Gabor Szabo

List of Publications by Year in descending order

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53794 8,189 125 45 citations h-index papers

83 g-index 132 132 132 10633 docs citations times ranked citing authors all docs

56724

#	Article	IF	CITATIONS
1	Centre–surround inhibition among olfactory bulb glomeruli. Nature, 2003, 426, 623-629.	27.8	390
2	Molecular interrogation of hypothalamic organization reveals distinct dopamine neuronal subtypes. Nature Neuroscience, 2017, 20, 176-188.	14.8	384
3	Microglia monitor and protect neuronal function through specialized somatic purinergic junctions. Science, 2020, 367, 528-537.	12.6	381
4	Integration of electrophysiological recordings with single-cell RNA-seq data identifies neuronal subtypes. Nature Biotechnology, 2016, 34, 175-183.	17.5	361
5	Adult generation of glutamatergic olfactory bulb interneurons. Nature Neuroscience, 2009, 12, 1524-1533.	14.8	325
6	Quantitative analysis of neuronal diversity in the mouse olfactory bulb. Journal of Comparative Neurology, 2007, 501, 825-836.	1.6	311
7	Preferential Origin and Layer Destination of GAD65-GFP Cortical Interneurons. Cerebral Cortex, 2004, 14, 1122-1133.	2.9	266
8	The Zinc Finger Transcription Factor Sp8 Regulates the Generation and Diversity of Olfactory Bulb Interneurons. Neuron, 2006, 49, 503-516.	8.1	229
9	Parvalbumin-Containing Fast-Spiking Basket Cells Generate the Field Potential Oscillations Induced by Cholinergic Receptor Activation in the Hippocampus. Journal of Neuroscience, 2010, 30, 15134-15145.	3.6	225
10	Molecular Identity of Periglomerular and Short Axon Cells. Journal of Neuroscience, 2010, 30, 1185-1196.	3.6	202
11	Chordin-induced lineage plasticity of adult SVZ neuroblasts after demyelination. Nature Neuroscience, 2010, 13, 541-550.	14.8	200
12	Stringent Specificity in the Construction of a GABAergic Presynaptic Inhibitory Circuit. Cell, 2009, 139, 161-174.	28.9	182
13	Distribution of CaMKIIα expression in the brain in vivo, studied by CaMKIIα-GFP mice. Brain Research, 2013, 1518, 9-25.	2.2	174
14	Repetitive magnetic stimulation induces plasticity of inhibitory synapses. Nature Communications, 2016, 7, 10020.	12.8	151
15	Asynchronous Transmitter Release from Cholecystokinin-Containing Inhibitory Interneurons Is Widespread and Target-Cell Independent. Journal of Neuroscience, 2009, 29, 11112-11122.	3.6	138
16	Excess of serotonin affects embryonic interneuron migration through activation of the serotonin receptor 6. Molecular Psychiatry, 2009, 14, 280-290.	7.9	126
17	GABA signalling during development: new data and old questions. Cell and Tissue Research, 2001, 305, 239-246.	2.9	125
18	Biased selection of leading process branches mediates chemotaxis during tangential neuronal migration. Development (Cambridge), 2009, 136, 41-50.	2.5	120

