Ege T Kavalali

List of Publications by Year
in descending order

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133 papers	14,204 citations	23500 58 h-index	20900 115 g-index
187 all docs	187 docs citations	187 times ranked	14330 citing authors

#	Article	IF	Citations
1	BDNF signaling in context: From synaptic regulation to psychiatric disorders. Cell, 2022, 185, 62-76.	13.5	160
2	Presynaptic mechanisms underlying GABAB-receptor-mediated inhibition of spontaneous neurotransmitter release. Cell Reports, 2022, 38, 110255.	2.9	13
3	Role of the endoplasmic reticulum in synaptic transmission. Current Opinion in Neurobiology, 2022, 73, 102538.	2.0	11
4	Probing the segregation of evoked and spontaneous neurotransmission via photobleaching and recovery of a fluorescent glutamate sensor. ELife, 2022, 11, .	2.8	6
5	Optical analysis of AMPAR-mediated synaptic scaling in mouse hippocampus. STAR Protocols, 2022, 3, 101443.	0.5	1
6	Multi-neurotransmitter regulation of neural firing via coincidence of parallel G-protein signals. Cell Calcium, 2022, 105, 102611.	1.1	0
7	Role of Aberrant Spontaneous Neurotransmission in SNAP25-Associated Encephalopathies. Neuron, 2021, 109, 59-72.e5.	3.8	31
8	Interneuronal exchange and functional integration of synaptobrevin via extracellular vesicles. Neuron, 2021, 109, 971-983.e5.	3.8	40
9	Presynaptic store-operated Ca2+ entry drives excitatory spontaneous neurotransmission and augments endoplasmic reticulum stress. Neuron, 2021, 109, 1314-1332.e5.	3.8	49
10	RNA editingâ€mediated regulation of calciumâ€dependent activator protein for secretion (CAPS1) localization and its impact on synaptic transmission. Journal of Neurochemistry, 2021, 158, 182-196.	2.1	9
11	A key requirement for synaptic Reelin signaling in ketamine-mediated behavioral and synaptic action. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	11
12	Sustained effects of rapidly acting antidepressants require BDNF-dependent MeCP2 phosphorylation. Nature Neuroscience, 2021, 24, 1100-1109.	7.1	52
13	Evolutionary diversity of the dual Ca2+ sensor system for neurotransmitter release. Cell Calcium, 2021, 96, 102402.	1.1	1
14	A subthreshold synaptic mechanism regulating BDNF expression and resting synaptic strength. Cell Reports, 2021, 36, 109467.	2.9	17
15	A synaptic locus for TrkB signaling underlying ketamine rapid antidepressant action. Cell Reports, 2021, 36, 109513.	2.9	39
16	Synaptobrevin-2 dependent regulation of single synaptic vesicle endocytosis. Molecular Biology of the Cell, 2021, 32, 1818-1823.	0.9	6
17	Convergence of distinct signaling pathways on synaptic scaling to trigger rapid antidepressant action. Cell Reports, 2021, 37, 109918.	2.9	18
18	Nano-Organization at the Synapse: Segregation of Distinct Forms of Neurotransmission. Frontiers in Synaptic Neuroscience, 2021, 13, 796498.	1.3	21

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19	Neuronal Ca²⁺ signalling at rest and during spontaneous neurotransmission. Journal of Physiology, 2020, 598, 1649-1654.	1.3	30
20	Is Ca2+ Essential for Synaptic Vesicle Endocytosis?. Trends in Neurosciences, 2020, 43, 77-79.	4.2	2
21	Presynaptic endoplasmic reticulum and neurotransmission. Cell Calcium, 2020, 85, 102133.	1.1	8
22	Overcoming presynaptic effects of VAMP2 mutations with 4â€aminopyridine treatment. Human Mutation, 2020, 41, 1999-2011.	1.1	11
23	VAMP4 Maintains a Ca2+-Sensitive Pool of Spontaneously Recycling Synaptic Vesicles. Journal of Neuroscience, 2020, 40, 5389-5401.	1.7	15
24	Targeting Homeostatic Synaptic Plasticity for Treatment of Mood Disorders. Neuron, 2020, 106, 715-726.	3.8	107
25	Spontaneous and evoked neurotransmission are partially segregated at inhibitory synapses. ELife, 2020, 9, .	2.8	22
26	Cell-Specific Loss of SNAP25 from Cortical Projection Neurons Allows Normal Development but Causes Subsequent Neurodegeneration. Cerebral Cortex, 2019, 29, 2148-2159.	1.6	37
27	Behavioral Analysis of SNAP-25 and Synaptobrevin-2 Haploinsufficiency in Mice. Neuroscience, 2019, 420, 129-135.	1.1	13
28	Presynaptic origins of distinct modes of neurotransmitter release. Current Opinion in Neurobiology, 2018, 51, 119-126.	2.0	55
29	Pin1 mediates AÎ² ₄₂ -induced dendritic spine loss. Science Signaling, 2018, 11, .	1.6	23
30	Spontaneous neurotransmission: A form of neural communication comes of age. Journal of Neuroscience Research, 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. Neuropsychopharmacology, 2018, 43, 221-222.	2.8	25
32	Time course and temperature dependence of synaptic vesicle endocytosis. FEBS Letters, 2018, 592, 3606-3614.	1.3	27
33	Copine-6 Binds to SNAREs and Selectively Suppresses Spontaneous Neurotransmission. Journal of Neuroscience, 2018, 38, 5888-5899.	1.7	27
34	Optical detection of three modes of endocytosis at hippocampal synapses. ELife, 2018, 7, .	2.8	57
35	Genetic Dissection of Presynaptic and Postsynaptic BDNF-TrkB Signaling in Synaptic Efficacy of CA3-CA1 Synapses. Cell Reports, 2018, 24, 1550-1561.	2.9	68
36	Synaptotagmin-1- and Synaptotagmin-7-Dependent Fusion Mechanisms Target Synaptic Vesicles to Kinetically Distinct Endocytic Pathways. Neuron, 2017, 93, 616-631.e3.	3.8	76

