Robert S Molday

List of Publications by Year
in descending order

102 papers	7,931 citations	53794 45 h-index	53230 85 g-index
103 all docs	103 docs citations	103 times ranked	5217 citing authors

#	Article	IF	Citations
1	Structure and function of ABCA4 and its role in the visual cycle and Stargardt macular degeneration. Progress in Retinal and Eye Research, 2022, 89, 101036.	15.5	26
2	TMEM67, TMEM237, and Embigin in Complex With Monocarboxylate Transporter MCT1 Are Unique Components of the Photoreceptor Outer Segment Plasma Membrane. Molecular and Cellular Proteomics, 2021, 20, 100088.	3.8	14
3	Novel variants in critical domains of ATP8A2 and expansion of clinical spectrum. Human Mutation, 2021, 42, 491-497.	2.5	5
4	Cis-acting modifiers in the ABCA4 locus contribute to the penetrance of the major disease-causing variant in Stargardt disease. Human Molecular Genetics, 2021, 30, 1293-1304.	2.9	25
5	Phospholipidâ€flippase chaperone CDC50A is required for synapse maintenance by regulating phosphatidylserine exposure. EMBO Journal, 2021, 40, e107915.	7.8	13
6	Functional Characterization of ABCA4 Missense Variants Linked to Stargardt Macular Degeneration. International Journal of Molecular Sciences, 2021, 22, 185.	4.1	14
7	Cryo-EM structures of the ABCA4 importer reveal mechanisms underlying substrate binding and Stargardt disease. Nature Communications, 2021, 12, 5902.	12.8	25
8	ATP8A2-related disorders as recessive cerebellar ataxia. Journal of Neurology, 2020, 267, 203-213.	3.6	15
9	Advancing Clinical Trials for Inherited Retinal Diseases: Recommendations from the Second Monaciano Symposium. Translational Vision Science and Technology, 2020, 9, 2.	2.2	56
10	Functional analysis and classification of homozygous and hypomorphic ABCA4 variants associated with Stargardt macular degeneration. Human Mutation, 2020, 41, 1944-1956.	2.5	21
11	TMEM30A loss-of-function mutations drive lymphomagenesis and confer therapeutically exploitable vulnerability in B-cell lymphoma. Nature Medicine, 2020, 26, 577-588.	30.7	46
12	Expression and functional characterization of missense mutations in ATP8A2 linked to severe neurological disorders. Human Mutation, 2019, 40, 2353-2364.	2.5	14
13	Dual ABCA4-AAV Vector Treatment Reduces Pathogenic Retinal A2E Accumulation in a Mouse Model of Autosomal Recessive Stargardt Disease. Human Gene Therapy, 2019, 30, 1361-1370.	2.7	38
14	Growth hormone regulates opsin expression in the retina of a salmonid fish. Journal of Neuroendocrinology, 2019, 31, e12804.	2.6	7
15	Phosphatidylserine flipping by the P4-ATPase ATP8A2 is electrogenic. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16332-16337.	7.1	19
16	Identification and functional analyses of disease-associated P4-ATPase phospholipid flippase variants in red blood cells. Journal of Biological Chemistry, 2019, 294, 6809-6821.	3.4	22
17	Asparagine 905 of the mammalian phospholipid flippase ATP8A2 is essential for lipid substrateâ€“induced activation of ATP8A2 dephosphorylation. Journal of Biological Chemistry, 2019, 294, 5970-5979.	3.4	14
18	Cell-Specific Markers for the Identification of Retinal Cells and Subcellular Organelles by Immunofluorescence Microscopy. Methods in Molecular Biology, 2019, 1834, 293-310.	0.9	3

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19	Localization and functional characterization of the p.Asn965Ser (N965S) ABCA4 variant in mice reveal pathogenic mechanisms underlying Stargardt macular degeneration. Human Molecular Genetics, 2018, 27, 295-306.	2.9	24
20	Correlating the Expression and Functional Activity of ABCA4 Disease Variants With the Phenotype of Patients With Stargardt Disease. , 2018, 59, 2305.		44
