

Guoping Feng

List of Publications by Year in descending order

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126
papers

27,811
citations

6613

79
h-index

13771

129
g-index

189
all docs

189
docs citations

189
times ranked

32195
citing authors

#	ARTICLE	IF	CITATIONS
1	Imaging Neuronal Subsets in Transgenic Mice Expressing Multiple Spectral Variants of GFP. <i>Neuron</i> , 2000, 28, 41-51.	8.1	2,833
2	Long-term in vivo imaging of experience-dependent synaptic plasticity in adult cortex. <i>Nature</i> , 2002, 420, 788-794.	27.8	1,706
3	CRISPR-Cas9 Knockin Mice for Genome Editing and Cancer Modeling. <i>Cell</i> , 2014, 159, 440-455.	28.9	1,566
4	Shank3 mutant mice display autistic-like behaviours and striatal dysfunction. <i>Nature</i> , 2011, 472, 437-442.	27.8	1,273
5	Next-Generation Optical Technologies for Illuminating Genetically Targeted Brain Circuits. <i>Journal of Neuroscience</i> , 2006, 26, 10380-10386.	3.6	708
6	Cortico-striatal synaptic defects and OCD-like behaviours in Sapap3-mutant mice. <i>Nature</i> , 2007, 448, 894-900.	27.8	688
7	In Vivo Light-Induced Activation of Neural Circuitry in Transgenic Mice Expressing Channelrhodopsin-2. <i>Neuron</i> , 2007, 54, 205-218.	8.1	680
8	Sustained axon regeneration induced by co-deletion of PTEN and SOCS3. <i>Nature</i> , 2011, 480, 372-375.	27.8	637
9	Flow of Cortical Activity Underlying a Tactile Decision in Mice. <i>Neuron</i> , 2014, 81, 179-194.	8.1	622
10	Cell type-specific channelrhodopsin-2 transgenic mice for optogenetic dissection of neural circuitry function. <i>Nature Methods</i> , 2011, 8, 745-752.	19.0	605
11	A transcription activator-like effector toolbox for genome engineering. <i>Nature Protocols</i> , 2012, 7, 171-192.	12.0	568
12	Acute Brain Slice Methods for Adult and Aging Animals: Application of Targeted Patch Clamp Analysis and Optogenetics. <i>Methods in Molecular Biology</i> , 2014, 1183, 221-242.	0.9	533
13	SynGO: An Evidence-Based, Expert-Curated Knowledge Base for the Synapse. <i>Neuron</i> , 2019, 103, 217-234.e4.	8.1	518
14	SHANK proteins: roles at the synapse and in autism spectrum disorder. <i>Nature Reviews Neuroscience</i> , 2017, 18, 147-157.	10.2	508
15	Fast modulation of visual perception by basal forebrain cholinergic neurons. <i>Nature Neuroscience</i> , 2013, 16, 1857-1863.	14.8	489
16	A viral strategy for targeting and manipulating interneurons across vertebrate species. <i>Nature Neuroscience</i> , 2016, 19, 1743-1749.	14.8	396
17	Optogenetic Stimulation of Lateral Orbitofronto-Striatal Pathway Suppresses Compulsive Behaviors. <i>Science</i> , 2013, 340, 1243-1246.	12.6	365
18	Comparative cellular analysis of motor cortex in human, marmoset and mouse. <i>Nature</i> , 2021, 598, 111-119.	27.8	361

