George J Augustine

List of Publications by Year
in descending order

88 papers	8,187 citations	61984 43 h-index	58581 82 g-index
96 all docs	96 docs citations	96 times ranked	9081 citing authors

#	Article	IF	Citations
1	Cell typeâ€“specific channelrhodopsin-2 transgenic mice for optogenetic dissection of neural circuitry function. Nature Methods, 2011, 8, 745-752.	19.0	605
2	Local Calcium Signaling in Neurons. Neuron, 2003, 40, 331-346.	8.1	545
3	Local calcium signalling by inositol-1,4,5-trisphosphate in Purkinje cell dendrites. Nature, 1998, 396, 753-756.	27.8	493
4	Synapsins as regulators of neurotransmitter release. Philosophical Transactions of the Royal Society B: Biological Sciences, 1999, 354, 269-279.	4.0	478
5	Channel-Mediated Tonic GABA Release from Glia. Science, 2010, 330, 790-796.	12.6	470
6	A Genetically Encoded Ratiometric Indicator for Chloride. Neuron, 2000, 27, 447-459.	8.1	406
7	Different Presynaptic Roles of Synapsins at Excitatory and Inhibitory Synapses. Journal of Neuroscience, 2004, 24, 11368-11380.	3.6	315
8	The Calcium Signal for Transmitter Secretion from Presynaptic Nerve Terminals. Annals of the New York Academy of Sciences, 1991, 635, 365-381.	3.8	258
9	Local Calcium Release in Dendritic Spines Required for Long-Term Synaptic Depression. Neuron, 2000, 28, 233-244.	8.1	233
10	Precise Control of Movement Kinematics by Optogenetic Inhibition of Purkinje Cell Activity. Journal of Neuroscience, 2014, 34, 2321-2330.	3.6	214
11	Reversal of Phenotypic Abnormalities by CRISPR/Cas9-Mediated Gene Correction in Huntington Disease Patient-Derived Induced Pluripotent StemÂCells. Stem Cell Reports, 2017, 8, 619-633.	4.8	193
12	Progressive NKCC1-Dependent Neuronal Chloride Accumulation during Neonatal Seizures. Journal of Neuroscience, 2010, 30, 11745-11761.	3.6	173
13	Regulation of Neurotransmitter Release by Synapsin III. Journal of Neuroscience, 2002, 22, 4372-4380.	3.6	158
14	Two sites of action for synapsin domain E in regulating neurotransmitter release. Nature Neuroscience, 1998, 1, 29-35.	14.8	154
15	Two-Photon Imaging Reveals Somatodendritic Chloride Gradient in Retinal ON-Type Bipolar Cells Expressing the Biosensor Clomeleon. Neuron, 2006, 49, 81-94.	8.1	154
16	Synaptotagmin I Synchronizes Transmitter Release in Mouse Hippocampal Neurons. Journal of Neuroscience, 2004, 24, 6127-6132.	3.6	151
17	Structural Domains Involved in the Regulation of Transmitter Release by Synapsins. Journal of Neuroscience, 2005, 25, 2658-2669.	3.6	134
18	Differences in Cortical versus Subcortical GABAergic Signaling: A Candidate Mechanism of Electroclinical Uncoupling of Neonatal Seizures. Neuron, 2009, 63, 657-672.	8.1	133

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19	Molecular Determinants of Synapsin Targeting to Presynaptic Terminals. Journal of Neuroscience, 2004, 24, 3711-3720.	3.6	125
20	The Chloride Transporter Na+-K+-Cl- Cotransporter Isoform-1 Contributes to Intracellular Chloride Increases after In Vitro Ischemia. Journal of Neuroscience, 2006, 26, 1396-1406.	3.6	119
21	Synapsin IIa Controls the Reserve Pool of Glutamatergic Synaptic Vesicles. Journal of Neuroscience, 2008, 28, 10835-10843.	3.6	112
22	A Positive Feedback Signal Transduction Loop Determines Timing of Cerebellar Long-Term Depression. Neuron, 2008, 59, 608-620.	8.1	107
23	Ca2+ Requirements for Cerebellar Long-Term Synaptic Depression: Role for a Postsynaptic Leaky Integrator. Neuron, 2007, 54, 787-800.	8.1	106
24	Synapsins Differentially Control Dopamine and Serotonin Release. Journal of Neuroscience, 2010, 30, 9762-9770.	3.6	100
25	Visualization of Synaptic Inhibition with an Optogenetic Sensor Developed by Cell-Free Protein Engineering Automation. Journal of Neuroscience, 2013, 33, 16297-16309.	3.6	95
26	Luminopsins integrate opto- and chemogenetics by using physical and biological light sources for opsin activation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E358-67.	7.1	94
27	Distribution of Functional Glutamate and GABA Receptors on Hippocampal Pyramidal Cells and Interneurons. Journal of Neurophysiology, 2000, 84, 28-38.	1.8	91
28	Imaging synaptic inhibition in transgenic mice expressing the chloride indicator, Clomeleon. Brain Cell Biology, 2006, 35, 207-228.	3.2	89
29	Inhibitory Basal Ganglia Inputs Induce Excitatory Motor Signals in the Thalamus. Neuron, 2017, 95, 1181-1196.e8.	8.1	89
30	Structural basis for delta cell paracrine regulation in pancreatic islets. Nature Communications, 2019, 10, 3700.	12.8	80
31	Contribution of Superficial Layer Neurons to Premotor Bursts in the Superior Colliculus. Journal of Neurophysiology, 2000, 84, 460-471.	1.8	77
32	Graded Control of Climbing-Fiber-Mediated Plasticity and Learning by Inhibition in the Cerebellum. Neuron, 2018, 99, 999-1015.e6.	8.1	74
33	Local Excitatory Circuits in the Intermediate Gray Layer of the Superior Colliculus. Journal of Neurophysiology, 1999, 81, 1424-1427.	1.8	71
34	Synapsin Isoforms and Synaptic Vesicle Trafficking. Molecules and Cells, 2015, 38, 936-940.	2.6	70
35	The cerebellum linearly encodes whisker position during voluntary movement. ELife, 2016, 5, e10509.	6.0	69
36	A neuroprotective role for microRNA miR-1000 mediated by limiting glutamate excitotoxicity. Nature Neuroscience, 2015, 18, 379-385.	14.8	67

