Peter Walter

List of Publications by Year
in descending order

133 papers	70,939 citations	13865 67 h-index	12946 131 g-index
179 all docs	179 docs citations	179 times ranked	93746 citing authors

#	Article	IF	Citations
1	Intercepting IRE1 kinaseâ€FMRP signaling prevents atherosclerosis progression. EMBO Molecular Medicine, 2022, 14, e15344.	6.9	10
2	A point mutation in the nucleotide exchange factor eIF2B constitutively activates the integrated stress response by allosteric modulation. ELife, 2022, 11, .	6.0	5
3	Conserved structural elements specialize ATAD1 as a membrane protein extraction machine. ELife, 2022, 11, .	6.0	6
4	Systematic characterization of gene function in the photosynthetic alga Chlamydomonas reinhardtii. Nature Genetics, 2022, 54, 705-714.	21.4	42
5	eIF2B conformation and assembly state regulate the integrated stress response. ELife, 2021, 10, .	6.0	46
6	Protomer alignment modulates specificity of RNA substrate recognition by Ire1. ELife, 2021, 10, .	6.0	7
7	Cristae-dependent quality control of the mitochondrial genome. Science Advances, 2021, 7, eabi8886.	10.3	23
8	The stress-sensing domain of activated IRE1Î± forms helical filaments in narrow ER membrane tubes. Science, 2021, 374, 52-57.	12.6	24
9	Viral evasion of the integrated stress response through antagonism of eIF2-P binding to eIF2B. Nature Communications, 2021, 12, 7103.	12.8	14
10	Decoding non-canonical mRNA decay by the endoplasmic-reticulum stress sensor IRE1Î±. Nature Communications, 2021, 12, 7310.	12.8	24
11	Mrx6 regulates mitochondrial DNA copy number inSaccharomyces cerevisiaeby engaging the evolutionarily conserved Lon protease Pim1. Molecular Biology of the Cell, 2020, 31, 527-545.	2.1	22
12	Structural insights into ISRIB, a memoryâ€enhancing inhibitor of the integrated stress response. FEBS Journal, 2020, 287, 239-245.	4.7	33
13	Integrated Stress Response Inhibitor Reverses Sex-Dependent Behavioral and Cell-Specific Deficits after Mild Repetitive Head Trauma. Journal of Neurotrauma, 2020, 37, 1370-1380.	3.4	29
14	Inhibition of the integrated stress response by viral proteins that block p-eIF2â€“eIF2B association. Nature Microbiology, 2020, 5, 1361-1373.	13.3	39
15	Coexpressed subunits of dual genetic origin define a conserved supercomplex mediating essential protein import into chloroplasts. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 32739-32749.	7.1	30
16	Msp1/ATAD1 in Protein Quality Control and Regulation of Synaptic Activities. Annual Review of Cell and Developmental Biology, 2020, 36, 141-164.	9.4	22
17	An ultrapotent synthetic nanobody neutralizes SARS-CoV-2 by stabilizing inactive Spike. Science, 2020, 370, 1473-1479.	12.6	336
18	Genotoxic stress triggers the activation of IRE1Î±-dependent RNA decay to modulate the DNA damage response. Nature Communications, 2020, 11, 2401.	12.8	62

