James E Rothman

List of Publications by Year
in descending order

80 papers	13,686 citations	101543 36 h-index	71685 76 g-index
94 all docs	94 docs citations	94 times ranked	9905 citing authors

#	Article	IF	Citations
1	SNAP receptors implicated in vesicle targeting and fusion. Nature, 1993, 362, 318-324.	27.8	3,046
2	SNAREpins: Minimal Machinery for Membrane Fusion. Cell, 1998, 92, 759-772.	28.9	2,289
3	A protein assembly-disassembly pathway in vitro that may correspond to sequential steps of synaptic vesicle docking, activation, and fusion. Cell, 1993, 75, 409-418.	28.9	1,784
4	Membrane Fusion: Grappling with SNARE and SM Proteins. Science, 2009, 323, 474-477.	12.6	1,754
5	Single Reconstituted Neuronal SNARE Complexes Zipper in Three Distinct Stages. Science, 2012, 337, 1340-1343.	12.6	364
6	A Clamping Mechanism Involved in SNARE-Dependent Exocytosis. Science, 2006, 313, 676-680.	12.6	321
7	Ultra-High Resolution 3D Imaging of Whole Cells. Cell, 2016, 166, 1028-1040.	28.9	247
8	Self-assembly of size-controlled liposomes on DNA nanotemplates. Nature Chemistry, 2016, 8, 476-483.	13.6	222
9	Two-colour live-cell nanoscale imaging of intracellular targets. Nature Communications, 2016, 7, 10778.	12.8	197
10	Long time-lapse nanoscopy with spontaneously blinking membrane probes. Nature Biotechnology, 2017, 35, 773-780.	17.5	157
11	AMPA receptor GluA2 subunit defects are a cause of neurodevelopmental disorders. Nature Communications, 2019, 10, 3094.	12.8	150
12	Complexin cross-links prefusion SNAREs into a zigzag array. Nature Structural and Molecular Biology, 2011, 18, 927-933.	8.2	149
13	Alternative Zippering as an On-Off Switch for SNARE-Mediated Fusion. Science, 2009, 323, 512-516.	12.6	146
14	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
15	S-Palmitoylation Sorts Membrane Cargo for Anterograde Transport in the Golgi. Developmental Cell, 2018, 47, 479-493.e7.	7.0	106
16	Labeling Strategies Matter for Super-Resolution Microscopy: A Comparison between HaloTags and SNAP-tags. Cell Chemical Biology, 2019, 26, 584-592.e6.	5.2	100
17	Nanoscale subcellular architecture revealed by multicolor three-dimensional salvaged fluorescence imaging. Nature Methods, 2020, 17, 225-231.	19.0	95
18	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

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19	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
20	Common intermediates and kinetics, but different energetics, in the assembly of SNARE proteins. ELife, 2014, 3, e03348.	6.0	80
21	Assessing photodamage in live-cell STED microscopy. Nature Methods, 2018, 15, 755-756.	19.0	79
22	FRAP to Characterize Molecular Diffusion and Interaction in Various Membrane Environments. PLoS ONE, 2016, 11, e0158457.	2.5	78
23	A Programmable DNA Origami Platform to Organize SNAREs for Membrane Fusion. Journal of the American Chemical Society, 2016, 138, 4439-4447.	13.7	78
24	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
25	Hypothesis â€" buttressed rings assemble, clamp, and release SNAREpins for synaptic transmission. FEBS Letters, 2017, 591, 3459-3480.	2.8	76
26	Low energy cost for optimal speed and control of membrane fusion. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1238-1241.	7.1	70
27	Complexin activates and clamps SNAREpins by a common mechanism involving an intermediate energetic state. Nature Structural and Molecular Biology, 2011, 18, 941-946.	8.2	69
28	PRRT2 Regulates Synaptic Fusion by Directly Modulating SNARE Complex Assembly. Cell Reports, 2018, 22, 820-831.	6.4	67
29	A Half-Zippered SNARE Complex Represents a Functional Intermediate in Membrane Fusion. Journal of the American Chemical Society, 2014, 136, 3456-3464.	13.7	62
30	The Golgi ribbon structure facilitates anterograde transport of large cargoes. Molecular Biology of the Cell, 2014, 25, 3028-3036.	2.1	59
31	Ring-like oligomers of Synaptotagmins and related C2 domain proteins. ELife, 2016, 5, .	6.0	57
32	Genetic analysis of the Complexin trans-clamping model for cross-linking SNARE complexes in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10317-10322.	7.1	55
33	A novel physiological role for ARF1 in the formation of bidirectional tubules from the Golgi. Molecular Biology of the Cell, 2017, 28, 1676-1687.	2.1	55
34	Munc13-1 MUN domain and Munc18-1 cooperatively chaperone SNARE assembly through a tetrameric complex. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 1036-1041.	7.1	52
35	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
36	Homozygous mutations in <scp><i>VAMP</i></scp><i>1</i> cause a presynaptic congenital myasthenic syndrome. Annals of Neurology, 2017, 81, 597-603.	5.3	48

