Krzysztof Palczewski

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

431 papers	26,756 citations	91 h-index	144 g-index
449 ext. papers	29,540 ext. citations	7.1 avg, IF	7.15 L-index

#	Paper	IF	Citations
431	Inhibition of ceramide accumulation in AdipoR1-/- mice increases photoreceptor survival and improves vision.. *JCI Insight*, **2022**,	9.9	1
430	Engineered virus-like particles for efficient in vivo delivery of therapeutic proteins.. *Cell*, **2022**, 185, 250-265.e16	56.2	66
429	VCP/p97 inhibitor CB-5083 modulates muscle pathology in a mouse model of VCP inclusion body myopathy.. *Journal of Translational Medicine*, **2022**, 20, 21	8.5	0
428	Capturing a rhodopsin receptor signalling cascade across a native membrane.. *Nature*, **2022**,	50.4	4
427	In vivo base editing rescues cone photoreceptors in a mouse model of early-onset inherited retinal degeneration.. *Nature Communications*, **2022**, 13, 1830	17.4	8
426	MicroRNA regulation of critical retinal pigment epithelial functions. *Trends in Neurosciences*, **2021**,	13.3	4
425	In vivo imaging of the human eye using a two-photon excited fluorescence scanning laser ophthalmoscope. *Journal of Clinical Investigation*, **2021**,	15.9	2
424	Identification of small-molecule allosteric modulators that act as enhancers/disrupters of rhodopsin oligomerization. *Journal of Biological Chemistry*, **2021**, 297, 101401	5.4	2
423	Structural evidence for visual arrestin priming via complexation of phosphoinositols. *Structure*, **2021**,	5.2	1
422	Two-photon microperimetry with picosecond pulses. *Biomedical Optics Express*, **2021**, 12, 462-479	3.5	3
421	THE LOSS OF INFRARED LIGHT SENSITIVITY OF PHOTORECEPTOR CELLS MEASURED WITH TWO-PHOTON EXCITATION AS AN INDICATOR OF DIABETIC RETINOPATHY: A Pilot Study. *Retina*, **2021**, 41, 1302-1308	3.6	3
420	Function of mammalian M-cones depends on the level of CRALBP in Müller cells. *Journal of General Physiology*, **2021**, 153,	3.4	4
419	An inducible Cre mouse for studying roles of the RPE in retinal physiology and disease. *JCI Insight*, **2021**, 6,	9.9	4
418	Peptide Derivatives of Retinylamine Prevent Retinal Degeneration with Minimal Side Effects on Vision in Mice. *Bioconjugate Chemistry*, **2021**, 32, 572-583	6.3	0
417	A p97/Valosin-Containing Protein Inhibitor Drug CB-5083 Has a Potent but Reversible Off-Target Effect on Phosphodiesterase-6. *Journal of Pharmacology and Experimental Therapeutics*, **2021**, 378, 31-41	4.7	4
416	Rational Alteration of Pharmacokinetics of Chiral Fluorinated and Deuterated Derivatives of Emixustat for Retinal Therapy. *Journal of Medicinal Chemistry*, **2021**, 64, 8287-8302	8.3	5
415	Nano-scale resolution of native retinal rod disk membranes reveals differences in lipid composition. *Journal of Cell Biology*, **2021**, 220,	7.3	6

414	Retinoids in the visual cycle: role of the retinal G protein-coupled receptor. *Journal of Lipid Research* , **2021**, 62, 100040	6.3	11
413	Restoration of visual function in adult mice with an inherited retinal disease via adenine base editing. *Nature Biomedical Engineering*, **2021**, 5, 169-178	19	28
412	Pathways and disease-causing alterations in visual chromophore production for vertebrate vision. *Journal of Biological Chemistry*, **2021**, 296, 100072	5.4	11
411	Formulation and efficacy of ECO/pRHO-ABCA4-SV40 nanoparticles for nonviral gene therapy of Stargardt disease in a mouse model. *Journal of Controlled Release*, **2021**, 330, 329-340	11.7	6
410	Regulation of Adrenergic, Serotonin, and Dopamine Receptors to Inhibit Diabetic Retinopathy: Monotherapies versus Combination Therapies. *Molecular Pharmacology*, **2021**, 100, 470-479	4.3	0
409	New focus on regulation of the rod photoreceptor phosphodiesterase. *Current Opinion in Structural Biology*, **2021**, 69, 99-107	8.1	1
