

Jaewon Ko

List of Publications by Year in descending order

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82
papers

4,912
citations

81900

39
h-index

98798

67
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89
all docs

89
docs citations

89
times ranked

5540
citing authors

#	ARTICLE	IF	CITATIONS
1	LRRTM2 Functions as a Neurexin Ligand in Promoting Excitatory Synapse Formation. <i>Neuron</i> , 2009, 64, 791-798.	8.1	315
2	Regulation of Dendritic Spine Morphogenesis by Insulin Receptor Substrate 53, a Downstream Effector of Rac1 and Cdc42 Small GTPases. <i>Journal of Neuroscience</i> , 2005, 25, 869-879.	3.6	199
3	Association of the Kinesin Motor KIF1A with the Multimodular Protein Liprin- $\hat{\pm}$. <i>Journal of Biological Chemistry</i> , 2003, 278, 11393-11401.	3.4	184
4	LAR-RPTPs: synaptic adhesion molecules that shape synapse development. <i>Trends in Cell Biology</i> , 2013, 23, 465-475.	7.9	183
5	Interaction of the ERC Family of RIM-binding Proteins with the Liprin- $\hat{\pm}$ Family of Multidomain Proteins. <i>Journal of Biological Chemistry</i> , 2003, 278, 42377-42385.	3.4	162
6	A Neuroligin-4 Missense Mutation Associated with Autism Impairs Neuroligin-4 Folding and Endoplasmic Reticulum Export. <i>Journal of Neuroscience</i> , 2009, 29, 10843-10854.	3.6	162
7	Neurexins Physically and Functionally Interact with GABAA Receptors. <i>Neuron</i> , 2010, 66, 403-416.	8.1	154
8	Neuroanatomical Substrates of Rodent Social Behavior: The Medial Prefrontal Cortex and Its Projection Patterns. <i>Frontiers in Neural Circuits</i> , 2017, 11, 41.	2.8	153
9	Slitrks control excitatory and inhibitory synapse formation with LAR receptor protein tyrosine phosphatases. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 4057-4062.	7.1	151
10	High Affinity Neurexin Binding to Cell Adhesion G-protein-coupled Receptor CIRL1/Latrophilin-1 Produces an Intercellular Adhesion Complex. <i>Journal of Biological Chemistry</i> , 2012, 287, 9399-9413.	3.4	147
11	Interaction between Liprin- $\hat{\pm}$ and GIT1 Is Required for AMPA Receptor Targeting. <i>Journal of Neuroscience</i> , 2003, 23, 1667-1677.	3.6	146
12	SALM Synaptic Cell Adhesion-like Molecules Regulate the Differentiation of Excitatory Synapses. <i>Neuron</i> , 2006, 50, 233-245.	8.1	138
13	The neurexin ligands, neuroligins and leucine-rich repeat transmembrane proteins, perform convergent and divergent synaptic functions in vivo. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 16502-16509.	7.1	124
14	An autism-associated point mutation in the neuroligin cytoplasmic tail selectively impairs AMPA receptor-mediated synaptic transmission in hippocampus. <i>EMBO Journal</i> , 2011, 30, 2908-2919.	7.8	123
15	The GIT Family of Proteins Forms Multimers and Associates with the Presynaptic Cytomatrix Protein Piccolo. <i>Journal of Biological Chemistry</i> , 2003, 278, 6291-6300.	3.4	122
16	Gephyrin: a central GABAergic synapse organizer. <i>Experimental and Molecular Medicine</i> , 2015, 47, e158-e158.	7.7	121
17	Neuroligin-1 performs neurexin-dependent and neurexin-independent functions in synapse validation. <i>EMBO Journal</i> , 2009, 28, 3244-3255.	7.8	120
18	Phosphorylation of Stargazin by Protein Kinase A Regulates Its Interaction with PSD-95. <i>Journal of Biological Chemistry</i> , 2002, 277, 12359-12363.	3.4	117