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19	Quantitative microscopy reveals dynamics and fate of clustered IRE1Î±. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 1533-1542.	7.1	43
20	Ribosome-associated vesicles: A dynamic subcompartment of the endoplasmic reticulum in secretory cells. Science Advances, 2020, 6, eaay9572.	10.3	42
21	The integrated stress response: From mechanism to disease. Science, 2020, 368, .	12.6	715
22	IRE1Î± Disruption in Triple-Negative Breast Cancer Cooperates with Antiangiogenic Therapy by Reversing ER Stress Adaptation and Remodeling the Tumor Microenvironment. Cancer Research, 2020, 80, 2368-2379.	0.9	44
23	Misfolded proteins bind and activate death receptor 5 to trigger apoptosis during unresolved endoplasmic reticulum stress. ELife, 2020, 9, .	6.0	70
24	Structure of the AAA protein Msp1 reveals mechanism of mislocalized membrane protein extraction. ELife, 2020, 9, .	6.0	38
25	Small molecule cognitive enhancer reverses age-related memory decline in mice. ELife, 2020, 9, .	6.0	84
26	The Unfolded Protein Response: Detecting and Responding to Fluctuations in the Protein-Folding Capacity of the Endoplasmic Reticulum. Cold Spring Harbor Perspectives in Biology, 2019, 11, a033886.	5.5	202
27	Small molecule ISRIB suppresses the integrated stress response within a defined window of activation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2097-2102.	7.1	163
28	eIF2B-catalyzed nucleotide exchange and phosphoregulation by the integrated stress response. Science, 2019, 364, 491-495.	12.6	96
29	Disruption of IRE1Î± through its kinase domain attenuates multiple myeloma. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16420-16429.	7.1	78
30	Activation of the ISR mediates the behavioral and neurophysiological abnormalities in Down syndrome. Science, 2019, 366, 843-849.	12.6	117
31	In vitro RNA Cleavage Assays to Characterize IRE1-dependent RNA Decay. Bio-protocol, 2019, 9, e3307.	0.4	1
32	tRNA ligase structure reveals kinetic competition between non-conventional mRNA splicing and mRNA decay. ELife, 2019, 8, .	6.0	24
33	Ceapins block the unfolded protein response sensor ATF6Î± by inducing a neomorphic inter-organelle tether. ELife, 2019, 8, .	6.0	46
34	The Mars1 kinase confers photoprotection through signaling in the chloroplast unfolded protein response. ELife, 2019, 8, .	6.0	42
35	Development of a stress response therapy targeting aggressive prostate cancer. Science Translational Medicine, 2018, 10, .	12.4	124
36	Structure of the nucleotide exchange factor eIF2B reveals mechanism of memory-enhancing molecule. Science, 2018, 359, .	12.6	143

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37	Confirming a critical role for death receptor 5 and caspase-8 in apoptosis induction by endoplasmic reticulum stress. Cell Death and Differentiation, 2018, 25, 1530-1531.	11.2	30
38	Engineering ER-stress dependent non-conventional mRNA splicing. ELife, 2018, 7, .	6.0	17
39	The unfolded protein response and endoplasmic reticulum protein targeting machineries converge on the stress sensor IRE1. ELife, 2018, 7, .	6.0	71
40	Regulating ER Protein Folding Homeostasis By Distinctively Processing mRNAs. FASEB Journal, 2018, 32, 653.9.	0.5	0
41	Targeting IRE1 with small molecules counteracts progression of atherosclerosis. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E1395-E1404.	7.1	157
42	Iron affects Ire1 clustering propensity and the amplitude of endoplasmic reticulum stress signaling. Journal of Cell Science, 2017, 130, 3222-3233.	2.0	35
43	Inhibition of the integrated stress response reverses cognitive deficits after traumatic brain injury. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E6420-E6426.	7.1	177
44	An unfolded protein-induced conformational switch activates mammalian IRE1. ELife, 2017, 6, .	6.0	160
45	Regulated Ire1-dependent mRNA decay requires no-go mRNA degradation to maintain endoplasmic reticulum homeostasis in S. pombe. ELife, 2017, 6, .	6.0	64
46	Ceapins are a new class of unfolded protein response inhibitors, selectively targeting the ATF6Î± branch. ELife, 2016, 5, .	6.0	144
47	Ceapins inhibit ATF6Î± signaling by selectively preventing transport of ATF6Î± to the Golgi apparatus during ER stress. ELife, 2016, 5, .	6.0	107
48	Small molecule proteostasis regulators that reprogram the ER to reduce extracellular protein aggregation. ELife, 2016, 5, .	6.0	185
49	Structureâ€“Activity Studies of Bisâ€Oâ€Arylglycolamides: Inhibitors of the Integrated Stress Response. ChemMedChem, 2016, 11, 870-880.	3.2	13
50	Science as a Way of Knowing: From Protein Machines to Evidence-Based Decisions. Cell, 2016, 167, 16-19.	28.9	63
51	Combined chemicalâ€“genetic approach identifies cytosolic HSP70 dependence in rhabdomyosarcoma. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9015-9020.	7.1	33
52	Translation from the 5â€² untranslated region shapes the integrated stress response. Science, 2016, 351, aad3867.	12.6	305
53	Translational control by eIF2Î± phosphorylation regulates vulnerability to the synaptic and behavioral effects of cocaine. ELife, 2016, 5, .	6.0	44
54	Translational control of nicotine-evoked synaptic potentiation in mice and neuronal responses in human smokers by eIF2Î±. ELife, 2016, 5, .	6.0	19

