Ege T Kavalali

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8032007/publications.pdf

Version: 2024-02-01

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	NMDA receptor blockade at rest triggers rapid behavioural antidepressant responses. Nature, 2011, 475, 91-95.	13.7	1,584
2	SynCAM, a Synaptic Adhesion Molecule That Drives Synapse Assembly. Science, 2002, 297, 1525-1531.	6.0	706
3	A peptide encoded by a transcript annotated as long noncoding RNA enhances SERCA activity in muscle. Science, 2016, 351, 271-275.	6.0	634
4	SNARE Function Analyzed in Synaptobrevin/VAMP Knockout Mice. Science, 2001, 294, 1117-1122.	6.0	587
5	Activity-Dependent Validation of Excitatory versus Inhibitory Synapses by Neuroligin-1 versus Neuroligin-2. Neuron, 2007, 54, 919-931.	3.8	511
6	Kinetics and regulation of fast endocytosis at hippocampal synapses. Nature, 1998, 394, 581-585.	13.7	387
7	The mechanisms and functions of spontaneous neurotransmitter release. Nature Reviews Neuroscience, 2015, 16, 5-16.	4.9	363
8	An Isolated Pool of Vesicles Recycles at Rest and Drives Spontaneous Neurotransmission. Neuron, 2005, 45, 563-573.	3.8	343
9	Rapid Reuse of Readily Releasable Pool Vesicles at Hippocampal Synapses. Neuron, 2000, 28, 221-231.	3.8	312
10	Reelin Modulates NMDA Receptor Activity in Cortical Neurons. Journal of Neuroscience, 2005, 25, 8209-8216.	1.7	254
11	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
12	Activity-Dependent Suppression of Miniature Neurotransmission through the Regulation of DNA Methylation. Journal of Neuroscience, 2008, 28, 395-406.	1.7	239
13	Acute Suppression of Spontaneous Neurotransmission Drives Synaptic Potentiation. Journal of Neuroscience, 2013, 33, 6990-7002.	1.7	225
14	Synaptic Mechanisms Underlying Rapid Antidepressant Action of Ketamine. American Journal of Psychiatry, 2012, 169, 1150-1156.	4.0	220
15	An Essential Role for Histone Deacetylase 4 in Synaptic Plasticity and Memory Formation. Journal of Neuroscience, 2012, 32, 10879-10886.	1.7	213
16	Synaptobrevin is essential for fast synaptic-vesicle endocytosis. Nature Cell Biology, 2004, 6, 1102-1108.	4.6	211
17	MeCP2-Dependent Transcriptional Repression Regulates Excitatory Neurotransmission. Current Biology, 2006, 16, 710-716.	1.8	198
18	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

