F Ulrich Hartl

List of Publications by Year
in descending order

127	30,993	71	124
papers	citations	h-index	g-index
		10986	16183

138	138	138	25621
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Molecular chaperones in cellular protein folding. Nature, 1996, 381, 571-580.	27.8	3,443
2	Molecular chaperones in protein folding and proteostasis. Nature, 2011, 475, 324-332.	27.8	2,762
3	Molecular Chaperone Functions in Protein Folding and Proteostasis. Annual Review of Biochemistry, 2013, 82, 323-355.	11.1	1,218
4	In vivo aspects of protein folding and quality control. Science, 2016, 353, aac4354.	12.6	1,100
5	Successive action of DnaK, DnaJ and GroEL along the pathway of chaperone-mediated protein folding. Nature, 1992, 356, 683-689.	27.8	992
6	Converging concepts of protein folding in vitro and in vivo. Nature Structural and Molecular Biology, 2009, 16, 574-581.	8.2	979
7	The proteostasis network and its decline in ageing. Nature Reviews Molecular Cell Biology, 2019, 20, 421-435.	37.0	860
8	Hsp90. Journal of Cell Biology, 2001, 154, 267-274.	5.2	783
9	Molecular Chaperones Hsp90 and Hsp70 Deliver Preproteins to the Mitochondrial Import Receptor Tom70. Cell, 2003, 112, 41-50.	28.9	753
10	Folding of nascent polypeptide chains in a high molecular mass assembly with molecular chaperones. Nature, 1994, 370, 111-117.	27.8	653
11	Hsp70 and Hsp40 chaperones can inhibit self-assembly of polyglutamine proteins into amyloid-like fibrils. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 7841-7846.	7.1	609
12	Amyloid-like Aggregates Sequester Numerous Metastable Proteins with Essential Cellular Functions. Cell, 2011, 144, 67-78.	28.9	604
13	Proteome-wide Analysis of Chaperonin-Dependent Protein Folding in Escherichia coli. Cell, 2005, 122, 209-220.	28.9	590
14	Pathways of cellular proteostasis in aging and disease. Journal of Cell Biology, 2018, 217, 51-63.	5.2	585
15	Proteostasis impairment in protein-misfolding and -aggregation diseases. Trends in Cell Biology, 2014, 24, 506-514.	7.9	519
16	The ATP hydrolysis-dependent reaction cycle of the Escherichia coli Hsp70 system DnaK, DnaJ, and GrpE.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 10345-10349.	7.1	497
17	Widespread Proteome Remodeling and Aggregation in Aging C.Âelegans. Cell, 2015, 161, 919-932.	28.9	478
18	Polypeptide Flux through Bacterial Hsp70. Cell, 1999, 97, 755-765.	28.9	399

