T Michael Redmond

List of Publications by Year
in descending order

113 papers	10,198 citations	94433 37 h-index	38395 95 g-index
117 all docs	117 docs citations	117 times ranked	6497 citing authors

#	Article	IF	Citations
1	Xanthophylls Modulate Palmitoylation of Mammalian Î²-Carotene Oxygenase 2. Antioxidants, 2021, 10, 413.	5.1	4
2	The Functional Consequences of the Novel Ribosomal Pausing Site in SARS-CoV-2 Spike Glycoprotein RNA. International Journal of Molecular Sciences, 2021, 22, 6490.	4.1	12
3	CIB2 regulates mTORC1 signaling and is essential for autophagy and visual function. Nature Communications, 2021, 12, 3906.	12.8	28
4	Proposed therapy, developed in a Pcdh15-deficient mouse, for progressive loss of vision in human Usher syndrome. ELife, 2021, 10, .	6.0	12
5	Evolutionary aspects and enzymology of metazoan carotenoid cleavage oxygenases. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2020, 1865, 158665.	2.4	16
6	Palmitoylation of Metazoan Carotenoid Oxygenases. Molecules, 2020, 25, 1942.	3.8	4
7	Stable Intronic Sequences and Exon Skipping Events in the Human RPE65 Gene: Analysis of Expression in Retinal Pigment Epithelium Cells and Cell Culture Models. Frontiers in Genetics, 2019, 10, 634.	2.3	3
8	Utility of In Vitro Mutagenesis of RPE65 Protein for Verification of Mutational Pathogenicity Before Gene Therapy. JAMA Ophthalmology, 2019, 137, 1381.	2.5	11
9	The dual roles of RPE65 S-palmitoylation in membrane association and visual cycle function. Scientific Reports, 2019, 9, 5218.	3.3	19
10	Volatile Evolution of Long Non-Coding RNA Repertoire in Retinal Pigment Epithelium: Insights from Comparison of Bovine and Human RNA Expression Profiles. Genes, 2019, 10, 205.	2.4	10
11	Aberrant RNA splicing is the major pathogenic effect in a knockâ€in mouse model of the dominantly inherited c.1430A>G human<i>RPE65</i>mutation. Human Mutation, 2019, 40, 426-443.	2.5	22
12	RPE65 Palmitoylation: A Tale of Lipid Posttranslational Modification. Advances in Experimental Medicine and Biology, 2019, 1185, 537-541.	1.6	3
13	Proinflammatory cytokine interferon-Î³ increases the expression of BANCR, a long non-coding RNA, in retinal pigment epithelial cells. Cytokine, 2018, 104, 147-150.	3.2	23
14	Expression of ABCA4 in the retinal pigment epithelium and its implications for Stargardt macular degeneration. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E11120-E11127.	7.1	112
15	Inhibition of thyroid hormone receptor locally in the retina is a therapeutic strategy for retinal degeneration. FASEB Journal, 2017, 31, 3425-3438.	0.5	12
16	RPE65 takes on another role in the vertebrate retina. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10818-10820.	7.1	5
17	Phylogenetic analysis of the metazoan carotenoid oxygenase superfamily: a new ancestral gene assemblage of BCO-like (BCOL) proteins. Scientific Reports, 2017, 7, 13192.	3.3	20
18	Inhibitory effects of fenretinide metabolites N-[4-methoxyphenyl]retinamide (MPR) and 4-oxo-N-(4-hydroxyphenyl)retinamide (3-keto-HPR) on fenretinide molecular targets Î²-carotene oxygenase 1, stearoyl-CoA desaturase 1 and dihydroceramide Î”4-desaturase 1. PLoS ONE, 2017, 12, e0176487.	2.5	13

