

Tom A Rapoport

List of Publications by Citations

Source: <https://exaly.com/author-pdf/2352028/tom-a-raoport-publications-by-citations.pdf>
Version: 2024-04-10

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

141 papers	21,963 citations	78 h-index	148 g-index
150 ext. papers	24,350 ext. citations	21.3 avg, IF	7.08 L-index

#	Paper	IF	Citations
141	A linear steady-state treatment of enzymatic chains. General properties, control and effector strength. <i>FEBS Journal</i> , 1974 , 42, 89-95		1002
140	X-ray structure of a protein-conducting channel. <i>Nature</i> , 2004 , 427, 36-44	50.4	994
139	Sec61-mediated transfer of a membrane protein from the endoplasmic reticulum to the proteasome for destruction. <i>Nature</i> , 1996 , 384, 432-8	50.4	970
138	The AAA ATPase Cdc48/p97 and its partners transport proteins from the ER into the cytosol. <i>Nature</i> , 2001 , 414, 652-6	50.4	911
137	A class of membrane proteins shaping the tubular endoplasmic reticulum. <i>Cell</i> , 2006 , 124, 573-86	56.2	842
136	A membrane protein complex mediates retro-translocation from the ER lumen into the cytosol. <i>Nature</i> , 2004 , 429, 841-7	50.4	782
135	Protein translocation across the eukaryotic endoplasmic reticulum and bacterial plasma membranes. <i>Nature</i> , 2007 , 450, 663-9	50.4	711
134	Distinct ubiquitin-ligase complexes define convergent pathways for the degradation of ER proteins. <i>Cell</i> , 2006 , 126, 361-73	56.2	563
133	Cargo of kinesin identified as JIP scaffolding proteins and associated signaling molecules. <i>Journal of Cell Biology</i> , 2001 , 152, 959-70	7.3	515
132	Function of the p97-Ufd1-Npl4 complex in retrotranslocation from the ER to the cytosol: dual recognition of nonubiquitinated polypeptide segments and polyubiquitin chains. <i>Journal of Cell Biology</i> , 2003 , 162, 71-84	7.3	497
131	Protein transport across the eukaryotic endoplasmic reticulum and bacterial inner membranes. <i>Annual Review of Biochemistry</i> , 1996 , 65, 271-303	29.1	495
130	A class of dynamin-like GTPases involved in the generation of the tubular ER network. <i>Cell</i> , 2009 , 138, 549-61	56.2	401
129	Structure of a complex of the ATPase SecA and the protein-translocation channel. <i>Nature</i> , 2008 , 455, 936-43	50.4	352
128	Posttranslational protein transport in yeast reconstituted with a purified complex of Sec proteins and Kar2p. <i>Cell</i> , 1995 , 81, 561-70	56.2	345
127	BiP acts as a molecular ratchet during posttranslational transport of prepro-alpha factor across the ER membrane. <i>Cell</i> , 1999 , 97, 553-64	56.2	343
126	Mechanisms determining the morphology of the peripheral ER. <i>Cell</i> , 2010 , 143, 774-88	56.2	342
125	Membrane proteins of the endoplasmic reticulum induce high-curvature tubules. <i>Science</i> , 2008 , 319, 1247-50	33.3	320

