Richard H Masland

List of Publications by Year
in descending order

82 papers	10,957 citations	46984 47 h-index	69214 77 g-index
125 all docs	125 docs citations	125 times ranked	7356 citing authors

#	Article	IF	Citations
1	The Major Cell Populations of the Mouse Retina. Journal of Neuroscience, 1998, 18, 8936-8946.	1.7	1,220
2	The fundamental plan of the retina. Nature Neuroscience, 2001, 4, 877-886.	7.1	1,008
3	The Neuronal Organization of the Retina. Neuron, 2012, 76, 266-280.	3.8	831
4	The Types of Retinal Ganglion Cells: Current Status and Implications for Neuronal Classification. Annual Review of Neuroscience, 2015, 38, 221-246.	5.0	658
5	Axons of retinal ganglion cells are insulted in the optic nerve early in DBA/2J glaucoma. Journal of Cell Biology, 2007, 179, 1523-1537.	2.3	523
6	Extreme Diversity among Amacrine Cells: Implications for Function. Neuron, 1998, 20, 971-982.	3.8	479
7	Retinal ganglion cell degeneration is topological but not cell type specific in DBA/2J mice. Journal of Cell Biology, 2005, 171, 313-325.	2.3	342
8	Neuronal diversity in the retina. Current Opinion in Neurobiology, 2001, 11, 431-436.	2.0	289
9	Restoration of visual function in retinal degeneration mice by ectopic expression of melanopsin. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 16009-16014.	3.3	271
10	Neurite arborization and mosaic spacing in the mouse retina require DSCAM. Nature, 2008, 451, 470-474.	13.7	269
11	The Diversity of Ganglion Cells in a Mammalian Retina. Journal of Neuroscience, 2002, 22, 3831-3843.	1.7	262
12	The shapes and numbers of amacrine cells: Matching of photofilled with Golgi-stained cells in the rabbit retina and comparison with other mammalian species. Journal of Comparative Neurology, 1999, 413, 305-326.	0.9	243
13	Light-Evoked Responses of Bipolar Cells in a Mammalian Retina. Journal of Neurophysiology, 2000, 83, 1817-1829.	0.9	228
14	Diversity of ganglion cells in the mouse retina: Unsupervised morphological classification and its limits. Journal of Comparative Neurology, 2005, 489, 293-310.	0.9	218
15	Neuronal cell types. Current Biology, 2004, 14, R497-R500.	1.8	197
16	Development of outer segments and synapses in the rabbit retina. Journal of Comparative Neurology, 1977, 175, 253-273.	0.9	188
17	Maturation of function in the developing rabbit retina. Journal of Comparative Neurology, 1977, 175, 275-286.	0.9	170
18	A genetic and computational approach to structurally classify neuronal types. Nature Communications, 2014, 5, 3512.	5.8	164

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19	Retinal Ganglion Cell Type, Size, and Spacing Can Be Specified Independent of Homotypic Dendritic Contacts. Neuron, 2004, 43, 475-485.	3.8	156
20	The morphology and spatial arrangement of astrocytes in the optic nerve head of the mouse. Journal of Comparative Neurology, 2009, 516, 1-19.	0.9	149
21	Remodeling of cone photoreceptor cells after rod degeneration in rd mice. Experimental Eye Research, 2009, 88, 589-599.	1.2	143
22	Retinal direction selectivity after targeted laser ablation of starburst amacrine cells. Nature, 1997, 389, 378-382.	13.7	135
23	The tasks of amacrine cells. Visual Neuroscience, 2012, 29, 3-9.	0.5	128
24	Spatial scale and cellular substrate of contrast adaptation by retinal ganglion cells. Nature Neuroscience, 2001, 4, 44-51.	7.1	119
25	G protein subunit Gî³13 is coexpressed with Gî±o, Gî²3, and Gî²4 in retinal ON bipolar cells. Journal of Comparative Neurology, 2003, 455, 1-10.	0.9	114
26	Structural Remodeling of Fibrous Astrocytes after Axonal Injury. Journal of Neuroscience, 2010, 30, 14008-14019.	1.7	109
27	The cholinergic amacrine cell. Trends in Neurosciences, 1986, 9, 218-223.	4.2	108
28	Physiological clustering of visual channels in the mouse retina. Journal of Neurophysiology, 2011, 105, 1516-1530.	0.9	98
29	Populations of wide-field amacrine cells in the mouse retina. Journal of Comparative Neurology, 2006, 499, 797-809.	0.9	93
30	Connections of indoleamine-accumulating cells in the rabbit retina. Journal of Comparative Neurology, 1989, 283, 303-313.	0.9	92
31	Confronting Complexity: Strategies for Understanding the Microcircuitry of the Retina. Annual Review of Neuroscience, 2000, 23, 249-284.	5.0	89
32	Biomechanical aspects of axonal damage in glaucoma: A brief review. Experimental Eye Research, 2017, 157, 13-19.	1.2	88
33	Action Potentials in the Dendrites of Retinal Ganglion Cells. Journal of Neurophysiology, 1999, 81, 1412-1417.	0.9	82
34	The population of bipolar cells in the rabbit retina. Journal of Comparative Neurology, 2004, 472, 73-86.	0.9	80
35	Receptive Field Microstructure and Dendritic Geometry of Retinal Ganglion Cells. Neuron, 2000, 27, 371-383.	3.8	75
36	The unsolved mystery of vision. Current Biology, 2007, 17, R577-R582.	1.8	69

