Jeremy Nathans

List of Publications by Citations

181 papers	27,339 citations	86 h-index	165 g-index
199 ext. papers	29,862 ext. citations	12.4 avg, IF	6.92 L-index

#	Paper	IF	Citations
181	Molecular genetics of human color vision: the genes encoding blue, green, and red pigments. *Science*, **1986**, 232, 193-202	33.3	1432
180	A new member of the frizzled family from Drosophila functions as a Wingless receptor. *Nature*, **1996**, 382, 225-30	50.4	1228
179	A photoreceptor cell-specific ATP-binding transporter gene (ABCR) is mutated in recessive Stargardt macular dystrophy. *Nature Genetics*, **1997**, 15, 236-46	36.3	1083
178	Vascular development in the retina and inner ear: control by Norrin and Frizzled-4, a high-affinity ligand-receptor pair. *Cell*, **2004**, 116, 883-95	56.2	673
177	Molecular genetics of inherited variation in human color vision. *Science*, **1986**, 232, 203-10	33.3	656
176	Isolation, sequence analysis, and intron-exon arrangement of the gene encoding bovine rhodopsin. *Cell*, **1983**, 34, 807-14	56.2	655
175	A new secreted protein that binds to Wnt proteins and inhibits their activities. *Nature*, **1999**, 398, 431-6	50.4	585
174	Apoptotic photoreceptor cell death in mouse models of retinitis pigmentosa. *Proceedings of the National Academy of Sciences of the United States of America*, **1994**, 91, 974-8	11.5	507
173	A family of secreted proteins contains homology to the cysteine-rich ligand-binding domain of frizzled receptors. *Proceedings of the National Academy of Sciences of the United States of America*, **1997**, 94, 2859-63	11.5	483
172	Functional heterogeneity of mutant rhodopsins responsible for autosomal dominant retinitis pigmentosa. *Proceedings of the National Academy of Sciences of the United States of America*, **1991**, 88, 8840-4	11.5	471
171	Anterior-posterior guidance of commissural axons by Wnt-frizzled signaling. *Science*, **2003**, 302, 1984-8	33.3	460
170	Epigenomic Signatures of Neuronal Diversity in the Mammalian Brain. *Neuron*, **2015**, 86, 1369-84	13.9	430
169	The role of Frizzled3 and Frizzled6 in neural tube closure and in the planar polarity of inner-ear sensory hair cells. *Journal of Neuroscience*, **2006**, 26, 2147-56	6.6	418
168	A member of the Frizzled protein family mediating axis induction by Wnt-5A. *Science*, **1997**, 275, 1652-4	33.3	411
167	The vitelliform macular dystrophy protein defines a new family of chloride channels. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 4008-13	11.5	391
166	Isolation and nucleotide sequence of the gene encoding human rhodopsin. *Proceedings of the National Academy of Sciences of the United States of America*, **1984**, 81, 4851-5	11.5	385
165	Rhodopsin mutations in autosomal dominant retinitis pigmentosa. *Proceedings of the National Academy of Sciences of the United States of America*, **1991**, 88, 6481-5	11.5	378

164	Insights into Wnt binding and signalling from the structures of two Frizzled cysteine-rich domains. *Nature*, **2001**, 412, 86-90	50.4	361
163	A locus control region adjacent to the human red and green visual pigment genes. *Neuron*, **1992**, 9, 429-40	13.9	356
162	The Brn-3 family of POU-domain factors: primary structure, binding specificity, and expression in subsets of retinal ganglion cells and somatosensory neurons. *Journal of Neuroscience*, **1995**, 15, 4762-85	6.6	351
161	Tissue/planar cell polarity in vertebrates: new insights and new questions. *Development (Cambridge)*, **2007**, 134, 647-58	6.6	348
160	Determinants of visual pigment absorbance: identification of the retinylidene Schiff's base counterion in bovine rhodopsin. *Biochemistry*, **1990**, 29, 9746-52	3.2	329
