Krzysztof Palczewski

List of Publications by Year
in descending order

438 papers	31,847 citations	2538 96 h-index	6979 154 g-index
449 all docs	449 docs citations	449 times ranked	16934 citing authors

#	Article	IF	Citations
1	Rhodopsin dimers in native disc membranes. Nature, 2003, 421, 127-128.	13.7	732
2	G Proteinâ€"Coupled Receptor Rhodopsin. Annual Review of Biochemistry, 2006, 75, 743-767.	5.0	663
3	Advances in Determination of a High-Resolution Three-Dimensional Structure of Rhodopsin, a Model of G-Protein-Coupled Receptors (GPCRs)â€,â€¡. Biochemistry, 2001, 40, 7761-7772.	1.2	627
4	Organization of the G Protein-coupled Receptors Rhodopsin and Opsin in Native Membranes. Journal of Biological Chemistry, 2003, 278, 21655-21662.	1.6	534
5	Molecular cloning and characterization of retinal photoreceptor guanylyl cyclase-activating protein. Neuron, 1994, 13, 395-404.	3.8	449
6	Crystal structure of a photoactivated deprotonated intermediate of rhodopsin. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 16123-16128.	3.3	431
7	Long-Term Restoration of Rod and Cone Vision by Single Dose rAAV-Mediated Gene Transfer to the Retina in a Canine Model of Childhood Blindness. Molecular Therapy, 2005, 12, 1072-1082.	3.7	421
8	Activation of rhodopsin: new insights from structural and biochemical studies. Trends in Biochemical Sciences, 2001, 26, 318-324.	3.7	403
9	Diseases Caused by Defects in the Visual Cycle: Retinoids as Potential Therapeutic Agents. Annual Review of Pharmacology and Toxicology, 2007, 47, 469-512.	4.2	365
10	Sequence Analyses of G-Protein-Coupled Receptors:Â Similarities to Rhodopsinâ€. Biochemistry, 2003, 42, 2759-2767.	1.2	339
11	Phagocytosis of Retinal Rod and Cone Photoreceptors. Physiology, 2010, 25, 8-15.	1.6	339
12	Confronting Complexity: the Interlink of Phototransduction and Retinoid Metabolism in the Vertebrate Retina. Progress in Retinal and Eye Research, 2001, 20, 469-529.	7.3	334
13	Role of the conserved NPxxY(x)5,6F motif in the rhodopsin ground state and during activation. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 2290-2295.	3.3	334
14	Lecithin-retinol Acyltransferase Is Essential for Accumulation of All-trans-Retinyl Esters in the Eye and in the Liver. Journal of Biological Chemistry, 2004, 279, 10422-10432.	1.6	321
15	Turned on by Ca2+! The physiology and pathology of Ca2+-binding proteins in the retina. Trends in Neurosciences, 1996, 19, 547-554.	4.2	287
16	Chemistry of the Retinoid (Visual) Cycle. Chemical Reviews, 2014, 114, 194-232.	23.0	285
17	International Union of Basic and Clinical Pharmacology. LXVII. Recommendations for the Recognition and Nomenclature of G Protein-Coupled Receptor Heteromultimers. Pharmacological Reviews, 2007, 59, 5-13.	7.1	274
18	Essential role of Ca2+-binding protein 4, a Cav1.4 channel regulator, in photoreceptor synaptic function. Nature Neuroscience, 2004, 7, 1079-1087.	7.1	272

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19	Photoreceptor cells are major contributors to diabetes-induced oxidative stress and local inflammation in the retina. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 16586-16591.	3.3	261
20	A mitochondrial enzyme degrades carotenoids and protects against oxidative stress. FASEB Journal, 2011, 25, 948-959.	0.2	259
21	Sequential phosphorylation of rhodopsin at multiple sites. Biochemistry, 1993, 32, 5718-5724.	1.2	256
22	Retinoid Absorption and Storage Is Impaired in Mice Lacking Lecithin:Retinol Acyltransferase (LRAT). Journal of Biological Chemistry, 2005, 280, 35647-35657.	1.6	256
23	Structure of the rhodopsin dimer: a working model for G-protein-coupled receptors. Current Opinion in Structural Biology, 2006, 16, 252-259.	2.6	253
