Robert J Lucas

List of Publications by Year
in descending order

72 papers	6,253 citations	159585 30 h-index	85541 71 g-index
83 all docs	83 docs citations	83 times ranked	4014 citing authors

#	Article	IF	Citations
1	Divergent G-protein selectivity across melanopsins from mice and humans. Journal of Cell Science, 2022, 135, .	2.0	3
2	Recommendations for daytime, evening, and nighttime indoor light exposure to best support physiology, sleep, and wakefulness in healthy adults. PLoS Biology, 2022, 20, e3001571.	5.6	158
3	Two light sensors decode moonlight versus sunlight to adjust a plastic circadian/circalunidian clock to moon phase. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	17
4	A Bright Idea for Improving Spatial Memory. Neuron, 2021, 109, 197-199.	8.1	1
5	A universal protocol for isolating retinal ON bipolar cells across species via fluorescence-activated cell sorting. Molecular Therapy - Methods and Clinical Development, 2021, 20, 587-600.	4.1	1
6	Using a bistable animal opsin for switchable and scalable optogenetic inhibition of neurons. EMBO Reports, 2021, 22, e51866.	4.5	20
7	Modulations in irradiance directed at melanopsin, but not cone photoreceptors, reliably alter electrophysiological activity in the suprachiasmatic nucleus and circadian behaviour in mice. Journal of Pineal Research, 2021, 70, e12735.	7.4	12
8	Bright daytime light enhances circadian amplitude in a diurnal mammal. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	39
9	Extensive cone-dependent spectral opponency within a discrete zone of the lateral geniculate nucleus supporting mouse color vision. Current Biology, 2021, 31, 3391-3400.e4.	3.9	15
10	Characterization of cephalic and non-cephalic sensory cell types provides insight into joint photo- and mechanoreceptor evolution. ELife, 2021, 10, .	6.0	10
11	Seasonal variation in UVA light drives hormonal and behavioural changes in a marine annelid via a ciliary opsin. Nature Ecology and Evolution, 2021, 5, 204-218.	7.8	24
12	Infraâ€slow modulation of fast beta/gamma oscillations in the mouse visual system. Journal of Physiology, 2021, 599, 1631-1650.	2.9	7
13	Acute In Vivo Multielectrode Recordings from the Mouse Suprachiasmatic Nucleus. Methods in Molecular Biology, 2021, 2130, 249-262.	0.9	1
14	Daily electrical activity in the master circadian clock of a diurnal mammal. ELife, 2021, 10, .	6.0	16
15	Viral Transduction of Human Rod Opsin or Channelrhodopsin Variants to Mouse ON Bipolar Cells Does Not Impact Retinal Anatomy or Cause Measurable Death in the Targeted Cells. International Journal of Molecular Sciences, 2021, 22, 13111.	4.1	4
16	Optogenetic Control of the BMP Signaling Pathway. ACS Synthetic Biology, 2020, 9, 3067-3078.	3.8	22
17	A High-Dimensional Quantification of Mouse Defensive Behaviors Reveals Enhanced Diversity and Stimulus Specificity. Current Biology, 2020, 30, 4619-4630.e5.	3.9	20
18	Effects of a monocarboxylate transport 1 inhibitor, AZD3965, on retinal and visual function in the rat. British Journal of Pharmacology, 2020, 177, 4734-4749.	5.4	6