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19	MDGAs interact selectively with neuroligin-2 but not other neuroligins to regulate inhibitory synapse development. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 336-341.	7.1	109
20	The X-linked intellectual disability protein IL1RAPL1 regulates excitatory synapse formation by binding PTP σ and RhoGAP2. <i>Human Molecular Genetics</i> , 2011, 20, 4797-4809.	2.9	97
21	Structural basis for LAR-RPTP/Slitrk complex-mediated synaptic adhesion. <i>Nature Communications</i> , 2014, 5, 5423.	12.8	94
22	ARF6 and EFA6A Regulate the Development and Maintenance of Dendritic Spines. <i>Journal of Neuroscience</i> , 2006, 26, 4811-4819.	3.6	90
23	Neuroligins/LRRTMs prevent activity- and Ca ²⁺ /calmodulin-dependent synapse elimination in cultured neurons. <i>Journal of Cell Biology</i> , 2011, 194, 323-334.	5.2	88
24	Selected SALM (Synaptic Adhesion-Like Molecule) Family Proteins Regulate Synapse Formation. <i>Journal of Neuroscience</i> , 2010, 30, 5559-5568.	3.6	87
25	PTP σ functions as a presynaptic receptor for the glypican-4/LRRTM4 complex and is essential for excitatory synaptic transmission. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 1874-1879.	7.1	86
26	Efn1 recruits presynaptic mGluR7 in trans and its loss results in seizures. <i>Nature Communications</i> , 2014, 5, 4501.	12.8	83
27	The balancing act of GABAergic synapse organizers. <i>Trends in Molecular Medicine</i> , 2015, 21, 256-268.	6.7	83
28	The adhesion protein IgSF9b is coupled to neuroligin 2 via S-SCAM to promote inhibitory synapse development. <i>Journal of Cell Biology</i> , 2013, 201, 929-944.	5.2	77
29	Calsyntenins Function as Synaptogenic Adhesion Molecules in Concert with Neurexins. <i>Cell Reports</i> , 2014, 6, 1096-1109.	6.4	71
30	Characterization of the Movement of the Kinesin Motor KIF1A in Living Cultured Neurons. <i>Journal of Biological Chemistry</i> , 2003, 278, 2624-2629.	3.4	66
31	An intramolecular interaction between the FHA domain and a coiled coil negatively regulates the kinesin motor KIF1A. <i>EMBO Journal</i> , 2004, 23, 1506-1515.	7.8	62
32	LRRTM3 Regulates Excitatory Synapse Development through Alternative Splicing and Neurexin Binding. <i>Cell Reports</i> , 2016, 14, 808-822.	6.4	61
33	SALM5 trans-synaptically interacts with LAR-RPTPs in a splicing-dependent manner to regulate synapse development. <i>Scientific Reports</i> , 2016, 6, 26676.	3.3	60
34	Neural Glycosylphosphatidylinositol-Anchored Proteins in Synaptic Specification. <i>Trends in Cell Biology</i> , 2017, 27, 931-945.	7.9	58
35	Regulated RalBP1 Binding to RalA and PSD-95 Controls AMPA Receptor Endocytosis and LTD. <i>PLoS Biology</i> , 2009, 7, e1000187.	5.6	57
36	Neurotrophin-3 Regulates Synapse Development by Modulating TrkC-PTP σ Synaptic Adhesion and Intracellular Signaling Pathways. <i>Journal of Neuroscience</i> , 2016, 36, 4816-4831.	3.6	56