21	Proteomic Analysis and Functional Characterization of P4-ATPase Phospholipid Flippases from Murine Tissues. Scientific Reports, 2018, 8, 10795.	3.3	50
22	Ca ²⁺ -activated Cl current predominates in threshold response of mouse olfactory receptor neurons. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5570-5575.	7.1	12
23	Recessive mutations in ATP8A2 cause severe hypotonia, cognitive impairment, hyperkinetic movement disorders and progressive optic atrophy. Orphanet Journal of Rare Diseases, 2018, 13, 86.	2.7	29
24	Peripherin diverts ciliary ectosome release to photoreceptor disc morphogenesis. Journal of Cell Biology, 2017, 216, 1227-1229.	5.2	14
25	C-terminus of the P4-ATPase ATP8A2 functions in protein folding and regulation of phospholipid flippase activity. Molecular Biology of the Cell, 2017, 28, 452-462.	2.1	30
26	Disease mutations reveal residues critical to the interaction of P4-ATPases with lipid substrates. Scientific Reports, 2017, 7, 10418.	3.3	21
27	A biosystems approach to identify the molecular signaling mechanisms of TMEM30A during tumor migration. PLoS ONE, 2017, 12, e0179900.	2.5	4
28	P4-ATPases as Phospholipid Flippasesâ€"Structure, Function, and Enigmas. Frontiers in Physiology, 2016, 7, 275.	2.8	252
29	PAX6 MiniPromoters drive restricted expression from rAAV in the adult mouse retina. Molecular Therapy - Methods and Clinical Development, 2016, 3, 16051.	4.1	17
30	Cog-Wheel Octameric Structure of RS1, the Discoidin Domain Containing Retinal Protein Associated with X-Linked Retinoschisis. PLoS ONE, 2016, 11, e0147653.	2.5	17
31	Specific mutations in mammalian P4â€ATPase ATP8A2 catalytic subunit entail differential glycosylation of the accessory CDC50A subunit. FEBS Letters, 2015, 589, 3908-3914.	2.8	11
32	A new mouse model for stationary night blindness with mutant Slc24a1 explains the pathophysiology of the associated human disease. Human Molecular Genetics, 2015, 24, 5915-5929.	2.9	40
33	Impaired Association of Retinal Degeneration-3 with Guanylate Cyclase-1 and Guanylate Cyclase-activating Protein-1 Leads to Leber Congenital Amaurosis-1. Journal of Biological Chemistry, 2015, 290, 3488-3499.	3.4	34
34	Transport through recycling endosomes requiresÂ <scp>EHD</scp> 1 recruitment by a phosphatidylserineÂtranslocase. EMBO Journal, 2015, 34, 669-688.	7.8	113
35	Segregating phototransduction from morphogenesis in photoreceptor outer segments. Channels, 2015, 9, 59-60.	2.8	0
36	Advancing Therapeutic Strategies for Inherited Retinal Degeneration: Recommendations From the Monaciano Symposium. Investigative Ophthalmology and Visual Science, 2015, 56, 918-931.	3.3	92

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37	Insights into the Molecular Properties of ABCA4 and Its Role in the Visual Cycle and Stargardt Disease. Progress in Molecular Biology and Translational Science, 2015, 134, 415-431.	1.7	58
38	Photoreceptors at a glance. Journal of Cell Science, 2015, 128, 4039-4045.	2.0	134
39	Insights into the role of RD3 in guanylate cyclase trafficking, photoreceptor degeneration, and Leber congenital amaurosis. Frontiers in Molecular Neuroscience, 2014, 7, 44.	2.9	25
40	A Combined Transgenic Proteomic Analysis and Regulated Trafficking of Neuroligin-2. Journal of Biological Chemistry, 2014, 289, 29350-29364.	3.4	37
41	Phospholipid flippase ATP8A2 is required for normal visual and auditory function and photoreceptor and spiral ganglion cell survival. Journal of Cell Science, 2014, 127, 1138-49.	2.0	47
