Jay Neitz

List of Publications by Year
in descending order

122 papers	7,489 citations	61857 43 h-index	60497 81 g-index
129 all docs	129 docs citations	129 times ranked	4167 citing authors

#	Article	IF	Citations
1	Organization of the Human Trichromatic Cone Mosaic. Journal of Neuroscience, 2005, 25, 9669-9679.	1.7	446
2	Retinal receptors in rodents maximally sensitive to ultraviolet light. Nature, 1991, 353, 655-656.	13.7	380
3	Functional magnetic resonance imaging (FMRI) of the human brain. Journal of Neuroscience Methods, 1994, 54, 171-187.	1.3	375
4	Trichromatic colour vision in New World monkeys. Nature, 1996, 382, 156-158.	13.7	316
5	Gene therapy for redâ€“green colour blindness in adult primates. Nature, 2009, 461, 784-787.	13.7	282
6	The genetics of normal and defective color vision. Vision Research, 2011, 51, 633-651.	0.7	278
7	Functional photoreceptor loss revealed with adaptive optics: An alternate cause of color blindness. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 8461-8466.	3.3	267
8	Color Perception Is Mediated by a Plastic Neural Mechanism that Is Adjustable in Adults. Neuron, 2002, 35, 783-792.	3.8	260
9	Polymorphism of the long-wavelength cone in normal human colour vision. Nature, 1986, 323, 623-625.	13.7	244
10	Local cellular sources of apolipoprotein E in the human retina and retinal pigmented epithelium: implications for the process of drusen formation. American Journal of Ophthalmology, 2001, 131, 767-781.	1.7	229
11	Functional consequences of the relative numbers of L and M cones. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 607.	0.8	203
12	More than three different cone pigments among people with normal color vision. Vision Research, 1993, 33, 117-122.	0.7	193
13	Photopigments and color vision in the nocturnal monkey,Aotus. Vision Research, 1993, 33, 1773-1783.	0.7	168
14	Color vision in the dog. Visual Neuroscience, 1989, 3, 119-125.	0.5	152
15	Estimates of L:M cone ratio from ERG flicker photometry and genetics. Journal of Vision, 2002, 2, 1-1.	0.1	133
16	Polymorphism in normal human color vision and its mechanism. Vision Research, 1990, 30, 621-636.	0.7	127
17	Effects of Long-Wavelength Lighting on Refractive Development in Infant Rhesus Monkeys. , 2015, 56, 6490.		105
18	Photopigment basis for dichromatic color vision in cows, goats, and sheep. Visual Neuroscience, 1998, 15, 581-4.	0.5	104

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19	Variations in cone populations for redâ€“green color vision examined by analysis of mRNA. NeuroReport, 1998, 9, 1963-1967.	0.6	101
20	Electroretinogram flicker photometry and its applications. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1996, 13, 641.	0.8	99
21	Macular Phototoxicity Caused by Fiberoptic Endoillumination During Pars Plana Vitrectomy. American Journal of Ophthalmology, 1992, 114, 287-296.	1.7	94
22	The Effect of Cone Opsin Mutations on Retinal Structure and the Integrity of the Photoreceptor Mosaic. , 2012, 53, 8006.		85
23	Color vision polymorphism and its photopigment basis in a callitrichid monkey (Saguinus fuscicollis). Vision Research, 1987, 27, 2089-2100.	0.7	82
24	Flicker-photometric electroretinogram estimates of L:M cone photoreceptor ratio in men with photopigment spectra derived from genetics. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 499.	0.8	82
25	Genetic basis of polymorphism in the color vision of platyrrhine monkeys. Vision Research, 1993, 33, 269-274.	0.7	77
26	Trichromatic color vision with only two spectrally distinct photopigments. Nature Neuroscience, 1999, 2, 884-888.	7.1	74
27	Transplantation of Human Embryonic Stem Cell-Derived Retinal Cells into the Subretinal Space of a Non-Human Primate. Translational Vision Science and Technology, 2017, 6, 4.	1.1	72
28	Polymorphism of the middle wavelength cone in two species of south american monkey: Cebus apella and callicebus moloch. Vision Research, 1987, 27, 1263-1268.	0.7	66
29	Analysis of fusion gene and encoded photopigment of colour-blind humans. Nature, 1989, 342, 679-682.	13.7	65
30	Cone photoreceptor mosaic disruption associated with Cys203Arg mutation in the M-cone opsin. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 20948-20953.	3.3	65
31	Recent evolution of uniform trichromacy in a New World monkey. Vision Research, 1998, 38, 3315-3320.	0.7	64
32	Variety of genotypes in males diagnosed as dichromatic on a conventional clinical anomaloscope. Visual Neuroscience, 2004, 21, 205-216.	0.5	64
33	Genetic basis of photopigment variations in human dichromats. Vision Research, 1995, 35, 2095-2103.	0.7	63
34	Polymorphism in the number of genes encoding long-wavelength-sensitive cone pigments among males with normal color vision. Vision Research, 1995, 35, 2395-2407.	0.7	60
35	Spectral mechanisms and color vision in the tree shrew (Tupaia belangeri). Vision Research, 1986, 26, 291-298.	0.7	57
36	Color vision in squirrel monkeys: Sex-related differences suggest the mode of inheritance. Vision Research, 1985, 25, 141-143.	0.7	56