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19	Adult restoration of Shank3 expression rescues selective autistic-like phenotypes. <i>Nature</i> , 2016, 530, 481-484.	27.8	347
20	A multimodal cell census and atlas of the mammalian primary motor cortex. <i>Nature</i> , 2021, 598, 86-102.	27.8	316
21	Genetic evidence that relative synaptic efficacy biases the outcome of synaptic competition. <i>Nature</i> , 2003, 424, 430-434.	27.8	287
22	Habenula α -Cholinergic Neurons Corelease Glutamate and Acetylcholine and Activate Postsynaptic Neurons via Distinct Transmission Modes. <i>Neuron</i> , 2011, 69, 445-452.	8.1	284
23	Sensory Integration in Mouse Insular Cortex Reflects GABA Circuit Maturation. <i>Neuron</i> , 2014, 83, 894-905.	8.1	282
24	Mice with Shank3 Mutations Associated with ASD and Schizophrenia Display Both Shared and Distinct Defects. <i>Neuron</i> , 2016, 89, 147-162.	8.1	279
25	The Primordial, Blue-Cone Color System of the Mouse Retina. <i>Journal of Neuroscience</i> , 2005, 25, 5438-5445.	3.6	256
26	Selective optical drive of thalamic reticular nucleus generates thalamic bursts and cortical spindles. <i>Nature Neuroscience</i> , 2011, 14, 1118-1120.	14.8	248
27	Calcium channel $\alpha 1$ subunit mediates spinal hyperexcitability in pain modulation. <i>Pain</i> , 2006, 125, 20-34.	4.2	231
28	Brains, Genes, and Primates. <i>Neuron</i> , 2015, 86, 617-631.	8.1	231
29	Striatal circuits, habits, and implications for obsessive-compulsive disorder. <i>Current Opinion in Neurobiology</i> , 2015, 30, 59-65.	4.2	214
30	Imaging Neural Activity Using Thy1-GCaMP Transgenic Mice. <i>Neuron</i> , 2012, 76, 297-308.	8.1	207
31	Innovations present in the primate interneuron repertoire. <i>Nature</i> , 2020, 586, 262-269.	27.8	206
32	Cloning and functional analysis of tipE, a novel membrane protein that enhances drosophila para sodium channel function. <i>Cell</i> , 1995, 82, 1001-1011.	28.9	205
33	Dynamic Remodeling of Dendritic Arbors in GABAergic Interneurons of Adult Visual Cortex. <i>PLoS Biology</i> , 2005, 4, e29.	5.6	196
34	Autoimmunity to Gephyrin in Stiff-Man Syndrome. <i>Neuron</i> , 2000, 26, 307-312.	8.1	195
35	Neurobiology of social behavior abnormalities in autism and Williams syndrome. <i>Nature Neuroscience</i> , 2016, 19, 647-655.	14.8	179
36	Chd8 Mutation Leads to Autistic-like Behaviors and Impaired Striatal Circuits. <i>Cell Reports</i> , 2017, 19, 335-350.	6.4	177

