

Scott C Baraban

List of Publications by Year in descending order

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118
papers

7,620
citations

46918

47
h-index

58464

82
g-index

126
all docs

126
docs citations

126
times ranked

7851
citing authors

#	ARTICLE	IF	CITATIONS
1	Mice lacking Dlx1 show subtype-specific loss of interneurons, reduced inhibition and epilepsy. <i>Nature Neuroscience</i> , 2005, 8, 1059-1068.	7.1	458
2	Drug screening in <i>Scn1a</i> zebrafish mutant identifies clemizole as a potential Dravet syndrome treatment. <i>Nature Communications</i> , 2013, 4, 2410.	5.8	335
3	Intrinsically determined cell death of developing cortical interneurons. <i>Nature</i> , 2012, 491, 109-113.	13.7	293
4	Knock-Out Mice Reveal a Critical Antiepileptic Role for Neuropeptide Y. <i>Journal of Neuroscience</i> , 1997, 17, 8927-8936.	1.7	285
5	GABA progenitors grafted into the adult epileptic brain control seizures and abnormal behavior. <i>Nature Neuroscience</i> , 2013, 16, 692-697.	7.1	250
6	Animal models in epilepsy research: legacies and new directions. <i>Nature Neuroscience</i> , 2015, 18, 339-343.	7.1	209
7	Dissociation of Synchronization and Excitability in Furosemide Blockade of Epileptiform Activity. <i>Science</i> , 1995, 270, 99-102.	6.0	197
8	Osmolarity, ionic flux, and changes in brain excitability. <i>Epilepsy Research</i> , 1998, 32, 275-285.	0.8	196
9	Reduction of seizures by transplantation of cortical GABAergic interneuron precursors into <i>Kv1.1</i> mutant mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 15472-15477.	3.3	187
10	Clemizole and modulators of serotonin signalling suppress seizures in Dravet syndrome. <i>Brain</i> , 2017, 140, aww342.	3.7	174
11	Interneuron Diversity series: Interneuronal neuropeptides are endogenous regulators of neuronal excitability. <i>Trends in Neurosciences</i> , 2004, 27, 135-142.	4.2	172
12	Cortical Inhibition Modified by Embryonic Neural Precursors Grafted into the Postnatal Brain. <i>Journal of Neuroscience</i> , 2006, 26, 7380-7389.	1.7	170
13	Dysfunction of Synaptic Inhibition in Epilepsy Associated with Focal Cortical Dysplasia. <i>Journal of Neuroscience</i> , 2005, 25, 9649-9657.	1.7	165
14	<i>Dlx5</i> and <i>Dlx6</i> Regulate the Development of Parvalbumin-Expressing Cortical Interneurons. <i>Journal of Neuroscience</i> , 2010, 30, 5334-5345.	1.7	162
15	Zebrafish as a model for studying genetic aspects of epilepsy. <i>DMM Disease Models and Mechanisms</i> , 2010, 3, 144-148.	1.2	139
16	Chapter 8 Role of medulla oblongata in generation of sympathetic and vagal outflows. <i>Progress in Brain Research</i> , 1996, 107, 127-144.	0.9	129
17	Neocortical hyperexcitability in a human case of tuberous sclerosis complex and mice lacking neuronal expression of <i>TSC1</i> . <i>Annals of Neurology</i> , 2007, 61, 139-152.	2.8	122
18	Stromal-Derived Factor-1 (<i>CXCL12</i>) Regulates Laminar Position of Cajal-Retzius Cells in Normal and Dysplastic Brains. <i>Journal of Neuroscience</i> , 2006, 26, 9404-9412.	1.7	121

