Devin K Binder

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7945911/publications.pdf

Version: 2024-02-01

136 papers	8,814 citations	46918 47 h-index	46693 89 g-index
142 all docs	142 docs citations	142 times ranked	9520 citing authors

#	Article	IF	Citations
1	Mini Review. Growth Factors, 2004, 22, 123-131.	0.5	1,106
2	BDNF and epilepsy: too much of a good thing?. Trends in Neurosciences, 2001, 24, 47-53.	4.2	401
3	Increased seizure duration and slowed potassium kinetics in mice lacking aquaporin-4 water channels. Glia, 2006, 53, 631-636.	2.5	314
4	Risk Factors for Hemorrhage during Microelectrode-guided Deep Brain Stimulator Implantation for Movement Disorders. Neurosurgery, 2005, 56, 722-732.	0.6	290
5	Three distinct roles of aquaporin-4 in brain function revealed by knockout mice. Biochimica Et Biophysica Acta - Biomembranes, 2006, 1758, 1085-1093.	1.4	278
6	Functional changes in astroglial cells in epilepsy. Glia, 2006, 54, 358-368.	2.5	278
7	Idiopathic Intracranial Hypertension. Neurosurgery, 2004, 54, 538-552.	0.6	233
8	Analysis of Astroglial K+ Channel Expression in the Developing Hippocampus Reveals a Predominant Role of the Kir4.1 Subunit. Journal of Neuroscience, 2009, 29, 7474-7488.	1.7	199
9	In Vivo Measurement of Brain Extracellular Space Diffusion by Cortical Surface Photobleaching. Journal of Neuroscience, 2004, 24, 8049-8056.	1.7	193
10	Increased seizure threshold in mice lacking aquaporin-4 water channels. NeuroReport, 2004, 15, 259-262.	0.6	188
11	Selective Inhibition of Kindling Development by Intraventricular Administration of TrkB Receptor Body. Journal of Neuroscience, 1999, 19, 1424-1436.	1.7	156
12	Immunohistochemical Evidence of Seizure-Induced Activation of trk Receptors in the Mossy Fiber Pathway of Adult Rat Hippocampus. Journal of Neuroscience, 1999, 19, 4616-4626.	1.7	149
13	Altered white matter integrity in temporal lobe epilepsy: Association with cognitive and clinical profiles. Epilepsia, 2010, 51, 536-545.	2.6	143
14	Impact of aquaporinâ€4 channels on K⁺ buffering and gap junction coupling in the hippocampus. Glia, 2011, 59, 973-980.	2.5	142
15	GLT-1-Dependent Disruption of CNS Glutamate Homeostasis and Neuronal Function by the Protozoan Parasite Toxoplasma gondii. PLoS Pathogens, 2016, 12, e1005643.	2.1	138
16	Aquaporinâ€4 and epilepsy. Glia, 2012, 60, 1203-1214.	2.5	136
17	Null Mutation of c-fosImpairs Structural and Functional Plasticities in the Kindling Model of Epilepsy. Journal of Neuroscience, 1996, 16, 3827-3836.	1.7	134
18	The Perineuronal â€˜Safetyâ€™ Net? Perineuronal Net Abnormalities in Neurological Disorders. Frontiers in Molecular Neuroscience, 2018, 11, 270.	1.4	125