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37	Improved expression of halorhodopsin for light-induced silencing of neuronal activity. <i>Brain Cell Biology</i> , 2008, 36, 141-154.	3.2	176
38	Progressive NKCC1-Dependent Neuronal Chloride Accumulation during Neonatal Seizures. <i>Journal of Neuroscience</i> , 2010, 30, 11745-11761.	3.6	173
39	Atypical behaviour and connectivity in SHANK3-mutant macaques. <i>Nature</i> , 2019, 570, 326-331.	27.8	172
40	Combining NGN2 Programming with Developmental Patterning Generates Human Excitatory Neurons with NMDAR-Mediated Synaptic Transmission. <i>Cell Reports</i> , 2018, 23, 2509-2523.	6.4	168
41	Anterior cingulate cortex dysfunction underlies social deficits in Shank3 mutant mice. <i>Nature Neuroscience</i> , 2019, 22, 1223-1234.	14.8	168
42	Thalamic reticular impairment underlies attention deficit in <i>Ptchd1</i> ^Δ mice. <i>Nature</i> , 2016, 532, 58-63.	27.8	167
43	Multi-animal pose estimation, identification and tracking with DeepLabCut. <i>Nature Methods</i> , 2022, 19, 496-504.	19.0	165
44	AAV capsid variants with brain-wide transgene expression and decreased liver targeting after intravenous delivery in mouse and marmoset. <i>Nature Neuroscience</i> , 2022, 25, 106-115.	14.8	162
45	Targeting Peripheral Somatosensory Neurons to Improve Tactile-Related Phenotypes in ASD Models. <i>Cell</i> , 2019, 178, 867-886.e24.	28.9	160
46	The Histone Deacetylase HDAC4 Connects Neural Activity to Muscle Transcriptional Reprogramming. <i>Journal of Biological Chemistry</i> , 2007, 282, 33752-33759.	3.4	156
47	Genetic Analysis of Collagen Q: Roles in Acetylcholinesterase and Butyrylcholinesterase Assembly and in Synaptic Structure and Function. <i>Journal of Cell Biology</i> , 1999, 144, 1349-1360.	5.2	155
48	Two-Photon Imaging Reveals Somatodendritic Chloride Gradient in Retinal ON-Type Bipolar Cells Expressing the Biosensor Clomeleon. <i>Neuron</i> , 2006, 49, 81-94.	8.1	154
49	Tmem119-EGFP and Tmem119-CreERT2 Transgenic Mice for Labeling and Manipulating Microglia. <i>ENeuro</i> , 2019, 6, ENEURO.0448-18.2019.	1.9	153
50	Striatopallidal dysfunction underlies repetitive behavior in Shank3-deficient model of autism. <i>Journal of Clinical Investigation</i> , 2017, 127, 1978-1990.	8.2	151
51	Cloning and Functional Characterization of a Novel Dopamine Receptor from <i>Drosophila melanogaster</i> . <i>Journal of Neuroscience</i> , 1996, 16, 3925-3933.	3.6	149
52	Single-neuron labeling with inducible Cre-mediated knockout in transgenic mice. <i>Nature Neuroscience</i> , 2008, 11, 721-728.	14.8	149
53	Îµ-Sarcoglycan, a Broadly Expressed Homologue of the Gene Mutated in Limb-Girdle Muscular Dystrophy 2D. <i>Journal of Biological Chemistry</i> , 1997, 272, 32534-32538.	3.4	144
54	Asynchronous Synapse Elimination in Neonatal Motor Units. <i>Neuron</i> , 2001, 31, 381-394.	8.1	140

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55	Gephyrin-Independent Clustering of Postsynaptic GABA _A Receptor Subtypes. <i>Molecular and Cellular Neurosciences</i> , 2001, 17, 973-982.	2.2	138
56	Differences in Cortical versus Subcortical GABAergic Signaling: A Candidate Mechanism of Electroclinical Uncoupling of Neonatal Seizures. <i>Neuron</i> , 2009, 63, 657-672.	8.1	133
57	Viral manipulation of functionally distinct interneurons in mice, non-human primates and humans. <i>Nature Neuroscience</i> , 2020, 23, 1629-1636.	14.8	133
58	Downregulation of NR3A-Containing NMDARs Is Required for Synapse Maturation and Memory Consolidation. <i>Neuron</i> , 2009, 63, 342-356.	8.1	131
59	Roles for Ephrins in Positionally Selective Synaptogenesis between Motor Neurons and Muscle Fibers. <i>Neuron</i> , 2000, 25, 295-306.	8.1	129
60	Modeling psychiatric disorders for developing effective treatments. <i>Nature Medicine</i> , 2015, 21, 979-988.	30.7	127
61	Visual Function in Mice with Photoreceptor Degeneration and Transgenic Expression of Channelrhodopsin 2 in Ganglion Cells. <i>Journal of Neuroscience</i> , 2010, 30, 8745-8758.	3.6	125
62	Glial Cell Line-Derived Neurotrophic Factor Administration in Postnatal Life Results in Motor Unit Enlargement and Continuous Synaptic Remodeling at the Neuromuscular Junction. <i>Journal of Neuroscience</i> , 2001, 21, 6136-6146.	3.6	122
63	Selective Activation of Cholinergic Basal Forebrain Neurons Induces Immediate Sleep-wake Transitions. <i>Current Biology</i> , 2014, 24, 693-698.	3.9	121
64	The Chloride Transporter Na ⁺ -K ⁺ -Cl ⁻ Cotransporter Isoform-1 Contributes to Intracellular Chloride Increases after In Vitro Ischemia. <i>Journal of Neuroscience</i> , 2006, 26, 1396-1406.	3.6	119
65	ChAT-ChR2-EYFP Mice Have Enhanced Motor Endurance But Show Deficits in Attention and Several Additional Cognitive Domains. <i>Journal of Neuroscience</i> , 2013, 33, 10427-10438.	3.6	119
66	Thrombospondin receptor $\alpha 2\beta 1$ promotes synaptogenesis and spinogenesis via postsynaptic Rac1. <i>Journal of Cell Biology</i> , 2018, 217, 3747-3765.	5.2	116
67	Postsynaptic requirement for Abl kinases in assembly of the neuromuscular junction. <i>Nature Neuroscience</i> , 2003, 6, 717-723.	14.8	115
68	Opportunities and challenges in modeling human brain disorders in transgenic primates. <i>Nature Neuroscience</i> , 2016, 19, 1123-1130.	14.8	115
69	Dysfunction of cortical GABAergic neurons leads to sensory hyper-reactivity in a Shank3 mouse model of ASD. <i>Nature Neuroscience</i> , 2020, 23, 520-532.	14.8	115
70	Neurobiology of obsessive-compulsive disorder: insights into neural circuitry dysfunction through mouse genetics. <i>Current Opinion in Neurobiology</i> , 2011, 21, 842-848.	4.2	113
71	CRISPR germline engineering—the community speaks. <i>Nature Biotechnology</i> , 2015, 33, 478-486.	17.5	110
72	Synapse Formation by Hippocampal Neurons from Agrin-Deficient Mice. <i>Developmental Biology</i> , 1999, 205, 65-78.	2.0	104