24	Engineered virus-like particles for efficient inÂvivo delivery of therapeutic proteins. Cell, 2022, 185, 250-265.e16.	13.5	251
25	Retinopathy in Mice Induced by Disrupted All-trans-retinal Clearance. Journal of Biological Chemistry, 2008, 283, 26684-26693.	1.6	250
26	Identifying photoreceptors in blind eyes caused by RPE65 mutations: Prerequisite for human gene therapy success. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 6177-6182.	3.3	249
27	Chemistry and Biology of Vision. Journal of Biological Chemistry, 2012, 287, 1612-1619.	1.6	238
28	G Protein-Coupled Receptor Rhodopsin: A Prospectus. Annual Review of Physiology, 2003, 65, 851-879.	5.6	237
29	Efficient Coupling of Transducin to Monomeric Rhodopsin in a Phospholipid Bilayer. Journal of Biological Chemistry, 2008, 283, 4387-4394.	1.6	233
30	Anti-rhodopsin monoclonal antibodies of defined specificity: Characterization and application. Vision Research, 1991, 31, 17-31.	0.7	225
31	Probing Mechanisms of Photoreceptor Degeneration in a New Mouse Model of the Common Form of Autosomal Dominant Retinitis Pigmentosa due to P23H Opsin Mutations. Journal of Biological Chemistry, 2011, 286, 10551-10567.	1.6	221
32	Conserved waters mediate structural and functional activation of family A (rhodopsin-like) G protein-coupled receptors. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 8555-8560.	3.3	218
33	Oligomerization of G Protein-Coupled Receptors:Â Past, Present, and Futureâ€. Biochemistry, 2004, 43, 15643-15656.	1.2	213
34	Involvement of All-trans-retinal in Acute Light-induced Retinopathy of Mice. Journal of Biological Chemistry, 2009, 284, 15173-15183.	1.6	209
35	Guanylyl Cyclase Activating Protein. Journal of Biological Chemistry, 1995, 270, 22029-22036.	1.6	201
36	Activation of G-protein-coupled receptors correlates with the formation of a continuous internal water pathway. Nature Communications, 2014, 5, 4733.	5.8	197

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37	The G protein-coupled receptor rhodopsin in the native membrane. FEBS Letters, 2004, 564, 281-288.	1.3	196
38	The Significance of G Protein-Coupled Receptor Crystallography for Drug Discovery. Pharmacological Reviews, 2011, 63, 901-937.	7.1	195
39	Noninvasive two-photon imaging reveals retinyl ester storage structures in the eye. Journal of Cell Biology, 2004, 164, 373-383.	2.3	192
40	Three-dimensional architecture of murine rod outer segments determined by cryoelectron tomography. Journal of Cell Biology, 2007, 177, 917-925.	2.3	192
41	Pharmacological Chaperone-mediated in Vivo Folding and Stabilization of the P23H-opsin Mutant Associated with Autosomal Dominant Retinitis Pigmentosa. Journal of Biological Chemistry, 2003, 278, 14442-14450.	1.6	183
42	Mechanism of All-trans-retinal Toxicity with Implications for Stargardt Disease and Age-related Macular Degeneration. Journal of Biological Chemistry, 2012, 287, 5059-5069.	1.6	182
43	Rod Outer Segment Retinol Dehydrogenase: Substrate Specificity and Role in Phototransduction. Biochemistry, 1994, 33, 13741-13750.	1.2	181
44	Structural waters define a functional channel mediating activation of the GPCR, rhodopsin. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 14367-14372.	3.3	181
45	Dual-substrate Specificity Short Chain Retinol Dehydrogenases from the Vertebrate Retina. Journal of Biological Chemistry, 2002, 277, 45537-45546.	1.6	179
46	X-Ray Diffraction Analysis of Three-Dimensional Crystals of Bovine Rhodopsin Obtained from Mixed Micelles. Journal of Structural Biology, 2000, 130, 73-80.	1.3	176
47	Structure of cone photoreceptors. Progress in Retinal and Eye Research, 2009, 28, 289-302.	7.3	176
48	Phototransduction: crystal clear. Trends in Biochemical Sciences, 2003, 28, 479-487.	3.7	163
