelin in human and bovine milk and infant formulas. *Journal of Nutrition*, **1986**, 116, 50-8	4.1	149
278	Safety and pharmacokinetics of purified soy isoflavones: single-dose administration to postmenopausal women. *American Journal of Clinical Nutrition*, **2002**, 76, 1126-37	7	141
277	Deletion of betaine-homocysteine S-methyltransferase in mice perturbs choline and 1-carbon metabolism, resulting in fatty liver and hepatocellular carcinomas. *Journal of Biological Chemistry*, **2011**, 286, 36258-67	5.4	140
276	Choline deficiency-induced apoptosis in PC12 cells is associated with diminished membrane phosphatidylcholine and sphingomyelin, accumulation of ceramide and diacylglycerol, and activation of a caspase. *FASEB Journal*, **1999**, 13, 135-142	0.9	134
275	Homocysteine-betaine interactions in a murine model of 5,10-methylenetetrahydrofolate reductase deficiency. *FASEB Journal*, **2003**, 17, 512-4	0.9	130
274	Alteration of bile acid metabolism in the rat induced by chronic ethanol consumption. *FASEB Journal*, **2013**, 27, 3583-93	0.9	129
273	Choline deficiency alters global histone methylation and epigenetic marking at the Re1 site of the calbindin 1 gene. *FASEB Journal*, **2010**, 24, 184-95	0.9	128
272	Choline availability during embryonic development alters progenitor cell mitosis in developing mouse hippocampus. *Journal of Nutrition*, **2003**, 133, 3614-8	4.1	127

271	Folic acid deficiency during late gestation decreases progenitor cell proliferation and increases apoptosis in fetal mouse brain. *Journal of Nutrition*, **2004**, 134, 162-6	4.1	126
270	Antioxidants, programmed cell death, and cancer. *Nutrition Research*, **2001**, 21, 295-307	4	126
269	Synthesis of lecithin (phosphatidylcholine) from phosphatidylethanolamine in bovine brain. *Brain Research*, **1979**, 179, 319-27	3.7	126
268	Phosphatidylethanolamine-N-methyltransferase activity and dietary choline regulate liver-plasma lipid flux and essential fatty acid metabolism in mice. *Journal of Nutrition*, **2003**, 133, 3386-91	4.1	125
267	Evidence-based criteria in the nutritional context. *Nutrition Reviews*, **2010**, 68, 478-84	6.4	124
266	Carbohydrate craving in obese people: Suppression by treatments affecting serotoninergic transmission. *International Journal of Eating Disorders*, **1981**, 1, 2-15	6.3	124
265	Severe folate deficiency causes secondary depletion of choline and phosphocholine in rat liver. *Journal of Nutrition*, **1994**, 124, 2197-203	4.1	123
264	Status of nutrition education in medical schools. *American Journal of Clinical Nutrition*, **2006**, 83, 941S-944S	7	120
263	Perinatal choline influences brain structure and function. *Nutrition Reviews*, **2006**, 64, 197-203	6.4	120
262	Maternal dietary choline availability alters mitosis, apoptosis and the localization of TOAD-64 protein in the developing fetal rat septum. *Developmental Brain Research*, **1999**, 115, 123-9		120
261	Nutrition in medicine: nutrition education for medical students and residents. *Nutrition in Clinical Practice*, **2010**, 25, 471-80	3.6	119
260	Choline deficiency in mice and humans is associated with increased plasma homocysteine concentration after a methionine load. *American Journal of Clinical Nutrition*, **2005**, 81, 440-4	7	118
259	Altered mitochondrial function and overgeneration of reactive oxygen species precede the induction of apoptosis by 1-O-octadecyl-2-methyl-rac-glycero-3-phosphocholine in p53-defective hepatocytes. *FASEB Journal*, **2001**, 15, 1739-44	0.9	117
258	Nutritional importance of choline for brain development. *Journal of the American College of Nutrition*, **2004**, 23, 621S-626S	3.5	112
257	Choline metabolism and risk of breast cancer in a population-based study. *FASEB Journal*, **2008**, 22, 2045-52	6.9	111
256	Usual choline and betaine dietary intake and incident coronary heart disease: the Atherosclerosis Risk in Communities (ARIC) study. *BMC Cardiovascular Disorders*, **2007**, 7, 20	2.3	110
255	Conversion of dietary choline to trimethylamine and dimethylamine in rats: dose-response relationship. *Journal of Nutrition*, **1989**, 119, 800-4	4.1	109
254	Choline: needed for normal development of memory. *Journal of the American College of Nutrition*, **2000**, 19, 528S-531S	3.5	108

