Michael P Stryker

List of Publications by Year
in descending order

116 papers	21,045 citations	15880 67 h-index	24511 114 g-index
130 all docs	130 docs citations	130 times ranked	14428 citing authors

#	Article	IF	Citations
1	Gamma rhythms and visual information in mouse V1 specifically modulated by somatostatin+ neurons in reticular thalamus. ELife, 2021, 10, .	2.8	8
2	Clustered gamma-protocadherins regulate cortical interneuron programmed cell death. ELife, 2020, 9, .	2.8	33
3	Widespread activation of awake mouse cortex by electrical stimulation. , 2019, 2019, 1113-1117.		6
4	Experience-dependent structural plasticity at pre- and postsynaptic sites of layer 2/3 cells in developing visual cortex. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 21812-21820.	3.3	34
5	Transplanted Cells Are Essential for the Induction But Not the Expression of Cortical Plasticity. Journal of Neuroscience, 2019, 39, 7529-7538.	1.7	11
6	Vesicular GABA Transporter Is Necessary for Transplant-Induced Critical Period Plasticity in Mouse Visual Cortex. Journal of Neuroscience, 2019, 39, 2635-2648.	1.7	14
7	Amblyopia: New molecular/pharmacological and environmental approaches. Visual Neuroscience, 2018, 35, E018.	0.5	30
8	Flow stimuli reveal ecologically appropriate responses in mouse visual cortex. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11304-11309.	3.3	23
9	Integrating Hebbian and homeostatic plasticity: introduction. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160413.	1.8	54
10	Homeostatic plasticity mechanisms in mouse V1. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160504.	1.8	21
11	Locomotion Enhances Neural Encoding of Visual Stimuli in Mouse V1. Journal of Neuroscience, 2017, 37, 3764-3775.	1.7	165
12	Locomotion Induces Stimulus-Specific Response Enhancement in Adult Visual Cortex. Journal of Neuroscience, 2017, 37, 3532-3543.	1.7	53
13	Development and long-term integration of MGE-lineage cortical interneurons in the heterochronic environment. Journal of Neurophysiology, 2017, 118, 131-139.	0.9	11
14	Caudal Ganglionic Eminence Precursor Transplants Disperse and Integrate as Lineage-Specific Interneurons but Do Not Induce Cortical Plasticity. Cell Reports, 2016, 16, 1391-1404.	2.9	31
15	Stochastic Interaction between Neural Activity and Molecular Cues in the Formation of Topographic Maps. Neuron, 2015, 87, 1261-1273.	3.8	30
16	A cortical disinhibitory circuit for enhancing adult plasticity. ELife, 2015, 4, e05558.	2.8	165
17	Genetic mechanisms control the linear scaling between related cortical primary and higher order sensory areas. ELife, 2015, 4, .	2.8	13
18	Cortical plasticity induced by transplantation of embryonic somatostatin or parvalbumin interneurons. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 18339-18344.	3.3	76

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19	A Cortical Circuit for Gain Control by Behavioral State. Cell, 2014, 156, 1139-1152.	13.5	827
20	Interneurons from Embryonic Development to Cell-Based Therapy. Science, 2014, 344, 1240622.	6.0	162
21	Modeling the Dynamic Interaction of Hebbian and Homeostatic Plasticity. Neuron, 2014, 84, 497-510.	3.8	85
22	Identification of a Brainstem Circuit Regulating Visual Cortical State in Parallel with Locomotion. Neuron, 2014, 83, 455-466.	3.8	254
23	Sensory experience during locomotion promotes recovery of function in adult visual cortex. ELife, 2014, 3, e02798.	2.8	100
24	A Neural Circuit That Controls Cortical State, Plasticity, and the Gain of Sensory Responses in Mouse. Cold Spring Harbor Symposia on Quantitative Biology, 2014, 79, 1-9.	2.0	34
25	Dendritic BDNF Synthesis Is Required for Late-Phase Spine Maturation and Recovery of Cortical Responses Following Sensory Deprivation. Journal of Neuroscience, 2012, 32, 4790-4802.	1.7	49
26	Development and Plasticity of the Primary Visual Cortex. Neuron, 2012, 75, 230-249.	3.8	544
27	Harnessing neuroplasticity for clinical applications. Brain, 2011, 134, 1591-1609.	3.7	907
28	Genomic imprinting of experience-dependent cortical plasticity by the ubiquitin ligase gene <i>Ube3a</i>. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 5611-5616.	3.3	152
29	Neonatal Cerebral Hypoxiaâ€"Ischemia Impairs Plasticity in Rat Visual Cortex. Journal of Neuroscience, 2010, 30, 81-92.	1.7	56
30	Constitutively active H-ras accelerates multiple forms of plasticity in developing visual cortex. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 19026-19031.	3.3	21
31	Modulation of Visual Responses by Behavioral State in Mouse Visual Cortex. Neuron, 2010, 65, 472-479.	3.8	1,290
32	Cortical Plasticity Induced by Inhibitory Neuron Transplantation. Science, 2010, 327, 1145-1148.	6.0	256
33	Retinal Input Instructs Alignment of Visual Topographic Maps. Cell, 2009, 139, 175-185.	13.5	103
34	On and off domains of geniculate afferents in cat primary visual cortex. Nature Neuroscience, 2008, 11, 88-94.	7.1	159
35	TrkB kinase is required for recovery, but not loss, of cortical responses following monocular deprivation. Nature Neuroscience, 2008, 11, 497-504.	7.1	82
36	Selective Disruption of One Cartesian Axis of Cortical Maps and Receptive Fields by Deficiency inÂEphrin-As and Structured Activity. Neuron, 2008, 57, 511-523.	3.8	81