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19	Appropriately differentiated ARPE-19 cells regain phenotype and gene expression profiles similar to those of native RPE cells. Molecular Vision, 2017, 23, 60-89.	1.1	100
20	Targeting iodothyronine deiodinases locally in the retina is a therapeutic strategy for retinal degeneration. FASEB Journal, 2016, 30, 4313-4325.	0.5	16
21	Inhibition of RPE65 Retinol Isomerase Activity by Inhibitors of Lipid Metabolism. Journal of Biological Chemistry, 2016, 291, 4966-4973.	3.4	6
22	Proinflammatory cytokines decrease the expression of genes critical for RPE function. Molecular Vision, 2016, 22, 1156-1168.	1.1	34
23	Resveratrol attenuates CXCL11 expression induced by proinflammatory cytokines in retinal pigment epithelial cells. Cytokine, 2015, 74, 335-338.	3.2	16
24	A History of the Classical Visual Cycle. Progress in Molecular Biology and Translational Science, 2015, 134, 433-448.	1.7	34
25	Mouse model of human<i>RPE65</i>P25L hypomorph resembles wild type under normal light rearing but is fully resistant to acute light damage. Human Molecular Genetics, 2015, 24, 4417-4428.	2.9	19
26	Fenretinide Induces Ubiquitinâ€Đependent Proteasomal Degradation of Stearoylâ€ĈoA Desaturase in Human Retinal Pigment Epithelial Cells. Journal of Cellular Physiology, 2014, 229, 1028-1038.	4.1	13
27	TheRpe65rd12Allele Exerts a Semidominant Negative Effect on Vision in Mice. , 2014, 55, 2500.		14
28	Suppressing thyroid hormone signaling preserves cone photoreceptors in mouse models of retinal degeneration. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3602-3607.	7.1	47
29	Multiple A2E treatments lead to melanization of rod outer segment-challenged ARPE-19 cells. Molecular Vision, 2014, 20, 285-300.	1.1	24
30	Complementation Test ofRpe65Knockout and Tvrm148. , 2013, 54, 5111.		9
31	Differential regulation of microRNA-146a and microRNA-146b-5p in human retinal pigment epithelial cells by interleukin-1Î², tumor necrosis factor-Î±, and interferon-Î³. Molecular Vision, 2013, 19, 737-50.	1.1	73
32	The Mechanism of Fenretinide (4-HPR) Inhibition of Î²-carotene Monooxygenase 1. New Suspect for the Visual Side Effects of Fenretinide. Advances in Experimental Medicine and Biology, 2012, 723, 167-174.	1.6	9
33	Aromatic Residues in the Substrate Cleft of RPE65 Protein Govern Retinol Isomerization and Modulate Its Progression. Journal of Biological Chemistry, 2012, 287, 30552-30559.	3.4	18
34	Subretinal Delivery and Electroporation in Pigmented and Nonpigmented Adult Mouse Eyes. Methods in Molecular Biology, 2012, 884, 53-69.	0.9	18
35	In Vivo Assessment of Rodent Retinal Structure Using Spectral Domain Optical Coherence Tomography. Advances in Experimental Medicine and Biology, 2012, 723, 489-494.	1.6	7
36	Origin and Evolution of Retinoid Isomerization Machinery in Vertebrate Visual Cycle: Hint from Jawless Vertebrates. PLoS ONE, 2012, 7, e49975.	2.5	37

