

Alapakkam P Sampath

List of Publications by Year in descending order

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Version: 2024-02-01

34
papers

1,862
citations

331670

21
h-index

414414

32
g-index

61
all docs

61
docs citations

61
times ranked

1703
citing authors

#	ARTICLE	IF	CITATIONS
1	ATP Consumption by Mammalian Rod Photoreceptors in Darkness and in Light. <i>Current Biology</i> , 2008, 18, 1917-1921.	3.9	320
2	RETINAL PROCESSING NEAR ABSOLUTE THRESHOLD: From Behavior to Mechanism. <i>Annual Review of Physiology</i> , 2005, 67, 491-514.	13.1	171
3	Controlling the Gain of Rod-Mediated Signals in the Mammalian Retina. <i>Journal of Neuroscience</i> , 2006, 26, 3959-3970.	3.6	165
4	Selective Transmission of Single Photon Responses by Saturation at the Rod-to-Rod Bipolar Synapse. <i>Neuron</i> , 2004, 41, 431-443.	8.1	144
5	Recoverin Improves Rod-Mediated Vision by Enhancing Signal Transmission in the Mouse Retina. <i>Neuron</i> , 2005, 46, 413-420.	8.1	101
6	Mechanism for Selective Synaptic Wiring of Rod Photoreceptors into the Retinal Circuitry and Its Role in Vision. <i>Neuron</i> , 2015, 87, 1248-1260.	8.1	100
7	Why are rods more sensitive than cones?. <i>Journal of Physiology</i> , 2016, 594, 5415-5426.	2.9	88
8	The Auxiliary Calcium Channel Subunit β_4 Is Required for Axonal Elaboration, Synaptic Transmission, and Wiring of Rod Photoreceptors. <i>Neuron</i> , 2017, 93, 1359-1374.e6.	8.1	80
9	Light-Driven Regeneration of Cone Visual Pigments through a Mechanism Involving RGR Opsin in Müller Glial Cells. <i>Neuron</i> , 2019, 102, 1172-1183.e5.	8.1	79
10	Elevated energy requirement of cone photoreceptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 19599-19603.	7.1	58
11	Targeting of RGS7/G β_5 to the Dendritic Tips of ON-Bipolar Cells Is Independent of Its Association with Membrane Anchor R7BP. <i>Journal of Neuroscience</i> , 2008, 28, 10443-10449.	3.6	48
12	Dark-adapted response threshold of OFF ganglion cells is not set by OFF bipolar cells in the mouse retina. <i>Journal of Neurophysiology</i> , 2012, 107, 2649-2659.	1.8	44
13	Rod and cone interactions in the retina. <i>F1000Research</i> , 2018, 7, 657.	1.6	44
14	Transducin translocation contributes to rod survival and enhances synaptic transmission from rods to rod bipolar cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 12468-12473.	7.1	39
15	Optimal processing of photoreceptor signals is required to maximize behavioural sensitivity. <i>Journal of Physiology</i> , 2010, 588, 1947-1960.	2.9	37
16	Detection of single photons by toad and mouse rods. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 19378-19383.	7.1	33
17	Behavioural and physiological limits to vision in mammals. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2017, 372, 20160072.	4.0	31
18	Voltage-clamp recordings of light responses from wild-type and mutant mouse cone photoreceptors. <i>Journal of General Physiology</i> , 2019, 151, 1287-1299.	1.9	31

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19	Exchange of Cone for Rod Phosphodiesterase 6 Catalytic Subunits in Rod Photoreceptors Mimics in Part Features of Light Adaptation. <i>Journal of Neuroscience</i> , 2015, 35, 9225-9235.	3.6	29
20	Activation of Rod Input in a Model of Retinal Degeneration Reverses Retinal Remodeling and Induces Formation of Functional Synapses and Recovery of Visual Signaling in the Adult Retina. <i>Journal of Neuroscience</i> , 2019, 39, 6798-6810.	3.6	28
21	Coordinated control of sensitivity by two splice variants of $G\beta_0$ in retinal ON bipolar cells. <i>Journal of General Physiology</i> , 2010, 136, 443-454.	1.9	27
22	Voltage-sensitive conductances increase the sensitivity of rod photoresponses following pigment bleaching. <i>Journal of Physiology</i> , 2017, 595, 3459-3469.	2.9	27
23	Membrane conductances of mouse cone photoreceptors. <i>Journal of General Physiology</i> , 2020, 152, .	1.9	22
24	LRIT1 Modulates Adaptive Changes in Synaptic Communication of Cone Photoreceptors. <i>Cell Reports</i> , 2018, 22, 3562-3573.	6.4	18
25	Energy Shortage in Human and Mouse Models of <i>SLC4A11</i> -Associated Corneal Endothelial Dystrophies. , 2020, 61, 39.		16
26	Rod Photoreceptors Avoid Saturation in Bright Light by the Movement of the G Protein Transducin. <i>Journal of Neuroscience</i> , 2021, 41, 3320-3330.	3.6	16
27	Sensitivity and kinetics of signal transmission at the first visual synapse differentially impact visually-guided behavior. <i>ELife</i> , 2015, 4, e06358.	6.0	15
28	Metabolic constraints on the recovery of sensitivity after visual pigment bleaching in retinal rods. <i>Journal of General Physiology</i> , 2009, 134, 165-175.	1.9	11
29	Light responses of mammalian cones. <i>Pflugers Archiv European Journal of Physiology</i> , 2021, 473, 1555-1568.	2.8	9
30	Reproducibility of the Rod Photoreceptor Response Depends Critically on the Concentration of the Phosphodiesterase Effector Enzyme. <i>Journal of Neuroscience</i> , 2022, 42, 2180-2189.	3.6	9
31	Separate ON and OFF pathways in vertebrate vision first arose during the Cambrian. <i>Current Biology</i> , 2020, 30, R633-R634.	3.9	8
32	Pupillary light reflex of lamprey <i>Petromyzon marinus</i> . <i>Current Biology</i> , 2021, 31, R65-R66.	3.9	6
33	Diminished Cone Sensitivity in <i>cpfl3</i> Mice Is Caused by Defective Transducin Signaling. , 2020, 61, 26.		3
34	A hyperpolarizing rod bipolar cell in the sea lamprey, <i>Petromyzon marinus</i> . <i>Journal of Experimental Biology</i> , 2022, 225, .	1.7	2