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19	A Large-scale Mutagenesis Screen to Identify Seizure-resistant Zebrafish. <i>Epilepsia</i> , 2007, 48, 1151-1157.	2.6	121
20	Lhx6 Directly Regulates Arx and CXCR7 to Determine Cortical Interneuron Fate and Laminar Position. <i>Neuron</i> , 2014, 82, 350-364.	3.8	118
21	Large-Scale Phenotype-Based Antiepileptic Drug Screening in a Zebrafish Model of Dravet Syndrome. <i>ENeuro</i> , 2015, 2, ENEURO.0068-15.2015.	0.9	113
22	Hippocampal Heterotopia Lack Functional Kv4.2 Potassium Channels in the Methylazoxymethanol Model of Cortical Malformations and Epilepsy. <i>Journal of Neuroscience</i> , 2001, 21, 6626-6634.	1.7	112
23	A novel zebrafish model of hyperthermia-induced seizures reveals a role for TRPV4 channels and NMDA-type glutamate receptors. <i>Experimental Neurology</i> , 2012, 237, 199-206.	2.0	109
24	14-3-3 μ and β Regulate Neurogenesis and Differentiation of Neuronal Progenitor Cells in the Developing Brain. <i>Journal of Neuroscience</i> , 2014, 34, 12168-12181.	1.7	102
25	Electrophysiology of CA1 pyramidal neurons in an animal model of neuronal migration disorders: prenatal methylazoxymethanol treatment. <i>Epilepsy Research</i> , 1995, 22, 145-156.	0.8	100
26	Spontaneous Seizures and Altered Gene Expression in GABA Signaling Pathways in a <i>mind bomb</i> Mutant Zebrafish. <i>Journal of Neuroscience</i> , 2010, 30, 13718-13728.	1.7	96
27	Emerging epilepsy models: insights from mice, flies, worms and fish. <i>Current Opinion in Neurology</i> , 2007, 20, 164-168.	1.8	95
28	Epilepsy, Behavioral Abnormalities, and Physiological Comorbidities in Syntaxin-Binding Protein 1 (STXBP1) Mutant Zebrafish. <i>PLoS ONE</i> , 2016, 11, e0151148.	1.1	87
29	Flurothyl seizure susceptibility in rats following prenatal methylazoxymethanol treatment. <i>Epilepsy Research</i> , 1996, 23, 189-194.	0.8	86
30	Effects of antiepileptic drugs on induced epileptiform activity in a rat model of dysplasia. <i>Epilepsy Research</i> , 2002, 50, 251-264.	0.8	85
31	A role for the mTOR pathway in surface expression of AMPA receptors. <i>Neuroscience Letters</i> , 2006, 401, 35-39.	1.0	82
32	Preclinical Animal Models for Dravet Syndrome: Seizure Phenotypes, Comorbidities and Drug Screening. <i>Frontiers in Pharmacology</i> , 2018, 9, 573.	1.6	77
33	Characterization of heterotopic cell clusters in the hippocampus of rats exposed to methylazoxymethanol in utero. <i>Epilepsy Research</i> , 2000, 39, 87-102.	0.8	76
34	Network Properties Revealed during Multi-Scale Calcium Imaging of Seizure Activity in Zebrafish. <i>ENeuro</i> , 2019, 6, ENEURO.0041-19.2019.	0.9	74
35	<i>Dlx1</i> and <i>Dlx2</i> Promote Interneuron GABA Synthesis, Synaptogenesis, and Dendritogenesis. <i>Cerebral Cortex</i> , 2018, 28, 3797-3815.	1.6	72
36	Modulation of Burst Frequency, Duration, and Amplitude in the Zero-Ca ²⁺ Model of Epileptiform Activity. <i>Journal of Neurophysiology</i> , 1999, 82, 2262-2270.	0.9	70

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37	Impaired neural development in a zebrafish model for Lowe syndrome. <i>Human Molecular Genetics</i> , 2012, 21, 1744-1759.	1.4	69
38	Neuropeptide Y and epilepsy: recent progress, prospects and controversies. <i>Neuropeptides</i> , 2004, 38, 261-265.	0.9	68
39	Olig1 Function Is Required to Repress Dlx1/2 and Interneuron Production in Mammalian Brain. <i>Neuron</i> , 2014, 81, 574-587.	3.8	63
40	Effects of morphine and morphine withdrawal on adrenergic neurons of the rat rostral ventrolateral medulla. <i>Brain Research</i> , 1995, 676, 245-257.	1.1	60
41	NPAS1 Represses the Generation of Specific Subtypes of Cortical Interneurons. <i>Neuron</i> , 2014, 84, 940-953.	3.8	60
42	Altered Glycolysis and Mitochondrial Respiration in a Zebrafish Model of Dravet Syndrome. <i>ENeuro</i> , 2016, 3, ENEURO.0008-16.2016.	0.9	60
43	A Novel Long-term, Multi-Channel and Non-invasive Electrophysiology Platform for Zebrafish. <i>Scientific Reports</i> , 2016, 6, 28248.	1.6	59
44	Heterotopic Neurons with Altered Inhibitory Synaptic Function in an Animal Model of Malformation-Associated Epilepsy. <i>Journal of Neuroscience</i> , 2002, 22, 7596-7605.	1.7	57
45	Target-Specific Neuropeptide Y-Ergic Synaptic Inhibition and Its Network Consequences within the Mammalian Thalamus. <i>Journal of Neuroscience</i> , 2003, 23, 9639-9649.	1.7	55
46	Altered Glutamate Receptor/Transporter Expression and Spontaneous Seizures in Rats Exposed to Methylazoxymethanol in Utero. <i>Epilepsia</i> , 2007, 48, 158-68.	2.6	54
47	Y5 Receptors Mediate Neuropeptide Y Actions at Excitatory Synapses in Area CA3 of the Mouse Hippocampus. <i>Journal of Neurophysiology</i> , 2002, 87, 558-566.	0.9	52
48	Interneuron Transplantation as a Treatment for Epilepsy. <i>Cold Spring Harbor Perspectives in Medicine</i> , 2015, 5, a022376.	2.9	52
49	Bidirectional homeostatic plasticity induced by interneuron cell death and transplantation in vivo. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 492-497.	3.3	49
50	The promise of an interneuron-based cell therapy for epilepsy. <i>Developmental Neurobiology</i> , 2011, 71, 107-117.	1.5	45
51	Characterization of Inhibitory Circuits in the Malformed Hippocampus of <i>Lis1</i> Mutant Mice. <i>Journal of Neurophysiology</i> , 2007, 98, 2737-2746.	0.9	43
52	Advancing epilepsy treatment through personalized genetic zebrafish models. <i>Progress in Brain Research</i> , 2016, 226, 195-207.	0.9	43
53	Persistent seizure control in epileptic mice transplanted with gamma-aminobutyric acid progenitors. <i>Annals of Neurology</i> , 2017, 82, 530-542.	2.8	43
54	Neuropeptide Y and Limbic Seizures. <i>Reviews in the Neurosciences</i> , 1998, 9, 117-28.	1.4	42