124	Rough sheets and smooth tubules. <i>Cell</i> , 2006 , 126, 435-9	56.2	310
123	Mechanisms shaping the membranes of cellular organelles. <i>Annual Review of Cell and Developmental Biology</i> , 2009 , 25, 329-54	12.6	306
122	Protein translocation by the Sec61/SecY channel. <i>Annual Review of Cell and Developmental Biology</i> , 2005 , 21, 529-50	12.6	303
121	Oligomeric rings of the Sec61p complex induced by ligands required for protein translocation. <i>Cell</i> , 1996 , 87, 721-32	56.2	303
120	Signal sequence recognition in posttranslational protein transport across the yeast ER membrane. <i>Cell</i> , 1998 , 94, 795-807	56.2	285
119	Protein translocation: tunnel vision. <i>Cell</i> , 1998 , 92, 381-90	56.2	281
118	A protein of the endoplasmic reticulum involved early in polypeptide translocation. <i>Nature</i> , 1992 , 357, 47-52	50.4	281
117	Recruitment of the p97 ATPase and ubiquitin ligases to the site of retrotranslocation at the endoplasmic reticulum membrane. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 14132-8	11.5	275
116	Mechanisms of Sec61/SecY-mediated protein translocation across membranes. <i>Annual Review of Biophysics</i> , 2012 , 41, 21-40	21.1	272
115	A novel pathway for secretory proteins?. <i>Trends in Biochemical Sciences</i> , 1990 , 15, 86-8	10.3	252
114	A posttargeting signal sequence recognition event in the endoplasmic reticulum membrane. <i>Cell</i> , 1995 , 82, 261-70	56.2	243
113	The reticulon and DP1/Yop1p proteins form immobile oligomers in the tubular endoplasmic reticulum. <i>Journal of Biological Chemistry</i> , 2008 , 283, 18892-904	5.4	241
112	Retrotranslocation of a misfolded luminal ER protein by the ubiquitin-ligase Hrd1p. <i>Cell</i> , 2010 , 143, 579-91	56.2	234
111	Mutants affecting the structure of the cortical endoplasmic reticulum in <i>Saccharomyces cerevisiae</i> . <i>Journal of Cell Biology</i> , 2000 , 150, 461-74	7.3	234
110	Three-dimensional structure of the bacterial protein-translocation complex SecYEG. <i>Nature</i> , 2002 , 418, 662-5	50.4	223
109	The Sec61p complex mediates the integration of a membrane protein by allowing lipid partitioning of the transmembrane domain. <i>Cell</i> , 2000 , 102, 233-44	56.2	217
108	J proteins catalytically activate Hsp70 molecules to trap a wide range of peptide sequences. <i>Molecular Cell</i> , 1998 , 2, 593-603	17.6	215
107	The structure of ribosome-channel complexes engaged in protein translocation. <i>Molecular Cell</i> , 2000 , 6, 1219-32	17.6	192

106	Molecular mechanism of membrane protein integration into the endoplasmic reticulum. <i>Cell</i> , 1997 , 89, 523-33	56.2	179
105	Structures of the atlastin GTPase provide insight into homotypic fusion of endoplasmic reticulum membranes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 3976-81	11.5	170
104	A visual screen of a GFP-fusion library identifies a new type of nuclear envelope membrane protein. <i>Journal of Cell Biology</i> , 1999 , 146, 29-44	7.3	167
103	Structural analysis and optimization of the covalent association between SpyCatcher and a peptide Tag. <i>Journal of Molecular Biology</i> , 2014 , 426, 309-17	6.5	166
102	Molecular Mechanism of Substrate Processing by the Cdc48 ATPase Complex. <i>Cell</i> , 2017 , 169, 722-735.e9	56.2	159
101	In vitro formation of the endoplasmic reticulum occurs independently of microtubules by a controlled fusion reaction. <i>Journal of Cell Biology</i> , 2000 , 148, 883-98	7.3	158
100	Stacked endoplasmic reticulum sheets are connected by helicoidal membrane motifs. <i>Cell</i> , 2013 , 154, 285-96	56.2	157
99	Mechanistic insights into ER-associated protein degradation. <i>Current Opinion in Cell Biology</i> , 2018 , 53, 22-28	9	152
98	Structural and Mechanistic Insights into Protein Translocation. <i>Annual Review of Cell and Developmental Biology</i> , 2017 , 33, 369-390	12.6	144
97	Membrane-protein integration and the role of the translocation channel. <i>Trends in Cell Biology</i> , 2004 , 14, 568-75	18.3	142
96	The bacterial SecY/E translocation complex forms channel-like structures similar to those of the eukaryotic Sec61p complex. <i>Journal of Molecular Biology</i> , 1999 , 285, 1789-800	6.5	140
95	Gem1 and ERMES do not directly affect phosphatidylserine transport from ER to mitochondria or mitochondrial inheritance. <i>Traffic</i> , 2012 , 13, 880-90	5.7	137
94	Key steps in ERAD of luminal ER proteins reconstituted with purified components. <i>Cell</i> , 2014 , 158, 1375-1388	56.2	135
93	Dissociation of the dimeric SecA ATPase during protein translocation across the bacterial membrane. <i>EMBO Journal</i> , 2002 , 21, 4470-9	13	133
92	The pathway of US11-dependent degradation of MHC class I heavy chains involves a ubiquitin-conjugated intermediate. <i>Journal of Cell Biology</i> , 1999 , 147, 45-58	7.3	133
91	Protein translocation is mediated by oligomers of the SecY complex with one SecY copy forming the channel. <i>Cell</i> , 2007 , 129, 97-110	56.2	130
90	Disulfide bridge formation between SecY and a translocating polypeptide localizes the translocation pore to the center of SecY. <i>Journal of Cell Biology</i> , 2005 , 169, 219-25	7.3	130
89	Autoubiquitination of the Hrd1 Ligase Triggers Protein Retrotranslocation in ERAD. <i>Cell</i> , 2016 , 166, 394-407	56.2	128

