Distinct learning-induced changes in stimulus selectivi interneuron classes in visual cortex

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Citation Report

#	Article	IF	Citations
1	Cell Type Specific Representation of Vibro-tactile Stimuli in the Mouse Primary Somatosensory Cortex. Frontiers in Neural Circuits, 2018, 12, 109.	1.4	12
2	Activity-Regulated Transcription: Bridging the Gap between Neural Activity and Behavior. Neuron, 2018, 100, 330-348.	3.8	408
3	Perceptual Decision-Making: A Field in the Midst of a Transformation. Neuron, 2018, 100, 453-462.	3.8	28
4	Active dendritic integration and mixed neocortical network representations during an adaptive sensing behavior. Nature Neuroscience, 2018, 21, 1583-1590.	7.1	73
5	Contextual signals in visual cortex. Current Opinion in Neurobiology, 2018, 52, 131-138.	2.0	54
6	Top-down control: A unified principle of cortical learning. Neuroscience Research, 2019, 141, 23-28.	1.0	5
7	Progressive Circuit Changes during Learning and Disease. Neuron, 2019, 104, 37-46.	3.8	20
8	Inhibitory microcircuits for top-down plasticity of sensory representations. Nature Communications, 2019, 10, 5055.	5.8	39
9	V1 microcircuits underlying mouse visual behavior. Current Opinion in Neurobiology, 2019, 58, 191-198.	2.0	4
10	Associative conditioning remaps odor representations and modifies inhibition in a higher olfactory brain area. Nature Neuroscience, 2019, 22, 1844-1856.	7.1	24
11	Learning to optimize perceptual decisions through suppressive interactions in the human brain. Nature Communications, 2019, 10, 474.	5.8	37
12	Striatal Low-Threshold Spiking Interneurons Regulate Goal-Directed Learning. Neuron, 2019, 103, 92-101.e6.	3.8	50
13	Audio-visual experience strengthens multisensory assemblies in adult mouse visual cortex. Nature Communications, 2019, 10, 5684.	5.8	46
14	Probabilistic Encoding Models for Multivariate Neural Data. Frontiers in Neural Circuits, 2019, 13, 1.	1.4	49
15	Interneuron Types as Attractors and Controllers. Annual Review of Neuroscience, 2020, 43, 1-30.	5.0	127
16	Somatostatin receptors (SSTR1-5) on inhibitory interneurons in the barrel cortex. Brain Structure and Function, 2020, 225, 387-401.	1.2	17
17	Excitatory and Inhibitory Subnetworks Are Equally Selective during Decision-Making and Emerge Simultaneously during Learning. Neuron, 2020, 105, 165-179.e8.	3.8	82
18	Behavioral and Neural Bases of Tactile Shape Discrimination Learning in Head-Fixed Mice. Neuron, 2020, 108, 953-967.e8.	3.8	20

#	Article	IF	Citations
19	Theory of neuronal perturbome in cortical networks. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 26966-26976.	3.3	27
20	Large-Scale 3D Two-Photon Imaging of Molecularly Identified CA1 Interneuron Dynamics in Behaving Mice. Neuron, 2020, 108, 968-983.e9.	3.8	77
21	The ins and outs of inhibitory synaptic plasticity: Neuron types, molecular mechanisms and functional roles. European Journal of Neuroscience, 2021, 54, 6882-6901.	1.2	16
22	Approaches to inferring multi-regional interactions from simultaneous population recordings. Current Opinion in Neurobiology, 2020, 65, 108-119.	2.0	11
23	Developmental divergence of sensory stimulus representation in cortical interneurons. Nature Communications, 2020, 11, 5729.	5.8	17
24	NMDAR-Dependent Emergence of Behavioral Representation in Primary Visual Cortex. Cell Reports, 2020, 32, 107970.	2.9	10
25	Disparity Sensitivity and Binocular Integration in Mouse Visual Cortex Areas. Journal of Neuroscience, 2020, 40, 8883-8899.	1.7	21
26	Ca2+ imaging of neurons in freely moving rats with automatic post hoc histological identification. Journal of Neuroscience Methods, 2020, 341, 108765.	1.3	9
27	Orbitofrontal control of visual cortex gain promotes visual associative learning. Nature Communications, 2020, 11, 2784.	5.8	39
28	An Annotated Journey through Modern Visual Neuroscience. Journal of Neuroscience, 2020, 40, 44-53.	1.7	6
29	Neural Correlates of Learning Pure Tones or Natural Sounds in the Auditory Cortex. Frontiers in Neural Circuits, 2019, 13, 82.	1.4	22
30	Opposing Somatic and Dendritic Expression of Stimulus-Selective Response Plasticity in Mouse Primary Visual Cortex. Frontiers in Cellular Neuroscience, 2019, 13, 555.	1.8	19
31	Circuitry Underlying Experience-Dependent Plasticity in the Mouse Visual System. Neuron, 2020, 106, 21-36.	3.8	124
32	Spatiotemporal refinement of signal flow through association cortex during learning. Nature Communications, 2020, 11, 1744.	5.8	42
33	Stability in the Face of Change: Lifelong Experience-Dependent Plasticity in the Sensory Cortex. Frontiers in Cellular Neuroscience, 2020, 14, 76.	1.8	17
34	Reward Association Enhances Stimulus-Specific Representations in Primary Visual Cortex. Current Biology, 2020, 30, 1866-1880.e5.	1.8	83
35	Inhibitory plasticity in layer 1 â€“ dynamic gatekeeper of neocortical associations. Current Opinion in Neurobiology, 2021, 67, 26-33.	2.0	11
36	Inhibitory stabilization and cortical computation. Nature Reviews Neuroscience, 2021, 22, 21-37.	4.9	80

