R Luke Wiseman

List of Publications by Year
in descending order

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84 papers	7,249 citations	70961 41 h-index	62479 80 g-index
107 all docs	107 docs citations	107 times ranked	7943 citing authors

#	Article	IF	Citations
1	Tafamidis, a potent and selective transthyretin kinetic stabilizer that inhibits the amyloid cascade. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9629-9634.	3.3	582
2	Prevention of Transthyretin Amyloid Disease by Changing Protein Misfolding Energetics. Science, 2003, 299, 713-716.	6.0	491
3	Stress-Independent Activation of XBP1s and/or ATF6 Reveals Three Functionally Diverse ER Proteostasis Environments. Cell Reports, 2013, 3, 1279-1292.	2.9	436
4	The Biological and Chemical Basis for Tissue-Selective Amyloid Disease. Cell, 2005, 121, 73-85.	13.5	427
5	Targeting protein aggregation for the treatment of degenerative diseases. Nature Reviews Drug Discovery, 2015, 14, 759-780.	21.5	338
6	Native State Kinetic Stabilization as a Strategy To Ameliorate Protein Misfolding Diseases:Â A Focus on the Transthyretin Amyloidoses. Accounts of Chemical Research, 2005, 38, 911-921.	7.6	261
7	Benzoxazoles as Transthyretin Amyloid Fibril Inhibitors: Synthesis, Evaluation, and Mechanism of Action. Angewandte Chemie - International Edition, 2003, 42, 2758-2761.	7.2	204
8	Small molecule proteostasis regulators that reprogram the ER to reduce extracellular protein aggregation. ELife, 2016, 5, .	2.8	185
9	Structure of the mitochondrial inner membrane AAA+ protease YME1 gives insight into substrate processing. Science, 2017, 358, .	6.0	179
10	Flavonol Activation Defines an Unanticipated Ligand-Binding Site in the Kinase-RNase Domain of IRE1. Molecular Cell, 2010, 38, 291-304.	4.5	173
11	The PERK Arm of the Unfolded Protein Response Regulates Mitochondrial Morphology during Acute Endoplasmic Reticulum Stress. Cell Reports, 2018, 22, 2827-2836.	2.9	172
12	Non-canonical function of IRE1Î± determines mitochondria-associated endoplasmic reticulum composition to control calcium transfer and bioenergetics. Nature Cell Biology, 2019, 21, 755-767.	4.6	168
13	Stress-responsive regulation of mitochondria through the ER unfolded protein response. Trends in Endocrinology and Metabolism, 2014, 25, 528-537.	3.1	162
14	The Pathway by Which the Tetrameric Protein Transthyretin Dissociatesâ€. Biochemistry, 2005, 44, 15525-15533.	1.2	149
15	An Adaptable Standard for Protein Export from the Endoplasmic Reticulum. Cell, 2007, 131, 809-821.	13.5	147
16	Stress-Regulated Translational Attenuation Adapts Mitochondrial Protein Import through Tim17A Degradation. Cell Metabolism, 2013, 18, 908-919.	7.2	142
17	Pharmacologic ATF6 activation confers global protection in widespread disease models by reprograming cellular proteostasis. Nature Communications, 2019, 10, 187.	5.8	140
18	Reciprocal Degradation of YME1L and OMA1 Adapts Mitochondrial Proteolytic Activity during Stress. Cell Reports, 2016, 14, 2041-2049.	2.9	132