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19	Geldanamycin activates a heat shock response and inhibits huntingtin aggregation in a cell culture model of Huntington's disease. Human Molecular Genetics, 2001, 10, 1307-1315.	2.9	396
20	Cellular Toxicity of Polyglutamine Expansion Proteins. Molecular Cell, 2004, 15, 95-105.	9.7	395
21	Protein Misfolding Diseases. Annual Review of Biochemistry, 2017, 86, 21-26.	11.1	395
22	Recombination of protein domains facilitated by co-translational folding in eukaryotes. Nature, 1997, 388, 343-349.	27.8	385
23	Protein folding in the central cavity of the GroELâ€“GroES chaperonin complex. Nature, 1996, 379, 420-426.	27.8	370
24	The nucleolus functions as a phase-separated protein quality control compartment. Science, 2019, 365, 342-347.	12.6	348
25	In Vivo Observation of Polypeptide Flux through the Bacterial Chaperonin System. Cell, 1997, 90, 491-500.	28.9	338
26	Cytoplasmic protein aggregates interfere with nucleocytoplasmic transport of protein and RNA. Science, 2016, 351, 173-176.	12.6	336
27	The GroELâ€“GroES Chaperonin Machine: A Nano-Cage for Protein Folding. Trends in Biochemical Sciences, 2016, 41, 62-76.	7.5	325
28	In Situ Structure of Neuronal C9orf72 Poly-GA Aggregates Reveals Proteasome Recruitment. Cell, 2018, 172, 696-705.e12.	28.9	311
29	Molecular chaperones of the Hsp110 family act as nucleotide exchange factors of Hsp70s. EMBO Journal, 2006, 25, 2519-2528.	7.8	310
30	DnaK Functions as a Central Hub in the E.Âcoli Chaperone Network. Cell Reports, 2012, 1, 251-264.	6.4	308
31	PolyQ Proteins Interfere with Nuclear Degradation of Cytosolic Proteins by Sequestering the Sis1p Chaperone. Cell, 2013, 154, 134-145.	28.9	307
32	Protein Folding in the Cell: The Role of Molecular Chaperones Hsp70 and Hsp60. Annual Review of Biophysics and Biomolecular Structure, 1992, 21, 293-322.	18.3	305
33	Protein Synthesis upon Acute Nutrient Restriction Relies on Proteasome Function. Science, 2005, 310, 1960-1963.	12.6	292
34	Dual Function of Protein Confinement in Chaperonin-Assisted Protein Folding. Cell, 2001, 107, 223-233.	28.9	278
35	In Situ Architecture and Cellular Interactions of PolyQ Inclusions. Cell, 2017, 171, 179-187.e10.	28.9	271
36	Structural Features of the GroEL-GroES Nano-Cage Required for Rapid Folding of Encapsulated Protein. Cell, 2006, 125, 903-914.	28.9	262

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37	Chaperonin TRiC Promotes the Assembly of polyQ Expansion Proteins into Nontoxic Oligomers. Molecular Cell, 2006, 23, 887-897.	9.7	259
38	The Native 3D Organization of Bacterial Polysomes. Cell, 2009, 136, 261-271.	28.9	240
39	Structural Basis for the Cooperation of Hsp70 and Hsp110 Chaperones in Protein Folding. Cell, 2008, 133, 1068-1079.	28.9	235
40	Conformation of GroEL-bound Î±-lactalbumin probed by mass spectrometry. Nature, 1994, 372, 646-651.	27.8	221
41	Function of Trigger Factor and DnaK in Multidomain Protein Folding. Cell, 2004, 117, 199-209.	28.9	206
42	Real-time observation of trigger factor function on translating ribosomes. Nature, 2006, 444, 455-460.	27.8	202
43	Firefly luciferase mutants as sensors of proteome stress. Nature Methods, 2011, 8, 879-884.	19.0	190
44	Failure of RQC machinery causes protein aggregation and proteotoxic stress. Nature, 2016, 531, 191-195.	27.8	185
45	Rubisco condensate formation by CcmM in Î²-carboxysome biogenesis. Nature, 2019, 566, 131-135.	27.8	185
46	Soluble forms of polyQ-expanded huntingtin rather than large aggregates cause endoplasmic reticulum stress. Nature Communications, 2013, 4, 2753.	12.8	182
47	Soluble Oligomers of PolyQ-Expanded Huntingtin Target a Multiplicity of Key Cellular Factors. Molecular Cell, 2016, 63, 951-964.	9.7	181
48	Biogenesis and Metabolic Maintenance of Rubisco. Annual Review of Plant Biology, 2017, 68, 29-60.	18.7	176
49	Co-translational domain folding as the structural basis for the rapid de novo folding of firefly luciferase. Nature Structural Biology, 1999, 6, 697-705.	9.7	172
50	Plant RuBisCo assembly in <i>E. coli</i> with five chloroplast chaperones including BSD2. Science, 2017, 358, 1272-1278.	12.6	172
51	Coupled chaperone action in folding and assembly of hexadecameric Rubisco. Nature, 2010, 463, 197-202.	27.8	165
52	In vivo analysis of the overlapping functions of DnaK and trigger factor. EMBO Reports, 2004, 5, 195-200.	4.5	163
53	Monitoring Protein Conformation along the Pathway of Chaperonin-Assisted Folding. Cell, 2008, 133, 142-153.	28.9	158
54	Structure and function of the AAA+ protein CbbX, a red-type Rubisco activase. Nature, 2011, 479, 194-199.	27.8	141

