Z Josh Huang

List of Publications by Year
in descending order

94 papers	19,958 citations	19657 61 h-index	36028 97 g-index
118 all docs	118 docs citations	118 times ranked	16696 citing authors

#	Article	IF	Citations
1	A Resource of Cre Driver Lines for Genetic Targeting of GABAergic Neurons in Cerebral Cortex. Neuron, 2011, 71, 995-1013.	8.1	1,659
2	Inhibition of inhibition in visual cortex: the logic of connections between molecularly distinct interneurons. Nature Neuroscience, 2013, 16, 1068-1076.	14.8	1,132
3	Cortical interneurons that specialize in disinhibitory control. Nature, 2013, 503, 521-524.	27.8	936
4	A Cortical Circuit for Gain Control by Behavioral State. Cell, 2014, 156, 1139-1152.	28.9	827
5	New insights into the classification and nomenclature of cortical GABAergic interneurons. Nature Reviews Neuroscience, 2013, 14, 202-216.	10.2	707
6	A disinhibitory circuit mediates motor integration in the somatosensory cortex. Nature Neuroscience, 2013, 16, 1662-1670.	14.8	638
7	A neural circuit for spatial summation in visual cortex. Nature, 2012, 490, 226-231.	27.8	580
8	Experience and Activity-Dependent Maturation of Perisomatic GABAergic Innervation in Primary Visual Cortex during a Postnatal Critical Period. Journal of Neuroscience, 2004, 24, 9598-9611.	3.6	540
9	Activation of specific interneurons improves V1 feature selectivity and visual perception. Nature, 2012, 488, 379-383.	27.8	530
10	Molecular taxonomy of major neuronal classes in the adult mouse forebrain. Nature Neuroscience, 2006, 9, 99-107.	14.8	502
11	Cortical representations of olfactory input by trans-synaptic tracing. Nature, 2011, 472, 191-196.	27.8	478
12	Neuronal circuitry mechanism regulating adult quiescent neural stem-cell fate decision. Nature, 2012, 489, 150-154.	27.8	463
13	Targeting cells with single vectors using multiple-feature Boolean logic. Nature Methods, 2014, 11, 763-772.	19.0	427
14	Experience-dependent modification of a central amygdala fear circuit. Nature Neuroscience, 2013, 16, 332-339.	14.8	426
15	Unique functional properties of somatostatin-expressing GABAergic neurons in mouse barrel cortex. Nature Neuroscience, 2012, 15, 607-612.	14.8	416
16	The paraventricular thalamus controls a central amygdala fear circuit. Nature, 2015, 519, 455-459.	27.8	416
17	Transcriptional Architecture of Synaptic Communication Delineates GABAergic Neuron Identity. Cell, 2017, 171, 522-539.e20.	28.9	343
18	Ankyrin-Based Subcellular Gradient of Neurofascin, an Immunoglobulin Family Protein, Directs GABAergic Innervation at Purkinje Axon Initial Segment. Cell, 2004, 119, 257-272.	28.9	338

