RenÃ© L Jacobs

List of Publications by Year
in descending order

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102	5,581	94381	85498
papers	citations	37	71
		h-index	g-index

103	103	103	8036
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The critical role of phosphatidylcholine and phosphatidylethanolamine metabolism in health and disease. Biochimica Et Biophysica Acta - Biomembranes, 2017, 1859, 1558-1572.	1.4	804
2	Increased Hepatic CD36 Expression Contributes to Dyslipidemia Associated With Diet-Induced Obesity. Diabetes, 2007, 56, 2863-2871.	0.3	395
3	A Conserved SREBP-1/Phosphatidylcholine Feedback Circuit Regulates Lipogenesis in Metazoans. Cell, 2011, 147, 840-852.	13.5	373
4	Is it time to reevaluate methyl balance in humans?. American Journal of Clinical Nutrition, 2006, 83, 5-10.	2.2	247
5	Effects of streptozotocin-induced diabetes and of insulin treatment on homocysteine metabolism in the rat. Diabetes, 1998, 47, 1967-1970.	0.3	170
6	Impaired de Novo Choline Synthesis Explains Why Phosphatidylethanolamine N-Methyltransferase-deficient Mice Are Protected from Diet-induced Obesity. Journal of Biological Chemistry, 2010, 285, 22403-22413.	1.6	168
7	Methyl balance and transmethylation fluxes in humans. American Journal of Clinical Nutrition, 2007, 85, 19-25.	2.2	161
8	Targeted Deletion of Hepatic CTP:phosphocholine Cytidylyltransferase Î± in Mice Decreases Plasma High Density and Very Low Density Lipoproteins. Journal of Biological Chemistry, 2004, 279, 47402-47410.	1.6	154
9	Methylation demand and homocysteine metabolism: effects of dietary provision of creatine and guanidinoacetate. American Journal of Physiology - Endocrinology and Metabolism, 2001, 281, E1095-E1100.	1.8	149
10	Novel insights on interactions between folate and lipid metabolism. BioFactors, 2014, 40, 277-283.	2.6	149
11	Hormonal Regulation of Cystathionine Î²-Synthase Expression in Liver. Journal of Biological Chemistry, 2002, 277, 42912-42918.	1.6	126
12	Tamoxifen induces triacylglycerol accumulation in the mouse liver by activation of fatty acid synthesis. Hepatology, 2010, 52, 1258-1265.	3.6	95
13	Increased hepatic CD36 expression with age is associated with enhanced susceptibility to nonalcoholic fatty liver disease. Aging, 2014, 6, 281-295.	1.4	93
14	A systematic review on the effect of sweeteners on glycemic response and clinically relevant outcomes. BMC Medicine, 2011, 9, 123.	2.3	89
15	Physiological Regulation of Phospholipid Methylation Alters Plasma Homocysteine in Mice. Journal of Biological Chemistry, 2005, 280, 28299-28305.	1.6	85
16	The Concentration of Phosphatidylethanolamine in Mitochondria Can Modulate ATP Production and Glucose Metabolism in Mice. Diabetes, 2014, 63, 2620-2630.	0.3	80
17	Hepatic ratio of phosphatidylcholine to phosphatidylethanolamine predicts survival after partial hepatectomy in mice. Hepatology, 2012, 55, 1094-1102.	3.6	77
18	Betaine supplementation prevents fatty liver induced by a high-fat diet: effects on one-carbon metabolism. Amino Acids, 2015, 47, 839-846.	1.2	74

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19	Hepatic CTP:Phosphocholine Cytidylyltransferase-Î± Is a Critical Predictor of Plasma High Density Lipoprotein and Very Low Density Lipoprotein. Journal of Biological Chemistry, 2008, 283, 2147-2155.	1.6	71
20	Regulation of homocysteine metabolism. Advances in Enzyme Regulation, 1999, 39, 69-91.	2.9	70
21	Lack of Phosphatidylethanolamine N -Methyltransferase Alters Plasma VLDL Phospholipids and Attenuates Atherosclerosis in Mice. Arteriosclerosis, Thrombosis, and Vascular Biology, 2009, 29, 1349-1355.	1.1	69
