

F Ulrich Hartl

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130 papers	24,349 citations	66 h-index	138 g-index
138 ext. papers	28,091 ext. citations	25.5 avg, IF	7.5 L-index

#	Paper	IF	Citations
130	Molecular chaperones in cellular protein folding. <i>Nature</i> , 1996 , 381, 571-9	50.4	3109
129	Molecular chaperones in protein folding and proteostasis. <i>Nature</i> , 2011 , 475, 324-32	50.4	2147
128	Molecular chaperone functions in protein folding and proteostasis. <i>Annual Review of Biochemistry</i> , 2013 , 82, 323-55	29.1	937
127	Successive action of DnaK, DnaJ and GroEL along the pathway of chaperone-mediated protein folding. <i>Nature</i> , 1992 , 356, 683-9	50.4	905
126	Converging concepts of protein folding in vitro and in vivo. <i>Nature Structural and Molecular Biology</i> , 2009 , 16, 574-81	17.6	827
125	In vivo aspects of protein folding and quality control. <i>Science</i> , 2016 , 353, aac4354	33.3	726
124	Hsp90: a specialized but essential protein-folding tool. <i>Journal of Cell Biology</i> , 2001 , 154, 267-73	7.3	712
123	Molecular chaperones Hsp90 and Hsp70 deliver preproteins to the mitochondrial import receptor Tom70. <i>Cell</i> , 2003 , 112, 41-50	56.2	655
122	Folding of nascent polypeptide chains in a high molecular mass assembly with molecular chaperones. <i>Nature</i> , 1994 , 370, 111-7	50.4	598
121	Hsp70 and hsp40 chaperones can inhibit self-assembly of polyglutamine proteins into amyloid-like fibrils. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000 , 97, 7841-6	11.5	541
120	Amyloid-like aggregates sequester numerous metastable proteins with essential cellular functions. <i>Cell</i> , 2011 , 144, 67-78	56.2	520
119	Proteome-wide analysis of chaperonin-dependent protein folding in Escherichia coli. <i>Cell</i> , 2005 , 122, 209-20	56.2	515
118	The ATP hydrolysis-dependent reaction cycle of the Escherichia coli Hsp70 system DnaK, DnaJ, and GrpE. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1994 , 91, 10345-9	11.5	443
117	Proteostasis impairment in protein-misfolding and -aggregation diseases. <i>Trends in Cell Biology</i> , 2014 , 24, 506-14	18.3	418
116	The proteostasis network and its decline in ageing. <i>Nature Reviews Molecular Cell Biology</i> , 2019 , 20, 421-435	48.7	391
115	Pathways of cellular proteostasis in aging and disease. <i>Journal of Cell Biology</i> , 2018 , 217, 51-63	7.3	367
114	Cellular toxicity of polyglutamine expansion proteins: mechanism of transcription factor deactivation. <i>Molecular Cell</i> , 2004 , 15, 95-105	17.6	349

