

Vladimir J Kefalov

List of Publications by Year in descending order

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Version: 2024-02-01

91
papers

3,337
citations

159358

30
h-index

168136

53
g-index

95
all docs

95
docs citations

95
times ranked

3279
citing authors

#	ARTICLE	IF	CITATIONS
1	Differential impact of Kv8.2 loss on rod and cone signaling and degeneration. <i>Human Molecular Genetics</i> , 2022, 31, 1035-1050.	1.4	9
2	EML1 is essential for retinal photoreceptor migration and survival. <i>Scientific Reports</i> , 2022, 12, 2897.	1.6	2
3	Cone-Driven Retinal Responses Are Shaped by Rod But Not Cone HCN1. <i>Journal of Neuroscience</i> , 2022, 42, 4231-4249.	1.7	2
4	Acyl-CoA:wax alcohol acyltransferase 2 modulates the cone visual cycle in mouse retina. <i>FASEB Journal</i> , 2022, 36, .	0.2	0
5	Redox-Responsive Hyaluronic Acid-Based Nanogels for the Topical Delivery of the Visual Chromophore to Retinal Photoreceptors. <i>ACS Omega</i> , 2021, 6, 6172-6184.	1.6	22
6	Function of mammalian M-cones depends on the level of CRALBP in Muller cells. <i>Journal of General Physiology</i> , 2021, 153, .	0.9	9
7	Sensory Transduction in Photoreceptors and Olfactory Sensory Neurons: Common Features and Distinct Characteristics. <i>Frontiers in Cellular Neuroscience</i> , 2021, 15, 761416.	1.8	11
8	Phosphorylation at Serine 21 in G protein-coupled receptor kinase 1 (GRK1) is required for normal kinetics of dark adaptation in rod but not cone photoreceptors. <i>FASEB Journal</i> , 2020, 34, 2677-2690.	0.2	10
9	Mislocalization of cone nuclei impairs cone function in mice. <i>FASEB Journal</i> , 2020, 34, 10242-10249.	0.2	5
10	Thyroid hormone receptors mediate two distinct mechanisms of long-wavelength vision. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 15262-15269.	3.3	41
11	Light deprivation reduces the severity of experimental diabetic retinopathy. <i>Neurobiology of Disease</i> , 2020, 137, 104754.	2.1	10
12	Mitochondrial Calcium Uniporter (MCU) deficiency reveals an alternate path for Ca ²⁺ uptake in photoreceptor mitochondria. <i>Scientific Reports</i> , 2020, 10, 16041.	1.6	21
13	Photoreceptors in a mouse model of Leigh syndrome are capable of normal light-evoked signaling. <i>Journal of Biological Chemistry</i> , 2019, 294, 12432-12443.	1.6	11
14	Sensitivity of Mammalian Cone Photoreceptors to Infrared Light. <i>Neuroscience</i> , 2019, 416, 100-108.	1.1	9
15	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.		11
16	Apo-Opsin Exists in Equilibrium Between a Predominant Inactive and a Rare Highly Active State. <i>Journal of Neuroscience</i> , 2019, 39, 212-223.	1.7	13
17	Conditional deletion of <i>Des1</i> in the mouse retina does not impair the visual cycle in cones. <i>FASEB Journal</i> , 2019, 33, 5782-5792.	0.2	22
18	Two-photon microperimetry: sensitivity of human photoreceptors to infrared light. <i>Biomedical Optics Express</i> , 2019, 10, 4551.	1.5	21