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37	Selective molecular impairment of spontaneous neurotransmission modulates synaptic efficacy. Nature Communications, 2017, 8, 14436.	5.8	39
38	Synaptic Vesicle-Recycling Machinery Components as Potential Therapeutic Targets. Pharmacological Reviews, 2017, 69, 141-160.	7.1	54
39	An Intrinsic Transcriptional Program Underlying Synaptic Scaling during Activity Suppression. Cell Reports, 2017, 18, 1512-1526.	2.9	65
40	Effects of a ketamine metabolite on synaptic NMDAR function. Nature, 2017, 546, E1-E3.	13.7	145
41	Loss of Doc2-Dependent Spontaneous Neurotransmission Augments Glutamatergic Synaptic Strength. Journal of Neuroscience, 2017, 37, 6224-6230.	1.7	22
42	CRISPR/Cas9 system-mediated impairment of synaptobrevin/VAMP function in postmitotic hippocampal neurons. Journal of Neuroscience Methods, 2017, 278, 57-64.	1.3	3
43	Sphingomimetic multiple sclerosis drug FTY720 activates vesicular synaptobrevin and augments neuroendocrine secretion. Scientific Reports, 2017, 7, 5958.	1.6	13
44	Synaptic vesicle poolâ€specific modification of neurotransmitter release by intravesicular free radical generation. Journal of Physiology, 2017, 595, 1223-1238.	1.3	14
45	Chronic lithium treatment elicits its antimanic effects via BDNF-TrkB dependent synaptic downscaling. ELife, 2017, 6, .	2.8	42
46	How do you recognize and reconstitute a synaptic vesicle after fusion?. F1000Research, 2017, 6, 1734.	0.8	11
47	MeCP2 and histone deacetylases 1 and 2 in dorsal striatum collectively suppress repetitive behaviors. Nature Neuroscience, 2016, 19, 1506-1512.	7.1	36
48	Imaging Synaptic Vesicle Exocytosis-Endocytosis with pH-Sensitive Fluorescent Proteins. Methods in Molecular Biology, 2016, 1474, 187-200.	0.4	5
49	A peptide encoded by a transcript annotated as long noncoding RNA enhances SERCA activity in muscle. Science, 2016, 351, 271-275.	6.0	634
50	Ca²⁺ Dependence of Synaptic Vesicle Endocytosis. Neuroscientist, 2016, 22, 464-476.	2.6	35
51	Single synapse evaluation of the postsynaptic NMDA receptors targeted by evoked and spontaneous neurotransmission. ELife, 2016, 5, .	2.8	43
52	Molecular Underpinnings of Synaptic Vesicle Pool Heterogeneity. Traffic, 2015, 16, 338-364.	1.3	56
53	How Do RIM-BPs Link Voltage-Gated Ca 2+ Channels to Evoked Neurotransmitter Release?. Neuron, 2015, 87, 1119-1121.	3.8	6
54	Ubiquitinâ€“Synaptobrevin Fusion Protein Causes Degeneration of Presynaptic Motor Terminals in Mice. Journal of Neuroscience, 2015, 35, 11514-11531.	1.7	16

