

# Thomas Langer

## List of Publications by Year in descending order

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123  
papers

16,604  
citations

13827

67  
h-index

18606

119  
g-index

132  
all docs

132  
docs citations

132  
times ranked

15271  
citing authors

#	ARTICLE	IF	CITATIONS
1	Metabolic control of adult neural stem cell self-renewal by the mitochondrial protease YME1L. <i>Cell Reports</i> , 2022, 38, 110370.	2.9	24
2	CLUH controls astrin-1 expression to couple mitochondrial metabolism to cell cycle progression. <i>ELife</i> , 2022, 11, .	2.8	7
3	Protein Import Assay into Mitochondria Isolated from Human Cells. <i>Bio-protocol</i> , 2021, 11, e4057.	0.2	5
4	Disturbed intramitochondrial phosphatidic acid transport impairs cellular stress signaling. <i>Journal of Biological Chemistry</i> , 2021, 296, 100335.	1.6	10
5	The ER protein Ema19 facilitates the degradation of nonimported mitochondrial precursor proteins. <i>Molecular Biology of the Cell</i> , 2021, 32, 664-674.	0.9	18
6	Cellular pyrimidine imbalance triggers mitochondrial DNA-dependent innate immunity. <i>Nature Metabolism</i> , 2021, 3, 636-650.	5.1	64
7	High-throughput screening identifies suppressors of mitochondrial fragmentation in <i>OPA1</i> fibroblasts. <i>EMBO Molecular Medicine</i> , 2021, 13, e13579.	3.3	33
8	Phosphoproteomics of the developing heart identifies PERM1 - An outer mitochondrial membrane protein. <i>Journal of Molecular and Cellular Cardiology</i> , 2021, 154, 41-59.	0.9	9
9	Metabolism and Innate Immunity Meet at the Mitochondria. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 720490.	1.8	43
10	Mechanometabolism: Mitochondria promote resilience under pressure. <i>Current Biology</i> , 2021, 31, R859-R861.	1.8	4
11	ComplexFinder: A software package for the analysis of native protein complex fractionation experiments. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2021, 1862, 148444.	0.5	6
12	Mitochondrial metabolism coordinates stage-specific repair processes in macrophages during wound healing. <i>Cell Metabolism</i> , 2021, 33, 2398-2414.e9.	7.2	89
13	MIROs and DRP1 drive mitochondrial-derived vesicle biogenesis and promote quality control. <i>Nature Cell Biology</i> , 2021, 23, 1271-1286.	4.6	105
14	Defining the interactome of the human mitochondrial ribosome identifies SMIM4 and TMEM223 as respiratory chain assembly factors. <i>ELife</i> , 2021, 10, .	2.8	15
15	The C-terminal region of the oxidoreductase MIA40 stabilizes its cytosolic precursor during mitochondrial import. <i>BMC Biology</i> , 2020, 18, 96.	1.7	14
16	Mitochondrial Proteases: Multifaceted Regulators of Mitochondrial Plasticity. <i>Annual Review of Biochemistry</i> , 2020, 89, 501-528.	5.0	124
17	Regulation of mitochondrial plasticity by the AAA protease YME1L. <i>Biological Chemistry</i> , 2020, 401, 877-890.	1.2	32
18	The mitochondrial intermembrane space-facing proteins Mcp2 and Tgl2 are involved in yeast lipid metabolism. <i>Molecular Biology of the Cell</i> , 2019, 30, 2681-2694.	0.9	5

