Yeon-Kyun Shin

List of Publications by Year
in descending order

108 papers	5,556 citations	76326 40 h-index	91884 69 g-index
109 all docs	109 docs citations	109 times ranked	4426 citing authors

#	Article	IF	Citations
1	The synaptic SNARE complex is a parallel four-stranded helical bundle. Nature Structural Biology, 1998, 5, 765-769.	9.7	450
2	A Piston Model for Transmembrane Signaling of the Aspartate Receptor. Science, 1999, 285, 1751-1754.	12.6	259
3	Large Î±-synuclein oligomers inhibit neuronal SNARE-mediated vesicle docking. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 4087-4092.	7.1	233
4	Hemifusion in SNARE-mediated membrane fusion. Nature Structural and Molecular Biology, 2005, 12, 417-422.	8.2	226
5	Multiple intermediates in SNARE-induced membrane fusion. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 19731-19736.	7.1	207
6	Hemifusion arrest by complexin is relieved by Ca2+â€"synaptotagmin I. Nature Structural and Molecular Biology, 2006, 13, 748-750.	8.2	203
7	The membrane topology of the fusion peptide region of influenza hemagglutinin determined by spin-labeling EPR. Journal of Molecular Biology, 1997, 267, 1139-1148.	4.2	131
8	Regulation of neuronal SNARE assembly by the membrane. Nature Structural and Molecular Biology, 2003, 10, 440-447.	8.2	128
9	Transient channel-opening in bacteriorhodopsin: an EPR study 1 1Edited by D. Ress. Journal of Molecular Biology, 1997, 273, 951-957.	4.2	119
10	Dynamic Ca ²⁺ -Dependent Stimulation of Vesicle Fusion by Membrane-Anchored Synaptotagmin 1. Science, 2010, 328, 760-763.	12.6	117
11	Membrane Fusion Induced by Neuronal SNAREs Transits through Hemifusion. Journal of Biological Chemistry, 2005, 280, 30538-30541.	3.4	114
12	Complexin and Ca2+ stimulate SNARE-mediated membrane fusion. Nature Structural and Molecular Biology, 2008, 15, 707-713.	8.2	113
13	A scissors mechanism for stimulation of SNARE-mediated lipid mixing by cholesterol. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 5141-5146.	7.1	107
14	The neuronal t-SNARE complex is a parallel four-helix bundle. Nature Structural Biology, 2001, 8, 308-311.	9.7	101
15	A Peptide from the Heptad Repeat of Human Immunodeficiency Virus gp41 Shows both Membrane Binding and Coiled-Coil Formation. Biochemistry, 1995, 34, 13390-13397.	2.5	99
16	A single vesicle-vesicle fusion assay for in vitro studies of SNAREs and accessory proteins. Nature Protocols, 2012, 7, 921-934.	12.0	98
17	Mechanical unzipping and rezipping of a single SNARE complex reveals hysteresis as a force-generating mechanism. Nature Communications, 2013, 4, 1705.	12.8	96
18	Fusion pore formation and expansion induced by Ca ²⁺ and synaptotagmin 1. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 1333-1338.	7.1	94

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19	The ectodomain of HA2 of influenza virus promotes rapid ph dependent membrane fusion 1 1Edited by A. R. Fersht. Journal of Molecular Biology, 1999, 286, 489-503.	4.2	84
20	Direct Determination of the Membrane Affinities of Individual Amino Acidsâ€. Biochemistry, 1996, 35, 1803-1809.	2.5	78
21	A single-vesicle content mixing assay for SNARE-mediated membrane fusion. Nature Communications, 2010, 1, 54.	12.8	73
22	Solution single-vesicle assay reveals PIP₂-mediated sequential actions of synaptotagmin-1 on SNAREs. EMBO Journal, 2012, 31, 2144-2155.	7.8	71
23	Nonaggregated Î±-Synuclein Influences SNARE-Dependent Vesicle Docking via Membrane Binding. Biochemistry, 2014, 53, 3889-3896.	2.5	70
24	Structures and transport dynamics of a Campylobacter jejuni multidrug efflux pump. Nature Communications, 2017, 8, 171.	12.8	69
25	Î±-Synuclein may cross-bridge v-SNARE and acidic phospholipids to facilitate SNARE-dependent vesicle docking. Biochemical Journal, 2017, 474, 2039-2049.	3.7	68
26	Light-induced Rotation of a Transmembrane Î±-Helix in Bacteriorhodopsin. Journal of Molecular Biology, 2000, 304, 715-721.	4.2	67
27	Molecular Basis of the Potent Membrane-remodeling Activity of the Epsin 1 N-terminal Homology Domain. Journal of Biological Chemistry, 2010, 285, 531-540.	3.4	59
28	Two Modes of Ligand Binding in Maltose-binding Protein ofEscherichia coli. Journal of Biological Chemistry, 1997, 272, 17610-17614.	3.4	58
29	Membrane Topologies of Neuronal SNARE Folding Intermediatesâ€. Biochemistry, 2002, 41, 10928-10933.	2.5	58
30	Insertion of the Membrane-proximal Region of the Neuronal SNARE Coiled Coil into the Membrane. Journal of Biological Chemistry, 2003, 278, 12367-12373.	3.4	56
31	Amyloid-Î² Oligomers May Impair SNARE-Mediated Exocytosis by Direct Binding to Syntaxin 1a. Cell Reports, 2015, 12, 1244-1251.	6.4	54
32	C2B Polylysine Motif of Synaptotagmin Facilitates a Ca2+-independent Stage of Synaptic Vesicle Priming In Vivo. Molecular Biology of the Cell, 2006, 17, 5211-5226.	2.1	52
33	Topology of an Amphiphilic Mitochondrial Signal Sequence in the Membrane-Inserted State: A Spin Labeling Study. Biochemistry, 1994, 33, 14221-14226.	2.5	51
34	Design and Characterization of A Synthetic Electron-Transfer Protein. Journal of the American Chemical Society, 2000, 122, 7999-8006.	13.7	51
35	Constitutive versus regulated SNARE assembly: a structural basis. EMBO Journal, 2004, 23, 681-689.	7.8	50
36	The 1âˆ'127 HA2 Construct of Influenza Virus Hemagglutinin Induces Cellâˆ'Cell Hemifusion. Biochemistry, 2001, 40, 8378-8386.	2.5	49