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19	GUCY2D Cone-Rod Dystrophy-6 Is a Phototransduction Disease-Triggered by Abnormal Calcium Feedback on Retinal Membrane Guanylyl Cyclase 1. <i>Journal of Neuroscience</i> , 2018, 38, 2990-3000.	1.7	24
20	Guanylate cyclase-activating protein 2 contributes to phototransduction and light adaptation in mouse cone photoreceptors. <i>Journal of Biological Chemistry</i> , 2018, 293, 7457-7465.	1.6	16
21	LRIT1 Modulates Adaptive Changes in Synaptic Communication of Cone Photoreceptors. <i>Cell Reports</i> , 2018, 22, 3562-3573.	2.9	18
22	Retinoid isomerase inhibitors impair but do not block mammalian cone photoreceptor function. <i>Journal of General Physiology</i> , 2018, 150, 571-590.	0.9	28
23	Examining the Role of Cone-expressed RPE65 in Mouse Cone Function. <i>Scientific Reports</i> , 2018, 8, 14201.	1.6	12
24	Investigating the Ca ²⁺ -dependent and Ca ²⁺ -independent mechanisms for mammalian cone light adaptation. <i>Scientific Reports</i> , 2018, 8, 15864.	1.6	8
25	Regulation of calcium homeostasis in the outer segments of rod and cone photoreceptors. <i>Progress in Retinal and Eye Research</i> , 2018, 67, 87-101.	7.3	51
26	Multiple Isoforms of Nesprin1 Are Integral Components of Ciliary Rootlets. <i>Current Biology</i> , 2017, 27, 2014-2022.e6.	1.8	24
27	The retina visual cycle is driven by <i>cis</i> retinol oxidation in the outer segments of cones. <i>Visual Neuroscience</i> , 2017, 34, E004.	0.5	17
28	Dephosphorylation by protein phosphatase 2A regulates visual pigment regeneration and the dark adaptation of mammalian photoreceptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E9675-E9684.	3.3	11
29	The role of retinol dehydrogenase 10 in the cone visual cycle. <i>Scientific Reports</i> , 2017, 7, 2390.	1.6	15
30	The Na ⁺ /Ca ²⁺ , K ⁺ exchanger NCKX4 is required for efficient cone-mediated vision. <i>ELife</i> , 2017, 6, .	2.8	29
31	Lamin B1 and lamin B2 are long-lived proteins with distinct functions in retinal development. <i>Molecular Biology of the Cell</i> , 2016, 27, 1928-1937.	0.9	33
32	<i>cis</i> Retinol oxidation regulates photoreceptor access to the retina visual cycle and cone pigment regeneration. <i>Journal of Physiology</i> , 2016, 594, 6753-6765.	1.3	27
33	The Na ⁺ /Ca ²⁺ , K ⁺ exchanger 2 modulates mammalian cone phototransduction. <i>Scientific Reports</i> , 2016, 6, 32521.	1.6	20
34	Rhodopsin kinase and arrestin binding control the decay of photoactivated rhodopsin and dark adaptation of mouse rods. <i>Journal of General Physiology</i> , 2016, 148, 1-11.	0.9	28
35	The B3 Subunit of the Cone Cyclic Nucleotide-gated Channel Regulates the Light Responses of Cones and Contributes to the Channel Structural Flexibility. <i>Journal of Biological Chemistry</i> , 2016, 291, 8721-8734.	1.6	2
36	Graded gene expression changes determine phenotype severity in mouse models of CRX-associated retinopathies. <i>Genome Biology</i> , 2015, 16, 171.	3.8	37