253	Perturbations in choline metabolism cause neural tube defects in mouse embryos in vitro. *FASEB Journal*, **2002**, 16, 619-21	0.9	103
252	Maternal dietary choline deficiency alters angiogenesis in fetal mouse hippocampus. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 12834-9	11.5	102
251	Phosphatidylethanolamine N-methyltransferase (PEMT) knockout mice have hepatic steatosis and abnormal hepatic choline metabolite concentrations despite ingesting a recommended dietary intake of choline. *Biochemical Journal*, **2003**, 370, 987-93	3.8	102
250	DNA methylation potential: dietary intake and blood concentrations of one-carbon metabolites and cofactors in rural African women. *American Journal of Clinical Nutrition*, **2013**, 97, 1217-27	7	101
249	Failure to thrive. *Pediatric Clinics of North America*, **1988**, 35, 1187-206	3.6	100
248	Choline, Other Methyl-Donors and Epigenetics. *Nutrients*, **2017**, 9,	6.7	96
247	Measurement of choline and choline metabolite concentrations using high-pressure liquid chromatography and gas chromatography-mass spectrometry. *Analytical Biochemistry*, **1989**, 180, 85-90	3.1	95
246	Choline deficiency increases lymphocyte apoptosis and DNA damage in humans. *American Journal of Clinical Nutrition*, **2006**, 84, 88-94	7	94
245	Microbiota-Dependent Metabolite Trimethylamine N-Oxide and Coronary Artery Calcium in the Coronary Artery Risk Development in Young Adults Study (CARDIA). *Journal of the American Heart Association*, **2016**, 5,	6	92
244	Metabolomic profiling can predict which humans will develop liver dysfunction when deprived of dietary choline. *FASEB Journal*, **2010**, 24, 2962-75	0.9	92
243	Choline intake and genetic polymorphisms influence choline metabolite concentrations in human breast milk and plasma. *American Journal of Clinical Nutrition*, **2010**, 92, 336-46	7	90
242	Elevated serum creatine phosphokinase in choline-deficient humans: mechanistic studies in C2C12 mouse myoblasts. *American Journal of Clinical Nutrition*, **2004**, 80, 163-70	7	90
241	Clinical characteristics and pharmacokinetics of purified soy isoflavones: multiple-dose administration to men with prostate neoplasia. *Nutrition and Cancer*, **2004**, 48, 160-70	2.8	87
240	Choline deficiency induces apoptosis in SV40-immortalized CWSV-1 rat hepatocytes in culture. *FASEB Journal*, **1996**, 10, 510-6	0.9	87
239	Lack of significant genotoxicity of purified soy isoflavones (genistein, daidzein, and glycitein) in 20 patients with prostate cancer. *American Journal of Clinical Nutrition*, **2003**, 77, 875-82	7	86
238	Lecithin and choline in human health and disease. *Nutrition Reviews*, **1994**, 52, 327-39	6.4	85
237	Second trimester folate status and preterm birth. *American Journal of Obstetrics and Gynecology*, **2004**, 191, 1851-7	6.4	84
236	The association between betaine and choline intakes and the plasma concentrations of homocysteine in women. *American Journal of Clinical Nutrition*, **2007**, 86, 1073-81	7	83

