Hongkui Zeng

List of Publications by Year
in descending order

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140 papers	34,611 citations	14124 69 h-index	11608 140 g-index
214 all docs	214 docs citations	214 times ranked	37841 citing authors

#	Article	IF	Citations
1	Dense functional and molecular readout of a circuit hub in sensory cortex. Science, 2022, 375, eabl5981.	6.0	36
2	Synaptic connectivity to L2/3 of primary visual cortex measured by two-photon optogenetic stimulation. ELife, 2022, 11, .	2.8	35
3	Voltage imaging in the olfactory bulb using transgenic mouse lines expressing the genetically encoded voltage indicator ArcLight. Scientific Reports, 2022, 12, 1875.	1.6	8
4	Petabyte-Scale Multi-Morphometry of Single Neurons for Whole Brains. Neuroinformatics, 2022, 20, 525-536.	1.5	14
5	Local connectivity and synaptic dynamics in mouse and human neocortex. Science, 2022, 375, eabj5861.	6.0	124
6	Single cell enhancer activity distinguishes GABAergic and cholinergic lineages in embryonic mouse basal ganglia. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2108760119.	3.3	15
7	Cross-modal coherent registration of whole mouse brains. Nature Methods, 2022, 19, 111-118.	9.0	36
8	Single-cell transcriptomic classification of rabies-infected cortical neurons. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	19
9	A gene-expression axis defines neuron behaviour. Nature, 2022, 607, 243-244.	13.7	1
10	Intersectional mapping of multi-transmitter neurons and other cell types in the brain. Cell Reports, 2022, 40, 111036.	2.9	9
11	Phenotypic variation of transcriptomic cell types in mouse motor cortex. Nature, 2021, 598, 144-150.	13.7	196
12	Regional, Layer, and Cell-Type-Specific Connectivity of the Mouse Default Mode Network. Neuron, 2021, 109, 545-559.e8.	3.8	94
13	Spatially resolved transcriptomics in neuroscience. Nature Methods, 2021, 18, 23-25.	9.0	65
14	Consistent cross-modal identification of cortical neurons with coupled autoencoders. Nature Computational Science, 2021, 1, 120-127.	3.8	29
15	Alternating sources of perisomatic inhibition during behavior. Neuron, 2021, 109, 997-1012.e9.	3.8	67
16	Functional enhancer elements drive subclass-selective expression from mouse to primate neocortex. Cell Reports, 2021, 34, 108754.	2.9	88
17	Relationship between simultaneously recorded spiking activity and fluorescence signal in GCaMP6 transgenic mice. ELife, 2021, 10, .	2.8	114
18	Enhancer viruses for combinatorial cell-subclass-specific labeling. Neuron, 2021, 109, 1449-1464.e13.	3.8	93

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19	A taxonomy of transcriptomic cell types across the isocortex and hippocampal formation. Cell, 2021, 184, 3222-3241.e26.	13.5	479
20	Control of impulsivity by Gi-protein signalling in layer-5 pyramidal neurons of the anterior cingulate cortex. Communications Biology, 2021, 4, 662.	2.0	15
21	Scaled, high fidelity electrophysiological, morphological, and transcriptomic cell characterization. ELife, 2021, 10, .	2.8	33
22	Signature morpho-electric, transcriptomic, and dendritic properties of human layer 5 neocortical pyramidal neurons. Neuron, 2021, 109, 2914-2927.e5.	3.8	54
23	Single-cell and single-nucleus RNA-seq uncovers shared and distinct axes of variation in dorsal LGN neurons in mice, non-human primates, and humans. ELife, 2021, 10, .	2.8	41
24	Survey of spiking in the mouse visual system reveals functional hierarchy. Nature, 2021, 592, 86-92.	13.7	284
25	A transcriptomic and epigenomic cell atlas of the mouse primary motor cortex. Nature, 2021, 598, 103-110.	13.7	166
26	Laminar distribution and arbor density of two functional classes of thalamic inputs to primary visual cortex. Cell Reports, 2021, 37, 109826.	2.9	6
27	Morphological diversity of single neurons in molecularly defined cell types. Nature, 2021, 598, 174-181.	13.7	180
28	Isoform cell-type specificity in the mouse primary motor cortex. Nature, 2021, 598, 195-199.	13.7	52
29	Human neocortical expansion involves glutamatergic neuron diversification. Nature, 2021, 598, 151-158.	13.7	160
30	Comparative cellular analysis of motor cortex in human, marmoset and mouse. Nature, 2021, 598, 111-119.	13.7	361
31	A multimodal cell census and atlas of the mammalian primary motor cortex. Nature, 2021, 598, 86-102.	13.7	316
32	Cellular anatomy of the mouse primary motor cortex. Nature, 2021, 598, 159-166.	13.7	117
33	Spatially resolved cell atlas of the mouse primary motor cortex by MERFISH. Nature, 2021, 598, 137-143.	13.7	205
34	Transcriptional network orchestrating regional patterning of cortical progenitors. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	25
35	A large-scale standardized physiological survey reveals functional organization of the mouse visual cortex. Nature Neuroscience, 2020, 23, 138-151.	7.1	232
36	Distinct Transcriptomic Cell Types and Neural Circuits of the Subiculum and Prosubiculum along the Dorsal-Ventral Axis. Cell Reports, 2020, 31, 107648.	2.9	49