408	Theoretical Study of the Photoisomerization Mechanism of All--Retinyl Acetate. *Journal of Physical Chemistry A*, **2021**, 125, 8358-8372	2.8	
407	Determinants shaping the nanoscale architecture of the mouse rod outer segment.. *ELife*, **2021**, 10,	8.9	3
406	Straightforward Access to Terminally Disubstituted Electron-Deficient Alkylidene Cyclopent-2-en-4-ones through Olefination with α-Carbonyl and α-Cyano Secondary Alkyl Sulfones. *European Journal of Organic Chemistry*, **2021**, 2021, 6725-6736	3.2	
405	PAR4 activation involves extracellular loop 3 and transmembrane residue Thr153. *Blood*, **2020**, 136, 2217-2228	22	11
404	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	11.5	18
403	Stable Retinoid Analogue Targeted Dual pH-Sensitive Smart Lipid ECO/pDNA Nanoparticles for Specific Gene Delivery in the Retinal Pigment Epithelium. *ACS Applied Bio Materials*, **2020**, 3, 3078-3086	4.1	3
402	Homeostatic plasticity in the retina is associated with maintenance of night vision during retinal degenerative disease. *ELife*, **2020**, 9,	8.9	13
401	Development of chiral fluorinated alkyl derivatives of emixustat as drug candidates for the treatment of retinal degenerative diseases. *Bioorganic and Medicinal Chemistry Letters*, **2020**, 30, 127421	2.9	
400	Epigenetic hallmarks of age-related macular degeneration are recapitulated in a photosensitive mouse model. *Human Molecular Genetics*, **2020**, 29, 2611-2624	5.6	7
399	Clinical Application of Infrared-Light Microperimetry in the Assessment of Scotopic-Eye Sensitivity. *Translational Vision Science and Technology*, **2020**, 9, 7	3.3	4
398	Shedding new light on the generation of the visual chromophore. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 19629-19638	11.5	23
397	Single particle cryo-EM of the complex between interphotoreceptor retinoid-binding protein and a monoclonal antibody. *FASEB Journal*, **2020**, 34, 13918-13934	0.9	3

396	Noninvasive two-photon optical biopsy of retinal fluorophores. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 22532-22543	11.5	8
395	Non-viral Gene Therapy for Stargardt Disease with ECO/pRHO-ABCA4 Self-Assembled Nanoparticles. *Molecular Therapy*, **2020**, 28, 293-303	11.7	16
394	Melanopsin Carboxy-terminus phosphorylation plasticity and bulk negative charge, not strict site specificity, achieves phototransduction deactivation. *PLoS ONE*, **2020**, 15, e0228121	3.7	4
393	Melanopsin Carboxy-terminus phosphorylation plasticity and bulk negative charge, not strict site specificity, achieves phototransduction deactivation **2020**, 15, e0228121		
392	Melanopsin Carboxy-terminus phosphorylation plasticity and bulk negative charge, not strict site specificity, achieves phototransduction deactivation **2020**, 15, e0228121		
391	Melanopsin Carboxy-terminus phosphorylation plasticity and bulk negative charge, not strict site specificity, achieves phototransduction deactivation **2020**, 15, e0228121		
390	Melanopsin Carboxy-terminus phosphorylation plasticity and bulk negative charge, not strict site specificity, achieves phototransduction deactivation **2020**, 15, e0228121		
389	Z-isomerization of retinoids through combination of monochromatic photoisomerization and metal catalysis. *Organic and Biomolecular Chemistry*, **2019**, 17, 8125-8139	3.9	4
388	Sensitivity of Mammalian Cone Photoreceptors to Infrared Light. *Neuroscience*, **2019**, 416, 100-108	3.9	5
387	Stereospecific modulation of dimeric rhodopsin. *FASEB Journal*, **2019**, 33, 9526-9539	0.9	4
386	Catalytic synthesis of 9-cis-retinoids: mechanistic insights. *Dalton Transactions*, **2019**, 48, 10581-10595	4.3	4
385	The selective estrogen receptor modulator raloxifene mitigates the effect of all–retinal toxicity in photoreceptor degeneration. *Journal of Biological Chemistry*, **2019**, 294, 9461-9475	5.4	4