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19	A multimodal cell census and atlas of the mammalian primary motor cortex. Nature, 2021, 598, 86-102.	27.8	316
20	Brain-wide Maps Reveal Stereotyped Cell-Type-Based Cortical Architecture and Subcortical Sexual Dimorphism. Cell, 2017, 171, 456-469.e22.	28.9	301
21	GAD67-Mediated GABA Synthesis and Signaling Regulate Inhibitory Synaptic Innervation in the Visual Cortex. Neuron, 2007, 54, 889-903.	8.1	277
22	Strategies and Tools for Combinatorial Targeting of GABAergic Neurons in Mouse Cerebral Cortex. Neuron, 2016, 91, 1228-1243.	8.1	260
23	Cell-Type-Based Analysis of MicroRNA Profiles in the Mouse Brain. Neuron, 2012, 73, 35-48.	8.1	254
24	Development of GABA innervation in the cerebral and cerebellar cortices. Nature Reviews Neuroscience, 2007, 8, 673-686.	10.2	248
25	The Spatial and Temporal Origin of Chandelier Cells in Mouse Neocortex. Science, 2013, 339, 70-74.	12.6	246
26	A Proposal for a Coordinated Effort for the Determination of Brainwide Neuroanatomical Connectivity in Model Organisms at a Mesoscopic Scale. PLoS Computational Biology, 2009, 5, e1000334.	3.2	242
27	tÂ Brain-Derived Neurotrophic Factor Overexpression Induces Precocious Critical Period in Mouse Visual Cortex. Journal of Neuroscience, 1999, 19, RC40-RC40.	3.6	239
28	Response Features of Parvalbumin-Expressing Interneurons Suggest Precise Roles for Subtypes of Inhibition in Visual Cortex. Neuron, 2010, 67, 847-857.	8.1	214
29	Characterizing the replicability of cell types defined by single cell RNA-sequencing data using MetaNeighbor. Nature Communications, 2018, 9, 884.	12.8	214
30	Visual Representations by Cortical Somatostatin Inhibitory Neuronsâ€"Selective But with Weak and Delayed Responses. Journal of Neuroscience, 2010, 30, 14371-14379.	3.6	211
31	Presynaptic inhibition of spinal sensory feedback ensures smooth movement. Nature, 2014, 509, 43-48.	27.8	207
32	Genetic Approaches to Neural Circuits in the Mouse. Annual Review of Neuroscience, 2013, 36, 183-215.	10.7	184
33	A community-based transcriptomics classification and nomenclature of neocortical cell types. Nature Neuroscience, 2020, 23, 1456-1468.	14.8	183
34	Activity-dependent PSA expression regulates inhibitory maturation and onset of critical period plasticity. Nature Neuroscience, 2007, 10, 1569-1577.	14.8	181
35	Morphological diversity of single neurons in molecularly defined cell types. Nature, 2021, 598, 174-181.	27.8	180
36	The Mediodorsal Thalamus Drives Feedforward Inhibition in the Anterior Cingulate Cortex via Parvalbumin Interneurons. Journal of Neuroscience, 2015, 35, 5743-5753.	3.6	178

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37	Visual cortex is rescued from the effects of dark rearing by overexpression of BDNF. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 12486-12491.	7.1	169
38	The diversity of GABAergic neurons and neural communication elements. Nature Reviews Neuroscience, 2019, 20, 563-572.	10.2	167
39	A transcriptomic and epigenomic cell atlas of the mouse primary motor cortex. Nature, 2021, 598, 103-110.	27.8	166
40	High-Resolution Labeling and Functional Manipulation of Specific Neuron Types in Mouse Brain by Cre-Activated Viral Gene Expression. PLoS ONE, 2008, 3, e2005.	2.5	159
41	Subcellular domain-restricted GABAergic innervation in primary visual cortex in the absence of sensory and thalamic inputs. Nature Neuroscience, 2004, 7, 1184-1186.	14.8	152
42	High-Throughput Mapping of Long-Range Neuronal Projection Using In Situ Sequencing. Cell, 2019, 179, 772-786.e19.	28.9	146
43	Brain-Wide Maps of Synaptic Input to Cortical Interneurons. Journal of Neuroscience, 2016, 36, 4000-4009.	3.6	143
44	Robust but delayed thalamocortical activation of dendritic-targeting inhibitory interneurons. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2187-2192.	7.1	134
45	MeCP2 regulates the timing of critical period plasticity that shapes functional connectivity in primary visual cortex. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E4782-91.	7.1	122
46	Toward a Genetic Dissection of Cortical Circuits in the Mouse. Neuron, 2014, 83, 1284-1302.	8.1	121
47	Bergmann Glia and the Recognition Molecule CHL1 Organize GABAergic Axons and Direct Innervation of Purkinje Cell Dendrites. PLoS Biology, 2008, 6, e103.	5.6	120
48	Cellular anatomy of the mouse primary motor cortex. Nature, 2021, 598, 159-166.	27.8	117
49	Lineage-specific laminar organization of cortical GABAergic interneurons. Nature Neuroscience, 2013, 16, 1199-1210.	14.8	113
50	A Cortico-Hippocampal Learning Rule Shapes Inhibitory Microcircuit Activity to Enhance Hippocampal Information Flow. Neuron, 2013, 79, 1208-1221.	8.1	113
51	Prox1Regulates the Subtype-Specific Development of Caudal Ganglionic Eminence-Derived GABAergic Cortical Interneurons. Journal of Neuroscience, 2015, 35, 12869-12889.	3.6	104
52	Maturation of GABAergic transmission and the timing of plasticity in visual cortex. Brain Research Reviews, 2005, 50, 126-133.	9.0	101
53	ErbB4 regulation of a thalamic reticular nucleus circuit for sensory selection. Nature Neuroscience, 2015, 18, 104-111.	14.8	101
54	GABA Signaling Promotes Synapse Elimination and Axon Pruning in Developing Cortical Inhibitory Interneurons. Journal of Neuroscience, 2012, 32, 331-343.	3.6	98