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19	Electrical Coupling among Irregular-Spiking GABAergic Interneurons Expressing Cannabinoid Receptors. Journal of Neuroscience, 2004, 24, 9770-9778.	3.6	114
20	Axonal Dynamics of Excitatory and Inhibitory Neurons in Somatosensory Cortex. PLoS Biology, 2010, 8, e1000395.	5 . 6	108
21	Two GABAergic Intraglomerular Circuits Differentially Regulate Tonic and Phasic Presynaptic Inhibition of Olfactory Nerve Terminals. Journal of Neurophysiology, 2009, 101, 1988-2001.	1.8	103
22	Dynamic features of postnatal subventricular zone cell motility: A twoâ€photon timeâ€lapse study. Journal of Comparative Neurology, 2007, 505, 190-208.	1.6	98
23	Molecular Identification of the 62 kd Form of Glutamic Acid Decarboxylase from the Mouse. European Journal of Neuroscience, 1990, 2, 190-202.	2.6	93
24	M3 Muscarinic Acetylcholine Receptor Expression Confers Differential Cholinergic Modulation to Neurochemically Distinct Hippocampal Basket Cell Subtypes. Journal of Neuroscience, 2010, 30, 6011-6024.	3.6	91
25	Deprivation-Induced Homeostatic Spine Scaling InÂVivo Is Localized to Dendritic Branches that Have Undergone Recent Spine Loss. Neuron, 2017, 96, 871-882.e5.	8.1	91
26	Dendritic Spikes Induce Ripples in Parvalbumin Interneurons during Hippocampal Sharp Waves. Neuron, 2014, 82, 908-924.	8.1	88
27	Domain-restricted expression of two glutamic acid decarboxylase genes in midgestation mouse embryos. Journal of Comparative Neurology, 2000, 424, 607-627.	1.6	87
28	Input-Output Features of Anatomically Identified CA3 Neurons during Hippocampal Sharp Wave/Ripple Oscillation In Vitro. Journal of Neuroscience, 2013, 33, 11677-11691.	3.6	87
29	P boutons in lamina IX of the rodent spinal cord express high levels of glutamic acid decarboxylase-65 and originate from cells in deep medial dorsal horn. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 9038-9043.	7.1	85
30	A single fear-inducing stimulus induces a transcription-dependent switch in synaptic AMPAR phenotype. Nature Neuroscience, 2010, 13, 223-231.	14.8	81
31	Physiological sharp wave-ripples and interictal events in vitro: what's the difference?. Brain, 2014, 137, 463-485.	7.6	79
32	Endothelial cell-derived GABA signaling modulates neuronal migration and postnatal behavior. Cell Research, 2018, 28, 221-248.	12.0	78
33	Autonomous vascular networks synchronize GABA neuron migration in the embryonic forebrain. Nature Communications, 2013, 4, 2149.	12.8	74
34	Differential expression of Na+/K+â€ATPase αâ€subunits in mouse hippocampal interneurones and pyramidal cells. Journal of Physiology, 2007, 585, 491-505.	2.9	66
35	Endocannabinoid-Mediated Long-Term Depression of Afferent Excitatory Synapses in Hippocampal Pyramidal Cells and GABAergic Interneurons. Journal of Neuroscience, 2012, 32, 14448-14463.	3.6	66
36	Lateral hypothalamic GAD65 neurons are spontaneously firing and distinct from orexinâ€and melaninâ€concentrating hormone neurons. Journal of Physiology, 2013, 591, 933-953.	2.9	60