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55	Neuropeptide Y modulates a G protein-coupled inwardly rectifying potassium current in the mouse hippocampus. <i>Neuroscience Letters</i> , 2003, 340, 9-12.	1.0	42
56	Abnormal Cortical Cells and Astrocytomas in the Eker Rat Model of Tuberous Sclerosis Complex. <i>Epilepsia</i> , 2004, 45, 1525-1530.	2.6	41
57	Seizures, enhanced excitation, and increased vesicle number in <i>Lis1</i> mutant mice. <i>Annals of Neurology</i> , 2009, 66, 644-653.	2.8	37
58	Behavioral Comorbidities and Drug Treatments in a Zebrafish <i>scn1lab</i> Model of Dravet Syndrome. <i>ENeuro</i> , 2017, 4, ENEURO.0066-17.2017.	0.9	37
59	Forebrain Electrophysiological Recording in Larval Zebrafish. <i>Journal of Visualized Experiments</i> , 2013, , .	0.2	35
60	Conditions Sufficient for Nonsynaptic Epileptogenesis in the CA1 Region of Hippocampal Slices. <i>Journal of Neurophysiology</i> , 2002, 87, 62-71.	0.9	34
61	Antiepileptic Actions of Neuropeptide Y in the Mouse Hippocampus Require Y5 Receptors. <i>Epilepsia</i> , 2002, 43, 9-13.	2.6	34
62	Zebrafish studies identify serotonin receptors mediating antiepileptic activity in Dravet syndrome. <i>Brain Communications</i> , 2019, 1, fcz008.	1.5	34
63	Phenotypic analysis of catastrophic childhood epilepsy genes. <i>Communications Biology</i> , 2021, 4, 680.	2.0	34
64	Expression and function of KCNQ channels in larval zebrafish. <i>Developmental Neurobiology</i> , 2012, 72, 186-198.	1.5	32
65	Maximally selective single-cell target for circuit control in epilepsy models. <i>Neuron</i> , 2021, 109, 2556-2572.e6.	3.8	31
66	LIS1 Deficiency Promotes Dysfunctional Synaptic Integration of Granule Cells Generated in the Developing and Adult Dentate Gyrus. <i>Journal of Neuroscience</i> , 2012, 32, 12862-12875.	1.7	30
67	Prolonged NMDA-Mediated Responses, Altered Ifenprodil Sensitivity, and Epileptiform-Like Events in the Malformed Hippocampus of Methylazoxymethanol Exposed Rats. <i>Journal of Neurophysiology</i> , 2005, 94, 153-162.	0.9	29
68	Embryonic and early postnatal abnormalities contributing to the development of hippocampal malformations in a rodent model of dysplasia. <i>Journal of Comparative Neurology</i> , 2006, 495, 133-148.	0.9	29
69	Robust tonic GABA currents can inhibit cell firing in mouse newborn neocortical pyramidal cells. <i>European Journal of Neuroscience</i> , 2010, 32, 1310-1318.	1.2	29
70	Use of "MGE Enhancers" for Labeling and Selection of Embryonic Stem Cell-Derived Medial Ganglionic Eminence (MGE) Progenitors and Neurons. <i>PLoS ONE</i> , 2013, 8, e61956.	1.1	28
71	Mutations of conserved non-coding elements of PITX2 in patients with ocular dysgenesis and developmental glaucoma. <i>Human Molecular Genetics</i> , 2017, 26, 3630-3638.	1.4	28
72	Synaptic integration of transplanted interneuron progenitor cells into native cortical networks. <i>Journal of Neurophysiology</i> , 2016, 116, 472-478.	0.9	27

