

Ege T Kavalali

List of Publications by Year in descending order

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133
papers

14,204
citations

27035

58
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23841

115
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187
all docs

187
docs citations

187
times ranked

15826
citing authors

#	ARTICLE	IF	CITATIONS
1	BDNF signaling in context: From synaptic regulation to psychiatric disorders. <i>Cell</i> , 2022, 185, 62-76.	13.5	160
2	Presynaptic mechanisms underlying GABAB-receptor-mediated inhibition of spontaneous neurotransmitter release. <i>Cell Reports</i> , 2022, 38, 110255.	2.9	13
3	Role of the endoplasmic reticulum in synaptic transmission. <i>Current Opinion in Neurobiology</i> , 2022, 73, 102538.	2.0	11
4	Probing the segregation of evoked and spontaneous neurotransmission via photobleaching and recovery of a fluorescent glutamate sensor. <i>ELife</i> , 2022, 11, .	2.8	6
5	Optical analysis of AMPAR-mediated synaptic scaling in mouse hippocampus. <i>STAR Protocols</i> , 2022, 3, 101443.	0.5	1
6	Multi-neurotransmitter regulation of neural firing via coincidence of parallel G-protein signals. <i>Cell Calcium</i> , 2022, 105, 102611.	1.1	0
7	Role of Aberrant Spontaneous Neurotransmission in SNAP25-Associated Encephalopathies. <i>Neuron</i> , 2021, 109, 59-72.e5.	3.8	31
8	Interneuronal exchange and functional integration of synaptobrevin via extracellular vesicles. <i>Neuron</i> , 2021, 109, 971-983.e5.	3.8	40
9	Presynaptic store-operated Ca ²⁺ entry drives excitatory spontaneous neurotransmission and augments endoplasmic reticulum stress. <i>Neuron</i> , 2021, 109, 1314-1332.e5.	3.8	49
10	RNA editing-mediated regulation of calcium-dependent activator protein for secretion (CAPS1) localization and its impact on synaptic transmission. <i>Journal of Neurochemistry</i> , 2021, 158, 182-196.	2.1	9
11	A key requirement for synaptic Reelin signaling in ketamine-mediated behavioral and synaptic action. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	11
12	Sustained effects of rapidly acting antidepressants require BDNF-dependent MeCP2 phosphorylation. <i>Nature Neuroscience</i> , 2021, 24, 1100-1109.	7.1	52
13	Evolutionary diversity of the dual Ca ²⁺ sensor system for neurotransmitter release. <i>Cell Calcium</i> , 2021, 96, 102402.	1.1	1
14	A subthreshold synaptic mechanism regulating BDNF expression and resting synaptic strength. <i>Cell Reports</i> , 2021, 36, 109467.	2.9	17
15	A synaptic locus for TrkB signaling underlying ketamine rapid antidepressant action. <i>Cell Reports</i> , 2021, 36, 109513.	2.9	39
16	Synaptobrevin-2 dependent regulation of single synaptic vesicle endocytosis. <i>Molecular Biology of the Cell</i> , 2021, 32, 1818-1823.	0.9	6
17	Convergence of distinct signaling pathways on synaptic scaling to trigger rapid antidepressant action. <i>Cell Reports</i> , 2021, 37, 109918.	2.9	18
18	Nano-Organization at the Synapse: Segregation of Distinct Forms of Neurotransmission. <i>Frontiers in Synaptic Neuroscience</i> , 2021, 13, 796498.	1.3	21

