Jeffrey S Diamond

List of Publications by Year
in descending order

61 papers	5,719 citations	94433 37 h-index	133252 59 g-index
87 all docs	87 docs citations	87 times ranked	4863 citing authors

#	Article	IF	Citations
1	Transporters Buffer Synaptically Released Glutamate on a Submillisecond Time Scale. Journal of Neuroscience, 1997, 17, 4672-4687.	3.6	438
2	Clearance of glutamate inside the synapse and beyond. Current Opinion in Neurobiology, 1999, 9, 293-298.	4.2	317
3	Asynchronous release of synaptic vesicles determines the time course of the AMPA receptor-mediated EPSC. Neuron, 1995, 15, 1097-1107.	8.1	284
4	Structure, Function, and Pharmacology of Glutamate Receptor Ion Channels. Pharmacological Reviews, 2021, 73, 1469-1658.	16.0	237
5	Neuronal Glutamate Transporters Limit Activation of NMDA Receptors by Neurotransmitter Spillover on CA1 Pyramidal Cells. Journal of Neuroscience, 2001, 21, 8328-8338.	3.6	231
6	Coordinated multivesicular release at a mammalian ribbon synapse. Nature Neuroscience, 2004, 7, 826-833.	14.8	199
7	Sustained Ca²⁺Entry Elicits Transient Postsynaptic Currents at a Retinal Ribbon Synapse. Journal of Neuroscience, 2003, 23, 10923-10933.	3.6	194
8	Species-specific wiring for direction selectivity in the mammalian retina. Nature, 2016, 535, 105-110.	27.8	185
9	Neuronal Glutamate Uptake Contributes to GABA Synthesis and Inhibitory Synaptic Strength. Journal of Neuroscience, 2003, 23, 2040-2048.	3.6	184
10	Requirement for Microglia for the Maintenance of Synaptic Function and Integrity in the Mature Retina. Journal of Neuroscience, 2016, 36, 2827-2842.	3.6	179
11	Synaptically Released Glutamate Activates Extrasynaptic NMDA Receptors on Cells in the Ganglion Cell Layer of Rat Retina. Journal of Neuroscience, 2002, 22, 2165-2173.	3.6	163
12	Neuronal Transporters Regulate Glutamate Clearance, NMDA Receptor Activation, and Synaptic Plasticity in the Hippocampus. Journal of Neuroscience, 2009, 29, 14581-14595.	3.6	154
13	Fast neurotransmitter release triggered by Ca influx through AMPA-type glutamate receptors. Nature, 2006, 443, 705-708.	27.8	153
14	Deriving the Glutamate Clearance Time Course from Transporter Currents in CA1 Hippocampal Astrocytes: Transmitter Uptake Gets Faster during Development. Journal of Neuroscience, 2005, 25, 2906-2916.	3.6	149
15	Retinal Parallel Processors: More than 100 Independent Microcircuits Operate within a Single Interneuron. Neuron, 2010, 65, 873-885.	8.1	148
16	Inhibitory Interneurons in the Retina: Types, Circuitry, and Function. Annual Review of Vision Science, 2017, 3, 1-24.	4.4	144
17	Amyloid-Î²_{1â€“42}Slows Clearance of Synaptically Released Glutamate by Mislocalizing Astrocytic GLT-1. Journal of Neuroscience, 2013, 33, 5312-5318.	3.6	143
18	Differentiation of human ESCs to retinal ganglion cells using a CRISPR engineered reporter cell line. Scientific Reports, 2015, 5, 16595.	3.3	142

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19	Glutamate Release Monitored with Astrocyte Transporter Currents during LTP. Neuron, 1998, 21, 425-433.	8.1	141
20	Synaptically Released Glutamate Does Not Overwhelm Transporters on Hippocampal Astrocytes During High-Frequency Stimulation. Journal of Neurophysiology, 2000, 83, 2835-2843.	1.8	141
21	Vesicle Depletion and Synaptic Depression at a Mammalian Ribbon Synapse. Journal of Neurophysiology, 2006, 95, 3191-3198.	1.8	141
22	Invulnerability of retinal ganglion cells to NMDA excitotoxicity. Molecular and Cellular Neurosciences, 2004, 26, 544-557.	2.2	129
23	The contribution of NMDA and Non-NMDA receptors to the light-evoked input-output characteristics of retinal ganglion cells. Neuron, 1993, 11, 725-738.	8.1	102
24	Ribbon synapses compute temporal contrast and encode luminance in retinal rod bipolar cells. Nature Neuroscience, 2011, 14, 1555-1561.	14.8	97
25	Genetic targeting and physiological features of VGLUT3+ amacrine cells. Visual Neuroscience, 2011, 28, 381-392.	1.0	89
26	Subunit- and Pathway-Specific Localization of NMDA Receptors and Scaffolding Proteins at Ganglion Cell Synapses in Rat Retina. Journal of Neuroscience, 2009, 29, 4274-4286.	3.6	86
27	CaMKII phosphorylation of neuroligin-1 regulates excitatory synapses. Nature Neuroscience, 2014, 17, 56-64.	14.8	83
28	Mechanisms Underlying Lateral GABAergic Feedback onto Rod Bipolar Cells in Rat Retina. Journal of Neuroscience, 2010, 30, 2330-2339.	3.6	82
29	BK channels modulate pre- and postsynaptic signaling at reciprocal synapses in retina. Nature Neuroscience, 2009, 12, 585-592.	14.8	79
30	Distinct perisynaptic and synaptic localization of NMDA and AMPA receptors on ganglion cells in rat retina. Journal of Comparative Neurology, 2006, 498, 810-820.	1.6	74
31	Imperfect Space Clamp Permits Electrotonic Interactions between Inhibitory and Excitatory Synaptic Conductances, Distorting Voltage Clamp Recordings. PLoS ONE, 2011, 6, e19463.	2.5	68
32	Coagonist Release Modulates NMDA Receptor Subtype Contributions at Synaptic Inputs to Retinal Ganglion Cells. Journal of Neuroscience, 2009, 29, 1469-1479.	3.6	67
33	The Number and Organization of Ca²⁺Channels in the Active Zone Shapes Neurotransmitter Release from Schaffer Collateral Synapses. Journal of Neuroscience, 2012, 32, 18157-18176.	3.6	67
34	A broad view of glutamate spillover. Nature Neuroscience, 2002, 5, 291-292.	14.8	63
35	The Relative Roles of Diffusion and Uptake in Clearing Synaptically Released Glutamate Change during Early Postnatal Development. Journal of Neuroscience, 2011, 31, 4743-4754.	3.6	63
36	Effects of fluorescent glutamate indicators on neurotransmitter diffusion and uptake. ELife, 2020, 9, .	6.0	59

