Johannes von Lintig

List of Publications by Year
in descending order

119	8,176	38742 50	49909 87
papers	citations	h-index	g-index

125	125	125	5882
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Filling the Gap in Vitamin A Research. Journal of Biological Chemistry, 2000, 275, 11915-11920.	3.4	407
2	Identification and Characterization of a Mammalian Enzyme Catalyzing the Asymmetric Oxidative Cleavage of Provitamin A. Journal of Biological Chemistry, 2001, 276, 14110-14116.	3.4	396
3	Transgenic rice (Oryza sativa) endosperm expressing daffodil (Narcissus pseudonarcissus) phytoene synthase accumulates phytoene, a key intermediate of provitamin A biosynthesis. Plant Journal, 1997, 11, 1071-1078.	5.7	332
4	A mitochondrial enzyme degrades carotenoids and protects against oxidative stress. FASEB Journal, 2011, 25, 948-959.	0.5	259
5	A class B scavenger receptor mediates the cellular uptake of carotenoids in Drosophila. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 10581-10586.	7.1	233
6	Carotenoid oxygenases: cleave it or leave it. Trends in Plant Science, 2003, 8, 145-149.	8.8	231
7	CMO1 Deficiency Abolishes Vitamin A Production from Î²-Carotene and Alters Lipid Metabolism in Mice. Journal of Biological Chemistry, 2007, 282, 33553-33561.	3.4	225
8	Colors with Functions: Elucidating the Biochemical and Molecular Basis of Carotenoid Metabolism. Annual Review of Nutrition, 2010, 30, 35-56.	10.1	212
9	ISX is a retinoic acidâ€sensitive gatekeeper that controls intestinal Î²,Î²â€carotene absorption and vitamin A production. FASEB Journal, 2010, 24, 1656-1666.	0.5	205
10	Lightâ€dependent regulation of carotenoid biosynthesis occurs at the level of phytoene synthase expression and is mediated by phytochrome in Sinapis alba and Arabidopsis thaliana seedlings. Plant Journal, 1997, 12, 625-634.	5.7	195
11	Regulation and activation of phytoene synthase, a key enzyme in carotenoid biosynthesis, during photomorphogenesis. Planta, 2000, 211, 846-854.	3.2	186
12	RBP4 Disrupts Vitamin A Uptake Homeostasis in a STRA6-Deficient Animal Model for Matthew-Wood Syndrome. Cell Metabolism, 2008, 7, 258-268.	16.2	163
13	Lightâ€dependent regulation of carotenoid biosynthesis occurs at the level of phytoene synthase expression and is mediated by phytochrome in Sinapis alba and Arabidopsis thaliana seedlings. Plant Journal, 1997, 12, 625-634.	5.7	146
14	Related enzymes solve evolutionarily recurrent problems in the metabolism of carotenoids. Trends in Plant Science, 2005, 10, 178-186.	8.8	145
15	Two Carotenoid Oxygenases Contribute to Mammalian Provitamin A Metabolism. Journal of Biological Chemistry, 2013, 288, 34081-34096.	3.4	137
16	Beta-Carotene Reduces Body Adiposity of Mice via BCMO1. PLoS ONE, 2011, 6, e20644.	2.5	133
17	Provitamin A conversion to retinal via theÎ²,Î²-carotene-15,15â€²-oxygenase (bcox) is essential for pattern formation and differentiation during zebrafish embryogenesis. Development (Cambridge), 2003, 130, 2173-2186.	2.5	128
18	Î²,Î²-Carotene Decreases Peroxisome Proliferator Receptor Î³ Activity and Reduces Lipid Storage Capacity of Adipocytes in a Î²,Î²-Carotene Oxygenase 1-dependent Manner. Journal of Biological Chemistry, 2010, 285, 27891-27899.	3.4	123