159	Absorption spectra of human cone pigments. *Nature*, **1992**, 356, 433-5	50.4	325
158	Fibroblast growth factor (FGF) homologous factors: new members of the FGF family implicated in nervous system development. *Proceedings of the National Academy of Sciences of the United States of America*, **1996**, 93, 9850-7	11.5	315
157	Norrin, frizzled-4, and Lrp5 signaling in endothelial cells controls a genetic program for retinal vascularization. *Cell*, **2009**, 139, 285-98	56.2	301
156	Biochemical characterization of Wnt-frizzled interactions using a soluble, biologically active vertebrate Wnt protein. *Proceedings of the National Academy of Sciences of the United States of America*, **1999**, 96, 3546-51	11.5	292
155	A rhodopsin gene mutation responsible for autosomal dominant retinitis pigmentosa results in a protein that is defective in localization to the photoreceptor outer segment. *Journal of Neuroscience*, **1994**, 14, 5818-33	6.6	289
154	A large family of putative transmembrane receptors homologous to the product of the Drosophila tissue polarity gene frizzled. *Journal of Biological Chemistry*, **1996**, 271, 4468-76	5.4	286
153	POU domain factor Brn-3b is required for the development of a large set of retinal ganglion cells. *Proceedings of the National Academy of Sciences of the United States of America*, **1996**, 93, 3920-5	11.5	284
152	Retinal stimulates ATP hydrolysis by purified and reconstituted ABCR, the photoreceptor-specific ATP-binding cassette transporter responsible for Stargardt disease. *Journal of Biological Chemistry*, **1999**, 274, 8269-81	5.4	272
151	Essential role of POU-domain factor Brn-3c in auditory and vestibular hair cell development. *Proceedings of the National Academy of Sciences of the United States of America*, **1997**, 94, 9445-50	11.5	265
150	The evolution and physiology of human color vision: insights from molecular genetic studies of visual pigments. *Neuron*, **1999**, 24, 299-312	13.9	264
149	Molecular genetics of human blue cone monochromacy. *Science*, **1989**, 245, 831-8	33.3	259
148	Frizzled6 controls hair patterning in mice. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 9277-81	11.5	236
147	Frizzled-3 is required for the development of major fiber tracts in the rostral CNS. *Journal of Neuroscience*, **2002**, 22, 8563-73	6.6	236

146	A novel signaling pathway from rod photoreceptors to ganglion cells in mammalian retina. *Neuron*, **1998**, 21, 481-93	13.9	235
145	Norrin/Frizzled4 signaling in retinal vascular development and blood brain barrier plasticity. *Cell*, **2012**, 151, 1332-44	56.2	232
144	Determinants of visual pigment absorbance: role of charged amino acids in the putative transmembrane segments. *Biochemistry*, **1990**, 29, 937-42	3.2	228
143	The rod photoreceptor-specific nuclear receptor Nr2e3 represses transcription of multiple cone-specific genes. *Journal of Neuroscience*, **2005**, 25, 118-29	6.6	212
142	Stargardt's ABCR is localized to the disc membrane of retinal rod outer segments. *Nature Genetics*, **1997**, 17, 15-6	36.3	208
141	A noninvasive genetic/pharmacologic strategy for visualizing cell morphology and clonal relationships in the mouse. *Journal of Neuroscience*, **2003**, 23, 2314-22	6.6	208
140	Targeted deletion of the mouse POU domain gene Brn-3a causes selective loss of neurons in the brainstem and trigeminal ganglion, uncoordinated limb movement, and impaired suckling. *Proceedings of the National Academy of Sciences of the United States of America*, **1996**, 93, 11950-5	11.5	203
139	Retinal function and rhodopsin levels in autosomal dominant retinitis pigmentosa with rhodopsin mutations. *American Journal of Ophthalmology*, **1991**, 112, 256-71	4.9	200