#	Article	IF	Citations
19	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
20	Development of Vesicle Pools during Maturation of Hippocampal Synapses. Journal of Neuroscience, 2002, 22, 654-665.	1.7	186
21	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
22	The Role of Eukaryotic Elongation Factor 2 Kinase in Rapid Antidepressant Action of Ketamine. Biological Psychiatry, 2013, 73, 1199-1203.	0.7	182
23	Selective Capability of SynCAM and Neuroligin for Functional Synapse Assembly. Journal of Neuroscience, 2005, 25, 260-270.	1.7	172
24	Spontaneous and Evoked Glutamate Release Activates Two Populations of NMDA Receptors with Limited Overlap. Journal of Neuroscience, 2008, 28, 10151-10166.	1.7	164
25	BDNF signaling in context: From synaptic regulation to psychiatric disorders. Cell, 2022, 185, 62-76.	13.5	160
26	Differential regulation of spontaneous and evoked neurotransmitter release at central synapses. Current Opinion in Neurobiology, 2011, 21, 275-282.	2.0	157
27	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
28	TrkB Has a Cell-Autonomous Role in the Establishment of Hippocampal Schaffer Collateral Synapses. Journal of Neuroscience, 2005, 25, 3774-3786.	1.7	146
29	The Impact of MeCP2 Loss- or Gain-of-Function on Synaptic Plasticity. Neuropsychopharmacology, 2013, 38, 212-219.	2.8	145
30	Effects of a ketamine metabolite on synaptic NMDAR function. Nature, 2017, 546, E1-E3.	13.7	145
31	Vti1a Identifies a Vesicle Pool that Preferentially Recycles at Rest and Maintains Spontaneous Neurotransmission. Neuron, 2012, 73, 121-134.	3.8	144
32	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
33	Dendritic Ca2+ Channels Characterized by Recordings from Isolated Hippocampal Dendritic Segments. Neuron, 1997, 18, 651-663.	3.8	138
34	Sphingosine Facilitates SNARE Complex Assembly and Activates Synaptic Vesicle Exocytosis. Neuron, 2009, 62, 683-694.	3.8	136
35	VAMP4 directs synaptic vesicles to a pool that selectively maintains asynchronous neurotransmission. Nature Neuroscience, 2012, 15, 738-745.	7.1	135
36	Cholesterol-dependent balance between evoked and spontaneous synaptic vesicle recycling. Journal of Physiology, 2007, 579, 413-429.	1.3	134

#	Article	IF	Citations
37	Structural Determinants of Synaptobrevin 2 Function in Synaptic Vesicle Fusion. Journal of Neuroscience, 2006, 26, 6668-6676.	1.7	132
38	Acute Dynamin Inhibition Dissects Synaptic Vesicle Recycling Pathways That Drive Spontaneous and Evoked Neurotransmission. Journal of Neuroscience, 2010, 30, 1363-1376.	1.7	125
39	Fast Vesicle Recycling Supports Neurotransmission during Sustained Stimulation at Hippocampal Synapses. Journal of Neuroscience, 2002, 22, 1608-1617.	1.7	122
40	Visualizing presynaptic function. Nature Neuroscience, 2014, 17, 10-16.	7.1	112
41	A Mouse Model forMeCP2Duplication Syndrome: MeCP2 Overexpression Impairs Learning and Memory and Synaptic Transmission. Journal of Neuroscience, 2012, 32, 3109-3117.	1.7	110
42	Differential Effects of SNAP-25 Deletion on Ca2+-Dependent and Ca2+-Independent Neurotransmission. Journal of Neurophysiology, 2007, 98, 794-806.	0.9	109
43	Targeting Homeostatic Synaptic Plasticity for Treatment of Mood Disorders. Neuron, 2020, 106, 715-726.	3.8	107
44	Reelin Mobilizes a VAMP7-Dependent Synaptic Vesicle Pool and Selectively Augments Spontaneous Neurotransmission. Neuron, 2013, 80, 934-946.	3.8	106
45	Rabphilin regulates SNARE-dependent re-priming of synaptic vesicles for fusion. EMBO Journal, 2006, 25, 2856-2866.	3.5	98
46	How does ketamine elicit a rapid antidepressant response?. Current Opinion in Pharmacology, 2015, 20, 35-39.	1.7	96
47	In Vivo Analysis of MEF2 Transcription Factors in Synapse Regulation and Neuronal Survival. PLoS ONE, 2012, 7, e34863.	1.1	93
48	Spontaneous Neurotransmission: An Independent Pathway for Neuronal Signaling?. Physiology, 2011, 26, 45-53.	1.6	88
49	Ca²⁺Influx Slows Single Synaptic Vesicle Endocytosis. Journal of Neuroscience, 2011, 31, 16318-16326.	1.7	87
50	Synaptotagmin 7 splice variants differentially regulate synaptic vesicle recycling. EMBO Journal, 2003, 22, 5347-5357.	3.5	78
51	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
52	Visualization of Synaptic Activity in Hippocampal Slices with FM1-43 Enabled by Fluorescence Quenching. Neuron, 1999, 24, 803-808.	3.8	75
53	cAMP-Dependent Enhancement of Dihydropyridine-Sensitive Calcium Channel Availability in Hippocampal Neurons. Journal of Neuroscience, 1997, 17, 5334-5348.	1.7	72
54	Use-Dependent AMPA Receptor Block Reveals Segregation of Spontaneous and Evoked Glutamatergic Neurotransmission. Journal of Neuroscience, 2011, 31, 5378-5382.	1.7	69