22	Estimation of choline intake from 24 h dietary intake recalls and contribution of egg and milk consumption to intake among pregnant and lactating women in Alberta. British Journal of Nutrition, 2014, 112, 112-121.	1.2	69
23	Validation of an LCâ€“MS/MS method for the quantification of choline-related compounds and phospholipids in foods and tissues. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2012, 911, 170-179.	1.2	68
24	Dietary Choline or Trimethylamine N-oxide Supplementation Does Not Influence Atherosclerosis Development in Ldlr-/- and Apoe-/- Male Mice. Journal of Nutrition, 2020, 150, 249-255.	1.3	66
25	Hepatic Phosphatidylethanolamine N-Methyltransferase, Unexpected Roles in Animal Biochemistry and Physiology. Journal of Biological Chemistry, 2007, 282, 33237-33241.	1.6	63
26	Diets enriched in trans-11 vaccenic acid alleviate ectopic lipid accumulation in a rat model of NAFLD and metabolic syndrome. Journal of Nutritional Biochemistry, 2014, 25, 692-701.	1.9	62
27	Alterations in Skeletal Muscle Fatty Acid Handling Predisposes Middle-Aged Mice to Diet-Induced Insulin Resistance. Diabetes, 2010, 59, 1366-1375.	0.3	60
28	Creatine Supplementation Prevents the Accumulation of Fat in the Livers of Rats Fed a High-Fat Diet,. Journal of Nutrition, 2011, 141, 1799-1804.	1.3	56
29	Increased CD36 expression in middle-aged mice contributes to obesity-related cardiac hypertrophy in the absence of cardiac dysfunction. Journal of Molecular Medicine, 2011, 89, 459-469.	1.7	55
30	Hyperglucagonemia in Rats Results in Decreased Plasma Homocysteine and Increased Flux through the Transsulfuration Pathway in Liver. Journal of Biological Chemistry, 2001, 276, 43740-43747.	1.6	53
31	Phosphatidylcholine protects against steatosis in mice but not non-alcoholic steatohepatitis. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2011, 1811, 1177-1185.	1.2	52
32	Inhibition of Hepatic Phosphatidylcholine Synthesis by 5-Aminoimidazole-4-carboxamide-1-Î²-4-ribofuranoside Is Independent of AMP-activated Protein Kinase Activation. Journal of Biological Chemistry, 2007, 282, 4516-4523.	1.6	51
33	Finding the balance: The role ofS-adenosylmethionine and phosphatidylcholine metabolism in development of nonalcoholic fatty liver disease. Hepatology, 2013, 58, 1207-1209.	3.6	48
34	Choline Supplementation Protects against Liver Damage by Normalizing Cholesterol Metabolism in Pemt/Ldlr Knockout Mice Fed a High-Fat Diet. Journal of Nutrition, 2014, 144, 252-257.	1.3	46
35	Vitamin E alleviates non-alcoholic fatty liver disease in phosphatidylethanolamine N-methyltransferase deficient mice. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2019, 1865, 14-25.	1.8	42
36	A role for phosphatidylcholine and phosphatidylethanolamine in hepatic insulin signaling. FASEB Journal, 2019, 33, 5045-5057.	0.2	40

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37	Methylation demand and homocysteine metabolism. Advances in Enzyme Regulation, 2004, 44, 321-333.	2.9	39
38	Functional characterization of enzymes catalyzing ceramide phosphoethanolamine biosynthesis in mice. Journal of Lipid Research, 2015, 56, 821-835.	2.0	39
39	Excess Folic Acid Increases Lipid Storage, Weight Gain, and Adipose Tissue Inflammation in High Fat Diet-Fed Rats. Nutrients, 2016, 8, 594.	1.7	39
40	Choline deficiency impairs intestinal lipid metabolism in the lactating rat. Journal of Nutritional Biochemistry, 2015, 26, 1077-1083.	1.9	38
41	Lack of phosphatidylethanolamine N-methyltransferase alters hepatic phospholipid composition and induces endoplasmic reticulum stress. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2015, 1852, 2689-2699.	1.8	38
42	Impact of Egg Consumption on Cardiovascular Risk Factors in Individuals with Type 2 Diabetes and at Risk for Developing Diabetes: A Systematic Review of Randomized Nutritional Intervention Studies. Canadian Journal of Diabetes, 2017, 41, 453-463.	0.4	38