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19	Neuronal Ca ²⁺ signalling at rest and during spontaneous neurotransmission. <i>Journal of Physiology</i> , 2020, 598, 1649-1654.	1.3	30
20	Is Ca ²⁺ Essential for Synaptic Vesicle Endocytosis?. <i>Trends in Neurosciences</i> , 2020, 43, 77-79.	4.2	2
21	Presynaptic endoplasmic reticulum and neurotransmission. <i>Cell Calcium</i> , 2020, 85, 102133.	1.1	8
22	Overcoming presynaptic effects of VAMP2 mutations with 4-aminopyridine treatment. <i>Human Mutation</i> , 2020, 41, 1999-2011.	1.1	11
23	VAMP4 Maintains a Ca ²⁺ -Sensitive Pool of Spontaneously Recycling Synaptic Vesicles. <i>Journal of Neuroscience</i> , 2020, 40, 5389-5401.	1.7	15
24	Targeting Homeostatic Synaptic Plasticity for Treatment of Mood Disorders. <i>Neuron</i> , 2020, 106, 715-726.	3.8	107
25	Spontaneous and evoked neurotransmission are partially segregated at inhibitory synapses. <i>ELife</i> , 2020, 9, .	2.8	22
26	Cell-Specific Loss of SNAP25 from Cortical Projection Neurons Allows Normal Development but Causes Subsequent Neurodegeneration. <i>Cerebral Cortex</i> , 2019, 29, 2148-2159.	1.6	37
27	Behavioral Analysis of SNAP-25 and Synaptobrevin-2 Haploinsufficiency in Mice. <i>Neuroscience</i> , 2019, 420, 129-135.	1.1	13
28	Presynaptic origins of distinct modes of neurotransmitter release. <i>Current Opinion in Neurobiology</i> , 2018, 51, 119-126.	2.0	55
29	Pin1 mediates A β ² -induced dendritic spine loss. <i>Science Signaling</i> , 2018, 11, .	1.6	23
30	Spontaneous neurotransmission: A form of neural communication comes of age. <i>Journal of Neuroscience Research</i> , 2018, 96, 331-334.	1.3	11
31	The Ketamine Metabolite 2R,6R-Hydroxynorketamine Blocks NMDA Receptors and Impacts Downstream Signaling Linked to Antidepressant Effects. <i>Neuropsychopharmacology</i> , 2018, 43, 221-222.	2.8	25
32	Time course and temperature dependence of synaptic vesicle endocytosis. <i>FEBS Letters</i> , 2018, 592, 3606-3614.	1.3	27
33	Copine-6 Binds to SNAREs and Selectively Suppresses Spontaneous Neurotransmission. <i>Journal of Neuroscience</i> , 2018, 38, 5888-5899.	1.7	27
34	Optical detection of three modes of endocytosis at hippocampal synapses. <i>ELife</i> , 2018, 7, .	2.8	57
35	Genetic Dissection of Presynaptic and Postsynaptic BDNF-TrkB Signaling in Synaptic Efficacy of CA3-CA1 Synapses. <i>Cell Reports</i> , 2018, 24, 1550-1561.	2.9	68
36	Synaptotagmin-1- and Synaptotagmin-7-Dependent Fusion Mechanisms Target Synaptic Vesicles to Kinetically Distinct Endocytic Pathways. <i>Neuron</i> , 2017, 93, 616-631.e3.	3.8	76

