Menahem Segal

List of Publications by Year in descending order

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138 papers 10,897 citations

25423 59 h-index 101 g-index

141 all docs

141 docs citations

times ranked

141

10808 citing authors

#	Article	IF	CITATIONS
1	Allostatic gene regulation of inhibitory synaptic factors in the rat ventral hippocampus in a juvenile/adult stress model of psychopathology. European Journal of Neuroscience, 2022, 55, 2142-2153.	1.2	5
2	Impaired Functional Connectivity Underlies Fragile X Syndrome. International Journal of Molecular Sciences, 2022, 23, 2048.	1.8	7
3	Mechanisms Driving the Emergence of Neuronal Hyperexcitability in Fragile X Syndrome. International Journal of Molecular Sciences, 2022, 23, 6315.	1.8	5
4	Neuronal circuits overcome imbalance in excitation and inhibition by adjusting connection numbers. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	34
5	Increased excitability of hippocampal neurons in mature synaptopodin-knockout mice. Brain Structure and Function, 2021, 226, 2459-2466.	1.2	5
6	Experience-induced transgenerational (re-)programming of neuronal structure and functions: Impact of stress prior and during pregnancy. Neuroscience and Biobehavioral Reviews, 2020, 117, 281-296.	2.9	36
7	False Opposing Fear Memories Are Produced as a Function of the Hippocampal Sector Where Glucocorticoid Receptors Are Activated. Frontiers in Behavioral Neuroscience, 2020, 14, 144.	1.0	5
8	Calcium Sensors STIM1 and STIM2 Regulate Different Calcium Functions in Cultured Hippocampal Neurons. Frontiers in Synaptic Neuroscience, 2020, 12, 573714.	1.3	13
9	Presenilin 1 Regulates [Ca ²⁺]i and Mitochondria/ER Interaction in Cultured Rat Hippocampal Neurons. Oxidative Medicine and Cellular Longevity, 2019, 2019, 1-14.	1.9	16
10	Synaptopodin Deficiency Ameliorates Symptoms in the 3xTg Mouse Model of Alzheimer's Disease. Journal of Neuroscience, 2019, 39, 3983-3992.	1.7	16
11	The Interactome of Palmitoyl-Protein Thioesterase 1 (PPT1) Affects Neuronal Morphology and Function. Frontiers in Cellular Neuroscience, 2019, 13, 92.	1.8	25
12	Stress, Corticosterone, and Hippocampal Plasticity., 2019, , 93-104.		1
13	The flavonoid acetylpectolinarin counteracts the effects of low ethanol on spontaneous network activity in hippocampal cultures. Journal of Ethnopharmacology, 2019, 229, 22-28.	2.0	3
14	Learning Deficits in Adult Mitochondria Carrier Homolog 2 Forebrain Knockout Mouse. Neuroscience, 2018, 394, 156-163.	1.1	5
15	Calcium stores regulate excitability in cultured rat hippocampal neurons. Journal of Neurophysiology, 2018, 120, 2694-2705.	0.9	21
16	Cannabidiol Regulates Long Term Potentiation Following Status Epilepticus: Mediation by Calcium Stores and Serotonin. Frontiers in Molecular Neuroscience, 2018, 11, 32.	1.4	15
17	Dendritic spines: Morphological building blocks of memory. Neurobiology of Learning and Memory, 2017, 138, 3-9.	1.0	115
18	Neurobiological consequences of juvenile stress: A GABAergic perspective on risk and resilience. Neuroscience and Biobehavioral Reviews, 2017, 74, 21-43.	2.9	46