235	Dietary choline and betaine and the risk of distal colorectal adenoma in women. *Journal of the National Cancer Institute*, **2007**, 99, 1224-31	9.7	81
234	Homocysteine metabolism in ZDF (type 2) diabetic rats. *Diabetes*, **2005**, 54, 3245-51	0.9	81
233	Choline deficiency. *Journal of Nutritional Biochemistry*, **1990**, 1, 332-49	6.3	81
232	The nutritional phenotype in the age of metabolomics. *Journal of Nutrition*, **2005**, 135, 1613-6	4.1	78
231	Choline availability modulates human neuroblastoma cell proliferation and alters the methylation of the promoter region of the cyclin-dependent kinase inhibitor 3 gene. *Journal of Neurochemistry*, **2004**, 89, 1252-9	6	77
230	Dietary choline requirements of women: effects of estrogen and genetic variation. *American Journal of Clinical Nutrition*, **2010**, 92, 1113-9	7	75
229	High intakes of choline and betaine reduce breast cancer mortality in a population-based study. *FASEB Journal*, **2009**, 23, 4022-8	0.9	75
228	Understanding the role of nutrition in the brain and behavioral development of toddlers and preschool children: identifying and addressing methodological barriers. *Nutritional Neuroscience*, **2009**, 12, 190-202	3.6	72
227	BRCA1 promoter methylation is associated with increased mortality among women with breast cancer. *Breast Cancer Research and Treatment*, **2009**, 115, 397-404	4.4	72
226	The role of dietary supplements during cancer therapy. *Journal of Nutrition*, **2003**, 133, 3794S-3799S	4.1	71
225	Aberrant estrogen regulation of PEMT results in choline deficiency-associated liver dysfunction. *Journal of Biological Chemistry*, **2011**, 286, 1649-58	5.4	67
224	Choline supplementation in children with fetal alcohol spectrum disorders: a randomized, double-blind, placebo-controlled trial. *American Journal of Clinical Nutrition*, **2015**, 102, 1113-25	7	66
223	Dietary choline deficiency causes DNA strand breaks and alters epigenetic marks on DNA and histones. *Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis*, **2012**, 733, 34-8	3.3	66
222	Phosphatidylcholine supplementation in pregnant women consuming moderate-choline diets does not enhance infant cognitive function: a randomized, double-blind, placebo-controlled trial. *American Journal of Clinical Nutrition*, **2012**, 96, 1465-72	7	66
221	Nutrigenomics and metabolomics will change clinical nutrition and public health practice: insights from studies on dietary requirements for choline. *American Journal of Clinical Nutrition*, **2007**, 86, 542-8	7	66
220	Inhibitors of choline uptake and metabolism cause developmental abnormalities in neurulating mouse embryos. *Teratology*, **2001**, 64, 114-22		66
219	The measurement of dimethylamine, trimethylamine, and trimethylamine N-oxide using capillary gas chromatography-mass spectrometry. *Analytical Biochemistry*, **1990**, 187, 234-9	3.1	66
218	Diet and sleep patterns in newborn infants. *New England Journal of Medicine*, **1983**, 309, 1147-9	59.2	65