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37	Evaluation of an updated HRR color vision test. Visual Neuroscience, 2004, 21, 431-436.	0.5	56
38	Deletion of the X-linked opsin gene array locus control region (LCR) results in disruption of the cone mosaic. Vision Research, 2010, 50, 1989-1999.	0.7	56
39	Spectral sensitivity of cones in an ungulate. Visual Neuroscience, 1989, 2, 97-100.	0.5	55
40	Modeling of region-specific fMRI BOLD neurovascular response functions in rat brain reveals residual differences that correlate with the differences in regional evoked potentials. NeuroImage, 2008, 41, 525-534.	2.1	52
41	A Color Vision Circuit for Non-Image-Forming Vision in the Primate Retina. Current Biology, 2020, 30, 1269-1274.e2.	1.8	50
42	Cone pigment gene expression in individual photoreceptors and the chromatic topography of the retina. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 527.	0.8	48
43	Early color deprivation and subsequent color vision in a dichromatic monkey. Vision Research, 1987, 27, 2009-2013.	0.7	47
44	L-cone pigment genes expressed in normal colour vision. Vision Research, 1998, 38, 3213-3219.	0.7	47
45	A study of unusual Rayleigh matches in deutan deficiency. Visual Neuroscience, 2008, 25, 507-516.	0.5	47
46	Evolution of the circuitry for conscious color vision in primates. Eye, 2017, 31, 286-300.	1.1	47
47	A new mass screening test for color-vision deficiencies in children. Color Research and Application, 2001, 26, S239-S249.	0.8	45
48	Broad Thorny Ganglion Cells: A Candidate for Visual Pursuit Error Signaling in the Primate Retina. Journal of Neuroscience, 2015, 35, 5397-5408.	1.7	44
49	Color Vision: Almost Reason Enough for Having Eyes. Optics and Photonics News, 2001, 12, 26.	0.4	43
50	Changes in the colour of light cue circadian activity. Animal Behaviour, 2012, 83, 1143-1151.	0.8	41
51	Spectral sensitivity of ground squirrel cones measured with ERG flicker photometry. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1985, 156, 503-509.	0.7	40
52	Neurobiological hypothesis of color appearance and hue perception. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2014, 31, A195.	0.8	39
53	Relating color discrimination to photopigment genes in deutan observers. Vision Research, 1998, 38, 3371-3376.	0.7	37
54	Cone Photoreceptor Structure in Patients With X-Linked Cone Dysfunction and Red-Green Color Vision Deficiency. , 2016, 57, 3853.		36