384	Transducin1, Phototransduction and the Development of Early Diabetic Retinopathy **2019**, 60, 1538-1546		28
383	Cryo-EM structure of phosphodiesterase 6 reveals insights into the allosteric regulation of type I phosphodiesterases. *Science Advances*, **2019**, 5, eaav4322	14.3	21
382	A Mixture of U.S. Food and Drug Administration-Approved Monoaminergic Drugs Protects the Retina From Light Damage in Diverse Models of Night Blindness **2019**, 60, 1442-1453		4
381	Human red and green cone opsins are -glycosylated at an N-terminal Ser/Thr-rich domain conserved in vertebrates. *Journal of Biological Chemistry*, **2019**, 294, 8123-8133	5.4	5
380	Cryo-EM structure of the native rhodopsin dimer in nanodiscs. *Journal of Biological Chemistry*, **2019**, 294, 14215-14230	5.4	34
379	Tissue- and Species-Specific Patterns of RNA metabolism in Post-Mortem Mammalian Retina and Retinal Pigment Epithelium. *Scientific Reports*, **2019**, 9, 14821	4.9	4

378	Photic generation of 11--retinal in bovine retinal pigment epithelium. *Journal of Biological Chemistry*, **2019**, 294, 19137-19154	5.4	18
377	Two-photon microperimetry: sensitivity of human photoreceptors to infrared light. *Biomedical Optics Express*, **2019**, 10, 4551-4567	3.5	12
376	Immuno-TEM/STEM in Retinal Research. *Methods in Molecular Biology*, **2019**, 1834, 311-332	1.4	
375	Specificity of the chromophore-binding site in human cone opsins. *Journal of Biological Chemistry*, **2019**, 294, 6082-6093	5.4	7
374	Retinol Saturase Knock-Out Mice are Characterized by Impaired Clearance of Apoptotic Cells and Develop Mild Autoimmunity. *Biomolecules*, **2019**, 9,	5.9	2
373	Apo-Opsin Exists in Equilibrium Between a Predominant Inactive and a Rare Highly Active State. *Journal of Neuroscience*, **2019**, 39, 212-223	6.6	7
372	Müller glia phagocytose dead photoreceptor cells in a mouse model of retinal degenerative disease. *FASEB Journal*, **2019**, 33, 3680-3692	0.9	19
371	Conditional deletion of Des1 in the mouse retina does not impair the visual cycle in cones. *FASEB Journal*, **2019**, 33, 5782-5792	0.9	14
370	Noninvasive Two-Photon Microscopy Imaging of Mouse Retina and Retinal Pigment Epithelium. *Methods in Molecular Biology*, **2019**, 1834, 333-343	1.4	2
369	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	11.5	38
368	Insights into the pathogenesis of dominant retinitis pigmentosa associated with a D477G mutation in RPE65. *Human Molecular Genetics*, **2018**, 27, 2225-2243	5.6	21
367	Retinal-chitosan Conjugates Effectively Deliver Active Chromophores to Retinal Photoreceptor Cells in Blind Mice and Dogs. *Molecular Pharmacology*, **2018**, 93, 438-452	4.3	11
366	Increasing the Stability of Recombinant Human Green Cone Pigment. *Biochemistry*, **2018**, 57, 1022-1030	3.2	2
365	Retinoid isomerase inhibitors impair but do not block mammalian cone photoreceptor function. *Journal of General Physiology*, **2018**, 150, 571-590	3.4	22
364	Exploring a new ligand binding site of G protein-coupled receptors. *Chemical Science*, **2018**, 9, 6480-6489	9.4	33
363	Protective Effect of a Locked Retinal Chromophore Analog against Light-Induced Retinal Degeneration. *Molecular Pharmacology*, **2018**, 94, 1132-1144	4.3	6
362	A Combination of G Protein-Coupled Receptor Modulators Protects Photoreceptors from Degeneration. *Journal of Pharmacology and Experimental Therapeutics*, **2018**, 364, 207-220	4.7	12
361	Two-photon imaging of the mammalian retina with ultrafast pulsing laser. *JCI Insight*, **2018**, 3,	9.9	14

360	An Expedient Synthesis of CMF-019: (S)-5-Methyl-3-{1-(pentan-3-yl)-2-(thiophen-2-ylmethyl)-1H-benzo[d]imidazole-5-carboxamido}hexanoic Acid, a Potent Apelin Receptor (APJ) Agonist. *Medicinal Chemistry*, **2018**, 14, 688-694	1.8	9
