Alapakkam P Sampath

List of Publications by Year
in descending order

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	Reproducibility of the Rod Photoreceptor Response Depends Critically on the Concentration of the Phosphodiesterase Effector Enzyme. Journal of Neuroscience, 2022, 42, 2180-2189.	3.6	9
2	A hyperpolarizing rod bipolar cell in the sea lamprey, <i>Petromyzon marinus</i>. Journal of Experimental Biology, 2022, 225, .	1.7	2
3	Pupillary light reflex of lamprey Petromyzon marinus. Current Biology, 2021, 31, R65-R66.	3.9	6
4	Rod Photoreceptors Avoid Saturation in Bright Light by the Movement of the G Protein Transducin. Journal of Neuroscience, 2021, 41, 3320-3330.	3.6	16
5	Light responses of mammalian cones. Pflugers Archiv European Journal of Physiology, 2021, 473, 1555-1568.	2.8	9
6	Elevated energy requirement of cone photoreceptors. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 19599-19603.	7.1	58
7	Energy Shortage in Human and Mouse Models of<i>SLC4A11</i>-Associated Corneal Endothelial Dystrophies. , 2020, 61, 39.		16
8	Separate ON and OFF pathways in vertebrate vision first arose during the Cambrian. Current Biology, 2020, 30, R633-R634.	3.9	8
9	Diminished Cone Sensitivity in <i>cpfl3</i> Mice Is Caused by Defective Transducin Signaling. , 2020, 61, 26.		3
10	Membrane conductances of mouse cone photoreceptors. Journal of General Physiology, 2020, 152, .	1.9	22
11	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. Journal of Neuroscience, 2019, 39, 6798-6810.	3.6	28
12	Voltage-clamp recordings of light responses from wild-type and mutant mouse cone photoreceptors. Journal of General Physiology, 2019, 151, 1287-1299.	1.9	31
13	Light-Driven Regeneration of Cone Visual Pigments through a Mechanism Involving RGR Opsin in MÃ¼ller Glial Cells. Neuron, 2019, 102, 1172-1183.e5.	8.1	79
14	LRIT1 Modulates Adaptive Changes in Synaptic Communication of Cone Photoreceptors. Cell Reports, 2018, 22, 3562-3573.	6.4	18
15	Rod and cone interactions in the retina. F1000Research, 2018, 7, 657.	1.6	44
16	The Auxiliary Calcium Channel Subunit Î±2Î´4 Is Required for Axonal Elaboration, Synaptic Transmission, and Wiring of Rod Photoreceptors. Neuron, 2017, 93, 1359-1374.e6.	8.1	80
17	Behavioural and physiological limits to vision in mammals. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160072.	4.0	31
18	Voltageâ€sensitive conductances increase the sensitivity of rod photoresponses following pigment bleaching. Journal of Physiology, 2017, 595, 3459-3469.	2.9	27

#	Article	IF	Citations
19	Why are rods more sensitive than cones?. Journal of Physiology, 2016, 594, 5415-5426.	2.9	88
20	Mechanism for Selective Synaptic Wiring of Rod Photoreceptors into the Retinal Circuitry and Its Role in Vision. Neuron, 2015, 87, 1248-1260.	8.1	100
21	Exchange of Cone for Rod Phosphodiesterase 6 Catalytic Subunits in Rod Photoreceptors Mimics in Part Features of Light Adaptation. Journal of Neuroscience, 2015, 35, 9225-9235.	3.6	29
22	Sensitivity and kinetics of signal transmission at the first visual synapse differentially impact visually-guided behavior. ELife, 2015, 4, e06358.	6.0	15
23	Transducin translocation contributes to rod survival and enhances synaptic transmission from rods to rod bipolar cells. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12468-12473.	7.1	39
24	Detection of single photons by toad and mouse rods. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19378-19383.	7.1	33
25	Dark-adapted response threshold of OFF ganglion cells is not set by OFF bipolar cells in the mouse retina. Journal of Neurophysiology, 2012, 107, 2649-2659.	1.8	44
26	Optimal processing of photoreceptor signals is required to maximize behavioural sensitivity. Journal of Physiology, 2010, 588, 1947-1960.	2.9	37
27	Coordinated control of sensitivity by two splice variants of GÎ±o in retinal ON bipolar cells. Journal of General Physiology, 2010, 136, 443-454.	1.9	27
28	Metabolic constraints on the recovery of sensitivity after visual pigment bleaching in retinal rods. Journal of General Physiology, 2009, 134, 165-175.	1.9	11
29	ATP Consumption by Mammalian Rod Photoreceptors in Darkness and in Light. Current Biology, 2008, 18, 1917-1921.	3.9	320
30	Targeting of RGS7/GÎ²5 to the Dendritic Tips of ON-Bipolar Cells Is Independent of Its Association with Membrane Anchor R7BP. Journal of Neuroscience, 2008, 28, 10443-10449.	3.6	48
31	Controlling the Gain of Rod-Mediated Signals in the Mammalian Retina. Journal of Neuroscience, 2006, 26, 3959-3970.	3.6	165
32	Recoverin Improves Rod-Mediated Vision by Enhancing Signal Transmission in the Mouse Retina. Neuron, 2005, 46, 413-420.	8.1	101
33	RETINAL PROCESSING NEAR ABSOLUTE THRESHOLD: From Behavior to Mechanism. Annual Review of Physiology, 2005, 67, 491-514.	13.1	171
34	Selective Transmission of Single Photon Responses by Saturation at the Rod-to-Rod Bipolar Synapse. Neuron, 2004, 41, 431-443.	8.1	144