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37	Selective molecular impairment of spontaneous neurotransmission modulates synaptic efficacy. <i>Nature Communications</i> , 2017, 8, 14436.	5.8	39
38	Synaptic Vesicle-Recycling Machinery Components as Potential Therapeutic Targets. <i>Pharmacological Reviews</i> , 2017, 69, 141-160.	7.1	54
39	An Intrinsic Transcriptional Program Underlying Synaptic Scaling during Activity Suppression. <i>Cell Reports</i> , 2017, 18, 1512-1526.	2.9	65
40	Effects of a ketamine metabolite on synaptic NMDAR function. <i>Nature</i> , 2017, 546, E1-E3.	13.7	145
41	Loss of Doc2-Dependent Spontaneous Neurotransmission Augments Glutamatergic Synaptic Strength. <i>Journal of Neuroscience</i> , 2017, 37, 6224-6230.	1.7	22
42	CRISPR/Cas9 system-mediated impairment of synaptobrevin/VAMP function in postmitotic hippocampal neurons. <i>Journal of Neuroscience Methods</i> , 2017, 278, 57-64.	1.3	3
43	Sphingomimetic multiple sclerosis drug FTY720 activates vesicular synaptobrevin and augments neuroendocrine secretion. <i>Scientific Reports</i> , 2017, 7, 5958.	1.6	13
44	Synaptic vesicle pool-specific modification of neurotransmitter release by intravesicular free radical generation. <i>Journal of Physiology</i> , 2017, 595, 1223-1238.	1.3	14
45	Chronic lithium treatment elicits its antimanic effects via BDNF-TrkB dependent synaptic downscaling. <i>ELife</i> , 2017, 6, .	2.8	42
46	How do you recognize and reconstitute a synaptic vesicle after fusion?. <i>F1000Research</i> , 2017, 6, 1734.	0.8	11
47	MeCP2 and histone deacetylases 1 and 2 in dorsal striatum collectively suppress repetitive behaviors. <i>Nature Neuroscience</i> , 2016, 19, 1506-1512.	7.1	36
48	Imaging Synaptic Vesicle Exocytosis-Endocytosis with pH-Sensitive Fluorescent Proteins. <i>Methods in Molecular Biology</i> , 2016, 1474, 187-200.	0.4	5
49	A peptide encoded by a transcript annotated as long noncoding RNA enhances SERCA activity in muscle. <i>Science</i> , 2016, 351, 271-275.	6.0	634
50	Ca ²⁺ Dependence of Synaptic Vesicle Endocytosis. <i>Neuroscientist</i> , 2016, 22, 464-476.	2.6	35
51	Single synapse evaluation of the postsynaptic NMDA receptors targeted by evoked and spontaneous neurotransmission. <i>ELife</i> , 2016, 5, .	2.8	43
52	Molecular Underpinnings of Synaptic Vesicle Pool Heterogeneity. <i>Traffic</i> , 2015, 16, 338-364.	1.3	56
53	How Do RIM-BPs Link Voltage-Gated Ca ²⁺ Channels to Evoked Neurotransmitter Release?. <i>Neuron</i> , 2015, 87, 1119-1121.	3.8	6
54	Ubiquitin-Synaptobrevin Fusion Protein Causes Degeneration of Presynaptic Motor Terminals in Mice. <i>Journal of Neuroscience</i> , 2015, 35, 11514-11531.	1.7	16

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55	The mechanisms and functions of spontaneous neurotransmitter release. <i>Nature Reviews Neuroscience</i> , 2015, 16, 5-16.	4.9	363
56	How does ketamine elicit a rapid antidepressant response?. <i>Current Opinion in Pharmacology</i> , 2015, 20, 35-39.	1.7	96
57	Spontaneous neurotransmission signals through store-driven Ca ²⁺ transients to maintain synaptic homeostasis. <i>ELife</i> , 2015, 4, .	2.8	54
58	Visualizing presynaptic function. <i>Nature Neuroscience</i> , 2014, 17, 10-16.	7.1	112
59	Mechanisms underlying differential effectiveness of memantine and ketamine in rapid antidepressant responses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 8649-8654.	3.3	186
60	Age dependence of the rapid antidepressant and synaptic effects of acute NMDA receptor blockade. <i>Frontiers in Molecular Neuroscience</i> , 2014, 7, 94.	1.4	44
61	Fast retrieval and autonomous regulation of single spontaneously recycling synaptic vesicles. <i>ELife</i> , 2014, 3, e03658.	2.8	46
62	Scopolamine and Ketamine: Evidence of Convergence?. <i>Biological Psychiatry</i> , 2013, 74, 712-713.	0.7	15
63	Reelin Mobilizes a VAMP7-Dependent Synaptic Vesicle Pool and Selectively Augments Spontaneous Neurotransmission. <i>Neuron</i> , 2013, 80, 934-946.	3.8	106
64	The Role of Eukaryotic Elongation Factor 2 Kinase in Rapid Antidepressant Action of Ketamine. <i>Biological Psychiatry</i> , 2013, 73, 1199-1203.	0.7	182
65	Acute Suppression of Spontaneous Neurotransmission Drives Synaptic Potentiation. <i>Journal of Neuroscience</i> , 2013, 33, 6990-7002.	1.7	225
66	The Impact of MeCP2 Loss- or Gain-of-Function on Synaptic Plasticity. <i>Neuropsychopharmacology</i> , 2013, 38, 212-219.	2.8	145
67	A Mouse Model for MeCP2 Duplication Syndrome: MeCP2 Overexpression Impairs Learning and Memory and Synaptic Transmission. <i>Journal of Neuroscience</i> , 2012, 32, 3109-3117.	1.7	110
68	Vti1a Identifies a Vesicle Pool that Preferentially Recycles at Rest and Maintains Spontaneous Neurotransmission. <i>Neuron</i> , 2012, 73, 121-134.	3.8	144
69	VAMP4 directs synaptic vesicles to a pool that selectively maintains asynchronous neurotransmission. <i>Nature Neuroscience</i> , 2012, 15, 738-745.	7.1	135
70	Synaptic Mechanisms Underlying Rapid Antidepressant Action of Ketamine. <i>American Journal of Psychiatry</i> , 2012, 169, 1150-1156.	4.0	220
71	An Essential Role for Histone Deacetylase 4 in Synaptic Plasticity and Memory Formation. <i>Journal of Neuroscience</i> , 2012, 32, 10879-10886.	1.7	213
72	The role of non-canonical SNAREs in synaptic vesicle recycling. <i>Cellular Logistics</i> , 2012, 2, 20-27.	0.9	26

