Dwight E Bergles

List of Publications by Year
in descending order

115	19,509	18887 64	29333 108
papers	citations	h-index	g-index

139	139	139	19843
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Deficient mitochondrial respiration in astrocytes impairs trace fear conditioning and increases naloxoneâ€precipitated aversion in morphineâ€dependent mice. Glia, 2022, 70, 1289-1300.	2.5	4
2	Deep-learning two-photon fiberscopy for video-rate brain imaging in freely-behaving mice. Nature Communications, 2022, 13, 1534.	5.8	17
3	Stage-specific control of oligodendrocyte survival and morphogenesis by TDP-43. ELife, 2022, 11, .	2.8	18
4	Purinergic Signaling Controls Spontaneous Activity in the Auditory System throughout Early Development. Journal of Neuroscience, 2021, 41, 594-612.	1.7	31
5	MCT1 Deletion in Oligodendrocyte Lineage Cells Causes Late-Onset Hypomyelination and Axonal Degeneration. Cell Reports, 2021, 34, 108610.	2.9	65
6	Reactive astrocyte nomenclature, definitions, and future directions. Nature Neuroscience, 2021, 24, 312-325.	7.1	1,098
7	Multicolor fiber-optic two-photon endomicroscopy for brain imaging. Optics Letters, 2021, 46, 1093.	1.7	13
8	Automated in vivo Tracking of Cortical Oligodendrocytes. Frontiers in Cellular Neuroscience, 2021, 15, 667595.	1.8	9
9	GluA2 overexpression in oligodendrocyte progenitors promotes postinjury oligodendrocyte regeneration. Cell Reports, 2021, 35, 109147.	2.9	19
10	Dual metabotropic glutamate receptor signaling enables coordination of astrocyte and neuron activity in developing sensory domains. Neuron, 2021, 109, 2545-2555.e7.	3.8	23
11	Cortical neurons exhibit diverse myelination patterns that scale between mouse brain regions and regenerate after demyelination. Nature Communications, 2021, 12, 4767.	5.8	36
12	Immune cell modulation of oligodendrocyte lineage cells. Neuroscience Letters, 2020, 715, 134601.	1.0	32
13	Inhibition of neutral sphingomyelinase 2 promotes remyelination. Science Advances, 2020, 6, .	4.7	23
14	Throughput-Speed Product Augmentation for Scanning Fiber-Optic Two-Photon Endomicroscopy. IEEE Transactions on Medical Imaging, 2020, 39, 3779-3787.	5.4	17
15	Ethanol abolishes vigilance-dependent astroglia network activation in mice by inhibiting norepinephrine release. Nature Communications, 2020, 11, 6157.	5.8	27
16	Changes in the Oligodendrocyte Progenitor Cell Proteome with Ageing. Molecular and Cellular Proteomics, 2020, 19, 1281-1302.	2.5	53
17	Persistent Cyfip1 Expression Is Required to Maintain the Adult Subventricular Zone Neurogenic Niche. Journal of Neuroscience, 2020, 40, 2015-2024.	1.7	6
18	Problems and Pitfalls of Identifying Remyelination in Multiple Sclerosis. Cell Stem Cell, 2020, 26, 617-619.	5.2	21

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19	Purinergic signaling in cochlear supporting cells reduces hair cell excitability by increasing the extracellular space. ELife, 2020, 9, .	2.8	33
20	Remyelination alters the pattern of myelin in the cerebral cortex. ELife, 2020, 9, .	2.8	67
21	Oligodendrocyte precursor cells present antigen and are cytotoxic targets in inflammatory demyelination. Nature Communications, 2019, 10, 3887.	5.8	245
22	Oligodendrocytes Support Neuronal Glutamatergic Transmission via Expression of Glutamine Synthetase. Cell Reports, 2019, 27, 2262-2271.e5.	2.9	59
23	Molecularly defined cortical astroglia subpopulation modulates neurons via secretion of Norrin. Nature Neuroscience, 2019, 22, 741-752.	7.1	64
24	TMIC-18. ELECTRICAL CIRCUIT INTEGRATION OF GLIOMA THROUGH NEURON-GLIOMA SYNAPSES AND POTASSIUM CURRENTS. Neuro-Oncology, 2019, 21, vi251-vi251.	0.6	0
25	Electrical and synaptic integration of glioma into neural circuits. Nature, 2019, 573, 539-545.	13.7	706
26	Glutamatergic synaptic input to glioma cells drives brain tumour progression. Nature, 2019, 573, 532-538.	13.7	628
27	Myelin remodeling through experience-dependent oligodendrogenesis in the adult somatosensory cortex. Nature Neuroscience, 2018, 21, 696-706.	7.1	389
28	Oligodendrocytes control potassium accumulation in white matter and seizure susceptibility. ELife, 2018, 7, .	2.8	111
29	Homeostatic Control of Spontaneous Activity in the Developing Auditory System. Neuron, 2018, 99, 511-524.e5.	3.8	124
30	Hair Cell Mechanotransduction Regulates Spontaneous Activity and Spiral Ganglion Subtype Specification in the Auditory System. Cell, 2018, 174, 1247-1263.e15.	13.5	259
31	Transient Opening of the Mitochondrial PermeabilityÂTransition Pore Induces Microdomain Calcium Transients in Astrocyte Processes. Neuron, 2017, 93, 587-605.e7.	3.8	338
32	Through-skull vasculature assessment using fluorescence brain imaging on murine models at around 800 nm. , 2017, , .		1
33	Synergistic Signaling by Light and Acetylcholine in Mouse Iris Sphincter Muscle. Current Biology, 2017, 27, 1791-1800.e5.	1.8	29
34	Changes in the Excitability of Neocortical Neurons in a Mouse Model of Amyotrophic Lateral Sclerosis Are Not Specific to Corticospinal Neurons and Are Modulated by Advancing Disease. Journal of Neuroscience, 2017, 37, 9037-9053.	1.7	81
35	Lineage tracing reveals dynamic changes in oligodendrocyte precursor cells following cuprizoneâ€induced demyelination. Glia, 2017, 65, 2087-2098.	2.5	81
36	Cell-type specific differences in promoter activity of the ALS-linked C9orf72 mouse ortholog. Scientific Reports, 2017, 7, 5685.	1.6	9

