

# Joshua R Sanes

## List of Publications by Citations

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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	Highly Parallel Genome-wide Expression Profiling of Individual Cells Using Nanoliter Droplets. <i>Cell</i> , <b>2015</b> , 161, 1202-1214	56.2	3873
99	Imaging neuronal subsets in transgenic mice expressing multiple spectral variants of GFP. <i>Neuron</i> , <b>2000</b> , 28, 41-51	13.9	2406
98	The Human Cell Atlas. <i>ELife</i> , <b>2017</b> , 6,	8.9	937
97	Comprehensive Classification of Retinal Bipolar Neurons by Single-Cell Transcriptomics. <i>Cell</i> , <b>2016</b> , 166, 1308-1323.e30	56.2	675
96	The types of retinal ganglion cells: current status and implications for neuronal classification. <i>Annual Review of Neuroscience</i> , <b>2015</b> , 38, 221-46	17	434
95	Neuronal cell-type classification: challenges, opportunities and the path forward. <i>Nature Reviews Neuroscience</i> , <b>2017</b> , 18, 530-546	13.5	382
94	Design principles of insect and vertebrate visual systems. <i>Neuron</i> , <b>2010</b> , 66, 15-36	13.9	377
93	Cholinesterase is associated with the basal lamina at the neuromuscular junction. <i>Nature</i> , <b>1978</b> , 271, 172-4	50.4	376
92	Dscam and Sidekick proteins direct lamina-specific synaptic connections in vertebrate retina. <i>Nature</i> , <b>2008</b> , 451, 465-9	50.4	306
91	Molecular identification of a retinal cell type that responds to upward motion. <i>Nature</i> , <b>2008</b> , 452, 478-82	50.4	302
90	Protocadherins mediate dendritic self-avoidance in the mammalian nervous system. <i>Nature</i> , <b>2012</b> , 488, 517-21	50.4	301
89	Sidekicks: synaptic adhesion molecules that promote lamina-specific connectivity in the retina. <i>Cell</i> , <b>2002</b> , 110, 649-60	56.2	284
88	Improved tools for the Brainbow toolbox. <i>Nature Methods</i> , <b>2013</b> , 10, 540-7	21.6	280
87	Subtype-specific regeneration of retinal ganglion cells following axotomy: effects of osteopontin and mTOR signaling. <i>Neuron</i> , <b>2015</b> , 85, 1244-56	13.9	266
86	Genetic evidence that relative synaptic efficacy biases the outcome of synaptic competition. <i>Nature</i> , <b>2003</b> , 424, 430-4	50.4	256
85	Many paths to synaptic specificity. <i>Annual Review of Cell and Developmental Biology</i> , <b>2009</b> , 25, 161-95	12.6	242
84	Retinal ganglion cells with distinct directional preferences differ in molecular identity, structure, and central projections. <i>Journal of Neuroscience</i> , <b>2011</b> , 31, 7753-62	6.6	237