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37	Emergent Synapse Organizers: LAR-RPTPs and Their Companions. <i>International Review of Cell and Molecular Biology</i> , 2016, 324, 39-65.	3.2	48
38	Structural Insights into Modulation of Neurexin-Neuroigin Trans -synaptic Adhesion by MDGA1/Neuroigin-2 Complex. <i>Neuron</i> , 2017, 94, 1121-1131.e6.	8.1	48
39	Leucine-rich repeat proteins of synapses. <i>Journal of Neuroscience Research</i> , 2007, 85, 2824-2832.	2.9	47
40	The Leucine-Rich Repeat Superfamily of Synaptic Adhesion Molecules: LRRTMs and Slitrks. <i>Molecules and Cells</i> , 2012, 34, 335-340.	2.6	45
41	Organization of the Presynaptic Active Zone by ERC2/CAST1-Dependent Clustering of the Tandem PDZ Protein Syntenin-1. <i>Journal of Neuroscience</i> , 2006, 26, 963-970.	3.6	41
42	PTP ^{Shf} Drives Excitatory Presynaptic Assembly via Various Extracellular and Intracellular Mechanisms. <i>Journal of Neuroscience</i> , 2018, 38, 6700-6721.	3.6	40
43	Slitrk Missense Mutations Associated with Neuropsychiatric Disorders Distinctively Impair Slitrk Trafficking and Synapse Formation. <i>Frontiers in Molecular Neuroscience</i> , 2016, 9, 104.	2.9	31
44	SALM4 suppresses excitatory synapse development by cis-inhibiting trans-synaptic SALM3-LAR adhesion. <i>Nature Communications</i> , 2016, 7, 12328.	12.8	30
45	Proper synaptic adhesion signaling in the control of neural circuit architecture and brain function. <i>Progress in Neurobiology</i> , 2021, 200, 101983.	5.7	28
46	IQ Motif and SEC7 Domain-containing Protein 3 (IQSEC3) Interacts with Gephyrin to Promote Inhibitory Synapse Formation. <i>Journal of Biological Chemistry</i> , 2016, 291, 10119-10130.	3.4	27
47	LAR-RPTP Clustering Is Modulated by Competitive Binding between Synaptic Adhesion Partners and Heparan Sulfate. <i>Frontiers in Molecular Neuroscience</i> , 2017, 10, 327.	2.9	25
48	LAR-RPTPs Directly Interact with Neurexins to Coordinate Bidirectional Assembly of Molecular Machineries. <i>Journal of Neuroscience</i> , 2020, 40, 8438-8462.	3.6	25
49	Differentially altered social dominance- and cooperative-like behaviors in Shank2- and Shank3-mutant mice. <i>Molecular Autism</i> , 2020, 11, 87.	4.9	24
50	Lrfr2-Mutant Mice Display Suppressed Synaptic Plasticity and Inhibitory Synapse Development and Abnormal Social Communication and Startle Response. <i>Journal of Neuroscience</i> , 2018, 38, 5872-5887.	3.6	21
51	PTP ^{Shf} Controls Presynaptic Organization of Neurotransmitter Release Machinery at Excitatory Synapses. <i>iScience</i> , 2020, 23, 101203.	4.1	16
52	Loss of IQSEC3 Disrupts GABAergic Synapse Maintenance and Decreases Somatostatin Expression in the Hippocampus. <i>Cell Reports</i> , 2020, 30, 1995-2005.e5.	6.4	16
53	Increased Excitatory Synaptic Transmission of Dentate Granule Neurons in Mice Lacking PSD-95-Interacting Adhesion Molecule Neph2/Kirrel3 during the Early Postnatal Period. <i>Frontiers in Molecular Neuroscience</i> , 2017, 10, 81.	2.9	14
54	Calsyntenin-3 interacts with both β - and β -neurexins in the regulation of excitatory synaptic innervation in specific Schaffer collateral pathways. <i>Journal of Biological Chemistry</i> , 2020, 295, 9244-9262.	3.4	14