138	Rhodopsin: structure, function, and genetics. *Biochemistry*, **1992**, 31, 4923-31	3.2	198
137	Human rod photoreceptor cGMP-gated channel: amino acid sequence, gene structure, and functional expression. *Journal of Neuroscience*, **1992**, 12, 3248-56	6.6	196
136	Quantitative analysis of neuronal morphologies in the mouse retina visualized by using a genetically directed reporter. *Journal of Comparative Neurology*, **2004**, 480, 331-51	3.4	195
135	Canonical WNT signaling components in vascular development and barrier formation. *Journal of Clinical Investigation*, **2014**, 124, 3825-46	15.9	193
134	Brn-3b: a POU domain gene expressed in a subset of retinal ganglion cells. *Neuron*, **1993**, 11, 689-701	13.9	193
133	Molecular structure of a double helical DNA fragment intercalator complex between deoxy CpG and a terpyridine platinum compound. *Nature*, **1978**, 276, 471-4	50.4	191
132	Tandem array of human visual pigment genes at Xq28. *Science*, **1988**, 240, 1669-72	33.3	189
131	Distinct roles of transcription factors brn3a and brn3b in controlling the development, morphology, and function of retinal ganglion cells. *Neuron*, **2009**, 61, 852-64	13.9	186
130	Unusual topography of bovine rhodopsin promoter-lacZ fusion gene expression in transgenic mouse retinas. *Neuron*, **1991**, 6, 187-99	13.9	180
129	Molecular genetics of human retinal disease. *Annual Review of Genetics*, **1999**, 33, 89-131	14.5	179

128	Mechanisms of spectral tuning in the mouse green cone pigment. *Proceedings of the National Academy of Sciences of the United States of America*, **1997**, 94, 8860-5	11.5	173
127	Emergence of novel color vision in mice engineered to express a human cone photopigment. *Science*, **2007**, 315, 1723-5	33.3	171
126	Macular degeneration: recent advances and therapeutic opportunities. *Nature Reviews Neuroscience*, **2006**, 7, 860-72	13.5	170
125	Structure-function analysis of the bestrophin family of anion channels. *Journal of Biological Chemistry*, **2003**, 278, 41114-25	5.4	170
124	Histidine residues regulate the transition of photoexcited rhodopsin to its active conformation, metarhodopsin II. *Neuron*, **1992**, 8, 465-72	13.9	170
123	The genomic response to retinal disease and injury: evidence for endothelin signaling from photoreceptors to glia. *Journal of Neuroscience*, **2005**, 25, 4540-9	6.6	166
122	Absorption spectra of the hybrid pigments responsible for anomalous color vision. *Science*, **1992**, 258, 464-6	33.3	164
121	Identification and characterization of all-trans-retinol dehydrogenase from photoreceptor outer segments, the visual cycle enzyme that reduces all-trans-retinal to all-trans-retinol. *Journal of Biological Chemistry*, **2000**, 275, 11034-43	5.4	162
120	Molecular genetics of human visual pigments. *Annual Review of Genetics*, **1992**, 26, 403-24	14.5	159
119	Biochemical defects in ABCR protein variants associated with human retinopathies. *Nature Genetics* , **2000**, 26, 242-6	36.3	157
118	Gpr124 controls CNS angiogenesis and blood-brain barrier integrity by promoting ligand-specific canonical wnt signaling. *Developmental Cell*, **2014**, 31, 248-56	10.2	154
117	Cloning and expression of goldfish opsin sequences. *Biochemistry*, **1993**, 32, 208-14	3.2	152
116	Production of bovine rhodopsin by mammalian cell lines expressing cloned cDNA: spectrophotometry and subcellular localization. *Vision Research*, **1989**, 29, 907-14	2.1	141
115	Tip cell-specific requirement for an atypical Gpr124- and Reck-dependent Wnt/β-catenin pathway during brain angiogenesis. *ELife*, **2015**, 4,	8.9	140
114	Cellular resolution maps of X chromosome inactivation: implications for neural development, function, and disease. *Neuron*, **2014**, 81, 103-19	13.9	139