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55	eIF2Î±-mediated translational control regulates the persistence of cocaine-induced LTP in midbrain dopamine neurons. ELife, 2016, 5, .	6.0	26
56	Multiple selection filters ensure accurate tail-anchored membrane protein targeting. ELife, 2016, 5, .	6.0	71
57	A conformational <scp>RNA</scp> zipper promotes intron ejection during nonâ€conventional <scp>XBP</scp> 1 <scp>mRNA</scp> splicing. EMBO Reports, 2015, 16, 1688-1698.	4.5	40
58	The small molecule ISRIB reverses the effects of eIF2Î± phosphorylation on translation and stress granule assembly. ELife, 2015, 4, .	6.0	464
59	Dynamics of co-translational protein targeting. Current Opinion in Chemical Biology, 2015, 29, 79-86.	6.1	56
60	Validation of the Hsp70â€“Bag3 Proteinâ€“Protein Interaction as a Potential Therapeutic Target in Cancer. Molecular Cancer Therapeutics, 2015, 14, 642-648.	4.1	105
61	Integrity of the yeast mitochondrial genome, but not its distribution and inheritance, relies on mitochondrial fission and fusion. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E947-56.	7.1	75
62	ERâ€“mitochondrial junctions can be bypassed by dominant mutations in the endosomal protein Vps13. Journal of Cell Biology, 2015, 210, 883-890.	5.2	203
63	Endoplasmic reticulum stress-independent activation of unfolded protein response kinases by a small molecule ATP-mimic. ELife, 2015, 4, .	6.0	49
64	Pharmacological dimerization and activation of the exchange factor eIF2B antagonizes the integrated stress response. ELife, 2015, 4, e07314.	6.0	212
65	Paradoxical resistance of multiple myeloma to proteasome inhibitors by decreased levels of 19S proteasomal subunits. ELife, 2015, 4, e08153.	6.0	84
66	The conserved AAA-ATPase Msp1 confers organelle specificity to tail-anchored proteins. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8019-8024.	7.1	175
67	ER-phagy mediates selective degradation of endoplasmic reticulum independently of the core autophagy machinery. Journal of Cell Science, 2014, 127, 4078-88.	2.0	221
68	Signal Recognition Particle-ribosome Binding Is Sensitive to Nascent Chain Length. Journal of Biological Chemistry, 2014, 289, 19294-19305.	3.4	39
69	Delayed Ras/PKA signaling augments the unfolded protein response. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14800-14805.	7.1	45
70	Translational control of mGluR-dependent long-term depression and object-place learning by eIF2Î±. Nature Neuroscience, 2014, 17, 1073-1082.	14.8	159
71	Opposing unfolded-protein-response signals converge on death receptor 5 to control apoptosis. Science, 2014, 345, 98-101.	12.6	465
72	Real-time observation of signal recognition particle binding to actively translating ribosomes. ELife, 2014, 3, .	6.0	41

