Edward N Pugh

List of Publications by Year
in descending order

52	4,601	218677	276875
papers	citations	26 h-index	41 g-index

53	53	53	4000
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	G Proteins and Phototransduction. Annual Review of Physiology, 2002, 64, 153-187.	13.1	593
2	Evolution of the vertebrate eye: opsins, photoreceptors, retina and eye cup. Nature Reviews Neuroscience, 2007, 8, 960-976.	10.2	400
3	Massive Light-Driven Translocation of Transducin between the Two Major Compartments of Rod Cells. Neuron, 2002, 34, 95-106.	8.1	334
4	The Proteome of the Mouse Photoreceptor Sensory Cilium Complex. Molecular and Cellular Proteomics, 2007, 6, 1299-1317.	3.8	310
5	Physiological Features of the S- and M-cone Photoreceptors of Wild-type Mice from Single-cell Recordings. Journal of General Physiology, 2006, 127, 359-374.	1.9	261
6	Phototransduction, Dark Adaptation, and Rhodopsin Regeneration The Proctor Lecture. , 2006, 47, 5138.		230
7	Light-driven translocation of signaling proteins in vertebrate photoreceptors. Trends in Cell Biology, 2006, 16, 560-568.	7.9	202
8	Cone-like Morphological, Molecular, and Electrophysiological Features of the Photoreceptors of theNrlKnockout Mouse. , 2005, 46, 2156.		190
9	From candelas to photoisomerizations in the mouse eye by rhodopsin bleaching in situ and the light-rearing dependence of the major components of the mouse ERG. Vision Research, 2004, 44, 3235-3251.	1.4	184
10	Dark Light, Rod Saturation, and the Absolute and Incremental Sensitivity of Mouse Cone Vision. Journal of Neuroscience, 2010, 30, 12495-12507.	3.6	177
11	The Gain of Rod Phototransduction. Neuron, 2000, 27, 525-537.	8.1	176
12	Mouse Cones Require an Arrestin for Normal Inactivation of Phototransduction. Neuron, 2008, 59, 462-474.	8.1	134
13	Type 3 Deiodinase, a Thyroid-Hormone-Inactivating Enzyme, Controls Survival and Maturation of Cone Photoreceptors. Journal of Neuroscience, 2010, 30, 3347-3357.	3.6	133
14	Photoreceptors of Nrl â^'/â^' Mice Coexpress Functional S- and M-cone Opsins Having Distinct Inactivation Mechanisms. Journal of General Physiology, 2005, 125, 287-304.	1.9	125
15	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.	7.1	106
16	The Retinal G Protein-coupled Receptor (RGR) Enhances Isomerohydrolase Activity Independent of Light. Journal of Biological Chemistry, 2005, 280, 29874-29884.	3.4	84
17	Quantification of the cytoplasmic spaces of living cells with EGFP reveals arrestin-EGFP to be in disequilibrium in dark adapted rod photoreceptors. Journal of Cell Science, 2004, 117, 3049-3059.	2.0	66
18	In vivowide-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.	2.6	64