113	Role of hydroxyl-bearing amino acids in differentially tuning the absorption spectra of the human red and green cone pigments. *Photochemistry and Photobiology*, **1993**, 58, 706-10	3.6	131
112	The Norrin/Frizzled4 signaling pathway in retinal vascular development and disease. *Trends in Molecular Medicine*, **2010**, 16, 417-25	11.5	126
111	Role of a locus control region in the mutually exclusive expression of human red and green cone pigment genes. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 1008-11	11.5	126

110	Progressive cerebellar, auditory, and esophageal dysfunction caused by targeted disruption of the frizzled-4 gene. *Journal of Neuroscience*, **2001**, 21, 4761-71	6.6	126
109	Class 5 transmembrane semaphorins control selective Mammalian retinal lamination and function. *Neuron*, **2011**, 71, 460-73	13.9	121
108	Peropsin, a novel visual pigment-like protein located in the apical microvilli of the retinal pigment epithelium. *Proceedings of the National Academy of Sciences of the United States of America*, **1997**, 94, 9893-8	11.5	118
107	Transcriptional and epigenomic landscapes of CNS and non-CNS vascular endothelial cells. *ELife*, **2018**, 7,	8.9	114
106	Red, green, and red-green hybrid pigments in the human retina: correlations between deduced protein sequences and psychophysically measured spectral sensitivities. *Journal of Neuroscience*, **1998**, 18, 10053-69	6.6	110
105	Axonal growth and guidance defects in Frizzled3 knock-out mice: a comparison of diffusion tensor magnetic resonance imaging, neurofilament staining, and genetically directed cell labeling. *Journal of Neuroscience*, **2006**, 26, 355-64	6.6	108
104	An MRI-based atlas and database of the developing mouse brain. *NeuroImage*, **2011**, 54, 80-9	7.9	107
103	A photoreceptor-specific cadherin is essential for the structural integrity of the outer segment and for photoreceptor survival. *Neuron*, **2001**, 32, 775-86	13.9	102
102	Frizzled 2 and frizzled 7 function redundantly in convergent extension and closure of the ventricular septum and palate: evidence for a network of interacting genes. *Development (Cambridge)*, **2012**, 139, 4383-94	6.6	99
101	Frizzled 1 and frizzled 2 genes function in palate, ventricular septum and neural tube closure: general implications for tissue fusion processes. *Development (Cambridge)*, **2010**, 137, 3707-17	6.6	95
100	The optokinetic reflex as a tool for quantitative analyses of nervous system function in mice: application to genetic and drug-induced variation. *PLoS ONE*, **2008**, 3, e2055	3.7	94
99	Estrogen-related receptor beta/NR3B2 controls epithelial cell fate and endolymph production by the stria vascularis. *Developmental Cell*, **2007**, 13, 325-37	10.2	92
98	Cloning and nucleotide sequence of DNA coding for bovine preproparathyroid hormone. *Proceedings of the National Academy of Sciences of the United States of America*, **1979**, 76, 4981-5	11.5	91
97	Mutually exclusive expression of human red and green visual pigment-reporter transgenes occurs at high frequency in murine cone photoreceptors. *Proceedings of the National Academy of Sciences of the United States of America*, **1999**, 96, 5251-6	11.5	88
96	Complete morphologies of basal forebrain cholinergic neurons in the mouse. *ELife*, **2014**, 3, e02444	8.9	87
95	Reck and Gpr124 Are Essential Receptor Cofactors for Wnt7a/Wnt7b-Specific Signaling in Mammalian CNS Angiogenesis and Blood-Brain Barrier Regulation. *Neuron*, **2017**, 95, 1056-1073.e5	13.9	83
94	Epigenomic landscapes of retinal rods and cones. *ELife*, **2016**, 5, e11613	8.9	83