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19	D18G Transthyretin Is Monomeric, Aggregation Prone, and Not Detectable in Plasma and Cerebrospinal Fluid:Â A Prescription for Central Nervous System Amyloidosis?â€. Biochemistry, 2003, 42, 6656-6663.	1.2	117
20	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
21	Reshaping endoplasmic reticulum quality control through the unfolded protein response. Molecular Cell, 2022, 82, 1477-1491.	4.5	105
22	Kinetic Stabilization of an Oligomeric Protein by a Single Ligand Binding Event. Journal of the American Chemical Society, 2005, 127, 5540-5551.	6.6	95
23	Pharmacologic IRE1/XBP1s activation confers targeted ER proteostasis reprogramming. Nature Chemical Biology, 2020, 16, 1052-1061.	3.9	90
24	A Fluorogenic Aryl Fluorosulfate for Intraorganellar Transthyretin Imaging in Living Cells and in Caenorhabditis elegans. Journal of the American Chemical Society, 2015, 137, 7404-7414.	6.6	86
25	Pharmacologic ATF6 activating compounds are metabolically activated to selectively modify endoplasmic reticulum proteins. ELife, 2018, 7, .	2.8	85
26	Unfolded protein response activation reduces secretion and extracellular aggregation of amyloidogenic immunoglobulin light chain. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13046-13051.	3.3	83
27	Chaperones in Neurodegeneration. Journal of Neuroscience, 2015, 35, 13853-13859.	1.7	81
28	Kinetic Stabilization of the Native State by Protein Engineering: Implications for Inhibition of Transthyretin Amyloidogenesis. Journal of Molecular Biology, 2005, 347, 841-854.	2.0	73
29	<scp>YME</scp> 1L degradation reduces mitochondrial proteolytic capacity during oxidative stress. EMBO Reports, 2015, 16, 97-106.	2.0	70
30	Regulating Secretory Proteostasis through the Unfolded Protein Response: From Function to Therapy. Trends in Cell Biology, 2017, 27, 722-737.	3.6	70
31	Small molecule strategies to harness the unfolded protein response: where do we go from here?. Journal of Biological Chemistry, 2020, 295, 15692-15711.	1.6	70
32	Proteostasis and Beyond: ATF6 in Ischemic Disease. Trends in Molecular Medicine, 2019, 25, 538-550.	3.5	66
33	A new pharmacology â€“ drugging stressed folding pathways. Trends in Molecular Medicine, 2005, 11, 347-350.	3.5	65
34	Targeting unfolded protein response signaling pathways to ameliorate protein misfolding diseases. Current Opinion in Chemical Biology, 2013, 17, 346-352.	2.8	64
35	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
36	Quantification of Transthyretin Kinetic Stability in Human Plasma Using Subunit Exchange. Biochemistry, 2014, 53, 1993-2006.	1.2	62

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37	Kinetic Stabilization of an Oligomeric Protein under Physiological Conditions Demonstrated by a Lack of Subunit Exchange:â€‰ Implications for Transthyretin Amyloidosis. Biochemistry, 2005, 44, 9265-9274.	1.2	58
38	Unique Structural Features of the Mitochondrial AAA+ Protease AFG3L2 Reveal the Molecular Basis for Activity in Health and Disease. Molecular Cell, 2019, 75, 1073-1085.e6.	4.5	58
39	Structural basis for distinct operational modes and protease activation in AAA+ protease Lon. Science Advances, 2020, 6, eaba8404.	4.7	55
40	The unfolded protein response regulator ATF6 promotes mesodermal differentiation. Science Signaling, 2018, 11, .	1.6	54
41	Partitioning Conformational Intermediates between Competing Refolding and Aggregation Pathways:Â Insights into Transthyretin Amyloid Diseaseâ€. Biochemistry, 2005, 44, 16612-16623.	1.2	53
42	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
43	Deconvoluting Stress-Responsive Proteostasis Signaling Pathways for Pharmacologic Activation Using Targeted RNA Sequencing. ACS Chemical Biology, 2019, 14, 784-795.	1.6	45
44	Insulin-like growth factor 2 (IGF2) protects against Huntingtonâ€™s disease through the extracellular disposal of protein aggregates. Acta Neuropathologica, 2020, 140, 737-764.	3.9	43
45	Phosphatase Inhibition Delays Translational Recovery. Science, 2011, 332, 44-45.	6.0	42
46	Induced Pluripotent Stem Cell Modeling of Multisystemic, Hereditary Transthyretin Amyloidosis. Stem Cell Reports, 2013, 1, 451-463.	2.3	42
47	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
48	SnapShot: The Unfolded Protein Response. Cell, 2010, 140, 590-590.e2.	13.5	41
49	Structures of the human LONP1 protease reveal regulatory steps involved in protease activation. Nature Communications, 2021, 12, 3239.	5.8	40
50	Title is missing!. Angewandte Chemie, 2003, 115, 2864-2867.	1.6	38
51	Thioredoxin-related Protein 32 Is an Arsenite-regulated Thiol Reductase of the Proteasome 19 S Particle. Journal of Biological Chemistry, 2009, 284, 15233-15245.	1.6	38
52	The endoplasmic reticulum <scp>HSP</scp>40 coâ€chaperone <scp>ER</scp>dj3/<scp>DNAJB</scp>11 assembles and functions as a tetramer. EMBO Journal, 2017, 36, 2296-2309.	3.5	38
53	Characterization of an A-Site Selective Protein Disulfide Isomerase A1 Inhibitor. Biochemistry, 2018, 57, 2035-2043.	1.2	38
54	Enhanced Aromatic Sequons Increase Oligosaccharyltransferase Glycosylation Efficiency and Glycan Homogeneity. Chemistry and Biology, 2015, 22, 1052-1062.	6.2	36