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19	Structural basis of carotenoid cleavage: From bacteria to mammals. Archives of Biochemistry and Biophysics, 2013, 539, 203-213.	3.0	119
20	Requirement for an Enzymatic Visual Cycle in Drosophila. Current Biology, 2010, 20, 93-102.	3.9	106
21	The biochemical and structural basis for trans-to-cis isomerization of retinoids in the chemistry of vision. Trends in Biochemical Sciences, 2010, 35, 400-410.	7.5	105
22	A mutation in the silver gene leads to defects in melanosome biogenesis and alterations in the visual system in the zebrafish mutant fading vision. Developmental Biology, 2005, 284, 421-436.	2.0	103
23	BCDO2 acts as a carotenoid scavenger and gatekeeper for the mitochondrial apoptotic pathway. Development (Cambridge), 2012, 139, 2966-2977.	2.5	103
24	Provitamin A metabolism and functions in mammalian biology. American Journal of Clinical Nutrition, 2012, 96, 1234S-1244S.	4.7	103
25	Mammalian Carotenoid-oxygenases: Key players for carotenoid function and homeostasis. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2012, 1821, 78-87.	2.4	100
26	Towards a better understanding of carotenoid metabolism in animals. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2005, 1740, 122-131.	3.8	99
27	Molecular Analysis of Vitamin A Formation: Cloning and Characterization of Î²-Carotene 15,15â€²-Dioxygenases. Archives of Biochemistry and Biophysics, 2001, 385, 47-52.	3.0	98
28	Identification of Nonvisual Photomotor Response Cells in the Vertebrate Hindbrain. Journal of Neuroscience, 2013, 33, 3834-3843.	3.6	98
29	Genetics and Diet Regulate Vitamin A Production via the Homeobox Transcription Factor ISX. Journal of Biological Chemistry, 2013, 288, 9017-9027.	3.4	98
30	STRA6 is critical for cellular vitamin A uptake and homeostasis. Human Molecular Genetics, 2014, 23, 5402-5417.	2.9	92
31	Genetic Ablation of the Fatty Acidâ€“Binding Protein FABP5 Suppresses HER2-Induced Mammary Tumorigenesis. Cancer Research, 2013, 73, 4770-4780.	0.9	90
32	A genetic dissection of intestinal fat-soluble vitamin and carotenoid absorption. Human Molecular Genetics, 2015, 24, 3206-3219.	2.9	90
33	R91W mutation in Rpe65 leads to milder early-onset retinal dystrophy due to the generation of low levels of 11-cis-retinal. Human Molecular Genetics, 2007, 17, 281-292.	2.9	89
34	Structural and functional characterization of the phytoene synthase promoter from Arabidopsis thaliana. Planta, 2003, 216, 523-534.	3.2	87
35	Chloroplast Import of Four Carotenoid Biosynthetic Enzymes In Vitro Reveals Differential Fates Prior to Membrane Binding and Oligomeric Assembly. FEBS Journal, 1997, 247, 942-950.	0.2	85
36	Metabolic Basis of Visual Cycle Inhibition by Retinoid and Nonretinoid Compounds in the Vertebrate Retina. Journal of Biological Chemistry, 2008, 283, 9543-9554.	3.4	85

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37	The Retinal G Protein-coupled Receptor (RGR) Enhances Isomerohydrolase Activity Independent of Light. Journal of Biological Chemistry, 2005, 280, 29874-29884.	3.4	84
38	Lecithin:Retinol Acyltransferase Is Critical for Cellular Uptake of Vitamin A from Serum Retinol-binding Protein. Journal of Biological Chemistry, 2012, 287, 24216-24227.	3.4	82
39	NinaB combines carotenoid oxygenase and retinoid isomerase activity in a single polypeptide. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19000-19005.	7.1	81
40	Evidence for compartmentalization of mammalian carotenoid metabolism. FASEB Journal, 2014, 28, 4457-4469.	0.5	80
41	The Drosophila Class B Scavenger Receptor NinaD-I Is a Cell Surface Receptor Mediating Carotenoid Transport for Visual Chromophore Synthesis. Biochemistry, 2006, 45, 13429-13437.	2.5	78
42	Vitamin A Formation in Animals: Molecular Identification and Functional Characterization of Carotene Cleaving Enzymes. Journal of Nutrition, 2004, 134, 251S-256S.	2.9	71
43	Metabolism of Carotenoids and Retinoids Related to Vision. Journal of Biological Chemistry, 2012, 287, 1627-1634.	3.4	71
44	Temperature-sensitive step in Ti plasmid vir-region induction and correlation with cytokinin secretion by Agrobacteria. Molecular Genetics and Genomics, 1988, 213, 1-8.	2.4	67
45	Î²-Carotene Conversion into Vitamin A in Human Retinal Pigment Epithelial Cells. , 2005, 46, 3562.		63
46	Hepatic stellate cells are an important cellular site for Î²-carotene conversion to retinoid. Archives of Biochemistry and Biophysics, 2010, 504, 3-10.	3.0	63
47	Subfunctionalization of a Retinoid-Binding Protein Provides Evidence for Two Parallel Visual Cycles in the Cone-Dominant Zebrafish Retina. Journal of Neuroscience, 2008, 28, 8208-8216.	3.6	62
48	Î²-Carotene conversion products and their effects on adipose tissue. Genes and Nutrition, 2009, 4, 179-187.	2.5	61
49	Mutations in the Spliceosome Component CWC27 Cause Retinal Degeneration with or without Additional Developmental Anomalies. American Journal of Human Genetics, 2017, 100, 592-604.	6.2	61
50	RPE65 Is Essential for the Function of Cone Photoreceptors in NRL-Deficient Mice. , 2007, 48, 534.		59
51	Lycopene Attenuated Hepatic Tumorigenesis via Differential Mechanisms Depending on Carotenoid Cleavage Enzyme in Mice. Cancer Prevention Research, 2014, 7, 1219-1227.	1.5	59
52	Characterization of the Role of Î²-Carotene 9,10-Dioxygenase in Macular Pigment Metabolism. Journal of Biological Chemistry, 2015, 290, 24844-24857.	3.4	59
53	Carotenoid metabolism at the intestinal barrier. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2020, 1865, 158580.	2.4	57
54	Tomato Powder Inhibits Hepatic Steatosis and Inflammation Potentially Through Restoring SIRT1 Activity and Adiponectin Function Independent of Carotenoid Cleavage Enzymes in Mice. Molecular Nutrition and Food Research, 2018, 62, e1700738.	3.3	55