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37	Proteins involved in synaptic vesicle trafficking. Journal of Physiology, 1999, 520, 33-41.	2.9	65
38	Next-generation transgenic mice for optogenetic analysis of neural circuits. Frontiers in Neural Circuits, 2013, 7, 160.	2.8	62
39	Optogenetic Mapping of Cerebellar Inhibitory Circuitry Reveals Spatially Biased Coordination of Interneurons via Electrical Synapses. Cell Reports, 2014, 7, 1601-1613.	6.4	62
40	Imaging synaptic inhibition throughout the brain via genetically targeted Clomeleon. Brain Cell Biology, 2008, 36, 101-118.	3.2	58
41	Presynaptic nanodomains: a tale of two synapses. Frontiers in Cellular Neuroscience, 2014, 8, 455.	3.7	55
42	Optogenetic probing of functional brain circuitry. Experimental Physiology, 2011, 96, 26-33.	2.0	54
43	Protein tyrosine phosphatase receptor type R is required for Purkinje cell responsiveness in cerebellar long-term depression. Molecular Brain, 2015, 8, 1.	2.6	53
44	STIM2 regulates PKA-dependent phosphorylation and trafficking of AMPARs. Molecular Biology of the Cell, 2015, 26, 1141-1159.	2.1	51
45	Precision of Discrete and Rhythmic Forelimb Movements Requires a Distinct Neuronal Subpopulation in the Interposed Anterior Nucleus. Cell Reports, 2018, 22, 2322-2333.	6.4	51
46	Optogenetic activation of presynaptic inputs in lateral amygdala forms associative fear memory. Learning and Memory, 2014, 21, 627-633.	1.3	48
47	Synaptic Connectivity between the Cortex and Claustrum Is Organized into Functional Modules. Current Biology, 2020, 30, 2777-2790.e4.	3.9	47
48	Serial processing of kinematic signals by cerebellar circuitry during voluntary whisking. Nature Communications, 2017, 8, 232.	12.8	44
49	Tonically active protein kinase A regulates neurotransmitter release at the squid giant synapse. Journal of Physiology, 2001, 531, 141-146.	2.9	41
50	Pancreatic Islet Blood Flow Dynamics in Primates. Cell Reports, 2017, 20, 1490-1501.	6.4	35
51	Synapsin Isoforms Regulating GABA Release from Hippocampal Interneurons. Journal of Neuroscience, 2016, 36, 6742-6757.	3.6	32
52	Molecular Layer Interneurons: Key Elements of Cerebellar Network Computation and Behavior. Neuroscience, 2021, 462, 22-35.	2.3	32
53	Drosophila Schip1 Links Expanded and Tao-1 to Regulate Hippo Signaling. Developmental Cell, 2016, 36, 511-524.	7.0	30
54	Selective Loss of Presynaptic Potassium Channel Clusters at the Cerebellar Basket Cell Terminal Pinceau in Adam11 Mutants Reveals Their Role in Ephaptic Control of Purkinje Cell Firing. Journal of Neuroscience, 2015, 35, 11433-11444.	3.6	29