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73	Hippocampal heterotopia with molecular and electrophysiological properties of neocortical neurons. <i>Neuroscience</i> , 2002, 114, 961-972.	1.1	26
74	Granule Cell Dispersion and Aberrant Neurogenesis in the Adult Hippocampus of an LIS1 Mutant Mouse. <i>Developmental Neuroscience</i> , 2007, 29, 91-98.	1.0	26
75	What New Modeling Approaches Will Help Us Identify Promising Drug Treatments?. <i>Advances in Experimental Medicine and Biology</i> , 2014, 813, 283-294.	0.8	26
76	Properties of a Calcium-Activated K ⁺ Current on Interneurons in the Developing Rat Hippocampus. <i>Journal of Neurophysiology</i> , 2000, 83, 3453-3461.	0.9	25
77	Aberrant expression of genes necessary for neuronal development and notch signaling in an epileptic <i>mind bomb</i> zebrafish. <i>Developmental Dynamics</i> , 2011, 240, 1964-1976.	0.8	25
78	Medial Ganglionic Eminence Progenitors Transplanted into Hippocampus Integrate in a Functional and Subtype-Appropriate Manner. <i>ENeuro</i> , 2017, 4, ENEURO.0359-16.2017.	0.9	24
79	Hippocampal gamma and sharp-wave ripple oscillations are altered in a <i>Cntnap2</i> mouse model of autism spectrum disorder. <i>Cell Reports</i> , 2021, 37, 109970.	2.9	24
80	Familial cortical myoclonus with a mutation in <i>NOL3</i> . <i>Annals of Neurology</i> , 2012, 72, 175-183.	2.8	23
81	Catastrophic Epilepsies of Childhood. <i>Annual Review of Neuroscience</i> , 2017, 40, 149-166.	5.0	23
82	Inhibitory Inputs to Hippocampal Interneurons Are Reorganized in <i>Lis1</i> Mutant Mice. <i>Journal of Neurophysiology</i> , 2009, 102, 648-658.	0.9	22
83	Effects of Prenatal Cocaine Exposure on the Developing Hippocampus: Intrinsic and Synaptic Physiology. <i>Journal of Neurophysiology</i> , 1997, 77, 126-136.	0.9	21
84	Evidence for increased seizure susceptibility in rats exposed to cocaine in utero. <i>Developmental Brain Research</i> , 1997, 102, 189-196.	2.1	21
85	Hippocampal dysplasia in rats exposed to cocaine in utero. <i>Developmental Brain Research</i> , 1999, 117, 213-217.	2.1	21
86	Aberrant dentate gyrus cytoarchitecture and fiber lamination in LIS1 mutant mice. <i>Hippocampus</i> , 2008, 18, 758-765.	0.9	21
87	Developing cell transplantation for temporal lobe epilepsy. <i>Neurosurgical Focus</i> , 2008, 24, E17.	1.0	21
88	Deletion of <i>Dlx1</i> results in reduced glutamatergic input to hippocampal interneurons. <i>Journal of Neurophysiology</i> , 2011, 105, 1984-1991.	0.9	21
89	Interneuron deficits in neurodevelopmental disorders: Implications for disease pathology and interneuron-based therapies. <i>European Journal of Paediatric Neurology</i> , 2020, 24, 81-88.	0.7	20
90	Phenotype-Based Screening of Synthetic Cannabinoids in a Dravet Syndrome Zebrafish Model. <i>Frontiers in Pharmacology</i> , 2020, 11, 464.	1.6	20