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37	Circadian and light-driven regulation of rod dark adaptation. <i>Scientific Reports</i> , 2015, 5, 17616.	1.6	21
38	Simultaneous <i>ex vivo</i> Functional Testing of Two Retinas by <i>in vivo</i> Electroretinogram System. <i>Journal of Visualized Experiments</i> , 2015, , e52855.	0.2	25
39	Retinol dehydrogenase 8 and ATP-binding cassette transporter 4 modulate dark adaptation of M–cones in mammalian retina. <i>Journal of Physiology</i> , 2015, 593, 4923-4941.	1.3	12
40	Systemic Retinaldehyde Treatment Corrects Retinal Oxidative Stress, Rod Dysfunction, and Impaired Visual Performance in Diabetic Mice. , 2015, 56, 6294.		24
41	A new mouse model for stationary night blindness with mutant <i>Slc24a1</i> explains the pathophysiology of the associated human disease. <i>Human Molecular Genetics</i> , 2015, 24, 5915-5929.	1.4	40
42	<i>Cyp27c1</i> Red-Shifts the Spectral Sensitivity of Photoreceptors by Converting Vitamin A1 into A2. <i>Current Biology</i> , 2015, 25, 3048-3057.	1.8	135
43	Development of an MRI biomarker sensitive to tetrameric visual arrestin 1 and its reduction <i>via</i> light-evoked translocation <i>in vivo</i>. <i>FASEB Journal</i> , 2015, 29, 554-564.	0.2	7
44	Protein misfolding and the pathogenesis of ABCA4-associated retinal degenerations. <i>Human Molecular Genetics</i> , 2015, 24, 3220-3237.	1.4	69
45	Regulation of Mammalian Cone Phototransduction by Recoverin and Rhodopsin Kinase. <i>Journal of Biological Chemistry</i> , 2015, 290, 9239-9250.	1.6	29
46	Autophagy supports color vision. <i>Autophagy</i> , 2015, 11, 1821-1832.	4.3	32
47	CRALBP supports the mammalian retinal visual cycle and cone vision. <i>Journal of Clinical Investigation</i> , 2015, 125, 727-738.	3.9	96
48	Retinal Cone Photoreceptors Require Phosducin-Like Protein 1 for G Protein Complex Assembly and Signaling. <i>PLoS ONE</i> , 2015, 10, e0117129.	1.1	10
49	Sensitivity and kinetics of signal transmission at the first visual synapse differentially impact visually-guided behavior. <i>ELife</i> , 2015, 4, e06358.	2.8	15
50	R9AP Overexpression Alters Phototransduction Kinetics in <i>iCre75</i> Mice. , 2014, 55, 1339.		16
51	Human infrared vision is triggered by two-photon chromophore isomerization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E5445-54.	3.3	80
52	Chromophore Supply Rate-Limits Mammalian Photoreceptor Dark Adaptation. <i>Journal of Neuroscience</i> , 2014, 34, 11212-11221.	1.7	25
53	DICER1 is essential for survival of postmitotic rod photoreceptor cells in mice. <i>FASEB Journal</i> , 2014, 28, 3780-3791.	0.2	54
54	Ex vivo ERG analysis of photoreceptors using an in vivo ERG system. <i>Vision Research</i> , 2014, 101, 108-117.	0.7	61

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55	P23H opsin knock-in mice reveal a novel step in retinal rod disc morphogenesis. <i>Human Molecular Genetics</i> , 2014, 23, 1723-1741.	1.4	99
56	Signaling by Rod and Cone Photoreceptors: Opsin Properties, G-protein Assembly, and Mechanisms of Activation. , 2014, , 23-48.		1
57	Cone Phosphodiesterase-6 ^Δ Restores Rod Function and Confers Distinct Physiological Properties in the Rod Phosphodiesterase-6 ^Δ -Deficient rd10 Mouse. <i>Journal of Neuroscience</i> , 2013, 33, 11745-11753.	1.7	22
58	Phosducin-Like Protein 1 is Essential for G-Protein Assembly and Signaling in Retinal Rod Photoreceptors. <i>Journal of Neuroscience</i> , 2013, 33, 7941-7951.	1.7	18
59	Reprogramming of adult rod photoreceptors prevents retinal degeneration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 1732-1737.	3.3	79
60	Autosomal recessive retinitis pigmentosa E150K opsin mice exhibit photoreceptor disorganization. <i>Journal of Clinical Investigation</i> , 2013, 123, 121-137.	3.9	26
61	An Allosteric Regulator of R7-RGS Proteins Influences Light-Evoked Activity and Glutamatergic Waves in the Inner Retina. <i>PLoS ONE</i> , 2013, 8, e82276.	1.1	2
62	Rod and Cone Visual Pigments and Phototransduction through Pharmacological, Genetic, and Physiological Approaches. <i>Journal of Biological Chemistry</i> , 2012, 287, 1635-1641.	1.6	76
63	Signaling States of Rhodopsin in Rod Disk Membranes Lacking Transducin $\beta\gamma$ -Complex. , 2012, 53, 1225.		2
64	Transretinal ERG Recordings from Mouse Retina: Rod and Cone Photoresponses. <i>Journal of Visualized Experiments</i> , 2012, , .	0.2	21
65	Store ^o perated channels regulate intracellular calcium in mammalian rods. <i>Journal of Physiology</i> , 2012, 590, 3465-3481.	1.3	41
66	Variation in Rhodopsin Kinase Expression Alters the Dim Flash Response Shut Off and the Light Adaptation in Rod Photoreceptors. , 2011, 52, 6793.		17
67	The Cone-specific visual cycle. <i>Progress in Retinal and Eye Research</i> , 2011, 30, 115-128.	7.3	261
68	Role of Guanylyl Cyclase Modulation in Mouse Cone Phototransduction. <i>Journal of Neuroscience</i> , 2011, 31, 7991-8000.	1.7	72
69	Interphotoreceptor Retinoid-Binding Protein as the Physiologically Relevant Carrier of 11- <i>cis</i> -Retinol in the Cone Visual Cycle. <i>Journal of Neuroscience</i> , 2011, 31, 4714-4719.	1.7	44
70	G-Protein $\beta\gamma$ -Complex Is Crucial for Efficient Signal Amplification in Vision. <i>Journal of Neuroscience</i> , 2011, 31, 8067-8077.	1.7	54
71	The Mammalian Cone Visual Cycle Promotes Rapid M/L-Cone Pigment Regeneration Independently of the Interphotoreceptor Retinoid-Binding Protein. <i>Journal of Neuroscience</i> , 2011, 31, 7900-7909.	1.7	56
72	Single-cell Suction Recordings from Mouse Cone Photoreceptors. <i>Journal of Visualized Experiments</i> , 2010, , .	0.2	6