217	Elevated choline concentration in neonatal plasma. *Life Sciences*, **1980**, 26, 1827-31	6.8	64
216	Nutritional genomics: defining the dietary requirement and effects of choline. *Journal of Nutrition*, **2011**, 141, 531-4	4.1	63
215	Efficacy of Maternal Choline Supplementation During Pregnancy in Mitigating Adverse Effects of Prenatal Alcohol Exposure on Growth and Cognitive Function: A Randomized, Double-Blind, Placebo-Controlled Clinical Trial. *Alcoholism: Clinical and Experimental Research*, **2018**, 42, 1327-1341	3.7	63
214	Choline's role in maintaining liver function: new evidence for epigenetic mechanisms. *Current Opinion in Clinical Nutrition and Metabolic Care*, **2013**, 16, 339-45	3.8	61
213	Mitochondrial and microsomal derived reactive oxygen species mediate apoptosis induced by transforming growth factor-beta1 in immortalized rat hepatocytes. *Journal of Cellular Biochemistry*, **2003**, 89, 254-61	4.7	60
212	Metabolic crosstalk between choline/1-carbon metabolism and energy homeostasis. *Clinical Chemistry and Laboratory Medicine*, **2013**, 51, 467-75	5.9	59
211	Quantitative analysis of the principle soy isoflavones genistein, daidzein and glycitein, and their primary conjugated metabolites in human plasma and urine using reversed-phase high-performance liquid chromatography with ultraviolet detection. *Biomedical Applications*, **2001**, 760, 191-205		58
210	Effect of chronic choline deficiency in rats on liver folate content and distribution. *Journal of Nutritional Biochemistry*, **1992**, 3, 519-522	6.3	58
209	Gene response elements, genetic polymorphisms and epigenetics influence the human dietary requirement for choline. *IUBMB Life*, **2007**, 59, 380-7	4.7	56
208	Dietary isoflavones differentially induce gene expression changes in lymphocytes from postmenopausal women who form equol as compared with those who do not. *Journal of Nutritional Biochemistry*, **2007**, 18, 380-90	6.3	56
207	Choline deficiency induces apoptosis in primary cultures of fetal neurons. *FASEB Journal*, **2001**, 15, 1704-10	6.9	56
206	Bioavailability of choline and choline esters from milk in rat pups. *Journal of Nutritional Biochemistry*, **1996**, 7, 457-464	6.3	56
205	Nutrition in pregnancy: the argument for including a source of choline. *International Journal of Women's Health*, **2013**, 5, 193-9	2.8	55
204	Effects of choline deficiency and methotrexate treatment upon rat liver. *Journal of Nutritional Biochemistry*, **1990**, 1, 533-41	6.3	55
203	A brief history of choline. *Annals of Nutrition and Metabolism*, **2012**, 61, 254-8	4.5	54
202	Dietary choline reverses some, but not all, effects of folate deficiency on neurogenesis and apoptosis in fetal mouse brain. *Journal of Nutrition*, **2010**, 140, 1162-6	4.1	54
201	Impact of Frequency of Multi-Vitamin/Multi-Mineral Supplement Intake on Nutritional Adequacy and Nutrient Deficiencies in U.S. Adults. *Nutrients*, **2017**, 9,	6.7	53
200	Choline: Dietary Requirements and Role in Brain Development. *Nutrition Today*, **2007**, 42, 181-186	1.6	53