#	Article	IF	Citations
37	Experience-regulated molecular mechanisms in cortical GABAergic interneurons: from cellular functions to control over circuit plasticity. Current Opinion in Neurobiology, 2021, 67, 145-154.	2.0	5
38	Distinct Laminar and Cellular Patterns of GABA Neuron Transcript Expression in Monkey Prefrontal and Visual Cortices. Cerebral Cortex, 2021, 31, 2345-2363.	1.6	11
39	Neural inhibition for continual learning and memory. Current Opinion in Neurobiology, 2021, 67, 85-94.	2.0	24
45	Visual Familiarity Induced 5-Hz Oscillations and Improved Orientation and Direction Selectivities in V1. Journal of Neuroscience, 2021, 41, 2656-2667.	1.7	13
47	Analysis of segmentation ontology reveals the similarities and differences in connectivity onto L2/3 neurons in mouse V1. Scientific Reports, 2021, 11, 4983.	1.6	10
49	Learning excitatory-inhibitory neuronal assemblies in recurrent networks. ELife, 2021, 10, .	2.8	24
50	State-Dependent Regulation of Cortical Processing Speed via Gain Modulation. Journal of Neuroscience, 2021, 41, 3988-4005.	1.7	11
52	Multi-scale network imaging in a mouse model of amyloidosis. Cell Calcium, 2021, 95, 102365.	1.1	9
53	Multidimensional population activity in an electrically coupled inhibitory circuit in the cerebellar cortex. Neuron, 2021, 109, 1739-1753.e8.	3.8	14
54	Sensorimotor strategies and neuronal representations for shape discrimination. Neuron, 2021, 109, 2308-2325.e10.	3.8	28
55	Visual Recognition Is Heralded by Shifts in Local Field Potential Oscillations and Inhibitory Networks in Primary Visual Cortex. Journal of Neuroscience, 2021, 41, 6257-6272.	1.7	24
56	Circuit mechanisms for cortical plasticity and learning. Seminars in Cell and Developmental Biology, 2022, 125, 68-75.	2.3	10
57	A database and deep learning toolbox for noise-optimized, generalized spike inference from calcium imaging. Nature Neuroscience, 2021, 24, 1324-1337.	7.1	57
62	Light-guided sectioning for precise in situ localization and tissue interface analysis for brain-implanted optical fibers and GRIN lenses. Cell Reports, 2021, 36, 109744.	2.9	9
63	Learning-induced plasticity in the barrel cortex is disrupted by inhibition of layer 4 somatostatin-containing interneurons. Biochimica Et Biophysica Acta - Molecular Cell Research, 2022, 1869, 119146.	1.9	7
65	GABAergic microcircuitry of fear memory encoding. Neurobiology of Learning and Memory, 2021, 184, 107504.	1.0	7
66	A Role for Vasoactive Intestinal Peptide Interneurons in Neurodevelopmental Disorders. Developmental Neuroscience, 2021, 43, 168-180.	1.0	11
82	Updating the picture of layer 2/3 VIP-expressing interneuron function in the mouse cerebral cortex. Acta Neurobiologiae Experimentalis, 2020, 79, 328-337.	0.4	4