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37	Brainwide Genetic Sparse Cell Labeling to Illuminate the Morphology of Neurons and Glia with Cre-Dependent MORF Mice. Neuron, 2020, 108, 111-127.e6.	3.8	37
38	A community-based transcriptomics classification and nomenclature of neocortical cell types. Nature Neuroscience, 2020, 23, 1456-1468.	7.1	183
39	Integrated Morphoelectric and Transcriptomic Classification of Cortical GABAergic Cells. Cell, 2020, 183, 935-953.e19.	13.5	290
40	A collection of genetic mouse lines and related tools for inducible and reversible intersectional misexpression. Development (Cambridge), 2020, 147, .	1.2	10
41	The Allen Mouse Brain Common Coordinate Framework: A 3D Reference Atlas. Cell, 2020, 181, 936-953.e20.	13.5	597
42	Fundamental bounds on the fidelity of sensory cortical coding. Nature, 2020, 580, 100-105.	13.7	146
43	RecV recombinase system for in vivo targeted optogenomic modifications of single cells or cell populations. Nature Methods, 2020, 17, 422-429.	9.0	36
44	Projection-specific Activity of Layer 2/3 Neurons Imaged in Mouse Primary Somatosensory Barrel Cortex During a Whisker Detection Task. Function, 2020, 1, zqaa008.	1.1	10
45	The Mouse Claustrum Is Required for Optimal Behavioral Performance Under High Cognitive Demand. Biological Psychiatry, 2020, 88, 719-726.	0.7	40
46	Common cell type nomenclature for the mammalian brain. ELife, 2020, 9, .	2.8	56
47	TeraVR empowers precise reconstruction of complete 3-D neuronal morphology in the whole brain. Nature Communications, 2019, 10, 3474.	5.8	64
48	Multimodal Analysis of Cell Types in a Hypothalamic Node Controlling Social Behavior. Cell, 2019, 179, 713-728.e17.	13.5	186
49	Hierarchical organization of cortical and thalamic connectivity. Nature, 2019, 575, 195-202.	13.7	421
50	Genetic Identification of Vagal Sensory Neurons That Control Feeding. Cell, 2019, 179, 1129-1143.e23.	13.5	265
51	Conserved cell types with divergent features in human versus mouse cortex. Nature, 2019, 573, 61-68.	13.7	1,198
52	Visual Cortex Gains Independence from Peripheral Drive before Eye Opening. Neuron, 2019, 104, 711-723.e3.	3.8	53
53	Intersectional monosynaptic tracing for dissecting subtype-specific organization of GABAergic interneuron inputs. Nature Neuroscience, 2019, 22, 492-502.	7.1	39
54	Neuronal cell-subtype specificity of neural synchronization in mouse primary visual cortex. Nature Communications, 2019, 10, 2533.	5.8	30