43	Interactions between the consumption of a high-fat diet and fasting in the regulation of fatty acid oxidation enzyme gene expression: an evaluation of potential mechanisms. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2011, 300, R212-R221.	0.9	36
44	The Form of Choline in the Maternal Diet Affects Immune Development in Suckled Rat Offspring. Journal of Nutrition, 2016, 146, 823-830.	1.3	36
45	Creatine reduces hepatic TG accumulation in hepatocytes by stimulating fatty acid oxidation. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2014, 1841, 1639-1646.	1.2	35
46	Hepatic PEMT activity mediates liver health, weight gain, and insulin resistance. FASEB Journal, 2019, 33, 10986-10995.	0.2	35
47	Folate, vitamin B₁₂, and vitamin B₆status of a group of high socioeconomic status women in the Alberta Pregnancy Outcomes and Nutrition (APrON) cohort. Applied Physiology, Nutrition and Metabolism, 2014, 39, 1402-1408.	0.9	34
48	Pioglitazone attenuates hepatic inflammation and fibrosis in phosphatidylethanolamineN-methyltransferase-deficient mice. American Journal of Physiology - Renal Physiology, 2016, 310, G526-G538.	1.6	32
49	Choline Deficiency Attenuates Body Weight Gain and Improves Glucose Tolerance in ob/ob Mice. Journal of Obesity, 2012, 2012, 1-7.	1.1	31
50	Novel proteinâ€“lipid composite nanoparticles with an inner aqueous compartment as delivery systems of hydrophilic nutraceutical compounds. Nanoscale, 2018, 10, 10629-10640.	2.8	29
51	Intestinal de novo phosphatidylcholine synthesis is required for dietary lipid absorption and metabolic homeostasis. Journal of Lipid Research, 2018, 59, 1695-1708.	2.0	29
52	Hepatic Phosphatidylethanolamine N-Methyltransferase Expression Is Increased in Diabetic Rats. Journal of Nutrition, 2006, 136, 3005-3009.	1.3	27
53	Decreased lipogenesis in white adipose tissue contributes to the resistance to high fat diet-induced obesity in phosphatidylethanolamine N-methyltransferase-deficient mice. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2015, 1851, 152-162.	1.2	26
54	Choline Supplementation Promotes Hepatic Insulin Resistance in Phosphatidylethanolamine N-Methyltransferase-deficient Mice via Increased Glucagon Action. Journal of Biological Chemistry, 2013, 288, 837-847.	1.6	23

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55	Choline is required in the diet of lactating dams to maintain maternal immune function. British Journal of Nutrition, 2015, 113, 1723-1731.	1.2	21
56	Intestinal Phospholipid Disequilibrium Initiates an ER Stress Response That Drives Goblet Cell Necroptosis and Spontaneous Colitis in Mice. Cellular and Molecular Gastroenterology and Hepatology, 2021, 11, 999-1021.	2.3	20
57	Dietary creatine supplementation lowers hepatic triacylglycerol by increasing lipoprotein secretion in rats fed high-fat diet. Journal of Nutritional Biochemistry, 2017, 50, 46-53.	1.9	19
58	Should the forms of dietary choline also be considered when estimating dietary intake and the implications for health?. Lipid Technology, 2015, 27, 227-230.	0.3	18
59	Fenofibrate, but not ezetimibe, prevents fatty liver disease in mice lacking phosphatidylethanolamine N-methyltransferase. Journal of Lipid Research, 2017, 58, 656-667.	2.0	18
60	Total Choline and Choline-Containing Moieties of Commercially Available Pulses. Plant Foods for Human Nutrition, 2014, 69, 115-121.	1.4	17
61	Tissue Specific Effects of Dietary Carbohydrates and Obesity on ChREBPÎ± and ChREBPÎ² Expression. Lipids, 2016, 51, 95-104.	0.7	16
62	Antimicrobial activity in the egg wax of the tick Amblyomma hebraeum (Acari: Ixodidae) is associated with free fatty acids C16:1 and C18:2. Experimental and Applied Acarology, 2012, 58, 453-470.	0.7	15
