

# Reha S Erzurumlu

## List of Publications by Citations

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54  
papers

2,889  
citations

24  
h-index

53  
g-index

57  
ext. papers

3,151  
ext. citations

7.3  
avg, IF

5.04  
L-index

#	Paper	IF	Citations
54	Cortex-restricted disruption of NMDAR1 impairs neuronal patterns in the barrel cortex. <i>Nature</i> , <b>2000</b> , 406, 726-31	50.4	415
53	Whisker-related neuronal patterns fail to develop in the trigeminal brainstem nuclei of NMDAR1 knockout mice. <i>Cell</i> , <b>1994</b> , 76, 427-37	56.2	415
52	Development and critical period plasticity of the barrel cortex. <i>European Journal of Neuroscience</i> , <b>2012</b> , 35, 1540-53	3.5	216
51	NMDA receptor-dependent refinement of somatotopic maps. <i>Neuron</i> , <b>1997</b> , 19, 1201-10	13.9	168
50	Mapping the face in the somatosensory brainstem. <i>Nature Reviews Neuroscience</i> , <b>2010</b> , 11, 252-63	13.5	161
49	Development of order in the rat trigeminal system. <i>Journal of Comparative Neurology</i> , <b>1983</b> , 213, 365-80	3.4	141
48	Trigeminal projections to the superior colliculus of the rat. <i>Journal of Comparative Neurology</i> , <b>1981</b> , 201, 221-42	3.4	130
47	NMDA receptor-dependent pattern transfer from afferents to postsynaptic cells and dendritic differentiation in the barrel cortex. <i>Molecular and Cellular Neurosciences</i> , <b>2002</b> , 21, 477-92	4.8	99
46	Exuberant thalamocortical axon arborization in cortex-specific NMDAR1 knockout mice. <i>Journal of Comparative Neurology</i> , <b>2005</b> , 485, 280-92	3.4	92
45	Efferent connections of the brainstem trigeminal complex with the facial nucleus of the rat. <i>Journal of Comparative Neurology</i> , <b>1979</b> , 188, 75-86	3.4	92
44	Slit2, a branching-arborization factor for sensory axons in the Mammalian CNS. <i>Journal of Neuroscience</i> , <b>2002</b> , 22, 4540-9	6.6	77
43	Neurotransmitter release at the thalamocortical synapse instructs barrel formation but not axon patterning in the somatosensory cortex. <i>Journal of Neuroscience</i> , <b>2012</b> , 32, 6183-96	6.6	63
42	Neurovascular coupling: in vivo optical techniques for functional brain imaging. <i>BioMedical Engineering OnLine</i> , <b>2013</b> , 12, 38	4.1	62
41	Cortical adenylyl cyclase 1 is required for thalamocortical synapse maturation and aspects of layer IV barrel development. <i>Journal of Neuroscience</i> , <b>2008</b> , 28, 5931-43	6.6	60
40	Quantum Dot-Peptide-Fullerene Bioconjugates for Visualization of in Vitro and in Vivo Cellular Membrane Potential. <i>ACS Nano</i> , <b>2017</b> , 11, 5598-5613	16.7	53
39	Differential effects of NGF and NT-3 on embryonic trigeminal axon growth patterns. <i>Journal of Comparative Neurology</i> , <b>2000</b> , 425, 202-18	3.4	46
38	Lesion-induced thalamocortical axonal plasticity in the S1 cortex is independent of NMDA receptor function in excitatory cortical neurons. <i>Journal of Neuroscience</i> , <b>2002</b> , 22, 9171-5	6.6	44

37	Role of whiskers in sensorimotor development of C57BL/6 mice. <i>Behavioural Brain Research</i> , <b>2015</b> , 287, 146-55	3.4	37
36	Regulation of neurotrophin-induced axonal responses via Rho GTPases. <i>Journal of Comparative Neurology</i> , <b>2001</b> , 438, 377-87	3.4	37
35	Thalamic NMDA receptor function is necessary for patterning of the thalamocortical somatosensory map and for sensorimotor behaviors. <i>Journal of Neuroscience</i> , <b>2014</b> , 34, 12001-14	6.6	35
34	Molecular determinants of the face map development in the trigeminal brainstem. <i>The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology</i> , <b>2006</b> , 288, 121-34		34
33	In vivo imaging of brain metabolism activity using a phosphorescent oxygen-sensitive probe. <i>Journal of Neuroscience Methods</i> , <b>2013</b> , 216, 146-51	3	32
32	Astrocytes promote peripheral nerve injury-induced reactive synaptogenesis in the neonatal CNS. <i>Journal of Neurophysiology</i> , <b>2011</b> , 106, 2876-87	3.2	28
31	Nanoparticle-based fluoroionophore for analysis of potassium ion dynamics in 3D tissue models and. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1704598	15.6	24
30	Maintenance of discrete somatosensory maps in subcortical relay nuclei is dependent on an intact sensory cortex. <i>Developmental Brain Research</i> , <b>1988</b> , 44, 302-8		23
29	In Vivo Voltage-Sensitive Dye Imaging of Subcortical Brain Function. <i>Scientific Reports</i> , <b>2015</b> , 5, 17325	4.9	22
28	Order in the developing rat trigeminal nerve. <i>Developmental Brain Research</i> , <b>1982</b> , 255, 305-10		20
27	A mutant with bilateral whisker to barrel inputs unveils somatosensory mapping rules in the cerebral cortex. <i>ELife</i> , <b>2017</b> , 6,	8.9	19
26	Development of tactile sensory circuits in the CNS. <i>Current Opinion in Neurobiology</i> , <b>2018</b> , 53, 66-75	7.6	19
25	Critical and sensitive periods in neurobiology. <i>Current Topics in Developmental Biology</i> , <b>1982</b> , 17, 207-40	5.3	19
24	Enhancement of postsynaptic GABAA and extrasynaptic NMDA receptor-mediated responses in the barrel cortex of Mecp2-null mice. <i>Journal of Neurophysiology</i> , <b>2016</b> , 115, 1298-306	3.2	18
23	In Vivo Mesoscopic Voltage-Sensitive Dye Imaging of Brain Activation. <i>Scientific Reports</i> , <b>2016</b> , 6, 25269	4.9	17
22	Development of the principal nucleus trigeminal lemniscal projections in the mouse. <i>Journal of Comparative Neurology</i> , <b>2013</b> , 521, 299-311	3.4	15
21	Critical period for the whisker-barrel system. <i>Experimental Neurology</i> , <b>2010</b> , 222, 10-2	5.7	15
20	Functional significance of cortical NMDA receptors in somatosensory information processing. <i>Journal of Neurophysiology</i> , <b>2013</b> , 110, 2627-36	3.2	14