#	Article	IF	Citations
55	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
56	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
57	Rett Syndrome and the Impact of MeCP2 Associated Transcriptional Mechanisms on Neurotransmission. Biological Psychiatry, 2009, 65, 204-210.	0.7	66
58	An Intrinsic Transcriptional Program Underlying Synaptic Scaling during Activity Suppression. Cell Reports, 2017, 18, 1512-1526.	2.9	65
59	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
60	NMDA Receptor Activation by Spontaneous Glutamatergic Neurotransmission. Journal of Neurophysiology, 2009, 101, 2290-2296.	0.9	61
61	Optical detection of three modes of endocytosis at hippocampal synapses. ELife, 2018, 7, .	2.8	57
62	Molecular Underpinnings of Synaptic Vesicle Pool Heterogeneity. Traffic, 2015, 16, 338-364.	1.3	56
63	Presynaptic origins of distinct modes of neurotransmitter release. Current Opinion in Neurobiology, 2018, 51, 119-126.	2.0	55
64	Synaptic Vesicle-Recycling Machinery Components as Potential Therapeutic Targets. Pharmacological Reviews, 2017, 69, 141-160.	7.1	54
65	Spontaneous neurotransmission signals through store-driven Ca2+ transients to maintain synaptic homeostasis. ELife, 2015, 4, .	2.8	54
66	Sustained effects of rapidly acting antidepressants require BDNF-dependent MeCP2 phosphorylation. Nature Neuroscience, 2021, 24, 1100-1109.	7.1	52
67	Synaptic Vesicle Reuse and Its Implications. Neuroscientist, 2006, 12, 57-66.	2.6	50
68	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
69	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
70	Presynaptic store-operated Ca2+ entry drives excitatory spontaneous neurotransmission and augments endoplasmic reticulum stress. Neuron, 2021, 109, 1314-1332.e5.	3.8	49
71	Properties of fast endocytosis at hippocampal synapses. Philosophical Transactions of the Royal Society B: Biological Sciences, 1999, 354, 337-346.	1.8	46
72	Activity-Dependent Augmentation of Spontaneous Neurotransmission during Endoplasmic Reticulum Stress. Journal of Neuroscience, 2010, 30, 7358-7368.	1.7	46

