Marie E Burns

List of Publications by Year
in descending order

62 papers	4,413 citations	136740 32 h-index	143772 57 g-index
63 all docs	63 docs citations	63 times ranked	3356 citing authors

#	Article	IF	Citations
1	Loss of the K+ channel Kv2.1 greatly reduces outward dark current and causes ionic dysregulation and degeneration in rod photoreceptors. Journal of General Physiology, 2021, 153, .	0.9	11
2	In vivo multimodal retinal imaging of disease-related pigmentary changes in retinal pigment epithelium. Scientific Reports, 2021, 11, 16252.	1.6	40
3	Tracking distinct microglia subpopulations with photoconvertible Dendra2 in vivo. Journal of Neuroinflammation, 2021, 18, 235.	3.1	3
4	Microglia Activation and Inflammation During the Death of Mammalian Photoreceptors. Annual Review of Vision Science, 2020, 6, 149-169.	2.3	20
5	Biological Role of Arrestin-1 Oligomerization. Journal of Neuroscience, 2020, 40, 8055-8069.	1.7	5
6	Targeting CD38 with Daratumumab in Refractory Systemic Lupus Erythematosus. New England Journal of Medicine, 2020, 383, 1149-1155.	13.9	178
7	In Situ Morphologic and Spectral Characterization of Retinal Pigment Epithelium Organelles in Mice Using Multicolor Confocal Fluorescence Imaging. , 2020, 61, 1.		16
8	The F220C and F45L rhodopsin mutations identified in retinitis pigmentosa patients do not cause pathology in mice. Scientific Reports, 2020, 10, 7538.	1.6	7
9	Harnessing the Sun to See Anew. Neuron, 2019, 102, 1093-1095.	3.8	3
10	PRCD is essential for high-fidelity photoreceptor disc formation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13087-13096.	3.3	44
11	Molecular profiling of resident and infiltrating mononuclear phagocytes during rapid adult retinal degeneration using single-cell RNA sequencing. Scientific Reports, 2019, 9, 4858.	1.6	67
12	In vivo imaging reveals transient microglia recruitment and functional recovery of photoreceptor signaling after injury. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16603-16612.	3.3	46
13	Disrupted Blood-Retina Lysophosphatidylcholine Transport Impairs Photoreceptor Health But Not Visual Signal Transduction. Journal of Neuroscience, 2019, 39, 9689-9701.	1.7	38
14	Novel window for cancer nanotheranostics: non-invasive ocular assessments of tumor growth and nanotherapeutic treatment efficacy in vivo. Biomedical Optics Express, 2019, 10, 151.	1.5	13
15	Loss of cone function without degeneration in a novel Gnat2 knock-out mouse. Experimental Eye Research, 2018, 171, 111-118.	1.2	30
16	RBX2 maintains final retinal cell position in a DAB1-dependent and -independent fashion. Development (Cambridge), 2018, 145, .	1.2	13
17	Report on the National Eye Instituteâ€™s Audacious Goals Initiative: Creating a Cellular Environment for Neuroregeneration. ENeuro, 2018, 5, ENEURO.0035-18.2018.	0.9	9
18	Monocyte infiltration rather than microglia proliferation dominates the early immune response to rapid photoreceptor degeneration. Journal of Neuroinflammation, 2018, 15, 344.	3.1	46

#	Article	IF	Citations
19	In vivo optophysiology reveals that G-protein activation triggers osmotic swelling and increased light scattering of rod photoreceptors. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E2937-E2946.	3.3	106
20	Bright flash response recovery of mammalian rods in vivo is rate limited by RGS9. Journal of General Physiology, 2017, 149, 443-454.	0.9	12
21	Rapid monocyte infiltration following retinal detachment is dependent on non-canonical IL6 signaling through gp130. Journal of Neuroinflammation, 2017, 14, 121.	3.1	18
22	New Developments in Murine Imaging for Assessing Photoreceptor Degeneration In Vivo. Advances in Experimental Medicine and Biology, 2016, 854, 269-275.	0.8	2
23	cGMP in mouse rods: the spatiotemporal dynamics underlying single photon responses. Frontiers in Molecular Neuroscience, 2015, 8, 6.	1.4	20
24	<i>In vivo</i>wide-field multispectral scanning laser ophthalmoscopyâ€“optical coherence tomography mouse retinal imager: longitudinal imaging of ganglion cells, microglia, and MÃ¼ller glia, and mapping of the mouse retinal and choroidal vasculature. Journal of Biomedical Optics, 2015, 20, 126005.	1.4	64
25	Speeding rod recovery improves temporal resolution in the retina. Vision Research, 2015, 110, 57-67.	0.7	6
26	Adaptive-optics SLO imaging combined with widefield OCT and SLO enables precise 3D localization of fluorescent cells in the mouse retina. Biomedical Optics Express, 2015, 6, 2191.	1.5	53
27	Current understanding of signal amplification in phototransduction. Cellular Logistics, 2014, 4, e29390.	0.9	55
28	Rapid light-induced activation of retinal microglia in mice lacking Arrestin-1. Vision Research, 2014, 102, 71-79.	0.7	37
29	Rhodopsin in the rod surface membrane regenerates more rapidly than bulk rhodopsin in the disc membranes <i>in vivo</i>. Journal of Physiology, 2014, 592, 2785-2797.	1.3	6
30	Absence of Synaptic Regulation by Phosducin in Retinal Slices. PLoS ONE, 2013, 8, e83970.	1.1	4
31	Calcium Feedback to cGMP Synthesis Strongly Attenuates Single-Photon Responses Driven by Long Rhodopsin Lifetimes. Neuron, 2012, 76, 370-382.	3.8	55
32	Spatiotemporal cGMP Dynamics in Living Mouse Rods. Biophysical Journal, 2012, 102, 1775-1784.	0.2	40
33	Photoreceptor Signaling: Supporting Vision across a Wide Range of Light Intensities. Journal of Biological Chemistry, 2012, 287, 1620-1626.	1.6	176
34	Membrane Attachment Is Key to Protecting Transducin GTPase-Activating Complex from Intracellular Proteolysis in Photoreceptors. Journal of Neuroscience, 2011, 31, 14660-14668.	1.7	19
35	Lack of proteinâ€tyrosine sulfation disrupts photoreceptor outer segment morphogenesis, retinal function and retinal anatomy. European Journal of Neuroscience, 2010, 32, 1461-1472.	1.2	24
36	Deactivation Mechanisms of Rod Phototransduction: The Cogan Lecture. , 2010, 51, 1283.		10