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37	Myelinogenic Plasticity of Oligodendrocyte Precursor Cells following Spinal Cord Contusion Injury. Journal of Neuroscience, 2017, 37, 8635-8654.	1.7	104
38	Focus scanning with feedback-control for fiber-optic nonlinear endomicroscopy. Biomedical Optics Express, 2017, 8, 2519.	1.5	16
39	Image Analysis of Dynamic Brain Activity Based on Gray Distance Compensation. Applied Sciences (Switzerland), 2017, 7, 858.	1.3	1
40	Activity-dependent switch of GABAergic inhibition into glutamatergic excitation in astrocyte-neuron networks. ELife, 2016, 5, .	2.8	129
41	NMDA Receptors Enhance Spontaneous Activity and Promote Neuronal Survival in the Developing Cochlea. Neuron, 2016, 89, 672.	3.8	0
42	Glial Cell Calcium Signaling Mediates Capillary Regulation of Blood Flow in the Retina. Journal of Neuroscience, 2016, 36, 9435-9445.	1.7	121
43	Coupled Activation of Primary Sensory Neurons Contributes to Chronic Pain. Neuron, 2016, 91, 1085-1096.	3.8	216
44	Neuromodulators signal through astrocytes to alter neural circuit activity and behaviour. Nature, 2016, 539, 428-432.	13.7	189
45	NMDA Receptors Enhance Spontaneous Activity and Promote Neuronal Survival in the Developing Cochlea. Neuron, 2016, 89, 337-350.	3.8	55
46	Electrophysiological properties of NG2 + cells: Matching physiological studies with gene expression profiles. Brain Research, 2016, 1638, 138-160.	1.1	82
47	Oligodendrocyte Development and Plasticity. Cold Spring Harbor Perspectives in Biology, 2016, 8, a020453.	2.3	402
48	Spontaneous activity in the developing auditory system. Cell and Tissue Research, 2015, 361, 65-75.	1.5	93
49	Early white matter abnormalities, progressive brain pathology and motor deficits in a novel knock-in mouse model of Huntington's disease. Human Molecular Genetics, 2015, 24, 2508-2527.	1.4	78
50	Large-scale recording of astrocyte activity. Current Opinion in Neurobiology, 2015, 32, 95-106.	2.0	56
51	Calcium dynamics in astrocyte processes during neurovascular coupling. Nature Neuroscience, 2015, 18, 210-218.	7.1	235
52	Human astrocytes develop physiological morphology and remain quiescent in a novel 3D matrix. Biomaterials, 2015, 42, 134-143.	5.7	129
53	Spontaneous Activity of Cochlear Hair Cells Triggered by Fluid Secretion Mechanism in Adjacent Support Cells. Cell, 2015, 163, 1348-1359.	13.5	115
54	Neuron-glia signaling in developing retina mediated by neurotransmitter spillover. ELife, 2015, 4, .	2.8	77

