Joshua R Sanes

List of Publications by Year in Descending Order

100 papers	17,223 citations	54 h-index	125 g-index
125 ext. papers	22,083 ext. citations	18 avg, IF	6.9 L-index

#	Paper	IF	Citations
100	Diversification of multipotential postmitotic mouse retinal ganglion cell precursors into discrete types.. *ELife*, **2022**, 11,	8.9	5
99	Optic nerve regeneration screen identifies multiple genes restricting adult neural repair. *Cell Reports*, **2021**, 34, 108777	10.6	10
98	CRISPR-mediated Labeling of Cells in Chick Embryos Based on Selectively Expressed Genes. *Bio-protocol*, **2021**, 11, e4105	0.9	0
97	Turning lead into gold: reprogramming retinal cells to cure blindness. *Journal of Clinical Investigation*, **2021**, 131,	15.9	8
96	Molecular classification of zebrafish retinal ganglion cells links genes to cell types to behavior. *Neuron*, **2021**, 109, 645-662.e9	13.9	22
95	Generating and Using Transcriptomically Based Retinal Cell Atlases. *Annual Review of Vision Science*, **2021**, 7, 43-72	8.2	7
94	A cell atlas of the chick retina based on single-cell transcriptomics. *ELife*, **2021**, 10,	8.9	26
93	Mouse Retinal Cell Atlas: Molecular Identification of over Sixty Amacrine Cell Types. *Journal of Neuroscience*, **2020**, 40, 5177-5195	6.6	57
92	Cell Atlas of The Human Fovea and Peripheral Retina. *Scientific Reports*, **2020**, 10, 9802	4.9	52
91	Synaptic Specificity, Recognition Molecules, and Assembly of Neural Circuits. *Cell*, **2020**, 181, 536-556	56.2	72
90	Cell atlas of aqueous humor outflow pathways in eyes of humans and four model species provides insight into glaucoma pathogenesis. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 10339-10349	11.5	40
89	Optimizing Nervous System-Specific Gene Targeting with Cre Driver Lines: Prevalence of Germline Recombination and Influencing Factors. *Neuron*, **2020**, 106, 37-65.e5	13.9	43
88	Binary Fate Choice between Closely Related Interneuronal Types Is Determined by a Fezf1-Dependent Postmitotic Transcriptional Switch. *Neuron*, **2020**, 105, 464-474.e6	13.9	13
87	A community-based transcriptomics classification and nomenclature of neocortical cell types. *Nature Neuroscience*, **2020**, 23, 1456-1468	25.5	76
86	Molecular Classification and Comparative Taxonomics of Foveal and Peripheral Cells in Primate Retina. *Cell*, **2019**, 176, 1222-1237.e22	56.2	184
85	Heterogeneity of retinogeniculate axon arbors. *European Journal of Neuroscience*, **2019**, 49, 948-956	3.5	2
84	Tell me a story. *ELife*, **2019**, 8,	8.9	4