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73	In Vivo Analysis of MEF2 Transcription Factors in Synapse Regulation and Neuronal Survival. PLoS ONE, 2012, 7, e34863.	1.1	93
74	Cc2d1a, a C2 domain containing protein linked to nonsyndromic mental retardation, controls functional maturation of central synapses. Journal of Neurophysiology, 2011, 105, 1506-1515.	0.9	31
75	Spontaneous Neurotransmission: An Independent Pathway for Neuronal Signaling?. Physiology, 2011, 26, 45-53.	1.6	88
76	Differential regulation of spontaneous and evoked neurotransmitter release at central synapses. Current Opinion in Neurobiology, 2011, 21, 275-282.	2.0	157
77	NMDA receptor blockade at rest triggers rapid behavioural antidepressant responses. Nature, 2011, 475, 91-95.	13.7	1,584
78	Role of MeCP2, DNA methylation, and HDACs in regulating synapse function. Journal of Neurodevelopmental Disorders, 2011, 3, 250-256.	1.5	35
79	Use-Dependent AMPA Receptor Block Reveals Segregation of Spontaneous and Evoked Glutamatergic Neurotransmission. Journal of Neuroscience, 2011, 31, 5378-5382.	1.7	69
80	Ca ²⁺ Influx Slows Single Synaptic Vesicle Endocytosis. Journal of Neuroscience, 2011, 31, 16318-16326.	1.7	87
81	Selective impact of MeCP2 and associated histone deacetylases on the dynamics of evoked excitatory neurotransmission. Journal of Neurophysiology, 2011, 106, 193-201.	0.9	23
82	Acute Dynamin Inhibition Dissects Synaptic Vesicle Recycling Pathways That Drive Spontaneous and Evoked Neurotransmission. Journal of Neuroscience, 2010, 30, 1363-1376.	1.7	125
83	Activity-Dependent Augmentation of Spontaneous Neurotransmission during Endoplasmic Reticulum Stress. Journal of Neuroscience, 2010, 30, 7358-7368.	1.7	46
84	Â-Latrotoxin Stimulates a Novel Pathway of Ca ²⁺ -Dependent Synaptic Exocytosis Independent of the Classical Synaptic Fusion Machinery. Journal of Neuroscience, 2009, 29, 8639-8648.	1.7	63
85	NMDA Receptor Activation by Spontaneous Glutamatergic Neurotransmission. Journal of Neurophysiology, 2009, 101, 2290-2296.	0.9	61
86	Reelin signaling antagonizes Î²-amyloid at the synapse. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 15938-15943.	3.3	139
87	Histone Deacetylases 1 and 2 Form a Developmental Switch That Controls Excitatory Synapse Maturation and Function. Journal of Neuroscience, 2009, 29, 8288-8297.	1.7	147
88	Synaptic Vesicle Endocytosis: Get Two for the Price of One?. Neuron, 2009, 61, 333-334.	3.8	3
89	Sphingosine Facilitates SNARE Complex Assembly and Activates Synaptic Vesicle Exocytosis. Neuron, 2009, 62, 683-694.	3.8	136
90	Leaky synapses: Regulation of spontaneous neurotransmission in central synapses. Neuroscience, 2009, 158, 177-188.	1.1	42