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91	A zebrafish-centric approach to antiepileptic drug development. <i>DMM Disease Models and Mechanisms</i> , 2021, 14, .	1.2	19
92	InÂvivo calcium imaging reveals disordered interictal network dynamics in epileptic stxbp1b zebrafish. <i>IScience</i> , 2021, 24, 102558.	1.9	16
93	Basic mechanisms ofÂMCD inÂAnimal models. <i>Epileptic Disorders</i> , 2009, 11, 206-214.	0.7	14
94	Enhancing glucose metabolism via gluconeogenesis is therapeutic in a zebrafish model of Dravet syndrome. <i>Brain Communications</i> , 2021, 3, fcab004.	1.5	14
95	PFAH1B1 haploinsufficiency disrupts GABA neurons and synaptic E/I balance in the dentate gyrus. <i>Scientific Reports</i> , 2017, 7, 8269.	1.6	13
96	Epileptogenesis in the Dysplastic Brain: A Revival of Familiar Themes. <i>Epilepsy Currents</i> , 2001, 1, 6-11.	0.4	12
97	A potential role for astrocytes in mediating the antiepileptic actions of furosemide in vitro. <i>Neuroscience</i> , 2004, 128, 655-663.	1.1	12
98	Cell Therapy Using GABAergic Neural Progenitors. , 2012, , 1122-1128.		12
99	Neocortical integration of transplanted GABA progenitor cells from wild type and GABAB receptor knockout mouse donors. <i>Neuroscience Letters</i> , 2014, 561, 52-57.	1.0	11
100	An Examination of Calcium Current Function on Heterotopic Neurons in Hippocampal Slices from Rats Exposed toÂfMethylazoxymethanol. <i>Epilepsia</i> , 2003, 44, 315-321.	2.6	9
101	ALLN rescues an in vitro excitatory synaptic transmission deficit in Lis1 mutant mice. <i>Journal of Neurophysiology</i> , 2013, 109, 429-436.	0.9	9
102	Effects of Hyposmolar Solutions on Membrane Currents of Hippocampal Interneurons and Mossy Cells In Vitro. <i>Journal of Neurophysiology</i> , 1998, 79, 1108-1112.	0.9	8
103	A Review of Gene Expression Patterns in the Malformed Brain. <i>Molecular Neurobiology</i> , 2002, 26, 109-116.	1.9	8
104	Clemizole and trazodone are effective antiseizure treatments in a zebrafish model of <sc>STXBP1</sc> disorder. <i>Epilepsia Open</i> , 2022, 7, 504-511.	1.3	8
105	Interneuron origins in the embryonic porcine medial ganglionic eminence. <i>Journal of Neuroscience</i> , 2021, 41, JN-RM-2738-20.	1.7	7
106	Modeling Epilepsy and Seizures in Developing Zebrafish Larvae. , 2006, , 189-198.		7
107	Voltage-activated potassium currents in acutely dissociated hippocampal dentate gyrus neurons from neonatal rats. <i>Developmental Brain Research</i> , 1994, 81, 309-313.	2.1	6
108	Cell therapy for epilepsy using GABAergic neural progenitors. <i>Epilepsia</i> , 2010, 51, 94-94.	2.6	6

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109	GABAB receptors in maintenance of neocortical circuit function. <i>Experimental Neurology</i> , 2014, 261, 163-170.	2.0	4
110	Xenotransplantation of porcine progenitor cells in an epileptic California sea lion (<i>Zalophus</i>). <i>Journal of Neurosurgery</i> , 2014, 121, 507-512.	0.1	4
111	Animal Models of Epilepsy. <i>Epilepsia</i> , 2011, 52, 659-665.		1
112	Zebrafish as a Simple Vertebrate Organism for Epilepsy Research. <i>Neuromethods</i> , 2009, 9, 59-74.	0.2	1
113	Respiratory Control of Sympathetic Nerve Activity During Naloxone-Precipitated Morphine Withdrawal in Rats. <i>Survey of Anesthesiology</i> , 1994, 38, 130.	0.1	0
114	Epilepsy Research Takes Flight. <i>Epilepsy Currents</i> , 2002, 2, 100-101.	0.4	0
115	Pain without Gain (of Function): Sodium Channel Dysfunction in Epilepsy. <i>Epilepsy Currents</i> , 2004, 4, 158-159.	0.4	0
116	The Devil is in the Details: Stem Cells for the Treatment of Epilepsy. <i>Epilepsy Currents</i> , 2012, 12, 213-215.	0.4	0
117	Viral tracing of presynaptic inputs to newly born dentate granule cells in a rodent model of mesial temporal lobe epilepsy. <i>Annals of Neurology</i> , 2017, 81, 769-771.	2.8	0
118	In vivo Calcium Imaging Reveals Disordered Interictal Network Dynamics in Epileptic Zebrafish. <i>SSRN Electronic Journal</i> , 2017, 0, .	0.4	0