113	Geldanamycin activates a heat shock response and inhibits huntingtin aggregation in a cell culture model of Huntington's disease. <i>Human Molecular Genetics</i> , 2001 , 10, 1307-15	5.6	346
112	Polypeptide flux through bacterial Hsp70: DnaK cooperates with trigger factor in chaperoning nascent chains. <i>Cell</i> , 1999 , 97, 755-65	56.2	344
111	Recombination of protein domains facilitated by co-translational folding in eukaryotes. <i>Nature</i> , 1997 , 388, 343-9	50.4	343
110	Protein folding in the central cavity of the GroEL-GroES chaperonin complex. <i>Nature</i> , 1996 , 379, 420-6	50.4	341
109	Widespread Proteome Remodeling and Aggregation in Aging <i>C. elegans</i> . <i>Cell</i> , 2015 , 161, 919-32	56.2	333
108	In vivo observation of polypeptide flux through the bacterial chaperonin system. <i>Cell</i> , 1997 , 90, 491-500	56.2	305
107	Molecular chaperones of the Hsp110 family act as nucleotide exchange factors of Hsp70s. <i>EMBO Journal</i> , 2006 , 25, 2519-28	13	270
106	Protein folding in the cell: the role of molecular chaperones Hsp70 and Hsp60. <i>Annual Review of Biophysics and Biomolecular Structure</i> , 1992 , 21, 293-322		269
105	Cytoplasmic protein aggregates interfere with nucleocytoplasmic transport of protein and RNA. <i>Science</i> , 2016 , 351, 173-6	33.3	267
104	PolyQ proteins interfere with nuclear degradation of cytosolic proteins by sequestering the Sis1p chaperone. <i>Cell</i> , 2013 , 154, 134-45	56.2	255
103	Protein synthesis upon acute nutrient restriction relies on proteasome function. <i>Science</i> , 2005 , 310, 1960-3	33.3	253
102	Dual function of protein confinement in chaperonin-assisted protein folding. <i>Cell</i> , 2001 , 107, 223-33	56.2	253
101	Structural features of the GroEL-GroES nano-cage required for rapid folding of encapsulated protein. <i>Cell</i> , 2006 , 125, 903-14	56.2	244
100	DnaK functions as a central hub in the <i>E. coli</i> chaperone network. <i>Cell Reports</i> , 2012 , 1, 251-64	10.6	233
99	Chaperonin TRiC promotes the assembly of polyQ expansion proteins into nontoxic oligomers. <i>Molecular Cell</i> , 2006 , 23, 887-97	17.6	225
98	Protein Misfolding Diseases. <i>Annual Review of Biochemistry</i> , 2017 , 86, 21-26	29.1	224
97	The GroEL-GroES Chaperonin Machine: A Nano-Cage for Protein Folding. <i>Trends in Biochemical Sciences</i> , 2016 , 41, 62-76	10.3	205
96	Conformation of GroEL-bound alpha-lactalbumin probed by mass spectrometry. <i>Nature</i> , 1994 , 372, 646-51	50.4	202

95	In Situ Structure of Neuronal C9orf72 Poly-GA Aggregates Reveals Proteasome Recruitment. <i>Cell</i> , 2018 , 172, 696-705.e12	56.2	196
94	Structural basis for the cooperation of Hsp70 and Hsp110 chaperones in protein folding. <i>Cell</i> , 2008 , 133, 1068-79	56.2	195
93	The native 3D organization of bacterial polysomes. <i>Cell</i> , 2009 , 136, 261-71	56.2	190
92	The nucleolus functions as a phase-separated protein quality control compartment. <i>Science</i> , 2019 , 365, 342-347	33.3	185
91	In Situ Architecture and Cellular Interactions of PolyQ Inclusions. <i>Cell</i> , 2017 , 171, 179-187.e10	56.2	177
90	Real-time observation of trigger factor function on translating ribosomes. <i>Nature</i> , 2006 , 444, 455-60	50.4	175
89	Function of trigger factor and DnaK in multidomain protein folding: increase in yield at the expense of folding speed. <i>Cell</i> , 2004 , 117, 199-209	56.2	172
88	Co-translational domain folding as the structural basis for the rapid de novo folding of firefly luciferase. <i>Nature Structural Biology</i> , 1999 , 6, 697-705		145
87	Coupled chaperone action in folding and assembly of hexadecameric Rubisco. <i>Nature</i> , 2010 , 463, 197-203	50.4	143
86	In vivo analysis of the overlapping functions of DnaK and trigger factor. <i>EMBO Reports</i> , 2004 , 5, 195-200	6.5	140
85	Monitoring protein conformation along the pathway of chaperonin-assisted folding. <i>Cell</i> , 2008 , 133, 142-53	56.2	139
84	Failure of RQC machinery causes protein aggregation and proteotoxic stress. <i>Nature</i> , 2016 , 531, 191-5	50.4	129
83	Biogenesis and Metabolic Maintenance of Rubisco. <i>Annual Review of Plant Biology</i> , 2017 , 68, 29-60	30.7	126
82	Firefly luciferase mutants as sensors of proteome stress. <i>Nature Methods</i> , 2011 , 8, 879-84	21.6	125
81	Soluble forms of polyQ-expanded huntingtin rather than large aggregates cause endoplasmic reticulum stress. <i>Nature Communications</i> , 2013 , 4, 2753	17.4	122
80	Structure and function of the AAA+ protein CbbX, a red-type Rubisco activase. <i>Nature</i> , 2011 , 479, 194-9	50.4	117
79	Soluble Oligomers of PolyQ-Expanded Huntingtin Target a Multiplicity of Key Cellular Factors. <i>Molecular Cell</i> , 2016 , 63, 951-64	17.6	115
78	Plant RuBisCo assembly in with five chloroplast chaperones including BSD2. <i>Science</i> , 2017 , 358, 1272-1278	39.3	112