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37	Supramolecular SNARE assembly precedes hemifusion in SNARE-mediated membrane fusion. Nature Structural and Molecular Biology, 2008, 15, 700-706.	8.2	49
38	YKT6 is a Core Constituent of Membrane Fusion Machineries at the Arabidopsis trans-Golgi Network. Journal of Molecular Biology, 2005, 350, 92-101.	4.2	48
39	Dissection of SNARE-driven membrane fusion and neuroexocytosis by wedging small hydrophobic molecules into the SNARE zipper. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 22145-22150.	7.1	47
40	Direct Measurement of Small Ligand-Induced Conformational Changes in the Aspartate Chemoreceptor Using EPRâ€. Biochemistry, 1998, 37, 7062-7069.	2.5	45
41	HIV-1 gp41 Tertiary Structure Studied by EPR Spectroscopyâ€. Biochemistry, 1996, 35, 13922-13928.	2.5	44
42	The Membrane-Dipped Neuronal SNARE Complex:Â A Site-Directed Spin Labeling Electron Paramagnetic Resonance Studyâ€. Biochemistry, 2002, 41, 9264-9268.	2.5	44
43	Single-Vesicle Fusion Assay Reveals Munc18-1 Binding to the SNARE Core Is Sufficient for Stimulating Membrane Fusion. ACS Chemical Neuroscience, 2010, 1, 168-174.	3.5	43
44	Inositol pyrophosphates inhibit synaptotagmin-dependent exocytosis. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8314-8319.	7.1	41
45	Real-Time Observation of Target Search by the CRISPR Surveillance Complex Cascade. Cell Reports, 2017, 21, 3717-3727.	6.4	39
46	The Mechanism for Low-pH-Induced Clustering of Phospholipid Vesicles Carrying the HA2 Ectodomain of Influenza Hemagglutininâ€. Biochemistry, 1998, 37, 137-144.	2.5	37
47	The Four-helix Bundle of the Neuronal Target Membrane SNARE Complex Is Neither Disordered in the Middle nor Uncoiled at the C-terminal Region. Journal of Biological Chemistry, 2002, 277, 24294-24298.	3.4	37
48	Virucidal nano-perforator of viral membrane trapping viral RNAs in the endosome. Nature Communications, 2019, 10, 185.	12.8	35
49	Fusion Step-Specific Influence of Cholesterol on SNARE-Mediated Membrane Fusion. Biophysical Journal, 2009, 96, 1839-1846.	0.5	34
50	Multiple conformations of a single SNAREpin between two nanodisc membranes reveal diverse pre-fusion states. Biochemical Journal, 2014, 459, 95-102.	3.7	34
51	SNARE zippering. Bioscience Reports, 2016, 36, .	2.4	34
52	Temperature Dependence of Polypeptide Partitioning between Water and Phospholipid Bilayersâ€. Biochemistry, 1996, 35, 9526-9532.	2.5	33
53	A Partially Zipped SNARE Complex Stabilized by the Membrane. Journal of Biological Chemistry, 2005, 280, 15595-15600.	3.4	30
54	Alpha-Synuclein Continues to Enhance SNARE-Dependent Vesicle Docking at Exorbitant Concentrations. Frontiers in Neuroscience, 2019, 13, 216.	2.8	30