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37	Alteration of sphingolipid metabolism during 4â€HPR induced cell death in the ARPEâ€19 human retinal pigment epithelial cell line. FASEB Journal, 2012, 26, 792.1.	0.5	0
38	Aromatic Lipophilic Spin Traps Effectively Inhibit RPE65 Isomerohydrolase Activity. Biochemistry, 2011, 50, 6739-6741.	2.5	19
39	Decreased expression of insulinâ€like growth factor binding proteinâ€5 during <i>N</i>â€(4â€hydroxyphenyl)retinamideâ€induced neuronal differentiation of ARPEâ€19 human retinal pigment epithelial cells: Regulation by CCAAT/enhancerâ€binding protein. Journal of Cellular Physiology, 2010, 224, 827-836.	4.1	10
40	RPE65, Visual Cycle Retinol Isomerase, Is Not Inherently 11-cis-specific. Journal of Biological Chemistry, 2010, 285, 1919-1927.	3.4	58
41	Inflammatory cytokines regulate microRNA-155 expression in human retinal pigment epithelial cells by activating JAK/STAT pathway. Biochemical and Biophysical Research Communications, 2010, 402, 390-395.	2.1	106
42	Gene Therapy for Leber's Congenital Amaurosis is Safe and Effective Through 1.5 Years After Vector Administration. Molecular Therapy, 2010, 18, 643-650.	8.2	503
43	MicroRNA expression in human retinal pigment epithelial (ARPE-19) cells: increased expression of microRNA-9 by N-(4-hydroxyphenyl)retinamide. Molecular Vision, 2010, 16, 1475-86.	1.1	52
44	Spectral Domain Optical Coherence Tomography in Mouse Models of Retinal Degeneration. , 2009, 50, 5888.		193
45	Biochemical evidence for the tyrosine involvement in cationic intermediate stabilization in mouse Î²-carotene 15, 15'-monooxygenase. BMC Biochemistry, 2009, 10, 31.	4.4	20
46	Focus on Molecules: RPE65, the visual cycle retinol isomerase. Experimental Eye Research, 2009, 88, 846-847.	2.6	29
47	Age-dependent effects of RPE65 gene therapy for Leber's congenital amaurosis: a phase 1 dose-escalation trial. Lancet, The, 2009, 374, 1597-1605.	13.7	774
48	Mitogenâ€activated protein kinase pathway mediates <i>N</i>â€(4â€hydroxyphenyl)retinamideâ€induced neuronal differentiation in the ARPEâ€19 human retinal pigment epithelial cell line. Journal of Neurochemistry, 2008, 106, 591-602.	3.9	14
49	Safety and Efficacy of Gene Transfer for Leber's Congenital Amaurosis. New England Journal of Medicine, 2008, 358, 2240-2248.	27.0	1,941
50	A Comprehensive Clinical and Biochemical Functional Study of a Novel<i>RPE65</i>Hypomorphic Mutation. , 2008, 49, 5235.		73
51	Effect of Leu/Met variation at residue 450 on isomerase activity and protein expression of RPE65 and its modulation by variation at other residues. Molecular Vision, 2007, 13, 1813-21.	1.1	16
52	The level of thymic expression of RPE65 inversely correlates with its capacity to induce experimental autoimmune uveitis (EAU) in different rodent strains. Experimental Eye Research, 2006, 83, 897-902.	2.6	6
53	9-cis Retinal Increased in Retina of RPE65 Knockout Mice with Decrease in Coat Pigmentation. Photochemistry and Photobiology, 2006, 82, 1461-1467.	2.5	6
54	RPE65 Is an Iron(II)-dependent Isomerohydrolase in the Retinoid Visual Cycle. Journal of Biological Chemistry, 2006, 281, 2835-2840.	3.4	111

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55	Identification of a KRAB-Zinc Finger Protein Binding to theRpe65Gene Promoter. Current Eye Research, 2006, 31, 457-466.	1.5	3
56	Assessing the Efficacy of Gene Therapy in Rpe65 -/- Mice Using Photoentrainment of Circadian Phythm. , 2006, 572, 239-245.		1
57	9-cis Retinal Increased in Retina of RPE65 Knockout Mice with Decrease in Coat Pigmentationâ€. Photochemistry and Photobiology, 2006, 82, 1461.	2.5	9
58	Cone Opsin Mislocalization inRpe65âˆ’/âˆ’Mice: A Defect That Can Be Corrected by 11-cisRetinal. , 2005, 46, 3876.		128
59	Key Role of Conserved Histidines in Recombinant Mouse Î²-Carotene 15,15â€²-Monooxygenase-1 Activity. Journal of Biological Chemistry, 2005, 280, 29217-29223.	3.4	78
60	Mutation of key residues of RPE65 abolishes its enzymatic role as isomerohydrolase in the visual cycle. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 13658-13663.	7.1	374
61	Mole Quantity of RPE65 and Its Productivity in the Generation of 11-cis-Retinal from Retinyl Esters in the Living Mouse Eye. Biochemistry, 2005, 44, 9880-9888.	2.5	53
62	Impairment of the Transient Pupillary Light Reflex in<i>Rpe65</i>^{âˆ’/âˆ’}Mice and Humans with Leber Congenital Amaurosis. , 2004, 45, 1259.		92
63	Recombinant adeno-associated virus type 2-mediated gene delivery into the knockout mouse eye results in limited rescue. Genetic Vaccines and Therapy, 2004, 2, 3.	1.5	88
64	In Utero Gene Therapy Rescues Vision in a Murine Model of Congenital Blindness. Molecular Therapy, 2004, 9, 182-188.	8.2	191
65	Spontaneous activity of opsin apoprotein is a cause of Leber congenital amaurosis. Nature Genetics, 2003, 35, 158-164.	21.4	163
66	Retinyl Esters Are the Substrate for Isomerohydrolaseâ€. Biochemistry, 2003, 42, 2229-2238.	2.5	113
67	Entrainment of circadian rhythm to a photoperiod reversal shows retinal dystrophy in RPE65âˆ’/âˆ’ mice. Physiology and Behavior, 2003, 79, 701-711.	2.1	7
68	Acute Radiolabeling of Retinoids in Eye Tissues of Normal andRpe65-Deficient Mice. , 2003, 44, 1435.		30
69	Identification of betaâ€carotene 15,15â€²â€monooxygenase as a peroxisome proliferatorâ€activated receptor target gene. FASEB Journal, 2003, 17, 1304-1306.	0.5	97
70	In Vivo Gene Therapy in Young and Adult RPE65-/- Dogs Produces Long-Term Visual Improvement. , 2003, 94, 31-37.		109
71	Expression of Î²-Carotene 15,15â€² Monooxygenase in Retina and RPE-Choroid. , 2003, 44, 44.		34
72	Correlation of Regenerable Opsin with Rod ERG Signal inRpe65âˆ’/âˆ’Mice during Development and Aging. , 2003, 44, 310.		62