#	Article	IF	Citations
83	GABA, not BOLD, reveals dissociable learning-dependent plasticity mechanisms in the human brain. ELife, 2018, 7, .	2.8	40
84	Structured inhibitory activity dynamics in new virtual environments. ELife, 2019, 8, .	2.8	19
85	Dendritic NMDA receptors in parvalbumin neurons enable strong and stable neuronal assemblies. ELife, 2019, 8, .	2.8	42
86	Experience shapes activity dynamics and stimulus coding of VIP inhibitory cells. ELife, 2020, 9, .	2.8	60
87	Fast and reversible neural inactivation in macaque cortex by optogenetic stimulation of GABAergic neurons. ELife, 2020, 9, .	2.8	23
88	Learning-related population dynamics in the auditory thalamus. ELife, 2020, 9, .	2.8	10
89	How many neurons are sufficient for perception of cortical activity?. ELife, 2020, 9, .	2.8	82
91	Semantic priming and neurobiology in schizophrenia: A theoretical review. Neuropsychologia, 2021, 163, 108058.	0.7	9
107	Sensory coding and contrast invariance emerge from the control of plastic inhibition over emergent selectivity. PLoS Computational Biology, 2021, 17, e1009566.	1.5	5
109	Dynamics of a disinhibitory prefrontal microcircuit in controlling social competition. Neuron, 2022, 110, 516-531.e6.	3.8	45
110	The contribution of low contrastâ€“preferring neurons to information representation in the primary visual cortex after learning. Science Advances, 2021, 7, eabj9976.	4.7	2
111	Dense functional and molecular readout of a circuit hub in sensory cortex. Science, 2022, 375, eabl5981.	6.0	36
112	Fluorescence imaging of large-scale neural ensemble dynamics. Cell, 2022, 185, 9-41.	13.5	68
113	The Organization of Somatostatin-Immunoreactive Cells in the Visual Cortex of the Gerbil. Biomedicines, 2022, 10, 92.	1.4	2
116	Stimulus-Selective Response Plasticity in Primary Visual Cortex: Progress and Puzzles. Frontiers in Neural Circuits, 2021, 15, 815554.	1.4	14
117	Learning and attention increase visual response selectivity through distinct mechanisms. Neuron, 2022, 110, 686-697.e6.	3.8	28
118	In V1, attending is not learning to see. Neuron, 2022, 110, 561-563.	3.8	0
119	Somatostatin and Somatostatin-Containing Interneuronsâ€”From Plasticity to Pathology. Biomolecules, 2022, 12, 312.	1.8	13

#	Article	IF	Citations
120	A Flp-dependent G-CaMP9a transgenic mouse for neuronal imaging inÂvivo. Cell Reports Methods, 2022, 2, 100168.	1.4	9
121	The neural hierarchy of consciousness: A theoretical model and review on neurophysiology and NCCs. Neuropsychologia, 2022, 169, 108202.	0.7	3
122	Computational mechanisms of distributed value representations and mixed learning strategies. Nature Communications, 2021, 12, 7191.	5.8	3
123	Compartmentalized dendritic plasticity during associative learning. Science, 2022, 376, eabf7052.	6.0	20
128	Dynamic Distortion of Orientation Representation after Learning in the Mouse Primary Visual Cortex. Journal of Neuroscience, 2022, 42, 4311-4325.	1.7	3
129	Long-range cortical synchronization supports abrupt visual learning. Current Biology, 2022, 32, 2467-2479.e4.	1.8	4
132	GABAergic CA1 neurons are more stable following context changes than glutamatergic cells. Scientific Reports, 2022, 12, .	1.6	5
133	The structures and functions of correlations in neural population codes. Nature Reviews Neuroscience, 2022, 23, 551-567.	4.9	63
134	Existing function in primary visual cortex is not perturbed by new skill acquisition of a non-matched sensory task. Nature Communications, 2022, 13, .	5.8	5
135	Selective enhancement of neural coding in V1 underlies fine-discrimination learning in tree shrew. Current Biology, 2022, 32, 3245-3260.e5.	1.8	10
137	A transcriptomic axis predicts state modulation of cortical interneurons. Nature, 2022, 607, 330-338.	13.7	56
139	Multiplicative Shot-Noise: A New Route to Stability of Plastic Networks. Physical Review Letters, 2022, 129, .	2.9	2
140	Semantic processing and neurobiology in Alzheimer's disease and Mild Cognitive Impairment. Neuropsychologia, 2022, 174, 108337.	0.7	8
141	Dynamic reorganization of the cortico-basal ganglia-thalamo-cortical network during task learning. Cell Reports, 2022, 40, 111394.	2.9	5
142	The spatial scale of somatostatin subnetworks increases from sensory to association cortex. Cell Reports, 2022, 40, 111319.	2.9	4
143	Two-photon calcium imaging of neuronal activity. Nature Reviews Methods Primers, 2022, 2, .	11.8	30
144	SpecSeg is a versatile toolbox that segments neurons and neurites in chronic calcium imaging datasets based on low-frequency cross-spectral power. Cell Reports Methods, 2022, 2, 100299.	1.4	4
145	Long-range functional loops in the mouse olfactory system and their roles in computing odor identity. Neuron, 2022, 110, 3970-3985.e7.	3.8	10

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147	Learning shapes cortical dynamics to enhance integration of relevant sensory input. Neuron, 2022, , .	3.8	5
149	Cortex-wide response mode of VIP-expressing inhibitory neurons by reward and punishment. ELife, 0, 11, .	2.8	18
151	The plasticitome of cortical interneurons. Nature Reviews Neuroscience, 2023, 24, 80-97.	4.9	17
154	Visual Cortical Plasticity: Molecular Mechanisms as Revealed by Induction Paradigms in Rodents. International Journal of Molecular Sciences, 2023, 24, 4701.	1.8	0
155	Spatial Transcriptomics: Technical Aspects of Recent Developments and Their Applications in Neuroscience and Cancer Research. Advanced Science, 2023, 10, .	5.6	7