19	Organization of orientation-specific whisker deflection responses in layer 2/3 of mouse somatosensory cortex. <i>Neuroscience</i> , <b>2018</b> , 368, 46-56	3.9	14
18	Structural and functional differences in the barrel cortex of Mecp2 null mice. <i>Journal of Comparative Neurology</i> , <b>2017</b> , 525, 3951-3961	3.4	13
17	Review of mesoscopic optical tomography for depth-resolved imaging of hemodynamic changes and neural activities. <i>Neurophotonics</i> , <b>2017</b> , 4, 011009	3.9	13
16	Insulin-Independent GABAA Receptor-Mediated Response in the Barrel Cortex of Mice with Impaired Met Activity. <i>Journal of Neuroscience</i> , <b>2016</b> , 36, 3691-7	6.6	12
15	Region-Specific Disruption of Adenylate Cyclase Type 1 Gene Differentially Affects Somatosensorimotor Behaviors in Mice(1,2,3). <i>ENeuro</i> , <b>2014</b> , 1,	3.9	10
14	Behavioral Consequences of a Bifacial Map in the Mouse Somatosensory Cortex. <i>Journal of Neuroscience</i> , <b>2017</b> , 37, 7209-7218	6.6	9
13	How the Barrel Cortex Became a Working Model for Developmental Plasticity: A Historical Perspective. <i>Journal of Neuroscience</i> , <b>2020</b> , 40, 6460-6473	6.6	9
12	Insulin receptor sensitization restores neocortical excitation/inhibition balance in a mouse model of autism. <i>Molecular Autism</i> , <b>2018</b> , 9, 13	6.5	8
11	Wireless Optogenetic Modulation of Cortical Neurons Enabled by Radioluminescent Nanoparticles. <i>ACS Nano</i> , <b>2021</b> , 15, 5201-5208	16.7	7
10	Neonatal sensory nerve injury-induced synaptic plasticity in the trigeminal principal sensory nucleus. <i>Experimental Neurology</i> , <b>2016</b> , 275 Pt 2, 245-52	5.7	6
9	Planar implantable sensor for in vivo measurement of cellular oxygen metabolism in brain tissue. <i>Journal of Neuroscience Methods</i> , <b>2017</b> , 281, 1-6	3	6
8	Cooperative slit and netrin signaling in contralateralization of the mouse trigeminothalamic pathway. <i>Journal of Comparative Neurology</i> , <b>2013</b> , 521, 312-25	3.4	6
7	Altered Forebrain Functional Connectivity and Neurotransmission in a Kinase-Inactive Met Mouse Model of Autism. <i>Molecular Imaging</i> , <b>2019</b> , 18, 1536012118821034	3.7	4
6	Somatosensory cortical plasticity: recruiting silenced barrels by active whiskers. <i>Experimental Neurology</i> , <b>2003</b> , 184, 565-9	5.7	3
5	Directional specificity and patterning of sensory axons in trigeminal ganglion-whisker pad cocultures. <i>Developmental Brain Research</i> , <b>2000</b> , 119, 277-281		2
4	Region-Specific Disruption of Adenylate Cyclase Type 1 Gene Differentially Affects Somatosensorimotor Behaviors in Mice. <i>ENeuro</i> , <b>2014</b> , 1,	3.9	2
3	voltage-sensitive dye imaging of mouse cortical activity with mesoscopic optical tomography. <i>Neurophotonics</i> , <b>2020</b> , 7, 041402	3.9	1
2	Sensory Activity-Dependent and Sensory Activity-Independent Properties of the Developing Rodent Trigeminal Principal Nucleus. <i>Developmental Neuroscience</i> , <b>2016</b> , 38, 163-170	2.2	1

- 1 Layers 3 and 4 Neurons of the Bilateral Whisker-Barrel Cortex. *Neuroscience*, **2022**, 494, 140-151 3.9