77	Chaperonin-catalyzed rescue of kinetically trapped states in protein folding. <i>Cell</i> , 2010 , 142, 112-22	56.2	111
76	Structure and function of RbcX, an assembly chaperone for hexadecameric Rubisco. <i>Cell</i> , 2007 , 129, 1189-200	56.2	107
75	Interplay of acetyltransferase EP300 and the proteasome system in regulating heat shock transcription factor 1. <i>Cell</i> , 2014 , 156, 975-85	56.2	106
74	Rubisco condensate formation by CcmM in β -carboxysome biogenesis. <i>Nature</i> , 2019 , 566, 131-135	50.4	102
73	Identification of nucleotide-binding regions in the chaperonin proteins GroEL and GroES. <i>Nature</i> , 1993 , 366, 279-82	50.4	98
72	GroEL/ES chaperonin modulates the mechanism and accelerates the rate of TIM-barrel domain folding. <i>Cell</i> , 2014 , 157, 922-934	56.2	92
71	Structure of green-type Rubisco activase from tobacco. <i>Nature Structural and Molecular Biology</i> , 2011 , 18, 1366-70	17.6	89
70	Cytosolic Protein Vms1 Links Ribosome Quality Control to Mitochondrial and Cellular Homeostasis. <i>Cell</i> , 2017 , 171, 890-903.e18	56.2	86
69	Quantitative proteomics reveals that Hsp90 inhibition preferentially targets kinases and the DNA damage response. <i>Molecular and Cellular Proteomics</i> , 2012 , 11, M111.014654	7.6	77
68	Cellular Homeostasis and Aging. <i>Annual Review of Biochemistry</i> , 2016 , 85, 1-4	29.1	70
67	Role of auxiliary proteins in Rubisco biogenesis and function. <i>Nature Plants</i> , 2015 , 1, 15065	11.5	68
66	Opposing effects of folding and assembly chaperones on evolvability of Rubisco. <i>Nature Chemical Biology</i> , 2015 , 11, 148-55	11.7	67
65	Significant hydrogen exchange protection in GroEL-bound DHFR is maintained during iterative rounds of substrate cycling. <i>Protein Science</i> , 1996 , 5, 2506-13	6.3	66
64	Proteotoxic stress and ageing triggers the loss of redox homeostasis across cellular compartments. <i>EMBO Journal</i> , 2015 , 34, 2334-49	13	63
63	Structure of human heat-shock transcription factor 1 in complex with DNA. <i>Nature Structural and Molecular Biology</i> , 2016 , 23, 140-6	17.6	62
62	ER stress-induced eIF2-alpha phosphorylation underlies sensitivity of striatal neurons to pathogenic huntingtin. <i>PLoS ONE</i> , 2014 , 9, e90803	3.7	59
61	Essential role of the chaperonin folding compartment in vivo. <i>EMBO Journal</i> , 2008 , 27, 1458-68	13	58
60	Functional Modules of the Proteostasis Network. <i>Cold Spring Harbor Perspectives in Biology</i> , 2020 , 12,	10.2	57