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55	C2AB: A Molecular Glue for Lipid Vesicles with a Negatively Charged Surface. Langmuir, 2009, 25, 7177-7180.	3.5	29
56	Beta-Amyloid Oligomers Activate Apoptotic BAK Pore for Cytochrome c Release. Biophysical Journal, 2014, 107, 1601-1608.	0.5	29
57	On the Dynamics and Conformation of the HA2 Domain of the Influenza Virus Hemagglutininâ€. Biochemistry, 1996, 35, 5359-5365.	2.5	28
58	Accessory Î±-Helix of Complexin I Can Displace VAMP2 Locally in the Complexinâ€"SNARE Quaternary Complex. Journal of Molecular Biology, 2010, 396, 602-609.	4.2	28
59	Structural and biochemical insights into the role of testis-expressed gene 14 (TEX14) in forming the stable intercellular bridges of germ cells. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12372-12377.	7.1	28
60	Membrane topology of helix 0 of the Epsin N-terminal homology domain. Molecules and Cells, 2006, 21, 428-35.	2.6	28
61	Self-assembly of influenza hemagglutinin: studies of ectodomain aggregation by in situ atomic force microscopy. Biochimica Et Biophysica Acta - Biomembranes, 2001, 1513, 167-175.	2.6	27
62	SNARE Assembly and Membrane Fusion, a Kinetic Analysis. Journal of Biological Chemistry, 2004, 279, 38668-38672.	3.4	27
63	The synaptotagmin 1 linker may function as an electrostatic zipper that opens for docking but closes for fusion pore opening. Biochemical Journal, 2013, 456, 25-33.	3.7	26
64	Polyphenols differentially inhibit degranulation of distinct subsets of vesicles in mast cells by specific interaction with granule-type-dependent SNARE complexes. Biochemical Journal, 2013, 450, 537-546.	3.7	26
65	Hemifusion in Synaptic Vesicle Cycle. Frontiers in Molecular Neuroscience, 2017, 10, 65.	2.9	26
66	Transmembrane Organization of Yeast Syntaxin-Analogue Sso1pâ€. Biochemistry, 2006, 45, 4173-4181.	2.5	23
67	Î²-Amyloid and Î±-Synuclein Cooperate To Block SNARE-Dependent Vesicle Fusion. Biochemistry, 2015, 54, 1831-1840.	2.5	23
68	Probing Domain Swapping for the Neuronal SNARE Complex with Electron Paramagnetic Resonance. Biochemistry, 2002, 41, 5449-5452.	2.5	22
69	Synaptotagmin I and Ca2+promote half fusion more than full fusion in SNARE-mediated bilayer fusion. FEBS Letters, 2006, 580, 2238-2246.	2.8	22
70	The SNARE Complex from Yeast Is Partially Unstructured on the Membrane. Structure, 2008, 16, 1138-1146.	3.3	21
71	A Chemical Controller of SNARE-Driven Membrane Fusion That Primes Vesicles for Ca²⁺-Triggered Millisecond Exocytosis. Journal of the American Chemical Society, 2016, 138, 4512-4521.	13.7	21
72	Arachidonic Acid and Nonsteroidal Anti-inflammatory Drugs Induce Conformational Changes in the Human Prostaglandin Endoperoxide H2 Synthase-2 (Cyclooxygenase-2). Journal of Biological Chemistry, 2000, 275, 40407-40415.	3.4	20