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19	Loss of forebrain MTCH2 decreases mitochondria motility and calcium handling and impairs hippocampal-dependent cognitive functions. Scientific Reports, 2017, 7, 44401.	1.6	35
20	ORAI1-dependent synaptic plasticity in rat hippocampal neurons. Neurobiology of Learning and Memory, 2017, 140, 1-10.	1.0	18
21	Orai1 regulates calcium entry into dendritic spines. Channels, 2017, 11, 99-100.	1.5	3
22	The role of the storeâ€operated calcium entry channel Orai1 in cultured rat hippocampal synapse formation and plasticity. Journal of Physiology, 2017, 595, 125-140.	1.3	60
23	Dendritic Spine Plasticity and Memory Formation. , 2017, , 199-215.		1
24	Lasting Differential Effects on Plasticity Induced by Prenatal Stress in Dorsal and Ventral Hippocampus. Neural Plasticity, 2016, 2016, 1-10.	1.0	40
25	Roles of Calcium Stores and Store-Operated Channels in Plasticity of Dendritic Spines. Neuroscientist, 2016, 22, 477-485.	2.6	34
26	Ryanodine-mediated conversion of STP to LTP is lacking in synaptopodin-deficient mice. Brain Structure and Function, 2016, 221, 2393-2397.	1.2	15
27	Stress In Utero: Prenatal Programming of Brain Plasticity and Cognition. Biological Psychiatry, 2015, 78, 315-326.	0.7	188
28	Functional Deficiencies in Fragile X Neurons Derived from Human Embryonic Stem Cells. Journal of Neuroscience, 2015, 35, 15295-15306.	1.7	63
29	Complex effects of aqueous extract of Melampyrum pratense and of its flavonoids on activity of primary cultured hippocampal neurons. Journal of Ethnopharmacology, 2015, 163, 220-228.	2.0	6
30	Chronic exposure to alcohol alters network activity and morphology of cultured hippocampal neurons. NeuroToxicology, 2015, 47, 62-71.	1.4	9
31	Ischemic <scp>LTP</scp> : <scp>NMDA</scp> â€dependency and dorso/ventral distribution within the hippocampus. Hippocampus, 2015, 25, 1465-1471.	0.9	20
32	Zeta Inhibitory Peptide, a Candidate Inhibitor of Protein Kinase MÂ, Is Excitotoxic to Cultured Hippocampal Neurons. Journal of Neuroscience, 2015, 35, 12404-12411.	1.7	31
33	Juvenile stress alters LTP in ventral hippocampal slices: Involvement of noradrenergic mechanisms. Behavioural Brain Research, 2015, 278, 559-562.	1.2	42
34	Endoplasmic reticulum calcium stores in dendritic spines. Frontiers in Neuroanatomy, 2014, 8, 64.	0.9	65
35	Stress Impairs Synaptic Plasticity in Triple-Transgenic Alzheimer's Disease Mice: Rescue by Ryanodine. Neurodegenerative Diseases, 2014, 13, 135-138.	0.8	15
36	Dendritic Spines: The Locus of Structural and Functional Plasticity. Physiological Reviews, 2014, 94, 141-188.	13.1	399