63	Vagus nerve contributes to the development of steatohepatitis and obesity in phosphatidylethanolamine N-methyltransferase deficient mice. Journal of Hepatology, 2015, 62, 913-920.	1.8	15
64	Measurement of the total choline content in 48 commercial dairy products or dairy alternatives. Journal of Food Composition and Analysis, 2016, 45, 1-8.	1.9	15
65	Activation of Liver mTORC1 Protects Against NASH via Dual Regulation of VLDL-TAG Secretion and De Novo Lipogenesis. Cellular and Molecular Gastroenterology and Hepatology, 2022, 13, 1625-1647.	2.3	15
66	Cystathionine beta-synthase deficiency alters hepatic phospholipid and choline metabolism: Post-translational repression of phosphatidylethanolamine N -methyltransferase is a consequence rather than a cause of liver injury in homocystinuria. Molecular Genetics and Metabolism, 2017, 120, 325-336.	0.5	13
67	Dietary phosphatidylcholine supplementation reduces atherosclerosis in Ldlr male mice2. Journal of Nutritional Biochemistry, 2021, 92, 108617.	1.9	13
68	Endoplasmic reticulum-localized hepatic lipase decreases triacylglycerol storage and VLDL secretion. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2013, 1831, 1113-1123.	1.2	12
69	Feeding a diet devoid of choline to lactating rodents restricts growth and lymphocyte development in offspring. British Journal of Nutrition, 2016, 116, 1001-1012.	1.2	12
70	Simultaneous determination of trimethylamine and trimethylamine Nâ€oxide in mouse plasma samples by hydrophilic interaction liquid chromatography coupled to tandem mass spectrometry. Journal of Separation Science, 2017, 40, 688-696.	1.3	12
71	Feeding a Mixture of Choline Forms to Lactating Dams Improves the Development of the Immune System in Sprague-Dawley Rat Offspring. Nutrients, 2017, 9, 567.	1.7	12
72	Late-onset megaconial myopathy in mice lacking group I Paks. Skeletal Muscle, 2019, 9, 5.	1.9	12

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73	Measurement of the abundance of choline and the distribution of choline-containing moieties in meat. International Journal of Food Sciences and Nutrition, 2015, 66, 743-748.	1.3	11
74	Insufficient glucose supply is linked to hypothermia upon cold exposure in high-fat diet-fed mice lacking PEMT. Journal of Lipid Research, 2015, 56, 1701-1710.	2.0	11
75	Treatment with didemnin B, an elongation factor 1A inhibitor, improves hepatic lipotoxicity in obese mice. Physiological Reports, 2016, 4, e12963.	0.7	11
76	Two-Week Isocaloric Time-Restricted Feeding Decreases Liver Inflammation without Significant Weight Loss in Obese Mice with Non-Alcoholic Fatty Liver Disease. International Journal of Molecular Sciences, 2020, 21, 9156.	1.8	11
77	Impaired Hepatic Phosphatidylcholine Synthesis Leads to Cholestasis in Mice Challenged With a Highâ€Fat Diet. Hepatology Communications, 2019, 3, 262-276.	2.0	10
78	Buttermilk: an important source of lipid soluble forms of choline that influences the immune system development in Sprague–Dawley rat offspring. European Journal of Nutrition, 2021, 60, 2807-2818.	1.8	10
79	Sex Differences Distinctly Impact High-Fat Diet-Induced Immune Dysfunction in Wistar Rats. Journal of Nutrition, 2022, 152, 1347-1357.	1.3	10
80	Insufficient dietary choline aggravates disease severity in a mouse model of Citrobacter rodentium-induced colitis. British Journal of Nutrition, 2021, 125, 50-61.	1.2	9
81	Feeding a Mixture of Choline Forms during Lactation Improves Offspring Growth and Maternal Lymphocyte Response to Ex Vivo Immune Challenges. Nutrients, 2017, 9, 713.	1.7	8
82	The marine compound and elongation factor 1A1 inhibitor, didemnin B, provides benefit in western diet-induced non-alcoholic fatty liver disease. Pharmacological Research, 2020, 161, 105208.	3.1	8