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55	Cytosolic Protein Vms1 Links Ribosome Quality Control to Mitochondrial and Cellular Homeostasis. Cell, 2017, 171, 890-903.e18.	28.9	140
56	Structure and Function of RbcX, anÂAssembly Chaperone for Hexadecameric Rubisco. Cell, 2007, 129, 1189-1200.	28.9	137
57	Functional Modules of the Proteostasis Network. Cold Spring Harbor Perspectives in Biology, 2020, 12, a033951.	5.5	133
58	Interplay of Acetyltransferase EP300 and the Proteasome System in Regulating Heat Shock Transcription Factor 1. Cell, 2014, 156, 975-985.	28.9	130
59	Chaperonin-Catalyzed Rescue of Kinetically Trapped States in Protein Folding. Cell, 2010, 142, 112-122.	28.9	127
60	GroEL/ES Chaperonin Modulates the Mechanism and Accelerates the Rate of TIM-Barrel Domain Folding. Cell, 2014, 157, 922-934.	28.9	116
61	Proteome-wide observation of the phenomenon of life on the edge of solubility. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 1015-1020.	7.1	115
62	Cellular Homeostasis and Aging. Annual Review of Biochemistry, 2016, 85, 1-4.	11.1	111
63	Recent advances in understanding catalysis of protein folding by molecular chaperones. FEBS Letters, 2020, 594, 2770-2781.	2.8	107
64	Identification of nucleotide-binding regions in the chaperonin proteins GroEL and GroES. Nature, 1993, 366, 279-282.	27.8	103
65	Bacterial Hsp70 resolves misfolded states and accelerates productive folding of a multi-domain protein. Nature Communications, 2020, 11, 365.	12.8	99
66	Structure of green-type Rubisco activase from tobacco. Nature Structural and Molecular Biology, 2011, 18, 1366-1370.	8.2	97
67	Quantitative Proteomics Reveals That Hsp90 Inhibition Preferentially Targets Kinases and the DNA Damage Response. Molecular and Cellular Proteomics, 2012, 11, M111.014654.	3.8	91
68	Role of auxiliary proteins in Rubisco biogenesis and function. Nature Plants, 2015, 1, 15065.	9.3	91
69	Structure of human heat-shock transcription factor 1 in complex with DNA. Nature Structural and Molecular Biology, 2016, 23, 140-146.	8.2	87
70	Opposing effects of folding and assembly chaperones on evolvability of Rubisco. Nature Chemical Biology, 2015, 11, 148-155.	8.0	86
71	ER Stress-Induced eIF2-alpha Phosphorylation Underlies Sensitivity of Striatal Neurons to Pathogenic Huntingtin. PLoS ONE, 2014, 9, e90803.	2.5	85
72	Proteotoxic stress and ageing triggers the loss of redox homeostasis across cellular compartments. EMBO Journal, 2015, 34, 2334-2349.	7.8	78