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37	Kinetic barriers to SNAREpin assembly in the regulation of membrane docking/priming and fusion. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10536-10541.	7.1	47
38	Circular oligomerization is an intrinsic property of synaptotagmin. ELife, 2017, 6, .	6.0	47
39	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
40	Protein Determinants of SNARE-Mediated Lipid Mixing. Biophysical Journal, 2010, 99, 553-560.	0.5	45
41	Liquidâ€“liquid phase separation of the Golgi matrix protein GM130. FEBS Letters, 2020, 594, 1132-1144.	2.8	44
42	Formation of Giant Unilamellar Proteo-Liposomes by Osmotic Shock. Langmuir, 2015, 31, 7091-7099.	3.5	43
43	SNARE machinery is optimized for ultrafast fusion. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2435-2442.	7.1	43
44	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
45	Land-locked mammalian Golgi reveals cargo transport between stable cisternae. Nature Communications, 2017, 8, 432.	12.8	40
46	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
47	Synergistic roles of Synaptotagmin-1 and complexin in calcium-regulated neuronal exocytosis. ELife, 2020, 9, .	6.0	40
48	Conformational Dynamics of Calcium-Triggered Activation of Fusion by Synaptotagmin. Biophysical Journal, 2013, 105, 2507-2516.	0.5	39
49	Structural basis for the clamping and Ca2+ activation of SNARE-mediated fusion by synaptotagmin. Nature Communications, 2019, 10, 2413.	12.8	39
50	Three-dimensional adaptive optical nanoscopy for thick specimen imaging at sub-50-nm resolution. Nature Methods, 2021, 18, 688-693.	19.0	39
51	Mutations in NKX6-2 Cause Progressive Spastic Ataxia and Hypomyelination. American Journal of Human Genetics, 2017, 100, 969-977.	6.2	38
52	Munc13 structural transitions and oligomers that may choreograph successive stages in vesicle priming for neurotransmitter release. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	35
53	Stability, folding dynamics, and long-range conformational transition of the synaptic t-SNARE complex. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E8031-E8040.	7.1	34
54	Symmetrical organization of proteins under docked synaptic vesicles. FEBS Letters, 2019, 593, 144-153.	2.8	34

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55	Molecular Mechanism of Protein Folding in the Cell. Cell, 2011, 146, 851-854.	28.9	33
56	Munc13 binds and recruits SNAP25 to chaperone SNARE complex assembly. FEBS Letters, 2021, 595, 297-309.	2.8	33
57	Re-visiting the trans insertion model for complexin clamping. ELife, 2015, 4, .	6.0	33
58	Mutations in Membrin/ GOSR2 Reveal Stringent Secretory Pathway Demands of Dendritic Growth and Synaptic Integrity. Cell Reports, 2017, 21, 97-109.	6.4	29
59	The Future of Golgi Research. Molecular Biology of the Cell, 2010, 21, 3776-3780.	2.1	28
60	High-Throughput Monitoring of Single Vesicle Fusion Using Freestanding Membranes and Automated Analysis. Langmuir, 2018, 34, 5849-5859.	3.5	26
61	TANGO1 membrane helices create a lipid diffusion barrier at curved membranes. ELife, 2020, 9, .	6.0	26
62	Using ApoE Nanolipoprotein Particles To Analyze SNARE-Induced Fusion Pores. Langmuir, 2016, 32, 3015-3023.	3.5	22
63	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
64	Two Disease-Causing SNAP-25B Mutations Selectively Impair SNARE C-terminal Assembly. Journal of Molecular Biology, 2018, 430, 479-490.	4.2	21
65	The golgin family exhibits a propensity to form condensates in living cells. FEBS Letters, 2020, 594, 3086-3094.	2.8	21
66	Jim's View: Is the Golgi stack a phaseâ€separated liquid crystal?. FEBS Letters, 2019, 593, 2701-2705.	2.8	19
67	Nascent fusion pore opening monitored at single-SNAREpin resolution. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	16
68	Molecular determinants of complexin clamping and activation function. ELife, 2022, 11, .	6.0	16
69	Vesicle capture by membraneâ€bound Munc13â€1 requires selfâ€assembly into discrete clusters. FEBS Letters, 2021, 595, 2185-2196.	2.8	15
70	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
71	Golgin45-Syntaxin5 Interaction Contributes to Structural Integrity of the Golgi Stack. Scientific Reports, 2019, 9, 12465.	3.3	11
72	Cooperation of Conical and Polyunsaturated Lipids to Regulate Initiation and Processing of Membrane Fusion. Frontiers in Molecular Biosciences, 2021, 8, 763115.	3.5	11

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73	Small cargoes pass through synthetically glued Golgi stacks. FEBS Letters, 2016, 590, 1675-1686.	2.8	9
74	Jim's View: â€œSome Thoughts for Young Scientistsâ€• FEBS Letters, 2018, 592, 461-462.	2.8	2
75	Jim's View: â€œPlaying Billiards with Scienceâ€• FEBS Letters, 2018, 592, 2381-2382.	2.8	1
76	Jim's view: analog to digital conversion in biology. FEBS Letters, 2018, 592, 4009-4010.	2.8	0
77	Jim's view: Why basic science?. FEBS Letters, 2019, 593, 1693-1697.	2.8	0
78	Jim's view: Patience vs urgency. FEBS Letters, 2019, 593, 2081-2082.	2.8	0
79	Jim's view: What makes transformative basic science possible?. FEBS Letters, 2019, 593, 1877-1878.	2.8	0
80	A Quantitative Native Mass Spectrometry Platform for Deconstructing Hierarchical Organization of Membrane Proteins and Lipids. FASEB Journal, 2022, 36, .	0.5	0