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37	Shapes and distributions of the catecholamine-accumulating neurons in the rabbit retina. Journal of Comparative Neurology, 1990, 293, 178-189.	0.9	64
38	Amacrine, ganglion, and displaced amacrine cells in the rabbit retina express nicotinic acetylcholine receptors. Visual Neuroscience, 2000, 17, 743-752.	0.5	64
39	Cell Populations of the Retina: The Proctor Lecture. , 2011, 52, 4581.		63
40	Biological aspects of axonal damage in glaucoma: A brief review. Experimental Eye Research, 2017, 157, 5-12.	1.2	61
41	Spike train signatures of retinal ganglion cell types. European Journal of Neuroscience, 2007, 26, 367-380.	1.2	59
42	Pattern of synaptic excitation and inhibition upon direction-selective retinal ganglion cells. Journal of Comparative Neurology, 2002, 449, 195-205.	0.9	58
43	ON direction-selective ganglion cells in the rabbit retina: Dendritic morphology and pattern of fasciculation. Visual Neuroscience, 1998, 15, 369-375.	0.5	56
44	The Functional Architecture of the Retina. Scientific American, 1986, 255, 102-111.	1.0	55
45	Ontogenesis of receptive field characteristics of superior colliculus neurons in the rabbit. Brain Research, 1972, 45, 67-86.	1.1	52
46	Contextual tuning of direction-selective retinal ganglion cells. Nature Neuroscience, 2003, 6, 1251-1252.	7.1	52
47	Organotypic Culture of Physiologically Functional Adult Mammalian Retinas. PLoS ONE, 2007, 2, e221.	1.1	52
48	Different Functional Types of Bipolar Cells Use Different Gap-Junctional Proteins. Journal of Neuroscience, 2005, 25, 6696-6701.	1.7	49
49	The many roles of starburst amacrine cells. Trends in Neurosciences, 2005, 28, 395-396.	4.2	49
50	Costratification of a population of bipolar cells with the direction-selective circuitry of the rabbit retina. , 1999, 408, 97-106.		48
51	The spatial distribution of glutamatergic inputs to dendrites of retinal ganglion cells. Journal of Comparative Neurology, 2008, 510, 221-236.	0.9	48
52	Neuroprotection for glaucoma: Requirements for clinical translation. Experimental Eye Research, 2017, 157, 34-37.	1.2	48
53	Synaptic input of ONâ€bipolar cells onto the dopaminergic neurons of the mouse retina. Journal of Comparative Neurology, 2010, 518, 2035-2050.	0.9	47
54	Starburst Cells Nondirectionally Facilitate the Responses of Direction-Selective Retinal Ganglion Cells. Journal of Neuroscience, 2002, 22, 10509-10513.	1.7	44