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73	Pathway of Actin Folding Directed by the Eukaryotic Chaperonin TRiC. Cell, 2018, 174, 1507-1521.e16.	28.9	75
74	Significant hydrogen exchange protection in GroELâ€bound DHFR is maintained during iterative rounds of substrate cycling. Protein Science, 1996, 5, 2506-2513.	7.6	70
75	Molecular and structural architecture of polyQ aggregates in yeast. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E3446-E3453.	7.1	68
76	In situ architecture of neuronal Î±-Synuclein inclusions. Nature Communications, 2021, 12, 2110.	12.8	66
77	Essential role of the chaperonin folding compartment in vivo. EMBO Journal, 2008, 27, 1458-68.	7.8	65
78	Structure and function of Vms1 and Arb1 in RQC and mitochondrial proteome homeostasis. Nature, 2019, 570, 538-542.	27.8	63
79	A protein quality control pathway regulated by linear ubiquitination. EMBO Journal, 2019, 38, .	7.8	63
80	Active Cage Mechanism of Chaperonin-Assisted Protein Folding Demonstrated at Single-Molecule Level. Journal of Molecular Biology, 2014, 426, 2739-2754.	4.2	61
81	Structure and mechanism of the Rubisco-assembly chaperone Raf1. Nature Structural and Molecular Biology, 2015, 22, 720-728.	8.2	61
82	Action of the Hsp70 chaperone system observed with single proteins. Nature Communications, 2015, 6, 6307.	12.8	58
83	Crystal structure of a chaperone-bound assembly intermediate of form I Rubisco. Nature Structural and Molecular Biology, 2011, 18, 875-880.	8.2	56
84	Identification of GroEL as a constituent of an mRNA-protection complex in Escherichia coli. Molecular Microbiology, 1995, 16, 1259-1268.	2.5	54
85	The formation, function and regulation of amyloids: insights from structural biology. Journal of Internal Medicine, 2016, 280, 164-176.	6.0	53
86	Overexpression of Q-rich prion-like proteins suppresses polyQ cytotoxicity and alters the polyQ interactome. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 18219-18224.	7.1	52
87	Rubisco Activases: AAA+ Chaperones Adapted to Enzyme Repair. Frontiers in Molecular Biosciences, 2017, 4, 20.	3.5	52
88	Cellâ€toâ€cell transmission of <i>C9orf72</i> polyâ€(Glyâ€Ala) triggers key features of <scp>ALS</scp> / <scp>FTD</scp>. EMBO Journal, 2020, 39, e102811.	7.8	51
89	Chaperonin Cofactors, Cpn10 and Cpn20, of Green Algae and Plants Function as Hetero-oligomeric Ring Complexes. Journal of Biological Chemistry, 2012, 287, 20471-20481.	3.4	48
90	Mechanism of Enzyme Repair by the AAA+ Chaperone Rubisco Activase. Molecular Cell, 2017, 67, 744-756.e6.	9.7	47

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91	GroEL Ring Separation and Exchange in the Chaperonin Reaction. Cell, 2018, 172, 605-617.e11.	28.9	43
92	Chaperone Machineries of Rubisco â€“ The Most Abundant Enzyme. Trends in Biochemical Sciences, 2020, 45, 748-763.	7.5	43
93	Chaperone-assisted protein folding: the path to discovery from a personal perspective. Nature Medicine, 2011, 17, 1206-1210.	30.7	41
94	Chaperonin-Assisted Protein Folding: Relative Population of Asymmetric and Symmetric GroEL:GroES Complexes. Journal of Molecular Biology, 2015, 427, 2244-2255.	4.2	40
95	Degradation of potent Rubisco inhibitor by selective sugar phosphatase. Nature Plants, 2015, 1, 14002.	9.3	38
96	The Hsp70 Chaperone System Stabilizes a Thermo-sensitive Subproteome in E.Âcoli. Cell Reports, 2019, 28, 1335-1345.e6.	6.4	37
97	The Hsc70 disaggregation machinery removes monomer units directly from Î±-synuclein fibril ends. Nature Communications, 2021, 12, 5999.	12.8	37
98	Amplifiers co-translationally enhance CFTR biosynthesis via PCBP1-mediated regulation of CFTR mRNA. Journal of Cystic Fibrosis, 2020, 19, 733-741.	0.7	35
99	The extracellular chaperone Clusterin enhances Tau aggregate seeding in a cellular model. Nature Communications, 2021, 12, 4863.	12.8	35
100	Role of Small Subunit in Mediating Assembly of Red-type Form I Rubisco. Journal of Biological Chemistry, 2015, 290, 1066-1074.	3.4	32
101	Dual Functions of a Rubisco Activase in Metabolic Repair and Recruitment to Carboxysomes. Cell, 2020, 183, 457-473.e20.	28.9	30
102	High capacity of the endoplasmic reticulum to prevent secretion and aggregation of amyloidogenic proteins. EMBO Journal, 2018, 37, 337-350.	7.8	29
103	Improved recombinant expression and purification of functional plant Rubisco. FEBS Letters, 2019, 593, 611-621.	2.8	29
104	Sis1 potentiates the stress response to protein aggregation and elevated temperature. Nature Communications, 2020, 11, 6271.	12.8	28
105	Gelâ€like inclusions of Câ€terminal fragments of TDPâ€43 sequester stalled proteasomes in neurons. EMBO Reports, 2022, 23, e53890.	4.5	28
106	Role for ribosome-associated quality control in sampling proteins for MHC class I-mediated antigen presentation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 4099-4108.	7.1	27
107	Scaffolding protein CcmM directs multiprotein phase separation in Î²-carboxysome biogenesis. Nature Structural and Molecular Biology, 2021, 28, 909-922.	8.2	24
108	Sugarcoating ER Stress. Cell, 2014, 156, 1125-1127.	28.9	22