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55	Classification of electrophysiological and morphological neuron types in the mouse visual cortex. Nature Neuroscience, 2019, 22, 1182-1195.	7.1	333
56	Voltage imaging and optogenetics reveal behaviour-dependent changes in hippocampal dynamics. Nature, 2019, 569, 413-417.	13.7	255
57	Connectional architecture of a mouse hypothalamic circuit node controlling social behavior. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 7503-7512.	3.3	113
58	In vivo sub-millisecond two-photon optogenetics with temporally focused patterned light. Journal of Neuroscience, 2019, 39, 1785-18.	1.7	53
59	A gut-to-brain signal of fluid osmolarity controls thirst satiation. Nature, 2019, 568, 98-102.	13.7	98
60	Autonomous patch-clamp robot for functional characterization of neurons in vivo: development and application to mouse visual cortex. Journal of Neurophysiology, 2019, 121, 2341-2357.	0.9	26
61	Volumetric Ca2+ Imaging in the Mouse Brain Using Hybrid Multiplexed Sculpted Light Microscopy. Cell, 2019, 177, 1050-1066.e14.	13.5	148
62	Kilohertz two-photon brain imaging in awake mice. Nature Methods, 2019, 16, 1119-1122.	9.0	74
63	High-resolution data-driven model of the mouse connectome. Network Neuroscience, 2019, 3, 217-236.	1.4	69
64	Single-cell transcriptomic evidence for dense intracortical neuropeptide networks. ELife, 2019, 8, .	2.8	98
65	Generalized leaky integrate-and-fire models classify multiple neuron types. Nature Communications, 2018, 9, 709.	5.8	164
66	Nontoxic, double-deletion-mutant rabies viral vectors for retrograde targeting of projection neurons. Nature Neuroscience, 2018, 21, 638-646.	7.1	171
67	Systematic generation of biophysically detailed models for diverse cortical neuron types. Nature Communications, 2018, 9, 710.	5.8	123
68	Generation of a whole-brain atlas for the cholinergic system and mesoscopic projectome analysis of basal forebrain cholinergic neurons. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 415-420.	3.3	241
69	Mesoscale connectomics. Current Opinion in Neurobiology, 2018, 50, 154-162.	2.0	59
70	Preparation of Acute Brain Slices Using an Optimized N-Methyl-D-glucamine Protective Recovery Method. Journal of Visualized Experiments, 2018, , .	0.2	182
71	Single-nucleus and single-cell transcriptomes compared in matched cortical cell types. PLoS ONE, 2018, 13, e0209648.	1.1	400
72	Flexible Learning-Free Segmentation and Reconstruction of Neural Volumes. Scientific Reports, 2018, 8, 14247.	1.6	12

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73	Distinct descending motor cortex pathways and their roles in movement. Nature, 2018, 563, 79-84.	13.7	320
74	Shared and distinct transcriptomic cell types across neocortical areas. Nature, 2018, 563, 72-78.	13.7	1,323
75	Cell-nonautonomous local and systemic responses to cell arrest enable long-bone catch-up growth in developing mice. PLoS Biology, 2018, 16, e2005086.	2.6	38
76	Enteroendocrine cells switch hormone expression along the crypt-to-villus BMP signalling gradient. Nature Cell Biology, 2018, 20, 909-916.	4.6	188
77	A Suite of Transgenic Driver and Reporter Mouse Lines with Enhanced Brain-Cell-Type Targeting and Functionality. Cell, 2018, 174, 465-480.e22.	13.5	571
78	Sparse recurrent excitatory connectivity in the microcircuit of the adult mouse and human cortex. ELife, 2018, 7, .	2.8	142
79	Organization of the connections between claustrum and cortex in the mouse. Journal of Comparative Neurology, 2017, 525, spc1-spc1.	0.9	1
80	Diverse Central Projection Patterns of Retinal Ganglion Cells. Cell Reports, 2017, 18, 2058-2072.	2.9	215
81	Identification of preoptic sleep neurons using retrograde labelling and gene profiling. Nature, 2017, 545, 477-481.	13.7	246
82	Specific connections of the interpeduncular subnuclei reveal distinct components of the habenulopeduncular pathway. Journal of Comparative Neurology, 2017, 525, 2632-2656.	0.9	52
83	The BRAIN Initiative Cell Census Consortium: Lessons Learned toward Generating a Comprehensive Brain Cell Atlas. Neuron, 2017, 96, 542-557.	3.8	235
84	Neuronal cell-type classification: challenges, opportunities and the path forward. Nature Reviews Neuroscience, 2017, 18, 530-546.	4.9	664
85	Organization of the connections between claustrum and cortex in the mouse. Journal of Comparative Neurology, 2017, 525, 1317-1346.	0.9	162
86	Layer-specific chromatin accessibility landscapes reveal regulatory networks in adult mouse visual cortex. ELife, 2017, 6, .	2.8	73
87	Local processing in neurites of VGluT3-expressing amacrine cells differentially organizes visual information. ELife, 2017, 6, .	2.8	23
88	An R-CaMP1.07 reporter mouse for cell-type-specific expression of a sensitive red fluorescent calcium indicator. PLoS ONE, 2017, 12, e0179460.	1.1	47
89	Aberrant Cortical Activity in Multiple GCaMP6-Expressing Transgenic Mouse Lines. ENeuro, 2017, 4, ENEURO.0207-17.2017.	0.9	221
90	Neocortical Chandelier Cells Developmentally Shape Axonal Arbors through Reorganization but Establish Subcellular Synapse Specificity without Refinement. ENeuro, 2017, 4, ENEURO.0057-17.2017.	0.9	24

