Wade G Regehr

List of Publications by Year
in descending order

101 papers	18,597 citations	23879 60 h-index	37326 100 g-index
121 all docs	121 docs citations	121 times ranked	16014 citing authors

#	Article	IF	Citations
1	Cannabinoids and Synaptic Transmission in the Cerebellum. , 2022, , 1005-1023.		0
2	Candelabrum cells are ubiquitous cerebellar cortex interneurons with specialized circuit properties. Nature Neuroscience, 2022, 25, 702-713.	7.1	12
3	The Cerebellar Cortex. Annual Review of Neuroscience, 2022, 45, 151-175.	5.0	23
4	Presynaptic short-term plasticity persists in the absence of PKC phosphorylation of Munc18-1. Journal of Neuroscience, 2021, 41, JN-RM-0347-21.	1.7	6
5	Purkinje cell outputs selectively inhibit a subset of unipolar brush cells in the input layer of the cerebellar cortex. ELife, 2021, 10, .	2.8	12
6	Introduction of synaptotagmin 7 promotes facilitation at the climbing fiber to Purkinje cell synapse. Cell Reports, 2021, 36, 109719.	2.9	2
7	Graded heterogeneity of metabotropic signaling underlies a continuum of cell-intrinsic temporal responses in unipolar brush cells. Nature Communications, 2021, 12, 5491.	5.8	20
8	A transcriptomic atlas of mouse cerebellar cortex comprehensivelyÂdefines cell types. Nature, 2021, 598, 214-219.	13.7	147
9	Climbing fiber synapses rapidly and transiently inhibit neighboring Purkinje cells via ephaptic coupling. Nature Neuroscience, 2020, 23, 1399-1409.	7.1	27
10	Cerebellum-Specific Deletion of the GABAA Receptor Î´ Subunit Leads to Sex-Specific Disruption of Behavior. Cell Reports, 2020, 33, 108338.	2.9	32
11	Meissner corpuscles and their spatially intermingled afferents underlie gentle touch perception. Science, 2020, 368, .	6.0	95
12	Diverse roles of Synaptotagmin-7 in regulating vesicle fusion. Current Opinion in Neurobiology, 2020, 63, 42-52.	2.0	22
13	Cerebellar Purkinje cell activity modulates aggressive behavior. ELife, 2020, 9, .	2.8	34
14	Cerebellar and vestibular nuclear synapses in the inferior olive have distinct release kinetics and neurotransmitters. ELife, 2020, 9, .	2.8	5
15	Loss of Doc2b does not influence transmission at Purkinje cell to deep nuclei synapses under physiological conditions. ELife, 2020, 9, .	2.8	4
16	Neuronal Regulation of Fast Synaptotagmin Isoforms Controls the Relative Contributions of Synchronous and Asynchronous Release. Neuron, 2019, 101, 938-949.e4.	3.8	33
17	In Vivo Targeted Expression of Optogenetic Proteins Using Silk/AAV Films. Journal of Visualized Experiments, 2019, , .	0.2	3
18	The Role of CaV2.1 Channel Facilitation in Synaptic Facilitation. Cell Reports, 2019, 26, 2289-2297.e3.	2.9	14