93	Mutational analysis of Norrin-Frizzled4 recognition. *Journal of Biological Chemistry*, **2007**, 282, 4057-68	5.4	81

92	Genetically engineered mice with an additional class of cone photoreceptors: implications for the evolution of color vision. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 11706-11	11.5	81
91	Isoform diversity among fibroblast growth factor homologous factors is generated by alternative promoter usage and differential splicing. *Journal of Biological Chemistry*, **2000**, 275, 2589-97	5.4	78
90	ABCR, the ATP-binding cassette transporter responsible for Stargardt macular dystrophy, is an efficient target of all-trans-retinal-mediated photooxidative damage in vitro. Implications for retinal disease. *Journal of Biological Chemistry*, **2001**, 276, 11766-74	5.4	77
89	Morphologies of mouse retinal ganglion cells expressing transcription factors Brn3a, Brn3b, and Brn3c: analysis of wild type and mutant cells using genetically-directed sparse labeling. *Vision Research*, **2011**, 51, 269-79	2.1	74
88	Frizzled Receptors in Development and Disease. *Current Topics in Developmental Biology*, **2016**, 117, 113-39	5.3	74
87	New mouse lines for the analysis of neuronal morphology using CreER(T)/loxP-directed sparse labeling. *PLoS ONE*, **2009**, 4, e7859	3.7	73
86	Order from disorder: Self-organization in mammalian hair patterning. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 19800-5	11.5	71
85	An essential role for frizzled 5 in mammalian ocular development. *Development (Cambridge)*, **2008**, 135, 3567-76	6.6	69
84	Combinatorial expression of Brn3 transcription factors in somatosensory neurons: genetic and morphologic analysis. *Journal of Neuroscience*, **2012**, 32, 995-1007	6.6	66
83	Effects of L1 retrotransposon insertion on transcript processing, localization and accumulation: lessons from the retinal degeneration 7 mouse and implications for the genomic ecology of L1 elements. *Human Molecular Genetics*, **2006**, 15, 2146-56	5.6	66
82	Abnormal rod dark adaptation in autosomal dominant retinitis pigmentosa with proline-23-histidine rhodopsin mutation. *American Journal of Ophthalmology*, **1992**, 113, 165-74	4.9	64
81	Retina-derived POU-domain factor-1: a complex POU-domain gene implicated in the development of retinal ganglion and amacrine cells. *Journal of Neuroscience*, **1996**, 16, 2261-74	6.6	63
80	Rhodopsin activation: effects on the metarhodopsin I-metarhodopsin II equilibrium of neutralization or introduction of charged amino acids within putative transmembrane segments. *Biochemistry*, **1993**, 32, 14176-82	3.2	63
79	The evolution of Primate color vision. *Scientific American*, **2009**, 300, 56-63	0.5	59
78	An essential role for Frizzled5 in neuronal survival in the parafascicular nucleus of the thalamus. *Journal of Neuroscience*, **2008**, 28, 5641-53	6.6	56
77	Genetically-directed, cell type-specific sparse labeling for the analysis of neuronal morphology. *PLoS ONE*, **2008**, 3, e4099	3.7	56
76	Murine and bovine blue cone pigment genes: cloning and characterization of two new members of the S family of visual pigments. *Genomics*, **1994**, 21, 440-3	4.3	56
75	Interplay of the Norrin and Wnt7a/Wnt7b signaling systems in blood-brain barrier and blood-retina barrier development and maintenance. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E11827-E11836	11.5	56

74	The genes for color vision. *Scientific American*, **1989**, 260, 42-9	0.5	55
73	Sox7, Sox17, and Sox18 Cooperatively Regulate Vascular Development in the Mouse Retina. *PLoS ONE*, **2015**, 10, e0143650	3.7	54
72	A sequence upstream of the mouse blue visual pigment gene directs blue cone-specific transgene expression in mouse retinas. *Visual Neuroscience*, **1994**, 11, 773-80	1.7	54