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73	Specificity in endoplasmic reticulum-stress signaling in yeast entails a step-wise engagement of HAC1 mRNA to clusters of the stress sensor Ire1. ELife, 2014, 3, e05031.	6.0	44
74	Endoplasmic Reticulum Stress Sensing in the Unfolded Protein Response. Cold Spring Harbor Perspectives in Biology, 2013, 5, a013169-a013169.	5.5	614
75	Heat Shock Transcription Factor Ïƒ32 Co-opts the Signal Recognition Particle to Regulate Protein Homeostasis in E. coli. PLoS Biology, 2013, 11, e1001735.	5.6	65
76	Pharmacological brake-release of mRNA translation enhances cognitive memory. ELife, 2013, 2, e00498.	6.0	541
77	Structural Basis of the Unfolded Protein Response. Annual Review of Cell and Developmental Biology, 2012, 28, 251-277.	9.4	186
78	The unfolded protein response in fission yeast modulates stability of select mRNAs to maintain protein homeostasis. ELife, 2012, 1, e00048.	6.0	118
79	The unfolded protein response in health and disease. FASEB Journal, 2012, 26, 229.3.	0.5	0
80	Unfolded Proteins Are Ire1-Activating Ligands That Directly Induce the Unfolded Protein Response. Science, 2011, 333, 1891-1894.	12.6	579
81	The Unfolded Protein Response: From Stress Pathway to Homeostatic Regulation. Science, 2011, 334, 1081-1086.	12.6	4,768
82	Structural and functional basis for RNA cleavage by Ire1. BMC Biology, 2011, 9, 47.	3.8	61
83	Homeostatic adaptation to endoplasmic reticulum stress depends on Ire1 kinase activity. Journal of Cell Biology, 2011, 193, 171-184.	5.2	140
84	BAX inhibitor-1 regulates autophagy by controlling the IRE1Î± branch of the unfolded protein response. EMBO Journal, 2011, 30, 4465-4478.	7.8	105
85	Walking Along the Serendipitous Path of Discovery. Molecular Biology of the Cell, 2010, 21, 15-17.	2.1	13
86	Mammalian endoplasmic reticulum stress sensor IRE1 signals by dynamic clustering. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 16113-16118.	7.1	302
87	BiP Binding to the ER-Stress Sensor Ire1 Tunes the Homeostatic Behavior of the Unfolded Protein Response. PLoS Biology, 2010, 8, e1000415.	5.6	369
88	Regulated Ire1-dependent decay of messenger RNAs in mammalian cells. Journal of Cell Biology, 2009, 186, 323-331.	5.2	841
89	Membrane expansion alleviates endoplasmic reticulum stress independently of the unfolded protein response. Journal of Cell Biology, 2009, 187, 525-536.	5.2	451
90	Messenger RNA targeting to endoplasmic reticulum stress signalling sites. Nature, 2009, 457, 736-740.	27.8	297

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91	The unfolded protein response signals through high-order assembly of Ire1. Nature, 2009, 457, 687-693.	27.8	565
92	BAX Inhibitor-1 Is a Negative Regulator of the ER Stress Sensor IRE1Î±. Molecular Cell, 2009, 33, 679-691.	9.7	281
93	Comprehensive Characterization of Genes Required for Protein Folding in the Endoplasmic Reticulum. Science, 2009, 323, 1693-1697.	12.6	646
94	Helenius et al. reply. Nature, 2008, 454, E4-E5.	27.8	7
95	Endoplasmic Reticulum Stress in Disease Pathogenesis. Annual Review of Pathology: Mechanisms of Disease, 2008, 3, 399-425.	22.4	637
96	IRE1 Signaling Affects Cell Fate During the Unfolded Protein Response. Science, 2007, 318, 944-949.	12.6	1,221
97	Signal integration in the endoplasmic reticulum unfolded protein response. Nature Reviews Molecular Cell Biology, 2007, 8, 519-529.	37.0	5,491
98	In Vitro Antimyeloma Effects of Inhibitors of the Heat Shock Protein 70 (Hsp70) Molecular Chaperone.. Blood, 2007, 110, 1524-1524.	1.4	0
99	On the mechanism of sensing unfolded protein in the endoplasmic reticulum. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 18773-18784.	7.1	465
100	Genome-scale approaches for discovering novel nonconventional splicing substrates of the Ire1 nuclease. Genome Biology, 2004, 6, R3.	9.6	61
101	Bypassing a Kinase Activity with an ATP-Competitive Drug. Science, 2003, 302, 1533-1537.	12.6	213
102	The Signal Recognition Particle. Annual Review of Biochemistry, 2001, 70, 755-775.	11.1	541
103	Block of HAC1 mRNA Translation by Long-Range Base Pairing Is Released by Cytoplasmic Splicing upon Induction of the Unfolded Protein Response. Cell, 2001, 107, 103-114.	28.9	282
104	Functional and Genomic Analyses Reveal an Essential Coordination between the Unfolded Protein Response and ER-Associated Degradation. Cell, 2000, 101, 249-258.	28.9	1,777
105	STRUCTURAL BIOLOGY:SRP–Where the RNA and Membrane Worlds Meet. Science, 2000, 287, 1212-1213.	12.6	26
106	Role of 4.5S RNA in Assembly of the Bacterial Signal Recognition Particle with Its Receptor. Science, 2000, 288, 1640-1643.	12.6	142
107	Structure of the phylogenetically most conserved domain of SRP RNA. Rna, 1999, 5, 1419-1429.	3.5	47
108	Regulation of Ribosome Biogenesis by the Rapamycin-sensitive TOR-signaling Pathway inSaccharomyces cerevisiae. Molecular Biology of the Cell, 1999, 10, 987-1000.	2.1	364