42	Critical roles of isoleucine-364 and adjacent residues in a hydrophobic gate control of phospholipid transport by the mammalian P4-ATPase ATP8A2. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1334-43.	7.1	103
43	ATP-binding cassette transporter ABCA4 and chemical isomerization protect photoreceptor cells from the toxic accumulation of excess 11- cis -retinal. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5024-5029.	7.1	116
44	1D4: A Versatile Epitope Tag for the Purification and Characterization of Expressed Membrane and Soluble Proteins. Methods in Molecular Biology, 2014, 1177, 1-15.	0.9	38
45	Mammalian P4-ATPases and ABC transporters and their role in phospholipid transport. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2013, 1831, 555-574.	2.4	120
46	Molecular Organization and ATP-Induced Conformational Changes of ABCA4, the Photoreceptor-Specific ABC Transporter. Structure, 2013, 21, 854-860.	3.3	52
47	Differential Phospholipid Substrates and Directional Transport by ATP-binding Cassette Proteins ABCA1, ABCA7, and ABCA4 and Disease-causing Mutants. Journal of Biological Chemistry, 2013, 288, 34414-34426.	3.4	181
48	Interaction of 4.1G and cGMP-gated channels in rod photoreceptor outer segments. Journal of Cell Science, 2013, 126, 5725-34.	2.0	11
49	RD3 gene delivery restores guanylate cyclase localization and rescues photoreceptors in the Rd3 mouse model of Leber congenital amaurosis 12. Human Molecular Genetics, 2013, 22, 3894-3905.	2.9	50
50	Critical role of a transmembrane lysine in aminophospholipid transport by mammalian photoreceptor P ₄ -ATPase ATP8A2. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1449-1454.	7.1	88
51	ABCA4 is an N-retinylidene-phosphatidylethanolamine and phosphatidylethanolamine importer. Nature Communications, 2012, 3, 925.	12.8	215
52	Cell-Specific Markers for the Identification of Retinal Cells by Immunofluorescence Microscopy. Methods in Molecular Biology, 2012, 935, 185-199.	0.9	15
53	X-linked juvenile retinoschisis: Clinical diagnosis, genetic analysis, and molecular mechanisms. Progress in Retinal and Eye Research, 2012, 31, 195-212.	15.5	259
54	Posttranslational Modifications of the Photoreceptor-Specific ABC Transporter ABCA4. Biochemistry, 2011, 50, 6855-6866.	2.5	34

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55	Critical Role of the Î²-Subunit CDC50A in the Stable Expression, Assembly, Subcellular Localization, and Lipid Transport Activity of the P4-ATPase ATP8A2. Journal of Biological Chemistry, 2011, 286, 17205-17216.	3.4	118
56	Lipid transport by mammalian ABC proteins. Essays in Biochemistry, 2011, 50, 265-290.	4.7	83
57	ABCA4 and Its Role in the Visual Cycle and Inherited Retinal Degenerative Diseases. , 2011, , 127-161.		0
58	Heteromeric Interactions Required for Abundance and Subcellular Localization of Human CDC50 Proteins and Class 1 P4-ATPases. Journal of Biological Chemistry, 2010, 285, 40088-40096.	3.4	108
59	Defective lipid transport and biosynthesis in recessive and dominant Stargardt macular degeneration. Progress in Lipid Research, 2010, 49, 476-492.	11.6	73
60	Binding of Retinoids to ABCA4, the Photoreceptor ABC Transporter Associated with Stargardt Macular Degeneration. Methods in Molecular Biology, 2010, 652, 163-176.	0.9	15
61	Role of the C Terminus of the Photoreceptor ABCA4 Transporter in Protein Folding, Function, and Retinal Degenerative Diseases. Journal of Biological Chemistry, 2009, 284, 3640-3649.	3.4	51
62	Knockout of GARPs and the Î²-subunit of the rod cGMP-gated channel disrupts disk morphogenesis and rod outer segment structural integrity. Journal of Cell Science, 2009, 122, 1192-1200.	2.0	84