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37	GABAergic phenotypic differentiation of a subpopulation of subventricular derived migrating progenitors. European Journal of Neuroscience, 2004, 20, 1307-1317.	2.6	58
38	NMDA Receptors Increase the Size of GABAergic Terminals and Enhance GABA Release. Journal of Neuroscience, 2005, 25, 2024-2031.	3.6	58
39	Neuronal Surface and Glutamic Acid Decarboxylase Autoantibodies in Nonparaneoplastic Stiff Person Syndrome. JAMA Neurology, 2013, 70, 1140.	9.0	56
40	Cannabinoid Sensitivity and Synaptic Properties of 2 GABAergic Networks in the Neocortex. Cerebral Cortex, 2008, 18, 2296-2305.	2.9	55
41	Synaptic heterogeneity between mouse paracapsular intercalated neurons of the amygdala. Journal of Physiology, 2007, 585, 117-134.	2.9	52
42	Glucose prevents the fall in ventromedial hypothalamic GABA that is required for full activation of glucose counterregulatory responses during hypoglycemia. American Journal of Physiology - Endocrinology and Metabolism, 2010, 298, E971-E977.	3.5	52
43	A <scp>TRPV</scp> 1â€toâ€secretagogin regulatory axis controls pancreatic βâ€cell survival by modulating protein turnover. EMBO Journal, 2017, 36, 2107-2125.	7.8	52
44	Properties of external plexiform layer interneurons in mouse olfactory bulb slices. Neuroscience, 2005, 133, 819-829.	2.3	51
45	Cholinergic modulation amplifies the intrinsic oscillatory properties of CA1 hippocampal cholecystokininâ€positive interneurons. Journal of Physiology, 2011, 589, 609-627.	2.9	51
46	Differential regulation of adult and embryonic glutamate decarboxylases in rat dentate granule cells after kainate-induced limbic seizures. Neuroscience, 2000, 100, 287-295.	2.3	50
47	Adult Mouse Subventricular Zone Stem and Progenitor Cells Are Sessile and Epidermal Growth Factor Receptor Negatively Regulates Neuroblast Migration. PLoS ONE, 2009, 4, e8122.	2.5	50
48	Transmitterâ€phenotypes of commissural interneurons in the lumbar spinal cord of newborn mice. Journal of Comparative Neurology, 2009, 517, 177-192.	1.6	49
49	Glutamatergic or GABAergic neuron-specific, long-term expression in neocortical neurons from helper virus-free HSV-1 vectors containing the phosphate-activated glutaminase, vesicular glutamate transporter-1, or glutamic acid decarboxylase promoter. Brain Research, 2007, 1144, 19-32.	2.2	47
50	Direct Alteration of a Specific Inhibitory Circuit of the Hippocampus by Antidepressants. Journal of Neuroscience, 2012, 32, 16616-16628.	3.6	47
51	Vasoactive Intestinal Polypeptide-Immunoreactive Interneurons within Circuits of the Mouse Basolateral Amygdala. Journal of Neuroscience, 2018, 38, 6983-7003.	3.6	45
52	Hippocampal ââ,¬Å"cholinergic interneuronsââ,¬Â•visualized with the choline acetyltransferase promoter: anatomical distribution, intrinsic membrane properties, neurochemical characteristics, and capacity for cholinergic modulation. Frontiers in Synaptic Neuroscience, 2015, 7, 4.	2.5	44
53	Local regulation of [3 H]-noradrenaline release from the isolated guinea-pig right atrium by P2X -receptors located on axon terminals. British Journal of Pharmacology, 2000, 131, 1775-1783.	5 . 4	42
54	The small molecule Mek1/2 inhibitor U0126 disrupts the chordamesoderm to notochord transition in zebrafish. BMC Developmental Biology, 2008, 8, 42.	2.1	42