83	Single-Cell Profiles of Retinal Ganglion Cells Differing in Resilience to Injury Reveal Neuroprotective Genes. *Neuron*, **2019**, 104, 1039-1055.e12	13.9	168
82	Isozyme-Specific Role of SAD-A in Neuronal Migration During Development of Cerebral Cortex. *Cerebral Cortex*, **2019**, 29, 3738-3751	5.1	1
81	Expression and Roles of the Immunoglobulin Superfamily Recognition Molecule Sidekick1 in Mouse Retina. *Frontiers in Molecular Neuroscience*, **2018**, 11, 485	6.1	13
80	Tbr1 instructs laminar patterning of retinal ganglion cell dendrites. *Nature Neuroscience*, **2018**, 21, 659-670	13.5	38
79	Reporter-nanobody fusions (RANbodies) as versatile, small, sensitive immunohistochemical reagents. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 2126-2131	11.5	26
78	Combinatorial Effects of Alpha- and Gamma-Protocadherins on Neuronal Survival and Dendritic Self-Avoidance. *Journal of Neuroscience*, **2018**, 38, 2713-2729	6.6	42
77	Role for Wnt Signaling in Retinal Neuropil Development: Analysis via RNA-Seq and In Vivo Somatic CRISPR Mutagenesis. *Neuron*, **2018**, 98, 109-126.e8	13.9	37
76	Cadherins Interact With Synaptic Organizers to Promote Synaptic Differentiation. *Frontiers in Molecular Neuroscience*, **2018**, 11, 142	6.1	26
75	Mapping Transgene Insertion Sites Reveals Complex Interactions Between Mouse Transgenes and Neighboring Endogenous Genes. *Frontiers in Molecular Neuroscience*, **2018**, 11, 385	6.1	30
74	Cadherin Combinations Recruit Dendrites of Distinct Retinal Neurons to a Shared Interneuronal Scaffold. *Neuron*, **2018**, 99, 1145-1154.e6	13.9	45
73	A method for single-neuron chronic recording from the retina in awake mice. *Science*, **2018**, 360, 1447-1451	33.3	91
72	Diverse Central Projection Patterns of Retinal Ganglion Cells. *Cell Reports*, **2017**, 18, 2058-2072	10.6	111
71	Sox11 Expression Promotes Regeneration of Some Retinal Ganglion Cell Types but Kills Others. *Neuron*, **2017**, 94, 1112-1120.e4	13.9	88
70	Heterophilic Type II Cadherins Are Required for High-Magnitude Synaptic Potentiation in the Hippocampus. *Neuron*, **2017**, 96, 160-176.e8	13.9	34
69	Neuronal cell-type classification: challenges, opportunities and the path forward. *Nature Reviews Neuroscience*, **2017**, 18, 530-546	13.5	382
68	Satb1 Regulates Contactin 5 to Pattern Dendrites of a Mammalian Retinal Ganglion Cell. *Neuron*, **2017**, 95, 869-883.e6	13.9	65
67	Cellular and Molecular Analysis of Dendritic Morphogenesis in a Retinal Cell Type That Senses Color Contrast and Ventral Motion. *Journal of Neuroscience*, **2017**, 37, 12247-12262	6.6	11
66	The Human Cell Atlas. *ELife*, **2017**, 6,	8.9	937

65	Four alpha ganglion cell types in mouse retina: Function, structure, and molecular signatures. *PLoS ONE*, **2017**, 12, e0180091	3.7	103
64	Author response: The Human Cell Atlas **2017**,		10
63	Comprehensive Classification of Retinal Bipolar Neurons by Single-Cell Transcriptomics. *Cell*, **2016**, 166, 1308-1323.e30	56.2	675
62	A split horseradish peroxidase for the detection of intercellular protein-protein interactions and sensitive visualization of synapses. *Nature Biotechnology*, **2016**, 34, 774-80	44.5	102
61	Dystrobrevin-1 recruits Grb2 and catulin to organize neurotransmitter receptors at the neuromuscular junction. *Journal of Cell Science*, **2016**, 129, 898-911	5.3	13
60	Restoration of Visual Function by Enhancing Conduction in Regenerated Axons. *Cell*, **2016**, 164, 219-232	56.2	137
59	Muscle-type Identity of Proprioceptors Specified by Spatially Restricted Signals from Limb Mesenchyme. *Cell*, **2016**, 164, 512-25	56.2	28
58	Molecular basis of sidekick-mediated cell-cell adhesion and specificity. *ELife*, **2016**, 5,	8.9	24
57	Reconstruction of genetically identified neurons imaged by serial-section electron microscopy. *ELife*, **2016**, 5,	8.9	51
56	Two Pairs of ON and OFF Retinal Ganglion Cells Are Defined by Intersectional Patterns of Transcription Factor Expression. *Cell Reports*, **2016**, 15, 1930-44	10.6	105
55	Subtype-specific regeneration of retinal ganglion cells following axotomy: effects of osteopontin and mTOR signaling. *Neuron*, **2015**, 85, 1244-56	13.9	266
54	The types of retinal ganglion cells: current status and implications for neuronal classification. *Annual Review of Neuroscience*, **2015**, 38, 221-46	17	434
53	The BRAIN Initiative: developing technology to catalyse neuroscience discovery. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2015**, 370,	5.8	119
52	Development of dendritic form and function. *Annual Review of Cell and Developmental Biology*, **2015**, 31, 741-77	12.6	130
51	Sidekick 2 directs formation of a retinal circuit that detects differential motion. *Nature*, **2015**, 524, 466-470	38.4	111
50	Highly Parallel Genome-wide Expression Profiling of Individual Cells Using Nanoliter Droplets. *Cell*, **2015**, 161, 1202-1214	56.2	3873
49	Protocadherin-dependent dendritic self-avoidance regulates neural connectivity and circuit function. *ELife*, **2015**, 4,	8.9	86
48	Author response: Protocadherin-dependent dendritic self-avoidance regulates neural connectivity and circuit function **2015**,		2