359	Structural biology of 11-retinaldehyde production in the classical visual cycle. *Biochemical Journal*, **2018**, 475, 3171-3188	3.8	9
358	New GABA modulators protect photoreceptor cells from light-induced degeneration in mouse models. *FASEB Journal*, **2018**, 32, 3289-3300	0.9	5
357	A novel small molecule chaperone of rod opsin and its potential therapy for retinal degeneration. *Nature Communications*, **2018**, 9, 1976	17.4	25
356	Targeting G protein-coupled receptor signaling at the G protein level with a selective nanobody inhibitor. *Nature Communications*, **2018**, 9, 1996	17.4	45
355	A Small Chaperone Improves Folding and Routing of Rhodopsin Mutants Linked to Inherited Blindness. *IScience*, **2018**, 4, 1-19	6.1	28
354	Rescue of mutant rhodopsin traffic by metformin-induced AMPK activation accelerates photoreceptor degeneration. *Human Molecular Genetics*, **2017**, 26, 305-319	5.6	25
353	MicroRNA-processing Enzymes Are Essential for Survival and Function of Mature Retinal Pigmented Epithelial Cells in Mice. *Journal of Biological Chemistry*, **2017**, 292, 3366-3378	5.4	20
352	Hydrogen/Deuterium Exchange Mass Spectrometry of Human Green Opsin Reveals a Conserved Pro-Pro Motif in Extracellular Loop 2 of Monostable Visual G Protein-Coupled Receptors. *Biochemistry*, **2017**, 56, 2338-2348	3.2	5
351	Structure and Spectroscopy of Alkene-Cleaving Dioxygenases Containing an Atypically Coordinated Non-Heme Iron Center. *Biochemistry*, **2017**, 56, 2836-2852	3.2	20
350	Rational Tuning of Visual Cycle Modulator Pharmacodynamics. *Journal of Pharmacology and Experimental Therapeutics*, **2017**, 362, 131-145	4.7	15
349	Targeted Multifunctional Lipid ECO Plasmid DNA Nanoparticles as Efficient Non-viral Gene Therapy for Leber Congenital Amaurosis. *Molecular Therapy - Nucleic Acids*, **2017**, 7, 42-52	10.7	24
348	Photocyclic behavior of rhodopsin induced by an atypical isomerization mechanism. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E2608-E2615	11.5	22
347	Quantitative phosphoproteomics reveals involvement of multiple signaling pathways in early phagocytosis by the retinal pigmented epithelium. *Journal of Biological Chemistry*, **2017**, 292, 19826-19839	5.4	7
346	Dephosphorylation by protein phosphatase 2A regulates visual pigment regeneration and the dark adaptation of mammalian photoreceptors. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E9675-E9684	11.5	7
345	Towards Treatment of Stargardt Disease: Workshop Organized and Sponsored by the Foundation Fighting Blindness. *Translational Vision Science and Technology*, **2017**, 6, 6	3.3	36
344	Formation and Clearance of All-Trans-Retinol in Rods Investigated in the Living Primate Eye With Two-Photon Ophthalmoscopy **2017**, 58, 604-613		19
343	Designing Safer Analgesics via Opioid Receptor Pathways. *Trends in Pharmacological Sciences*, **2017**, 38, 1016-1037	13.2	42

342	Skunkworks project for Big Pharma. *Pharmacological Research*, **2017**, 124, 167-168	10.2	1
341	Photoreceptor cells produce inflammatory products that contribute to retinal vascular permeability in a mouse model of diabetes. *Diabetologia*, **2017**, 60, 2111-2120	10.3	44
340	Crowd sourcing difficult problems in protein science. *Protein Science*, **2017**, 26, 2118-2125	6.3	1
339	Complex binding pathways determine the regeneration of mammalian green cone opsin with a locked retinal analogue. *Journal of Biological Chemistry*, **2017**, 292, 10983-10997	5.4	8
338	The role of retinol dehydrogenase 10 in the cone visual cycle. *Scientific Reports*, **2017**, 7, 2390	4.9	11
337	A G Protein-Coupled Receptor Dimerization Interface in Human Cone Opsins. *Biochemistry*, **2017**, 56, 61-72	3.2	20