#	Article	IF	Citations
73	Fast retrieval and autonomous regulation of single spontaneously recycling synaptic vesicles. ELife, 2014, 3, e03658.	2.8	46
74	Age dependence of the rapid antidepressant and synaptic effects of acute NMDA receptor blockade. Frontiers in Molecular Neuroscience, 2014, 7, 94.	1.4	44
75	Single synapse evaluation of the postsynaptic NMDA receptors targeted by evoked and spontaneous neurotransmission. ELife, 2016, 5, .	2.8	43
76	Leaky synapses: Regulation of spontaneous neurotransmission in central synapses. Neuroscience, 2009, 158, 177-188.	1.1	42
77	Chronic lithium treatment elicits its antimanic effects via BDNF-TrkB dependent synaptic downscaling. ELife, 2017, 6, .	2.8	42
78	Phorbol Esters Target the Activity-Dependent Recycling Pool and Spare Spontaneous Vesicle Recycling. Journal of Neuroscience, 2005, 25, 10922-10929.	1.7	41
79	Interneuronal exchange and functional integration of synaptobrevin via extracellular vesicles. Neuron, 2021, 109, 971-983.e5.	3.8	40
80	Selective molecular impairment of spontaneous neurotransmission modulates synaptic efficacy. Nature Communications, 2017, 8, 14436.	5.8	39
81	A synaptic locus for TrkB signaling underlying ketamine rapid antidepressant action. Cell Reports, 2021, 36, 109513.	2.9	39
82	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
83	MeCP2 and histone deacetylases 1 and 2 in dorsal striatum collectively suppress repetitive behaviors. Nature Neuroscience, 2016, 19, 1506-1512.	7.1	36
84	Role of MeCP2, DNA methylation, and HDACs in regulating synapse function. Journal of Neurodevelopmental Disorders, 2011, 3, 250-256.	1.5	35
85	Ca²⁺ Dependence of Synaptic Vesicle Endocytosis. Neuroscientist, 2016, 22, 464-476.	2.6	35
86	Multiple vesicle recycling pathways in central synapses and their impact on neurotransmission. Journal of Physiology, 2007, 585, 669-679.	1.3	33
87	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
88	Role of Aberrant Spontaneous Neurotransmission in SNAP25-Associated Encephalopathies. Neuron, 2021, 109, 59-72.e5.	3.8	31
89	Neuronal Ca²⁺ signalling at rest and during spontaneous neurotransmission. Journal of Physiology, 2020, 598, 1649-1654.	1.3	30
90	Synaptic Vesicle Recycling Adapts to Chronic Changes in Activity. Journal of Neuroscience, 2006, 26, 2197-2206.	1.7	27

#	Article	IF	Citations
91	Time course and temperature dependence of synaptic vesicle endocytosis. FEBS Letters, 2018, 592, 3606-3614.	1.3	27
92	Copine-6 Binds to SNAREs and Selectively Suppresses Spontaneous Neurotransmission. Journal of Neuroscience, 2018, 38, 5888-5899.	1.7	27
93	The role of non-canonical SNAREs in synaptic vesicle recycling. Cellular Logistics, 2012, 2, 20-27.	0.9	26
94	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
95	SNARE interactions in membrane trafficking: A perspective from mammalian central synapses. BioEssays, 2002, 24, 926-936.	1.2	23
96	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
97	Pin1 mediates AÎ² ₄₂ -induced dendritic spine loss. Science Signaling, 2018, 11, .	1.6	23
98	Loss of Doc2-Dependent Spontaneous Neurotransmission Augments Glutamatergic Synaptic Strength. Journal of Neuroscience, 2017, 37, 6224-6230.	1.7	22
99	Spontaneous and evoked neurotransmission are partially segregated at inhibitory synapses. ELife, 2020, 9, .	2.8	22
100	Nano-Organization at the Synapse: Segregation of Distinct Forms of Neurotransmission. Frontiers in Synaptic Neuroscience, 2021, 13, 796498.	1.3	21
101	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
102	Convergence of distinct signaling pathways on synaptic scaling to trigger rapid antidepressant action. Cell Reports, 2021, 37, 109918.	2.9	18
103	A subthreshold synaptic mechanism regulating BDNF expression and resting synaptic strength. Cell Reports, 2021, 36, 109467.	2.9	17
104	Molecular Substrates Mediating Lanthanide-Evoked Neurotransmitter Release in Central Synapses. Journal of Neurophysiology, 2008, 100, 2089-2100.	0.9	16
105	Ubiquitinâ€“Synaptobrevin Fusion Protein Causes Degeneration of Presynaptic Motor Terminals in Mice. Journal of Neuroscience, 2015, 35, 11514-11531.	1.7	16
106	Minimum Essential Factors Required for Vesicle Mobilization at Hippocampal Synapses. Journal of Neuroscience, 2004, 24, 1680-1688.	1.7	15
107	Scopolamine and Ketamine: Evidence of Convergence?. Biological Psychiatry, 2013, 74, 712-713.	0.7	15
108	VAMP4 Maintains a Ca2+-Sensitive Pool of Spontaneously Recycling Synaptic Vesicles. Journal of Neuroscience, 2020, 40, 5389-5401.	1.7	15