#	Article	IF	Citations
37	Phosducin Regulates Transmission at thePhotoreceptor-to-ON-Bipolar Cell Synapse. Journal of Neuroscience, 2010, 30, 3239-3253.	1.7	42
38	Control of Rhodopsin's Active Lifetime by Arrestin-1 Expression in Mammalian Rods. Journal of Neuroscience, 2010, 30, 3450-3457.	1.7	71
39	Lessons from Photoreceptors: Turning Off G-Protein Signaling in Living Cells. Physiology, 2010, 25, 72-84.	1.6	72
40	Enhanced Arrestin Facilitates Recovery and Protects Rods Lacking Rhodopsin Phosphorylation. Current Biology, 2009, 19, 700-705.	1.8	178
41	Enhanced Arrestin Facilitates Recovery and Protects Rods Lacking Rhodopsin Phosphorylation. Current Biology, 2009, 19, 798.	1.8	0
42	RGS9 Concentration Matters in Rod Phototransduction. Biophysical Journal, 2009, 97, 1538-1547.	0.2	47
43	Functional comparison of RGS9 splice isoforms in a living cell. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 20988-20993.	3.3	27
44	Transducin Î³-Subunit Sets Expression Levels of Î±- and Î²-Subunits and Is Crucial for Rod Viability. Journal of Neuroscience, 2008, 28, 3510-3520.	1.7	86
45	Functional Comparisons of Visual Arrestins in Rod Photoreceptors of Transgenic Mice. , 2007, 48, 1968.		41
46	Phosducin Regulates the Expression of Transducin Î²Î³ Subunits in Rod Photoreceptors and Does Not Contribute to Phototransduction Adaptation. Journal of General Physiology, 2007, 130, 303-312.	0.9	30
47	N-Terminal Fatty Acylation of Transducin Profoundly Influences Its Localization and the Kinetics of Photoresponse in Rods. Journal of Neuroscience, 2007, 27, 10270-10277.	1.7	29
48	RGS Expression Rate-Limits Recovery of Rod Photoresponses. Neuron, 2006, 51, 409-416.	3.8	244
49	Phototransduction in a Transgenic Mouse Model of Nougaret Night Blindness. Journal of Neuroscience, 2006, 26, 6863-6872.	1.7	21
50	Deactivation of Phosphorylated and Nonphosphorylated Rhodopsin by Arrestin Splice Variants. Journal of Neuroscience, 2006, 26, 1036-1044.	1.7	46
51	Beyond Counting Photons: Trials and Trends in Vertebrate Visual Transduction. Neuron, 2005, 48, 387-401.	3.8	226
52	Absence of the RGS9Â·GÎ²5 GTPase-activating Complex in Photoreceptors of the R9AP Knockout Mouse. Journal of Biological Chemistry, 2004, 279, 1581-1584.	1.6	90
53	From Molecules to Behavior. Neuron, 2003, 38, 853-856.	3.8	11
54	Novel Form of Adaptation in Mouse Retinal Rods Speeds Recovery of Phototransduction. Journal of General Physiology, 2003, 122, 703-712.	0.9	52

#	Article	IF	Citations
55	Prolonged Photoresponses and Defective Adaptation in Rods of GÎ²5-/- Mice. Journal of Neuroscience, 2003, 23, 6965-6971.	1.7	89
56	The DEP Domain Determines Subcellular Targeting of the GTPase Activating Protein RGS9<i>In Vivo</i>. Journal of Neuroscience, 2003, 23, 10175-10181.	1.7	113
57	Dynamics of Cyclic GMP Synthesis in Retinal Rods. Neuron, 2002, 36, 81-91.	3.8	207
58	Activation, Deactivation, and Adaptation in Vertebrate Photoreceptor Cells. Annual Review of Neuroscience, 2001, 24, 779-805.	5.0	371
59	Slowed recovery of rod photoresponse in mice lacking the GTPase accelerating protein RGS9-1. Nature, 2000, 403, 557-560.	13.7	452
60	Rapid and Reproducible Deactivation of Rhodopsin Requires Multiple Phosphorylation Sites. Neuron, 2000, 28, 153-164.	3.8	243
61	Role for the Target Enzyme in Deactivation of Photoreceptor G Protein in Vivo. , 1998, 282, 117-121.		180
62	Synaptic structure and function: Dynamic organization yields architectural precision. Cell, 1995, 83, 187-194.	13.5	149