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55	GABA _A and GABA _B receptors of distinct properties affect oppositely the proliferation of mouse embryonic stem cells through synergistic elevation of intracellular Ca ²⁺ . FASEB Journal, 2010, 24, 1218-1228.	0.5	42
56	New Pool of Cortical Interneuron Precursors in the Early Postnatal Dorsal White Matter. Cerebral Cortex, 2012, 22, 86-98.	2.9	42
57	Sequences homologous to glutamic acid decarboxylase cDNA are present on mouse chromosomes 2 and 10. Genomics, 1990, 6, 115-122.	2.9	41
58	Regulation of Exocytosis from Single Visualized GABAergic Boutons in Hippocampal Slices. Journal of Neuroscience, 2003, 23, 10475-10486.	3.6	41
59	Paracellular and transcellular migration of metastatic cells through the cerebral endothelium. Journal of Cellular and Molecular Medicine, 2019, 23, 2619-2631.	3.6	41
60	P2X Receptor Activation Elicits Transporter-Mediated Noradrenaline Release from Rat Hippocampal Slices. Journal of Pharmacology and Experimental Therapeutics, 2004, 310, 973-980.	2.5	38
61	Visualization of stress-responsive inhibitory circuits in the GAD65-eGFP transgenic mice. Neuroscience Letters, 2005, 380, 60-65.	2.1	38
62	Human serum amyloid P component attenuates the bacterial lipopolysaccharide-induced increase in blood–brain barrier permeability in mice. Neuroscience Letters, 2003, 352, 57-60.	2.1	37
63	Mammalian retinal horizontal cells are unconventional GABAergic neurons. Journal of Neurochemistry, 2011, 116, 350-362.	3.9	37
64	Tonic endocannabinoid-mediated modulation of GABA release is independent of the CB1 content of axon terminals. Nature Communications, 2015, 6, 6557.	12.8	37
65	Sensory experience selectively regulates transmitter synthesis enzymes in interglomerular circuits. Brain Research, 2011, 1382, 70-76.	2.2	35
66	Novel interneuronal network in the mouse posterior piriform cortex. Journal of Comparative Neurology, 2006, 499, 1000-1015.	1.6	34
67	Hypothalamic <scp>CNTF</scp> volume transmission shapes cortical noradrenergic excitability upon acute stress. EMBO Journal, 2018, 37, .	7.8	33
68	Expression of Protein Kinase C Family Members in the Cerebral Endothelial Cells. Journal of Neurochemistry, 2002, 65, 459-462.	3.9	32
69	Enhanced expression of potassium-chloride cotransporter KCC2 in human temporal lobe epilepsy. Brain Structure and Function, 2016, 221, 3601-3615.	2.3	32
70	Homo- and heteroexchange of adenine nucleotides and nucleosides in rat hippocampal slices by the nucleoside transport system. British Journal of Pharmacology, 2003, 139, 623-633.	5.4	31
71	Syndecan-1 inhibits early stages of liver fibrogenesis by interfering with TGF \hat{l}^21 action and upregulating MMP14. Matrix Biology, 2018, 68-69, 474-489.	3.6	31
72	Anatomically heterogeneous populations of CB ₁ cannabinoid receptorâ€expressing interneurons in the CA3 region of the hippocampus show homogeneous input–output characteristics. Hippocampus, 2014, 24, 1506-1523.	1.9	30

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73	Morphological and physiological properties of CCK/CB1R-expressing interneurons in the basal amygdala. Brain Structure and Function, 2017, 222, 3543-3565.	2.3	29
74	Life-long epigenetic programming of cortical architecture by maternal â€~Western' diet during pregnancy. Molecular Psychiatry, 2020, 25, 22-36.	7.9	28
75	Immunization against GAD Induces Antibody Binding to GAD-Independent Antigens and Brainstem GABAergic Neuronal Loss. PLoS ONE, 2013, 8, e72921.	2.5	27
76	Stochastic and deterministic dynamics of intrinsically irregular firing in cortical inhibitory interneurons. ELife, 2016, 5, .	6.0	26
77	Differential Metabotropic Glutamate Receptor Expression and Modulation in Two Neocortical Inhibitory Networks. Journal of Neurophysiology, 2009, 101, 2679-2692.	1.8	25
78	Modulation of synaptic transmission from primary afferents to spinal substantia gelatinosa neurons by group III mGluRs in GAD65-EGFP transgenic mice. Journal of Neurophysiology, 2011, 105, 1102-1111.	1.8	24
79	Spatiotemporal expression pattern of DsRedT3/CCK gene construct during postnatal development of myenteric plexus in transgenic mice. Cell and Tissue Research, 2013, 352, 199-206.	2.9	24
80	Response of the neurovascular unit to brain metastatic breast cancer cells. Acta Neuropathologica Communications, 2019, 7, 133.	5.2	24
81	Properties of a Population of GABAergic Cells in Murine Auditory Cortex Weakly Excited by Thalamic Stimulation. Journal of Neurophysiology, 2006, 96, 3194-3208.	1.8	22
82	Expression of two type II cadherins, Cdh12 and Cdh22 in the developing and adult mouse brain. Gene Expression Patterns, 2010, 10, 351-360.	0.8	22
83	Comparative analysis of type II classic cadherin mRNA distribution patterns in the developing and adult mouse somatosensory cortex and hippocampus suggests significant functional redundancy. Journal of Comparative Neurology, 2012, 520, 1387-1405.	1.6	21
84	Sequential induction of embryonic and adult forms of glutamic acid decarboxylase during in vitro-induced neurogenesis in cloned neuroectodermal cell-line, NE-7C2. Journal of Neurochemistry, 2002, 80, 605-615.	3.9	20
85	GAD isoforms exhibit distinct spatiotemporal expression patterns in the developing mouse lens: Correlation with Dlx2 and Dlx5. Developmental Dynamics, 2007, 236, 3532-3544.	1.8	19
86	Functional Differentiation of Cholecystokinin-Containing Interneurons Destined for the Cerebral Cortex. Cerebral Cortex, 2017, 27, bhw094.	2.9	19
87	Secretagogin protects Pdx1 from proteasomal degradation to control a transcriptional program required for \hat{l}^2 cell specification. Molecular Metabolism, 2018, 14, 108-120.	6.5	19
88	Regulation of cell-type specific expression oflacZby the 5′-flanking region of mouse GAD67 gene in the central nervous system of transgenic mice. European Journal of Neuroscience, 1998, 10, 989-999.	2.6	18
89	Tuning afferent synapses of hippocampal interneurons by neuropeptide Y. Hippocampus, 2011, 21, 198-211.	1.9	18
90	A Glial-Neuronal Circuit in the Median Eminence Regulates Thyrotropin-Releasing Hormone-Release via the Endocannabinoid System. IScience, 2020, 23, 100921.	4.1	18