#	Article	IF	Citations
109	Seeking a function for spontaneous neurotransmission. Nature Neuroscience, 2006, 9, 989-990.	7.1	14
110	Synaptic vesicle poolâ€specific modification of neurotransmitter release by intravesicular free radical generation. Journal of Physiology, 2017, 595, 1223-1238.	1.3	14
111	Sphingomimetic multiple sclerosis drug FTY720 activates vesicular synaptobrevin and augments neuroendocrine secretion. Scientific Reports, 2017, 7, 5958.	1.6	13
112	Behavioral Analysis of SNAP-25 and Synaptobrevin-2 Haploinsufficiency in Mice. Neuroscience, 2019, 420, 129-135.	1.1	13
113	Presynaptic mechanisms underlying GABAB-receptor-mediated inhibition of spontaneous neurotransmitter release. Cell Reports, 2022, 38, 110255.	2.9	13
114	Spontaneous neurotransmission: A form of neural communication comes of age. Journal of Neuroscience Research, 2018, 96, 331-334.	1.3	11
115	Overcoming presynaptic effects of VAMP2 mutations with 4â€aminopyridine treatment. Human Mutation, 2020, 41, 1999-2011.	1.1	11
116	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
117	How do you recognize and reconstitute a synaptic vesicle after fusion?. F1000Research, 2017, 6, 1734.	0.8	11
118	Role of the endoplasmic reticulum in synaptic transmission. Current Opinion in Neurobiology, 2022, 73, 102538.	2.0	11
119	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
120	Pharmacology of Neurotransmitter Release: Measuring Exocytosis. Handbook of Experimental Pharmacology, 2008, , 23-43.	0.9	9
121	Presynaptic endoplasmic reticulum and neurotransmission. Cell Calcium, 2020, 85, 102133.	1.1	8
122	How Do RIM-BPs Link Voltage-Gated Ca 2+ Channels to Evoked Neurotransmitter Release?. Neuron, 2015, 87, 1119-1121.	3.8	6
123	Synaptobrevin-2 dependent regulation of single synaptic vesicle endocytosis. Molecular Biology of the Cell, 2021, 32, 1818-1823.	0.9	6
124	Probing the segregation of evoked and spontaneous neurotransmission via photobleaching and recovery of a fluorescent glutamate sensor. ELife, 2022, 11, .	2.8	6
125	Imaging Synaptic Vesicle Exocytosis-Endocytosis with pH-Sensitive Fluorescent Proteins. Methods in Molecular Biology, 2016, 1474, 187-200.	0.4	5
126	Synaptic Vesicle Endocytosis: Get Two for the Price of One?. Neuron, 2009, 61, 333-334.	3.8	3

#	Article	IF	Citations
127	CRISPR/Cas9 system-mediated impairment of synaptobrevin/VAMP function in postmitotic hippocampal neurons. Journal of Neuroscience Methods, 2017, 278, 57-64.	1.3	3
128	Is Ca2+ Essential for Synaptic Vesicle Endocytosis?. Trends in Neurosciences, 2020, 43, 77-79.	4.2	2
129	Evolutionary diversity of the dual Ca2+ sensor system for neurotransmitter release. Cell Calcium, 2021, 96, 102402.	1.1	1
130	Optical analysis of AMPAR-mediated synaptic scaling in mouse hippocampus. STAR Protocols, 2022, 3, 101443.	0.5	1
131	<scp>MeCP2</scp> lossâ€ofâ€function dysregulates <scp>microRNAs</scp> regionally and disrupts excitatory/inhibitory synaptic transmission balance. Hippocampus, 0, , .	0.9	1
132	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
133	Multi-neurotransmitter regulation of neural firing via coincidence of parallel G-protein signals. Cell Calcium, 2022, 105, 102611.	1.1	0