#	Article	IF	Citations
19	Can We See with Melanopsin?. Annual Review of Vision Science, 2020, 6, 453-468.	4.4	37
20	The spectral sensitivity of cone vision in the diurnal murid, <i>Rhabdomys pumilio</i>. Journal of Experimental Biology, 2020, 223, .	1.7	5
21	Melanopsin Driven Light Responses Across a Large Fraction of Retinal Ganglion Cells in a Dystrophic Retina. Frontiers in Neuroscience, 2020, 14, 320.	2.8	10
22	How to Report Light Exposure in Human Chronobiology and Sleep Research Experiments. Clocks & Sleep, 2019, 1, 280-289.	2.0	82
23	Visual responses in the dorsal lateral geniculate nucleus at early stages of retinal degeneration in rd1 PDE6Î² mice. Journal of Neurophysiology, 2019, 122, 1753-1764.	1.8	6
24	Form vision from melanopsin in humans. Nature Communications, 2019, 10, 2274.	12.8	74
25	Pupil responses to hidden photoreceptorâ€“specific modulations in movies. PLoS ONE, 2019, 14, e0216307.	2.5	6
26	Cones Support Alignment to an Inconsistent World by Suppressing Mouse Circadian Responses to the Blue Colors Associated with Twilight. Current Biology, 2019, 29, 4260-4267.e4.	3.9	55
27	Appearance of Maxwellâ€™s spot in images rendered using a cyan primary. Vision Research, 2019, 165, 72-79.	1.4	4
28	Extraocular, rod-like photoreceptors in a flatworm express xenopsin photopigment. ELife, 2019, 8, .	6.0	27
29	Efficacy and Safety of Glycosidic Enzymes for Improved Gene Delivery to the Retina following Intravitreal Injection in Mice. Molecular Therapy - Methods and Clinical Development, 2018, 9, 192-202.	4.1	20
30	Photoreceptive retinal ganglion cells control the information rate of the optic nerve. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E11817-E11826.	7.1	39
31	Exploiting metamerism to regulate the impact of a visual display on alertness and melatonin suppression independent of visual appearance. Sleep, 2018, 41, .	1.1	72
32	Convergent evolution of tertiary structure in rhodopsin visual proteins from vertebrates and box jellyfish. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6201-6206.	7.1	19
33	A live cell assay of GPCR coupling allows identification of optogenetic tools for controlling Go and Gi signaling. BMC Biology, 2018, 16, 10.	3.8	33
34	An all-trans-retinal-binding opsin peropsin as a potential dark-active and light-inactivated G protein-coupled receptor. Scientific Reports, 2018, 8, 3535.	3.3	34
35	Modulation of Fast Narrowband Oscillations in the Mouse Retina and dLGN According to Background Light Intensity. Neuron, 2017, 93, 299-307.	8.1	73
36	Chromatic clocks: Color opponency in non-image-forming visual function. Neuroscience and Biobehavioral Reviews, 2017, 78, 24-33.	6.1	34

#	Article	IF	Citations
37	Convergence of visual and whisker responses in the primary somatosensory thalamus (ventral) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.9	23
38	Optogenetic interrogation reveals separable G-protein-dependent and -independent signalling linking G-protein-coupled receptors to the circadian oscillator. BMC Biology, 2017, 15, 40.	3.8	10
39	Melanopsin Contributions to the Representation of Images in the Early Visual System. Current Biology, 2017, 27, 1623-1632.e4.	3.9	90
40	Responses to Spatial Contrast in the Mouse Suprachiasmatic Nuclei. Current Biology, 2017, 27, 1633-1640.e3.	3.9	25
41	â€˜In a dark place, we find ourselvesâ€™: light intensity in critical care units. Intensive Care Medicine Experimental, 2017, 5, 9.	1.9	32
42	Ethanol Stimulates Locomotion via a GÎ±s-Signaling Pathway in IL2 Neurons in<i>Caenorhabditis elegans</i>. Genetics, 2017, 207, 1023-1039.	2.9	14
43	The impact of temporal modulations in irradiance under light adapted conditions on the mouse suprachiasmatic nuclei (SCN). Scientific Reports, 2017, 7, 10582.	3.3	17
44	Rods progressively escape saturation to drive visual responses in daylight conditions. Nature Communications, 2017, 8, 1813.	12.8	99
45	Multiplexing Visual Signals in the Suprachiasmatic Nuclei. Cell Reports, 2017, 21, 1418-1425.	6.4	11
46	Meclofenamic acid improves the signal to noise ratio for visual responses produced by ectopic expression of human rod opsin. Molecular Vision, 2017, 23, 334-345.	1.1	9
47	Chemogenetic Activation of ipRGCs Drives Changes in Dark-Adapted (Scotopic) Electroretinogram. , 2016, 57, 6305.		22
48	Chemogenetic Activation of Melanopsin Retinal Ganglion Cells Induces Signatures of Arousal and/or Anxiety in Mice. Current Biology, 2016, 26, 2358-2363.	3.9	60
49	Melanopsin supports irradianceâ€driven changes in maintained activity in the superior colliculus of the mouse. European Journal of Neuroscience, 2016, 44, 2314-2323.	2.6	7
50	Melanopsin-driven increases in maintained activity enhance thalamic visual response reliability across a simulated dawn. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E5734-43.	7.1	48
51	Melanopsin-Derived Visual Responses under Light Adapted Conditions in the Mouse dLGN. PLoS ONE, 2015, 10, e0123424.	2.5	34
52	Spatial receptive fields in the retina and dorsal lateral geniculate nucleus of mice lacking rods and cones. Journal of Neurophysiology, 2015, 114, 1321-1330.	1.8	30
53	Colour As a Signal for Entraining the Mammalian Circadian Clock. PLoS Biology, 2015, 13, e1002127.	5.6	167
54	Restoration of Vision with Ectopic Expression of Human Rod Opsin. Current Biology, 2015, 25, 2111-2122.	3.9	144