59	Proteome-wide observation of the phenomenon of life on the edge of solubility. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 1015-1020	11.5	52
58	Crystal structure of a chaperone-bound assembly intermediate of form I Rubisco. <i>Nature Structural and Molecular Biology</i> , 2011 , 18, 875-80	17.6	50
57	Identification of GroEL as a constituent of an mRNA-protection complex in Escherichia coli. <i>Molecular Microbiology</i> , 1995 , 16, 1259-68	4.1	48
56	Action of the Hsp70 chaperone system observed with single proteins. <i>Nature Communications</i> , 2015 , 6, 6307	17.4	46
55	Structure and mechanism of the Rubisco-assembly chaperone Raf1. <i>Nature Structural and Molecular Biology</i> , 2015 , 22, 720-8	17.6	45
54	Bacterial Hsp70 resolves misfolded states and accelerates productive folding of a multi-domain protein. <i>Nature Communications</i> , 2020 , 11, 365	17.4	43
53	Active cage mechanism of chaperonin-assisted protein folding demonstrated at single-molecule level. <i>Journal of Molecular Biology</i> , 2014 , 426, 2739-54	6.5	41
52	Molecular and structural architecture of polyQ aggregates in yeast. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, E3446-E3453	11.5	40
51	Chaperonin cofactors, Cpn10 and Cpn20, of green algae and plants function as hetero-oligomeric ring complexes. <i>Journal of Biological Chemistry</i> , 2012 , 287, 20471-81	5.4	39
50	Rubisco Activases: AAA+ Chaperones Adapted to Enzyme Repair. <i>Frontiers in Molecular Biosciences</i> , 2017 , 4, 20	5.6	38
49	Overexpression of Q-rich prion-like proteins suppresses polyQ cytotoxicity and alters the polyQ interactome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 18219-24	11.5	38
48	Recent advances in understanding catalysis of protein folding by molecular chaperones. <i>FEBS Letters</i> , 2020 , 594, 2770-2781	3.8	37
47	Pathway of Actin Folding Directed by the Eukaryotic Chaperonin TRiC. <i>Cell</i> , 2018 , 174, 1507-1521.e16	56.2	36
46	Structure and function of Vms1 and Arb1 in RQC and mitochondrial proteome homeostasis. <i>Nature</i> , 2019 , 570, 538-542	50.4	35
45	Chaperone-assisted protein folding: the path to discovery from a personal perspective. <i>Nature Medicine</i> , 2011 , 17, 1206-10	50.5	34
44	GroEL Ring Separation and Exchange in the Chaperonin Reaction. <i>Cell</i> , 2018 , 172, 605-617.e11	56.2	33
43	The formation, function and regulation of amyloids: insights from structural biology. <i>Journal of Internal Medicine</i> , 2016 , 280, 164-76	10.8	32
42	Mechanism of Enzyme Repair by the AAA Chaperone Rubisco Activase. <i>Molecular Cell</i> , 2017 , 67, 744-756.e66	16.6	30

41	Degradation of potent Rubisco inhibitor by selective sugar phosphatase. <i>Nature Plants</i> , 2015 , 1, 14002	11.5	30
40	Chaperonin-Assisted Protein Folding: Relative Population of Asymmetric and Symmetric GroEL:GroES Complexes. <i>Journal of Molecular Biology</i> , 2015 , 427, 2244-55	6.5	29
39	Cell-to-cell transmission of C9orf72 poly-(Gly-Ala) triggers key features of ALS/FTD. <i>EMBO Journal</i> , 2020 , 39, e102811	13	27
38	In situ architecture of neuronal β -Synuclein inclusions. <i>Nature Communications</i> , 2021 , 12, 2110	17.4	24
37	Role of small subunit in mediating assembly of red-type form I Rubisco. <i>Journal of Biological Chemistry</i> , 2015 , 290, 1066-74	5.4	23
36	A protein quality control pathway regulated by linear ubiquitination. <i>EMBO Journal</i> , 2019 , 38,	13	22
35	Amplifiers co-translationally enhance CFTR biosynthesis via PCBP1-mediated regulation of CFTR mRNA. <i>Journal of Cystic Fibrosis</i> , 2020 , 19, 733-741	4.1	22
34	High capacity of the endoplasmic reticulum to prevent secretion and aggregation of amyloidogenic proteins. <i>EMBO Journal</i> , 2018 , 37, 337-350	13	21
33	The Hsp70 Chaperone System Stabilizes a Thermo-sensitive Subproteome in <i>E. coli</i> . <i>Cell Reports</i> , 2019 , 28, 1335-1345.e6	10.6	20
32	Sugarcoating ER Stress. <i>Cell</i> , 2014 , 156, 1125-1127	56.2	20
31	Improved recombinant expression and purification of functional plant Rubisco. <i>FEBS Letters</i> , 2019 , 593, 611-621	3.8	20
30	A comment on: The aromatic amino acid content of the bacterial chaperone protein groEL (cpn60): evidence for the presence of a single tryptophan by N.C. Price, S.M. Kelly, S. Wood and A. auf der Mauer (1991) <i>FEBS Lett.</i> 292, 9-12. <i>FEBS Letters</i> , 1993 , 320, 83-4; discussion 85	3.8	17
29	Chaperone Machineries of Rubisco - The Most Abundant Enzyme. <i>Trends in Biochemical Sciences</i> , 2020 , 45, 748-763	10.3	16
28	Role for ribosome-associated quality control in sampling proteins for MHC class I-mediated antigen presentation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 4099-4108	11.5	15
27	Role of the ribosomal quality control machinery in nucleocytoplasmic translocation of polyQ-expanded huntingtin exon-1. <i>Biochemical and Biophysical Research Communications</i> , 2017 , 493, 708-717	3.4	11
26	Structural Analysis of the Rubisco-Assembly Chaperone RbcX-II from <i>Chlamydomonas reinhardtii</i> . <i>PLoS ONE</i> , 2015 , 10, e0135448	3.7	11
25	Sis1 potentiates the stress response to protein aggregation and elevated temperature. <i>Nature Communications</i> , 2020 , 11, 6271	17.4	11
24	Dual Functions of a Rubisco Activase in Metabolic Repair and Recruitment to Carboxysomes. <i>Cell</i> , 2020 , 183, 457-473.e20	56.2	9