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91	Rett Syndrome and the Impact of MeCP2 Associated Transcriptional Mechanisms on Neurotransmission. <i>Biological Psychiatry</i> , 2009, 65, 204-210.	0.7	66
92	MEF2C, a transcription factor that facilitates learning and memory by negative regulation of synapse numbers and function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 9391-9396.	3.3	241
93	Spontaneous and Evoked Glutamate Release Activates Two Populations of NMDA Receptors with Limited Overlap. <i>Journal of Neuroscience</i> , 2008, 28, 10151-10166.	1.7	164
94	Activity-Dependent Suppression of Miniature Neurotransmission through the Regulation of DNA Methylation. <i>Journal of Neuroscience</i> , 2008, 28, 395-406.	1.7	239
95	Molecular Substrates Mediating Lanthanide-Evoked Neurotransmitter Release in Central Synapses. <i>Journal of Neurophysiology</i> , 2008, 100, 2089-2100.	0.9	16
96	Pharmacology of Neurotransmitter Release: Measuring Exocytosis. <i>Handbook of Experimental Pharmacology</i> , 2008, , 23-43.	0.9	9
97	Fast Synaptic Vesicle Reuse Slows the Rate of Synaptic Depression in the CA1 Region of Hippocampus. <i>Journal of Neuroscience</i> , 2007, 27, 341-354.	1.7	49
98	Deletion of CASK in mice is lethal and impairs synaptic function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 2525-2530.	3.3	189
99	Differential Effects of SNAP-25 Deletion on Ca ²⁺ -Dependent and Ca ²⁺ -Independent Neurotransmission. <i>Journal of Neurophysiology</i> , 2007, 98, 794-806.	0.9	109
100	Activity-Dependent Validation of Excitatory versus Inhibitory Synapses by Neuroligin-1 versus Neuroligin-2. <i>Neuron</i> , 2007, 54, 919-931.	3.8	511
101	Cholesterol-dependent balance between evoked and spontaneous synaptic vesicle recycling. <i>Journal of Physiology</i> , 2007, 579, 413-429.	1.3	134
102	Multiple vesicle recycling pathways in central synapses and their impact on neurotransmission. <i>Journal of Physiology</i> , 2007, 585, 669-679.	1.3	33
103	Seeking a function for spontaneous neurotransmission. <i>Nature Neuroscience</i> , 2006, 9, 989-990.	7.1	14
104	Rabphilin regulates SNARE-dependent re-priming of synaptic vesicles for fusion. <i>EMBO Journal</i> , 2006, 25, 2856-2866.	3.5	98
105	MeCP2-Dependent Transcriptional Repression Regulates Excitatory Neurotransmission. <i>Current Biology</i> , 2006, 16, 710-716.	1.8	198
106	Synaptic Vesicle Reuse and Its Implications. <i>Neuroscientist</i> , 2006, 12, 57-66.	2.6	50
107	Reciprocal Interaction of Serotonin and Neuronal Activity in Regulation of cAMP-Responsive Element-Dependent Gene Expression. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2006, 317, 88-96.	1.3	18
108	Structural Determinants of Synaptobrevin 2 Function in Synaptic Vesicle Fusion. <i>Journal of Neuroscience</i> , 2006, 26, 6668-6676.	1.7	132