#	Article	IF	Citations
19	Hemorrhagic Complications of Microelectrode-Guided Deep Brain Stimulation. Stereotactic and Functional Neurosurgery, 2003, 80, 28-31.	0.8	120
20	A resting EEG study of neocortical hyperexcitability and altered functional connectivity in fragile X syndrome. Journal of Neurodevelopmental Disorders, 2017, 9, 11.	1.5	119
21	Lumbar Spinal Stenosis. Seminars in Neurology, 2002, 22, 157-166.	0.5	114
22	Surgical treatment of occipital lobe epilepsy. Journal of Neurosurgery, 2008, 109, 57-69.	0.9	113
23	Impairment of Select Forms of Spatial Memory and Neurotrophin-Dependent Synaptic Plasticity by Deletion of Glial Aquaporin-4. Journal of Neuroscience, 2011, 31, 6392-6397.	1.7	111
24	Genetic Reduction of Matrix Metalloproteinase-9 Promotes Formation of Perineuronal Nets Around Parvalbumin-Expressing Interneurons and Normalizes Auditory Cortex Responses in Developing Fmr1 Knock-Out Mice. Cerebral Cortex, 2018, 28, 3951-3964.	1.6	110
25	Regulation of astrocyte glutamate transporter-1 (GLT1) and aquaporin-4 (AQP4) expression in a model of epilepsy. Experimental Neurology, 2016, 283, 85-96.	2.0	109
26	Expression of the Astrocyte Water Channel Aquaporin-4 in the Mouse Brain. ASN Neuro, 2015, 7, 175909141560548.	1.5	104
27	Decreased expression of the glial water channel aquaporin-4 in the intrahippocampal kainic acid model of epileptogenesis. Experimental Neurology, 2012, 235, 246-255.	2.0	102
28	Translation-relevant EEG phenotypes in a mouse model of Fragile X Syndrome. Neurobiology of Disease, 2018, 115, 39-48.	2.1	102
29	The role of aquaporin-4 in synaptic plasticity, memory and disease. Brain Research Bulletin, 2018, 136, 118-129.	1.4	97
30	Expression of the Aquaporin-1 Water Channel in Human Glial Tumors. Neurosurgery, 2005, 56, 375-381.	0.6	92
31	Matrix metalloproteinase-9 deletion rescues auditory evoked potential habituation deficit in a mouse model of Fragile X Syndrome. Neurobiology of Disease, 2016, 89, 126-135.	2.1	88
32	Sensory Processing Phenotypes in Fragile X Syndrome. ASN Neuro, 2018, 10, 175909141880109.	1.5	88
33	Improved long-term outcome after transient cerebral ischemia in aquaporin-4 knockout mice. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 277-290.	2.4	84
34	Protective role of aquaporinâ€4 water channels after contusion spinal cord injury. Annals of Neurology, 2010, 67, 794-801.	2.8	78
35	The Role of Astrocytic Aquaporin-4 in Synaptic Plasticity and Learning and Memory. Frontiers in Integrative Neuroscience, 2016, 10, 8.	1.0	72
36	Local cortical hypoperfusion imaged with CT perfusion during postictal Toddâ€™s paresis. Neuroradiology, 2008, 50, 397-401.	1.1	71