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55	A chemical tool for blue light-inducible proximity photo-crosslinking in live cells. <i>Chemical Science</i> , 2022, 13, 955-966.	7.4	14
56	Intracellular protein complexes involved in synapse assembly in presynaptic neurons. <i>Advances in Protein Chemistry and Structural Biology</i> , 2019, 116, 347-373.	2.3	13
57	The small GTPase ARF6 regulates GABAergic synapse development. <i>Molecular Brain</i> , 2020, 13, 2.	2.6	12
58	MDGA1 negatively regulates amyloid precursor protein-mediated synapse inhibition in the hippocampus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	12
59	Slitrk2 controls excitatory synapse development via PDZ-mediated protein interactions. <i>Scientific Reports</i> , 2019, 9, 17094.	3.3	11
60	Npas4 regulates IQSEC3 expression in hippocampal somatostatin interneurons to mediate anxiety-like behavior. <i>Cell Reports</i> , 2021, 36, 109417.	6.4	10
61	Supra-blot: an accurate and reliable assay for detecting target proteins with a synthetic host molecule-enzyme hybrid. <i>Chemical Communications</i> , 2020, 56, 1549-1552.	4.1	9
62	Molecular Organization and Assembly of the Postsynaptic Density of Excitatory Brain Synapses. , 2006, 43, 1-23.		8
63	Receptor protein tyrosine phosphatase delta is not essential for synapse maintenance or transmission at hippocampal synapses. <i>Molecular Brain</i> , 2020, 13, 94.	2.6	8
64	Impaired formation of high-order gephyrin oligomers underlies gephyrin dysfunction-associated pathologies. <i>IScience</i> , 2021, 24, 102037.	4.1	8
65	Voice and Culture: A Prospect Theory Approach. <i>Journal of Behavioral Decision Making</i> , 2015, 28, 167-175.	1.7	6
66	Molecular Mechanisms of Synaptic Specificity: Spotlight on Hippocampal and Cerebellar Synapse Organizers. <i>Molecules and Cells</i> , 2018, 41, 373-380.	2.6	6
67	IQSEC3 Deletion Impairs Fear Memory Through Upregulation of Ribosomal S6K1 Signaling in the Hippocampus. <i>Biological Psychiatry</i> , 2022, 91, 821-831.	1.3	6
68	SLITRK2 variants associated with neurodevelopmental disorders impair excitatory synaptic function and cognition in mice. <i>Nature Communications</i> , 2022, 13, .	12.8	6
69	LRRTM3 regulates activity-dependent synchronization of synapse properties in topographically connected hippocampal neural circuits. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	5
70	Reassessing synaptic adhesion pathways. <i>Trends in Neurosciences</i> , 2022, 45, 517-528.	8.6	5
71	Protocol for Quantitative Analysis of Synaptic Vesicle Clustering in Axons of Cultured Neurons. <i>STAR Protocols</i> , 2020, 1, 100095.	1.2	4
72	Structural basis of SALM3 dimerization and synaptic adhesion complex formation with PTP1f. <i>Scientific Reports</i> , 2020, 10, 11557.	3.3	4

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73	Protocol for quantitative assessment of social cooperation in mice. STAR Protocols, 2021, 2, 100305.	1.2	4
74	Deletion of Calsyntenin-3, an atypical cadherin, suppresses inhibitory synapses but increases excitatory parallel-fiber synapses in cerebellum. ELife, 2022, 11, .	6.0	4
75	Analysis of PDZ Domain Interactions Using Yeast Two-Hybrid and Coimmunoprecipitation Assays. , 2006, 332, 233-244.		3
76	Central synapse, neural circuit, and brain function. Neuroscience Research, 2017, 116, 1-2.	1.9	2
77	SALM4 negatively regulates NMDA receptor function and fear memory consolidation. Communications Biology, 2021, 4, 1138.	4.4	2
78	Clustering Assay for Studying the Interaction of Membrane Proteins With PDZ Domain Proteins. , 2006, 332, 245-254.		1
79	Editorial: Synaptic Assembly and Neural Circuit Development. Frontiers in Synaptic Neuroscience, 2018, 10, 30.	2.5	1
80	Mutations in Synaptic Adhesion Molecules. , 2016, , 161-175.		0
81	Special Issue on Synapse Assembly, Neural Circuit Development, and Brain Disorders. Experimental and Molecular Medicine, 2018, 50, 1-2.	7.7	0
82	Neuroligins/LRRTMs prevent activity- and Ca ²⁺ /calmodulin-dependent synapse elimination in cultured neurons. Journal of General Physiology, 2011, 138, i3-i3.	1.9	0