# Edward N Pugh

## List of Publications by Year
in descending order

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Version: 2024-02-01

52
papers

4,601
citations

218677
26
h-index

276875
41
g-index

53
all docs

53
docs citations

53
times ranked

4000
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, . | 1.9 | 11 |
| 2 | In Situ Morphologic and Spectral Characterization of Retinal Pigment Epithelium Organelles in Mice Using Multicolor Confocal Fluorescence Imaging. , 2020, 61, 1. | | 16 |
| 3 | Measurement of Diurnal Variation in Rod Outer Segment Length In Vivo in Mice With the OCT Optoretinogram. , 2020, 61, 9. | | 25 |
| 4 | The mechanism of photon-like dark noise in rod photoreceptors. Journal of General Physiology, 2019, 151, 875-877. | 1.9 | 0 |
| 5 | 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 |
| 6 | Directional optical coherence tomography reveals melanin concentration-dependent scattering properties of retinal pigment epithelium. Journal of Biomedical Optics, 2019, 24, 1. | 2.6 | 46 |
| 7 | 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 |
| 8 | 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 |
| 9 | 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 |
| 10 | The discovery of the ability of rod photoreceptors to signal single photons. Journal of General Physiology, 2018, 150, 383-388. | 1.9 | 21 |
| 11 | Loss of cone function without degeneration in a novel Gnat2 knock-out mouse. Experimental Eye Research, 2018, 171, 111-118. | 2.6 | 30 |
| 12 | 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 |
| 13 | Adaptive optics with combined optical coherence tomography and scanning laser ophthalmoscopy for in vivo mouse retina imaging. , 2018, , . | | 0 |
| 14 | 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 |
| 15 | 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 |
| 16 | Photoreceptor Layer Thickness Changes During Dark Adaptation Observed With Ultrahigh-Resolution Optical Coherence Tomography. , 2017, 58, 4632. | | 61 |
| 17 | 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 |
| 18 | Fluorescent scanning laser ophthalmoscopy for cellular resolution in vivo mouse retinal imaging: benefits and drawbacks of implementing adaptive optics. , 2016, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 19 | Visualization of chorioretinal vasculature in mice in vivo using a combined OCT/SLO imaging system. , 2016, , . | | 1 |
| 20 | New Developments in Murine Imaging for Assessing Photoreceptor Degeneration In Vivo. Advances in Experimental Medicine and Biology, 2016, 854, 269-275. | 1.6 | 2 |
| 21 | Photoreceptor disc morphogenesis: The classical evagination model prevails. Journal of Cell Biology, 2015, 211, 491-493. | 5.2 | 5 |
| 22 | cGMP in mouse rods: the spatiotemporal dynamics underlying single photon responses. Frontiers in Molecular Neuroscience, 2015, 8, 6. | 2.9 | 20 |
| 23 | <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. | 2.6 | 64 |
| 24 | Effect of scanning beam size on the lateral resolution of mouse retinal imaging with SLO. Optics Letters, 2015, 40, 5830. | 3.3 | 20 |
| 25 | 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 |
| 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. | 2.9 | 53 |
| 27 | Photoreceptor disc morphogenesis: The classical evagination model prevails. Journal of General Physiology, 2015, 146, 1466OIA68. | 1.9 | 0 |
| 28 | Rapid light-induced activation of retinal microglia in mice lacking Arrestin-1. Vision Research, 2014, 102, 71-79. | 1.4 | 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. | 2.9 | 6 |
| 30 | Cones Respond to Light in the Absence of Transducin Â Subunit. Journal of Neuroscience, 2013, 33, 5182-5194. | 3.6 | 29 |
| 31 | Calcium Feedback to cGMP Synthesis Strongly Attenuates Single-Photon Responses Driven by Long Rhodopsin Lifetimes. Neuron, 2012, 76, 370-382. | 8.1 | 55 |
| 32 | 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 |
| 33 | Spatiotemporal cGMP Dynamics in Living Mouse Rods. Biophysical Journal, 2012, 102, 1775-1784. | 0.5 | 40 |
| 34 | 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 |
| 35 | Dark Light, Rod Saturation, and the Absolute and Incremental Sensitivity of Mouse Cone Vision. Journal of Neuroscience, 2010, 30, 12495-12507. | 3.6 | 177 |
| 36 | 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 |

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|---|---|---|---|
| 37 | RGS9 Concentration Matters in Rod Phototransduction. Biophysical Journal, 2009, 97, 1538-1547. | 0.5 | 47 |
| 38 | Mouse Cones Require an Arrestin for Normal Inactivation of Phototransduction. Neuron, 2008, 59, 462-474. | 8.1 | 134 |
| 39 | The Proteome of the Mouse Photoreceptor Sensory Cilium Complex. Molecular and Cellular Proteomics, 2007, 6, 1299-1317. | 3.8 | 310 |
| 40 | Evolution of the vertebrate eye: opsins, photoreceptors, retina and eye cup. Nature Reviews Neuroscience, 2007, 8, 960-976. | 10.2 | 400 |
| 41 | Phototransduction, Dark Adaptation, and Rhodopsin Regeneration The Proctor Lecture. , 2006, 47, 5138. |  | 230 |
| 42 | Light-driven translocation of signaling proteins in vertebrate photoreceptors. Trends in Cell Biology, 2006, 16, 560-568. | 7.9 | 202 |
| 43 | 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 |
| 44 | The Retinal G Protein-coupled Receptor (RGR) Enhances Isomerohydrolase Activity Independent of Light. Journal of Biological Chemistry, 2005, 280, 29874-29884. | 3.4 | 84 |
| 45 | Cone-like Morphological, Molecular, and Electrophysiological Features of the Photoreceptors of theNrlKnockout Mouse. , 2005, 46, 2156. |  | 190 |
| 46 | 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 |
| 47 | 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 |
| 48 | 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 |
| 49 | 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 |
| 50 | G Proteins and Phototransduction. Annual Review of Physiology, 2002, 64, 153-187. | 13.1 | 593 |
| 51 | Massive Light-Driven Translocation of Transducin between the Two Major Compartments of Rod Cells. Neuron, 2002, 34, 95-106. | 8.1 | 334 |
| 52 | The Gain of Rod Phototransduction. Neuron, 2000, 27, 525-537. | 8.1 | 176 |