83	Genetic screening reveals phospholipid metabolism as a key regulator of the biosynthesis of the redox-active lipid coenzyme Q. Redox Biology, 2021, 46, 102127.	3.9	8
84	The development of a choline rich cereal based functional food: Effect of processing and storage. LWT - Food Science and Technology, 2017, 75, 447-452.	2.5	7
85	Feeding Buttermilk-Derived Choline Forms During Gestation and Lactation Modulates Ex Vivo T-Cell Response in Rat Dams. Journal of Nutrition, 2020, 150, 1958-1965.	1.3	7
86	Carboxylesterase 1d (Ces1d) does not contribute to cholesteryl ester hydrolysis in the liver. Journal of Lipid Research, 2021, 62, 100093.	2.0	7
87	Differential expression of hypothalamic, metabolic and inflammatory genes in response to short-term calorie restriction in juvenile obese- and lean-prone JCR rats. Nutrition and Diabetes, 2015, 5, e178-e178.	1.5	6
88	Riboflavin Deficiency in Rats Decreases de novo Formate Production but Does Not Affect Plasma Formate Concentration. Journal of Nutrition, 2017, 147, 346-352.	1.3	6
89	Hepatic Expression of PEMT, but Not Dietary Choline Supplementation, Reverses the Protection against Atherosclerosis in Pemt/Ldlr Mice. Journal of Nutrition, 2018, 148, 1513-1520.	1.3	6
90	Both low- and regular-fat cheeses mediate improved insulin sensitivity and modulate serum phospholipid profiles in insulin-resistant rats. Journal of Nutritional Biochemistry, 2019, 64, 144-151.	1.9	6

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91	Lack of phosphatidylethanolamine N -methyltransferase in mice does not promote fatty acid oxidation in skeletal muscle. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2016, 1861, 119-129.	1.2	5
92	Egg-Phosphatidylcholine Attenuates T-Cell Dysfunction in High-Fat Diet Fed Male Wistar Rats. Frontiers in Nutrition, 2022, 9, 811469.	1.6	5
93	Impaired phosphatidylcholine biosynthesis does not attenuate liver regeneration after 70% partial hepatectomy in hepatic CTP:phosphocholine cytidylyltransferase-Î± deficient mice. Canadian Journal of Physiology and Pharmacology, 2012, 90, 1403-1412.	0.7	3
94	Liver and plasma lipid changes induced by cyclic fatty acid monomers from heated vegetable oil in the rat. Food Science and Nutrition, 2018, 6, 2092-2103.	1.5	3
95	Mild Choline Deficiency and MTHFD1 Synthetase Deficiency Interact to Increase Incidence of Developmental Delays and Defects in Mice. Nutrients, 2022, 14, 127.	1.7	2
96	Androgens Modulate Intestinal Absorption and Synthesis of Lipids Contributing to Impaired Lipid Metabolism in a Rodent Model of Polycystic Ovary Syndrome and Metabolic Syndrome. Canadian Journal of Diabetes, 2016, 40, S32.	0.4	1
97	De novo phosphatidylcholine synthesis in the small intestinal epithelium is required for normal dietary lipid handling and maintenance of the mucosal barrier. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2022, 1867, 159109.	1.2	1
98	Response to the Letter to the Editor From Dr. Spence, â€œEgg Consumption and Cardiovascular Riskâ€• Canadian Journal of Diabetes, 2018, 42, 223.	0.4	0
99	Inhibition of Elongation Factor 1A1 Activity Decreases Lipid Droplet Accumulation. FASEB Journal, 2021, 35, .	0.2	0
100	Liverâ€specific phosphocholine cytidylyltransferaseâ€Î± knockout mice develop insulin resistance despite having lower plasma lipid levels. FASEB Journal, 2006, 20, A87.	0.2	0
101	Inhibition of hepatic phosphatidylcholine synthesis by AICAR and phenformin is independent of AMPâ€activated protein kinase (AMPK) activation.. FASEB Journal, 2006, 20, A91.	0.2	0
102	Adenovirus mediated alteration of phosphatidylethanolamine Nâ€methyltransferase expression in vivo. FASEB Journal, 2008, 22, 807.25.	0.2	0