49	A concept for G protein activation by G protein-coupled receptor dimers: the transducin/rhodopsin interface. Photochemical and Photobiological Sciences, 2004, 3, 628.	1.6	163
50	RBP4 Disrupts Vitamin A Uptake Homeostasis in a STRA6-Deficient Animal Model for Matthew-Wood Syndrome. Cell Metabolism, 2008, 7, 258-268.	7.2	163
51	ABCA4 disease progression and a proposed strategy for gene therapy. Human Molecular Genetics, 2009, 18, 931-941.	1.4	163
52	Rhodopsin Phosphorylation and Dephosphorylation in Vivo. Journal of Biological Chemistry, 1995, 270, 14259-14262.	1.6	154
53	The ATP-Binding Cassette Transporter ABCA4: Structural and Functional Properties and Role in Retinal Disease. Advances in Experimental Medicine and Biology, 2010, 703, 105-125.	0.8	151
54	GCAP1(Y99C) Mutant Is Constitutively Active in Autosomal Dominant Cone Dystrophy. Molecular Cell, 1998, 2, 129-133.	4.5	150

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55	Ca2+-binding proteins in the retina: Structure, function, and the etiology of human visual diseases. BioEssays, 2000, 22, 337-350.	1.2	149
56	Photoreceptor Proteins Initiate Microglial Activation via Toll-like Receptor 4 in Retinal Degeneration Mediated by All-trans-retinal. Journal of Biological Chemistry, 2013, 288, 15326-15341.	1.6	149
57	Kinetics of Visual Pigment Regeneration in Excised Mouse Eyes and in Mice with a Targeted Disruption of the Gene Encoding Interphotoreceptor Retinoid-Binding Protein or Arrestinâ€. Biochemistry, 1999, 38, 12012-12019.	1.2	146
58	Related enzymes solve evolutionarily recurrent problems in the metabolism of carotenoids. Trends in Plant Science, 2005, 10, 178-186.	4.3	145
59	Three-dimensional Structure of Guanylyl Cyclase Activating Protein-2, a Calcium-sensitive Modulator of Photoreceptor Guanylyl Cyclases. Journal of Biological Chemistry, 1999, 274, 19329-19337.	1.6	143
60	Key enzymes of the retinoid (visual) cycle in vertebrate retina. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2012, 1821, 137-151.	1.2	141
61	Opsin/all-trans-Retinal Complex Activates Transducin by Different Mechanisms Than Photolyzed Rhodopsinâ€. Biochemistry, 1996, 35, 2901-2908.	1.2	140
62	Crystal structure of native RPE65, the retinoid isomerase of the visual cycle. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 17325-17330.	3.3	140
63	Role of Photoreceptor-specific Retinol Dehydrogenase in the Retinoid Cycle in Vivo. Journal of Biological Chemistry, 2005, 280, 18822-18832.	1.6	139
64	Recovery of Visual Functions in a Mouse Model of Leber Congenital Amaurosis. Journal of Biological Chemistry, 2002, 277, 19173-19182.	1.6	138
65	Rhodopsin phosphorylation: 30 years later. Progress in Retinal and Eye Research, 2003, 22, 417-434.	7.3	138
66	Rhodopsin Signaling and Organization in Heterozygote Rhodopsin Knockout Mice. Journal of Biological Chemistry, 2004, 279, 48189-48196.	1.6	138
67	Two Carotenoid Oxygenases Contribute to Mammalian Provitamin A Metabolism. Journal of Biological Chemistry, 2013, 288, 34081-34096.	1.6	137
68	A Novel Mutation (I143NT) in Guanylate Cyclase-Activating Protein 1 (GCAP1) Associated with Autosomal Dominant Cone Degeneration. , 2004, 45, 3863.		135
69	Human cone photoreceptor dependence on RPE65 isomerase. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15123-15128.	3.3	135
70	Molecular Characterization of a Third Member of the Guanylyl Cyclase-activating Protein Subfamily. Journal of Biological Chemistry, 1999, 274, 6526-6535.	1.6	131
71	Reduction of all-trans-retinal limits regeneration of visual pigment in mice. Vision Research, 1998, 38, 1325-1333.	0.7	127
72	Functional and Structural Characterization of Rhodopsin Oligomers. Journal of Biological Chemistry, 2006, 281, 11917-11922.	1.6	125