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55	The Biochemical Basis of Vitamin A Production from the Asymmetric Carotenoid Î²-Cryptoxanthin. ACS Chemical Biology, 2018, 13, 2121-2129.	3.4	52
56	Lycopene and Apo-10â€²-lycopenoic Acid Have Differential Mechanisms of Protection against Hepatic Steatosis in Î²-Carotene-9â€²,10â€²-oxygenase Knockout Male Mice. Journal of Nutrition, 2015, 145, 268-276.	2.9	51
57	Evidence for RPE65â€independent vision in the coneâ€dominated zebrafish retina. European Journal of Neuroscience, 2007, 26, 1940-1949.	2.6	49
58	Utilization of Dioxygen by Carotenoid Cleavage Oxygenases. Journal of Biological Chemistry, 2015, 290, 30212-30223.	3.4	48
59	In conditions of limited chromophore supply rods entrap 11-cis-retinal leading to loss of cone function and cell death. Human Molecular Genetics, 2009, 18, 1266-1275.	2.9	47
60	Loss of Carotene-9â€²,10'-Monooxygenase Expression Increases Serum and Tissue Lycopene Concentrations in Lycopene-Fed Mice. Journal of Nutrition, 2010, 140, 2134-2138.	2.9	47
61	TheDrosophilaVisual Cycle andDe NovoChromophore Synthesis Depends onrdhB. Journal of Neuroscience, 2012, 32, 3485-3491.	3.6	47
62	Increased adiposity in the retinol saturaseâ€knockout mouse. FASEB Journal, 2010, 24, 1261-1270.	0.5	45
63	Retinylamine Benefits Early Diabetic Retinopathy in Mice. Journal of Biological Chemistry, 2015, 290, 21568-21579.	3.4	44
64	NinaB Is Essential for Drosophila Vision but Induces Retinal Degeneration in Opsin-deficient Photoreceptors. Journal of Biological Chemistry, 2010, 285, 2130-2139.	3.4	42
65	Transport of vitamin A across bloodâ€tissue barriers is facilitated by STRA6. FASEB Journal, 2016, 30, 2985-2995.	0.5	42
66	Activation of Retinoic Acid Receptors by Dihydroretinoids. Molecular Pharmacology, 2009, 76, 1228-1237.	2.3	40
67	Transcription factor ISX mediates the cross talk between diet and immunity. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11530-11535.	7.1	36
68	Lack of Î², Î²â€caroteneâ€9â€², 10â€²â€oxygenase 2 leads to hepatic mitochondrial dysfunction and cellular oxidative stress in mice. Molecular Nutrition and Food Research, 2017, 61, 1600576.	3.3	33
69	Astaxanthin-Shifted Gut Microbiota Is Associated with Inflammation and Metabolic Homeostasis in Mice. Journal of Nutrition, 2020, 150, 2687-2698.	2.9	33
70	Sequestration of Retinyl Esters Is Essential for Retinoid Signaling in the Zebrafish Embryo. Journal of Biological Chemistry, 2007, 282, 1144-1151.	3.4	32
71	Dietary 9-cis-Î²,Î²-Carotene Fails to Rescue Vision in Mouse Models of Leber Congenital Amaurosis. Molecular Pharmacology, 2011, 80, 943-952.	2.3	32
72	Characterization of human Î²,Î²-carotene-15,15â€²-monooxygenase (BCMO1) as a soluble monomeric enzyme. Archives of Biochemistry and Biophysics, 2013, 539, 214-222.	3.0	31