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55	Correlation Between Axonal Morphologies and Synaptic Input Kinetics of Interneurons from Mouse Visual Cortex. Cerebral Cortex, 2007, 17, 81-91.	2.9	97
56	Activityâ€dependent development of inhibitory synapses and innervation pattern: role of GABA signalling and beyond. Journal of Physiology, 2009, 587, 1881-1888.	2.9	97
57	Transient neurites of retinal horizontal cells exhibit columnar tiling via homotypic interactions. Nature Neuroscience, 2009, 12, 35-43.	14.8	95
58	Specific Functions of Synaptically Localized Potassium Channels in Synaptic Transmission at the Neocortical GABAergic Fast-Spiking Cell Synapse. Journal of Neuroscience, 2005, 25, 5230-5235.	3.6	93
59	GAD67 Deficiency in Parvalbumin Interneurons Produces Deficits in Inhibitory Transmission and Network Disinhibition in Mouse Prefrontal Cortex. Cerebral Cortex, 2015, 25, 1290-1296.	2.9	93
60	GABA and neuroligin signaling: linking synaptic activity and adhesion in inhibitory synapse development. Current Opinion in Neurobiology, 2008, 18, 77-83.	4.2	86
61	Selective inhibitory control of pyramidal neuron ensembles and cortical subnetworks by chandelier cells. Nature Neuroscience, 2017, 20, 1377-1383.	14.8	86
62	MECP2 regulates cortical plasticity underlying a learned behaviour in adult female mice. Nature Communications, 2017, 8, 14077.	12.8	75
63	Genetic dissection of the glutamatergic neuron system in cerebral cortex. Nature, 2021, 598, 182-187.	27.8	75
64	Contrast Dependence and Differential Contributions from Somatostatin- and Parvalbumin-Expressing Neurons to Spatial Integration in Mouse V1. Journal of Neuroscience, 2013, 33, 11145-11154.	3.6	74
65	MouseCntnap2and HumanCNTNAP2ASD Alleles Cell Autonomously Regulate PV+ Cortical Interneurons. Cerebral Cortex, 2018, 28, 3868-3879.	2.9	71
66	Distinct maturation profiles of perisomatic and dendritic targeting GABAergic interneurons in the mouse primary visual cortex during the critical period of ocular dominance plasticity. Journal of Neurophysiology, 2011, 106, 775-787.	1.8	68
67	Differential Activity-Dependent, Homeostatic Plasticity of Two Neocortical Inhibitory Circuits. Journal of Neurophysiology, 2008, 100, 1983-1994.	1.8	67
68	Exploiting single-cell expression to characterize co-expression replicability. Genome Biology, 2016, 17, 101.	8.8	66
69	Differential dynamics and activity-dependent regulation of Î±- and Î²-neurexins at developing GABAergic synapses. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 22699-22704.	7.1	63
70	Genetically identified amygdalaâ€“striatal circuits for valence-specific behaviors. Nature Neuroscience, 2021, 24, 1586-1600.	14.8	56
71	Radial Glial Lineage Progression and Differential Intermediate Progenitor Amplification Underlie Striatal Compartments and Circuit Organization. Neuron, 2018, 99, 345-361.e4.	8.1	55
72	Role of glutamic acid decarboxylase 67 in regulating cortical parvalbumin and GABA membrane transporter 1 expression: Implications for schizophrenia. Neurobiology of Disease, 2013, 50, 179-186.	4.4	52