#	Article	IF	Citations
37	Aquaporin-4â€“dependent K+ and water transport modeled in brain extracellular space following neuroexcitation. Journal of General Physiology, 2013, 141, 119-132.	0.9	70
38	Multispectral imaging of tissue absorption and scattering using spatial frequency domain imaging and a computed-tomography imaging spectrometer. Journal of Biomedical Optics, 2011, 16, 011015.	1.4	64
39	Surgical treatment of parietal lobe epilepsy. Journal of Neurosurgery, 2009, 110, 1170-1178.	0.9	62
40	Aquaporin-4 water channels and synaptic plasticity in the hippocampus. Neurochemistry International, 2013, 63, 702-711.	1.9	62
41	Deletion of aquaporinâ€4 renders retinal glial cells more susceptible to osmotic stress. Journal of Neuroscience Research, 2010, 88, 2877-2888.	1.3	59
42	Primary brachial plexus tumors: imaging, surgical, and pathological findings in 25 patients. Neurosurgical Focus, 2004, 16, 1-6.	1.0	58
43	Proteases and the biology of glioma invasion. Journal of Neuro-Oncology, 2002, 56, 149-158.	1.4	55
44	Transsylvian functional hemispherectomy. Child's Nervous System, 2006, 22, 960-966.	0.6	55
45	Deletion of Fmr1 from Forebrain Excitatory Neurons Triggers Abnormal Cellular, EEG, and Behavioral Phenotypes in the Auditory Cortex of a Mouse Model of Fragile X Syndrome. Cerebral Cortex, 2020, 30, 969-988.	1.6	55
46	Modern Neurosurgery for Psychiatric Disorders. Neurosurgery, 2000, 47, 9-23.	0.6	55
47	Transparent nanocrystalline yttria-stabilized-zirconia calvarium prosthesis. Nanomedicine: Nanotechnology, Biology, and Medicine, 2013, 9, 1135-1138.	1.7	51
48	Spontaneous intracranial hypotension associated with transdural thoracic osteophyte reversed by primary dural repair. Journal of Neurosurgery: Spine, 2005, 2, 614-618.	0.9	49
49	A History of Todd and His Paralysis. Neurosurgery, 2004, 54, 480-487.	0.6	47
50	Turning down the volume: Astrocyte volume change in the generation and termination of epileptic seizures. Neurobiology of Disease, 2017, 104, 24-32.	2.1	47
51	Developmental Changes in EEG Phenotypes in a Mouse Model of Fragile X Syndrome. Neuroscience, 2019, 398, 126-143.	1.1	47
52	Multielectrode array analysis of EEG biomarkers in a mouse model of Fragile X Syndrome. Neurobiology of Disease, 2020, 138, 104794.	2.1	47
53	Post-translational Regulation of GLT-1 in Neurological Diseases and Its Potential as an Effective Therapeutic Target. Frontiers in Molecular Neuroscience, 2019, 12, 164.	1.4	46
54	William P. van Wagenen and the first corpus callosotomies for epilepsy. Journal of Neurosurgery, 2008, 108, 608-613.	0.9	45

#	Article	IF	Citations
55	Tumor-associated epilepsy. Neurosurgical Focus, 2009, 27, E4.	1.0	45
56	Trigeminal Neuralgia in a Patient with a Dural Arteriovenous Fistula in Meckel's Cave: Case Report. Neurosurgery, 2003, 53, 216-221.	0.6	42
57	Astrocyte Glutamate Uptake and Signaling as Novel Targets for Antiepileptogenic Therapy. Frontiers in Neurology, 2020, 11, 1006.	1.1	42
58	Acute pharmacological inhibition of matrix metalloproteinaseâ€9 activity during development restores perineuronal net formation and normalizes auditory processing in Fmr1 KO mice. Journal of Neurochemistry, 2020, 155, 538-558.	2.1	41
59	Chronic demyelination-induced seizures. Neuroscience, 2017, 346, 409-422.	1.1	40
60	Osmotic Edema Rapidly Increases Neuronal Excitability Through Activation of NMDA Receptor-Dependent Slow Inward Currents in Juvenile and Adult Hippocampus. ASN Neuro, 2015, 7, 175909141560511.	1.5	39
61	Effect of deep brain stimulation on autonomic dysfunction in patients with Parkinsonâ€™s disease. Journal of Clinical Neuroscience, 2011, 18, 804-806.	0.8	38
62	Decreased light attenuation in cerebral cortex during cerebral edema detected using optical coherence tomography. Neurophotonics, 2014, 1, 025004.	1.7	36
63	Toward new paradigms of seizure detection. Epilepsy and Behavior, 2013, 26, 247-252.	0.9	33
64	Potential role of the glial water channel aquaporin-4 in epilepsy. Neuron Glia Biology, 2007, 3, 287-297.	2.0	32
65	Neurotrophins in the dentate gyrus. Progress in Brain Research, 2007, 163, 371-397.	0.9	32
66	Cerebral salt wasting and elevated brain natriuretic peptide levels after traumatic brain injury: 2 case reports. World Neurosurgery, 2008, 69, 226-229.	1.3	32
67	Early optical detection of cerebral edema in vivo. Journal of Neurosurgery, 2011, 114, 470-477.	0.9	32
68	Astrocytes and Epilepsy. Neurochemical Research, 2021, 46, 2687-2695.	1.6	32
69	THE SEMINAL CONTRIBUTIONS OF JOHANN-CHRISTIAN REIL TO ANATOMY, PHYSIOLOGY, AND PSYCHIATRY. Neurosurgery, 2007, 61, 1091-1096.	0.6	31
70	Hippocampal and Cortical Pyramidal Neurons Swell in Parallel with Astrocytes during Acute Hypoosmolar Stress. Frontiers in Cellular Neuroscience, 2017, 11, 275.	1.8	31
71	Transcranial Motor Evoked Potential Recording in a Case of Kernohan's Notch Syndrome: Case Report. Neurosurgery, 2004, 54, 999-1003.	0.6	30
72	Aquaporin-4 Dysregulation in a Controlled Cortical Impact Injury Model of Posttraumatic Epilepsy. Neuroscience, 2020, 428, 140-153.	1.1	30

