Reha S Erzurumlu

List of Publications by Year
in descending order

56 papers	3,416 citations	236925 25 h-index	161849 54 g-index
57 all docs	57 docs citations	57 times ranked	3251 citing authors

#	Article	IF	Citations
1	Cortex-restricted disruption of NMDAR1 impairs neuronal patterns in the barrel cortex. Nature, 2000, 406, 726-731.	27.8	474
2	Whisker-related neuronal patterns fail to develop in the trigeminal brainstem nuclei of NMDAR1 knockout mice. Cell, 1994, 76, 427-437.	28.9	461
3	Development and critical period plasticity of the barrel cortex. European Journal of Neuroscience, 2012, 35, 1540-1553.	2.6	275
4	NMDA Receptor-Dependent Refinement of Somatotopic Maps. Neuron, 1997, 19, 1201-1210.	8.1	182
5	Mapping the face in the somatosensory brainstem. Nature Reviews Neuroscience, 2010, 11, 252-263.	10.2	180
6	Development of order in the rat trigeminal system. Journal of Comparative Neurology, 1983, 213, 365-380.	1.6	149
7	Trigeminal projections to the superior colliculus of the rat. Journal of Comparative Neurology, 1981, 201, 221-242.	1.6	146
8	NMDA Receptor-Dependent Pattern Transfer from Afferents to Postsynaptic Cells and Dendritic Differentiation in the Barrel Cortex. Molecular and Cellular Neurosciences, 2002, 21, 477-492.	2.2	112
9	Efferent connections of the brainstem trigeminal complex with the facial nucleus of the rat. Journal of Comparative Neurology, 1979, 188, 75-86.	1.6	104
10	Exuberant thalamocortical axon arborization in cortex-specific NMDAR1 knockout mice. Journal of Comparative Neurology, 2005, 485, 280-292.	1.6	98
11	Neurovascular coupling: in vivo optical techniques for functional brain imaging. BioMedical Engineering OnLine, 2013, 12, 38.	2.7	95
12	Slit2, a Branchingâ€“Arborization Factor for Sensory Axons in the Mammalian CNS. Journal of Neuroscience, 2002, 22, 4540-4549.	3.6	84
13	Neurotransmitter Release at the Thalamocortical Synapse Instructs Barrel Formation But Not Axon Patterning in the Somatosensory Cortex. Journal of Neuroscience, 2012, 32, 6183-6196.	3.6	79
14	Quantum Dotâ€“Peptideâ€“Fullerene Bioconjugates for Visualization of <i>in Vitro</i> and <i>in Vivo</i> Cellular Membrane Potential. ACS Nano, 2017, 11, 5598-5613.	14.6	68
15	Cortical Adenylyl Cyclase 1 Is Required for Thalamocortical Synapse Maturation and Aspects of Layer IV Barrel Development. Journal of Neuroscience, 2008, 28, 5931-5943.	3.6	67
16	Role of whiskers in sensorimotor development of C57BL/6 mice. Behavioural Brain Research, 2015, 287, 146-155.	2.2	66
17	Differential effects of NGF and NT-3 on embryonic trigeminal axon growth patterns. Journal of Comparative Neurology, 2000, 425, 202-218.	1.6	51
18	Lesion-Induced Thalamocortical Axonal Plasticity in the S1 Cortex Is Independent of NMDA Receptor Function in Excitatory Cortical Neurons. Journal of Neuroscience, 2002, 22, 9171-9175.	3.6	48