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91	Two-Photon Holographic Stimulation of ReaChR. Frontiers in Cellular Neuroscience, 2016, 10, 234.	1.8	63
92	Inferring cortical function in the mouse visual system through large-scale systems neuroscience. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7337-7344.	3.3	82
93	Long-Term Optical Access to an Estimated One Million Neurons in the Live Mouse Cortex. Cell Reports, 2016, 17, 3385-3394.	2.9	209
94	Subpallial Enhancer Transgenic Lines: a Data and Tool Resource to Study Transcriptional Regulation of GABAergic Cell Fate. Neuron, 2016, 92, 59-74.	3.8	62
95	Genetically Targeted All-Optical Electrophysiology with a Transgenic Cre-Dependent Optopatch Mouse. Journal of Neuroscience, 2016, 36, 11059-11073.	1.7	76
96	Integration of autopatching with automated pipette and cell detection in vitro. Journal of Neurophysiology, 2016, 116, 1564-1578.	0.9	39
97	Resolution of High-Frequency Mesoscale Intracortical Maps Using the Genetically Encoded Glutamate Sensor iGluSnFR. Journal of Neuroscience, 2016, 36, 1261-1272.	1.7	88
98	Adult mouse cortical cell taxonomy revealed by single cell transcriptomics. Nature Neuroscience, 2016, 19, 335-346.	7.1	1,522
99	3D Image-Guided Automatic Pipette Positioning for Single Cell Experiments in vivo. Scientific Reports, 2015, 5, 18426.	1.6	26
100	Lineage Tracing Using Cux2-Cre and Cux2-CreERT2 Mice. Neuron, 2015, 86, 1091-1099.	3.8	73
101	Neuroinformatics of the Allen Mouse Brain Connectivity Atlas. Methods, 2015, 73, 4-17.	1.9	176
102	Adaptive Image Enhancement for Tracing 3D Morphologies of Neurons and Brain Vasculatures. Neuroinformatics, 2015, 13, 153-166.	1.5	39
103	Electron Microscopy at Scale. Cell, 2015, 162, 474-475.	13.5	4
104	Ca2+ signaling in astrocytes from Ip3r2â^'/â^' mice in brain slices and during startle responses in vivo. Nature Neuroscience, 2015, 18, 708-717.	7.1	411
105	Vasoactive Intestinal Polypeptide (VIP)-Expressing Neurons in the Suprachiasmatic Nucleus Provide Sparse GABAergic Outputs to Local Neurons with Circadian Regulation Occurring Distal to the Opening of Postsynaptic GABA_AIonotropic Receptors. Journal of Neuroscience, 2015, 35, 1905-1920.	1.7	48
106	Transgenic Mice for Intersectional Targeting of Neural Sensors and Effectors with High Specificity and Performance. Neuron, 2015, 85, 942-958.	3.8	992
107	Validation of optical voltage reporting by the genetically encoded voltage indicator VSFP-Butterfly from cortical layer 2/3 pyramidal neurons in mouse brain slices. Physiological Reports, 2015, 3, e12468.	0.7	15
108	Correlated Gene Expression and Target Specificity Demonstrate Excitatory Projection Neuron Diversity. Cerebral Cortex, 2015, 25, 433-449.	1.6	125