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37	Tumor Necrosis Factor-Î± Mediates One Component of Competitive, Experience-Dependent Plasticity in Developing Visual Cortex. Neuron, 2008, 58, 673-680.	3.8	369
38	Reversing Neurodevelopmental Disorders in Adults. Neuron, 2008, 60, 950-960.	3.8	180
39	Delayed plasticity of inhibitory neurons in developing visual cortex. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 16797-16802.	3.3	105
40	Highly Selective Receptive Fields in Mouse Visual Cortex. Journal of Neuroscience, 2008, 28, 7520-7536.	1.7	938
41	Roles of Ephrin-As and Structured Activity in the Development of Functional Maps in the Superior Colliculus. Journal of Neuroscience, 2008, 28, 11015-11023.	1.7	101
42	Distinctive Features of Adult Ocular Dominance Plasticity. Journal of Neuroscience, 2008, 28, 10278-10286.	1.7	227
43	On the Importance of Static Nonlinearity in Estimating Spatiotemporal Neural Filters With Natural Stimuli. Journal of Neurophysiology, 2008, 99, 2496-2509.	0.9	44
44	Adaptive filtering enhances information transmission in visual cortex. Nature, 2006, 439, 936-942.	13.7	290
45	Integrated Semiconductor Optical Sensors for Chronic, Minimally-Invasive Imaging of Brain Function. , 2006, 2006, 1025-8.		2
46	Intrinsic ON Responses of the Retinal OFF Pathway Are Suppressed by the ON Pathway. Journal of Neuroscience, 2006, 26, 11857-11869.	1.7	60
47	Integrated Semiconductor Optical Sensors for Chronic, Minimally-Invasive Imaging of Brain Function. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
48	An eye-opening experience. Nature Neuroscience, 2005, 8, 9-10.	7.1	25
49	Molecular substrates of plasticity in the developing visual cortex. Progress in Brain Research, 2005, 147, 101-114.	0.9	23
50	Ocular dominance plasticity is stably maintained in the absence of Â calcium calmodulin kinase II (ÂCaMKII) autophosphorylation. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 16438-16442.	3.3	10
51	Optical imaging of the intrinsic signal as a measure of cortical plasticity in the mouse. Visual Neuroscience, 2005, 22, 685-691.	0.5	141
52	Fine functional organization of auditory cortex revealed by Fourier optical imaging. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 13325-13330.	3.3	118
53	Development of Precise Maps in Visual Cortex Requires Patterned Spontaneous Activity in the Retina. Neuron, 2005, 48, 797-809.	3.8	263
54	Ephrin-As Guide the Formation of Functional Maps in the Visual Cortex. Neuron, 2005, 48, 577-589.	3.8	165