63	In Vivo Imaging of the Mouse Model of X-Linked Juvenile Retinoschisis with Fourier Domain Optical Coherence Tomography. , 2009, 50, 2989.		35
64	The role of the photoreceptor ABC transporter ABCA4 in lipid transport and Stargardt macular degeneration. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2009, 1791, 573-583.	2.4	136
65	Relation of Response to Treatment with Dorzolamide in X-Linked Retinoschisis to the Mechanism of Functional Loss in Retinoschisin. American Journal of Ophthalmology, 2009, 147, 111-115.e1.	3.3	53
66	Localization, Purification, and Functional Reconstitution of the P4-ATPase Atp8a2, a Phosphatidylserine Flippase in Photoreceptor Disc Membranes. Journal of Biological Chemistry, 2009, 284, 32670-32679.	3.4	165
67	Characterization and Purification of the Discoidin Domain-Containing Protein Retinoschisin and Its Interaction with Galactose. Biochemistry, 2008, 47, 9098-9106.	2.5	19
68	Proteomics of Photoreceptor Outer Segments Identifies a Subset of SNARE and Rab Proteins Implicated in Membrane Vesicle Trafficking and Fusion. Molecular and Cellular Proteomics, 2008, 7, 1053-1066.	3.8	110
69	Effect of Late-stage Therapy on Disease Progression in AAV-mediated Rescue of Photoreceptor Cells in the Retinoschisin-deficient Mouse. Molecular Therapy, 2008, 16, 1010-1017.	8.2	91
70	Role of Subunit Assembly in Autosomal Dominant Retinitis Pigmentosa Linked to Mutations in Peripherin 2. Novartis Foundation Symposium, 2008, , 95-116.	1.1	7
71	Coexpression and Interaction of Wild-type and Missense RS1 Mutants Associated with X-Linked Retinoschisis: Its Relevance to Gene Therapy. , 2007, 48, 2491.		24
72	Retinoschisin (RS1), the Protein Encoded by the X-linked Retinoschisis Gene, Is Anchored to the Surface of Retinal Photoreceptor and Bipolar Cells through Its Interactions with a Na/K ATPase-SARM1 Complex. Journal of Biological Chemistry, 2007, 282, 32792-32801.	3.4	112

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73	Focus on Molecules: Retinoschisin (RS1). Experimental Eye Research, 2007, 84, 227-228.	2.6	42
74	ATP-binding cassette transporter ABCA4: Molecular properties and role in vision and macular degeneration. Journal of Bioenergetics and Biomembranes, 2007, 39, 507-517.	2.3	92
75	An unusual X-linked retinoschisis phenotype and biochemical characterization of the W112C RS1 mutation. Vision Research, 2006, 46, 3845-3852.	1.4	16
76	RS1, a Discoidin Domain-containing Retinal Cell Adhesion Protein Associated with X-linked Retinoschisis, Exists as a Novel Disulfide-linked Octamer. Journal of Biological Chemistry, 2005, 280, 10721-10730.	3.4	107
77	Prolonged Recovery of Retinal Structure/Function after Gene Therapy in an Rs1h-Deficient Mouse Model of X-Linked Juvenile Retinoschisis. Molecular Therapy, 2005, 12, 644-651.	8.2	166
78	N-Retinylidene-phosphatidylethanolamine Is the Preferred Retinoid Substrate for the Photoreceptor-specific ABC Transporter ABCA4 (ABCR). Journal of Biological Chemistry, 2004, 279, 53972-53979.	3.4	151
79	Molecular Organization of Rod Outer Segments. , 2004, , 259-300.		3
80	Role of subunit assembly in autosomal dominant retinitis pigmentosa linked to mutations in peripherin 2. Novartis Foundation Symposium, 2004, 255, 95-112; discussion 113-6, 177-8.	1.1	2
81	Functional Interaction between the Two Halves of the Photoreceptor-specific ATP Binding Cassette Protein ABCR (ABCA4). Journal of Biological Chemistry, 2003, 278, 39600-39608.	3.4	39
82	Defective Discoidin Domain Structure, Subunit Assembly, and Endoplasmic Reticulum Processing of Retinoschisin are Primary Mechanisms Responsible for X-linked Retinoschisis. Journal of Biological Chemistry, 2003, 278, 28139-28146.	3.4	109
