Wayne I L Davies

List of Publications by Year
in descending order

63	3,568	159585	144013
papers	citations	30 h-index	57 g-index

68	68	68	3878
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	In silico patent searching reveals a new cannabinoid receptor. Trends in Pharmacological Sciences, 2006, 27, 1-4.	8.7	302
2	The nocturnal bottleneck and the evolution of activity patterns in mammals. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20130508.	2.6	183
3	Evolution and spectral tuning of visual pigments in birds and mammals. Philosophical Transactions of the Royal Society B: Biological Sciences, 2009, 364, 2941-2955.	4.0	182
4	Molecular ecology and adaptation of visual photopigments in craniates. Molecular Ecology, 2012, 21, 3121-3158.	3.9	169
5	Vision using multiple distinct rod opsins in deep-sea fishes. Science, 2019, 364, 588-592.	12.6	151
6	VA Opsin-Based Photoreceptors in the Hypothalamus of Birds. Current Biology, 2009, 19, 1396-1402.	3.9	149
7	Ancient colour vision: multiple opsin genes in the ancestral vertebrates. Current Biology, 2003, 13, R864-R865.	3.9	141
8	The influence of ontogeny and light environment on the expression of visual pigment opsins in the retina of the black bream,Acanthopagrus butcheri. Journal of Experimental Biology, 2008, 211, 1495-1503.	1.7	133
9	De novopoint mutations in patients diagnosed with ataxic cerebral palsy. Brain, 2015, 138, 1817-1832.	7.6	129
10	An extended family of novel vertebrate photopigments is widely expressed and displays a diversity of function. Genome Research, 2015, 25, 1666-1679.	5.5	121
11	Next-generation sequencing (NGS) as a diagnostic tool for retinal degeneration reveals a much higher detection rate in early-onset disease. European Journal of Human Genetics, 2013, 21, 274-280.	2.8	119
12	Functional diversity of melanopsins and their global expression in the teleost retina. Cellular and Molecular Life Sciences, 2011, 68, 4115-4132.	5.4	101
13	Visual pigments of the platypus: A novel route to mammalian colour vision. Current Biology, 2007, 17, R161-R163.	3.9	93
14	Spectral Tuning of Shortwave-sensitive Visual Pigments in Vertebratesâ€. Photochemistry and Photobiology, 2007, 83, 303-310.	2.5	92
15	The evolution of early vertebrate photoreceptors. Philosophical Transactions of the Royal Society B: Biological Sciences, 2009, 364, 2925-2940.	4.0	89
16	Vertebrate ancient opsin and melanopsin: divergent irradiance detectors. Photochemical and Photobiological Sciences, 2010, 9, 1444-1457.	2.9	77
17	Functional characterization, tuning, and regulation of visual pigment gene expression in an anadromous lamprey. FASEB Journal, 2007, 21, 2713-2724.	0.5	74
18	Vertebrate ancient opsin photopigment spectra and the avian photoperiodic response. Biology Letters, 2012, 8, 291-294.	2.3	73

#	Article	IF	Citations
19	Shedding Light on Serpent Sight: The Visual Pigments of Henophidian Snakes. Journal of Neuroscience, 2009, 29, 7519-7525.	3.6	67
20	CNTF Gene Therapy Confers Lifelong Neuroprotection in a Mouse Model of Human Retinitis Pigmentosa. Molecular Therapy, 2015, 23, 1308-1319.	8.2	66
21	The hypothalamic photoreceptors regulating seasonal reproduction in birds: A prime role for VA opsin. Frontiers in Neuroendocrinology, 2015, 37, 13-28.	5.2	65
22	Into the blue: Gene duplication and loss underlie color vision adaptations in a deep-sea chimaera, the elephant sharkCallorhinchus milii. Genome Research, 2009, 19, 415-426.	5.5	62
23	Identification and characterization of visual pigments in caecilians (Amphibia: Gymnophiona), an order of limbless vertebrates with rudimentary eyes. Journal of Experimental Biology, 2010, 213, 3586-3592.	1.7	58
24	Leber Congenital Amaurosis Associated with Mutations in CEP290, Clinical Phenotype, and Natural History in Preparation for Trials of Novel Therapies. Ophthalmology, 2018, 125, 894-903.	5.2	58
25	Pushing the limits of photoreception in twilight conditions: The rod-like cone retina of the deep-sea pearlsides. Science Advances, 2017, 3, eaao4709.	10.3	55
26	Adaptive Gene Loss Reflects Differences in the Visual Ecology of Basal Vertebrates. Molecular Biology and Evolution, 2009, 26, 1803-1809.	8.9	50
27	Variations in Opsin Coding Sequences Cause X-Linked Cone Dysfunction Syndrome with Myopia and Dichromacy. , 2013, 54, 1361.		50
28	Spectral tuning and evolution of primate short-wavelength-sensitive visual pigments. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 387-393.	2.6	48
29	The Genetic and Evolutionary Drives behind Primate Color Vision. Frontiers in Ecology and Evolution, 2017, 5, .	2.2	48
30	Evolution of Vertebrate Phototransduction: Cascade Activation. Molecular Biology and Evolution, 2016, 33, 2064-2087.	8.9	44
31	Cone visual pigments in two marsupial species: the fat-tailed dunnart (Sminthopsis) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 26 B: Biological Sciences, 2008, 275, 1491-1499.	2.6	43
32	Next-generation sequencing in health-care delivery: lessons from the functional analysis of rhodopsin. Genetics in Medicine, 2012, 14, 891-899.	2.4	28
33	Evolution and Functional Characterisation of Melanopsins in a Deep-Sea Chimaera (Elephant Shark,) Tj ETQq1 1 0.784314 rgBT /Overlo	2.5	25
34	Sensory System Responses to Human-Induced Environmental Change. Frontiers in Ecology and Evolution, 2018, 6, .	2.2	24
35	Visual pigments in a living fossil, the Australian lungfish Neoceratodus forsteri. BMC Evolutionary Biology, 2007, 7, 200.	3.2	23
36	Cone monochromacy and visual pigment spectral tuning in wobbegong sharks. Biology Letters, 2012, 8, 1019-1022.	2.3	23