336	Transcriptome profiling of NIH3T3 cell lines expressing opsin and the P23H opsin mutant identifies candidate drugs for the treatment of retinitis pigmentosa. *Pharmacological Research*, **2017**, 115, 1-13	10.2	6
335	Context-dependent compensation among phosphatidylserine-recognition receptors. *Scientific Reports*, **2017**, 7, 14623	4.9	14
334	Multimodal nonlinear optical imaging of unstained retinas in the epi-direction with a sub-40 fs Yb-fiber laser. *Biomedical Optics Express*, **2017**, 8, 5228-5242	3.5	10
333	Systems Pharmacology Links GPCRs with Retinal Degenerative Disorders. *Annual Review of Pharmacology and Toxicology*, **2016**, 56, 273-98	17.9	19
332	Transcriptome analysis reveals rod/cone photoreceptor specific signatures across mammalian retinas. *Human Molecular Genetics*, **2016**, 25, 4376-4388	5.6	27
331	Synergistically acting agonists and antagonists of G protein-coupled receptors prevent photoreceptor cell degeneration. *Science Signaling*, **2016**, 9, ra74	8.8	22
330	Structural Insights into the Drosophila melanogaster Retinol Dehydrogenase, a Member of the Short-Chain Dehydrogenase/Reductase Family. *Biochemistry*, **2016**, 55, 6545-6557	3.2	14
329	Dominant and recessive mutations in rhodopsin activate different cell death pathways. *Human Molecular Genetics*, **2016**, 25, 2801-2812	5.6	20
328	Lecithin:Retinol Acyltransferase: A Key Enzyme Involved in the Retinoid (visual) Cycle. *Biochemistry*, **2016**, 55, 3082-91	3.2	15
327	An effective thiol-reactive probe for differential scanning fluorimetry with a standard real-time polymerase chain reaction device. *Analytical Biochemistry*, **2016**, 499, 63-65	3.1	19
326	The Biochemical Basis of Vitamin A3 Production in Arthropod Vision. *ACS Chemical Biology*, **2016**, 11, 1049-57	4.9	21
325	The impact of microRNA gene regulation on the survival and function of mature cell types in the eye. *FASEB Journal*, **2016**, 30, 23-33	0.9	35

324	Photoreceptor Cells Influence Retinal Vascular Degeneration in Mouse Models of Retinal Degeneration and Diabetes **2016**, 57, 4272-81		43
323	Two-Photon Autofluorescence Imaging Reveals Cellular Structures Throughout the Retina of the Living Primate Eye **2016**, 57, 632-46		45
322	In Vivo Two-Photon Fluorescence Kinetics of Primate Rods and Cones **2016**, 57, 647-57		28
321	Image registration and averaging of low laser power two-photon fluorescence images of mouse retina. *Biomedical Optics Express*, **2016**, 7, 2671-91	3.5	17
320	Safety assessment in macaques of light exposures for functional two-photon ophthalmoscopy in humans. *Biomedical Optics Express*, **2016**, 7, 5148-5169	3.5	18
319	Mechanistic Studies on the Stereoselectivity of the Serotonin 5-HT1A Receptor. *Angewandte Chemie - International Edition*, **2016**, 55, 8661-5	16.4	23
318	Mechanistic Studies on the Stereoselectivity of the Serotonin 5-HT1A Receptor. *Angewandte Chemie*, **2016**, 128, 8803-8807	3.6	2
317	Receptor MER Tyrosine Kinase Proto-oncogene (MERTK) Is Not Required for Transfer of Bis-retinoids to the Retinal Pigmented Epithelium. *Journal of Biological Chemistry*, **2016**, 291, 26937-26949	5.4	12
316	Retinoids and Retinal Diseases. *Annual Review of Vision Science*, **2016**, 2, 197-234	8.2	61
315	Conformational Change of Human Checkpoint Kinase 1 (Chk1) Induced by DNA Damage. *Journal of Biological Chemistry*, **2016**, 291, 12951-9	5.4	13
314	A small molecule mitigates hearing loss in a mouse model of Usher syndrome III. *Nature Chemical Biology*, **2016**, 12, 444-51	11.7	38
313	Key Residues for Catalytic Function and Metal Coordination in a Carotenoid Cleavage Dioxygenase. *Journal of Biological Chemistry*, **2016**, 291, 19401-12	5.4	21
312	Dynamic peptides of human TPP1 fulfill diverse functions in telomere maintenance. *Nucleic Acids Research*, **2016**, 44, 10467-10479	20.1	6