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55	Expression of mRNA for glutamate receptor subunits distinguishes the major classes of retinal neurons, but is less specific for individual cell types. Molecular Vision, 2007, 13, 933-48.	1.1	42
56	The spatial filtering properties of local edge detectors and brisk-sustained retinal ganglion cells. European Journal of Neuroscience, 2005, 22, 2016-2026.	1.2	38
57	A population of wide-field bipolar cells in the rabbit's retina. Journal of Comparative Neurology, 1995, 360, 403-412.	0.9	36
58	Shape and distribution of an unusual retinal neuron. Journal of Comparative Neurology, 1989, 280, 489-497.	0.9	32
59	Processing and encoding of visual information in the retina. Current Opinion in Neurobiology, 1996, 6, 467-474.	2.0	32
60	Synaptic contacts between an identified type of ON cone bipolar cell and ganglion cells in the mouse retina. European Journal of Neuroscience, 2005, 21, 1257-1270.	1.2	32
61	Retinal-induced sensitization of light-adapted rabbit photoreceptors. Brain Research, 1978, 151, 194-200.	1.1	30
62	CD15 immunoreactive amacrine cells in the mouse retina. Journal of Comparative Neurology, 2003, 465, 361-371.	0.9	29
63	The Nondiscriminating Zone of Directionally Selective Retinal Ganglion Cells: Comparison with Dendritic Structure and Implications for Mechanism. Journal of Neuroscience, 1999, 19, 8049-8056.	1.7	27
64	The retina's fancy tricks. Nature, 2003, 423, 387-388.	13.7	27
65	Automated computation of arbor densities: a step toward identifying neuronal cell types. Frontiers in Neuroanatomy, 2014, 8, 139.	0.9	26
66	Inward rectifying currents stabilize the membrane potential in dendrites of mouse amacrine cells: patch-clamp recordings and single-cell RT-PCR. Molecular Vision, 2004, 10, 328-40.	1.1	26
67	Functional Inhibition in Direction-Selective Retinal Ganglion Cells: Spatiotemporal Extent and Intralaminar Interactions. Journal of Neurophysiology, 2002, 88, 1026-1039.	0.9	24
68	Dissociation of field potential from neuronal activity in the isolated retina: Failure of the b-wave with normal ganglion cell response. Journal of Neurobiology, 1975, 6, 305-312.	3.7	22
69	Image Processing: How the Retina Detects the Direction of Image Motion. Current Biology, 2007, 17, R63-R66.	1.8	21
70	Regular mosaic of synaptic contacts among three retinal neurons. Journal of Comparative Neurology, 2011, 519, 341-357.	0.9	20
71	Vision: Two Speeds in the Retina. Current Biology, 2017, 27, R303-R305.	1.8	10
72	Organotypic Culture of Adult Rabbit Retina. Journal of Visualized Experiments, 2007, , 190.	0.2	7

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73	Accurate maps of visual circuitry. Nature, 2013, 500, 154-155.	13.7	7
74	The shapes and numbers of amacrine cells: Matching of photofilled with Golgiâ€stained cells in the rabbit retina and comparison with other mammalian species. Journal of Comparative Neurology, 1999, 413, 305-326.	0.9	4
75	Sensory Systems: Fine-Tuning the Visual Scene. Current Biology, 2005, 15, R808-R810.	1.8	3
76	Another blue neuron in the retina. Nature Neuroscience, 2012, 15, 930-931.	7.1	2
77	Costratification of a population of bipolar cells with the directionâ€selective circuitry of the rabbit retina. Journal of Comparative Neurology, 1999, 408, 97-106.	0.9	2
78	The morphology and spatial arrangement of astrocytes in the optic nerve head of the mouse. Journal of Comparative Neurology, 2009, 516, spc1-spc1.	0.9	1
79	Diversity in sight. Nature, 2017, 542, 418-419.	13.7	1
80	The morphology and spatial arrangement of astrocytes in the optic nerve head of the mouse. Journal of Comparative Neurology, 2009, 516, spc1.	0.9	0
81	Restoring Visual Function After Photoreceptor Degeneration: Ectopic Expression of Photosensitive Proteins in Retinal Neurons. Neuromethods, 2011, , 147-164.	0.2	0
82	Aspects of Choline Metabolism in Photoreceptor Cells. , 1980, , 433-443.		0