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73	Functional and Structural Recovery of the Retina after Gene Therapy in the RPE65 Null Mutation Dog. , 2003, 44, 1663.		235
74	Functional and Structural Evaluation after AAV.RPE65 Gene Transfer in the Canine Model of Leberâ€™s Congenital Amaurosis. Advances in Experimental Medicine and Biology, 2003, 533, 423-430.	1.6	40
75	Assessment of rAAV-Mediated Gene Therapy in the Rpe65-/- Mouse. Advances in Experimental Medicine and Biology, 2003, 533, 431-438.	1.6	8
76	11-cis-Retinal Reduces Constitutive Opsin Phosphorylation and Improves Quantum Catch in Retinoid-deficient Mouse Rod Photoreceptors. Journal of Biological Chemistry, 2002, 277, 40491-40498.	3.4	75
77	Expression and promoter activation of the Rpe65 gene in retinal pigment epithelium cell lines. Current Eye Research, 2002, 24, 368-375.	1.5	11
78	RPE65 is highly uveitogenic in rats. Investigative Ophthalmology and Visual Science, 2002, 43, 2258-63.	3.3	24
79	Generation of Knockout Animal Models. , 2001, 47, 215-236.		0
80	Intrachoroidal Neovascularization in Transgenic Mice Overexpressing Vascular Endothelial Growth Factor in the Retinal Pigment Epithelium. American Journal of Pathology, 2001, 158, 1161-1172.	3.8	206
81	New views on RPE65 deficiency: the rod system is the source of vision in a mouse model of Leber congenital amaurosis. Nature Genetics, 2001, 29, 70-74.	21.4	222
82	Identification, Expression, and Substrate Specificity of a Mammalian Î²-Carotene 15,15â€²-Dioxygenase. Journal of Biological Chemistry, 2001, 276, 6560-6565.	3.4	257
83	Transgenic expression of an immunologically privileged retinal antigen extraocularly enhances self tolerance and abrogates susceptibility to autoimmune uveitis. European Journal of Immunology, 2000, 30, 272-278.	2.9	42
84	Protection of Rpe65-deficient mice identifies rhodopsin as a mediator of light-induced retinal degeneration. Nature Genetics, 2000, 25, 63-66.	21.4	253
85	A QTL on distal Chromosome 3 that influences the severity of light-induced damage to mouse photoreceptors. Mammalian Genome, 2000, 11, 422-427.	2.2	109
86	The Upstream Region of the Rpe65 Gene Confers Retinal Pigment Epithelium-specific Expression in Vivo and in Vitro and Contains Critical Octamer and E-box Binding Sites. Journal of Biological Chemistry, 2000, 275, 31274-31282.	3.4	45
87	[46] Genetic analysis of RPE65: From human disease to mouse model. Methods in Enzymology, 2000, 316, 705-724.	1.0	57
88	Identification of RPE65 in transformed kidney cells1. FEBS Letters, 1999, 452, 199-204.	2.8	24
89	Rpe65 is necessary for production of 11-cis-vitamin A in the retinal visual cycle. Nature Genetics, 1998, 20, 344-351.	21.4	917
90	Cloning and localization of RPE65 mRNA in salamander cone photoreceptor cells. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1998, 1443, 255-261.	2.4	34