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19	The Good and the Bad of Mitochondrial Breakups. Trends in Cell Biology, 2019, 29, 888-900.	3.6	122
20	Mitochondrial Proteolysis and Metabolic Control. Cold Spring Harbor Perspectives in Biology, 2019, 11, a033936.	2.3	22
21	CerS6-Derived Sphingolipids Interact with Mff and Promote Mitochondrial Fragmentation in Obesity. Cell, 2019, 177, 1536-1552.e23.	13.5	183
22	Astrocyte-specific deletion of the mitochondrial <i>mAAA</i> protease reveals glial contribution to neurodegeneration. Glia, 2019, 67, 1526-1541.	2.5	36
23	Structural determinants of lipid specificity within Ups/PRELI lipid transfer proteins. Nature Communications, 2019, 10, 1130.	5.8	39
24	Walter Neupert (1939–2019), a pioneer of mitochondrial biogenesis and morphology. EMBO Journal, 2019, 38, e103100.	3.5	0
25	A nutritional memory effect counteracts the benefits of dietary restriction in old mice. Nature Metabolism, 2019, 1, 1059-1073.	5.1	80
26	Lipid signalling drives proteolytic rewiring of mitochondria by YME1L. Nature, 2019, 575, 361-365.	13.7	116
27	ROMO1 is a constituent of the human presequence translocase required for YME1L protease import. Journal of Cell Biology, 2019, 218, 598-614.	2.3	40
28	Lipin1 deficiency causes sarcoplasmic reticulum stress and chaperone-responsive myopathy. EMBO Journal, 2019, 38, .	3.5	34
29	Loss of the mitochondrial <i>mAAA</i> protease <i>YME1L</i> leads to ocular dysfunction and spinal axonopathy. EMBO Molecular Medicine, 2019, 11, .	3.3	38
30	m-AAA proteases, mitochondrial calcium homeostasis and neurodegeneration. Cell Research, 2018, 28, 296-306.	5.7	86
31	PARL partitions the lipid transfer protein STARD7 between the cytosol and mitochondria. EMBO Journal, 2018, 37, .	3.5	75
32	Food Perception Primes Hepatic ER Homeostasis via Melanocortin-Dependent Control of mTOR Activation. Cell, 2018, 175, 1321-1335.e20.	13.5	86
33	PARL mediates Smac proteolytic maturation in mitochondria to promote apoptosis. Nature Cell Biology, 2017, 19, 318-328.	4.6	111
34	Acylglycerol Kinase Mutated in Sengers Syndrome Is a Subunit of the TIM22 Protein Translocase in Mitochondria. Molecular Cell, 2017, 67, 471-483.e7.	4.5	104
35	Prohibitins. Current Biology, 2017, 27, R629-R631.	1.8	29
36	Intramitochondrial phospholipid trafficking. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2017, 1862, 81-89.	1.2	90

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37	The Mitochondrial m-AAA Protease Prevents Demyelination and Hair Greying. PLoS Genetics, 2016, 12, e1006463.	1.5	23
38	Deficiency of HTRA2/Omi is associated with infantile neurodegeneration and 3-methylglutaconic aciduria. Journal of Medical Genetics, 2016, 53, 690-696.	1.5	30
39	The membrane scaffold SLP2 anchors a proteolytic hub in mitochondria containing PARL and the m-AAA protease YME1L. EMBO Reports, 2016, 17, 1844-1856.	2.0	142
40	Interaction of MDM33 with mitochondrial inner membrane homeostasis pathways in yeast. Scientific Reports, 2016, 5, 18344.	1.6	20
41	OPA1 processing in cell death and disease – the long and short of it. Journal of Cell Science, 2016, 129, 2297-306.	1.2	306
42	The m-AAA Protease Associated with Neurodegeneration Limits MCU Activity in Mitochondria. Molecular Cell, 2016, 64, 148-162.	4.5	153
43	MICOS and phospholipid transfer by Ups2 – Mdm35 organize membrane lipid synthesis in mitochondria. Journal of Cell Biology, 2016, 213, 525-534.	2.3	136
44	Loss of OMA1 delays neurodegeneration by preventing stress-induced OPA1 processing in mitochondria. Journal of Cell Biology, 2016, 212, 157-166.	2.3	115
45	Mitochondrial Dynamics and Metabolic Regulation. Trends in Endocrinology and Metabolism, 2016, 27, 105-117.	3.1	922
46	Homozygous YME1L1 mutation causes mitochondriopathy with optic atrophy and mitochondrial network fragmentation. ELife, 2016, 5, .	2.8	88
47	Loss of OMA1 delays neurodegeneration by preventing stress-induced OPA1 processing in mitochondria. Journal of Experimental Medicine, 2016, 213, 2132OIA1.	4.2	0
48	Structural insight into the TRIAP1/ PRELI – like domain family of mitochondrial phospholipid transfer complexes. EMBO Reports, 2015, 16, 824-835.	2.0	68
49	Imbalanced OPA1 processing and mitochondrial fragmentation cause heart failure in mice. Science, 2015, 350, aad0116.	6.0	403
50	Inhibition of insulin/IGF1 receptor signaling protects from mitochondria-mediated kidney failure. EMBO Molecular Medicine, 2015, 7, 275-287.	3.3	61
51	Organization of Mitochondrial Gene Expression in Two Distinct Ribosome-Containing Assemblies. Cell Reports, 2015, 10, 843-853.	2.9	86
52	Transcriptional activation of LON Gene by a new form of mitochondrial stress: A role for the nuclear respiratory factor 2 in StAR overload response (SOR). Molecular and Cellular Endocrinology, 2015, 408, 62-72.	1.6	24
53	An atypical form of AOA2 with myoclonus associated with mutations in SETX and AFG3L2. BMC Medical Genetics, 2015, 16, 16.	2.1	12
54	New roles for mitochondrial proteases in health, ageing and disease. Nature Reviews Molecular Cell Biology, 2015, 16, 345-359.	16.1	453