47	Genetic Method for Labeling Electrically Coupled Cells: Application to Retina. *Frontiers in Molecular Neuroscience*, **2015**, 8, 81	6.1	8
46	A genetic and computational approach to structurally classify neuronal types. *Nature Communications*, **2014**, 5, 3512	17.4	114
45	Refinement of the retinogeniculate synapse by bouton clustering. *Neuron*, **2014**, 84, 332-9	13.9	49
44	Type II cadherins guide assembly of a direction-selective retinal circuit. *Cell*, **2014**, 158, 793-807	56.2	146
43	LKB1 and AMPK regulate synaptic remodeling in old age. *Nature Neuroscience*, **2014**, 17, 1190-7	25.5	69
42	Dendrite self-avoidance requires cell-autonomous slit/robo signaling in cerebellar purkinje cells. *Neuron*, **2014**, 81, 1040-1056	13.9	67
41	The role of muscle microRNAs in repairing the neuromuscular junction. *PLoS ONE*, **2014**, 9, e93140	3.7	46
40	Improved tools for the Brainbow toolbox. *Nature Methods*, **2013**, 10, 540-7	21.6	280
39	MEGF10 and MEGF11 mediate homotypic interactions required for mosaic spacing of retinal neurons. *Nature*, **2012**, 483, 465-9	50.4	133
38	The most numerous ganglion cell type of the mouse retina is a selective feature detector. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, E2391-8	11.5	189
37	Protocadherins mediate dendritic self-avoidance in the mammalian nervous system. *Nature*, **2012**, 488, 517-21	50.4	301
36	Functional significance of isoform diversification in the protocadherin gamma gene cluster. *Neuron*, **2012**, 75, 402-9	13.9	79
35	Transgenic strategy for identifying synaptic connections in mice by fluorescence complementation (GRASP). *Frontiers in Molecular Neuroscience*, **2012**, 5, 18	6.1	38
34	Expanding the Ig superfamily code for laminar specificity in retina: expression and role of contactins. *Journal of Neuroscience*, **2012**, 32, 14402-14	6.6	91
33	Stereotyped axonal arbors of retinal ganglion cell subsets in the mouse superior colliculus. *Journal of Comparative Neurology*, **2011**, 519, 1691-711	3.4	65
32	Neurod6 expression defines new retinal amacrine cell subtypes and regulates their fate. *Nature Neuroscience*, **2011**, 14, 965-72	25.5	95
31	Retinal ganglion cells with distinct directional preferences differ in molecular identity, structure, and central projections. *Journal of Neuroscience*, **2011**, 31, 7753-62	6.6	237
30	Age-related alterations in neurons of the mouse retina. *Journal of Neuroscience*, **2011**, 31, 16033-44	6.6	101