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37	Synaptopodin Regulates Spine Plasticity: Mediation by Calcium Stores. Journal of Neuroscience, 2014, 34, 11641-11651.	1.7	81
38	Stress Modulation of Synaptic Plasticity in the Hippocampus. , 2014, , 137-150.		0
39	Neural differentiation of fragile X human embryonic stem cells reveals abnormal patterns of development despite successful neurogenesis. Developmental Biology, 2013, 374, 32-45.	0.9	103
40	Prenatal Stress Affects Network Properties of Rat Hippocampal Neurons. Biological Psychiatry, 2013, 73, 1095-1102.	0.7	36
41	Prenatal stress alters noradrenergic modulation of LTP in hippocampal slices. Journal of Neurophysiology, 2013, 110, 279-285.	0.9	30
42	Ethanol Affects Network Activity in Cultured Rat Hippocampus: Mediation by Potassium Channels. PLoS ONE, 2013, 8, e75988.	1.1	4
43	Overexpression of PKMζ Alters Morphology and Function of Dendritic Spines in Cultured Cortical Neurons. Cerebral Cortex, 2012, 22, 2519-2528.	1.6	26
44	Steroid modulation of hippocampal plasticity: switching between cognitive and emotional memories. Frontiers in Cellular Neuroscience, 2012, 6, 12.	1.8	54
45	Stress and corticosteroid modulation of seizures and synaptic inhibition in the hippocampus. Experimental Neurology, 2012, 234, 200-207.	2.0	19
46	Cellular basis of a rapid effect of mineralocorticosteroid receptors activation on LTP in ventral hippocampal slices. Hippocampus, 2012, 22, 267-275.	0.9	31
47	Selective facilitation of LTP in the ventral hippocampus by calcium stores. Hippocampus, 2012, 22, 1635-1644.	0.9	48
48	Persistent Changes in Ability to Express Long-Term Potentiation/Depression in the Rat Hippocampus After Juvenile/Adult Stress. Biological Psychiatry, 2011, 69, 748-753.	0.7	65
49	Activity Deprivation Induces Neuronal Cell Death: Mediation by Tissue-Type Plasminogen Activator. PLoS ONE, 2011, 6, e25919.	1.1	4
50	Synaptopodin regulates release of calcium from stores in dendritic spines of cultured hippocampal neurons. Journal of Physiology, 2011, 589, 5987-5995.	1.3	46
51	Active cortical innervation protects striatal neurons from slow degeneration in culture. Journal of Neural Transmission, 2011, 118, 445-451.	1.4	4
52	Network bursts in hippocampal microcultures are terminated by exhaustion of vesicle pools. Journal of Neurophysiology, 2011, 106, 2314-2321.	0.9	52
53	The Spine Apparatus, Synaptopodin, and Dendritic Spine Plasticity. Neuroscientist, 2010, 16, 125-131.	2.6	71
54	Stressâ€induced dynamic routing of hippocampal connectivity: A hypothesis. Hippocampus, 2010, 20, 1332-1338.	0.9	130

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55	Dendritic spines, synaptic plasticity and neuronal survival: activity shapes dendritic spines to enhance neuronal viability. European Journal of Neuroscience, 2010, 31, 2178-2184.	1.2	135
56	Corticosteroid Regulation of Synaptic Plasticity in the Hippocampus. Scientific World Journal, The, 2010, 10, 462-469.	0.8	45
57	Neuronal Density Determines Network Connectivity and Spontaneous Activity in Cultured Hippocampus. Journal of Neurophysiology, 2010, 104, 1052-1060.	0.9	88
58	Differential Corticosteroid Modulation of Inhibitory Synaptic Currents in the Dorsal and Ventral Hippocampus. Journal of Neuroscience, 2009, 29, 2857-2866.	1.7	109
59	Differential Modulation of Long-Term Depression by Acute Stress in the Rat Dorsal and Ventral Hippocampus. Journal of Neuroscience, 2009, 29, 8633-8638.	1.7	114
60	Activity-dependent survival of neurons in culture: a model of slow neurodegeneration. Journal of Neural Transmission, 2009, 116, 1363-1369.	1.4	10
61	BDNF and NTâ€3 increase excitatory input connectivity in rat hippocampal cultures. European Journal of Neuroscience, 2009, 30, 998-1010.	1.2	22
62	Degeneration of cultured cortical neurons following prolonged inactivation: molecular mechanisms. Journal of Neurochemistry, 2009, 110, 1203-1213.	2.1	17
63	Environmental Enrichment Restores Memory Functioning in Mice with Impaired IL-1 Signaling via Reinstatement of Long-Term Potentiation and Spine Size Enlargement. Journal of Neuroscience, 2009, 29, 3395-3403.	1.7	81
64	Synaptopodin Regulates Plasticity of Dendritic Spines in Hippocampal Neurons. Journal of Neuroscience, 2009, 29, 1017-1033.	1.7	162
65	Electron microscopic 3Dâ€reconstruction of dendritic spines in cultured hippocampal neurons undergoing synaptic plasticity. Developmental Neurobiology, 2008, 68, 870-876.	1.5	16
66	Lack of correlation between synaptopodin expression and the ability to induce LTP in the rat dorsal and ventral hippocampus. Hippocampus, 2008, 18, 1-4.	0.9	26
67	Determinants of spontaneous activity in networks of cultured hippocampus. Brain Research, 2008, 1235, 21-30.	1.1	82
68	Striking Variations in Corticosteroid Modulation of Long-Term Potentiation along the Septotemporal Axis of the Hippocampus. Journal of Neuroscience, 2007, 27, 5757-5765.	1.7	210
69	Miniature Synaptic Currents Become Neurotoxic to Chronically Silenced Neurons. Cerebral Cortex, 2007, 17, 1292-1306.	1.6	50
70	Unique regulation of long term potentiation in the rat ventral hippocampus. Hippocampus, 2007, 17, 10-25.	0.9	88
71	Morphological constraints on calcium dependent glutamate receptor trafficking into individual dendritic spine. Cell Calcium, 2007, 42, 41-57.	1.1	45
72	Control of Neuronal Plasticity by Reactive Oxygen Species. Antioxidants and Redox Signaling, 2007, 9, 165-167.	2.5	17