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55	Entrapment via Synaptic-Like Connections between NG2 Proteoglycan+ Cells and Dystrophic Axons in the Lesion Plays a Role in Regeneration Failure after Spinal Cord Injury. Journal of Neuroscience, 2014, 34, 16369-16384.	1.7	116
56	Spontaneous regeneration of cochlear supporting cells after neonatal ablation ensures hearing in the adult mouse. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16919-16924.	3.3	67
57	Astrocyte Morphology Is Controlled by Neuron-Derived FGF. Neuron, 2014, 83, 255-257.	3.8	8
58	Multiscale Optical Ca2+ Imaging of Tonal Organization in Mouse Auditory Cortex. Neuron, 2014, 83, 944-959.	3.8	173
59	A selective thyroid hormone Î² receptor agonist enhances human and rodent oligodendrocyte differentiation. Glia, 2014, 62, 1513-1529.	2.5	66
60	Norepinephrine Controls Astroglial Responsiveness to Local Circuit Activity. Neuron, 2014, 82, 1263-1270.	3.8	469
61	Hidden Progenitors Replace Microglia in the Adult Brain. Neuron, 2014, 82, 253-255.	3.8	13
62	Fiber optic fluorescence microscopy for functional brain imaging in awake, mobile mice. , 2014, , .		2
63	Degeneration and impaired regeneration of gray matter oligodendrocytes in amyotrophic lateral sclerosis. Nature Neuroscience, 2013, 16, 571-579.	7.1	485
64	Oligodendrocyte progenitors balance growth with self-repulsion to achieve homeostasis in the adult brain. Nature Neuroscience, 2013, 16, 668-676.	7.1	639
65	The blood-brain barrier: an engineering perspective. Frontiers in Neuroengineering, 2013, 6, 7.	4.8	458
66	Specificity Controls for Immunocytochemistry. Journal of Histochemistry and Cytochemistry, 2012, 60, 174-187.	1.3	88
67	Reduction of motion artifacts during in vivo twoâ€photon imaging of brain through heartbeat triggered scanning. Journal of Physiology, 2012, 590, 2955-2963.	1.3	31
68	The Density of EAAC1 (EAAT3) Glutamate Transporters Expressed by Neurons in the Mammalian CNS. Journal of Neuroscience, 2012, 32, 6000-6013.	1.7	188
69	Neuronal activity regulates glutamate transporter dynamics in developing astrocytes. Glia, 2012, 60, 175-188.	2.5	101
70	Motion compensation for two photon microscopy by optical coherence tomography feedback. , 2011, , .		0
71	NMDA Receptor Signaling in Oligodendrocyte Progenitors Is Not Required for Oligodendrogenesis and Myelination. Journal of Neuroscience, 2011, 31, 12650-12662.	1.7	130
72	A Requirement for Nuclear Factor-ÎºB in Developmental and Plasticity-Associated Synaptogenesis. Journal of Neuroscience, 2011, 31, 5414-5425.	1.7	144

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73	Same players, different game: AMPA receptor regulation in oligodendrocyte progenitors. Nature Neuroscience, 2011, 14, 1358-1360.	7.1	7
74	ATP-induced morphological changes in supporting cells of the developing cochlea. Purinergic Signalling, 2010, 6, 155-166.	1.1	42
75	Neuron-glia synapses in the brain. Brain Research Reviews, 2010, 63, 130-137.	9.1	168
76	Calcium action potentials in hair cells pattern auditory neuron activity before hearing onset. Nature Neuroscience, 2010, 13, 1050-1052.	7.1	183
77	Developmental Regulation of Spontaneous Activity in the Mammalian Cochlea. Journal of Neuroscience, 2010, 30, 1539-1550.	1.7	195
78	Excitability and Synaptic Communication within the Oligodendrocyte Lineage. Journal of Neuroscience, 2010, 30, 3600-3611.	1.7	232
79	Zones of Enhanced Glutamate Release from Climbing Fibers in the Mammalian Cerebellum. Journal of Neuroscience, 2010, 30, 7290-7299.	1.7	70
80	NG2+ CNS Glial Progenitors Remain Committed to the Oligodendrocyte Lineage in Postnatal Life and following Neurodegeneration. Neuron, 2010, 68, 668-681.	3.8	681
81	Photon capture and signalling by melanopsin retinal ganglion cells. Nature, 2009, 457, 281-287.	13.7	251
82	Glial progenitor cells in the adult brain reveal their alternate fate. Nature Neuroscience, 2008, 11, 1365-1367.	7.1	4
83	NG2 cells generate both oligodendrocytes and gray matter astrocytes. Development (Cambridge), 2008, 135, 145-157.	1.2	581
84	The Role of Glutamate Transporters in Synaptic Transmission. , 2008, , 23-61.		4
85	4-Carboxymethoxy-5,7-Dinitroindolinyl-Glu: An Improved Caged Glutamate for Expeditious Ultraviolet and Two-Photon Photolysis in Brain Slices. Journal of Neuroscience, 2007, 27, 6601-6604.	1.7	94
86	Defining the Role of Astrocytes inÂNeuromodulation. Neuron, 2007, 54, 497-500.	3.8	20
87	Analysis of cerebellar Purkinje cells using EAAT4 glutamate transporter promoter reporter in mice generated via bacterial artificial chromosome-mediated transgenesis. Experimental Neurology, 2007, 203, 205-212.	2.0	35
88	Variations in Promoter Activity Reveal a Differential Expression and Physiology of Glutamate Transporters by Glia in the Developing and Mature CNS. Journal of Neuroscience, 2007, 27, 6607-6619.	1.7	287
89	Vesicular release of glutamate from unmyelinated axons in white matter. Nature Neuroscience, 2007, 10, 321-330.	7.1	429
90	The origin of spontaneous activity in the developing auditory system. Nature, 2007, 450, 50-55.	13.7	509