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73	Genetic Single Neuron Anatomy Reveals Fine Granularity of Cortical Axo-Axonic Cells. Cell Reports, 2019, 26, 3145-3159.e5.	6.4	51
74	A Genetically Defined Compartmentalized Striatal Direct Pathway for Negative Reinforcement. Cell, 2020, 183, 211-227.e20.	28.9	49
75	Recruitment and inhibitory action of hippocampal axo-axonic cells during behavior. Neuron, 2021, 109, 3838-3850.e8.	8.1	44
76	Maturation of GABAergic Inhibition Promotes Strengthening of Temporally Coherent Inputs among Convergent Pathways. PLoS Computational Biology, 2010, 6, e1000797.	3.2	41
77	Neural Cell Adhesion Molecule-Mediated Fyn Activation Promotes GABAergic Synapse Maturation in Postnatal Mouse Cortex. Journal of Neuroscience, 2013, 33, 5957-5968.	3.6	41
78	Subcellular organization of GABAergic synapses: role of ankyrins and L1 cell adhesion molecules. Nature Neuroscience, 2006, 9, 163-166.	14.8	38
79	Input-specific maturation of synaptic dynamics of parvalbumin interneurons in primary visual cortex. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16895-16900.	7.1	34
80	Maternal Experience-Dependent Cortical Plasticity in Mice Is Circuit- and Stimulus-Specific and Requires MECP2. Journal of Neuroscience, 2020, 40, 1514-1526.	3.6	29
81	Genetic approaches to access cell types in mammalian nervous systems. Current Opinion in Neurobiology, 2018, 50, 109-118.	4.2	28
82	A genetically defined insula-brainstem circuit selectively controls motivational vigor. Cell, 2021, 184, 6344-6360.e18.	28.9	28
83	Following the genes: a framework for animal modeling of psychiatric disorders. BMC Biology, 2011, 9, 76.	3.8	27
84	Developmental Coordination of Gene Expression between Synaptic Partners During GABAergic Circuit Assembly in Cerebellar Cortex. Frontiers in Neural Circuits, 2012, 6, 37.	2.8	26
85	GABAB Receptor Isoforms Caught in Action at the Scene. Neuron, 2006, 50, 521-524.	8.1	25
86	Presynaptic GABAB Receptor Regulates Activity-Dependent Maturation and Patterning of Inhibitory Synapses through Dynamic Allocation of Synaptic Vesicles. Frontiers in Cellular Neuroscience, 2012, 6, 57.	3.7	25
87	Retinal and Callosal Activity-Dependent Chandelier Cell Elimination Shapes Binocularity in Primary Visual Cortex. Neuron, 2021, 109, 502-515.e7.	8.1	23
88	Cortical Glutamic Acid Decarboxylase 67 Deficiency Results in Lower Cannabinoid 1 Receptor Messenger RNA Expression: Implications for Schizophrenia. Biological Psychiatry, 2012, 71, 114-119.	1.3	19
89	Cre-Dependent Adeno-Associated Virus Preparation and Delivery for Labeling Neurons in the Mouse Brain. Cold Spring Harbor Protocols, 2014, 2014, pdb.prot080382.	0.3	15
90	Single-cell alternative polyadenylation analysis delineates GABAergic neuron types. BMC Biology, 2021, 19, 144.	3.8	12

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91	Semantic segmentation of microscopic neuroanatomical data by combining topological priors with encoderâ€“decoder deep networks. Nature Machine Intelligence, 2020, 2, 585-594.	16.0	12
92	Time to Change: Retina Sends a Messenger to Promote Plasticity in Visual Cortex. Neuron, 2008, 59, 355-358.	8.1	11
93	Genetic Labeling of Neurons in Mouse Brain. Cold Spring Harbor Protocols, 2014, 2014, pdb.top080374.	0.3	10
94	Single-cell RNA Sequencing of Fluorescently Labeled Mouse Neurons Using Manual Sorting and Double In Vitro Transcription with Absolute Counts Sequencing (DIVA-Seq). Journal of Visualized Experiments, 2018, , .	0.3	2