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109	A comment on: â€˜The aromatic amino acid content of the bacterial chaperone protein groEL (cpn60): Evidence for the presence of a single tryptophanâ€™, by N.C. Price, S.M. Kelly, S. Wood and A. auf der Mauer (1991) FEBS Lett. 292, 9-12. FEBS Letters, 1993, 320, 83-84.	2.8	19
110	Chaperone Function of Hgh1 in the Biogenesis of Eukaryotic Elongation Factor 2. Molecular Cell, 2019, 74, 88-100.e9.	9.7	18
111	An inventory of interactors of the human HSP60/HSP10 chaperonin in the mitochondrial matrix space. Cell Stress and Chaperones, 2020, 25, 407-416.	2.9	18
112	The chaperone Clusterin in neurodegenerationâ^'friend or foe?. BioEssays, 2022, 44, e2100287.	2.5	18
113	Unfolding the chaperone story. Molecular Biology of the Cell, 2017, 28, 2919-2923.	2.1	17
114	Role of the ribosomal quality control machinery in nucleocytoplasmic translocation of polyQ-expanded huntingtin exon-1. Biochemical and Biophysical Research Communications, 2017, 493, 708-717.	2.1	17
115	Multiple pathways of toxicity induced by C9orf72 dipeptide repeat aggregates and G4C2 RNA in a cellular model. ELife, 2021, 10, .	6.0	17
116	Flucâ€EGFP reporter mice reveal differential alterations of neuronal proteostasis in aging and disease. EMBO Journal, 2021, 40, e107260.	7.8	17
117	Efficient Catalysis of Protein Folding by GroEL/ES of the Obligate Chaperonin Substrate MetF. Journal of Molecular Biology, 2020, 432, 2304-2318.	4.2	16
118	Structural Analysis of the Rubisco-Assembly Chaperone RbcX-II from Chlamydomonas reinhardtii. PLoS ONE, 2015, 10, e0135448.	2.5	13
119	Bacterial RF3 senses chaperone function in co-translational folding. Molecular Cell, 2021, 81, 2914-2928.e7.	9.7	9
120	Structure and conformational cycle of a bacteriophage-encoded chaperonin. PLoS ONE, 2020, 15, e0230090.	2.5	8
121	The Thermosome of <i>Thermoplasma acidophilum</i> and Its Relationship to the Eukaryotic Chaperonin TRiC. FEBS Journal, 1995, 227, 848-856.	0.2	4
122	The first chaperonin. Nature Reviews Molecular Cell Biology, 2013, 14, 611-611.	37.0	3
123	Susan Lee Lindquist (1949â€“2016)â€"pioneer in the study of cellular protein folding and disease. EMBO Journal, 2016, 35, 2626-2627.	7.8	2
124	A new way of D/Ealing with protein misfolding. Molecular Cell, 2021, 81, 4114-4115.	9.7	1
125	CHAPERONEâ€ASSISTED PROTEIN FOLDING IN THE CYTOSOL. FASEB Journal, 2007, 21, A153.	0.5	0
126	Chaperoneâ€assisted protein folding in health and disease. FASEB Journal, 2009, 23, 195.1.	0.5	0

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127	Mitochondria and friends â€“ a special issue in honor of Walter Neupert (1939â€“2019). Biological Chemistry, 2020, 401, 643-644.	2.5	0