

# Xinmiao Fu

## List of Publications by Year in descending order

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68  
papers

2,239  
citations

218677

26  
h-index

233421

45  
g-index

76  
all docs

76  
docs citations

76  
times ranked

2983  
citing authors

#	ARTICLE	IF	CITATIONS
1	The plasma membrane Na <sup>+</sup> /H <sup>+</sup> antiporter SOS1 interacts with RCD1 and functions in oxidative stress tolerance in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 18816-18821.	7.1	233
2	A genetically incorporated crosslinker reveals chaperone cooperation in acid resistance. Nature Chemical Biology, 2011, 7, 671-677.	8.0	203
3	An Enhancer Mutant of Arabidopsis salt overly sensitive 3 Mediates both Ion Homeostasis and the Oxidative Stress Response. Molecular and Cellular Biology, 2007, 27, 5214-5224.	2.3	127
4	Periplasmic Protein HdeA Exhibits Chaperone-like Activity Exclusively within Stomach pH Range by Transforming into Disordered Conformation. Journal of Biological Chemistry, 2005, 280, 27029-27034.	3.4	121
5	Chaperone-dependent mechanisms for acid resistance in enteric bacteria. Trends in Microbiology, 2012, 20, 328-335.	7.7	96
6	Chaperone-like activity of $\beta$ -casein. International Journal of Biochemistry and Cell Biology, 2005, 37, 1232-1240.	2.8	87
7	Wuhan and Hubei COVID-19 mortality analysis reveals the critical role of timely supply of medical resources. Journal of Infection, 2020, 81, 147-178.	3.3	75
8	A Dual Role for the N-terminal Region of Mycobacterium tuberculosis Hsp16.3 in Self-oligomerization and Binding Denaturing Substrate Proteins. Journal of Biological Chemistry, 2005, 280, 6337-6348.	3.4	70
9	DegP primarily functions as a protease for the biogenesis of $\beta$ -barrel outer membrane proteins in the Gram-negative bacterium <i>Escherichia coli</i> . FEBS Journal, 2014, 281, 1226-1240.	4.7	65
10	A Novel Mechanism for Small Heat Shock Proteins to Function as Molecular Chaperones. Scientific Reports, 2015, 5, 8811.	3.3	56
11	Chaperone function and mechanism of small heat-shock proteins. Acta Biochimica Et Biophysica Sinica, 2014, 46, 347-356.	2.0	51
12	A Supercomplex Spanning the Inner and Outer Membranes Mediates the Biogenesis of $\beta$ -Barrel Outer Membrane Proteins in Bacteria. Journal of Biological Chemistry, 2016, 291, 16720-16729.	3.4	51
13	In Vivo Substrate Diversity and Preference of Small Heat Shock Protein IbpB as Revealed by Using a Genetically Incorporated Photo-cross-linker. Journal of Biological Chemistry, 2013, 288, 31646-31654.	3.4	49
14	Temperature-dependent subunit exchange and chaperone-like activities of Hsp16.3, a small heat shock protein from Mycobacterium tuberculosis. Biochemical and Biophysical Research Communications, 2004, 316, 291-299.	2.1	48
15	A Small Heat Shock Protein Enables Escherichia coli To Grow at a Lethal Temperature of 50°C Conceivably by Maintaining Cell Envelope Integrity. Journal of Bacteriology, 2014, 196, 2004-2011.	2.2	43
16	Phylogenetic and Biochemical Studies Reveal a Potential Evolutionary Origin of Small Heat Shock Proteins of Animals from Bacterial Class A. Journal of Molecular Evolution, 2006, 62, 257-266.	1.8	41
17	Small heat shock protein Hsp16.3 modulates its chaperone activity by adjusting the rate of oligomeric dissociation. Biochemical and Biophysical Research Communications, 2003, 310, 412-420.	2.1	39
18	Small Heat Shock Protein IbpB Acts as a Robust Chaperone in Living Cells by Hierarchically Activating Its Multi-type Substrate-binding Residues. Journal of Biological Chemistry, 2013, 288, 11897-11906.	3.4	34