83	Inactivation of the murine X-linked juvenile retinoschisis gene, Rs1h, suggests a role of retinoschisin in retinal cell layer organization and synaptic structure. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 6222-6227.	7.1	206
84	The cGMP-gated Channel and Related Glutamic Acid-rich Proteins Interact with Peripherin-2 at the Rim Region of Rod Photoreceptor Disc Membranes. Journal of Biological Chemistry, 2001, 276, 48009-48016.	3.4	177
85	Membrane Topology of the ATP Binding Cassette Transporter ABCR and Its Relationship to ABC1 and Related ABCA Transporters. Journal of Biological Chemistry, 2001, 276, 23539-23546.	3.4	141
86	Rom-1 is required for rod photoreceptor viability and the regulation of disk morphogenesis. Nature Genetics, 2000, 25, 67-73.	21.4	146
87	ABCR expression in foveal cone photoreceptors and its role in Stargardt macular dystrophy. Nature Genetics, 2000, 25, 257-258.	21.4	226
88	The Effect of Lipid Environment and Retinoids on the ATPase Activity of ABCR, the Photoreceptor ABC Transporter Responsible for Stargardt Macular Dystrophy. Journal of Biological Chemistry, 2000, 275, 20399-20405.	3.4	118
89	[57] Purification and characterization of ABCR from bovine rod outer segments. Methods in Enzymology, 2000, 315, 864-879.	1.0	22
90	Retinal Stimulates ATP Hydrolysis by Purified and Reconstituted ABCR, the Photoreceptor-specific ATP-binding Cassette Transporter Responsible for Stargardt Disease. Journal of Biological Chemistry, 1999, 274, 8269-8281.	3.4	322

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91	Cyclic GMPâ€Gated Channel and Peripherin/rdsâ€româ€1 Complex of Rod Cells. Novartis Foundation Symposium, 1999, 224, 249-264.	1.1	9
92	Mapping of the rod photoreceptor ABC transporter (ABCR) to 1p21-p22.1 and identification of novel mutations in Stargardt's disease. Human Genetics, 1998, 102, 21-26.	3.8	94
93	Cysteine Residues of Photoreceptor Peripherin/rds:Â Role in Subunit Assembly and Autosomal Dominant Retinitis Pigmentosaâ€. Biochemistry, 1998, 37, 680-685.	2.5	123
94	The 220-kDa Rim Protein of Retinal Rod Outer Segments Is a Member of the ABC Transporter Superfamily. Journal of Biological Chemistry, 1997, 272, 10303-10310.	3.4	276
95	Evidence from normal and degenerating photoreceptors that two outer segment integral membrane proteins have separate transport pathways. , 1997, 387, 148-156.		78
96	The cGMP-gated channel of photoreceptor cells: Its structural properties and role in phototransduction. Behavioral and Brain Sciences, 1995, 18, 441-451.	0.7	12
97	Further insight into the structural and regulatory properties of the cGMP-gated channel. Behavioral and Brain Sciences, 1995, 18, 500-501.	0.7	0
98	Modulation of the cGMP-gated channel of rod photoreceptor cells by calmodulin. Nature, 1993, 361, 76-79.	27.8	455
99	Cloning of the CDNA for a novel photoreceptor membrane protein (rom-1) identifies a disk rim protein family implicated in human retinopathies. Neuron, 1992, 8, 1171-1184.	8.1	310
100	Differential immunogold-dextran labeling of bovine and frog rod and cone cells using monoclonal antibodies against bovine rhodopsin. Experimental Eye Research, 1986, 42, 55-71.	2.6	206
101	Localization of binding sites for carboxyl terminal specific anti-rhodopsin monoclonal antibodies using synthetic peptides. Biochemistry, 1984, 23, 6544-6549.	2.5	194
102	A review of cell surface markers and labelling techniques for scanning electron microscopy. The Histochemical Journal, 1980, 12, 273-315.	0.6	41