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19	Photoreceptor Layer Thickness Changes During Dark Adaptation Observed With Ultrahigh-Resolution Optical Coherence Tomography. , 2017, 58, 4632.		61
20	Calcium Feedback to cGMP Synthesis Strongly Attenuates Single-Photon Responses Driven by Long Rhodopsin Lifetimes. Neuron, 2012, 76, 370-382.	8.1	55
21	Mole Quantity of RPE65 and Its Productivity in the Generation of 11-cis-Retinal from Retinyl Esters in the Living Mouse Eye. Biochemistry, 2005, 44, 9880-9888.	2.5	53
22	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.	2.9	53
23	A mouse M-opsin monochromat: Retinal cone photoreceptors have increased M-opsin expression when S-opsin is knocked out. Vision Research, 2011, 51, 447-458.	1.4	48
24	RGS9 Concentration Matters in Rod Phototransduction. Biophysical Journal, 2009, 97, 1538-1547.	0.5	47
25	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.	7.1	46
26	Directional optical coherence tomography reveals melanin concentration-dependent scattering properties of retinal pigment epithelium. Journal of Biomedical Optics, 2019, 24, 1.	2.6	46
27	Spatiotemporal cGMP Dynamics in Living Mouse Rods. Biophysical Journal, 2012, 102, 1775-1784.	0.5	40
28	Rapid light-induced activation of retinal microglia in mice lacking Arrestin-1. Vision Research, 2014, 102, 71-79.	1.4	37
29	Loss of cone function without degeneration in a novel Gnat2 knock-out mouse. Experimental Eye Research, 2018, 171, 111-118.	2.6	30
30	Cones Respond to Light in the Absence of Transducin Â Subunit. Journal of Neuroscience, 2013, 33, 5182-5194.	3.6	29
31	The Photosensitivity of Rhodopsin Bleaching and Light-Induced Increases of Fundus Reflectance in Mice Measured In Vivo With Scanning Laser Ophthalmoscopy. , 2016, 57, 3650.		29
32	Effect of a contact lens on mouse retinal in vivo imaging: Effective focal length changes and monochromatic aberrations. Experimental Eye Research, 2018, 172, 86-93.	2.6	27
33	Measurement of Diurnal Variation in Rod Outer Segment Length In Vivo in Mice With the OCT Optoretinogram. , 2020, 61, 9.		25
34	Temporal speckle-averaging of optical coherence tomography volumes for in-vivo cellular resolution neuronal and vascular retinal imaging. Neurophotonics, 2019, 6, 1.	3.3	25
35	An S-Opsin Knock-In Mouse (F81Y) Reveals a Role for the Native Ligand 11-cis-Retinal in Cone Opsin Biosynthesis. Journal of Neuroscience, 2012, 32, 8094-8104.	3.6	21
36	The discovery of the ability of rod photoreceptors to signal single photons. Journal of General Physiology, 2018, 150, 383-388.	1.9	21

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37	cGMP in mouse rods: the spatiotemporal dynamics underlying single photon responses. Frontiers in Molecular Neuroscience, 2015, 8, 6.	2.9	20
38	Effect of scanning beam size on the lateral resolution of mouse retinal imaging with SLO. Optics Letters, 2015, 40, 5830.	3.3	20
39	Aperture phase modulation with adaptive optics: a novel approach for speckle reduction and structure extraction in optical coherence tomography. Biomedical Optics Express, 2019, 10, 552.	2.9	17
40	Genetic deletion of S-opsin prevents rapid cone degeneration in a mouse model of Leber congenital amaurosis. Human Molecular Genetics, 2015, 24, 1755-1763.	2.9	16
41	In Situ Morphologic and Spectral Characterization of Retinal Pigment Epithelium Organelles in Mice Using Multicolor Confocal Fluorescence Imaging. , 2020, 61, 1.		16
42	Novel window for cancer nanotheranostics: non-invasive ocular assessments of tumor growth and nanotherapeutic treatment efficacy in vivo. Biomedical Optics Express, 2019, 10, 151.	2.9	13
43	Bright flash response recovery of mammalian rods in vivo is rate limited by RGS9. Journal of General Physiology, 2017, 149, 443-454.	1.9	12
44	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, .	1.9	11
45	Rhodopsin in the rod surface membrane regenerates more rapidly than bulk rhodopsin in the disc membranes in vivo. Journal of Physiology, 2014, 592, 2785-2797.	2.9	6
46	Photoreceptor disc morphogenesis: The classical evagination model prevails. Journal of Cell Biology, 2015, 211, 491-493.	5.2	5
47	New Developments in Murine Imaging for Assessing Photoreceptor Degeneration In Vivo. Advances in Experimental Medicine and Biology, 2016, 854, 269-275.	1.6	2
48	Visualization of chorioretinal vasculature in mice in vivo using a combined OCT/SLO imaging system. , 2016, , .		1
49	Fluorescent scanning laser ophthalmoscopy for cellular resolution in vivo mouse retinal imaging: benefits and drawbacks of implementing adaptive optics. , 2016, , .		0
50	The mechanism of photon-like dark noise in rod photoreceptors. Journal of General Physiology, 2019, 151, 875-877.	1.9	0
51	Photoreceptor disc morphogenesis: The classical evagination model prevails. Journal of General Physiology, 2015, 146, 1466OIA68.	1.9	0
52	Adaptive optics with combined optical coherence tomography and scanning laser ophthalmoscopy for in vivo mouse retina imaging. , 2018, , .		0