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73	Primary amines protect against retinal degeneration in mouse models of retinopathies. Nature Chemical Biology, 2012, 8, 170-178.	3.9	125
74	Preferential Release of 11-cis-retinol from Retinal Pigment Epithelial Cells in the Presence of Cellular Retinaldehyde-binding Protein. Journal of Biological Chemistry, 1999, 274, 8577-8585.	1.6	122
75	Positively charged retinoids are potent and selective inhibitors of the trans-cis isomerization in the retinoid (visual) cycle. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 8162-8167.	3.3	121
76	Disruption of the 11- cis -Retinol Dehydrogenase Gene Leads to Accumulation of cis -Retinols and cis -Retinyl Esters. Molecular and Cellular Biology, 2000, 20, 4275-4287.	1.1	120
77	Pharmacological and rAAV Gene Therapy Rescue of Visual Functions in a Blind Mouse Model of Leber Congenital Amaurosis. PLoS Medicine, 2005, 2, e333.	3.9	120
78	Structural basis of carotenoid cleavage: From bacteria to mammals. Archives of Biochemistry and Biophysics, 2013, 539, 203-213.	1.4	119
79	Robust Endoplasmic Reticulum-Associated Degradation of Rhodopsin Precedes Retinal Degeneration. Molecular Neurobiology, 2015, 52, 679-695.	1.9	119
80	Functional Characterization of Rhodopsin Monomers and Dimers in Detergents. Journal of Biological Chemistry, 2004, 279, 54663-54675.	1.6	118
81	Activation of G Proteinâ€"Coupled Receptors: Beyond Two-State Models and Tertiary Conformational Changes. Annual Review of Pharmacology and Toxicology, 2008, 48, 107-141.	4.2	118
82	Structural and Enzymatic Aspects of Rhodopsin Phosphorylation. Journal of Biological Chemistry, 1996, 271, 5215-5224.	1.6	117
83	The Crystallographic Model of Rhodopsin and Its Use in Studies of Other G Proteinâ€"Coupled Receptors. Annual Review of Biophysics and Biomolecular Structure, 2003, 32, 375-397.	18.3	116
84	Stabilizing Function for Myristoyl Group Revealed by the Crystal Structure of a Neuronal Calcium Sensor, Guanylate Cyclase-Activating Protein 1. Structure, 2007, 15, 1392-1402.	1.6	113
85	Sponge Transgenic Mouse Model Reveals Important Roles for the MicroRNA-183 (miR-183)/96/182 Cluster in Postmitotic Photoreceptors of the Retina. Journal of Biological Chemistry, 2011, 286, 31749-31760.	1.6	111
86	Retinoids for treatment of retinal diseases. Trends in Pharmacological Sciences, 2010, 31, 284-295.	4.0	110
87	Noninvasive two-photon microscopy imaging of mouse retina and retinal pigment epithelium through the pupil of the eye. Nature Medicine, 2014, 20, 785-789.	15.2	108
88	Ligand Channeling within a G-protein-coupled Receptor. Journal of Biological Chemistry, 2003, 278, 24896-24903.	1.6	107
89	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.	3.7	105
90	Mechanisms of Opsin Activation. Journal of Biological Chemistry, 1996, 271, 20621-20630.	1.6	104

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91	GTP-Binding-Protein-Coupled Receptor Kinases Two Mechanistic Models. FEBS Journal, 1997, 248, 261-269.	0.2	103
92	Redundant and unique roles of retinol dehydrogenases in the mouse retina. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 19565-19570.	3.3	103
93	Signaling States of Rhodopsin. Journal of Biological Chemistry, 2003, 278, 3162-3169.	1.6	101
94	Topology of Class A G Protein-Coupled Receptors: Insights Gained from Crystal Structures of Rhodopsins, Adrenergic and Adenosine Receptors. Molecular Pharmacology, 2009, 75, 1-12.	1.0	101
95	Guanylate cyclase-activating proteins: structure, function, and diversity. Biochemical and Biophysical Research Communications, 2004, 322, 1123-1130.	1.0	100
96	Visual Rhodopsin Sees the Light: Structure and Mechanism of G Protein Signaling. Journal of Biological Chemistry, 2007, 282, 9297-9301.	1.6	100