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19	Synaptotagmin 7 Mediates Both Facilitation and Asynchronous Release at Granule Cell Synapses. Journal of Neuroscience, 2018, 38, 3240-3251.	1.7	71
20	Silk Fibroin Films Facilitate Single-Step Targeted Expression of Optogenetic Proteins. Cell Reports, 2018, 22, 3351-3361.	2.9	32
21	Ephaptic Coupling Promotes Synchronous Firing of Cerebellar Purkinje Cells. Neuron, 2018, 100, 564-578.e3.	3.8	99
22	Sensitive Periods for Cerebellar-Mediated Autistic-like Behaviors. Cell Reports, 2018, 25, 357-367.e4.	2.9	82
23	The readily releasable pool of synaptic vesicles. Current Opinion in Neurobiology, 2017, 43, 63-70.	2.0	174
24	The Mechanisms and Functions of Synaptic Facilitation. Neuron, 2017, 94, 447-464.	3.8	322
25	Synaptotagmin 7 confers frequency invariance onto specialized depressing synapses. Nature, 2017, 551, 503-506.	13.7	65
26	Synaptic Specializations Support Frequency-Independent Purkinje Cell Output from the Cerebellar Cortex. Cell Reports, 2016, 17, 3256-3268.	2.9	58
27	Purkinje Cells Directly Inhibit Granule Cells in Specialized Regions of the Cerebellar Cortex. Neuron, 2016, 91, 1330-1341.	3.8	76
28	Purkinje Cell Collaterals Enable Output Signals from the Cerebellar Cortex to Feed Back to Purkinje Cells and Interneurons. Neuron, 2016, 91, 312-319.	3.8	109
29	Calcium-Dependent Protein Kinase C Is Not Required for Post-Tetanic Potentiation at the Hippocampal CA3 to CA1 Synapse. Journal of Neuroscience, 2016, 36, 6393-6402.	1.7	17
30	Determining synaptic parameters using high-frequency activation. Journal of Neuroscience Methods, 2016, 264, 136-152.	1.3	50
31	The calcium sensor synaptotagmin 7 is required for synaptic facilitation. Nature, 2016, 529, 88-91.	13.7	256
32	Cell typeâ€“specific manipulation with GFP-dependent Cre recombinase. Nature Neuroscience, 2015, 18, 1334-1341.	7.1	74
33	Active Dendrites and Differential Distribution of Calcium Channels Enable Functional Compartmentalization of Golgi Cells. Journal of Neuroscience, 2015, 35, 15492-15504.	1.7	15
34	Normalization of input patterns in an associative network. Journal of Neurophysiology, 2014, 111, 544-551.	0.9	5
35	Achieving High-Frequency Optical Control of Synaptic Transmission. Journal of Neuroscience, 2014, 34, 7704-7714.	1.7	148
36	Molecular Mechanisms for Synchronous, Asynchronous, and Spontaneous Neurotransmitter Release. Annual Review of Physiology, 2014, 76, 333-363.	5.6	364

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37	Presynaptic Calcium Measurements Using Bulk Loading of Acetoxymethyl Indicators. Cold Spring Harbor Protocols, 2014, 2014, pdb.prot081828.	0.2	2
38	Promoter Decommissioning by the NuRD Chromatin Remodeling Complex Triggers Synaptic Connectivity in the Mammalian Brain. Neuron, 2014, 83, 122-134.	3.8	92
39	Calcium-Dependent PKC Isoforms Have Specialized Roles in Short-Term Synaptic Plasticity. Neuron, 2014, 82, 859-871.	3.8	36
40	The Substantia Nigra Conveys Target-Dependent Excitatory and Inhibitory Outputs from the Basal Ganglia to the Thalamus. Journal of Neuroscience, 2014, 34, 8032-8042.	1.7	46
41	Presynaptic Calcium Influx Controls Neurotransmitter Release in Part by Regulating the Effective Size of the Readily Releasable Pool. Journal of Neuroscience, 2013, 33, 4625-4633.	1.7	134
42	Hyperpolarization Induces a Long-Term Increase in the Spontaneous Firing Rate of Cerebellar Golgi Cells. Journal of Neuroscience, 2013, 33, 5895-5902.	1.7	42
43	Cannabinoids and Synaptic Transmission in the Cerebellum. , 2013, , 927-946.		0
44	Identification of an Inhibitory Circuit that Regulates Cerebellar Golgi Cell Activity. Neuron, 2012, 73, 149-158.	3.8	103
45	Calcium-Dependent Isoforms of Protein Kinase C Mediate Glycine-Induced Synaptic Enhancement at the Calyx of Held. Journal of Neuroscience, 2012, 32, 13796-13804.	1.7	13
46	Adaptive Regulation Maintains Posttetanic Potentiation at Cerebellar Granule Cell Synapses in the Absence of Calcium-Dependent PKC. Journal of Neuroscience, 2012, 32, 13004-13009.	1.7	9
47	Short-Term Presynaptic Plasticity. Cold Spring Harbor Perspectives in Biology, 2012, 4, a005702-a005702.	2.3	369
48	Autistic-like behaviour and cerebellar dysfunction in Purkinje cell Tsc1 mutant mice. Nature, 2012, 488, 647-651.	13.7	756
49	Calcium-Dependent Isoforms of Protein Kinase C Mediate Posttetanic Potentiation at the Calyx of Held. Neuron, 2011, 70, 1005-1019.	3.8	44
50	Presynaptic CB1 Receptors Regulate Synaptic Plasticity at Cerebellar Parallel Fiber Synapses. Journal of Neurophysiology, 2011, 105, 958-963.	0.9	53
51	Short-term forms of presynaptic plasticity. Current Opinion in Neurobiology, 2011, 21, 269-274.	2.0	321
52	Cholinergic Activation of M2 Receptors Leads to Context-Dependent Modulation of Feedforward Inhibition in the Visual Thalamus. PLoS Biology, 2010, 8, e1000348.	2.6	25
53	Somatic Spikes Regulate Dendritic Signaling in Small Neurons in the Absence of Backpropagating Action Potentials. Journal of Neuroscience, 2009, 29, 7803-7814.	1.7	30
54	Inhibitory Regulation of Electrically Coupled Neurons in the Inferior Olive Is Mediated by Asynchronous Release of GABA. Neuron, 2009, 62, 555-565.	3.8	125