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55	Role of a Dual Splicing and Amino Acid Code in Myopia, Cone Dysfunction and Cone Dystrophy Associated with <i>L</i>/<i>M</i> Opsin Interchange Mutations. Translational Vision Science and Technology, 2017, 6, 2.	1.1	35
56	Spectral mechanisms in the tree squirrel retina. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1988, 162, 773-780.	0.7	34
57	Spectra of human L cones. Vision Research, 1998, 38, 3663-3670.	0.7	33
58	The uncommon retina of the common house mouse. Trends in Neurosciences, 2001, 24, 248-249.	4.2	32
59	Characterization of a novel form of X-linked incomplete achromatopsia. Visual Neuroscience, 2004, 21, 197-203.	0.5	32
60	Genetic Testing as a New Standard for Clinical Diagnosis of Color Vision Deficiencies. Translational Vision Science and Technology, 2016, 5, 2.	1.1	31
61	Residual Cone Structure in Patients With X-Linked Cone Opsin Mutations. , 2018, 59, 4238.		29
62	Sensations from a single M-cone depend on the activity of surrounding S-cones. Scientific Reports, 2018, 8, 8561.	1.6	29
63	Expression of L cone pigment gene subtypes in females. Vision Research, 1998, 38, 3221-3225.	0.7	28
64	Action spectrum of the retinal mechanism mediating nocturnal light-induced suppression of rat pineal gland N-acetyltransferase. Brain Research, 1987, 406, 352-356.	1.1	27
65	Reconciling Color Vision Models With Midget Ganglion Cell Receptive Fields. Frontiers in Neuroscience, 2019, 13, 865.	1.4	27
66	A novel mutation in the short-wavelength-sensitive cone pigment gene associated with a tritan color vision defect. Visual Neuroscience, 2006, 23, 403-409.	0.5	26
67	Recombinant adeno-associated virus targets passenger gene expression to cones in primate retina. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 1411.	0.8	26
68	Color-deficient cone mosaics associated with Xq28 opsin mutations: A stop codon versus gene deletions. Vision Research, 2010, 50, 2396-2402.	0.7	26
69	Synaptic Elements for GABAergic Feed-Forward Signaling between HII Horizontal Cells and Blue Cone Bipolar Cells Are Enriched beneath Primate S-Cones. PLoS ONE, 2014, 9, e88963.	1.1	26
70	An S-cone circuit for edge detection in the primate retina. Scientific Reports, 2019, 9, 11913.	1.6	26
71	The association between L:M cone ratio, cone opsin genes and myopia susceptibility. Vision Research, 2019, 162, 20-28.	0.7	26
72	Distinctive receptive field and physiological properties of a wide-field amacrine cell in the macaque monkey retina. Journal of Neurophysiology, 2015, 114, 1606-1616.	0.9	25

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73	An adaptation of the Cambridge Colour Test for use with animals. Visual Neuroscience, 2006, 23, 695-701.	0.5	24
74	Spectral Tuning of Ultraviolet Cone Pigments: An Interhelical Lock Mechanism. Journal of the American Chemical Society, 2013, 135, 19064-19067.	6.6	24
75	Curing Color Blindness--Mice and Nonhuman Primates. Cold Spring Harbor Perspectives in Medicine, 2014, 4, a017418-a017418.	2.9	24
76	Topography of the long- to middle-wavelength sensitive cone ratio in the human retina assessed with a wide-field color multifocal electroretinogram. Visual Neuroscience, 2008, 25, 301-306.	0.5	23
77	The L:M cone ratio in males of African descent with normal color vision. Journal of Vision, 2008, 8, 5.	0.1	23
78	Molecular genetic detection of female carriers of protan defects. Vision Research, 1998, 38, 3365-3369.	0.7	21
79	Colour Vision: The Wonder of Hue. Current Biology, 2008, 18, R700-R702.	1.8	20
80	Topography of long- and middle-wavelength sensitive cone opsin gene expression in human and Old World monkey retina. Visual Neuroscience, 2006, 23, 379-385.	0.5	19
81	S-opsin knockout mice with the endogenous M-opsin gene replaced by an L-opsin variant. Visual Neuroscience, 2014, 31, 25-37.	0.5	19
82	Geographic mapping of choroidal thickness in myopic eyes using 1050-nm spectral domain optical coherence tomography. Journal of Innovative Optical Health Sciences, 2015, 08, 1550012.	0.5	19
83	Revealing How Color Vision Phenotype and Genotype Manifest in Individual Cone Cells. , 2021, 62, 8.		19
84	An urn model of the development of L/M cone ratios in human and macaque retinas. Visual Neuroscience, 2006, 23, 387-394.	0.5	17
85	Another Blue-ON ganglion cell in the primate retina. Current Biology, 2020, 30, R1409-R1410.	1.8	17
86	Circuitry to explain how the relative number of L and M cones shapes color experience. Journal of Vision, 2016, 16, 18.	0.1	15
87	Intermixing the OPN1LW and OPN1MW Genes Disrupts the Exonic Splicing Code Causing an Array of Vision Disorders. Genes, 2021, 12, 1180.	1.0	15
88	Tunicamycin-induced degeneration in cone photoreceptors. Visual Neuroscience, 1988, 1, 153-158.	0.5	14
89	Conserved circuits for direction selectivity in the primate retina. Current Biology, 2022, 32, 2529-2538.e4.	1.8	14
90	Evaluating the human X-chromosome pigment gene promoter sequences as predictors of L:M cone ratio variation. Journal of Vision, 2004, 4, 7.	0.1	13