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55	Stomatin-Like Protein 2 Is Required for <i>In Vivo</i> Mitochondrial Respiratory Chain Supercomplex Formation and Optimal Cell Function. <i>Molecular and Cellular Biology</i> , 2015, 35, 1838-1847.	1.1	67
56	A novel prohibitin-binding compound induces the mitochondrial apoptotic pathway through NOXA and BIM upregulation. <i>Oncotarget</i> , 2015, 6, 41750-41765.	0.8	29
57	StAR Enhances Transcription of Genes Encoding the Mitochondrial Proteases Involved in Its Own Degradation. <i>Molecular Endocrinology</i> , 2014, 28, 208-224.	3.7	28
58	Mitochondrial lipid trafficking. <i>Trends in Cell Biology</i> , 2014, 24, 44-52.	3.6	212
59	Dynamic survey of mitochondria by ubiquitin. <i>EMBO Reports</i> , 2014, 15, 231-243.	2.0	55
60	Stress-induced OMA1 activation and autocatalytic turnover regulate OPA1-dependent mitochondrial dynamics. <i>EMBO Journal</i> , 2014, 33, 578-593.	3.5	246
61	Loss of the m-AAA protease subunit AFG3L2 causes mitochondrial transport defects and tau hyperphosphorylation. <i>EMBO Journal</i> , 2014, 33, 1011-1026.	3.5	62
62	The <i>i</i> -AAA protease YME1L and OMA1 cleave OPA1 to balance mitochondrial fusion and fission. <i>Journal of Cell Biology</i> , 2014, 204, 919-929.	2.3	603
63	SPG7 Variant Escapes Phosphorylation-Regulated Processing by AFG3L2, Elevates Mitochondrial ROS, and Is Associated with Multiple Clinical Phenotypes. <i>Cell Reports</i> , 2014, 7, 834-847.	2.9	39
64	DNAJC19, a Mitochondrial Cochaperone Associated with Cardiomyopathy, Forms a Complex with Prohibitins to Regulate Cardiolipin Remodeling. <i>Cell Metabolism</i> , 2014, 20, 158-171.	7.2	157
65	Loss of Prohibitin Induces Mitochondrial Damages Altering $\beta$ -Cell Function and Survival and Is Responsible for Gradual Diabetes Development. <i>Diabetes</i> , 2013, 62, 3488-3499.	0.3	76
66	TRIAP1/PRELI Complexes Prevent Apoptosis by Mediating Intramitochondrial Transport of Phosphatidic Acid. <i>Cell Metabolism</i> , 2013, 18, 287-295.	7.2	167
67	The E3 Ligase Parkin Maintains Mitochondrial Integrity by Increasing Linear Ubiquitination of NEMO. <i>Molecular Cell</i> , 2013, 49, 908-921.	4.5	183
68	Proteolytic control of mitochondrial function and morphogenesis. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2013, 1833, 195-204.	1.9	86
69	The <i>i</i> -AAA Protease. , 2013, , 696-701.		2
70	Mitochondrial lipid transport at a glance. <i>Journal of Cell Science</i> , 2013, 126, 5317-23.	1.2	45
71	ATP23 Peptidase. , 2013, , 1688-1690.		0
72	Loss of Prohibitin Membrane Scaffolds Impairs Mitochondrial Architecture and Leads to Tau Hyperphosphorylation and Neurodegeneration. <i>PLoS Genetics</i> , 2012, 8, e1003021.	1.5	154