71	Functional assembly of accessory optic system circuitry critical for compensatory eye movements. *Neuron*, **2015**, 86, 971-984	13.9	52
70	Roles of HIFs and VEGF in angiogenesis in the retina and brain. *Journal of Clinical Investigation*, **2019** , 129, 3807-3820	15.9	52
69	Signaling by sensory receptors. *Cold Spring Harbor Perspectives in Biology*, **2012**, 4, a005991	10.2	50
68	An outer segment localization signal at the C terminus of the photoreceptor-specific retinol dehydrogenase. *Journal of Neuroscience*, **2004**, 24, 2623-32	6.6	50
67	Frizzled3 is required for the development of multiple axon tracts in the mouse central nervous system. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, E3005-14	11.5	49
66	Expression of the Norrie disease gene (Ndp) in developing and adult mouse eye, ear, and brain. *Gene Expression Patterns*, **2011**, 11, 151-5	1.5	48
65	Four novel mutations in the RPE65 gene in patients with Leber congenital amaurosis. *Human Mutation*, **2001**, 18, 164	4.7	48
64	Mechanistic studies of ABCR, the ABC transporter in photoreceptor outer segments responsible for autosomal recessive Stargardt disease. *Journal of Bioenergetics and Biomembranes*, **2001**, 33, 523-30	3.7	48
63	A visual pigment from chicken that resembles rhodopsin: amino acid sequence, gene structure, and functional expression. *Biochemistry*, **1992**, 31, 3309-15	3.2	48
62	In the eye of the beholder: visual pigments and inherited variation in human vision. *Cell*, **1994**, 78, 357-60	56.2	46
61	Ca2+-activated Cl- current from human bestrophin-4 in excised membrane patches. *Journal of General Physiology*, **2006**, 127, 749-54	3.4	45
60	When whorls collide: the development of hair patterns in frizzled 6 mutant mice. *Development (Cambridge)*, **2010**, 137, 4091-9	6.6	44
59	Beta-catenin signaling regulates barrier-specific gene expression in circumventricular organ and ocular vasculatures. *ELife*, **2019**, 8,	8.9	44
58	Genetic mosaic analysis reveals a major role for frizzled 4 and frizzled 8 in controlling ureteric growth in the developing kidney. *Development (Cambridge)*, **2011**, 138, 1161-72	6.6	43
57	Identification and characterization of a conserved family of protein serine/threonine phosphatases homologous to Drosophila retinal degeneration C. *Proceedings of the National Academy of Sciences of the United States of America*, **1997**, 94, 11639-44	11.5	43

56	Morphologic diversity of cutaneous sensory afferents revealed by genetically directed sparse labeling. *ELife*, **2012**, 1, e00181	8.9	43
55	Blue cones and cone bipolar cells share transcriptional specificity as determined by expression of human blue visual pigment-derived transgenes. *Journal of Neuroscience*, **1994**, 14, 3426-36	6.6	41
54	A strabismus susceptibility locus on chromosome 7p. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 12283-8	11.5	39
53	Molecular biology of retinal ganglion cells. *Proceedings of the National Academy of Sciences of the United States of America*, **1996**, 93, 596-601	11.5	39
52	Proteolytic shedding of the extracellular domain of photoreceptor cadherin. Implications for outer segment assembly. *Journal of Biological Chemistry*, **2004**, 279, 42202-10	5.4	38
51	The genomic response of the retinal pigment epithelium to light damage and retinal detachment. *Journal of Neuroscience*, **2008**, 28, 9880-9	6.6	37
50	Frizzled3 controls axonal development in distinct populations of cranial and spinal motor neurons. *ELife*, **2013**, 2, e01482	8.9	37
49	cDNA cloning of a human homologue of the Caenorhabditis elegans cell fate-determining gene mab-21: expression, chromosomal localization and analysis of a highly polymorphic (CAG)n trinucleotide repeat. *Human Molecular Genetics*, **1996**, 5, 607-16	5.6	36