199	Is maternal diet supplementation beneficial? Optimal development of infant depends on mother's diet. *American Journal of Clinical Nutrition*, **2009**, 89, 685S-7S	7	50
198	Ad libitum choline intake in healthy individuals meets or exceeds the proposed adequate intake level. *Journal of Nutrition*, **2005**, 135, 826-9	4.1	49
197	Repeatability and measurement error in the assessment of choline and betaine dietary intake: the Atherosclerosis Risk in Communities (ARIC) study. *Nutrition Journal*, **2009**, 8, 14	4.3	47
196	Dietary Modulation of the Epigenome. *Physiological Reviews*, **2018**, 98, 667-695	47.9	46
195	Choline supplementation in children with fetal alcohol spectrum disorders has high feasibility and tolerability. *Nutrition Research*, **2013**, 33, 897-904	4	46
194	Identification of new genetic polymorphisms that alter the dietary requirement for choline and vary in their distribution across ethnic and racial groups. *FASEB Journal*, **2014**, 28, 2970-8	0.9	46
193	Deletion of murine choline dehydrogenase results in diminished sperm motility. *FASEB Journal*, **2010**, 24, 2752-61	0.9	46
192	Choline- and betaine-defined diets for use in clinical research and for the management of trimethylaminuria. *Journal of the American Dietetic Association*, **2004**, 104, 1836-45		46
191	Effects of prolonged (1 year) choline deficiency and subsequent re-feeding of choline on 1,2-sn-diradylglycerol, fatty acids and protein kinase C in rat liver. *Carcinogenesis*, **1995**, 16, 327-34	4.6	46
190	The epigenetic effects of a high prenatal folate intake in male mouse fetuses exposed in utero to arsenic. *Toxicology and Applied Pharmacology*, **2012**, 264, 439-50	4.6	45
189	Docosahexaenoic acid in plasma phosphatidylcholine may be a potential marker for in vivo phosphatidylethanolamine N-methyltransferase activity in humans. *American Journal of Clinical Nutrition*, **2011**, 93, 968-74	7	45
188	What choline metabolism can tell us about the underlying mechanisms of fetal alcohol spectrum disorders. *Molecular Neurobiology*, **2011**, 44, 185-91	6.2	44
187	Methyl-group donors cannot prevent apoptotic death of rat hepatocytes induced by choline-deficiency. *Journal of Cellular Biochemistry*, **1997**, 64, 196-208	4.7	44
186	Maternal choline availability alters the localization of p15Ink4B and p27Kip1 cyclin-dependent kinase inhibitors in the developing fetal rat brain hippocampus. *Developmental Neuroscience*, **2001**, 23, 100-6	2.2	44
185	Spectral deconvolution for gas chromatography mass spectrometry-based metabolomics: current status and future perspectives. *Computational and Structural Biotechnology Journal*, **2013**, 4, e201301013	6.8	43
184	Folic acid deficiency induces premature hearing loss through mechanisms involving cochlear oxidative stress and impairment of homocysteine metabolism. *FASEB Journal*, **2015**, 29, 418-32	0.9	42
183	Rapid LC-MRM-MS assay for simultaneous quantification of choline, betaine, trimethylamine, trimethylamine N-oxide, and creatinine in human plasma and urine. *Electrophoresis*, **2015**, 36, 2207-2214	3.6	42
182	Choline availability during embryonic development alters the localization of calretinin in developing and aging mouse hippocampus. *Nutritional Neuroscience*, **2003**, 6, 129-34	3.6	42

181	Choline and betaine intake and the risk of colorectal cancer in men. *Cancer Epidemiology Biomarkers and Prevention*, **2010**, 19, 884-7	4	41
180	Choline intake and risk of lethal prostate cancer: incidence and survival. *American Journal of Clinical Nutrition*, **2012**, 96, 855-63	7	41
179	The betaine and choline content of a whole wheat flour compared to other mill streams. *Journal of Cereal Science*, **2007**, 46, 93-95	3.8	41
178	Regulation of choline deficiency apoptosis by epidermal growth factor in CWSV-1 rat hepatocytes. *Cellular Physiology and Biochemistry*, **2005**, 15, 59-68	3.9	40
177	An in vitro study of choline uptake by intestine from neonatal and adult rats. *Pediatric Research*, **1986**, 20, 768-72	3.2	40
176	Mono-, di- and trimethylamine in human gastric fluid: potential substrates for nitrosodimethylamine formation. *Carcinogenesis*, **1988**, 9, 179-81	4.6	40
175	Gene expression profiling of choline-deprived neural precursor cells isolated from mouse brain. *Molecular Brain Research*, **2005**, 134, 309-22		39
174	Interactions Between Nuclear Receptor SHP and FOXA1 Maintain Oscillatory Homocysteine Homeostasis in Mice. *Gastroenterology*, **2015**, 148, 1012-1023.e14	13.3	38
173	The supply of choline is important for fetal progenitor cells. *Seminars in Cell and Developmental Biology*, **2011**, 22, 624-8	7.5	38
172	Deficiency in methionine, tryptophan, isoleucine, or choline induces apoptosis in cultured cells. *Journal of Nutrition*, **2002**, 132, 1840-7	4.1	38
171	Choline, homocysteine, and pregnancy. *American Journal of Clinical Nutrition*, **2005**, 82, 719-20	7	38
170	Choline: The Underconsumed and Underappreciated Essential Nutrient. *Nutrition Today*, **2018**, 53, 240-253	1.6	38
169	Contribution of Dietary Supplements to Nutritional Adequacy in Various Adult Age Groups. *Nutrients*, **2017**, 9,	6.7	37
168	Effects of a high daily dose of soy isoflavones on DNA damage, apoptosis, and estrogenic outcomes in healthy postmenopausal women: a phase I clinical trial. *Menopause*, **2008**, 15, 684-92	2.5	37
167	Maternal dietary intake of choline in mice regulates development of the cerebral cortex in the offspring. *FASEB Journal*, **2016**, 30, 1566-78	0.9	37
166	Opposing regulation of choline deficiency-induced apoptosis by p53 and nuclear factor kappaB. *Journal of Biological Chemistry*, **2001**, 276, 41197-204	5.4	36
165	Diethanolamine induces hepatic choline deficiency in mice. *Toxicological Sciences*, **2002**, 67, 38-45	4.4	36
164	Perspective: Dietary Biomarkers of Intake and Exposure-Exploration with Omics Approaches. *Advances in Nutrition*, **2020**, 11, 200-215	10	35