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73	Aged SOD Overexpressing Mice Exhibit Enhanced Spatial Memory While Lacking Hippocampal Neurogenesis. Antioxidants and Redox Signaling, 2007, 9, 181-189.	2.5	25
74	Contrasting Roles of Corticosteroid Receptors in Hippocampal Plasticity. Journal of Neuroscience, 2006, 26, 9130-9134.	1.7	94
75	Spatially confined diffusion of calcium in dendrites of hippocampal neurons revealed by flash photolysis of caged calcium. Cell Calcium, 2006, 40, 441-449.	1.1	37
76	Simultaneous NMDA-Dependent Long-Term Potentiation of EPSCs and Long-Term Depression of IPSCs in Cultured Rat Hippocampal Neurons. Journal of Neuroscience, 2006, 26, 1199-1210.	1.7	27
77	Age-dependent glutamate induction of synaptic plasticity in cultured hippocampal neurons. Learning and Memory, 2006, 13, 719-727.	0.5	12
78	Aged SOD Overexpressing Mice Exhibit Enhanced Spatial Memory While Lacking Hippocampal Neurogenesis. Antioxidants and Redox Signaling, 2006, .	2.5	1
79	Control of Neuronal Plasticity by Reactive Oxygen Species. Antioxidants and Redox Signaling, 2006, .	2.5	0
80	Rapid WAVE dynamics in dendritic spines of cultured hippocampal neurons is mediated by actin polymerization. Journal of Neurochemistry, 2005, 95, 1401-1410.	2.1	34
81	Dendritic spines and long-term plasticity. Nature Reviews Neuroscience, 2005, 6, 277-284.	4.9	425
82	Calcium dynamics in dendritic spines, modeling and experiments. Cell Calcium, 2005, 37, 467-475.	1.1	48
83	Hydrogen Peroxide Regulates Metaplasticity in the Hippocampus. , 2005, , 49-64.		0
84	Signal Propagation Along Unidimensional Neuronal Networks. Journal of Neurophysiology, 2005, 94, 3406-3416.	0.9	74
85	Activation of PKC induces rapid morphological plasticity in dendrites of hippocampal neurons via Rac and Rho-dependent mechanisms. European Journal of Neuroscience, 2004, 19, 3151-3164.	1.2	90
86	Dynamic regulation of spine-dendrite coupling in cultured hippocampal neurons. European Journal of Neuroscience, 2004, 20, 2649-2663.	1.2	66
87	So, why do they dance, after all?. Journal of Physiology, 2004, 558, 367-367.	1.3	1
88	Hydrogen Peroxide As a Diffusible Signal Molecule in Synaptic Plasticity. Molecular Neurobiology, 2004, 29, 167-178.	1.9	118
89	Confocal microscopic imaging of fast UV-laser photolysis of caged compounds. Journal of Neuroscience Methods, 2004, 133, 153-159.	1.3	22
90	Is fragile X mental retardation protein involved in activity-induced plasticity of dendritic spines?. Brain Research, 2003, 972, 9-15.	1.1	19