#	Article	IF	Citations
73	Transcortical Cooling Inhibits Hippocampal-kindled Seizures in the Rat. Epilepsia, 2005, 46, 1881-1887.	2.6	29
74	Wilder Penfield, PÃo Del RÃo-hortega, and the Discovery of Oligodendroglia. Neurosurgery, 2007, 60, 940-948.	0.6	28
75	Correlation of MRI and histopathology in epileptogenic parietal and occipital lobe lesions. Seizure: the Journal of the British Epilepsy Association, 2007, 16, 608-614.	0.9	28
76	Glial cell changes in epilepsy: Overview of the clinical problem and therapeutic opportunities. Neurochemistry International, 2013, 63, 638-651.	1.9	28
77	Stabilin-1 expression in tumor associated macrophages. Brain Research, 2012, 1481, 71-78.	1.1	27
78	Aquaporin-4-dependent edema clearance following status epilepticus. Epilepsy Research, 2012, 98, 264-268.	0.8	27
79	Reduction of Cerebral Edema after Traumatic Brain Injury Using an Osmotic Transport Device. Journal of Neurotrauma, 2014, 31, 1948-1954.	1.7	26
80	Reduced perineuronal net expression in Fmr1 KO mice auditory cortex and amygdala is linked to impaired fear-associated memory. Neurobiology of Learning and Memory, 2019, 164, 107042.	1.0	25
81	Regulation of Synaptosomal GLT-1 and GLAST during Epileptogenesis. Neuroscience, 2019, 411, 185-201.	1.1	24
82	Characteristics of auras in patients undergoing temporal lobectomy. Journal of Neurosurgery, 2009, 111, 1283-1289.	0.9	23
83	In vivo detection of cortical optical changes associated with seizure activity with optical coherence tomography. Biomedical Optics Express, 2012, 3, 2700.	1.5	23
84	Reversal of ultrasonic vocalization deficits in a mouse model of Fragile X Syndrome with minocycline treatment or genetic reduction of MMP-9. Behavioural Brain Research, 2019, 372, 112068.	1.2	22
85	Reusable Multielectrode Array Technique for Electroencephalography in Awake Freely Moving Mice. Frontiers in Integrative Neuroscience, 2018, 12, 53.	1.0	21
86	Neural Correlates of Auditory Hypersensitivity in Fragile X Syndrome. Frontiers in Psychiatry, 2021, 12, 720752.	1.3	21
87	Astrocytes: Stars of the Sacred Disease. Epilepsy Currents, 2018, 18, 172-179.	0.4	20
88	Genetic reduction of MMP-9 in the Fmr1 KO mouse partially rescues prepulse inhibition of acoustic startle response. Brain Research, 2019, 1719, 24-29.	1.1	20
89	Neurocutaneous melanosis presenting with hydrocephalus. Journal of Neurosurgery: Pediatrics, 2005, 102, 96-100.	0.8	19
90	Beneficial effects of sound exposure on auditory cortex development in a mouse model of Fragile X Syndrome. Neurobiology of Disease, 2020, 134, 104622.	2.1	18