29	Laminar restriction of retinal ganglion cell dendrites and axons: subtype-specific developmental patterns revealed with transgenic markers. *Journal of Neuroscience*, **2010**, 30, 1452-62	6.6	201
28	Synaptic localization and function of Sidekick recognition molecules require MAGI scaffolding proteins. *Journal of Neuroscience*, **2010**, 30, 3579-88	6.6	63
27	Chemoaffinity revisited: dscams, protocadherins, and neural circuit assembly. *Cell*, **2010**, 143, 343-53	56.2	235
26	Design principles of insect and vertebrate visual systems. *Neuron*, **2010**, 66, 15-36	13.9	377
25	Birthdays of retinal amacrine cell subtypes are systematically related to their molecular identity and soma position. *Journal of Comparative Neurology*, **2009**, 517, 737-50	3.4	97
24	Many paths to synaptic specificity. *Annual Review of Cell and Developmental Biology*, **2009**, 25, 161-95	12.6	242
23	Dscam and Sidekick proteins direct lamina-specific synaptic connections in vertebrate retina. *Nature*, **2008**, 451, 465-9	50.4	306
22	Molecular identification of a retinal cell type that responds to upward motion. *Nature*, **2008**, 452, 478-82	50.4	302
21	gamma-Protocadherins regulate neuronal survival but are dispensable for circuit formation in retina. *Development (Cambridge)*, **2008**, 135, 4141-51	6.6	113
20	Labeled lines in the retinotectal system: markers for retinorecipient sublaminae and the retinal ganglion cell subsets that innervate them. *Molecular and Cellular Neurosciences*, **2006**, 33, 296-310	4.8	54
19	Gamma protocadherins are required for synaptic development in the spinal cord. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 8-14	11.5	171
18	Genetic evidence that relative synaptic efficacy biases the outcome of synaptic competition. *Nature* , **2003**, 424, 430-4	50.4	256
17	Sidekicks: synaptic adhesion molecules that promote lamina-specific connectivity in the retina. *Cell*, **2002**, 110, 649-60	56.2	284
16	Gamma protocadherins are required for survival of spinal interneurons. *Neuron*, **2002**, 36, 843-54	13.9	211
15	Imaging neuronal subsets in transgenic mice expressing multiple spectral variants of GFP. *Neuron*, **2000**, 28, 41-51	13.9	2406
14	Formation of lamina-specific synaptic connections. *Current Opinion in Neurobiology*, **1999**, 9, 79-87	7.6	132
13	Migratory paths and phenotypic choices of clonally related cells in the avian optic tectum. *Neuron*, **1991**, 6, 211-25	13.9	135
12	Cholinesterase is associated with the basal lamina at the neuromuscular junction. *Nature*, **1978**, 271, 172-4	50.4	376

List of Publications

11	Nerves in the antennae of pupalManduca sexta Johanssen (Lepidoptera: Sphingidae). *Wilhelm Rouxs Archives of Developmental Biology*, **1975**, 178, 71-78		51
10	Induction of DNA synthesis in cultured neurons by ultraviolet light or methyl methane sulfonate. *Journal of Cell Biology*, **1972**, 53, 587-90	7.3	35
9	Cell Atlas of Aqueous Humor Outflow Pathways in Eyes of Humans and Four Model Species Provides Insights into Glaucoma Pathogenesis		1
8	Molecular classification of zebrafish retinal ganglion cells links genes to cell types to behavior		3
7	Diversification of multipotential postmitotic mouse retinal ganglion cell precursors into discrete types		1
6	Molecular Classification and Comparative Taxonomics of Foveal and Peripheral Cells in Primate Retina		1
5	Single-cell profiles of retinal neurons differing in resilience to injury reveal neuroprotective genes		1
4	Cell Atlas of the Human Fovea and Peripheral Retina		5
3	Molecular identification of sixty-three amacrine cell types completes a mouse retinal cell atlas		4
2	Unified classification of mouse retinal ganglion cells using function, morphology, and gene expression		3
1	Unified Classification of Mouse Retinal Ganglion Cells Using Function, Morphology, and Gene Expression. *SSRN Electronic Journal*,	1	1