48	Rac1 plays an essential role in axon growth and guidance and in neuronal survival in the central and peripheral nervous systems. *Neural Development*, **2015**, 10, 21	3.9	32
47	Spectral sensitivities of human cone visual pigments determined in vivo and in vitro. *Methods in Enzymology*, **2000**, 316, 626-50	1.7	32
46	Genetic ablation of cone photoreceptors eliminates retinal folds in the retinal degeneration 7 (rd7) mouse. *Investigative Ophthalmology and Visual Science*, **2007**, 48, 2799-805		30
45	Endothelin-2 signaling in the neural retina promotes the endothelial tip cell state and inhibits angiogenesis. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, E3830-9	11.5	29
44	Hypoxia tolerance in the Norrin-deficient retina and the chronically hypoxic brain studied at single-cell resolution. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 9103-9114	11.5	27
43	Responses of hair follicle-associated structures to loss of planar cell polarity signaling. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, E908-17	11.5	27
42	Proximal and distal sequences control UV cone pigment gene expression in transgenic zebrafish. *Journal of Biological Chemistry*, **2004**, 279, 19286-93	5.4	25
41	The spatio-temporal domains of Frizzled6 action in planar polarity control of hair follicle orientation. *Developmental Biology*, **2016**, 409, 181-193	3.1	24
40	Partial interchangeability of Fz3 and Fz6 in tissue polarity signaling for epithelial orientation and axon growth and guidance. *Development (Cambridge)*, **2014**, 141, 3944-54	6.6	24
39	How scientists can reduce their carbon footprint. *ELife*, **2016**, 5,	8.9	24

38	A genome-wide view of the de-differentiation of central nervous system endothelial cells in culture. *ELife*, **2020**, 9,	8.9	24
37	Cerebral Vein Malformations Result from Loss of Twist1 Expression and BMP Signaling from Skull Progenitor Cells and Dura. *Developmental Cell*, **2017**, 42, 445-461.e5	10.2	23
36	The role of the hypoxia response in shaping retinal vascular development in the absence of Norrin/Frizzled4 signaling. *Investigative Ophthalmology and Visual Science*, **2014**, 55, 8614-25		23
35	Rhodopsin mutation proline347-to-alanine in a family with autosomal dominant retinitis pigmentosa indicates an important role for proline at position 347. *Human Molecular Genetics*, **1995**, 4, 775-6	5.6	22
34	The challenge of macular degeneration. *Scientific American*, **2001**, 285, 68-75	0.5	21
33	Normal light response, photoreceptor integrity, and rhodopsin dephosphorylation in mice lacking both protein phosphatases with EF hands (PPEF-1 and PPEF-2). *Molecular and Cellular Biology*, **2001**, 21, 8605-14	4.8	21
32	ABCR: rod photoreceptor-specific ABC transporter responsible for Stargardt disease. *Methods in Enzymology*, **2000**, 315, 879-97	1.7	19
31	L, M and L-M hybrid cone photopigments in man: deriving lambda max from flicker photometric spectral sensitivities. *Vision Research*, **1999**, 39, 3513-25	2.1	19
30	Molecular determinants in Frizzled, Reck, and Wnt7a for ligand-specific signaling in neurovascular development. *ELife*, **2019**, 8,	8.9	19
29	Cellular and subcellular localization, N-terminal acylation, and calcium binding of Caenorhabditis elegans protein phosphatase with EF-hands. *Journal of Biological Chemistry*, **2001**, 276, 25127-35	5.4	17
28	Comprehensive analysis of a mouse model of spontaneous uveoretinitis using single-cell RNA sequencing. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**,	11.5	16