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55	Columnar Architecture Sculpted by GABA Circuits in Developing Cat Visual Cortex. Science, 2004, 303, 1678-1681.	6.0	160
56	New Paradigm for Optical Imaging. Neuron, 2003, 38, 529-545.	3.8	545
57	Rapid Ocular Dominance Plasticity Requires Cortical but Not Geniculate Protein Synthesis. Neuron, 2002, 34, 425-436.	3.8	82
58	Autophosphorylation of Î±CaMKII Is Required for Ocular Dominance Plasticity. Neuron, 2002, 36, 483-491.	3.8	112
59	Sleep and Sleep Homeostasis in Mice Lacking the 5-HT2c Receptor. Neuropsychopharmacology, 2002, 27, 869-873.	2.8	90
60	NEUROSCIENCE: Drums Keep Pounding a Rhythm in the Brain. Science, 2001, 291, 1506-1507.	6.0	25
61	Infusion of nerve growth factor (NGF) into kitten visual cortex increases immunoreactivity for NGF, NGF receptors, and choline acetyltransferase in basal forebrain without affecting ocular dominance plasticity or column development. Neuroscience, 2001, 108, 569-585.	1.1	25
62	Sleep Enhances Plasticity in the Developing Visual Cortex. Neuron, 2001, 30, 275-287.	3.8	474
63	The CRE/CREB Pathway Is Transiently Expressed in Thalamic Circuit Development and Contributes to Refinement of Retinogeniculate Axons. Neuron, 2001, 31, 409-420.	3.8	86
64	Rapid Anatomical Plasticity of Horizontal Connections in the Developing Visual Cortex. Journal of Neuroscience, 2001, 21, 3476-3482.	1.7	197
65	Emergence of ocular dominance columns in cat visual cortex by 2 weeks of age. Journal of Comparative Neurology, 2001, 430, 235-249.	0.9	113
66	TrkB-like immunoreactivity is present on geniculocortical afferents in layer IV of kitten primary visual cortex. Journal of Comparative Neurology, 2001, 436, 391-398.	0.9	13
67	Factors shaping the corpus callosum. Journal of Comparative Neurology, 2001, 433, 437-440.	0.9	14
68	Distributions of synaptic vesicle proteins and GAD65 in deprived and nondeprived ocular dominance columns in layer IV of kitten primary visual cortex are unaffected by monocular deprivation. Journal of Comparative Neurology, 2000, 422, 652-664.	0.9	27
69	A method for measuring colocalization of presynaptic markers with anatomically labeled axons using double label immunofluorescence and confocal microscopy. Journal of Neuroscience Methods, 2000, 94, 205-215.	1.3	41
70	Spatial Frequency Maps in Cat Visual Cortex. Journal of Neuroscience, 2000, 20, 8504-8514.	1.7	241
71	Neurotrophin-4/5 Alters Responses and Blocks the Effect of Monocular Deprivation in Cat Visual Cortex during the Critical Period. Journal of Neuroscience, 2000, 20, 9174-9186.	1.7	36
72	Cortical Degeneration in the Absence of Neurotrophin Signaling. Neuron, 2000, 26, 233-245.	3.8	249

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73	Rapid Extragranular Plasticity in the Absence of Thalamocortical Plasticity in the Developing Primary Visual Cortex. Science, 2000, 287, 2029-2032.	6.0	223
74	Synaptic Density in Geniculocortical Afferents Remains Constant after Monocular Deprivation in the Cat. Journal of Neuroscience, 1999, 19, 10829-10842.	1.7	44
75	The Critical Period for Ocular Dominance Plasticity in the Ferretâ€™s Visual Cortex. Journal of Neuroscience, 1999, 19, 6965-6978.	1.7	214
76	tÂ Brain-Derived Neurotrophic Factor Overexpression Induces Precocious Critical Period in Mouse Visual Cortex. Journal of Neuroscience, 1999, 19, RC40-RC40.	1.7	239
77	Anatomical Correlates of Functional Plasticity in Mouse Visual Cortex. Journal of Neuroscience, 1999, 19, 4388-4406.	1.7	302
78	Hospital merger leaves clinical science intact. Nature, 1999, 401, 842-842.	13.7	0
79	CRE-Mediated Gene Transcription in Neocortical Neuronal Plasticity during the Developmental Critical Period. Neuron, 1999, 22, 63-72.	3.8	169
80	Selective Pruning of More Active Afferents When Cat Visual Cortex Is Pharmacologically Inhibited. Neuron, 1999, 22, 375-381.	3.8	82
81	The Role of Visual Experience in the Development of Columns in Cat Visual Cortex. Science, 1998, 279, 566-570.	6.0	538
82	Local GABA Circuit Control of Experience-Dependent Plasticity in Developing Visual Cortex. , 1998, 282, 1504-1508.		793
83	Effect of sensory disuse on geniculate afferents to cat visual cortex. Visual Neuroscience, 1998, 15, 401-9.	0.5	34
84	Comparison of Plasticity<i>In Vivo</i>and<i>In Vitro</i>in the Developing Visual Cortex of Normal and Protein Kinase A RIÎ²-Deficient Mice. Journal of Neuroscience, 1998, 18, 2108-2117.	1.7	118
85	Morphology of Single Geniculocortical Afferents and Functional Recovery of the Visual Cortex after Reverse Monocular Deprivation in the Kitten. Journal of Neuroscience, 1998, 18, 9896-9909.	1.7	60
86	Dendritic development of retinal ganglion cells after prenatal intracranial infusion of tetrodotoxin. Visual Neuroscience, 1997, 14, 779-788.	0.5	22
87	Relationship between the Ocular Dominance and Orientation Maps in Visual Cortex of Monocularly Deprived Cats. Neuron, 1997, 19, 307-318.	3.8	114
88	Ocular Dominance Peaks at Pinwheel Center Singularities of the Orientation Map in Cat Visual Cortex. Journal of Neurophysiology, 1997, 77, 3381-3385.	0.9	100
89	Deficient Plasticity in the Primary Visual Cortex of Î±-Calcium/Calmodulin-Dependent Protein Kinase II Mutant Mice. Neuron, 1996, 17, 491-499.	3.8	97
90	Experience-Dependent Plasticity of Binocular Responses in the Primary Visual Cortex of the Mouse. Journal of Neuroscience, 1996, 16, 3274-3286.	1.7	734