311	Structure and Function of G-Protein-Coupled Receptor Kinases 1 and 7. *Methods in Pharmacology and Toxicology*, **2016**, 25-43	1.1	1
310	The Molecular Mechanism of P2Y1 Receptor Activation. *Angewandte Chemie*, **2016**, 128, 10487-10491	3.6	0
309	The Molecular Mechanism of P2Y1 Receptor Activation. *Angewandte Chemie - International Edition*, **2016**, 55, 10331-5	16.4	41
308	Protein misfolding and the pathogenesis of ABCA4-associated retinal degenerations. *Human Molecular Genetics*, **2015**, 24, 3220-37	5.6	56
307	Expansion of first-in-class drug candidates that sequester toxic all-trans-retinal and prevent light-induced retinal degeneration. *Molecular Pharmacology*, **2015**, 87, 477-91	4.3	16

306	Improvement in vision: a new goal for treatment of hereditary retinal degenerations. *Expert Opinion on Orphan Drugs*, **2015**, 3, 563-575	1.1	19
305	Prolonged prevention of retinal degeneration with retinylamine loaded nanoparticles. *Biomaterials*, **2015**, 44, 103-10	15.6	15
304	Catalytic mechanism of a retinoid isomerase essential for vertebrate vision. *Nature Chemical Biology*, **2015**, 11, 409-15	11.7	53
303	Crystallization of proteins from crude bovine rod outer segments. *Methods in Enzymology*, **2015**, 557, 439-58	1.7	8
302	Periscope for noninvasive two-photon imaging of murine retina in vivo. *Biomedical Optics Express*, **2015**, 6, 3352-61	3.5	19
301	Semi-automated discrimination of retinal pigmented epithelial cells in two-photon fluorescence images of mouse retinas. *Biomedical Optics Express*, **2015**, 6, 3032-52	3.5	1
300	Self-Assembly of a Multifunctional Lipid With Core-Shell Dendrimer DNA Nanoparticles Enhanced Efficient Gene Delivery at Low Charge Ratios into RPE Cells. *Macromolecular Bioscience*, **2015**, 15, 1663-72	5.5	22
299	Serum levels of lipid metabolites in age-related macular degeneration. *FASEB Journal*, **2015**, 29, 4579-88	0.9	12
298	Di-retinoid-pyridinium-ethanolamine (A2E) Accumulation and the Maintenance of the Visual Cycle Are Independent of Atg7-mediated Autophagy in the Retinal Pigmented Epithelium. *Journal of Biological Chemistry*, **2015**, 290, 29035-44	5.4	23
297	Retinylamine Benefits Early Diabetic Retinopathy in Mice. *Journal of Biological Chemistry*, **2015**, 290, 21568-79	5.4	33
296	Disruption of Rhodopsin Dimerization with Synthetic Peptides Targeting an Interaction Interface. *Journal of Biological Chemistry*, **2015**, 290, 25728-44	5.4	59
295	Advances in understanding the molecular basis of the first steps in color vision. *Progress in Retinal and Eye Research*, **2015**, 49, 46-66	20.5	31
294	LRAT-specific domain facilitates vitamin A metabolism by domain swapping in HRASLS3. *Nature Chemical Biology*, **2015**, 11, 26-32	11.7	36
293	Robust Endoplasmic Reticulum-Associated Degradation of Rhodopsin Precedes Retinal Degeneration. *Molecular Neurobiology*, **2015**, 52, 679-95	6.2	73
292	Retinoid Pathway Gene Mutations and the Pathophysiology of Related Visual Diseases **2015**, 529-542		1
291	The mechanism of ligand-induced activation or inhibition of □and □opioid receptors. *Angewandte Chemie - International Edition*, **2015**, 54, 7560-3	16.4	39
290	Retinol dehydrogenase 8 and ATP-binding cassette transporter 4 modulate dark adaptation of M-cones in mammalian retina. *Journal of Physiology*, **2015**, 593, 4923-41	3.9	7
289	The Mechanism of Ligand-Induced Activation or Inhibition of □and □Opioid Receptors. *Angewandte Chemie*, **2015**, 127, 7670-7673	3.6	5

288	Manganese-Enhanced MRI for Preclinical Evaluation of Retinal Degeneration Treatments **2015**, 56, 4936-42		11
287	A High-Throughput Drug Screening Strategy for Detecting Rhodopsin P23H Mutant Rescue and Degradation **2015**, 56, 2553-67		14
286	Utilization of Dioxygen by Carotenoid Cleavage Oxygenases. *Journal of Biological Chemistry*, **2015**, 290, 30212-23	5.4	41