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91	Nucleotide polymorphisms upstream of the X-chromosome opsin gene array tune L:M cone ratio. Visual Neuroscience, 2008, 25, 265-271.	0.5	13
92	Photopigment genes, cones, and color update: disrupting the splicing code causes a diverse array of vision disorders. Current Opinion in Behavioral Sciences, 2019, 30, 60-66.	2.0	13
93	The importance of deleterious mutations of M pigment genes as a cause of color vision defects. Color Research and Application, 2001, 26, S100-S105.	0.8	12
94	Topographical cone photopigment gene expression in deutan-type redâ€“green color vision defects. Vision Research, 2004, 44, 135-145.	0.7	12
95	Synaptic inputs from identified bipolar and amacrine cells to a sparsely branched ganglion cell in rabbit retina. Visual Neuroscience, 2019, 36, E004.	0.5	12
96	Effect of cone spectral topography on chromatic detection sensitivity. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2020, 37, A244.	0.8	12
97	Spectral sensitivity of vervet monkeys (Cercopithecus aethiops sabaeus) and the issue of catarrhine trichromacy. American Journal of Primatology, 1991, 23, 185-195.	0.8	11
98	Wideâ€field amacrine cell inputs to ON parasol ganglion cells in macaque retina. Journal of Comparative Neurology, 2020, 528, 1588-1598.	0.9	11
99	Restoring Color Perception to the Blind. Ophthalmology, 2021, 128, 453-462.	2.5	11
100	Cone-isolating ONâ€“OFF electroretinogram for studying chromatic pathways in the retina. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2014, 31, A208.	0.8	10
101	A Multi-Stage Color Model Revisited: Implications for a Gene Therapy Cure for Red-Green Colorblindness. Advances in Experimental Medicine and Biology, 2010, 664, 631-638.	0.8	10
102	Specialized synaptic pathway for chromatic signals beneath S-cone photoreceptors is common to human, Old and New World primates. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2014, 31, A189.	0.8	9
103	Longitudinal evaluation of expression of virally delivered transgenes in gerbil cone photoreceptors. Visual Neuroscience, 2008, 25, 273-282.	0.5	8
104	Synaptic inputs to broad thorny ganglion cells in macaque retina. Journal of Comparative Neurology, 2021, 529, 3098-3111.	0.9	8
105	Insight from OPN1LW Gene Haplotypes into the Cause and Prevention of Myopia. Genes, 2022, 13, 942.	1.0	8
106	Pigment gene expression in protan color vision defects. Vision Research, 1998, 38, 3359-3364.	0.7	7
107	Potential value of color vision aids for varying degrees of color vision deficiency. Optics Express, 2022, 30, 8857.	1.7	6
108	Correlated Evolution of Short Wavelength Sensitive Photoreceptor Sensitivity and Color Pattern in Lake Malawi Cichlids. Frontiers in Ecology and Evolution, 2016, 4, .	1.1	4

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109	Comparing Retinal Structure in Patients with Achromatopsia and Blue Cone Monochromacy Using OCT. Ophthalmology Science, 2021, 1, 100047.	1.0	4
110	New Genetic Technology May Help Pilots, Aviation Employees, and Color Vision Researchers. Aviation, Space, and Environmental Medicine, 2013, 84, 1218-1220.	0.6	3
111	S-cone circuits in the primate retina for non-image-forming vision. Seminars in Cell and Developmental Biology, 2022, 126, 66-70.	2.3	3
112	A new mass screening test for color-vision deficiencies in children. , 2001, 26, S239.		3
113	Color Vision. , 2011, , 648-654.		3
114	Testing hypotheses about visual pigments underlying deutan color vision. Color Research and Application, 2001, 26, S106-S111.	0.8	2
115	The Genetic Basis for Normal Vision and Vision Disorders. FASEB Journal, 2012, 26, 458.2.	0.2	1
116	Differences between the S-OFF and L/M-OFF contacts inform the role of OFF midget bipolar cells in the perception of yellow. Journal of Vision, 2017, 17, 15.	0.1	1
117	Limitation of standard pseudoisochromatic plates in identifying colour vision deficiencies when compared with genetic testing. Acta Ophthalmologica, 2022, , .	0.6	1
118	How We See Black and White: The Role of Midget Ganglion Cells. Frontiers in Neuroanatomy, 0, 16, .	0.9	1
119	Color vision defects. , 2010, , 478-485.		0
120	Gene therapy as a cure for color blindness. FASEB Journal, 2012, 26, 458.3.	0.2	0
121	The best of both worlds: A Maxwellian view visual stimulator incorporating a DLP spatiotemporal light driver with a programmable tunable spectrum source for studying human color vision. Journal of Vision, 2017, 17, 45.	0.1	0
122	The Genetics of Cone Opsin Based Vision Disorders. , 2020, , 493-507.		0