163	Genetic polymorphisms in methyl-group metabolism and epigenetics: lessons from humans and mouse models. *Brain Research*, **2008**, 1237, 5-11	3.7	35
162	Choline. *Advances in Nutrition*, **2018**, 9, 58-60	10	34
161	Antioxidants suppress apoptosis. *Journal of Nutrition*, **2004**, 134, 3179S-3180S	4.1	34
160	Glycerophosphocholine and phosphocholine are the major choline metabolites in rat milk. *Journal of Nutrition*, **1993**, 123, 1762-8	4.1	34
159	Dietary docosahexaenoic acid supplementation modulates hippocampal development in the Pemt-/- mouse. *Journal of Biological Chemistry*, **2010**, 285, 1008-15	5.4	33
158	Four-year follow-up of a randomized controlled trial of choline for neurodevelopment in fetal alcohol spectrum disorder. *Journal of Neurodevelopmental Disorders*, **2020**, 12, 9	4.6	32
157	Precision (Personalized) Nutrition: Understanding Metabolic Heterogeneity. *Annual Review of Food Science and Technology*, **2020**, 11, 71-92	14.7	32
156	Genotype, B-vitamin status, and androgens affect spaceflight-induced ophthalmic changes. *FASEB Journal*, **2016**, 30, 141-8	0.9	32
155	Genetic signatures in choline and 1-carbon metabolism are associated with the severity of hepatic steatosis. *FASEB Journal*, **2013**, 27, 1674-89	0.9	32
154	Choline availability modulates the expression of TGFbeta1 and cytoskeletal proteins in the hippocampus of developing rat brain. *Neurochemical Research*, **1998**, 23, 751-8	4.6	32
153	Are dietary choline and betaine intakes determinants of total homocysteine concentration?. *American Journal of Clinical Nutrition*, **2010**, 91, 1303-10	7	31
152	Mouse betaine-homocysteine S-methyltransferase deficiency reduces body fat via increasing energy expenditure and impairing lipid synthesis and enhancing glucose oxidation in white adipose tissue. *Journal of Biological Chemistry*, **2012**, 287, 16187-98	5.4	31
151	Astronaut ophthalmic syndrome. *FASEB Journal*, **2017**, 31, 3746-3756	0.9	30
150	Metabolomic Approaches to Explore Chemical Diversity of Human Breast-Milk, Formula Milk and Bovine Milk. *International Journal of Molecular Sciences*, **2016**, 17,	6.3	30
149	Choline and its metabolites are differently associated with cardiometabolic risk factors, history of cardiovascular disease, and MRI-documented cerebrovascular disease in older adults. *American Journal of Clinical Nutrition*, **2017**, 105, 1283-1290	7	29
148	Choline deficiency causes increased localization of transforming growth factor-beta1 signaling proteins and apoptosis in the rat liver. *Pathobiology*, **1997**, 65, 264-70	3.6	29
147	Deletion of the Pemt gene increases progenitor cell mitosis, DNA and protein methylation and decreases calretinin expression in embryonic day 17 mouse hippocampus. *Developmental Brain Research*, **2004**, 149, 121-9		29
146	Choline and hepatocarcinogenesis in the rat. *Advances in Experimental Medicine and Biology*, **1995**, 375, 65-74	3.6	29