83	Chemoaffinity revisited: dscams, protocadherins, and neural circuit assembly. <i>Cell</i> , <b>2010</b> , 143, 343-53	56.2	235
82	Gamma protocadherins are required for survival of spinal interneurons. <i>Neuron</i> , <b>2002</b> , 36, 843-54	13.9	211
81	Laminar restriction of retinal ganglion cell dendrites and axons: subtype-specific developmental patterns revealed with transgenic markers. <i>Journal of Neuroscience</i> , <b>2010</b> , 30, 1452-62	6.6	201
80	The most numerous ganglion cell type of the mouse retina is a selective feature detector. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, E2391-8	11.5	189
79	Molecular Classification and Comparative Taxonomics of Foveal and Peripheral Cells in Primate Retina. <i>Cell</i> , <b>2019</b> , 176, 1222-1237.e22	56.2	184
78	Gamma protocadherins are required for synaptic development in the spinal cord. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2005</b> , 102, 8-14	11.5	171
77	Single-Cell Profiles of Retinal Ganglion Cells Differing in Resilience to Injury Reveal Neuroprotective Genes. <i>Neuron</i> , <b>2019</b> , 104, 1039-1055.e12	13.9	168
76	Type II cadherins guide assembly of a direction-selective retinal circuit. <i>Cell</i> , <b>2014</b> , 158, 793-807	56.2	146
75	Restoration of Visual Function by Enhancing Conduction in Regenerated Axons. <i>Cell</i> , <b>2016</b> , 164, 219-232	56.2	137
74	Migratory paths and phenotypic choices of clonally related cells in the avian optic tectum. <i>Neuron</i> , <b>1991</b> , 6, 211-25	13.9	135
73	MEGF10 and MEGF11 mediate homotypic interactions required for mosaic spacing of retinal neurons. <i>Nature</i> , <b>2012</b> , 483, 465-9	50.4	133
72	Formation of lamina-specific synaptic connections. <i>Current Opinion in Neurobiology</i> , <b>1999</b> , 9, 79-87	7.6	132
71	Development of dendritic form and function. <i>Annual Review of Cell and Developmental Biology</i> , <b>2015</b> , 31, 741-77	12.6	130
70	The BRAIN Initiative: developing technology to catalyse neuroscience discovery. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , <b>2015</b> , 370,	5.8	119
69	A genetic and computational approach to structurally classify neuronal types. <i>Nature Communications</i> , <b>2014</b> , 5, 3512	17.4	114
68	gamma-Protocadherins regulate neuronal survival but are dispensable for circuit formation in retina. <i>Development (Cambridge)</i> , <b>2008</b> , 135, 4141-51	6.6	113
67	Diverse Central Projection Patterns of Retinal Ganglion Cells. <i>Cell Reports</i> , <b>2017</b> , 18, 2058-2072	10.6	111
66	Sidekick 2 directs formation of a retinal circuit that detects differential motion. <i>Nature</i> , <b>2015</b> , 524, 466-470	50.4	111

65	Two Pairs of ON and OFF Retinal Ganglion Cells Are Defined by Intersectional Patterns of Transcription Factor Expression. <i>Cell Reports</i> , <b>2016</b> , 15, 1930-44	10.6	105
64	Four alpha ganglion cell types in mouse retina: Function, structure, and molecular signatures. <i>PLoS ONE</i> , <b>2017</b> , 12, e0180091	3.7	103
63	A split horseradish peroxidase for the detection of intercellular protein-protein interactions and sensitive visualization of synapses. <i>Nature Biotechnology</i> , <b>2016</b> , 34, 774-80	44.5	102
62	Age-related alterations in neurons of the mouse retina. <i>Journal of Neuroscience</i> , <b>2011</b> , 31, 16033-44	6.6	101
61	Birthdays of retinal amacrine cell subtypes are systematically related to their molecular identity and soma position. <i>Journal of Comparative Neurology</i> , <b>2009</b> , 517, 737-50	3.4	97
60	Neurod6 expression defines new retinal amacrine cell subtypes and regulates their fate. <i>Nature Neuroscience</i> , <b>2011</b> , 14, 965-72	25.5	95
59	Expanding the Ig superfamily code for laminar specificity in retina: expression and role of contactins. <i>Journal of Neuroscience</i> , <b>2012</b> , 32, 14402-14	6.6	91
58	A method for single-neuron chronic recording from the retina in awake mice. <i>Science</i> , <b>2018</b> , 360, 1447-1451	45.3	91
57	Sox11 Expression Promotes Regeneration of Some Retinal Ganglion Cell Types but Kills Others. <i>Neuron</i> , <b>2017</b> , 94, 1112-1120.e4	13.9	88
56	Protocadherin-dependent dendritic self-avoidance regulates neural connectivity and circuit function. <i>ELife</i> , <b>2015</b> , 4,	8.9	86
55	Functional significance of isoform diversification in the protocadherin gamma gene cluster. <i>Neuron</i> , <b>2012</b> , 75, 402-9	13.9	79
54	A community-based transcriptomics classification and nomenclature of neocortical cell types. <i>Nature Neuroscience</i> , <b>2020</b> , 23, 1456-1468	25.5	76
53	Synaptic Specificity, Recognition Molecules, and Assembly of Neural Circuits. <i>Cell</i> , <b>2020</b> , 181, 536-556	56.2	72
52	LKB1 and AMPK regulate synaptic remodeling in old age. <i>Nature Neuroscience</i> , <b>2014</b> , 17, 1190-7	25.5	69
51	Dendrite self-avoidance requires cell-autonomous slit/robo signaling in cerebellar purkinje cells. <i>Neuron</i> , <b>2014</b> , 81, 1040-1056	13.9	67
50	Satb1 Regulates Contactin 5 to Pattern Dendrites of a Mammalian Retinal Ganglion Cell. <i>Neuron</i> , <b>2017</b> , 95, 869-883.e6	13.9	65
49	Stereotyped axonal arbors of retinal ganglion cell subsets in the mouse superior colliculus. <i>Journal of Comparative Neurology</i> , <b>2011</b> , 519, 1691-711	3.4	65
48	Synaptic localization and function of Sidekick recognition molecules require MAGI scaffolding proteins. <i>Journal of Neuroscience</i> , <b>2010</b> , 30, 3579-88	6.6	63