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91	Caspaseâ€9 acts as a regulator of necroptotic cell death. FEBS Journal, 2021, 288, 6476-6491.	4.7	16
92	The cryptic gonadotropin-releasing hormone neuronal system of human basal ganglia. ELife, 2021, 10, .	6.0	16
93	The Neurochemically Diverse Intermedius Nucleus of the Medulla as a Source of Excitatory and Inhibitory Synaptic Input to the Nucleus Tractus Solitarii. Journal of Neuroscience, 2007, 27, 8324-8333.	3.6	15
94	Identification of the adrenoceptor subtypes expressed on GABAergic neurons in the anterior hypothalamic area and rostral zona incerta of GAD65-eGFP transgenic mice. Neuroscience Letters, 2007, 422, 153-157.	2.1	15
95	GABA neurotransmitter signaling in the developing mouse lens: Dynamic regulation of components and functionality. Developmental Dynamics, 2008, 237, 3830-3841.	1.8	15
96	Recruiting new neurons from the subventricular zone to the rat postnatal cortex: an organotypic slice culture model. European Journal of Neuroscience, 2008, 27, 1051-1060.	2.6	15
97	Altered profile of basket cell afferent synapses in hyperâ€excitable dentate gyrus revealed by optogenetic and twoâ€pathway stimulations. European Journal of Neuroscience, 2012, 36, 1971-1983.	2.6	15
98	Neck muscle afferents influence oromotor and cardiorespiratory brainstem neural circuits. Brain Structure and Function, 2015, 220, 1421-1436.	2.3	15
99	Topological Regulation of Synaptic AMPA Receptor Expression by the RNA-Binding Protein CPEB3. Cell Reports, 2016, 17, 86-103.	6.4	15
100	Kv3.1b and Kv3.3 channel subunit expression in murine spinal dorsal horn GABAergic interneurones. Journal of Chemical Neuroanatomy, 2011, 42, 30-38.	2.1	14
101	Dopaminergic neurons modulate GABA neuron migration in the embryonic midbrain. Development (Cambridge), 2012, 139, 3136-3141.	2.5	14
102	A Transgenic Mouse Model for Detection of Tissue-Specific Thyroid Hormone Action. Endocrinology, 2018, 159, 1159-1171.	2.8	14
103	Secretagogin expression in the vertebrate brainstem with focus on the noradrenergic system and implications for Alzheimer's disease. Brain Structure and Function, 2019, 224, 2061-2078.	2.3	14
104	Differential expression of NK1 and NK3 neurokinin receptors in neurons of the nucleus tractus solitarius and the dorsal vagal motor nucleus of the rat and mouse. Neuroscience, 2008, 152, 56-64.	2.3	13
105	Matching of feedback inhibition with excitation ensures fidelity of information flow in the anterior piriform cortex. Neuroscience, 2014, 275, 519-530.	2.3	13
106	Enhanced Dendritic Action Potential Backpropagation in Parvalbumin-positive Basket Cells During Sharp Wave Activity. Neurochemical Research, 2010, 35, 2086-2095.	3.3	12
107	Direct Corticosteroid Modulation of GABAergic Neurons in the Anterior Hypothalamic Area of GAD65-eGFP Mice. Korean Journal of Physiology and Pharmacology, 2011, 15, 163.	1.2	11
108	Autonomous and non-autonomous roles for ephrin-B in interneuron migration. Developmental Biology, 2017, 431, 179-193.	2.0	11