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19	Hypoionic shock treatment enables aminoglycosides antibiotics to eradicate bacterial persisters. <i>Scientific Reports</i> , 2015, 5, 14247.	3.3	34
20	Protein disulfide isomerase is a multifunctional regulator of estrogenic status in target cells. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2008, 112, 127-137.	2.5	32
21	Periplasmic proteins of <i>Escherichia coli</i> are highly resistant to aggregation: reappraisal for roles of molecular chaperones in periplasm. <i>Biochemical and Biophysical Research Communications</i> , 2004, 316, 795-801.	2.1	31
22	Identification of FkpA as a Key Quality Control Factor for the Biogenesis of Outer Membrane Proteins under Heat Shock Conditions. <i>Journal of Bacteriology</i> , 2014, 196, 672-680.	2.2	31
23	Simulating and forecasting the cumulative confirmed cases of SARS-CoV-2 in China by Boltzmann function-based regression analyses. <i>Journal of Infection</i> , 2020, 80, 578-606.	3.3	30
24	The association of small heat shock protein Hsp16.3 with the plasma membrane of <i>Mycobacterium tuberculosis</i> : Dissociation of oligomers is a prerequisite. <i>Biochemical and Biophysical Research Communications</i> , 2005, 330, 1055-1061.	2.1	29
25	Human pancreas-specific protein disulfide-isomerase (PDip) can function as a chaperone independently of its enzymatic activity by forming stable complexes with denatured substrate proteins. <i>Biochemical Journal</i> , 2010, 429, 157-169.	3.7	29
26	4,4'-Dianilino-1,1'-binaphthyl-5,5'-sulfonate, a novel molecule having chaperone-like activity. <i>Biochemical and Biophysical Research Communications</i> , 2005, 329, 1087-1093.	2.1	28
27	Rapid Freezing Enables Aminoglycosides To Eradicate Bacterial Persisters via Enhancing Mechanosensitive Channel MscL-Mediated Antibiotic Uptake. <i>MBio</i> , 2020, 11, .	4.1	28
28	Disulfide bonds convert small heat shock protein Hsp16.3 from a chaperone to a non-chaperone: implications for the evolution of cysteine in molecular chaperones. <i>Biochemical and Biophysical Research Communications</i> , 2003, 308, 627-635.	2.1	26
29	Human pancreas-specific protein disulfide isomerase homolog (PDip) is an intracellular estrogen-binding protein that modulates estrogen levels and actions in target cells. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2009, 115, 20-29.	2.5	25
30	5-Methylindole Potentiates Aminoglycoside Against Gram-Positive Bacteria Including <i>Staphylococcus aureus</i> Persists Under Hypoionic Conditions. <i>Frontiers in Cellular and Infection Microbiology</i> , 2020, 10, 84.	3.9	25
31	Forecasting the cumulative number of COVID-19 deaths in China: a Boltzmann function-based modeling study. <i>Infection Control and Hospital Epidemiology</i> , 2020, 41, 841-843.	1.8	25
32	Human pancreas-specific protein disulfide isomerase homolog (PDip) is redox-regulated through formation of an inter-subunit disulfide bond. <i>Archives of Biochemistry and Biophysics</i> , 2009, 485, 1-9.	3.0	22
33	An oxidative fluctuation hypothesis of aging generated by imaging H <sub>2</sub> O <sub>2</sub> levels in live <i>Caenorhabditis elegans</i> with altered lifespans. <i>Biochemical and Biophysical Research Communications</i> , 2015, 458, 896-900.	2.1	22
34	DegP functions as a critical protease for bacterial acid resistance. <i>FEBS Journal</i> , 2018, 285, 3525-3538.	4.7	21
35	<i>Mycobacterium tuberculosis</i> Hsp16.3 Nonamers are Assembled and Re-assembled via Trimer and Hexamer Intermediates. <i>Journal of Molecular Biology</i> , 2003, 326, 1013-1023.	4.2	19
36	Characterization of the Estradiol-Binding Site Structure of Human Protein Disulfide Isomerase (PDI). <i>PLoS ONE</i> , 2011, 6, e27185.	2.5	18