97	Rod and cone visual cycle consequences of a null mutation in the 11-cis-retinol dehydrogenase gene in man. Visual Neuroscience, 2000, 17, 667-678.	0.5	99
98	P23H opsin knock-in mice reveal a novel step in retinal rod disc morphogenesis. Human Molecular Genetics, 2014, 23, 1723-1741.	1.4	99
99	Diversity of Guanylate Cyclase-Activating Proteins (GCAPs) in Teleost Fish: Characterization of Three Novel GCAPs (GCAP4, GCAP5, GCAP7) from Zebrafish (Danio rerio) and Prediction of Eight GCAPs (GCAP1-8) in Pufferfish (Fugu rubripes). Journal of Molecular Evolution, 2004, 59, 204-217.	0.8	98
100	Retinol Dehydrogenase (RDH12) Protects Photoreceptors from Light-induced Degeneration in Mice. Journal of Biological Chemistry, 2006, 281, 37697-37704.	1.6	98
101	Trafficking of Membrane-Associated Proteins to Cone Photoreceptor Outer Segments Requires the Chromophore 11-<i>cis</i>-Retinal. Journal of Neuroscience, 2008, 28, 4008-4014.	1.7	97
102	Characterization of retinal guanylate cyclase-activating protein 3 (GCAP3) from zebrafish to man. European Journal of Neuroscience, 2002, 15, 63-78.	1.2	95
103	Functional Differences in the Interaction of Arrestin and Its Splice Variant, p44, with Rhodopsin. Biochemistry, 1997, 36, 9253-9260.	1.2	94
104	Retinosomes. Journal of Cell Biology, 2004, 166, 447-453.	2.3	94
105	Impairment of the Transient Pupillary Light Reflex inRpe65â^'/â^'Mice and Humans with Leber Congenital Amaurosis. , 2004, 45, 1259.		92
106	Delayed Dark Adaptation in 11-cis-Retinol Dehydrogenase-deficient Mice. Journal of Biological Chemistry, 2005, 280, 8694-8704.	1.6	92
107	Vertebrate Membrane Proteins: Structure, Function, and Insights from Biophysical Approaches. Pharmacological Reviews, 2008, 60, 43-78.	7.1	92
108	STRA6 is critical for cellular vitamin A uptake and homeostasis. Human Molecular Genetics, 2014, 23, 5402-5417.	1.4	92

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109	Isomerization of all-trans-Retinol to cis-Retinols in Bovine Retinal Pigment Epithelial Cells:â€‰ Dependence on the Specificity of Retinoid-Binding Proteins. Biochemistry, 2000, 39, 11370-11380.	1.2	91
110	Restoration of visual function in adult mice with an inherited retinal disease via adenine base editing. Nature Biomedical Engineering, 2021, 5, 169-178.	11.6	90
111	Changes in Biological Activity and Folding of Guanylate Cyclase-Activating Protein 1 as a Function of Calciumâ€. Biochemistry, 1998, 37, 248-257.	1.2	89
112	Rhodopsin self-associates in asolectin liposomes. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 3060-3065.	3.3	89
113	Oligomeric forms of G protein-coupled receptors (GPCRs). Trends in Biochemical Sciences, 2010, 35, 595-600.	3.7	88
114	The catalytic subunit of phosphatase 2A dephosphorylates phosphoopsin. Biochemistry, 1989, 28, 415-419.	1.2	87
115	Images of photoreceptors in living primate eyes using adaptive optics two-photon ophthalmoscopy. Biomedical Optics Express, 2011, 2, 139.	1.5	87
116	Topographic study of arrestin using differential chemical modifications and hydrogen/deuterium exchange. Protein Science, 1994, 3, 2428-2434.	3.1	86
117	Structures of Rhodopsin Kinase in Different Ligand States Reveal Key Elements Involved in G Protein-coupled Receptor Kinase Activation. Journal of Biological Chemistry, 2008, 283, 14053-14062.	1.6	85
118	Metabolic Basis of Visual Cycle Inhibition by Retinoid and Nonretinoid Compounds in the Vertebrate Retina. Journal of Biological Chemistry, 2008, 283, 9543-9554.	1.6	85
119	Retinoids and Retinal Diseases. Annual Review of Vision Science, 2016, 2, 197-234.	2.3	85
120	Structure and functions of arrestins. Protein Science, 1994, 3, 1355-1361.	3.1	83
121	Functional Reconstitution of Photoreceptor Guanylate Cyclase with Native and Mutant Forms of Guanylate Cyclase-Activating Protein 1. Biochemistry, 1997, 36, 4295-4302.	1.2	83
