Matthew D Shoulders

List of Publications by Year
in descending order

39 papers	4,594 citations	331259 21 h-index	301761 39 g-index
43 all docs	43 docs citations	43 times ranked	7094 citing authors

#	Article	IF	Citations
1	The endoplasmic reticulum proteostasis network profoundly shapes the protein sequence space accessible to HIV envelope. PLoS Biology, 2022, 20, e3001569.	2.6	7
2	Collagen misfolding mutations: the contribution of the unfolded protein response to the molecular pathology. Connective Tissue Research, 2022, 63, 210-227.	1.1	7
3	Thermal Proteome Profiling Reveals the O-GlcNAc-Dependent Meltome. Journal of the American Chemical Society, 2022, 144, 3833-3842.	6.6	19
4	In vivo hypermutation and continuous evolution. Nature Reviews Methods Primers, 2022, 2, .	11.8	39
5	Collagenâ€™s enigmatic, highly conserved <i>N</i> -glycan has an essential proteostatic function. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	11
6	Directed evolution in mammalian cells. Nature Methods, 2021, 18, 346-357.	9.0	43
7	CRISPR/Cas9 editing to generate a heterozygous COL2A1 p.G1170S human chondrodysplasia iPSC line, MCRIi019-A-2, in a control iPSC line, MCRIi019-A. Stem Cell Research, 2020, 48, 101962.	0.3	7
8	Elucidation of proteostasis defects caused by osteogenesis imperfecta mutations in the collagen-Î±2(I) C-propeptide domain. Journal of Biological Chemistry, 2020, 295, 9959-9973.	1.6	8
9	HSF1 Activation Can Restrict HIV Replication. ACS Infectious Diseases, 2020, 6, 1659-1666.	1.8	6
10	Chemical Biology Framework to Illuminate Proteostasis. Annual Review of Biochemistry, 2020, 89, 529-555.	5.0	30
11	Genetic Engineering by DNA Recombineering. Current Protocols in Chemical Biology, 2019, 11, e70.	1.7	2
12	Targeting defective proteostasis in the collagenopathies. Current Opinion in Chemical Biology, 2019, 50, 80-88.	2.8	25
13	Mass Spectrometry-Based Proteomics to Define Intracellular Collagen Interactomes. Methods in Molecular Biology, 2019, 1944, 95-114.	0.4	12
14	SUMOylation and the HSF1-Regulated Chaperone Network Converge to Promote Proteostasis in Response to Heat Shock. Cell Reports, 2019, 26, 236-249.e4.	2.9	44
15	Characterization of an A-Site Selective Protein Disulfide Isomerase A1 Inhibitor. Biochemistry, 2018, 57, 2035-2043.	1.2	38
16	A High-Throughput Assay for Collagen Secretion Suggests an Unanticipated Role for Hsp90 in Collagen Production. Biochemistry, 2018, 57, 2814-2827.	1.2	17
17	A Method for Selective Depletion of Zn(II) Ions from Complex Biological Media and Evaluation of Cellular Consequences of Zn(II) Deficiency. Journal of the American Chemical Society, 2018, 140, 2413-2416.	6.6	19
18	A Sensitive, Nonradioactive Assay for Zn(II) Uptake into Metazoan Cells. Biochemistry, 2018, 57, 6807-6815.	1.2	4

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19	An Adaptable Platform for Directed Evolution in Human Cells. Journal of the American Chemical Society, 2018, 140, 18093-18103.	6.6	52
20	XBP1s activation can globally remodel N-glycan structure distribution patterns. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E10089-E10098.	3.3	41
21	A cysteine-based molecular code informs collagen C-propeptide assembly. Nature Communications, 2018, 9, 4206.	5.8	35
22	Destabilized adaptive influenza variants critical for innate immune system escape are potentiated by host chaperones. PLoS Biology, 2018, 16, e3000008.	2.6	28
23	A Processive Protein Chimera Introduces Mutations across Defined DNA Regions <i>In Vivo</i>. Journal of the American Chemical Society, 2018, 140, 11560-11564.	6.6	75
24	Enhanced ER proteostasis and temperature differentially impact the mutational tolerance of influenza hemagglutinin. ELife, 2018, 7, .	2.8	25
25	Adapting Secretory Proteostasis and Function Through the Unfolded Protein Response. Current Topics in Microbiology and Immunology, 2017, 414, 1-25.	0.7	19
26	Multidimensional chemical control of CRISPRâ€“Cas9. Nature Chemical Biology, 2017, 13, 9-11.	3.9	146
27	Host proteostasis modulates influenza evolution. ELife, 2017, 6, .	2.8	34
28	The Path of Least Resistance: Mechanisms to Reduce Influenza's Sensitivity to Oseltamivir. Journal of Molecular Biology, 2016, 428, 533-537.	2.0	1
29	Mapping and Exploring the Collagen-I Proteostasis Network. ACS Chemical Biology, 2016, 11, 1408-1421.	1.6	44
30	Transportable, Chemical Genetic Methodology for the Small Molecule-Mediated Inhibition of Heat Shock Factor 1. ACS Chemical Biology, 2016, 11, 200-210.	1.6	28
31	XBP1s Links the Unfolded Protein Response to the Molecular Architecture of Mature N-Glycans. Chemistry and Biology, 2015, 22, 1301-1312.	6.2	35
32	Unfolded protein responseâ€induced <scp>ER</scp> dj3 secretion links <scp>ER</scp> stress to extracellular proteostasis. EMBO Journal, 2015, 34, 4-19.	3.5	110
33	ATF6 Activation Reduces the Secretion and Extracellular Aggregation of Destabilized Variants of an Amyloidogenic Protein. Chemistry and Biology, 2014, 21, 1564-1574.	6.2	63
34	Characterizing the Altered Cellular Proteome Induced by the Stress-Independent Activation of Heat Shock Factor 1. ACS Chemical Biology, 2014, 9, 1273-1283.	1.6	51
35	Stress-Independent Activation of XBP1s and/or ATF6 Reveals Three Functionally Diverse ER Proteostasis Environments. Cell Reports, 2013, 3, 1279-1292.	2.9	436
36	Broadly Applicable Methodology for the Rapid and Dosable Small Molecule-Mediated Regulation of Transcription Factors in Human Cells. Journal of the American Chemical Society, 2013, 135, 8129-8132.	6.6	42

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37	Stereoelectronic and steric effects in side chains preorganize a protein main chain. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 559-564.	3.3	154
38	Collagen Structure and Stability. Annual Review of Biochemistry, 2009, 78, 929-958.	5.0	2,705
39	Reciprocity of Steric and Stereoelectronic Effects in the Collagen Triple Helix. Journal of the American Chemical Society, 2006, 128, 8112-8113.	6.6	131