

# Ji Won Um

## List of Publications by Year in descending order

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54  
papers

3,414  
citations

218677

26  
h-index

168389

53  
g-index

57  
all docs

57  
docs citations

57  
times ranked

5042  
citing authors

#	ARTICLE	IF	CITATIONS
1	Alzheimer amyloid- $\beta$ oligomer bound to postsynaptic prion protein activates Fyn to impair neurons. <i>Nature Neuroscience</i> , 2012, 15, 1227-1235.	14.8	572
2	Metabotropic Glutamate Receptor 5 Is a Coreceptor for Alzheimer A $\beta$ Oligomer Bound to Cellular Prion Protein. <i>Neuron</i> , 2013, 79, 887-902.	8.1	485
3	Proteolytic Cleavage of Extracellular Secreted $\beta$ -Synuclein via Matrix Metalloproteinases. <i>Journal of Biological Chemistry</i> , 2005, 280, 25216-25224.	3.4	209
4	LAR-RPTPs: synaptic adhesion molecules that shape synapse development. <i>Trends in Cell Biology</i> , 2013, 23, 465-475.	7.9	183
5	Amyloid- $\beta$ induced signaling by cellular prion protein and Fyn kinase in Alzheimer disease. <i>Prion</i> , 2013, 7, 37-41.	1.8	114
6	Metabotropic glutamate receptor 5 couples cellular prion protein to intracellular signalling in Alzheimer's disease. <i>Brain</i> , 2016, 139, 526-546.	7.6	110
7	Structural basis for LAR-RPTP/Slitrk complex-mediated synaptic adhesion. <i>Nature Communications</i> , 2014, 5, 5423.	12.8	94
8	Functional modulation of parkin through physical interaction with SUMO-1. <i>Journal of Neuroscience Research</i> , 2006, 84, 1543-1554.	2.9	91
9	PTP $\beta$ 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
10	Parkin Ubiquitinates and Promotes the Degradation of RanBP2. <i>Journal of Biological Chemistry</i> , 2006, 281, 3595-3603.	3.4	84
11	Elfn1 recruits presynaptic mGluR7 in trans and its loss results in seizures. <i>Nature Communications</i> , 2014, 5, 4501.	12.8	83
12	The balancing act of GABAergic synapse organizers. <i>Trends in Molecular Medicine</i> , 2015, 21, 256-268.	6.7	83
13	Parkin Directly Modulates 26S Proteasome Activity. <i>Journal of Neuroscience</i> , 2010, 30, 11805-11814.	3.6	71
14	Calsyntenins Function as Synaptogenic Adhesion Molecules in Concert with Neurexins. <i>Cell Reports</i> , 2014, 6, 1096-1109.	6.4	71
15	Parkin Cleaves Intracellular $\beta$ -Synuclein Inclusions via the Activation of Calpain. <i>Journal of Biological Chemistry</i> , 2003, 278, 41890-41899.	3.4	68
16	Molecular interaction between parkin and PINK1 in mammalian neuronal cells. <i>Molecular and Cellular Neurosciences</i> , 2009, 40, 421-432.	2.2	62
17	LRRTM3 Regulates Excitatory Synapse Development through Alternative Splicing and Neurexin Binding. <i>Cell Reports</i> , 2016, 14, 808-822.	6.4	61
18	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