122	Effects of Potent Inhibitors of the Retinoid Cycle on Visual Function and Photoreceptor Protection from Light Damage in Mice. Molecular Pharmacology, 2006, 70, 1220-1229.	1.0	82
123	Lecithin:Retinol Acyltransferase Is Critical for Cellular Uptake of Vitamin A from Serum Retinol-binding Protein. Journal of Biological Chemistry, 2012, 287, 24216-24227.	1.6	82
124	Evaluation of the role of the retinal G proteinâ€coupled receptor (RGR) in the vertebrate retina <i>in vivo</i>. Journal of Neurochemistry, 2003, 85, 944-956.	2.1	80
125	Lentiviral Expression of Retinal Guanylate Cyclase-1 (RetGC1) Restores Vision in an Avian Model of Childhood Blindness. PLoS Medicine, 2006, 3, e201.	3.9	80
126	Human infrared vision is triggered by two-photon chromophore isomerization. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E5445-54.	3.3	80

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127	Delivery of Retinoid-Based Therapies To Target Tissues. Biochemistry, 2007, 46, 4449-4458.	1.2	79
128	Noninvasive multiphoton fluorescence microscopy resolves retinol and retinal condensation products in mouse eyes. Nature Medicine, 2010, 16, 1444-1449.	15.2	78
129	Loss of cone photoreceptors caused by chromophore depletion is partially prevented by the artificial chromophore pro-drug, 9-cis-retinyl acetate. Human Molecular Genetics, 2009, 18, 2277-2287.	1.4	77
130	Limited Roles of Rdh8, Rdh12, and Abca4 in all-<i>trans</i>-Retinal Clearance in Mouse Retina. , 2009, 50, 5435.		77
131	Defective photoreceptor phagocytosis in a mouse model of enhanced Sâ€cone syndrome causes progressive retinal degeneration. FASEB Journal, 2011, 25, 3157-3176.	0.2	76
132	In vivo two-photon imaging of the mouse retina. Biomedical Optics Express, 2013, 4, 1285.	1.5	76
133	The supramolecular structure of the GPCR rhodopsin in solution and native disc membranes. Molecular Membrane Biology, 2004, 21, 435-446.	2.0	75
134	GPCR-OKB: the G Protein Coupled Receptor Oligomer Knowledge Base. Bioinformatics, 2010, 26, 1804-1805.	1.8	74
135	Activation and inactivation steps in the visual transduction pathway. Current Opinion in Neurobiology, 1997, 7, 500-504.	2.0	73
136	Retinyl Ester Storage Particles (Retinosomes) from the Retinal Pigmented Epithelium Resemble Lipid Droplets in Other Tissues. Journal of Biological Chemistry, 2011, 286, 17248-17258.	1.6	73
137	Retinal Pigmented Epithelial Cells Obtained from Human Induced Pluripotent Stem Cells Possess Functional Visual Cycle Enzymes in Vitro and in Vivo. Journal of Biological Chemistry, 2013, 288, 34484-34493.	1.6	73
138	Detecting Molecular Interactions that Stabilize Native Bovine Rhodopsin. Journal of Molecular Biology, 2006, 358, 255-269.	2.0	71
139	Disruption of Rhodopsin Dimerization with Synthetic Peptides Targeting an Interaction Interface. Journal of Biological Chemistry, 2015, 290, 25728-25744.	1.6	71
140	Systems pharmacology identifies drug targets for Stargardt diseaseâ€“associated retinal degeneration. Journal of Clinical Investigation, 2013, 123, 5119-5134.	3.9	70
141	Protein misfolding and the pathogenesis of ABCA4-associated retinal degenerations. Human Molecular Genetics, 2015, 24, 3220-3237.	1.4	69
142	Characterization of a truncated form of arrestin isolated from bovine rod outer segments. Protein Science, 1994, 3, 314-324.	3.1	68
143	Catalytic mechanism of a retinoid isomerase essential for vertebrate vision. Nature Chemical Biology, 2015, 11, 409-415.	3.9	66
144	Targeting G protein-coupled receptor signaling at the G protein level with a selective nanobody inhibitor. Nature Communications, 2018, 9, 1996.	5.8	65