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91	Role of the 3â€²-Untranslated Region of RPE65 mRNA in the Translational Regulation of the RPE65 Gene: Identification of a Specific Translation Inhibitory Element. Archives of Biochemistry and Biophysics, 1998, 357, 37-44.	3.0	25
92	RPE65, the Major Retinal Pigment Epithelium Microsomal Membrane Protein, Associates with Phospholipid Liposomes. Archives of Biochemistry and Biophysics, 1997, 346, 21-27.	3.0	46
93	Mutations in RPE65 cause Leber's congenital amaurosis. Nature Genetics, 1997, 17, 139-141.	21.4	572
94	The Gene for the Retinal Pigment Epithelium-Specific Protein RPE65 Is Localized to Human 1p31 and Mouse 3. Genomics, 1994, 20, 509-512.	2.9	62
95	A developmentally regulated microsomal protein specific for the pigment epithelium of the vertebrate retina. Journal of Neuroscience Research, 1993, 34, 414-425.	2.9	111
96	Immunological features of synthetic peptides derived from the retinal protein IRBP: Differences between immunodominant and non-dominant peptides. Current Eye Research, 1990, 9, 95-98.	1.5	6
97	Repeated determinants within the retinal interphotoreceptor retinoid-binding protein (IRBP): Immunological properties of the repeats of an immunodominant determinant. Cellular Immunology, 1990, 126, 331-342.	3.0	18
98	Uveitis and immune responses in primates immunized with IRBP-derived synthetic peptides. Current Eye Research, 1990, 9, 193-199.	1.5	16
99	Localization of the gene for interphotoreceptor retinoid-binding protein to mouse chromosome 14 near Np-1. Genomics, 1990, 8, 727-731.	2.9	20
100	Rat T-cell lines specific to a nonimmunodominant determinant of a retinal protein (IRBP) produce uveoretinitis and pinealitis. Cellular Immunology, 1989, 122, 251-261.	3.0	31
101	Synthesis of an immunopathogenic fusion protein derived from a bovine interphotoreceptor retinoidbinding protein cDNA clone. Gene, 1989, 80, 109-118.	2.2	11
102	Cloning of cDNAs encoding human interphotoreceptor retinoid-binding protein (IRBP) and comparison with bovine IRBP sequences. Gene, 1989, 80, 99-108.	2.2	30
103	mRNA for interphotoreceptor retinoid-binding protein (IRBP): Distribution and size diversity in vertebrate species. Experimental Eye Research, 1989, 49, 171-180.	2.6	20
104	Immune responses to peptides derived from the retinal protein IRBP: Immunopathogenic determinants are not necessarily immunodominant. Clinical Immunology and Immunopathology, 1989, 53, 212-224.	2.0	15
105	Cyanogen bromide fragments of bovine interphotoreceptor retinoid-binding protein induce experimental autoimmune uveoretinitis in Lewis rats. Current Eye Research, 1988, 7, 375-385.	1.5	12
106	Synthetic peptides derived from IRBP induce EAU and EAP in Lewis rats. Current Eye Research, 1988, 7, 727-735.	1.5	37
107	Lymphocyte responses to retinal-specific antigens in uveitis patients and healthy subjects. Current Eye Research, 1988, 7, 393-402.	1.5	44
108	IRBP from bovine retina is poorly uveitogenic in guinea pigs and is identical to A-antigen. Current Eye Research, 1987, 6, 409-417.	1.5	7

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109	Immunohistochemical Analysis of Experimental Autoimmune Uveoretinitis (Eau) Induced by Interphotoreceptor Retinoid-Binding Protein (Irbp) in the Rat. Immunological Investigations, 1987, 16, 63-74.	2.0	25
110	Experimental autoimmune uveoretinitis (EAU) induced by retinal interphotoreceptor retinoid-binding protein (IRBP): Differences between EAU induced by IRBP and by S-antigen. Clinical Immunology and Immunopathology, 1987, 43, 256-264.	2.0	59
111	Uveitis induced in primates by IRBP: Humoral and cellular immune responses. Experimental Eye Research, 1987, 45, 695-702.	2.6	22
112	cDNA clones encoding bovine interphotoreceptor retinoid binding protein. Biochemical and Biophysical Research Communications, 1985, 131, 1086-1093.	2.1	23
113	Localization of corneal superoxide dismutase by biochemical and histocytochemical techniques. Experimental Eye Research, 1984, 38, 369-378.	2.6	39