88	A large conformational change of the translocation ATPase SecA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 10937-42	11.5	128
87	Architecture of the ribosome-channel complex derived from native membranes. <i>Journal of Molecular Biology</i> , 2005 , 348, 445-57	6.5	120
86	Role of ubiquitination in retro-translocation of cholera toxin and escape of cytosolic degradation. <i>EMBO Reports</i> , 2002 , 3, 1222-7	6.5	120
85	Structure of the SecY channel during initiation of protein translocation. <i>Nature</i> , 2014 , 506, 102-6	50.4	119
84	Cryo-EM structure of the protein-conducting ERAD channel Hrd1 in complex with Hrd3. <i>Nature</i> , 2017 , 548, 352-355	50.4	117
83	Weaving the web of ER tubules. <i>Cell</i> , 2011 , 147, 1226-31	56.2	111
82	Substrate processing by the Cdc48 ATPase complex is initiated by ubiquitin unfolding. <i>Science</i> , 2019 , 365,	33.3	110
81	A role for the two-helix finger of the SecA ATPase in protein translocation. <i>Nature</i> , 2008 , 455, 984-7	50.4	110
80	Crystal structure of a substrate-engaged SecY protein-translocation channel. <i>Nature</i> , 2016 , 531, 395-399	50.4	107
79	RecA-like motor ATPases--lessons from structures. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2004 , 1659, 1-18	4.6	107
78	The plug domain of the SecY protein stabilizes the closed state of the translocation channel and maintains a membrane seal. <i>Molecular Cell</i> , 2007 , 26, 511-21	17.6	99
77	The endoplasmic reticulum membrane is permeable to small molecules. <i>Molecular Biology of the Cell</i> , 2004 , 15, 447-55	3.5	94
76	Structure of the mammalian ribosome-channel complex at 17A resolution. <i>Journal of Molecular Biology</i> , 2002 , 324, 871-86	6.5	93
75	The signal sequence coding region promotes nuclear export of mRNA. <i>PLoS Biology</i> , 2007 , 5, e322	9.7	88
74	The dynamin-like GTPase Sey1p mediates homotypic ER fusion in <i>S. cerevisiae</i> . <i>Journal of Cell Biology</i> , 2012 , 197, 209-17	7.3	87
73	Ribosome binding of a single copy of the SecY complex: implications for protein translocation. <i>Molecular Cell</i> , 2007 , 28, 1083-92	17.6	87
72	Cooperation of the ER-shaping proteins atlastin, lunapark, and reticulons to generate a tubular membrane network. <i>ELife</i> , 2016 , 5,	8.9	87
71	A model for the generation and interconversion of ER morphologies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, E5243-51	11.5	86

70	Lipid interaction of the C terminus and association of the transmembrane segments facilitate atlastin-mediated homotypic endoplasmic reticulum fusion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, E2146-54	11.5	85
69	Determining the conductance of the SecY protein translocation channel for small molecules. <i>Molecular Cell</i> , 2007 , 26, 501-9	17.6	85
68	The bacterial ATPase SecA functions as a monomer in protein translocation. <i>Journal of Biological Chemistry</i> , 2005 , 280, 9097-105	5.4	85
67	Polyubiquitin serves as a recognition signal, rather than a ratcheting molecule, during retrotranslocation of proteins across the endoplasmic reticulum membrane. <i>Journal of Biological Chemistry</i> , 2003 , 278, 34774-82	5.4	84
66	Cooperation of transmembrane segments during the integration of a double-spanning protein into the ER membrane. <i>EMBO Journal</i> , 2003 , 22, 3654-63	13	83
65	Single copies of Sec61 and TRAP associate with a nontranslating mammalian ribosome. <i>Structure</i> , 2008 , 16, 1126-37	5.2	80
64	A "push and slide" mechanism allows sequence-insensitive translocation of secretory proteins by the SecA ATPase. <i>Cell</i> , 2014 , 157, 1416-1429	56.2	79
63	Preserving the membrane barrier for small molecules during bacterial protein translocation. <i>Nature</i> , 2011 , 473, 239-42	50.4	78
62	Spontaneous release of cytosolic proteins from posttranslational substrates before their transport into the endoplasmic reticulum. <i>Journal of Cell Biology</i> , 2000 , 151, 167-78	7.3	75
61	Protein transport by purified yeast Sec complex and Kar2p without membranes. <i>Science</i> , 1997 , 277, 938-41	33.3	73
60	An ER protein functionally couples neutral lipid metabolism on lipid droplets to membrane lipid synthesis in the ER. <i>Cell Reports</i> , 2014 , 6, 44-55	10.6	71
59	A novel dimer interface and conformational changes revealed by an X-ray structure of B. subtilis SecA. <i>Journal of Molecular Biology</i> , 2006 , 364, 259-65	6.5	69
58	Toward an understanding of the Cdc48/p97 ATPase. <i>F1000Research</i> , 2017 , 6, 1318	3.6	68
57	Structure of the post-translational protein translocation machinery of the ER membrane. <i>Nature</i> , 2019 , 566, 136-139	50.4	67
56	Multiple mechanisms determine ER network morphology during the cell cycle in Xenopus egg extracts. <i>Journal of Cell Biology</i> , 2013 , 203, 801-14	7.3	62
55	Reconstitution of the tubular endoplasmic reticulum network with purified components. <i>Nature</i> , 2017 , 543, 257-260	50.4	61
54	Structural basis of ER-associated protein degradation mediated by the Hrd1 ubiquitin ligase complex. <i>Science</i> , 2020 , 368,	33.3	60
53	Signal sequence recognition in cotranslational translocation by protein components of the endoplasmic reticulum membrane. <i>Journal of Cell Biology</i> , 1998 , 142, 355-64	7.3	59