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19	Neural Glycosylphosphatidylinositol-Anchored Proteins in Synaptic Specification. Trends in Cell Biology, 2017, 27, 931-945.	7.9	58
20	Neurotrophin-3 Regulates Synapse Development by Modulating TrkC-PTP $\beta$ Synaptic Adhesion and Intracellular Signaling Pathways. Journal of Neuroscience, 2016, 36, 4816-4831.	3.6	56
21	Structural Insights into Modulation of Neurexin-Neuroigin Trans -synaptic Adhesion by MDGA1/Neuroigin-2 Complex. Neuron, 2017, 94, 1121-1131.e6.	8.1	48
22	Neddylaton positively regulates the ubiquitin E3 ligase activity of parkin. Journal of Neuroscience Research, 2012, 90, 1030-1042.	2.9	43
23	ASK1 Negatively Regulates the 26 S Proteasome. Journal of Biological Chemistry, 2010, 285, 36434-36446.	3.4	41
24	PTP $\beta$ Drives Excitatory Presynaptic Assembly via Various Extracellular and Intracellular Mechanisms. Journal of Neuroscience, 2018, 38, 6700-6721.	3.6	40
25	Synapse development organized by neuronal activity-regulated immediate-early genes. Experimental and Molecular Medicine, 2018, 50, 1-7.	7.7	40
26	NF- $\kappa$ B-inducing Kinase Phosphorylates and Blocks the Degradation of Down Syndrome Candidate Region 1. Journal of Biological Chemistry, 2008, 283, 3392-3400.	3.4	38
27	Roles of Glial Cells in Sculpting Inhibitory Synapses and Neural Circuits. Frontiers in Molecular Neuroscience, 2017, 10, 381.	2.9	34
28	Slitrk Missense Mutations Associated with Neuropsychiatric Disorders Distinctively Impair Slitrk Trafficking and Synapse Formation. Frontiers in Molecular Neuroscience, 2016, 9, 104.	2.9	31
29	SALM4 suppresses excitatory synapse development by cis-inhibiting trans-synaptic SALM3 $\beta$ -LAR adhesion. Nature Communications, 2016, 7, 12328.	12.8	30
30	Proper synaptic adhesion signaling in the control of neural circuit architecture and brain function. Progress in Neurobiology, 2021, 200, 101983.	5.7	28
31	IQ Motif and SEC7 Domain-containing Protein 3 (IQSEC3) Interacts with Gephyrin to Promote Inhibitory Synapse Formation. Journal of Biological Chemistry, 2016, 291, 10119-10130.	3.4	27
32	Synaptic functions of the IQSEC family of ADP-ribosylation factor guanine nucleotide exchange factors. Neuroscience Research, 2017, 116, 54-59.	1.9	27
33	Rescue of Transgenic Alzheimer $\beta$ ™s Pathophysiology by Polymeric Cellular Prion Protein Antagonists. Cell Reports, 2019, 26, 145-158.e8.	6.4	27
34	LAR-RPTP Clustering Is Modulated by Competitive Binding between Synaptic Adhesion Partners and Heparan Sulfate. Frontiers in Molecular Neuroscience, 2017, 10, 327.	2.9	25
35	LAR-RPTPs Directly Interact with Neurexins to Coordinate Bidirectional Assembly of Molecular Machineries. Journal of Neuroscience, 2020, 40, 8438-8462.	3.6	25
36	Differentially altered social dominance- and cooperative-like behaviors in Shank2- and Shank3-mutant mice. Molecular Autism, 2020, 11, 87.	4.9	24

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37	Formation of parkin aggregates and enhanced PINK1 accumulation during the pathogenesis of Parkinson's disease. <i>Biochemical and Biophysical Research Communications</i> , 2010, 393, 824-828.	2.1	23
38	PTP1f Controls Presynaptic Organization of Neurotransmitter Release Machinery at Excitatory Synapses. <i>IScience</i> , 2020, 23, 101203.	4.1	16
39	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
40	Calsyntenin-3 interacts with both $\beta$ - and $\beta$ -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
41	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
42	The small GTPase ARF6 regulates GABAergic synapse development. <i>Molecular Brain</i> , 2020, 13, 2.	2.6	12
43	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
44	Slitrk2 controls excitatory synapse development via PDZ-mediated protein interactions. <i>Scientific Reports</i> , 2019, 9, 17094.	3.3	11
45	Npas4 regulates IQSEC3 expression in hippocampal somatostatin interneurons to mediate anxiety-like behavior. <i>Cell Reports</i> , 2021, 36, 109417.	6.4	10
46	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
47	Impaired formation of high-order gephyrin oligomers underlies gephyrin dysfunction-associated pathologies. <i>IScience</i> , 2021, 24, 102037.	4.1	8
48	Seizure progression triggered by IQSEC3 loss is mitigated by reducing activated microglia in mice. <i>Glia</i> , 2020, 68, 2661-2673.	4.9	7
49	Differential Regional Vulnerability of the Brain to Mild Neuroinflammation Induced by Systemic LPS Treatment in Mice. <i>Journal of Inflammation Research</i> , 0, Volume 15, 3053-3063.	3.5	7
50	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
51	SLITRK2 variants associated with neurodevelopmental disorders impair excitatory synaptic function and cognition in mice. <i>Nature Communications</i> , 2022, 13, .	12.8	6
52	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
53	Reassessing synaptic adhesion pathways. <i>Trends in Neurosciences</i> , 2022, 45, 517-528.	8.6	5
54	Protocol for Quantitative Analysis of Synaptic Vesicle Clustering in Axons of Cultured Neurons. <i>STAR Protocols</i> , 2020, 1, 100095.	1.2	4