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55	Activity-Dependent Regulation of Synapses by Retrograde Messengers. Neuron, 2009, 63, 154-170.	3.8	224
56	Dynamics of Fast and Slow Inhibition from Cerebellar Golgi Cells Allow Flexible Control of Synaptic Integration. Neuron, 2009, 63, 843-853.	3.8	69
57	Active Dendritic Conductances Dynamically Regulate GABA Release from Thalamic Interneurons. Neuron, 2008, 57, 420-431.	3.8	61
58	Timing dependence of the induction of cerebellar LTD. Neuropharmacology, 2008, 54, 213-218.	2.0	85
59	Serotonin Evokes Endocannabinoid Release and Retrogradely Suppresses Excitatory Synapses. Journal of Neuroscience, 2008, 28, 6508-6515.	1.7	100
60	Reliability and Heterogeneity of Calcium Signaling at Single Presynaptic Boutons of Cerebellar Granule Cells. Journal of Neuroscience, 2007, 27, 7888-7898.	1.7	93
61	Differential Expression of Posttetanic Potentiation and Retrograde Signaling Mediate Target-Dependent Short-Term Synaptic Plasticity. Neuron, 2007, 54, 949-959.	3.8	70
62	Retrograde endocannabinoid signaling in the cerebellar cortex. Cerebellum, 2006, 5, 134-145.	1.4	65
63	Sustained Elevation of Dendritic Calcium Evokes Widespread Endocannabinoid Release and Suppression of Synapses onto Cerebellar Purkinje Cells. Journal of Neuroscience, 2006, 26, 6841-6850.	1.7	62
64	Local Interneurons Regulate Synaptic Strength by Retrograde Release of Endocannabinoids. Journal of Neuroscience, 2006, 26, 9935-9943.	1.7	73
65	The Influence of Multivesicular Release and Postsynaptic Receptor Saturation on Transmission at Granule Cell to Purkinje Cell Synapses. Journal of Neuroscience, 2005, 25, 11655-11665.	1.7	63
66	Associative Short-Term Synaptic Plasticity Mediated by Endocannabinoids. Neuron, 2005, 45, 419-431.	3.8	148
67	Endocannabinoids Control the Induction of Cerebellar LTD. Neuron, 2005, 48, 647-659.	3.8	240
68	Presynaptic Calcium Measurements at Physiological Temperatures Using a New Class of Dextran-Conjugated Indicators. Journal of Neurophysiology, 2004, 92, 591-599.	0.9	38
69	Endocannabinoids Inhibit Transmission at Granule Cell to Purkinje Cell Synapses by Modulating Three Types of Presynaptic Calcium Channels. Journal of Neuroscience, 2004, 24, 5623-5631.	1.7	140
70	Synaptic computation. Nature, 2004, 431, 796-803.	13.7	1,367
71	Variance-Mean Analysis in the Presence of a Rapid Antagonist Indicates Vesicle Depletion Underlies Depression at the Climbing Fiber Synapse. Neuron, 2004, 43, 119-131.	3.8	341
72	Synaptic computation. Nature, 2004, 431, 796-803.	13.7	734