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91	Protein kinase C and ERK involvement in dendritic spine plasticity in cultured rodent hippocampal neurons. European Journal of Neuroscience, 2003, 17, 2529-2539.	1.2	117
92	Formation of dendritic spines in cultured striatal neurons depends on excitatory afferent activity. European Journal of Neuroscience, 2003, 17, 2573-2585.	1.2	88
93	Late degeneration of nigro-striatal neurons in ATMâ^'/â^' mice. Neuroscience, 2003, 121, 83-98.	1.1	58
94	Paradoxical Actions of Hydrogen Peroxide on Long-Term Potentiation in Transgenic Superoxide Dismutase-1 Mice. Journal of Neuroscience, 2003, 23, 10359-10367.	1.7	90
95	Hydrogen Peroxide Modulation of Synaptic Plasticity. Journal of Neuroscience, 2003, 23, 269-276.	1.7	173
96	Dendritic spines: elementary structural units of neuronal plasticity. Progress in Brain Research, 2002, 138, 53-59.	0.9	26
97	Chapter 9 Changing views of Cajal's neuron: the case of the dendritic spine. Progress in Brain Research, 2002, 136, 101-107.	0.9	25
98	Estradiol Induces Formation of Dendritic Spines in Hippocampal Neurons: Functional Correlates. Hormones and Behavior, 2001, 40, 156-159.	1.0	74
99	Rapid plasticity of dendritic spine: hints to possible functions?. Progress in Neurobiology, 2001, 63, 61-70.	2.8	64
100	Spike-Associated Fast Contraction of Dendritic Spines in Cultured Hippocampal Neurons. Neuron, 2001, 30, 751-758.	3.8	72
101	Regulation of Dendritic Spine Motility in Cultured Hippocampal Neurons. Journal of Neuroscience, 2001, 21, 6115-6124.	1.7	96
102	Functional Plasticity Triggers Formation and Pruning of Dendritic Spines in Cultured Hippocampal Networks. Journal of Neuroscience, 2001, 21, 186-193.	1.7	93
103	Progesterone Prevents Estradiol-Induced Dendritic Spine Formation in Cultured Hippocampal Neurons. Neuroendocrinology, 2000, 72, 133-143.	1.2	63
104	Dendritic spines shaped by synaptic activity. Current Opinion in Neurobiology, 2000, 10, 582-586.	2.0	100
105	FMRP Involvement in Formation of Synapses among Cultured Hippocampal Neurons. Cerebral Cortex, 2000, 10, 1045-1052.	1.6	132
106	Dendritic spine formation and pruning: common cellular mechanisms?. Trends in Neurosciences, 2000, 23, 53-57.	4.2	169
107	Geometry of Dendritic Spines Affects Calcium Dynamics in Hippocampal Neurons: Theory and Experiments. Journal of Neurophysiology, 1999, 82, 450-462.	0.9	81
108	Upregulation of GABA Neurotransmission Suppresses Hippocampal Excitability and Prevents Long-Term Potentiation in Transgenic Superoxide Dismutase-Overexpressing Mice. Journal of Neuroscience, 1999, 19, 10977-10984.	1.7	50