23	Efficient Catalysis of Protein Folding by GroEL/ES of the Obligate Chaperonin Substrate MetF. <i>Journal of Molecular Biology</i> , 2020 , 432, 2304-2318	6.5	8
22	An inventory of interactors of the human HSP60/HSP10 chaperonin in the mitochondrial matrix space. <i>Cell Stress and Chaperones</i> , 2020 , 25, 407-416	4	8
21	The extracellular chaperone Clusterin enhances Tau aggregate seeding in a cellular model. <i>Nature Communications</i> , 2021 , 12, 4863	17.4	8
20	Chaperone Function of Hgh1 in the Biogenesis of Eukaryotic Elongation Factor 2. <i>Molecular Cell</i> , 2019 , 74, 88-100.e9	17.6	7
19	Unfolding the chaperone story. <i>Molecular Biology of the Cell</i> , 2017 , 28, 2919-2923	3.5	6
18	Structure and conformational cycle of a bacteriophage-encoded chaperonin. <i>PLoS ONE</i> , 2020 , 15, e0230090	3.9	6
17	Fluc-EGFP reporter mice reveal differential alterations of neuronal proteostasis in aging and disease. <i>EMBO Journal</i> , 2021 , 40, e107260	13	5
16	The first chaperonin. <i>Nature Reviews Molecular Cell Biology</i> , 2013 , 14, 611	48.7	3
15	Scaffolding protein CcmM directs multiprotein phase separation in β -carboxysome biogenesis. <i>Nature Structural and Molecular Biology</i> , 2021 , 28, 909-922	17.6	3
14	Dual Role of a Rubisco Activase in Metabolic Repair and Carboxysome Organization		3
13	The Thermosome of <i>Thermoplasma acidophilum</i> and Its Relationship to the Eukaryotic Chaperonin TRiC. <i>FEBS Journal</i> , 2008 , 227, 848-856		2
12	The Hsc70 disaggregation machinery removes monomer units directly from β -synuclein fibril ends. <i>Nature Communications</i> , 2021 , 12, 5999	17.4	2
11	Multiple pathways of toxicity induced by dipeptide repeat aggregates and GC RNA in a cellular model. <i>ELife</i> , 2021 , 10,	8.9	2
10	Bacterial RF3 senses chaperone function in co-translational folding. <i>Molecular Cell</i> , 2021 , 81, 2914-2928.e7.6	17.6	2
9	Susan Lee Lindquist (1949-2016)-pioneer in the study of cellular protein folding and disease. <i>EMBO Journal</i> , 2016 , 35, 2626-2627	13	1
8	Gel-like inclusions of C-terminal fragments of TDP-43 sequester and inhibit proteasomes in neurons		1
7	Gel-like inclusions of C-terminal fragments of TDP-43 sequester stalled proteasomes in neurons.. <i>EMBO Reports</i> , 2022 , e53890	6.5	1
6	The chaperone Clusterin in neurodegeneration-friend or foe?. <i>BioEssays</i> , 2022 , e2100287	4.1	1

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- 4 CHAPERONE-ASSISTED PROTEIN FOLDING IN THE CYTOSOL. *FASEB Journal*, **2007**, 21, A153 0.9
- 3 Mitochondria and friends - a special issue in honor of Walter Neupert (1939-2019). *Biological Chemistry*, **2020**, 401, 643-644 4.5
- 2 Protein Folding in Vivo1-9
- 1 Chaperone-assisted protein folding in health and disease. *FASEB Journal*, **2009**, 23, 195.1 0.9