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73	Brief presynaptic bursts evoke synapse-specific retrograde inhibition mediated by endogenous cannabinoids. Nature Neuroscience, 2003, 6, 1048-1057.	7.1	210
74	Calcium Dependence of Retrograde Inhibition by Endocannabinoids at Synapses onto Purkinje Cells. Journal of Neuroscience, 2003, 23, 6373-6384.	1.7	109
75	Ultrastructural Contributions to Desensitization at Cerebellar Mossy Fiber to Granule Cell Synapses. Journal of Neuroscience, 2003, 23, 2182-2192.	1.7	128
76	Contributions of Receptor Desensitization and Saturation to Plasticity at the Retinogeniculate Synapse. Neuron, 2002, 33, 779-788.	3.8	135
77	Inhibition of Interneuron Firing Extends the Spread of Endocannabinoid Signaling in the Cerebellum. Neuron, 2002, 34, 787-796.	3.8	159
78	Interaction of Postsynaptic Receptor Saturation with Presynaptic Mechanisms Produces a Reliable Synapse. Neuron, 2002, 36, 1115-1126.	3.8	104
79	Short-Term Synaptic Plasticity. Annual Review of Physiology, 2002, 64, 355-405.	5.6	3,888
80	Assessing the Role of Calcium-Induced Calcium Release in Short-Term Presynaptic Plasticity at Excitatory Central Synapses. Journal of Neuroscience, 2002, 22, 21-28.	1.7	138
81	Retrograde signaling by endocannabinoids. Current Opinion in Neurobiology, 2002, 12, 324-330.	2.0	198
82	Quantal events shape cerebellar interneuron firing. Nature Neuroscience, 2002, 5, 1309-1318.	7.1	193
83	Retrograde Inhibition of Presynaptic Calcium Influx by Endogenous Cannabinoids at Excitatory Synapses onto Purkinje Cells. Neuron, 2001, 29, 717-727.	3.8	782
84	Cerebellar Depolarization-Induced Suppression of Inhibition Is Mediated by Endogenous Cannabinoids. Journal of Neuroscience, 2001, 21, RC174-RC174.	1.7	306
85	Three-Dimensional Comparison of Ultrastructural Characteristics at Depressing and Facilitating Synapses onto Cerebellar Purkinje Cells. Journal of Neuroscience, 2001, 21, 6666-6672.	1.7	271
86	Interplay between Facilitation, Depression, and Residual Calcium at Three Presynaptic Terminals. Journal of Neuroscience, 2000, 20, 1374-1385.	1.7	465
87	Maximinis. Nature Neuroscience, 2000, 3, 1229-1230.	7.1	3
88	Modulation of Transmission during Trains at a Cerebellar Synapse. Journal of Neuroscience, 2000, 20, 1348-1357.	1.7	75
89	Prolonged Synaptic Currents and Glutamate Spillover at the Parallel Fiber to Stellate Cell Synapse. Journal of Neuroscience, 2000, 20, 4423-4434.	1.7	210
90	Probing Fundamental Aspects of Synaptic Transmission with Strontium. Journal of Neuroscience, 2000, 20, 4414-4422.	1.7	133

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91	Monitoring Presynaptic Calcium Dynamics in Projection Fibers by In Vivo Loading of a Novel Calcium Indicator. Neuron, 2000, 27, 25-32.	3.8	82
92	Contributions of Residual Calcium to Fast Synaptic Transmission. Journal of Neuroscience, 1999, 19, 6257-6266.	1.7	80
93	Presynaptic Strontium Dynamics and Synaptic Transmission. Biophysical Journal, 1999, 76, 2029-2042.	0.2	101
94	Optical Measurement of Presynaptic Calcium Currents. Biophysical Journal, 1998, 74, 1549-1563.	0.2	113
95	Delayed Release of Neurotransmitter from Cerebellar Granule Cells. Journal of Neuroscience, 1998, 18, 8214-8227.	1.7	221
96	Calcium Dependence and Recovery Kinetics of Presynaptic Depression at the Climbing Fiber to Purkinje Cell Synapse. Journal of Neuroscience, 1998, 18, 6147-6162.	1.7	368
97	Control of Neurotransmitter Release by Presynaptic Waveform at the Granule Cell to Purkinje Cell Synapse. Journal of Neuroscience, 1997, 17, 3425-3435.	1.7	243
98	The Mechanism of cAMP-Mediated Enhancement at a Cerebellar Synapse. Journal of Neuroscience, 1997, 17, 8687-8694.	1.7	169
99	Mechanism and Kinetics of Heterosynaptic Depression at a Cerebellar Synapse. Journal of Neuroscience, 1997, 17, 9048-9059.	1.7	132
100	Determinants of the Time Course of Facilitation at the Granule Cell to Purkinje Cell Synapse. Journal of Neuroscience, 1996, 16, 5661-5671.	1.7	437
101	Timing of neurotransmission at fast synapses in the mammalian brain. Nature, 1996, 384, 170-172.	13.7	380