#	Article	IF	Citations
55	Melanopsin-Driven Light Adaptation in Mouse Vision. Current Biology, 2014, 24, 2481-2490.	3.9	121
56	Cartilage Repair Using Human Embryonic Stem Cell-Derived Chondroprogenitors. Stem Cells Translational Medicine, 2014, 3, 1287-1294.	3.3	101
57	Measuring and using light in the melanopsin age. Trends in Neurosciences, 2014, 37, 1-9.	8.6	879
58	Mammalian Inner Retinal Photoreception. Current Biology, 2013, 23, R125-R133.	3.9	91
59	Human melanopsin forms a pigment maximally sensitive to blue light (<i>Î»</i> _{max} â‰ˆ 479) Tj ETQq1 1 0.784314 rgBT Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20122987.	2.6	236
60	How rod, cone, and melanopsin photoreceptors come together to enlighten the mammalian circadian clock. Progress in Brain Research, 2012, 199, 1-18.	1.4	152
61	Reproducible and Sustained Regulation of GÎ±s Signalling Using a Metazoan Opsin as an Optogenetic Tool. PLoS ONE, 2012, 7, e30774.	2.5	80
62	Melanopsin-Based Brightness Discrimination in Mice and Humans. Current Biology, 2012, 22, 1134-1141.	3.9	199
63	Multiple hypothalamic cell populations encoding distinct visual information. Journal of Physiology, 2011, 589, 1173-1194.	2.9	85
64	A Distinct Contribution of Short-Wavelength-Sensitive Cones to Light-Evoked Activity in the Mouse Pretectal Olivary Nucleus. Journal of Neuroscience, 2011, 31, 16833-16843.	3.6	62
65	Melanopsin Contributions to Irradiance Coding in the Thalamo-Cortical Visual System. PLoS Biology, 2010, 8, e1000558.	5.6	226
66	Differential Expression of Two Distinct Functional Isoforms of Melanopsin (<i>Opn4</i>) in the Mammalian Retina. Journal of Neuroscience, 2009, 29, 12332-12342.	3.6	87
67	Melanopsin cells are the principal conduits for rodâ€"cone input to non-image-forming vision. Nature, 2008, 453, 102-105.	27.8	734
68	Non-Rod, Non-Cone Photoreception in Rodents and Teleost Fish. Novartis Foundation Symposium, 2008, , 3-30.	1.1	16
69	Chromophore regeneration: Melanopsin does its own thing. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10153-10154.	7.1	23
70	Characterization of an ocular photopigment capable of driving pupillary constriction in mice. Nature Neuroscience, 2001, 4, 621-626.	14.8	546
71	Clocks, criteria and critical genes. Nature Genetics, 1999, 22, 217-219.	21.4	9
72	Regulation of Mammalian Circadian Behavior by Non-rod, Non-cone, Ocular Photoreceptors. Science, 1999, 284, 502-504.	12.6	720