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73	Age-Related Deterioration of Rod Vision in Mice. <i>Journal of Neuroscience</i> , 2010, 30, 11222-11231.	1.7	90
74	Effect of G Protein-Coupled Receptor Kinase 1 (Grk1) Overexpression on Rod Photoreceptor Cell Viability. , 2010, 51, 1728.		19
75	Deletion of GRK1 Causes Retina Degeneration through a Transducin-Independent Mechanism. <i>Journal of Neuroscience</i> , 2010, 30, 2496-2503.	1.7	22
76	Membrane Anchoring Subunits Specify Selective Regulation of RGS9-G125 GAP Complex in Photoreceptor Neurons. <i>Journal of Neuroscience</i> , 2010, 30, 13784-13793.	1.7	9
77	Physiological Studies of the Interaction Between Opsin and Chromophore in Rod and Cone Visual Pigments. <i>Methods in Molecular Biology</i> , 2010, 652, 95-114.	0.4	7
78	Functional interchangeability of rod and cone transducin α -subunits. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 17681-17686.	3.3	39
79	Essential and Synergistic Roles of RP1 and RP1L1 in Rod Photoreceptor Axoneme and Retinitis Pigmentosa. <i>Journal of Neuroscience</i> , 2009, 29, 9748-9760.	1.7	71
80	An Alternative Pathway Mediates the Mouse and Human Cone Visual Cycle. <i>Current Biology</i> , 2009, 19, 1665-1669.	1.8	122
81	Intra-retinal visual cycle required for rapid and complete cone dark adaptation. <i>Nature Neuroscience</i> , 2009, 12, 295-302.	7.1	118
82	Quantal noise from human red cone pigment. <i>Nature Neuroscience</i> , 2008, 11, 565-571.	7.1	67
83	Molecular Properties of Rhodopsin and Rod Function. <i>Journal of Biological Chemistry</i> , 2007, 282, 6677-6684.	1.6	62
84	Signaling Properties of a Short-Wave Cone Visual Pigment and Its Role in Phototransduction. <i>Journal of Neuroscience</i> , 2007, 27, 10084-10093.	1.7	74
85	Breaking the Covalent Bond— A Pigment Property that Contributes to Desensitization in Cones. <i>Neuron</i> , 2005, 46, 879-890.	3.8	96
86	Role of visual pigment properties in rod and cone phototransduction. <i>Nature</i> , 2003, 425, 526-531.	13.7	121
87	Kinetic Analysis of the Intermediate States of Rhodopsin and Photoresponse of Rod cells Revealed by Rhodopsin Knock-in Mouse. <i>Seibutsu Butsuri</i> , 2003, 43, S186.	0.0	0
88	Use of retinal analogues for the study of visual pigment function. <i>Methods in Enzymology</i> , 2002, 343, 29-48.	0.4	13
89	Role of Noncovalent Binding of 11-cis-Retinal to Opsin in Dark Adaptation of Rod and Cone Photoreceptors. <i>Neuron</i> , 2001, 29, 749-755.	3.8	59
90	Effect of 11-Cis 13-Demethylretinal on Phototransduction in Bleach-Adapted Rod and Cone Photoreceptors. <i>Journal of General Physiology</i> , 2000, 116, 283-298.	0.9	23

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91	Occupancy of the Chromophore Binding Site of Opsin Activates Visual Transduction in Rod Photoreceptors. <i>Journal of General Physiology</i> , 1999, 113, 491-503.	0.9	43