52	Binding of signal recognition particle gives ribosome/nascent chain complexes a competitive advantage in endoplasmic reticulum membrane interaction. <i>Molecular Biology of the Cell</i> , 1998 , 9, 103-113	3.5	56
51	Conformational flexibility and peptide interaction of the translocation ATPase SecA. <i>Journal of Molecular Biology</i> , 2009 , 394, 606-12	6.5	51
50	Structure of the Cdc48 ATPase with its ubiquitin-binding cofactor Ufd1-Npl4. <i>Nature Structural and Molecular Biology</i> , 2018 , 25, 616-622	17.6	51
49	Unique double-ring structure of the peroxisomal Pex1/Pex6 ATPase complex revealed by cryo-electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, E4017-25	11.5	50
48	Structural insight into the protein translocation channel. <i>Current Opinion in Structural Biology</i> , 2004 , 14, 390-6	8.1	49
47	Cis and trans interactions between atlastin molecules during membrane fusion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, E1851-60	11.5	48
46	Fusion of the endoplasmic reticulum by membrane-bound GTPases. <i>Seminars in Cell and Developmental Biology</i> , 2016 , 60, 105-111	7.5	48
45	Ratcheting in post-translational protein translocation: a mathematical model. <i>Journal of Molecular Biology</i> , 2001 , 305, 643-56	6.5	48
44	Mapping polypeptide interactions of the SecA ATPase during translocation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 20800-5	11.5	47
43	Interactions between Sec complex and prepro-alpha-factor during posttranslational protein transport into the endoplasmic reticulum. <i>Molecular Biology of the Cell</i> , 2004 , 15, 1-10	3.5	45
42	tRNA-mediated labelling of proteins with biotin. A nonradioactive method for the detection of cell-free translation products. <i>FEBS Journal</i> , 1988 , 172, 663-8		43
41	Decatransin, a new natural product inhibiting protein translocation at the Sec61/SecYEG translocon. <i>Journal of Cell Science</i> , 2015 , 128, 1217-29	5.3	37
40	Two alternative binding mechanisms connect the protein translocation Sec71-Sec72 complex with heat shock proteins. <i>Journal of Biological Chemistry</i> , 2017 , 292, 8007-8018	5.4	33
39	Ribosome binding to and dissociation from translocation sites of the endoplasmic reticulum membrane. <i>Molecular Biology of the Cell</i> , 2006 , 17, 3860-9	3.5	32
38	Mechanism of a cytosolic O-glycosyltransferase essential for the synthesis of a bacterial adhesion protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, E1190-9	11.5	31
37	The ER-associated degradation component Der1p and its homolog Dfm1p are contained in complexes with distinct cofactors of the ATPase Cdc48p. <i>FEBS Letters</i> , 2008 , 582, 1575-80	3.8	31
36	Analysis of polypeptide movement in the SecY channel during SecA-mediated protein translocation. <i>Journal of Biological Chemistry</i> , 2008 , 283, 15709-15	5.4	29
35	Protein translocation by the SecA ATPase occurs by a power-stroke mechanism. <i>EMBO Journal</i> , 2019 , 38,	13	28