27	Patterning of papillae on the mouse tongue: A system for the quantitative assessment of planar cell polarity signaling. *Developmental Biology*, **2016**, 419, 298-310	3.1	15
26	Expression and regulation of chicken fibroblast growth factor homologous factor (FHF)-4 during craniofacial morphogenesis. *Developmental Dynamics*, **2001**, 220, 238-45	2.9	14
25	Expression and regulation of chicken fibroblast growth factor homologous factor (FHF)-4 at the base of the developing limbs. *Mechanisms of Development*, **2000**, 95, 101-12	1.7	14
24	Photobleaching difference absorption spectra of human cone pigments: quantitative analysis and comparison to other methods. *Photochemistry and Photobiology*, **1992**, 56, 869-81	3.6	14
23	An evolutionary perspective on the photoreceptor damage response. *American Journal of Ophthalmology*, **2006**, 141, 558-562	4.9	13
22	Similarities and differences among inner retinal neurons revealed by the expression of reporter transgenes controlled by Brn-3a, Brn-3b, and Brn-3c promotor sequences. *Visual Neuroscience*, **1996**, 13, 955-62	1.7	13
21	Identification of Astrotactin2 as a Genetic Modifier That Regulates the Global Orientation of Mammalian Hair Follicles. *PLoS Genetics*, **2015**, 11, e1005532	6	11

20	Dlg1 activates beta-catenin signaling to regulate retinal angiogenesis and the blood-retina and blood-brain barriers. *ELife*, **2019**, 8,	8.9	11
19	A mouse model for kinesin family member 11 (Kif11)-associated familial exudative vitreoretinopathy. *Human Molecular Genetics*, **2020**, 29, 1121-1131	5.6	10
18	Flat mount imaging of mouse skin and its application to the analysis of hair follicle patterning and sensory axon morphology. *Journal of Visualized Experiments*, **2014**, e51749	1.6	10
17	Peropsin modulates transit of vitamin A from retina to retinal pigment epithelium. *Journal of Biological Chemistry*, **2017**, 292, 21407-21416	5.4	9
16	Bovine pancreatic trypsin inhibitor-trypsin complex as a detection system for recombinant proteins. *Proceedings of the National Academy of Sciences of the United States of America*, **1993**, 90, 337-41	11.5	9
15	Affinity capture of polyribosomes followed by RNAseq (ACAPseq), a discovery platform for protein-protein interactions. *ELife*, **2018**, 7,	8.9	9
14	Preclinical assessment of CNS drug action using eye movements in mice. *Journal of Clinical Investigation*, **2011**, 121, 3528-41	15.9	7
13	Author response: Transcriptional and epigenomic landscapes of CNS and non-CNS vascular endothelial cells **2018**,		7
12	The Cellular Compass. *Scientific American*, **2016**, 314, 67-71	0.5	6
11	Written in our genes?. *Science*, **2005**, 308, 1742	33.3	6
10	Intramembrane Proteolysis of Astrotactins. *Journal of Biological Chemistry*, **2017**, 292, 3506-3516	5.4	5
9	How to draw the line in biomedical research. *ELife*, **2013**, 2, e00638	8.9	4
8	Author response: Beta-catenin signaling regulates barrier-specific gene expression in circumventricular organ and ocular vasculatures **2019**,		4
7	Structure of the RECK CC domain, an evolutionary anomaly. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 15104-15111	11.5	3
6	Developmental, cellular, and behavioral phenotypes in a mouse model of congenital hypoplasia of the dentate gyrus. *ELife*, **2020**, 9,	8.9	2
5	Defining the binding interface of Amyloid Precursor Protein (APP) and Contactin3 (CNTN3) by site-directed mutagenesis. *PLoS ONE*, **2019**, 14, e0219384	3.7	1
4	Population growth: Help to make food go further in Egypt. *Nature*, **2017**, 546, 210	50.4	
3	China$ plan flawed but courageous. *Science*, **2010**, 330, 1625	33.3	

2 A New Cl Channel Family Defined by Vitelliform Macular Dystrophy **2003**, 160-163

1 Rhodopsin Gene Mutations Causing Retinitis Pigmentosa **1995**, 53-62