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73	Close Homolog of L1 Modulates Area-Specific Neuronal Positioning and Dendrite Orientation in the Cerebral Cortex. <i>Neuron</i> , 2004, 44, 423-437.	8.1	104
74	Distinct subnetworks of the thalamic reticular nucleus. <i>Nature</i> , 2020, 583, 819-824.	27.8	104
75	Functional Consequences of Mutations in Postsynaptic Scaffolding Proteins and Relevance to Psychiatric Disorders. <i>Annual Review of Neuroscience</i> , 2012, 35, 49-71.	10.7	103
76	Glutamatergic Synaptic Dysfunction and Obsessive-Compulsive Disorder. <i>Current Chemical Genomics</i> , 2008, 2, 62-75.	2.0	102
77	An Ultra-Sensitive Step-Function Opsin for Minimally Invasive Optogenetic Stimulation in Mice and Macaques. <i>Neuron</i> , 2020, 107, 38-51.e8.	8.1	99
78	PSD93 Regulates Synaptic Stability at Neuronal Cholinergic Synapses. <i>Journal of Neuroscience</i> , 2004, 24, 378-388.	3.6	96
79	Cortical Control of Affective Networks. <i>Journal of Neuroscience</i> , 2013, 33, 1116-1129.	3.6	94
80	Functional characterization of a neuropeptide F-like receptor from <i>Drosophila melanogaster</i> . <i>European Journal of Neuroscience</i> , 2003, 18, 227-238.	2.6	92
81	Neuronal deletion of <i>Gtf2i</i> , associated with Williams syndrome, causes behavioral and myelin alterations rescuable by a remyelinating drug. <i>Nature Neuroscience</i> , 2019, 22, 700-708.	14.8	92
82	Direct modulation of GFAP-expressing glia in the arcuate nucleus bi-directionally regulates feeding. <i>ELife</i> , 2016, 5, .	6.0	91
83	A framework for the investigation of rare genetic disorders in neuropsychiatry. <i>Nature Medicine</i> , 2019, 25, 1477-1487.	30.7	90
84	Imaging synaptic inhibition in transgenic mice expressing the chloride indicator, Clomeleon. <i>Brain Cell Biology</i> , 2006, 35, 207-228.	3.2	89
85	Differential mRNA expression and protein localization of the SAP90/PSD-95-associated proteins (SAPAPs) in the nervous system of the mouse. <i>Journal of Comparative Neurology</i> , 2004, 472, 24-39.	1.6	88
86	<i>Sapap3</i> Deletion Causes mGluR5-Dependent Silencing of AMPAR Synapses. <i>Journal of Neuroscience</i> , 2011, 31, 16685-16691.	3.6	86
87	Circuit-Selective Striatal Synaptic Dysfunction in the <i>Sapap3</i> Knockout Mouse Model of Obsessive-Compulsive Disorder. <i>Biological Psychiatry</i> , 2014, 75, 623-630.	1.3	85
88	Thalamic Reticular Dysfunction as a Circuit Endophenotype in Neurodevelopmental Disorders. <i>Neuron</i> , 2018, 98, 282-295.	8.1	84
89	The NIH Somatic Cell Genome Editing program. <i>Nature</i> , 2021, 592, 195-204.	27.8	84
90	Genome-scale neurogenetics: methodology and meaning. <i>Nature Neuroscience</i> , 2014, 17, 756-763.	14.8	82