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37	How parrots see their colours: novelty in the visual pigments ofPlatycercus elegans. Journal of Experimental Biology, 2013, 216, 4454-4461.	1.7	22
38	X-linked cone dystrophy and colour vision deficiency arising from a missense mutation in a hybrid L/M cone opsin gene. Vision Research, 2013, 80, 41-50.	1.4	22
39	Cardiac Expression of the Cystic Fibrosis Transmembrane Conductance Regulator Involves Novel Exon 1 Usage to Produce a Unique Amino-terminal Protein. Journal of Biological Chemistry, 2004, 279, 15877-15887.	3.4	21
40	Developmental dynamics of cone photoreceptors in the eel. BMC Developmental Biology, 2009, 9, 71.	2.1	21
41	The Biological Mechanisms and Behavioral Functions of Opsin-Based Light Detection by the Skin. Frontiers in Ecology and Evolution, 2016, 4, .	2.2	21
42	Anion sensitivity and spectral tuning of middle- and long-wavelength-sensitive (MWS/LWS) visual pigments. Cellular and Molecular Life Sciences, 2012, 69, 2455-2464.	5.4	20
43	Visual Opsin Diversity in Sharks and Rays. Molecular Biology and Evolution, 2020, 37, 811-827.	8.9	20
44	Post-transcriptional regulation of the cystic fibrosis gene in cardiac development and hypertrophy. Biochemical and Biophysical Research Communications, 2004, 319, 410-418.	2.1	18
45	SPLICE: A technique for generating in vitro spliced coding sequences from genomic DNA. BioTechniques, 2007, 43, 785-789.	1.8	17
46	Spectral Tuning in the Eyes of Deep-Sea Lanternfishes (Myctophidae): A Novel Sexually Dimorphic Intra-Ocular Filter. Brain, Behavior and Evolution, 2015, 85, 77-93.	1.7	17
47	Visual pigments in a palaeognath bird, the emuDromaius novaehollandiae: implications for spectral sensitivity and the origin of ultraviolet vision. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20161063.	2.6	17
48	Focus on Molecules: Centrosomal protein 290 (CEP290). Experimental Eye Research, 2011, 92, 316-317.	2.6	15
49	The Evolution of Non-visual Photopigments in the Central Nervous System of Vertebrates. , 2014, , 65-103.		14
50	Chimeric human opsins as optogenetic light sensitisers. Journal of Experimental Biology, 2021, 224, .	1.7	14
51	Characterization of a Dominant Cone Degeneration in a Green Fluorescent Proteinâ€“Reporter Mouse with Disruption of Loci Associated with Human Dominant Retinal Dystrophy. , 2011, 52, 6617.		13
52	Focus on Molecules: Melanopsin. Experimental Eye Research, 2012, 97, 161-162.	2.6	13
53	Elucidation of Cellular Mechanisms That Regulate the Sustained Contraction and Relaxation of the Mammalian Iris. , 2020, 61, 5.		10
54	Cone Photoreceptor Neuroprotection Conferred by CNTF in a Novel In Vivo Model of Battlefield Retinal Laser Injury. , 2013, 54, 5456.		9

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55	Distinct Opsin 3 (Opn3) Expression in the Developing Nervous System during Mammalian Embryogenesis. ENeuro, 2021, 8, ENEURO.0141-21.2021.	1.9	9
56	Challenges using diagnostic next-generation sequencing in the clinical environment for inherited retinal disorders. Personalized Medicine, 2014, 11, 99-111.	1.5	7
57	The Evolution and Function of Melanopsin in Craniates. , 2014, , 23-63.		7
58	Visual opsin expression and morphological characterization of retinal photoreceptors in the pouched lamprey (<scp>Geotria australis</scp>, Gray). Journal of Comparative Neurology, 2021, 529, 2265-2282.	1.6	4
59	Short-wavelength-sensitive 2 (Sws2) visual photopigment models combined with atomistic molecular simulations to predict spectral peaks of absorbance. PLoS Computational Biology, 2020, 16, e1008212.	3.2	3
60	Editorial: Biodiversity of Sensory Systems in Aquatic Vertebrates. Frontiers in Ecology and Evolution, 2020, 8, .	2.2	2
61	Differential stability of variant gene transcripts in myopic patients. Molecular Vision, 2019, 25, 183-193.	1.1	2
62	Chick fetal organ spheroids as a model to study development and disease. BMC Molecular and Cell Biology, 2021, 22, 37.	2.0	1
63	Enhanced short-wavelength sensitivity in the blue-tongued skinkTiliqua rugosa. Journal of Experimental Biology, 2022, 225, .	1.7	1