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37	Hypoionic Shock Facilitates Aminoglycoside Killing of Both Nutrient Shift- and Starvation-Induced Bacterial Persister Cells by Rapidly Enhancing Aminoglycoside Uptake. <i>Frontiers in Microbiology</i> , 2019, 10, 2028.	3.5	17
38	Characterization of the Estradiol-Binding Site Structure of Human Pancreas-Specific Protein Disulfide Isomerase: Indispensable Role of the Hydrogen Bond between His278 and the Estradiol 3-Hydroxyl Group. <i>Biochemistry</i> , 2011, 50, 106-115.	2.5	16
39	Identification of bis-ANS binding sites in <i>Mycobacterium tuberculosis</i> small heat shock protein Hsp16.3: Evidences for a two-step substrate-binding mechanism. <i>Biochemical and Biophysical Research Communications</i> , 2006, 349, 167-171.	2.1	15
40	Pancreas-specific protein disulfide isomerase has a cell type-specific expression in various mouse tissues and is absent in human pancreatic adenocarcinoma cells: implications for its functions. <i>Journal of Molecular Histology</i> , 2009, 40, 189-199.	2.2	15
41	Large expert-curated database for benchmarking document similarity detection in biomedical literature search. <i>Database: the Journal of Biological Databases and Curation</i> , 2019, 2019, .	3.0	15
42	Identification of a highly conserved pro-gly doublet in non-animal small heat shock proteins and characterization of its structural and functional roles in <i>Mycobacterium tuberculosis</i> Hsp 16.3. <i>Biochemistry (Moscow)</i> , 2006, 71, S83-S90.	1.5	13
43	Small heat shock protein AgsA forms dynamic fibrils. <i>FEBS Letters</i> , 2011, 585, 3396-3402.	2.8	12
44	Biogenesis, quality control, and structural dynamics of proteins as explored in living cells via site-directed photocrosslinking. <i>Protein Science</i> , 2019, 28, 1194-1209.	7.6	12
45	Subunit interactions as mediated by non-interface-residues in living cells for multiple homo-oligomeric proteins. <i>Biochemical and Biophysical Research Communications</i> , 2019, 512, 100-105.	2.1	11
46	Stepwise disassembly and apparent nonstepwise reassembly for the oligomeric RbsD protein. <i>Protein Science</i> , 2006, 15, 1441-1448.	7.6	10
47	A high-throughput genetically directed protein crosslinking analysis reveals the physiological relevance of the ATP synthase "inserted" state. <i>FEBS Journal</i> , 2021, 288, 2989-3009.	4.7	10
48	n-Butanol Potentiates Subinhibitory Aminoglycosides against Bacterial Persisters and Multidrug-Resistant MRSA by Rapidly Enhancing Antibiotic Uptake. <i>ACS Infectious Diseases</i> , 2022, 8, 373-386.	3.8	10
49	The reassembling process of the nonameric <i>Mycobacterium tuberculosis</i> small heat-shock protein Hsp16.3 occurs via a stepwise mechanism. <i>Biochemical Journal</i> , 2002, 363, 329-334.	3.7	9
50	Multilevel structural characteristics for the natural substrate proteins of bacterial small heat shock proteins. <i>Protein Science</i> , 2014, 23, 229-237.	7.6	9
51	Negligible risk of the COVID-19 resurgence caused by work resuming in China (outside Hubei): a statistical probability study. <i>Journal of Public Health</i> , 2020, 42, 651-652.	1.8	9
52	The reassembling process of the nonameric <i>Mycobacterium tuberculosis</i> small heat-shock protein Hsp16.3 occurs via a stepwise mechanism. <i>Biochemical Journal</i> , 2002, 363, 329.	3.7	8
53	Chaperone-Like Activity of <i>Mycobacterium tuberculosis</i> Hsp16.3 Does Not Require Its Intact (Native) Structures. <i>Biochemistry (Moscow)</i> , 2005, 70, 913-919.	1.5	8
54	Chemical synthesis and biochemical characterization of a biotinylated derivative of 17 $\beta$ -estradiol with a long side chain covalently attached to its C-7 $\alpha$ position. <i>Steroids</i> , 2008, 73, 1252-1261.	1.8	8

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55	Inter-subunit Cross-linking Suppressed the Dynamic Oligomeric Dissociation of Mycobacterium tuberculosis Hsp16.3 and Reduced Its Chaperone Activity. <i>Biochemistry (Moscow)</i> , 2004, 69, 552-557.	1.5	7
56	Degp degrades a wide range of substrate proteins in Escherichia coli under stress conditions. <i>Biochemical Journal</i> , 2019, 476, 3549-3564.	3.7	7
57	Mechanosensitive Channels Mediate Hypoionic Shock-Induced Aminoglycoside Potentiation against Bacterial Persisters by Enhancing Antibiotic Uptake. <i>Antimicrobial Agents and Chemotherapy</i> , 2022, 66, AAC0112521.	3.2	6
58	Insights into How Small Heat Shock Proteins Bind a Great Diversity of Substrate Proteins: A Super-Transformer Model. <i>Heat Shock Proteins</i> , 2015, , 101-117.	0.2	5
59	Global COVID-19 fatality analysis reveals Hubei-like countries potentially with severe outbreaks. <i>Journal of Infection</i> , 2020, 81, e87-e88.	3.3	5
60	Gentamicin Combined With Hypoionic Shock Rapidly Eradicates Aquaculture Bacteria in vitro and in vivo. <i>Frontiers in Microbiology</i> , 2021, 12, 641846.	3.5	5
61	The <sc><i>Caenorhabditis elegans</i></sc> 12&#kDa</sc> small heat shock proteins with little in vitro chaperone activity play crucial roles for its dauer formation, longevity, and reproduction. <i>Protein Science</i> , 2021, 30, 2170-2182.	7.6	5
62	Development of a general logistic model for disease risk prediction using multiple SNPs. <i>FEBS Open Bio</i> , 2019, 9, 2006-2012.	2.3	3
63	Both PDI and PDip can attack the native disulfide bonds in thermally-unfolded RNase and form stable disulfide-linked complexes. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2011, 1814, 487-495.	2.3	2
64	PDip is a major intracellular oestrogen-storage protein that modulates tissue levels of oestrogen in the pancreas. <i>Biochemical Journal</i> , 2012, 447, 115-123.	3.7	2
65	Differential degradation for small heat shock proteins IbpA and IbpB is synchronized in Escherichia coli; Implications for their functional cooperation in substrate refolding. <i>Biochemical and Biophysical Research Communications</i> , 2014, 452, 402-407.	2.1	2
66	A reciprocating motion-driven rotation mechanism for the ATP synthase. <i>Science China Life Sciences</i> , 2016, 59, 44-48.	4.9	2
67	Abiotic Regulation: A Common Way for Proteins to Modulate their Functions. <i>Current Protein and Peptide Science</i> , 2015, 16, 188-195.	1.4	2
68	Biogenesis of Secretory Proteins in Eukaryotic and Prokaryotic Cells. , 2023, , 689-702.		2