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109	Characteristics of GABAergic and cholinergic neurons in perinuclear zone of mouse supraoptic nucleus. Journal of Neurophysiology, 2015, 113, 754-767.	1.8	10
110	Ectopic transgene expression in the retina of four transgenic mouse lines. Brain Structure and Function, 2016, 221, 3729-3741.	2.3	10
111	Modulation of the truncated GAD25 by estrogen in the olfactory bulb of adult rats. NeuroReport, 2000, 11, 791-794.	1.2	9
112	A rapid screening method for population-specific neuronal motogens, substrates and associated signaling pathways. Journal of Neuroscience Methods, 2007, 166, 178-194.	2.5	9
113	Types of cholecystokininâ€containing periglomerular cells in the mouse olfactory bulb. Journal of Neuroscience Research, 2011, 89, 35-43.	2.9	9
114	N-cadherin (Cdh2) Maintains Migration and Postmitotic Survival of Cortical Interneuron Precursors in a Cell-Type-Specific Manner. Cerebral Cortex, 2020, 30, 1318-1329.	2.9	9
115	Theoretical Design, Synthesis, and In Vitro Neurobiological Applications of a Highly Efficient Two-Photon Caged GABA Validated on an Epileptic Case. ACS Omega, 2021, 6, 15029-15045.	3.5	9
116	Presynaptic AMPA and kainate receptors increase the size of GABAergic terminals and enhance GABA release. Neuropharmacology, 2007, 52, 1631-1640.	4.1	8
117	Sensory Deafferentation Transsynaptically Alters Neuronal GluR1 Expression in the External Plexiform Layer of the Adult Mouse Main Olfactory Bulb. Chemical Senses, 2008, 33, 201-210.	2.0	8
118	GABAA receptor subunit deregulation in the hippocampus of human foetuses with Down syndrome. Brain Structure and Function, 2017, 223, 1501-1518.	2.3	8
119	NAD ⁺ -mediated rescue of prenatal forebrain angiogenesis restores postnatal behavior. Science Advances, 2020, 6, .	10.3	8
120	The spatiotemporal segregation of GAD forms defines distinct GABA signaling functions in the developing mouse olfactory system and provides novel insights into the origin and migration of GnRH neurons. Developmental Neurobiology, 2015, 75, 249-270.	3.0	7
121	Measuring aggregation of events about a mass using spatial point pattern methods. Spatial Statistics, 2015, 13, 76-89.	1.9	7
122	Overexpression of Human Syndecan-1 Protects against the Diethylnitrosamine-Induced Hepatocarcinogenesis in Mice. Cancers, 2021, 13, 1548.	3.7	7
123	GABAergic signaling in primary lens epithelial and lentoid cells and its involvement in intracellular Ca2+ modulation. Cell Calcium, 2011, 50, 381-392.	2.4	6
124	Efflux transport of serum amyloid P component at the blood-brain barrier. European Journal of Microbiology and Immunology, 2013, 3, 281-289.	2.8	5
125	Developmental regulation of metabotropic glutamate receptor 1 splice variants in olfactory bulb mitral cells. Journal of Neuroscience Research, 2009, 87, 369-379.	2.9	4