47	Mouse Retinal Cell Atlas: Molecular Identification of over Sixty Amacrine Cell Types. <i>Journal of Neuroscience</i> , <b>2020</b> , 40, 5177-5195	6.6	57
46	Labeled lines in the retinotectal system: markers for retinorecipient sublaminae and the retinal ganglion cell subsets that innervate them. <i>Molecular and Cellular Neurosciences</i> , <b>2006</b> , 33, 296-310	4.8	54
45	Cell Atlas of The Human Fovea and Peripheral Retina. <i>Scientific Reports</i> , <b>2020</b> , 10, 9802	4.9	52
44	Nerves in the antennae of pupal <i>Manduca sexta</i> Johanssen (Lepidoptera: Sphingidae). <i>Wilhelm Roux's Archives of Developmental Biology</i> , <b>1975</b> , 178, 71-78		51
43	Reconstruction of genetically identified neurons imaged by serial-section electron microscopy. <i>eLife</i> , <b>2016</b> , 5,	8.9	51
42	Refinement of the retinogeniculate synapse by bouton clustering. <i>Neuron</i> , <b>2014</b> , 84, 332-9	13.9	49
41	The role of muscle microRNAs in repairing the neuromuscular junction. <i>PLoS ONE</i> , <b>2014</b> , 9, e93140	3.7	46
40	Cadherin Combinations Recruit Dendrites of Distinct Retinal Neurons to a Shared Interneuronal Scaffold. <i>Neuron</i> , <b>2018</b> , 99, 1145-1154.e6	13.9	45
39	Optimizing Nervous System-Specific Gene Targeting with Cre Driver Lines: Prevalence of Germline Recombination and Influencing Factors. <i>Neuron</i> , <b>2020</b> , 106, 37-65.e5	13.9	43
38	Combinatorial Effects of Alpha- and Gamma-Protocadherins on Neuronal Survival and Dendritic Self-Avoidance. <i>Journal of Neuroscience</i> , <b>2018</b> , 38, 2713-2729	6.6	42
37	Cell atlas of aqueous humor outflow pathways in eyes of humans and four model species provides insight into glaucoma pathogenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 10339-10349	11.5	40
36	Tbr1 instructs laminar patterning of retinal ganglion cell dendrites. <i>Nature Neuroscience</i> , <b>2018</b> , 21, 659-670.e5	19.5	38
35	Transgenic strategy for identifying synaptic connections in mice by fluorescence complementation (GRASP). <i>Frontiers in Molecular Neuroscience</i> , <b>2012</b> , 5, 18	6.1	38
34	Role for Wnt Signaling in Retinal Neuropil Development: Analysis via RNA-Seq and In Vivo Somatic CRISPR Mutagenesis. <i>Neuron</i> , <b>2018</b> , 98, 109-126.e8	13.9	37
33	Induction of DNA synthesis in cultured neurons by ultraviolet light or methyl methane sulfonate. <i>Journal of Cell Biology</i> , <b>1972</b> , 53, 587-90	7.3	35
32	Heterophilic Type II Cadherins Are Required for High-Magnitude Synaptic Potentiation in the Hippocampus. <i>Neuron</i> , <b>2017</b> , 96, 160-176.e8	13.9	34
31	Mapping Transgene Insertion Sites Reveals Complex Interactions Between Mouse Transgenes and Neighboring Endogenous Genes. <i>Frontiers in Molecular Neuroscience</i> , <b>2018</b> , 11, 385	6.1	30
30	Muscle-type Identity of Proprioceptors Specified by Spatially Restricted Signals from Limb Mesenchyme. <i>Cell</i> , <b>2016</b> , 164, 512-25	56.2	28