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55	The mechanisms and functions of spontaneous neurotransmitter release. Nature Reviews Neuroscience, 2015, 16, 5-16.	4.9	363
56	How does ketamine elicit a rapid antidepressant response?. Current Opinion in Pharmacology, 2015, 20, 35-39.	1.7	96
57	Spontaneous neurotransmission signals through store-driven Ca2+ transients to maintain synaptic homeostasis. ELife, 2015, 4, .	2.8	54
58	Visualizing presynaptic function. Nature Neuroscience, 2014, 17, 10-16.	7.1	112
59	Mechanisms underlying differential effectiveness of memantine and ketamine in rapid antidepressant responses. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8649-8654.	3.3	186
60	Age dependence of the rapid antidepressant and synaptic effects of acute NMDA receptor blockade. Frontiers in Molecular Neuroscience, 2014, 7, 94.	1.4	44
61	Fast retrieval and autonomous regulation of single spontaneously recycling synaptic vesicles. ELife, 2014, 3, e03658.	2.8	46
62	Scopolamine and Ketamine: Evidence of Convergence?. Biological Psychiatry, 2013, 74, 712-713.	0.7	15
63	Reelin Mobilizes a VAMP7-Dependent Synaptic Vesicle Pool and Selectively Augments Spontaneous Neurotransmission. Neuron, 2013, 80, 934-946.	3.8	106
64	The Role of Eukaryotic Elongation Factor 2 Kinase in Rapid Antidepressant Action of Ketamine. Biological Psychiatry, 2013, 73, 1199-1203.	0.7	182
65	Acute Suppression of Spontaneous Neurotransmission Drives Synaptic Potentiation. Journal of Neuroscience, 2013, 33, 6990-7002.	1.7	225
66	The Impact of MeCP2 Loss- or Gain-of-Function on Synaptic Plasticity. Neuropsychopharmacology, 2013, 38, 212-219.	2.8	145
67	A Mouse Model forMeCP2Duplication Syndrome: MeCP2 Overexpression Impairs Learning and Memory and Synaptic Transmission. Journal of Neuroscience, 2012, 32, 3109-3117.	1.7	110
68	Vti1a Identifies a Vesicle Pool that Preferentially Recycles at Rest and Maintains Spontaneous Neurotransmission. Neuron, 2012, 73, 121-134.	3.8	144
69	VAMP4 directs synaptic vesicles to a pool that selectively maintains asynchronous neurotransmission. Nature Neuroscience, 2012, 15, 738-745.	7.1	135
70	Synaptic Mechanisms Underlying Rapid Antidepressant Action of Ketamine. American Journal of Psychiatry, 2012, 169, 1150-1156.	4.0	220
71	An Essential Role for Histone Deacetylase 4 in Synaptic Plasticity and Memory Formation. Journal of Neuroscience, 2012, 32, 10879-10886.	1.7	213
72	The role of non-canonical SNAREs in synaptic vesicle recycling. Cellular Logistics, 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	Ca²⁺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 Ca2+-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. Biological Psychiatry, 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. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 9391-9396.	3.3	241
93	Spontaneous and Evoked Glutamate Release Activates Two Populations of NMDA Receptors with Limited Overlap. Journal of Neuroscience, 2008, 28, 10151-10166.	1.7	164
94	Activity-Dependent Suppression of Miniature Neurotransmission through the Regulation of DNA Methylation. Journal of Neuroscience, 2008, 28, 395-406.	1.7	239
95	Molecular Substrates Mediating Lanthanide-Evoked Neurotransmitter Release in Central Synapses. Journal of Neurophysiology, 2008, 100, 2089-2100.	0.9	16
96	Pharmacology of Neurotransmitter Release: Measuring Exocytosis. Handbook of Experimental Pharmacology, 2008, , 23-43.	0.9	9
97	Fast Synaptic Vesicle Reuse Slows the Rate of Synaptic Depression in the CA1 Region of Hippocampus. Journal of Neuroscience, 2007, 27, 341-354.	1.7	49
98	Deletion of CASK in mice is lethal and impairs synaptic function. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 2525-2530.	3.3	189
99	Differential Effects of SNAP-25 Deletion on Ca2+-Dependent and Ca2+-Independent Neurotransmission. Journal of Neurophysiology, 2007, 98, 794-806.	0.9	109
100	Activity-Dependent Validation of Excitatory versus Inhibitory Synapses by Neuroligin-1 versus Neuroligin-2. Neuron, 2007, 54, 919-931.	3.8	511
101	Cholesterol-dependent balance between evoked and spontaneous synaptic vesicle recycling. Journal of Physiology, 2007, 579, 413-429.	1.3	134
102	Multiple vesicle recycling pathways in central synapses and their impact on neurotransmission. Journal of Physiology, 2007, 585, 669-679.	1.3	33
103	Seeking a function for spontaneous neurotransmission. Nature Neuroscience, 2006, 9, 989-990.	7.1	14
104	Rabphilin regulates SNARE-dependent re-priming of synaptic vesicles for fusion. EMBO Journal, 2006, 25, 2856-2866.	3.5	98
105	MeCP2-Dependent Transcriptional Repression Regulates Excitatory Neurotransmission. Current Biology, 2006, 16, 710-716.	1.8	198
106	Synaptic Vesicle Reuse and Its Implications. Neuroscientist, 2006, 12, 57-66.	2.6	50
107	Reciprocal Interaction of Serotonin and Neuronal Activity in Regulation of cAMP-Responsive Element-Dependent Gene Expression. Journal of Pharmacology and Experimental Therapeutics, 2006, 317, 88-96.	1.3	18
108	Structural Determinants of Synaptobrevin 2 Function in Synaptic Vesicle Fusion. Journal of Neuroscience, 2006, 26, 6668-6676.	1.7	132