285	Conditional Ablation of Retinol Dehydrogenase 10 in the Retinal Pigmented Epithelium Causes Delayed Dark Adaption in Mice. *Journal of Biological Chemistry*, **2015**, 290, 27239-27247	5.4	17
284	Adrenergic and serotonin receptors affect retinal superoxide generation in diabetic mice: relationship to capillary degeneration and permeability. *FASEB Journal*, **2015**, 29, 2194-204	0.9	39
283	Animals deficient in C2Orf71, an autosomal recessive retinitis pigmentosa-associated locus, develop severe early-onset retinal degeneration. *Human Molecular Genetics*, **2015**, 24, 2627-40	5.6	13
282	Isotopic labeling of mammalian G protein-coupled receptors heterologously expressed in Caenorhabditis elegans. *Analytical Biochemistry*, **2015**, 472, 30-6	3.1	5
281	Molecular pharmacodynamics of emixustat in protection against retinal degeneration. *Journal of Clinical Investigation*, **2015**, 125, 2781-94	15.9	44
280	The G protein-coupled receptor rhodopsin: a historical perspective. *Methods in Molecular Biology*, **2015**, 1271, 3-18	1.4	11
279	Inherent instability of the retinitis pigmentosa P23H mutant opsin. *Journal of Biological Chemistry*, **2014**, 289, 9288-303	5.4	32
278	DICER1 is essential for survival of postmitotic rod photoreceptor cells in mice. *FASEB Journal*, **2014**, 28, 3780-91	0.9	44
277	Argonaute high-throughput sequencing of RNAs isolated by cross-linking immunoprecipitation reveals a snapshot of miRNA gene regulation in the mammalian retina. *Biochemistry*, **2014**, 53, 5831-3	3.2	4
276	High-resolution crystal structures of the photoreceptor glyceraldehyde 3-phosphate dehydrogenase (GAPDH) with three and four-bound NAD molecules. *Protein Science*, **2014**, 23, 1629-39	6.3	12
275	Activation of G-protein-coupled receptors correlates with the formation of a continuous internal water pathway. *Nature Communications*, **2014**, 5, 4733	17.4	157
274	Structural approaches to understanding retinal proteins needed for vision. *Current Opinion in Cell Biology*, **2014**, 27, 32-43	9	11
273	Noninvasive two-photon microscopy imaging of mouse retina and retinal pigment epithelium through the pupil of the eye. *Nature Medicine*, **2014**, 20, 785-9	50.5	82
272	Time-resolved fluorescence spectroscopy measures clustering and mobility of a G protein-coupled receptor opsin in live cell membranes. *Journal of the American Chemical Society*, **2014**, 136, 8342-9	16.4	46
271	Expression, purification and structural properties of ABC transporter ABCA4 and its individual domains. *Protein Expression and Purification*, **2014**, 97, 50-60	2	13

270	P23H opsin knock-in mice reveal a novel step in retinal rod disc morphogenesis. *Human Molecular Genetics*, **2014**, 23, 1723-41	5.6	69
269	R9AP overexpression alters phototransduction kinetics in iCre75 mice **2014**, 55, 1339-47		13
268	Endogenous fluorophores enable two-photon imaging of the primate eye **2014**, 55, 4438-47		26
267	Chemistry and biology of the initial steps in vision: the Friedenwald lecture **2014**, 55, 6651-72		34
266	Analysis of carotenoid isomerase activity in a prototypical carotenoid cleavage enzyme, apocarotenoid oxygenase (ACO). *Journal of Biological Chemistry*, **2014**, 289, 12286-99	5.4	27
265	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	11.5	53
264	Multifunctional PEG retinylamine conjugate provides prolonged protection against retinal degeneration in mice. *Biomacromolecules*, **2014**, 15, 4570-8	6.9	7
263	Structural insights into activation of the retinal L-type Ca□+ channel (Cav1.4) by Ca□+-binding protein 4 (CaBP4). *Journal of Biological Chemistry*, **2014**, 289, 31262-73	5.4	10
262	STRA6 is critical for cellular vitamin A uptake and homeostasis. *Human Molecular Genetics*, **2014**, 23, 5402-17	5.6	67
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