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37	Functional Compartmentalization within Starburst Amacrine Cell Dendrites in the Retina. Cell Reports, 2018, 22, 2898-2908.	6.4	57
38	Retinal Circuitry Balances Contrast Tuning of Excitation and Inhibition to Enable Reliable Computation of Direction Selectivity. Journal of Neuroscience, 2016, 36, 5861-5876.	3.6	42
39	Synaptic Transfer between Rod and Cone Pathways Mediated by AII Amacrine Cells in the Mouse Retina. Current Biology, 2018, 28, 2739-2751.e3.	3.9	41
40	NMDA Receptors Multiplicatively Scale Visual Signals and Enhance Directional Motion Discrimination in Retinal Ganglion Cells. Neuron, 2016, 89, 1277-1290.	8.1	36
41	Passive Diffusion as a Mechanism Underlying Ribbon Synapse Vesicle Release and Resupply. Journal of Neuroscience, 2014, 34, 8948-8962.	3.6	34
42	Complex inhibitory microcircuitry regulates retinal signaling near visual threshold. Journal of Neurophysiology, 2015, 114, 341-353.	1.8	34
43	Diverse Mechanisms Underlie Glycinergic Feedback Transmission onto Rod Bipolar Cells in Rat Retina. Journal of Neuroscience, 2008, 28, 7919-7928.	3.6	33
44	Probing potassium channel function in vivo by intracellular delivery of antibodies in a rat model of retinal neurodegeneration. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 12710-12715.	7.1	28
45	Specialized Postsynaptic Morphology Enhances Neurotransmitter Dilution and High-Frequency Signaling at an Auditory Synapse. Journal of Neuroscience, 2014, 34, 8358-8372.	3.6	25
46	Calcium-Permeable AMPA Receptors in the Retina. Frontiers in Molecular Neuroscience, 2011, 4, 27.	2.9	21
47	Illuminating synapses and circuitry in the retina. Current Opinion in Neurobiology, 2011, 21, 238-244.	4.2	16
48	A High-Density Narrow-Field Inhibitory Retinal Interneuron with Direct Coupling to MÃ¼ller Glia. Journal of Neuroscience, 2021, 41, 6018-6037.	3.6	11
49	Astrocytes Put down the Broom and Pick up the Baton. Cell, 2006, 125, 639-641.	28.9	9
50	Deriving the Time Course of Glutamate Clearance with a Deconvolution Analysis of Astrocytic Transporter Currents. Journal of Visualized Experiments, 2013, , .	0.3	9
51	Synaptic inhibition tunes contrast computation in the retina. Visual Neuroscience, 2019, 36, E006.	1.0	9
52	Dendro-somatic synaptic inputs to ganglion cells contradict receptive field and connectivity conventions in the mammalian retina. Current Biology, 2022, 32, 315-328.e4.	3.9	8
53	High-Resolution Quantitative Immunogold Analysis of Membrane Receptors at Retinal Ribbon Synapses. Journal of Visualized Experiments, 2016, , 53547.	0.3	7
54	Amacrine cells: Seeing the forest <i>and</i> the trees. Visual Neuroscience, 2012, 29, 1-2.	1.0	6

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55	A light switch controlling Ca2+-permeable AMPA receptors in the retina. Journal of Physiology, 2007, 582, 3-3.	2.9	3
56	Distributed Parallel Processing in Retinal Amacrine Cells. Springer Series in Computational Neuroscience, 2014, , 191-204.	0.3	3
57	How we see the forest and the trees. ELife, 2018, 7, .	6.0	3
58	Ganglion Cells in Primate Retina Use Fuzzy Logic to Encode Complex Visual Receptive Fields. Neuron, 2019, 103, 549-551.	8.1	2
59	A17 Amacrine Cells and Olfactory Granule Cells: Parallel Processors of Early Sensory Information. Frontiers in Cellular Neuroscience, 2020, 14, 600537.	3.7	2
60	Grilled RIBEYE stakes a claim for synaptic ribbons. Nature Neuroscience, 2011, 14, 1097-1098.	14.8	0
61	The Gospel of John, <i>revised</i> - The Retina: An Approachable Part of the Brain, Revised Edition. By John E. Dowling. 2012. The Belknap Press of Harvard University Press, Cambridge, MA.. Visual Neuroscience, 2012, 29, 263-264.	1.0	0