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109	Anatomical characterization of Cre driver mice for neural circuit mapping and manipulation. Frontiers in Neural Circuits, 2014, 8, 76.	1.4	383
110	Transcriptional Regulation of Enhancers Active in Protodomains of the Developing Cerebral Cortex. Neuron, 2014, 82, 989-1003.	3.8	99
111	A mesoscale connectome of the mouse brain. Nature, 2014, 508, 207-214.	13.7	2,143
112	Systematic comparison of adenoâ€associated virus and biotinylated dextran amine reveals equivalent sensitivity between tracers and novel projection targets in the mouse brain. Journal of Comparative Neurology, 2014, 522, 1989-2012.	0.9	52
113	Virtual finger boosts three-dimensional imaging and microsurgery as well as terabyte volume image visualization and analysis. Nature Communications, 2014, 5, 4342.	5.8	109
114	Scalable control of mounting and attack by Esr1+ neurons in the ventromedial hypothalamus. Nature, 2014, 509, 627-632.	13.7	399
115	Cerebellar Purkinje cell activity drives motor learning. Nature Neuroscience, 2013, 16, 1734-1736.	7.1	116
116	Differential Control of Learning and Anxiety along the Dorsoventral Axis of the Dentate Gyrus. Neuron, 2013, 77, 955-968.	3.8	582
117	Olfactory cortical neurons read out a relative time code in the olfactory bulb. Nature Neuroscience, 2013, 16, 949-957.	7.1	186
118	Genetic Approaches to Neural Circuits in the Mouse. Annual Review of Neuroscience, 2013, 36, 183-215.	5.0	184
119	Medial Habenula Output Circuit Mediated by Î±5 Nicotinic Receptor-Expressing GABAergic Neurons in the Interpeduncular Nucleus. Journal of Neuroscience, 2013, 33, 18022-18035.	1.7	74
120	A Cre-Dependent GCaMP3 Reporter Mouse for Neuronal ImagingIn Vivo. Journal of Neuroscience, 2012, 32, 3131-3141.	1.7	341
121	Large-Scale Cellular-Resolution Gene Profiling in Human Neocortex Reveals Species-Specific Molecular Signatures. Cell, 2012, 149, 483-496.	13.5	342
122	Adenoâ€Associated Viral Vectors for Anterograde Axonal Tracing with Fluorescent Proteins in Nontransgenic and Cre Driver Mice. Current Protocols in Neuroscience, 2012, 59, Unit 1.20.1-18.	2.6	65
123	Mouse transgenic approaches in optogenetics. Progress in Brain Research, 2012, 196, 193-213.	0.9	74
124	A toolbox of Cre-dependent optogenetic transgenic mice for light-induced activation and silencing. Nature Neuroscience, 2012, 15, 793-802.	7.1	1,153
125	Differential connectivity and response dynamics of excitatory and inhibitory neurons in visual cortex. Nature Neuroscience, 2011, 14, 1045-1052.	7.1	439
126	Visual Tuning Properties of Genetically Identified Layer 2/3 Neuronal Types in the Primary Visual Cortex of Cre-Transgenic Mice. Frontiers in Systems Neuroscience, 2011, 4, 162.	1.2	55

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127	A robust and high-throughput Cre reporting and characterization system for the whole mouse brain. Nature Neuroscience, 2010, 13, 133-140.	7.1	5,650
128	An Inducible and Reversible Mouse Genetic Rescue System. PLoS Genetics, 2008, 4, e1000069.	1.5	82
129	The Role of Kisspeptinâ€“GPR54 Signaling in the Tonic Regulation and Surge Release of Gonadotropin-Releasing Hormone/Luteinizing Hormone. Journal of Neuroscience, 2007, 27, 12088-12095.	1.7	190
130	Large-scale, saturating insertional mutagenesis of the mouse genome. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 14406-14411.	3.3	16
131	Thyrotropin-Releasing Hormone Receptor 1-Deficient Mice Display Increased Depression and Anxiety-Like Behavior. Molecular Endocrinology, 2007, 21, 2795-2804.	3.7	64
132	Neuromedin U Receptor 2-Deficient Mice Display Differential Responses in Sensory Perception, Stress, and Feeding. Molecular and Cellular Biology, 2006, 26, 9352-9363.	1.1	63
133	Phenotypic Analysis of Mice Deficient in the Type 2 Galanin Receptor (GALR2). Molecular and Cellular Biology, 2005, 25, 4804-4811.	1.1	76
134	The G protein-coupled receptor repertoires of human and mouse. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 4903-4908.	3.3	662
135	Conditional calcineurin knockout mice exhibit multiple abnormal behaviors related to schizophrenia. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 8987-8992.	3.3	459
136	Forebrain-Specific Calcineurin Knockout Selectively Impairs Bidirectional Synaptic Plasticity and Working/Episodic-like Memory. Cell, 2001, 107, 617-629.	13.5	457
137	The timSL Mutant of the Drosophila Rhythm Gene timeless Manifests Allele-Specific Interactions with period Gene Mutants. Neuron, 1996, 17, 921-929.	3.8	108
138	A light-entrainment mechanism for the Drosophila circadian clock. Nature, 1996, 380, 129-135.	13.7	432
139	A Suite of Transgenic Driver and Reporter Mouse Lines with Enhanced Brain Cell Type Targeting and Functionality. SSRN Electronic Journal, 0, , .	0.4	2
140	Neuronal Cell-Subtype Specificity of Neural Synchronization in Mouse Primary Visual Cortex. SSRN Electronic Journal, 0, , .	0.4	0