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73	Î²-Carotene conversion to vitamin A delays atherosclerosis progression by decreasing hepatic lipid secretion in mice. Journal of Lipid Research, 2020, 61, 1491-1503.	4.2	30
74	Molecular components affecting ocular carotenoid and retinoid homeostasis. Progress in Retinal and Eye Research, 2021, 80, 100864.	15.5	30
75	STRA6: role in cellular retinol uptake and efflux. Hepatobiliary Surgery and Nutrition, 2015, 4, 229-42.	1.5	30
76	Genetic dissection in a mouse model reveals interactions between carotenoids and lipid metabolism. Journal of Lipid Research, 2016, 57, 1684-1695.	4.2	29
77	Interaction of the retinoic acid signaling pathway with spicule formation in the marine sponge Suberites domuncula through activation of bone morphogenetic protein-1. Biochimica Et Biophysica Acta - General Subjects, 2011, 1810, 1178-1194.	2.4	27
78	Analysis of Carotenoid Isomerase Activity in a Prototypical Carotenoid Cleavage Enzyme, Apocarotenoid Oxygenase (ACO). Journal of Biological Chemistry, 2014, 289, 12286-12299.	3.4	27
79	The Biochemical Basis of Vitamin A₃ Production in Arthropod Vision. ACS Chemical Biology, 2016, 11, 1049-1057.	3.4	27
80	Knockout of the Bcmo1 gene results in an inflammatory response in female lung, which is suppressed by dietary beta-carotene. Cellular and Molecular Life Sciences, 2010, 67, 2039-2056.	5.4	25
81	The human mitochondrial enzyme BCO2 exhibits catalytic activity toward carotenoids and apocarotenoids. Journal of Biological Chemistry, 2020, 295, 15553-15565.	3.4	25
82	Genomic and functional gene studies suggest a key role of beta-carotene oxygenase 1 like (bco1l) gene in salmon flesh color. Scientific Reports, 2019, 9, 20061.	3.3	24
83	Structure and Spectroscopy of Alkene-Cleaving Dioxygenases Containing an Atypically Coordinated Non-Heme Iron Center. Biochemistry, 2017, 56, 2836-2852.	2.5	23
84	Protective role of carotenoids in the visual cycle. FASEB Journal, 2018, 32, 6305-6315.	0.5	20
85	Genomic consequences of domestication of the Siamese fighting fish. Science Advances, 2022, 8, eabm4950.	10.3	20
86	The role of 11â€•cis â€•retinyl esters in vertebrate cone vision. FASEB Journal, 2015, 29, 216-226.	0.5	19
87	Structural Insights into the Drosophila melanogaster Retinol Dehydrogenase, a Member of the Short-Chain Dehydrogenase/Reductase Family. Biochemistry, 2016, 55, 6545-6557.	2.5	19
88	LRAT coordinates the negative-feedback regulation of intestinal retinoid biosynthesis from Î²-carotene. Journal of Lipid Research, 2021, 62, 100055.	4.2	18
89	Photoreceptor morphology is severely affected in the Î²,Î²-carotene-15,15â€²-oxygenase (bcox) zebrafish morphant. European Journal of Neuroscience, 2005, 21, 59-68.	2.6	17
90	Î²â€Carotene during the suckling period is absorbed intact and induces retinoic acid dependent responses similar to preformed vitamin A in intestine and liver, but not adipose tissue of young rats. Molecular Nutrition and Food Research, 2014, 58, 2157-2165.	3.3	17