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91	Development of Orientation Preference Maps in Ferret Primary Visual Cortex. Journal of Neuroscience, 1996, 16, 6443-6453.	1.7	307
92	The Role of Activity in the Development of Long-Range Horizontal Connections in Area 17Âof the Ferret. Journal of Neuroscience, 1996, 16, 7253-7269.	1.7	218
93	Plasticity of geniculocortical afferents following brief or prolonged monocular occlusion in the cat. , 1996, 369, 64-82.		126
94	Growth through learning. Nature, 1995, 375, 277-278.	13.7	11
95	Origin of orientation tuning in the visual cortex. Current Opinion in Neurobiology, 1992, 2, 498-501.	2.0	32
96	Elements of visual perception. Nature, 1992, 360, 301-302.	13.7	14
97	Seeing the whole picture. Current Biology, 1991, 1, 252-253.	1.8	5
98	Cuddling up in the dark. Nature, 1991, 351, 526-526.	13.7	1
99	Temporal associations. Nature, 1991, 354, 108-109.	13.7	36
100	Retinofugal fibres change conduction velocity and diameter between the optic nerve and tract in ferrets. Nature, 1990, 344, 342-345.	13.7	38
101	Is grandmother an oscillation?. Nature, 1989, 338, 297-298.	13.7	118
102	Organization of primary visual cortex (area 17) in the ferret. Journal of Comparative Neurology, 1988, 278, 157-180.	0.9	159
103	Modification of retinal ganglion cell axon morphology by prenatal infusion of tetrodotoxin. Nature, 1988, 336, 468-471.	13.7	358
104	Variability in hand surface representations in areas 3b and 1 in adult owl and squirrel monkeys. Journal of Comparative Neurology, 1987, 258, 281-296.	0.9	267
105	Anesthetic state does not affect the map of the hand representation within area 3b somatosensory cortex in owl monkey. Journal of Comparative Neurology, 1987, 258, 297-303.	0.9	57
106	The effect of analgesic doses of morphine on regional cerebral glucose metabolism in pain-related structures. Brain Research, 1986, 368, 170-173.	1.1	11
107	Ocular dominance shift in kitten visual cortex caused by imbalance in retinal electrical activity. Nature, 1986, 324, 154-156.	13.7	89
108	The projection of the visual field onto the lateral geniculate nucleus of the ferret. Journal of Comparative Neurology, 1985, 241, 210-224.	0.9	58

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109	Somatosensory cortical map changes following digit amputation in adult monkeys. Journal of Comparative Neurology, 1984, 224, 591-605.	0.9	1,299
110	Studies of nuclear magnetic resonance imaging and regional cerebral glucose metabolism in acute cerebral ischemia: Possible mechanism of opiate antagonist therapeutic activity. Life Sciences, 1983, 33, 763-768.	2.0	12
111	Physiological evidence that the 2-deoxyglucose method reveals orientation columns in cat visual cortex. Nature, 1981, 293, 574-576.	13.7	78
112	Anatomical demonstration of orientation columns in macaque monkey. Journal of Comparative Neurology, 1978, 177, 361-379.	0.9	426
113	Ocular dominance columns and their development in layer IV of the cat's visual cortex: A quantitative study. Journal of Comparative Neurology, 1978, 179, 223-244.	0.9	639
114	Orientation columns in macaque monkey visual cortex demonstrated by the 2-deoxyglucose autoradiographic technique. Nature, 1977, 269, 328-330.	13.7	173
115	Eye and head movements evoked by electrical stimulation of monkey superior colliculus. Experimental Brain Research, 1975, 23, 103-12.	0.7	238
116	Saccadic and disjunctive eye movements in cats. Vision Research, 1972, 12, 2005-2013.	0.7	211