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145	Structural Basis for the Acyltransferase Activity of Lecithin:Retinol Acyltransferase-like Proteins. Journal of Biological Chemistry, 2012, 287, 23790-23807.	1.6	64
146	Cryo-EM structure of the native rhodopsin dimer in nanodiscs. Journal of Biological Chemistry, 2019, 294, 14215-14230.	1.6	64
147	Binding of inositol phosphates to arrestin. FEBS Letters, 1991, 295, 195-199.	1.3	63
148	Identification of a Guanylyl Cyclase-Activating Protein-Binding Site within the Catalytic Domain of Retinal Guanylyl Cyclase1. Biochemistry, 1999, 38, 1387-1393.	1.2	63
149	Retinoid cycle in the vertebrate retina: experimental approaches and mechanisms of isomerization. Vision Research, 2003, 43, 2959-2981.	0.7	63
150	Conformational Dynamics of Activation for the Pentameric Complex of Dimeric G Protein-Coupled Receptor and Heterotrimeric G Protein. Structure, 2012, 20, 826-840.	1.6	63
151	Photoreceptor cells produce inflammatory products that contribute to retinal vascular permeability in a mouse model of diabetes. Diabetologia, 2017, 60, 2111-2120.	2.9	63
152	A Novel GCAP1 Missense Mutation (L151F) in a Large Family with Autosomal Dominant Cone-Rod Dystrophy (adCORD). , 2005, 46, 1124.		61
153	Stabilizing Effect of Zn2+ in Native Bovine Rhodopsin. Journal of Biological Chemistry, 2007, 282, 11377-11385.	1.6	61
154	Inner retinal photoreception independent of the visual retinoid cycle. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10426-10431.	3.3	60
155	Role of membrane integrity on G protein-coupled receptors: Rhodopsin stability and function. Progress in Lipid Research, 2011, 50, 267-277.	5.3	59
156	Human aging and disease: Lessons from age-related macular degeneration. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2866-2872.	3.3	59
157	Molecular pharmacodynamics of emixustat in protection against retinal degeneration. Journal of Clinical Investigation, 2015, 125, 2781-2794.	3.9	59
158	Structure of RPE65 isomerase in a lipidic matrix reveals roles for phospholipids and iron in catalysis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E2747-56.	3.3	58
159	Asymmetry of the rhodopsin dimer in complex with transducin. FASEB Journal, 2013, 27, 1572-1584.	0.2	58
160	PCARE and WASF3 regulate ciliary F-actin assembly that is required for the initiation of photoreceptor outer segment disk formation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 9922-9931.	3.3	58
161	A Naturally Occurring Mutation of the Opsin Gene (T4R) in Dogs Affects Glycosylation and Stability of the G Protein-coupled Receptor. Journal of Biological Chemistry, 2004, 279, 53828-53839.	1.6	57
162	Diversifying the repertoire of G protein-coupled receptors through oligomerization. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 8793-8794.	3.3	57

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163	Importance of Membrane Structural Integrity for RPE65 Retinoid Isomerization Activity. Journal of Biological Chemistry, 2010, 285, 9667-9682.	1.6	57
164	Two-photon microscopy reveals early rod photoreceptor cell damage in light-exposed mutant mice. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1428-37.	3.3	57
165	Characterization of a Dehydrogenase Activity Responsible for Oxidation of 11-cis-Retinol in the Retinal Pigment Epithelium of Mice with a Disrupted RDH5 Gene. Journal of Biological Chemistry, 2001, 276, 32456-32465.	1.6	56
166	Lecithin:Retinol Acyltransferase Is Responsible for Amidation of Retinylamine, a Potent Inhibitor of the Retinoid Cycle. Journal of Biological Chemistry, 2005, 280, 42263-42273.	1.6	56
167	Toll-like Receptor 3 Is Required for Development of Retinopathy Caused by Impaired All-trans-retinal Clearance in Mice. Journal of Biological Chemistry, 2011, 286, 15543-15555.	1.6	56
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