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109	Synaptic Vesicle Recycling Adapts to Chronic Changes in Activity. <i>Journal of Neuroscience</i> , 2006, 26, 2197-2206.	1.7	27
110	Progressively reduced synaptic vesicle pool size in cultured neurons derived from neuronal ceroid lipofuscinosis-1 knockout mice. <i>Neurobiology of Disease</i> , 2005, 20, 314-323.	2.1	66
111	TrkB Has a Cell-Autonomous Role in the Establishment of Hippocampal Schaffer Collateral Synapses. <i>Journal of Neuroscience</i> , 2005, 25, 3774-3786.	1.7	146
112	Reelin Modulates NMDA Receptor Activity in Cortical Neurons. <i>Journal of Neuroscience</i> , 2005, 25, 8209-8216.	1.7	254
113	Selective Capability of SynCAM and Neuroligin for Functional Synapse Assembly. <i>Journal of Neuroscience</i> , 2005, 25, 260-270.	1.7	172
114	Phorbol Esters Target the Activity-Dependent Recycling Pool and Spare Spontaneous Vesicle Recycling. <i>Journal of Neuroscience</i> , 2005, 25, 10922-10929.	1.7	41
115	An Isolated Pool of Vesicles Recycles at Rest and Drives Spontaneous Neurotransmission. <i>Neuron</i> , 2005, 45, 563-573.	3.8	343
116	Minimum Essential Factors Required for Vesicle Mobilization at Hippocampal Synapses. <i>Journal of Neuroscience</i> , 2004, 24, 1680-1688.	1.7	15
117	Synaptobrevin is essential for fast synaptic-vesicle endocytosis. <i>Nature Cell Biology</i> , 2004, 6, 1102-1108.	4.6	211
118	Presynaptic homeostasis at CNS nerve terminals compensates for lack of a key Ca ²⁺ entry pathway. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 3609-3614.	3.3	49
119	Synaptotagmin 7 splice variants differentially regulate synaptic vesicle recycling. <i>EMBO Journal</i> , 2003, 22, 5347-5357.	3.5	78
120	Identification of Endogenous/transfected Synaptic Proteins in Primary Neuronal Culture by a High-yield Immunogold Labeling. <i>Microscopy and Microanalysis</i> , 2003, 9, 1498-1499.	0.2	0
121	SynCAM, a Synaptic Adhesion Molecule That Drives Synapse Assembly. <i>Science</i> , 2002, 297, 1525-1531.	6.0	706
122	Fast Vesicle Recycling Supports Neurotransmission during Sustained Stimulation at Hippocampal Synapses. <i>Journal of Neuroscience</i> , 2002, 22, 1608-1617.	1.7	122
123	SNARE interactions in membrane trafficking: A perspective from mammalian central synapses. <i>BioEssays</i> , 2002, 24, 926-936.	1.2	23
124	Development of Vesicle Pools during Maturation of Hippocampal Synapses. <i>Journal of Neuroscience</i> , 2002, 22, 654-665.	1.7	186
125	SNARE Function Analyzed in Synaptobrevin/VAMP Knockout Mice. <i>Science</i> , 2001, 294, 1117-1122.	6.0	587
126	Limited numbers of recycling vesicles in small CNS nerve terminals: implications for neural signaling and vesicular cycling. <i>Trends in Neurosciences</i> , 2001, 24, 637-643.	4.2	183

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127	Rapid Reuse of Readily Releasable Pool Vesicles at Hippocampal Synapses. <i>Neuron</i> , 2000, 28, 221-231.	3.8	312
128	Properties of fast endocytosis at hippocampal synapses. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 1999, 354, 337-346.	1.8	46
129	Visualization of Synaptic Activity in Hippocampal Slices with FM1-43 Enabled by Fluorescence Quenching. <i>Neuron</i> , 1999, 24, 803-808.	3.8	75
130	Kinetics and regulation of fast endocytosis at hippocampal synapses. <i>Nature</i> , 1998, 394, 581-585.	13.7	387
131	Dendritic Ca ²⁺ Channels Characterized by Recordings from Isolated Hippocampal Dendritic Segments. <i>Neuron</i> , 1997, 18, 651-663.	3.8	138
132	cAMP-Dependent Enhancement of Dihydropyridine-Sensitive Calcium Channel Availability in Hippocampal Neurons. <i>Journal of Neuroscience</i> , 1997, 17, 5334-5348.	1.7	72
133	<scp>MeCP2</scp> loss of function dysregulates <scp>microRNAs</scp> regionally and disrupts excitatory/inhibitory synaptic transmission balance. <i>Hippocampus</i> , 0, , .	0.9	1