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91	Shank3 mutation in a mouse model of autism leads to changes in the S-nitroso-proteome and affects key proteins involved in vesicle release and synaptic function. <i>Molecular Psychiatry</i> , 2020, 25, 1835-1848.	7.9	82
92	Sapap3 Deletion Anomalously Activates Short-Term Endocannabinoid-Mediated Synaptic Plasticity. <i>Journal of Neuroscience</i> , 2011, 31, 9563-9573.	3.6	78
93	Cellular and synaptic network defects in autism. <i>Current Opinion in Neurobiology</i> , 2012, 22, 866-872.	4.2	78
94	Candidate genes and functional noncoding variants identified in a canine model of obsessive-compulsive disorder. <i>Genome Biology</i> , 2014, 15, R25.	9.6	78
95	Remotely controlled chemomagnetic modulation of targeted neural circuits. <i>Nature Nanotechnology</i> , 2019, 14, 967-973.	31.5	77
96	Synaptic dynamism measured over minutes to months: age-dependent decline in an autonomic ganglion. <i>Nature Neuroscience</i> , 2003, 6, 956-960.	14.8	73
97	Opportunities and limitations of genetically modified nonhuman primate models for neuroscience research. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 24022-24031.	7.1	64
98	Learning From Animal Models of Obsessive-Compulsive Disorder. <i>Biological Psychiatry</i> , 2016, 79, 7-16.	1.3	63
99	Optogenetic Mapping of Cerebellar Inhibitory Circuitry Reveals Spatially Biased Coordination of Interneurons via Electrical Synapses. <i>Cell Reports</i> , 2014, 7, 1601-1613.	6.4	62
100	Impaired Dendritic Development and Memory in <i>Sorbs2</i> Knock-Out Mice. <i>Journal of Neuroscience</i> , 2016, 36, 2247-2260.	3.6	62
101	The Role of Muscle microRNAs in Repairing the Neuromuscular Junction. <i>PLoS ONE</i> , 2014, 9, e93140.	2.5	60
102	Normal Midbrain Dopaminergic Neuron Development and Function in miR-133b Mutant Mice. <i>Journal of Neuroscience</i> , 2012, 32, 10887-10894.	3.6	59
103	Integrating evolutionary and regulatory information with a multispecies approach implicates genes and pathways in obsessive-compulsive disorder. <i>Nature Communications</i> , 2017, 8, 774.	12.8	52
104	Ubiquilin-1 Regulates Nicotine-induced Up-regulation of Neuronal Nicotinic Acetylcholine Receptors. <i>Journal of Biological Chemistry</i> , 2005, 280, 34088-34095.	3.4	51
105	Thalamic subnetworks as units of function. <i>Nature Neuroscience</i> , 2022, 25, 140-153.	14.8	50
106	Development of transgenic animals for optogenetic manipulation of mammalian nervous system function: Progress and prospects for behavioral neuroscience. <i>Behavioural Brain Research</i> , 2013, 255, 3-18.	2.2	49
107	Efficient generation of Knock-in/Knock-out marmoset embryo via CRISPR/Cas9 gene editing. <i>Scientific Reports</i> , 2019, 9, 12719.	3.3	42
108	Abnormal mGluR-mediated synaptic plasticity and autism-like behaviours in <i>Gprasp2</i> mutant mice. <i>Nature Communications</i> , 2019, 10, 1431.	12.8	39