145	Maternal dietary choline availability alters the balance of netrin-1 and DCC neuronal migration proteins in fetal mouse brain hippocampus. *Developmental Brain Research*, **2005**, 159, 149-54		28
144	Liver transplantation for treatment of severe S-adenosylhomocysteine hydrolase deficiency. *Molecular Genetics and Metabolism*, **2015**, 116, 44-52	3.7	27
143	Adiponectin lowers glucose production by increasing SOGA. *American Journal of Pathology*, **2010**, 177, 1936-45	5.8	27
142	The evolution of Nutrition in Medicine, a computer-assisted nutrition curriculum. *American Journal of Clinical Nutrition*, **2006**, 83, 956S-962S	7	25
141	Getting nutrition education into medical schools: a computer-based approach. *American Journal of Clinical Nutrition*, **2000**, 72, 868S-76S	7	25
140	Inadequate intake of nutrients essential for neurodevelopment in children with fetal alcohol spectrum disorders (FASD). *Neurotoxicology and Teratology*, **2013**, 39, 128-32	3.9	23
139	Contribution of Dietary Supplements to Nutritional Adequacy by Socioeconomic Subgroups in Adults of the United States. *Nutrients*, **2017**, 10,	6.7	23
138	1,2-sn-diacylglycerol accumulates in choline-deficient liver. A possible mechanism of hepatic carcinogenesis via alteration in protein kinase C activity?. *FEBS Letters*, **1989**, 243, 267-70	3.8	22
137	Choline dehydrogenase polymorphism rs12676 is a functional variation and is associated with changes in human sperm cell function. *PLoS ONE*, **2012**, 7, e36047	3.7	21
136	Effects of betaine in a murine model of mild cystathionine-beta-synthase deficiency. *Metabolism: Clinical and Experimental*, **2004**, 53, 594-9	12.7	21
135	Choline. *Advances in Experimental Medicine and Biology*, **1996**, 131-141	3.6	21
134	Lymphocyte gene expression in subjects fed a low-choline diet differs between those who develop organ dysfunction and those who do not. *American Journal of Clinical Nutrition*, **2007**, 86, 230-9	7	20
133	Betaine Supplementation and Blood Lipids: Fact or Artifact?. *Nutrition Reviews*, **2006**, 64, 77-79	6.4	20
132	Is there a metabolic basis for dietary supplementation?. *American Journal of Clinical Nutrition*, **2000**, 72, 507S-11S	7	20
131	Contribution of Dietary Supplements to Nutritional Adequacy in Race/Ethnic Population Subgroups in the United States. *Nutrients*, **2017**, 9,	6.7	18
130	Formation of trimethylamine from dietary choline by Streptococcus sanguis I, which colonizes the mouth. *Journal of Nutritional Biochemistry*, **1990**, 1, 89-97	6.3	17
129	Procarbazine carcinogenicity in methotrexate-treated or lipotrope-deficient male rats. *Carcinogenesis*, **1990**, 11, 1491-5	4.6	17
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50	Foodborne Infections and Food Safety **2012**, 1206-1221		1
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30 Food Biofortification: Breeding and Biotechnology Approaches to Improve Nutrients in Vegetables and Oil Quality in Soybean **2012**, 1236-1254

29 Bioactive Components in Foods and Supplements for Health Promotion **2012**, 1255-1267

28 Energy Intake, Obesity, and Eating Behavior **2012**, 1043-1056

27 Carotenoids **2012**, 185-198

26 Genetic Variation and Nutrient Metabolism **2012**, 27-37

25 Nutrition and Gastrointestinal Illness **2012**, 857-873

24 Kidney Disease **2012**, 874-888

23 Liver Disease **2012**, 889-911

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List of Publications

1 The Nutrigenetics of Choline **2020**, 303-308