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55	Synapsins and the Synaptic Vesicle Reserve Pool: Floats or Anchors?. Cells, 2021, 10, 658.	4.1	29
56	Roadmap on neurophotonics. Journal of Optics (United Kingdom), 2016, 18, 093007.	2.2	28
57	Optogenetics reveals a role for accumbal medium spiny neurons expressing dopamine D2 receptors in cocaine-induced behavioral sensitization. Frontiers in Behavioral Neuroscience, 2014, 8, 336.	2.0	27
58	An excitatory GABA loop operating in vivo. Frontiers in Cellular Neuroscience, 2015, 9, 275.	3.7	26
59	Choline Ameliorates Disease Phenotypes in Human iPSC Models of Rett Syndrome. NeuroMolecular Medicine, 2016, 18, 364-377.	3.4	26
60	Identification of Mouse Claustral Neuron Types Based on Their Intrinsic Electrical Properties. ENeuro, 2020, 7, ENEURO.0216-20.2020.	1.9	22
61	Calmodulin at the channel gate. Nature, 1999, 399, 105-108.	27.8	21
62	Molecular Mechanisms of Short-Term Plasticity: Role of Synapsin Phosphorylation in Augmentation and Potentiation of Spontaneous Glutamate Release. Frontiers in Synaptic Neuroscience, 2018, 10, 33.	2.5	21
63	A neural circuit for excessive feeding driven by environmental context in mice. Nature Neuroscience, 2021, 24, 1132-1141.	14.8	21
64	Optogenetic Visualization of Presynaptic Tonic Inhibition of Cerebellar Parallel Fibers. Journal of Neuroscience, 2016, 36, 5709-5723.	3.6	20
65	Defining a critical period for inhibitory circuits within the somatosensory cortex. Scientific Reports, 2017, 7, 7271.	3.3	19
66	A Novel Type of Neuron Within the Dorsal Striatum. Frontiers in Neural Circuits, 2019, 13, 32.	2.8	19
67	Functional properties, topological organization and sexual dimorphism of claustrum neurons projecting to anterior cingulate cortex. Claustrum, 2017, 2, 1357412.	0.1	18
68	Calcium-Dependent and Synapsin-Dependent Pathways for the Presynaptic Actions of BDNF. Frontiers in Cellular Neuroscience, 2017, 11, 75.	3.7	18
69	Rescue of Methyl-CpG Binding Protein 2 Dysfunction-induced Defects in Newborn Neurons by Pentobarbital. Neurotherapeutics, 2015, 12, 477-490.	4.4	17
70	Non-invasive activation of optogenetic actuators. Proceedings of SPIE, 2014, 8928, .	0.8	15
71	An Optogenetic Approach for Assessing Formation of Neuronal Connections in a Co-culture System. Journal of Visualized Experiments, 2015, , e52408.	0.3	15
72	Imaging Synaptic Inhibition with the Genetically Encoded Chloride Indicator Clomeleon. Cold Spring Harbor Protocols, 2011, 2011, pdb.prot066985.	0.3	13

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73	Changing the Cortical Conductorâ€™s Tempo: Neuromodulation of the Claustrum. Frontiers in Neural Circuits, 2021, 15, 658228.	2.8	11
74	Heterogeneous somatostatin-expressing neuron population in mouse ventral tegmental area. ELife, 2020, 9, .	6.0	9
75	Illuminating the location of brain glutamate receptors. Nature Neuroscience, 2001, 4, 1051-1052.	14.8	7
76	Calcium-dependent neurotransmitter release: Synaptotagmin to the rescue. Journal of Comparative Neurology, 2001, 436, 1-3.	1.6	6
77	Postsynaptic Mechanisms Render Syn I/II/III Mice Highly Responsive to Psychostimulants. International Journal of Neuropsychopharmacology, 2019, 22, 453-465.	2.1	6
78	All-optical mapping of barrel cortex circuits based on simultaneous voltage-sensitive dye imaging and channelrhodopsin-mediated photostimulation. Neurophotonics, 2015, 2, 021013.	3.3	5
79	Neuroscience: A Role for the Claustrum in Drug Reward. Current Biology, 2020, 30, R1038-R1040.	3.9	3
80	Using Optogenetic Dyadic Animal Models to Elucidate the Neural Basis for Human Parentâ€“Infant Social Knowledge Transmission. Frontiers in Neural Circuits, 2021, 15, 731691.	2.8	2
81	Editorial: Imaging Synapse Structure and Function. Frontiers in Synaptic Neuroscience, 2016, 8, 36.	2.5	1
82	Brain Cell Technology: A valuable new resource for novel techniques. Brain Cell Biology, 2006, 35, 205-206.	3.2	0
83	Welcome to Brain Cell Biology!. Brain Cell Biology, 2007, 35, 1-3.	3.2	0
84	C1â€…Scarless gene correction in huntingtonâ€™s disease patient-derived induced pluripotent stem cells. Journal of Neurology, Neurosurgery and Psychiatry, 2016, 87, A27.1-A27.	1.9	0
85	[P3â€“168]: GENETIC DISSECTION OF SEVERITY AND ONSET MODULATORS FOR ALZHEIMER's PATHOLOGY IN DOWN SYNDROME USING CELLULAR SYSTEMS. Alzheimer's and Dementia, 2017, 13, P998.	0.8	0
86	An automated data extraction and classification pipeline to identify a novel type of neuron within the dorsal striatum based on single-cell patch clamp and confocal imaging data. Data in Brief, 2020, 32, 106148.	1.0	0
87	Synapsins (SYN). , 2016, , 1-7.		0
88	Synapsins (SYN). , 2018, , 5274-5280.		0