#	Article	IF	Citations
91	Abnormal development of auditory responses in the inferior colliculus of a mouse model of Fragile X Syndrome. Journal of Neurophysiology, 2020, 123, 2101-2121.	0.9	17
92	Spinal Epidural Hematoma. Neurosurgery Quarterly, 2004, 14, 51-59.	0.1	16
93	Effects of Deep Brain Stimulation on Autonomic Function. Brain Sciences, 2016, 6, 33.	1.1	16
94	Minocycline Treatment Reverses Sound Evoked EEG Abnormalities in a Mouse Model of Fragile X Syndrome. Frontiers in Neuroscience, 2020, 14, 771.	1.4	16
95	Evaluation of a transparent cranial implant as a permanent window for cerebral blood flow imaging. Biomedical Optics Express, 2018, 9, 4879.	1.5	16
96	Intrathecal saline infusion in the treatment of obtundation associated with spontaneous intracranial hypotension: technical case report. Neurosurgery, 2002, 51, 830-6; discussion 836-7.	0.6	16
97	Neocortical localization and thalamocortical modulation of neuronal hyperexcitability contribute to Fragile X Syndrome. Communications Biology, 2022, 5, 442.	2.0	16
98	Conquering the third ventricular chamber. Journal of Neurosurgery, 2009, 111, 590-599.	0.9	15
99	The maestro don Gonzalo RodrÃguezâ€Łafora. Epilepsia, 2008, 49, 943-947.	2.6	14
100	Glial cells as primary therapeutic targets for epilepsy. Neurochemistry International, 2013, 63, 635-637.	1.9	14
101	Astrocyte-Selective Volume Increase in Elevated Extracellular Potassium Conditions Is Mediated by the Na⁺/K⁺ ATPase and Occurs Independently of Aquaporin 4. ASN Neuro, 2020, 12, 175909142096715.	1.5	14
102	Modulation of posttraumatic epileptogenesis in aquaporinâ€4 knockout mice. Epilepsia, 2020, 61, 1503-1514.	2.6	14
103	Enhanced near infrared optical access to the brain with a transparent cranial implant and scalp optical clearing. Biomedical Optics Express, 2019, 10, 3369.	1.5	14
104	Thinned-skull Cortical Window Technique for In Vivo Optical Coherence Tomography Imaging. Journal of Visualized Experiments, 2012, , e50053.	0.2	11
105	2014 Epilepsy Benchmarks Area II: Prevent Epilepsy and Its Progression. Epilepsy Currents, 2016, 16, 187-191.	0.4	11
106	Targeted overexpression of glutamate transporter-1 reduces seizures and attenuates pathological changes in a mouse model of epilepsy. Neurobiology of Disease, 2021, 157, 105443.	2.1	11
107	Isolated amygdala neurocysticercosis in a patient presenting with dÃ©jÃ vu and olfactory auras. Journal of Neurosurgery: Pediatrics, 2009, 3, 538-541.	0.8	10
108	HIPPOCAMPUS MINOR, CALCAR AVIS, AND THE HUXLEY-OWEN DEBATE. Neurosurgery, 2009, 65, 1098-1105.	0.6	10

