Shyam S Krishnakumar

List of Publications by Year
in descending order

41	2,059	218677	265206
papers	citations	26 h-index	42 g-index

56	56	56	2227
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Active and Inactive Orientations of the Transmembrane and Cytosolic Domains of the Erythropoietin Receptor Dimer. Molecular Cell, 2003, 12, 1239-1250.	9.7	193
2	Complexin cross-links prefusion SNAREs into a zigzag array. Nature Structural and Molecular Biology, 2011, 18, 927-933.	8.2	149
3	Otoferlin acts as a Ca2+ sensor for vesicle fusion and vesicle pool replenishment at auditory hair cell ribbon synapses. ELife, 2017, 6, .	6.0	108
4	Mutations in the Neuronal Vesicular SNARE VAMP2 Affect Synaptic Membrane Fusion and Impair Human Neurodevelopment. American Journal of Human Genetics, 2019, 104, 721-730.	6.2	88
5	A conformational switch in complexin is required for synaptotagmin to trigger synaptic fusion. Nature Structural and Molecular Biology, 2011, 18, 934-940.	8.2	85
6	Calcium sensitive ring-like oligomers formed by synaptotagmin. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13966-13971.	7.1	76
7	Hypothesis â€“ buttressed rings assemble, clamp, and release SNAREpins for synaptic transmission. FEBS Letters, 2017, 591, 3459-3480.	2.8	76
8	PRRT2 Regulates Synaptic Fusion by Directly Modulating SNARE Complex Assembly. Cell Reports, 2018, 22, 820-831.	6.4	67
9	Membrane Topography of the Hydrophobic Anchor Sequence of Poliovirus 3A and 3AB Proteins and the Functional Effect of 3A/3AB Membrane Association upon RNA Replication. Biochemistry, 2007, 46, 5185-5199.	2.5	65
10	Spatial Relationship between the Prodan Site, Trp-214, and Cys-34 Residues in Human Serum Albumin and Loss of Structure through Incremental Unfoldingâ€. Biochemistry, 2002, 41, 7443-7452.	2.5	63
11	Glutamate-induced Assembly of Bacterial Cell Division Protein FtsZ. Journal of Biological Chemistry, 2003, 278, 3735-3741.	3.4	59
12	Ring-like oligomers of Synaptotagmins and related C2 domain proteins. ELife, 2016, 5, .	6.0	57
13	Dilation of fusion pores by crowding of SNARE proteins. ELife, 2017, 6, .	6.0	57
14	Multiple-probe analysis of folding and unfolding pathways of human serum albumin. Evidence for a framework mechanism of folding. FEBS Journal, 2004, 271, 1789-1797.	0.2	53
15	Synaptotagmin oligomerization is essential for calcium control of regulated exocytosis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E7624-E7631.	7.1	51
16	Effect of Sequence Hydrophobicity and Bilayer Width upon the Minimum Length Required for the Formation of Transmembrane Helices in Membranes. Journal of Molecular Biology, 2007, 374, 671-687.	4.2	48
17	Homozygous mutations in <scp>VAMP</scp>1 cause a presynaptic congenital myasthenic syndrome. Annals of Neurology, 2017, 81, 597-603.	5.3	48
18	Circular oligomerization is an intrinsic property of synaptotagmin. ELife, 2017, 6, .	6.0	47

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19	Synaptotagmin 1 oligomers clamp and regulate different modes of neurotransmitter release. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 3819-3827.	7.1	47
20	Synaptotagmin oligomers are necessary and can be sufficient to form a Ca²⁺â€sensitive fusion clamp. FEBS Letters, 2019, 593, 154-162.	2.8	42
21	Symmetrical arrangement of proteins under release-ready vesicles in presynaptic terminals. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	40
22	Synergistic roles of Synaptotagmin-1 and complexin in calcium-regulated neuronal exocytosis. ELife, 2020, 9, .	6.0	40
23	Conformational Dynamics of Calcium-Triggered Activation of Fusion by Synaptotagmin. Biophysical Journal, 2013, 105, 2507-2516.	0.5	39
24	Nanodisc-cell fusion: control of fusion pore nucleation and lifetimes by SNARE protein transmembrane domains. Scientific Reports, 2016, 6, 27287.	3.3	39
25	Structural basis for the clamping and Ca2+ activation of SNARE-mediated fusion by synaptotagmin. Nature Communications, 2019, 10, 2413.	12.8	39
26	The Control of Transmembrane Helix Transverse Position in Membranes by Hydrophilic Residues. Journal of Molecular Biology, 2007, 374, 1251-1269.	4.2	36
27	Synergistic control of neurotransmitter release by different members of the synaptotagmin family. Current Opinion in Neurobiology, 2018, 51, 154-162.	4.2	34
28	Symmetrical organization of proteins under docked synaptic vesicles. FEBS Letters, 2019, 593, 144-153.	2.8	34
29	Munc13 binds and recruits SNAP25 to chaperone SNARE complex assembly. FEBS Letters, 2021, 595, 297-309.	2.8	33
30	Re-visiting the trans insertion model for complexin clamping. ELife, 2015, 4, .	6.0	33
31	Kv1.1 channelopathy abolishes presynaptic spike width modulation by subthreshold somatic depolarization. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2395-2400.	7.1	31
32	Mutations in Membrin/ GOSR2 Reveal Stringent Secretory Pathway Demands of Dendritic Growth and Synaptic Integrity. Cell Reports, 2017, 21, 97-109.	6.4	29
33	Using ApoE Nanolipoprotein Particles To Analyze SNARE-Induced Fusion Pores. Langmuir, 2016, 32, 3015-3023.	3.5	22
34	Synaptotagmin-1 membrane binding is driven by the C2B domain and assisted cooperatively by the C2A domain. Scientific Reports, 2020, 10, 18011.	3.3	22
35	Two Disease-Causing SNAP-25B Mutations Selectively Impair SNARE C-terminal Assembly. Journal of Molecular Biology, 2018, 430, 479-490.	4.2	21
36	The Effect of Hydrophilic Substitutions and Anionic Lipids upon the Transverse Positioning of the Transmembrane Helix of the ErbB2 (neu) Protein Incorporated into Model Membrane Vesicles. Journal of Molecular Biology, 2010, 396, 209-220.	4.2	18

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37	Molecular determinants of complexin clamping and activation function. ELife, 2022, 11, .	6.0	16
38	Vesicle capture by membraneâ€bound Munc13â€1 requires selfâ€assembly into discrete clusters. FEBS Letters, 2021, 595, 2185-2196.	2.8	15
39	Rearrangements under confinement lead to increased binding energy of Synaptotagminâ€1 with anionic membranes in Mg 2+ and Ca 2+. FEBS Letters, 2018, 592, 1497-1506.	2.8	13
40	Mechanisms of Neurological Dysfunction in GOSR2 Progressive Myoclonus Epilepsy, a Golgi SNAREopathy. Neuroscience, 2019, 420, 41-49.	2.3	10
41	Using Nanodiscs to Probe Ca2+-Dependent Membrane Interaction of Synaptotagmin-1. Methods in Molecular Biology, 2019, 1860, 221-236.	0.9	1