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109	Functional changes in the structure of the SRP GTPase on binding GDP and Mg2+GDP. Nature Structural Biology, 1999, 6, 793-801.	9.7	83
110	A Role for Presenilin-1 in Nuclear Accumulation of Ire1 Fragments and Induction of the Mammalian Unfolded Protein Response. Cell, 1999, 99, 691-702.	28.9	285
111	Mechanism of non-spliceosomal mRNA splicing in the unfolded protein response pathway. EMBO Journal, 1999, 18, 3119-3132.	7.8	199
112	Neisseria gonorrhoeae PilA Is an FtsY Homolog. Journal of Bacteriology, 1999, 181, 731-739.	2.2	14
113	INTRACELLULAR SIGNALING FROM THE ENDOPLASMIC RETICULUM TO THE NUCLEUS. Annual Review of Cell and Developmental Biology, 1998, 14, 459-485.	9.4	230
114	Mitochondrial transmission during mating in Saccharomyces cerevisiae is determined by mitochondrial fusion and fission and the intramitochondrial segregation of mitochondrial DNA.. Molecular Biology of the Cell, 1997, 8, 1233-1242.	2.1	452
115	PROTEIN SYNTHESIS: A Ribosome at the End of the Tunnel. Science, 1997, 278, 2072-2073.	12.6	10
116	The Transmembrane Kinase Ire1p Is a Site-Specific Endonuclease That Initiates mRNA Splicing in the Unfolded Protein Response. Cell, 1997, 90, 1031-1039.	28.9	799
117	Structure of the conserved GTPase domain of the signal recognition particle. Nature, 1997, 385, 361-364.	27.8	228
118	A Novel Mechanism for Regulating Activity of a Transcription Factor That Controls the Unfolded Protein Response. Cell, 1996, 87, 391-404.	28.9	923
119	tRNA Ligase Is Required for Regulated mRNA Splicing in the Unfolded Protein Response. Cell, 1996, 87, 405-413.	28.9	401
120	Oligomerization and phosphorylation of the Ire1p kinase during intracellular signaling from the endoplasmic reticulum to the nucleus.. EMBO Journal, 1996, 15, 3028-3039.	7.8	35,118
121	Oligomerization and phosphorylation of the Ire1p kinase during intracellular signaling from the endoplasmic reticulum to the nucleus. EMBO Journal, 1996, 15, 3028-39.	7.8	263
122	Signal sequence recognition and protein targeting to the endoplasmic reticulum membrane. Harvey Lectures, 1995, 91, 115-31.	0.2	2
123	Transcriptional induction of genes encoding endoplasmic reticulum resident proteins requires a transmembrane protein kinase. Cell, 1993, 73, 1197-1206.	28.9	1,101
124	A GTPase Cycle in Initiation of Protein Translocation Across the Endoplasmic Reticulum Membrane. Novartis Foundation Symposium, 1993, 176, 147-163.	1.1	5
125	SEC65 gene product is a subunit of the yeast signal recognition particle required for its integrity. Nature, 1992, 356, 532-533.	27.8	74
126	Travelling by TRAM. Nature, 1992, 357, 22-23.	27.8	15

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127	Binding Sites of the 9- and 14-Kilodalton Heterodimeric Protein Subunit of the Signal Recognition Particle (SRP) Are Contained Exclusively in the Alu Domain of SRP RNA and Contain a Sequence Motif That Is Conserved in Evolution. Molecular and Cellular Biology, 1991, 11, 3949-3959.	2.3	53
128	The affinity of signal recognition particle for presecretory proteins is dependent on nascent chain length.. EMBO Journal, 1988, 7, 1769-1775.	7.8	94
129	The affinity of signal recognition particle for presecretory proteins is dependent on nascent chain length. EMBO Journal, 1988, 7, 1769-75.	7.8	58
130	Removal of the Alu structural domain from signal recognition particle leaves its protein translocation activity intact. Nature, 1986, 320, 81-84.	27.8	176
131	Topology of signal recognition particle receptor in endoplasmic reticulum membrane. Nature, 1985, 318, 334-338.	27.8	150
132	Protein translocation across the endoplasmic reticulum. Cell, 1984, 38, 5-8.	28.9	758
133	Endoplasmic reticulum stress activates human IRE1Î± through reversible assembly of inactive dimers into small oligomers. ELife, 0, 11, .	6.0	14