29	Reporter-nanobody fusions (RANbodies) as versatile, small, sensitive immunohistochemical reagents. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 2126-2131	11.5	26
28	Cadherins Interact With Synaptic Organizers to Promote Synaptic Differentiation. <i>Frontiers in Molecular Neuroscience</i> , <b>2018</b> , 11, 142	6.1	26
27	A cell atlas of the chick retina based on single-cell transcriptomics. <i>ELife</i> , <b>2021</b> , 10,	8.9	26
26	Molecular basis of sidekick-mediated cell-cell adhesion and specificity. <i>ELife</i> , <b>2016</b> , 5,	8.9	24
25	Molecular classification of zebrafish retinal ganglion cells links genes to cell types to behavior. <i>Neuron</i> , <b>2021</b> , 109, 645-662.e9	13.9	22
24	Expression and Roles of the Immunoglobulin Superfamily Recognition Molecule Sidekick1 in Mouse Retina. <i>Frontiers in Molecular Neuroscience</i> , <b>2018</b> , 11, 485	6.1	13
23	β-Dystrobrevin-1 recruits Grb2 and β-catenin to organize neurotransmitter receptors at the neuromuscular junction. <i>Journal of Cell Science</i> , <b>2016</b> , 129, 898-911	5.3	13
22	Binary Fate Choice between Closely Related Interneuronal Types Is Determined by a Fezf1-Dependent Postmitotic Transcriptional Switch. <i>Neuron</i> , <b>2020</b> , 105, 464-474.e6	13.9	13
21	Cellular and Molecular Analysis of Dendritic Morphogenesis in a Retinal Cell Type That Senses Color Contrast and Ventral Motion. <i>Journal of Neuroscience</i> , <b>2017</b> , 37, 12247-12262	6.6	11
20	Author response: The Human Cell Atlas <b>2017</b> ,		10
19	Optic nerve regeneration screen identifies multiple genes restricting adult neural repair. <i>Cell Reports</i> , <b>2021</b> , 34, 108777	10.6	10
18	Genetic Method for Labeling Electrically Coupled Cells: Application to Retina. <i>Frontiers in Molecular Neuroscience</i> , <b>2015</b> , 8, 81	6.1	8
17	Turning lead into gold: reprogramming retinal cells to cure blindness. <i>Journal of Clinical Investigation</i> , <b>2021</b> , 131,	15.9	8
16	Generating and Using Transcriptomically Based Retinal Cell Atlases. <i>Annual Review of Vision Science</i> , <b>2021</b> , 7, 43-72	8.2	7
15	Cell Atlas of the Human Fovea and Peripheral Retina		5
14	Diversification of multipotential postmitotic mouse retinal ganglion cell precursors into discrete types.. <i>ELife</i> , <b>2022</b> , 11,	8.9	5
13	Tell me a story. <i>ELife</i> , <b>2019</b> , 8,	8.9	4
12	Molecular identification of sixty-three amacrine cell types completes a mouse retinal cell atlas		4

11	Molecular classification of zebrafish retinal ganglion cells links genes to cell types to behavior		3
10	Unified classification of mouse retinal ganglion cells using function, morphology, and gene expression		3
9	Heterogeneity of retinogeniculate axon arbors. <i>European Journal of Neuroscience</i> , <b>2019</b> , 49, 948-956	3.5	2
8	Author response: Protocadherin-dependent dendritic self-avoidance regulates neural connectivity and circuit function <b>2015</b> ,		2
7	Cell Atlas of Aqueous Humor Outflow Pathways in Eyes of Humans and Four Model Species Provides Insights into Glaucoma Pathogenesis		1
6	Diversification of multipotential postmitotic mouse retinal ganglion cell precursors into discrete types		1
5	Molecular Classification and Comparative Taxonomics of Foveal and Peripheral Cells in Primate Retina		1
4	Single-cell profiles of retinal neurons differing in resilience to injury reveal neuroprotective genes		1
3	Isozyme-Specific Role of SAD-A in Neuronal Migration During Development of Cerebral Cortex. <i>Cerebral Cortex</i> , <b>2019</b> , 29, 3738-3751	5.1	1
2	Unified Classification of Mouse Retinal Ganglion Cells Using Function, Morphology, and Gene Expression. <i>SSRN Electronic Journal</i> ,	1	1
1	CRISPR-mediated Labeling of Cells in Chick Embryos Based on Selectively Expressed Genes. <i>Bio-protocol</i> , <b>2021</b> , 11, e4105	0.9	0