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109	Release of calcium from stores alters the morphology of dendritic spines in cultured hippocampal neurons. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 12068-12072.	3.3	167
110	Bidirectional regulation of dendritic spine dimensions by glutamate receptors. NeuroReport, 1999, 10, 2875-2877.	0.6	52
111	ATP Released from Astrocytes Mediates Glial Calcium Waves. Journal of Neuroscience, 1999, 19, 520-528.	1.7	730
112	Reversible impairment of longâ€ŧerm potentiation in transgenic Cu/Znâ€SOD mice. European Journal of Neuroscience, 1998, 10, 538-544.	1.2	159
113	Fast confocal imaging of calcium released from stores in dendritic spines. European Journal of Neuroscience, 1998, 10, 2076-2084.	1.2	86
114	Survival and synaptogenesis of hippocampal neurons without NMDA receptor function in culture. European Journal of Neuroscience, 1998, 10, 2192-2198.	1.2	29
115	Selective loss of dopaminergic nigro-striatal neurons in brains of Atm-deficient mice. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 12653-12656.	3.3	91
116	Brain-derived neurotrophic factor mediates estradiol-induced dendritic spine formation in hippocampal neurons. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 11412-11417.	3.3	221
117	Estradiol Increases Dendritic Spine Density by Reducing GABA Neurotransmission in Hippocampal Neurons. Journal of Neuroscience, 1998, 18, 2550-2559.	1.7	439
118	CREB Activation Mediates Plasticity in Cultured Hippocampal Neurons. Neural Plasticity, 1998, 6, 1-7.	1.0	54
119	Neurotrophins Induce Formation of Functional Excitatory and Inhibitory Synapses between Cultured Hippocampal Neurons. Journal of Neuroscience, 1998, 18, 7256-7271.	1.7	327
120	Hippocampal Synaptic Plasticity in Mice Overexpressing an Embryonic Subunit of the NMDA Receptor. Journal of Neuroscience, 1998, 18, 4177-4188.	1.7	95
121	Morphological plasticity of dendritic spines in central neurons is mediated by activation of cAMP response element binding protein. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 1482-1487.	3.3	303
122	Dendritic Spine Density and LTP Induction in Cultured Hippocampal Slices. Journal of Neurophysiology, 1997, 77, 1614-1623.	0.9	114
123	Calcium-Containing Organelles Display Unique Reactivity to Chemical Stimulation in Cultured Hippocampal Neurons. Journal of Neuroscience, 1997, 17, 1670-1682.	1.7	19
124	Morphological plasticity in dendritic spines of cultured hippocampal neurons. Neuroscience, 1996, 71, 1005-1011.	1.1	114
125	Regulation of Dendritic Spine Density in Cultured Rat Hippocampal Neurons by Steroid Hormones. Journal of Neuroscience, 1996, 16, 4059-4068.	1.7	372
126	Lasting effects of glutamate on nuclear calcium concentration in cultured rat hippocampal neurons: regulation by calcium stores Journal of Physiology, 1996, 496, 39-48.	1.3	24

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127	Imaging of calcium variations in living dendritic spines of cultured rat hippocampal neurons Journal of Physiology, 1995, 486, 283-295.	1.3	56
128	Morphological analysis of dendritic spine development in primary cultures of hippocampal neurons. Journal of Neuroscience, 1995, 15, 1-11.	1.7	315
129	Fast imaging of [Ca]i reveals presence of voltage-gated calcium channels in dendritic spines of cultured hippocampal neurons. Journal of Neurophysiology, 1995, 74, 484-488.	0.9	29
130	Dendritic spines for neuroprotection: a hypothesis. Trends in Neurosciences, 1995, 18, 468-471.	4.2	79
131	Morphological alterations in dendritic spines of rat hippocampal neurons exposed to N-methyl-d-aspartate. Neuroscience Letters, 1995, 193, 73-76.	1.0	61
132	A novel cholinergic induction of long-term potentiation in rat hippocampus. Journal of Neurophysiology, 1994, 72, 2034-2040.	0.9	150
133	Confocal microscopic imaging of [Ca2+]i in cultured rat hippocampal neurons following exposure to Nâ€methylâ€Dâ€aspartate Journal of Physiology, 1992, 448, 655-676.	1.3	114
134	Hypertension induced by hypothalamic transplantation from genetically hypertensive to normotensive rats. Journal of Neuroscience, 1991, 11, 401-411.	1.7	69
135	Independent regulation of calcium revealed by imaging dendritic spines. Nature, 1991, 354, 76-80.	13.7	253
136	Serotonin attenuates a slow inhibitory postsynaptic potential in rat hippocampal neurons. Neuroscience, 1990, 36, 631-641.	1.1	85
137	Presynaptic cholinergic inhibition in hippocampal cultures. Synapse, 1989, 4, 305-312.	0.6	57
138	Physiological effects of selective 5-HT1a and 5-HT1b ligands in rat hippocampus: comparison to 5-HT. Brain Research, 1989, 502, 67-74.	1.1	30