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19	Thalamic NMDA Receptor Function Is Necessary for Patterning of the Thalamocortical Somatosensory Map and for Sensorimotor Behaviors. Journal of Neuroscience, 2014, 34, 12001-12014.	3.6	43
20	In vivo imaging of brain metabolism activity using a phosphorescent oxygen-sensitive probe. Journal of Neuroscience Methods, 2013, 216, 146-151.	2.5	40
21	Regulation of neurotrophin-induced axonal responses via Rho GTPases. Journal of Comparative Neurology, 2001, 438, 377-387.	1.6	39
22	Molecular determinants of the face map development in the trigeminal brainstem. The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology, 2006, 288A, 121-134.	2.0	35
23	Nanoparticleâ€Based Fluoroionophore for Analysis of Potassium Ion Dynamics in 3D Tissue Models and In Vivo. Advanced Functional Materials, 2018, 28, 1704598.	14.9	33
24	Astrocytes promote peripheral nerve injury-induced reactive synaptogenesis in the neonatal CNS. Journal of Neurophysiology, 2011, 106, 2876-2887.	1.8	32
25	Wireless Optogenetic Modulation of Cortical Neurons Enabled by Radioluminescent Nanoparticles. ACS Nano, 2021, 15, 5201-5208.	14.6	31
26	Development of tactile sensory circuits in the CNS. Current Opinion in Neurobiology, 2018, 53, 66-75.	4.2	28
27	How the Barrel Cortex Became a Working Model for Developmental Plasticity: A Historical Perspective. Journal of Neuroscience, 2020, 40, 6460-6473.	3.6	26
28	In Vivo Voltage-Sensitive Dye Imaging of Subcortical Brain Function. Scientific Reports, 2015, 5, 17325.	3.3	25
29	Chapter 6 Critical and Sensitive Periods in Neurobiology. Current Topics in Developmental Biology, 1982, 17, 207-240.	2.2	24
30	A mutant with bilateral whisker to barrel inputs unveils somatosensory mapping rules in the cerebral cortex. ELife, 2017, 6, .	6.0	24
31	Order in the developing rat trigeminal nerve. Developmental Brain Research, 1982, 3, 305-310.	1.7	23
32	Maintenance of discrete somatosensory maps in subcortical relay nuclei is dependent on an intact sensory cortex. Developmental Brain Research, 1988, 44, 302-308.	1.7	23
33	Organization of Orientation-Specific Whisker Deflection Responses in Layer 2/3 of Mouse Somatosensory Cortex. Neuroscience, 2018, 368, 46-56.	2.3	23
34	Enhancement of postsynaptic GABA_A and extrasynaptic NMDA receptor-mediated responses in the barrel cortex of <i>Mecp2</i>-null mice. Journal of Neurophysiology, 2016, 115, 1298-1306.	1.8	22
35	Functional significance of cortical NMDA receptors in somatosensory information processing. Journal of Neurophysiology, 2013, 110, 2627-2636.	1.8	21
36	Structural and functional differences in the barrel cortex of <i>Mecp2</i> null mice. Journal of Comparative Neurology, 2017, 525, 3951-3961.	1.6	21

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37	In Vivo Mesoscopic Voltage-Sensitive Dye Imaging of Brain Activation. Scientific Reports, 2016, 6, 25269.	3.3	19
38	Development of the principal nucleus trigeminal lemniscal projections in the mouse. Journal of Comparative Neurology, 2013, 521, 299-311.	1.6	18
39	Review of mesoscopic optical tomography for depth-resolved imaging of hemodynamic changes and neural activities. Neurophotonics, 2016, 4, 011009.	3.3	18
40	Critical period for the whisker-barrel system. Experimental Neurology, 2010, 222, 10-12.	4.1	15
41	Behavioral Consequences of a Bifacial Map in the Mouse Somatosensory Cortex. Journal of Neuroscience, 2017, 37, 7209-7218.	3.6	14
42	Region-Specific Disruption of Adenylate Cyclase Type 1 Gene Differentially Affects Somatosensorimotor Behaviors in Mice. ENeuro, 2014, 1, ENEURO.0007-14.2014.	1.9	13
43	Insulin-Independent GABA_AReceptor-Mediated Response in the Barrel Cortex of Mice with Impaired Met Activity. Journal of Neuroscience, 2016, 36, 3691-3697.	3.6	13
44	Insulin receptor sensitization restores neocortical excitation/inhibition balance in a mouse model of autism. Molecular Autism, 2018, 9, 13.	4.9	13
45	Planar implantable sensor for in vivo measurement of cellular oxygen metabolism in brain tissue. Journal of Neuroscience Methods, 2017, 281, 1-6.	2.5	8
46	Cooperative slit and netrin signaling in contralateralization of the mouse trigeminothalamic pathway. Journal of Comparative Neurology, 2013, 521, 312-325.	1.6	6
47	Neonatal sensory nerve injury-induced synaptic plasticity in the trigeminal principal sensory nucleus. Experimental Neurology, 2016, 275, 245-252.	4.1	6
48	Altered Forebrain Functional Connectivity and Neurotransmission in a Kinase-Inactive <i>Met</i> Mouse Model of Autism. Molecular Imaging, 2019, 18, 153601211882103.	1.4	5
49	Directional specificity and patterning of sensory axons in trigeminal ganglionâ€“whisker pad cocultures. Developmental Brain Research, 2000, 119, 277-281.	1.7	3
50	Somatosensory cortical plasticity: recruiting silenced barrels by active whiskers. Experimental Neurology, 2003, 184, 565-569.	4.1	3
51	In vivo voltage-sensitive dye imaging of mouse cortical activity with mesoscopic optical tomography. Neurophotonics, 2020, 7, 041402.	3.3	3
52	Layers 3 and 4 Neurons of the Bilateral Whisker-Barrel Cortex. Neuroscience, 2022, 494, 140-151.	2.3	3
53	Region-Specific Disruption of Adenylate Cyclase Type 1 Gene Differentially Affects Somatosensorimotor Behaviors in Mice. ENeuro, 2014, 1, .	1.9	2
54	Sensory Activity-Dependent and Sensory Activity-Independent Properties of the Developing Rodent Trigeminal Principal Nucleus. Developmental Neuroscience, 2016, 38, 163-170.	2.0	1

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55	In vivo mesoscopic voltage-sensitive dye imaging of brain activation. , 2015, , .		0
56	CNS consequences of perinatal peripheral injuries. Experimental Neurology, 2016, 275, 243-244.	4.1	0