34	Structure of the substrate-engaged SecA-SecY protein translocation machine. <i>Nature Communications</i> , 2019 , 10, 2872	17.4	26
33	Reconstituting the reticular ER network - mechanistic implications and open questions. <i>Journal of Cell Science</i> , 2019 , 132,	5.3	25
32	Protein transport across the endoplasmic reticulum membrane. <i>FEBS Journal</i> , 2008 , 275, 4471-8	5.7	25
31	Ddi1 is a ubiquitin-dependent protease. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 7776-7781	11.5	24
30	Recognition of an ERAD-L substrate analyzed by site-specific in vivo photocrosslinking. <i>FEBS Letters</i> , 2011 , 585, 1281-6	3.8	22
29	Cross-linked SecA dimers are not functional in protein translocation. <i>FEBS Letters</i> , 2007 , 581, 2616-20	3.8	22
28	Conformational Changes of the Clamp of the Protein Translocation ATPase SecA. <i>Journal of Molecular Biology</i> , 2015 , 427, 2348-59	6.5	20
27	Cycles of autoubiquitination and deubiquitination regulate the ERAD ubiquitin ligase Hrd1. <i>ELife</i> , 2019 , 8,	8.9	19
26	Structures of the double-ring AAA ATPase Pex1-Pex6 involved in peroxisome biogenesis. <i>FEBS Journal</i> , 2016 , 283, 986-92	5.7	14
25	Translocation of Proteins through a Distorted Lipid Bilayer. <i>Trends in Cell Biology</i> , 2021 , 31, 473-484	18.3	14
24	Unraveling the sequence of cytosolic reactions in the export of GspB adhesin from. <i>Journal of Biological Chemistry</i> , 2018 , 293, 5360-5373	5.4	12
23	The ER morphology-regulating lunapark protein induces the formation of stacked bilayer discs. <i>Life Science Alliance</i> , 2018 , 1, e201700014	5.8	10
22	Mechanism of membrane-curvature generation by ER-tubule shaping proteins. <i>Nature Communications</i> , 2021 , 12, 568	17.4	10
21	Involvement of VAT-1 in Phosphatidylserine Transfer from the Endoplasmic Reticulum to Mitochondria. <i>Traffic</i> , 2015 , 16, 1306-17	5.7	8
20	Tracking the road from inflammation to cancer: the critical role of IkappaB kinase (IKK). <i>Harvey Lectures</i> , 2006 , 102, 133-51		8
19	Cilia and Hedgehog signaling in the mouse embryo. <i>Harvey Lectures</i> , 2006 , 102, 103-15		8
18	Mechanism of Lamellar Body Formation by Lung Surfactant Protein B. <i>Molecular Cell</i> , 2021 , 81, 49-66.e8	17.6	6
17	Translocation of polyubiquitinated protein substrates by the hexameric Cdc48 ATPase.. <i>Molecular Cell</i> , 2021 ,	17.6	5

16	Cryo-EM structure determination of small proteins by nanobody-binding scaffolds (Legobodies). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	5
15	Protease protection assays show polypeptide movement into the SecY channel by power strokes of the SecA ATPase. <i>EMBO Reports</i> , 2020 , 21, e50905	6.5	4
14	Peroxisome protein import recapitulated in egg extracts. <i>Journal of Cell Biology</i> , 2019 , 218, 2021-2034	7.3	3
13	Endoplasmic Reticulum Network Formation with Egg Extracts. <i>Cold Spring Harbor Protocols</i> , 2019 , 2019,	1.2	3
12	Drugging the Undruggable-15		2
11	Signaling networks that control synapse development and cognitive function. <i>Harvey Lectures</i> , 2006 , 102, 73-102		1
10	Basal bodies: their roles in generating asymmetry. <i>Harvey Lectures</i> , 2006 , 102, 17-50		1
9	A preliminary report on my life in science. <i>Molecular Biology of the Cell</i> , 2010 , 21, 3770-2	3.5	
8	Ran is associated with chromosomes during starfish oocyte meiosis and embryonic mitoses. <i>Zygote</i> , 1999 , 8, S91-S91	1.6	
7	Investigation of SecY protein-translocation channel in action using a novel in vivo tool (LB198). <i>FASEB Journal</i> , 2014 , 28, LB198	0.9	
6	Investigation of SecY protein-translocation channel in action using a novel in vivo tool (362.3). <i>FASEB Journal</i> , 2014 , 28, 362.3	0.9	
5	Protein transport in and out of the endoplasmic reticulum. <i>Harvey Lectures</i> , 2006 , 102, 51-72		
4	Active Members179-189		
3	Former Officers of the Harvey Society153-168		
2	Investigating the import of folded proteins into peroxisomes. <i>FASEB Journal</i> , 2013 , 27, lb127	0.9	
1	The role of the C-terminus and transmembrane segments in facilitating atlastin-mediated endoplasmic reticulum fusion. <i>FASEB Journal</i> , 2013 , 27, 1016.1	0.9	