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109	Efficient embryonic homozygous gene conversion via RAD51-enhanced interhomolog repair. <i>Cell</i> , 2021, 184, 3267-3280.e18.	28.9	37
110	Anterior thalamic dysfunction underlies cognitive deficits in a subset of neuropsychiatric disease models. <i>Neuron</i> , 2021, 109, 2590-2603.e13.	8.1	34
111	MyelTracer: A Semi-Automated Software for Myelin<i>g</i>-Ratio Quantification. <i>ENeuro</i> , 2021, 8, ENEURO.0558-20.2021.	1.9	32
112	Targeting thalamic circuits rescues motor and mood deficits in PD mice. <i>Nature</i> , 2022, 607, 321-329.	27.8	32
113	Multiplex precise base editing in cynomolgus monkeys. <i>Nature Communications</i> , 2020, 11, 2325.	12.8	28
114	Effects of a patient-derived de novo coding alteration of CACNA1I in mice connect a schizophrenia risk gene with sleep spindle deficits. <i>Translational Psychiatry</i> , 2020, 10, 29.	4.8	25
115	Dichotomous parvalbumin interneuron populations in dorsolateral and dorsomedial striatum. <i>Journal of Physiology</i> , 2018, 596, 3695-3707.	2.9	24
116	Epitope-preserving magnified analysis of proteome (eMAP). <i>Science Advances</i> , 2021, 7, eabf6589.	10.3	22
117	Optogenetic Visualization of Presynaptic Tonic Inhibition of Cerebellar Parallel Fibers. <i>Journal of Neuroscience</i> , 2016, 36, 5709-5723.	3.6	20
118	Animal models for neuropsychiatric disorders: prospects for circuit intervention. <i>Current Opinion in Neurobiology</i> , 2017, 45, 59-65.	4.2	19
119	Windows of opportunity: timing in neurodevelopmental disorders. <i>Current Opinion in Neurobiology</i> , 2018, 48, 59-63.	4.2	19
120	Lateral orbitofrontal dysfunction in the <i>Sapap3</i> knockout mouse model of obsessive-compulsive disorder. <i>Journal of Psychiatry and Neuroscience</i> , 2019, 44, 120-131.	2.4	18
121	The dawn of non-human primate models for neurodevelopmental disorders. <i>Current Opinion in Genetics and Development</i> , 2020, 65, 160-168.	3.3	18
122	Combinatorial Targeting of Distributed Forebrain Networks Reverses Noise Hypersensitivity in a Model of Autism Spectrum Disorder. <i>Neuron</i> , 2019, 104, 488-500.e11.	8.1	17
123	Anterior thalamic circuits crucial for working memory. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2118712119.	7.1	16
124	Striatal Magnetic Resonance Spectroscopy Abnormalities in Young Adult Sapap3 Knockout Mice. <i>Biological Psychiatry: Cognitive Neuroscience and Neuroimaging</i> , 2016, 1, 39-48.	1.5	14
125	Efficient production of cynomolgus monkeys with a toolbox of enhanced assisted reproductive technologies. <i>Scientific Reports</i> , 2016, 6, 25888.	3.3	8
126	<i>Sapap4</i> deficiency leads to postsynaptic defects and abnormal behaviors relevant to hyperkinetic neuropsychiatric disorder in mice. <i>Cerebral Cortex</i> , 2023, 33, 1104-1118.	2.9	2