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73	Factors Determining Vesicular Lipid Mixing Induced by Shortened Constructs of Influenza Hemagglutinin. Biochemistry, 2000, 39, 2733-2739.	2.5	20
74	Molecular origins of synaptotagmin 1 activities on vesicle docking and fusion pore opening. Scientific Reports, 2015, 5, 9267.	3.3	20
75	Cooperative inhibition of SNARE-mediated vesicle fusion by Î±-synuclein monomers and oligomers. Scientific Reports, 2021, 11, 10955.	3.3	20
76	The Mechanism of Temperature-Induced Bacterial HtrA Activation. Journal of Molecular Biology, 2008, 377, 410-420.	4.2	19
77	Membrane Binding of Î±-Synuclein Stimulates Expansion of SNARE-Dependent Fusion Pore. Frontiers in Cell and Developmental Biology, 2021, 9, 663431.	3.7	19
78	The importance of an asymmetric distribution of acidic lipids for synaptotagmin 1 function as a Ca2+ sensor. Biochemical Journal, 2012, 443, 223-229.	3.7	18
79	Real-Time Observation of Multiple-Protein Complex Formation with Single-Molecule FRET. Journal of the American Chemical Society, 2013, 135, 10254-10257.	13.7	18
80	Synaptotagmin-1 Is an Antagonist for Munc18-1 in SNARE Zippering. Journal of Biological Chemistry, 2015, 290, 10535-10543.	3.4	18
81	The Membrane Affinities of the Aliphatic Amino Acid Side Chains in an Î±-Helical Context Are Independent of Membrane Immersion Depthâ€. Biochemistry, 1999, 38, 337-346.	2.5	17
82	A search for synthetic peptides that inhibit soluble <i>N</i>â€ethylmaleimide sensitiveâ€factor attachment receptorâ€mediated membrane fusion. FEBS Journal, 2008, 275, 3051-3063.	4.7	17
83	Complexin splits the membrane-proximal region of a single SNAREpin. Biochemical Journal, 2016, 473, 2219-2224.	3.7	15
84	Bacterially expressed human serotonin receptor 3A is functionally reconstituted in proteoliposomes. Protein Expression and Purification, 2013, 88, 190-195.	1.3	13
85	An amphipathic polypeptide derived from polyâ€Î³â€glutamic acid for the stabilization of membrane proteins. Protein Science, 2014, 23, 1800-1807.	7.6	13
86	Botulinum Toxins A and E Inflict Dynamic Destabilization on t-SNARE to Impair SNARE Assembly and Membrane Fusion. Structure, 2017, 25, 1679-1686.e5.	3.3	13
87	Disulfide Bond as a Structural Determinant of Prion Protein Membrane Insertion. Molecules and Cells, 2009, 27, 673-680.	2.6	12
88	Lipid molecules influence early stages of yeast SNARE-mediated membrane fusion. Physical Biology, 2015, 12, 025003.	1.8	12
89	Visualization of SNARE-Mediated Hemifusion between Giant Unilamellar Vesicles Arrested by Myricetin. Frontiers in Molecular Neuroscience, 2017, 10, 93.	2.9	12
90	Insights into a Structure-Based Mechanism of Viral Membrane Fusion. Bioscience Reports, 2000, 20, 557-570.	2.4	11

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91	Deep membrane insertion of prion protein upon reduction of disulfide bond. Biochemical and Biophysical Research Communications, 2008, 377, 995-1000.	2.1	11
92	Two gigs of Munc18 in membrane fusion. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 14116-14117.	7.1	11
93	Munc18-1 induces conformational changes of syntaxin-1 in multiple intermediates for SNARE assembly. Scientific Reports, 2020, 10, 11623.	3.3	11
94	Inhibition of SNARE-driven neuroexocytosis by plant extracts. Biotechnology Letters, 2009, 31, 361-369.	2.2	10
95	Productive and Non-productive Pathways for Synaptotagmin 1 to Support Ca2+-Triggered Fast Exocytosis. Frontiers in Molecular Neuroscience, 2017, 10, 380.	2.9	10
96	Preincubation of t-SNAREs with Complexin I Increases Content-Mixing Efficiency. Biochemistry, 2016, 55, 3667-3673.	2.5	9
97	Switch for the Necroptotic Permeation Pore. Structure, 2014, 22, 1374-1376.	3.3	6
98	EPR Spectroscopic Ruler: the Method and its Applications. Biological Magnetic Resonance, 2002, , 249-276.	0.4	5
99	Biophysical characterization of the structural change of Nopp140, an intrinsically disordered protein, in the interaction with CK2Î±. Biochemical and Biophysical Research Communications, 2016, 477, 181-187.	2.1	5
100	Cholesterol, Statins, and Brain Function: A Hypothesis from a Molecular Perspective. Interdisciplinary Bio Central, 2009, 1, 6-8.	0.1	4
101	Search for a minimal machinery for Ca2+-triggered millisecond neuroexocytosis. Neuroscience, 2019, 420, 4-11.	2.3	4
102	Stabilization of the SNARE Core by Complexin-1 Facilitates Fusion Pore Expansion. Frontiers in Molecular Biosciences, 2021, 8, 805000.	3.5	4
103	Chasing the Trails of SNAREs and Lipids Along the Membrane Fusion Pathway. Current Topics in Membranes, 2011, 68, 161-184.	0.9	3
104	SNARE zippering is hindered by polyphenols in the neuron. Biochemical and Biophysical Research Communications, 2014, 450, 831-836.	2.1	3
105	K+ channel gating mechanism proposed using EPR. Nature Structural Biology, 1998, 5, 418-420.	9.7	2
106	Mg2+ Channel Selectivity Probed by EPR. Structure, 2010, 18, 759-760.	3.3	0
107	EPR Lineshape Analysis to Investigate the SNARE Folding Intermediates. Methods in Molecular Biology, 2019, 1860, 33-51.	0.9	0
108	Regulation of SNAREâ€Dependent Membrane Fusion by Alphaâ€Synuclein. FASEB Journal, 2019, 33, 791.9.	0.5	0