#	Article	IF	Citations
109	Implantable Osmotic Transport Device Can Reduce Edema After Severe Contusion Spinal Cord Injury. Frontiers in Bioengineering and Biotechnology, 2020, 8, 806.	2.0	10
110	Focused ultrasound and other lesioning in the treatment of tremor. Journal of the Neurological Sciences, 2022, 435, 120193.	0.3	10
111	Improved survival following cerebral edema using a novel hollow fiber-hydrogel device. Journal of Neurosurgery, 2012, 116, 1389-1394.	0.9	9
112	Localization of cortical tissue optical changes during seizure activity in vivo with optical coherence tomography. Biomedical Optics Express, 2015, 6, 1812.	1.5	9
113	Epilepsy Benchmarks Area II: Prevent Epilepsy and Its Progression. Epilepsy Currents, 2020, 20, 14S-22S.	0.4	9
114	The PDE10A Inhibitor TAK-063 Reverses Sound-Evoked EEG Abnormalities in a Mouse Model of Fragile X Syndrome. Neurotherapeutics, 2021, 18, 1175-1187.	2.1	8
115	Robert Bentley Todd's Contribution to Cell Theory and The Neuron Doctrine. Journal of the History of the Neurosciences, 2011, 20, 123-134.	0.1	7
116	Increased 2-arachidonoyl-sn-glycerol levels normalize cortical responses to sound and improve behaviors in Fmr1 KO mice. Journal of Neurodevelopmental Disorders, 2021, 13, 47.	1.5	7
117	Mechanisms Underlying Aquaporin-4 Subcellular Mislocalization in Epilepsy. Frontiers in Cellular Neuroscience, 0, 16, .	1.8	7
118	THE MADNESS OF DIONYSUS. Neurosurgery, 2007, 61, 626-632.	0.6	6
119	Types of Epilepsy. , 2016, , 75-92.		6
120	Glutamate Metabolism. , 2016, , 197-224.		6
121	Optical Access to Arteriovenous Cerebral Microcirculation Through a Transparent Cranial Implant. Lasers in Surgery and Medicine, 2019, 51, 920-932.	1.1	6
122	Targeting glutamate transporter-1 in neurological diseases. Oncotarget, 2017, 8, 22311-22312.	0.8	6
123	FRIEDRICH-CHRISTIAN ROSENTHAL. Neurosurgery, 2006, 59, 1328-1333.	0.6	4
124	Chronic Brain Imaging Across a Transparent Nanocrystalline Yttria-Stabilized-Zirconia Cranial Implant. Frontiers in Bioengineering and Biotechnology, 2020, 8, 659.	2.0	4
125	Reduction of Cerebral Edema via an Osmotic Transport Device Improves Functional Outcome after Traumatic Brain Injury in Mice. Acta Neurochirurgica Supplementum, 2016, 121, 285-289.	0.5	4
126	Modern Neurosurgery for Psychiatric Disorders. Neurosurgery, 2001, 48, 1193-1194.	0.6	4

#	Article	IF	Citations
127	Unaltered Glutamate Transporter-1 Protein Levels in Aquaporin-4 Knockout Mice. ASN Neuro, 2017, 9, 175909141668784.	1.5	3
128	Differential densimetry: A method for determining ultra-low fluid flux and tissue permeability. AIP Advances, 2019, 9, 095063.	0.6	3
129	Aquaporin-4 and spinal cord injury. World Journal of Neurology, 2016, 6, 1.	0.6	3
130	Response: BDNF and epilepsy â€“ the bad could turn out to be good. Trends in Neurosciences, 2001, 24, 319.	4.2	2
131	Regulation of NRG-1-ErbB4 signaling and neuroprotection by exogenous neuregulin-1 in a mouse model of epilepsy. Neurobiology of Disease, 2021, 161, 105545.	2.1	2
132	Multiple root avulsions from the brachial plexus. Neurosurgical Focus, 2005, 19, 1.	1.0	1
133	Response to â€œWhen can AQP4 assist transporter-mediated K+ uptake?â€• Journal of General Physiology, 2013, 142, 91-92.	0.9	0
134	Therapeutic Targets and Future Directions. , 2016, , 343-366.		0
135	Robert Bentley Toddâ€™s contributions to the structure and function of nerve tissue. Journal of the History of the Neurosciences, 2017, 26, 336-337.	0.1	0
136	Localization of Cortical Tissue Optical Changes During Seizure Activity in vivo with Optical Coherence Tomography. , 2014, , .		0