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91	Structural basis for carotenoid cleavage by an archaeal carotenoid dioxygenase. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 19914-19925.	7.1	17
92	The Structural and Biochemical Basis of Apocarotenoid Processing by Î²-Carotene Oxygenase-2. ACS Chemical Biology, 2021, 16, 480-490.	3.4	17
93	Aster proteins mediate carotenoid transport in mammalian cells. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2200068119.	7.1	15
94	Downregulation of Fzd6 and Cthrc1 and upregulation of olfactory receptors and protocadherins by dietary beta-carotene in lungs of Bcmo1â^'/â^' mice. Carcinogenesis, 2010, 31, 1329-1337.	2.8	13
95	Overlapping Vitamin A Interventions with Provitamin A Carotenoids and Preformed Vitamin A Cause Excessive Liver Retinol Stores in Male Mongolian Gerbils. Journal of Nutrition, 2020, 150, 2912-2923.	2.9	13
96	Loss of Extracellular Signal-Regulated Kinase 1/2 in the Retinal Pigment Epithelium Leads to RPE65 Decrease and Retinal Degeneration. Molecular and Cellular Biology, 2017, 37, .	2.3	11
97	Paracardial fat remodeling affects systemic metabolism through alcohol dehydrogenase 1. Journal of Clinical Investigation, 2021, 131, .	8.2	11
98	Preparation and characterization of metal-substituted carotenoid cleavage oxygenases. Journal of Biological Inorganic Chemistry, 2018, 23, 887-901.	2.6	10
99	Differential Expression of the Demosponge (Suberites domuncula) Carotenoid Oxygenases in Response to Light: Protection Mechanism Against the Self-Produced Toxic Protein (Suberitine). Marine Drugs, 2012, 10, 177-199.	4.6	9
100	The vitamin A transporter STRA6 adjusts the stoichiometry of chromophore and opsins in visual pigment synthesis and recycling. Human Molecular Genetics, 2022, 31, 548-560.	2.9	9
101	Ti plasmid-encoded octopine and nopaline catabolism in Agrobacterium: specificities of the LysR-type regulators OccR and NocR, and protein-induced DNA bending. Molecular Genetics and Genomics, 1995, 249, 102-110.	2.4	7
102	Genetic dissection in mice reveals a dynamic crosstalk between the delivery pathways of vitamin A. Journal of Lipid Research, 2022, 63, 100215.	4.2	7
103	Carotenoids. Archives of Biochemistry and Biophysics, 2013, 539, 99-101.	3.0	6
104	Evidence for distinct rate-limiting steps in the cleavage of alkenes by carotenoid cleavage dioxygenases. Journal of Biological Chemistry, 2019, 294, 10596-10606.	3.4	6
105	Characterization of the novel role of NinaB orthologs from Bombyx mori and Tribolium castaneum. Insect Biochemistry and Molecular Biology, 2019, 109, 106-115.	2.7	6
106	Disturbed retinoid metabolism upon loss of rlbp1a impairs cone function and leads to subretinal lipid deposits and photoreceptor degeneration in the zebrafish retina. ELife, 2021, 10, .	6.0	5
107	Biology of carotenoids in mammals. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2020, 1865, 158754.	2.4	4
108	Carotenoid modifying enzymes in metazoans. Methods in Enzymology, 2022, , 405-445.	1.0	3

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109	News and views about carotenoids: Red-hot and true. Archives of Biochemistry and Biophysics, 2018, 657, 74-77.	3.0	2
110	Nmnat1-Rbp7 Is a Conserved Fusion-Protein That Combines NAD+ Catalysis of Nmnat1 with Subcellular Localization of Rbp7. PLoS ONE, 2015, 10, e0143825.	2.5	1
111	Eat Your Carrots! Î²-Carotene and Cholesterol Homeostasis. Journal of Nutrition, 2020, 150, 2003-2005.	2.9	1
112	Expression and Characterization of Mammalian Carotenoid Cleavage Dioxygenases. Methods in Molecular Biology, 2020, 2083, 75-88.	0.9	1
113	Expression and biochemical analyses of proteins involved in the transport of carotenoids and retinoids. Methods in Enzymology, 2022, , .	1.0	1
114	In conditions of limited chromophore supply rods entrap 11-cis-retinal leading to loss of cone function and cell death. Human Molecular Genetics, 2012, 21, 5395-5395.	2.9	0
115	Carotenoid monooxygenase II knockâ€out mice exhibit phenotypical differences and altered lycopene accumulation pattern compared to C57Bl6 mice. FASEB Journal, 2008, 22, 1105.9.	0.5	0
116	Genotype and diet alter carotenoid bioaccumulation and the expression of carotenoid cleavage enzymes in CMOâ€I KO, CMOâ€II KO, and wildâ€type mice. FASEB Journal, 2010, 24, 539.7.	0.5	0
117	STRA6: A gatekeeper of neuronal vitamin A homeostasis. FASEB Journal, 2013, 27, lb83.	0.5	0
118	Dietary Tomato Powder Inhibits Hepatic Steatosis, Inflammation and Tumorigenesis in Betaâ€caroteneâ€15, 15â€²â€oxygenase (BCO1) and Betaâ€caroteneâ€9, 10â€²â€oxygenase (BCO2) Double Knockout Mice. FASEB Journal, 2016, 30, 34.1.	0.5	0
119	Diabetes Aggravates Photoreceptor Pathologies in a Mouse Model for Ocular Vitamin A Deficiency. Antioxidants, 2022, 11, 1142.	5.1	0