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91	Synaptic communication between neurons and NG2+ cells. Current Opinion in Neurobiology, 2006, 16, 515-521.	2.0	96
92	The Glutamate-Aspartate Transporter GLAST Mediates Glutamate Uptake at Inner Hair Cell Afferent Synapses in the Mammalian Cochlea. Journal of Neuroscience, 2006, 26, 7659-7664.	1.7	90
93	Shape-shifting at a cerebellar synapse allows submillisecond signaling. Nature Neuroscience, 2005, 8, 1279-1281.	7.1	1
94	Î²-Lactam antibiotics offer neuroprotection by increasing glutamate transporter expression. Nature, 2005, 433, 73-77.	13.7	1,379
95	Synthesis and Characterization of 4-Methoxy-7-nitroindolinyl-d-aspartate, a Caged Compound for Selective Activation of Glutamate Transporters andN-Methyl-d-aspartate Receptors in Brain Tissueâ€. Biochemistry, 2005, 44, 3316-3326.	1.2	37
96	Climbing Fiber Innervation of NG2-Expressing Glia in the Mammalian Cerebellum. Neuron, 2005, 46, 773-785.	3.8	177
97	Ncm-d-aspartate: A novel caged d-aspartate suitable for activation of glutamate transporters and N-methyl-d-aspartate (NMDA) receptors in brain tissue. Neuropharmacology, 2005, 49, 831-842.	2.0	7
98	Specificity of antibodies: Unexpected cross-reactivity of antibodies directed against the excitatory amino acid transporter 3 (EAAT3). Neuroscience, 2005, 136, 649-660.	1.1	44
99	Climbing Fiber Activation of EAAT4 Transporters and Kainate Receptors in Cerebellar Purkinje Cells. Journal of Neuroscience, 2004, 24, 103-111.	1.7	92
100	Astrocyte Glutamate Transporters Regulate Metabotropic Glutamate Receptor-Mediated Excitation of Hippocampal Interneurons. Journal of Neuroscience, 2004, 24, 4551-4559.	1.7	154
101	Synaptic signaling between GABAergic interneurons and oligodendrocyte precursor cells in the hippocampus. Nature Neuroscience, 2004, 7, 24-32.	7.1	372
102	Glutamate transporters bring competition to the synapse. Current Opinion in Neurobiology, 2004, 14, 346-352.	2.0	241
103	Synaptic signaling between neurons and glia. Glia, 2004, 47, 290-298.	2.5	121
104	Glutamate transporters bring competition to the synapse. Current Opinion in Neurobiology, 2004, 14, 346-346.	2.0	14
105	Glutamate uptake by astroglia. , 2004, , 239-261.		0
106	Comparison of Coupled and Uncoupled Currents during Glutamate Uptake by GLT-1 Transporters. Journal of Neuroscience, 2002, 22, 10153-10162.	1.7	182
107	Physiological characteristics of NG2-expressing glial cells. Journal of Neurocytology, 2002, 31, 537-549.	1.6	72
108	Glutamatergic synapses on oligodendrocyte precursor cells in the hippocampus. Nature, 2000, 405, 187-191.	13.7	880

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109	Clearance of glutamate inside the synapse and beyond. Current Opinion in Neurobiology, 1999, 9, 293-298.	2.0	317
110	Glutamate Release Monitored with Astrocyte Transporter Currents during LTP. Neuron, 1998, 21, 425-433.	3.8	141
111	Glial Contribution to Glutamate Uptake at Schaffer Collateralâ€“Commissural Synapses in the Hippocampus. Journal of Neuroscience, 1998, 18, 7709-7716.	1.7	267
112	Glutamate transporter currents in Bergmann glial cells follow the time course of extrasynaptic glutamate. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 14821-14825.	3.3	217
113	Synaptic Activation of Glutamate Transporters in Hippocampal Astrocytes. Neuron, 1997, 19, 1297-1308.	3.8	487
114	Excitatory actions of norepinephrine on multiple classes of hippocampal CA1 interneurons. Journal of Neuroscience, 1996, 16, 572-585.	1.7	177
115	Mossy fiber growth and synaptogenesis in rat hippocampal slices in vitro. Journal of Neuroscience, 1994, 14, 1060-1078.	1.7	101