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55	ATF6 is essential for human cone photoreceptor development. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	31
56	Pharmacologic IRE1/XBP1s activation promotes systemic adaptive remodeling in obesity. Nature Communications, 2022, 13, 608.	5.8	31
57	Endoplasmic Reticulum Proteostasis Influences the Oligomeric State of an Amyloidogenic Protein Secreted from Mammalian Cells. Cell Chemical Biology, 2016, 23, 1282-1293.	2.5	29
58	Defining the Functional Targets of Capâ€˜nâ€™collar Transcription Factors NRF1, NRF2, and NRF3. Antioxidants, 2020, 9, 1025.	2.2	29
59	Protein energetics in maturation of the early secretory pathway. Current Opinion in Cell Biology, 2007, 19, 359-367.	2.6	27
60	Quantitative Interactome Proteomics Reveals a Molecular Basis for ATF6-Dependent Regulation of a Destabilized Amyloidogenic Protein. Cell Chemical Biology, 2019, 26, 913-925.e4.	2.5	26
61	Enforced dimerization between XBP1s and ATF6f enhances the protective effects of the UPR in models of neurodegeneration. Molecular Therapy, 2021, 29, 1862-1882.	3.7	25
62	R104H may suppress transthyretin amyloidogenesis by thermodynamic stabilization, but not by the kinetic mechanism characterizing T119 interallelic trans-suppression. Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis, 2006, 13, 57-66.	1.4	22
63	Endoplasmic reticulum quality control and systemic amyloid disease: Impacting protein stability from the inside out. IUBMB Life, 2015, 67, 404-413.	1.5	22
64	Regulating extracellular proteostasis capacity through the unfolded protein response. Prion, 2015, 9, 10-21.	0.9	22
65	PERK Signaling Regulates Extracellular Proteostasis of an Amyloidogenic Protein During Endoplasmic Reticulum Stress. Scientific Reports, 2019, 9, 410.	1.6	20
66	Stress-responsive regulation of extracellular proteostasis. Journal of Cell Biology, 2022, 221, .	2.3	20
67	Pharmacologic targeting of plasma cell endoplasmic reticulum proteostasis to reduce amyloidogenic light chain secretion. Blood Advances, 2021, 5, 1037-1049.	2.5	19
68	Coordinating Mitochondrial Biology Through the Stress-Responsive Regulation of Mitochondrial Proteases. International Review of Cell and Molecular Biology, 2018, 340, 79-128.	1.6	17
69	Metabolically Activated Proteostasis Regulators Protect against Glutamate Toxicity by Activating NRF2. ACS Chemical Biology, 2021, 16, 2852-2863.	1.6	16
70	Pharmacological activation of ATF6 remodels the proteostasis network to rescue pathogenic GABAA receptors. Cell and Bioscience, 2022, 12, 48.	2.1	14
71	A library of ATTR amyloidosis patient-specific induced pluripotent stem cells for disease modelling and in vitro testing of novel therapeutics. Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis, 2018, 25, 148-155.	1.4	13
72	Multiexon deletion alleles of ATF6 linked to achromatopsia. JCI Insight, 2020, 5, .	2.3	13

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73	Modulating protein quality control. ELife, 2016, 5, .	2.8	12
74	Expression of Amyloidogenic Transthyretin Drives Hepatic Proteostasis Remodeling in an Induced Pluripotent Stem Cell Model of Systemic AmyloidÂDisease. Stem Cell Reports, 2020, 15, 515-528.	2.3	12
75	Starting at the beginning: endoplasmic reticulum proteostasis and systemic amyloid disease. Biochemical Journal, 2020, 477, 1721-1732.	1.7	7
76	Cryo-EM structure of hexameric yeast Lon protease (PIM1) highlights the importance of conserved structural elements. Journal of Biological Chemistry, 2022, 298, 101694.	1.6	6
77	ATF6 Activation Reduces Amyloidogenic Transthyretin Secretion through Increased Interactions with Endoplasmic Reticulum Proteostasis Factors. Cells, 2022, 11, 1661.	1.8	4
78	Evolving Protein Stability through Genetic Selection. Molecular Cell, 2009, 36, 730-731.	4.5	2
79	Chemically Targeting the Emergent Properties of a Chaperone Complex. Chemistry and Biology, 2011, 18, 144-145.	6.2	1
80	The 2021 FASEB Virtual Catalyst Conference on Extracellular and Organismal Proteostasis in Health and Disease, February 3â€4, 2021. FASEB Journal, 2021, 35, e21631.	0.2	1
81	Proteostasis Modulation Prevents Photoreceptor Pathology in Retinal Organoids. SSRN Electronic Journal, 0, , .	0.4	1
82	Lining up for quality control: linear ubiquitin and proteotoxicity. EMBO Journal, 2019, 38, .	3.5	0
83	Premature Activation of Immune Transcription Programs in Autoimmune-Predisposed Mouse Embryonic Stem Cells and Blastocysts. International Journal of Molecular Sciences, 2020, 21, 5743.	1.8	0
84	The Unfolded Protein Response Regulator, ATF6, Promotes Mesodermal Differentiation. FASEB Journal, 2018, 32, 542.23.	0.2	0