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109	Synaptic Vesicle Recycling Adapts to Chronic Changes in Activity. Journal of Neuroscience, 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. Neurobiology of Disease, 2005, 20, 314-323.	2.1	66
111	TrkB Has a Cell-Autonomous Role in the Establishment of Hippocampal Schaffer Collateral Synapses. Journal of Neuroscience, 2005, 25, 3774-3786.	1.7	146
112	Reelin Modulates NMDA Receptor Activity in Cortical Neurons. Journal of Neuroscience, 2005, 25, 8209-8216.	1.7	254
113	Selective Capability of SynCAM and Neuroligin for Functional Synapse Assembly. Journal of Neuroscience, 2005, 25, 260-270.	1.7	172
114	Phorbol Esters Target the Activity-Dependent Recycling Pool and Spare Spontaneous Vesicle Recycling. Journal of Neuroscience, 2005, 25, 10922-10929.	1.7	41
115	An Isolated Pool of Vesicles Recycles at Rest and Drives Spontaneous Neurotransmission. Neuron, 2005, 45, 563-573.	3.8	343
116	Minimum Essential Factors Required for Vesicle Mobilization at Hippocampal Synapses. Journal of Neuroscience, 2004, 24, 1680-1688.	1.7	15
117	Synaptobrevin is essential for fast synaptic-vesicle endocytosis. Nature Cell Biology, 2004, 6, 1102-1108.	4.6	211
118	Presynaptic homeostasis at CNS nerve terminals compensates for lack of a key Ca2+ entry pathway. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 3609-3614.	3.3	49
119	Synaptotagmin 7 splice variants differentially regulate synaptic vesicle recycling. EMBO Journal, 2003, 22, 5347-5357.	3.5	78
120	Identification of Endogenous/transfected Synaptic Proteins in Primary Neuronal Culture by a High-yield Immunogold Labeling. Microscopy and Microanalysis, 2003, 9, 1498-1499.	0.2	0
121	SynCAM, a Synaptic Adhesion Molecule That Drives Synapse Assembly. Science, 2002, 297, 1525-1531.	6.0	706
122	Fast Vesicle Recycling Supports Neurotransmission during Sustained Stimulation at Hippocampal Synapses. Journal of Neuroscience, 2002, 22, 1608-1617.	1.7	122
123	SNARE interactions in membrane trafficking: A perspective from mammalian central synapses. BioEssays, 2002, 24, 926-936.	1.2	23
124	Development of Vesicle Pools during Maturation of Hippocampal Synapses. Journal of Neuroscience, 2002, 22, 654-665.	1.7	186
125	SNARE Function Analyzed in Synaptobrevin/VAMP Knockout Mice. Science, 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. Trends in Neurosciences, 2001, 24, 637-643.	4.2	183

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127	Rapid Reuse of Readily Releasable Pool Vesicles at Hippocampal Synapses. Neuron, 2000, 28, 221-231.	3.8	312
128	Properties of fast endocytosis at hippocampal synapses. Philosophical Transactions of the Royal Society B: Biological Sciences, 1999, 354, 337-346.	1.8	46
129	Visualization of Synaptic Activity in Hippocampal Slices with FM1-43 Enabled by Fluorescence Quenching. Neuron, 1999, 24, 803-808.	3.8	75
130	Kinetics and regulation of fast endocytosis at hippocampal synapses. Nature, 1998, 394, 581-585.	13.7	387
131	Dendritic Ca2+ Channels Characterized by Recordings from Isolated Hippocampal Dendritic Segments. Neuron, 1997, 18, 651-663.	3.8	138
132	cAMP-Dependent Enhancement of Dihydropyridine-Sensitive Calcium Channel Availability in Hippocampal Neurons. Journal of Neuroscience, 1997, 17, 5334-5348.	1.7	72
133	<scp>MeCP2</scp> lossâ€ofâ€function dysregulates <scp>microRNAs</scp> regionally and disrupts excitatory/inhibitory synaptic transmission balance. Hippocampus, 0, , .	0.9	1