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73	Mitochondrial quality control: a matter of life and death for neurons. EMBO Journal, 2012, 31, 1336-1349.	3.5	335
74	Intramitochondrial Transport of Phosphatidic Acid in Yeast by a Lipid Transfer Protein. Science, 2012, 338, 815-818.	6.0	206
75	Impaired Folding of the Mitochondrial Small TIM Chaperones Induces Clearance by the i-AAA Protease. Journal of Molecular Biology, 2012, 424, 227-239.	2.0	52
76	Mitochondrial AAA proteases – Towards a molecular understanding of membrane-bound proteolytic machines. Biochimica Et Biophysica Acta - Molecular Cell Research, 2012, 1823, 49-55.	1.9	107
77	AFG3L2 supports mitochondrial protein synthesis and Purkinje cell survival. Journal of Clinical Investigation, 2012, 122, 4048-4058.	3.9	90
78	Electron Cryomicroscopy Structure of a Membrane-anchored Mitochondrial AAA Protease. Journal of Biological Chemistry, 2011, 286, 4404-4411.	1.6	54
79	Quality Control of Mitochondrial Proteostasis. Cold Spring Harbor Perspectives in Biology, 2011, 3, a007559-a007559.	2.3	220
80	The Mitochondrial Electron Transport Chain Is Dispensable for Proliferation and Differentiation of Epidermal Progenitor Cells. Stem Cells, 2011, 29, 1459-1468.	1.4	51
81	Presequence-dependent folding ensures MrpL32 processing by the m-AAA protease in mitochondria. EMBO Journal, 2011, 30, 2545-2556.	3.5	68
82	Making heads or tails of phospholipids in mitochondria. Journal of Cell Biology, 2011, 192, 7-16.	2.3	497
83	Whole-Exome Sequencing Identifies Homozygous AFG3L2 Mutations in a Spastic Ataxia-Neuropathy Syndrome Linked to Mitochondrial m-AAA Proteases. PLoS Genetics, 2011, 7, e1002325.	1.5	200
84	Functional evaluation of paraplegin mutations by a yeast complementation assay. Human Mutation, 2010, 31, n/a-n/a.	1.1	42
85	Regulation of mitochondrial phospholipids by Ups1/PRELI-like proteins depends on proteolysis and Mdm35. EMBO Journal, 2010, 29, 2888-2898.	3.5	150
86	A mitochondrial phosphatase required for cardiolipin biosynthesis: the PGP phosphatase Gep4. EMBO Journal, 2010, 29, 1976-1987.	3.5	121
87	Mutations in the mitochondrial protease gene AFG3L2 cause dominant hereditary ataxia SCA28. Nature Genetics, 2010, 42, 313-321.	9.4	291
88	Prohibitins and the functional compartmentalization of mitochondrial membranes. Journal of Cell Science, 2009, 122, 3823-3830.	1.2	267
89	Regulation of OPA1 processing and mitochondrial fusion by m-AAA protease isoenzymes and OMA1. Journal of Cell Biology, 2009, 187, 1023-1036.	2.3	500
90	Autocatalytic Processing of m-AAA Protease Subunits in Mitochondria. Molecular Biology of the Cell, 2009, 20, 4216-4224.	0.9	45

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91	The genetic interactome of prohibitins: coordinated control of cardiolipin and phosphatidylethanolamine by conserved regulators in mitochondria. <i>Journal of Cell Biology</i> , 2009, 184, 583-596.	2.3	265
92	Prohibitin function within mitochondria: Essential roles for cell proliferation and cristae morphogenesis. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2009, 1793, 27-32.	1.9	332
93	SLP-2 is required for stress-induced mitochondrial hyperfusion. <i>EMBO Journal</i> , 2009, 28, 1589-1600.	3.5	639
94	AAA proteases in mitochondria: diverse functions of membrane-bound proteolytic machines. <i>Research in Microbiology</i> , 2009, 160, 711-717.	1.0	79
95	An Intersubunit Signaling Network Coordinates ATP Hydrolysis by m-AAA Proteases. <i>Molecular Cell</i> , 2009, 35, 574-585.	4.5	96
96	Quality control of mitochondria: protection against neurodegeneration and ageing. <i>EMBO Journal</i> , 2008, 27, 306-314.	3.5	475
97	Prohibitins control cell proliferation and apoptosis by regulating OPA1-dependent cristae morphogenesis in mitochondria. <i>Genes and Development</i> , 2008, 22, 476-488.	2.7	454
98	Substrate Recognition by AAA + ATPases: Distinct Substrate Binding Modes in ATP-Dependent Protease Yme1 of the Mitochondrial Intermembrane Space. <i>Molecular and Cellular Biology</i> , 2007, 27, 2476-2485.	1.1	60
99	Variable and Tissue-Specific Subunit Composition of Mitochondrial m-AAA Protease Complexes Linked to Hereditary Spastic Paraplegia. <i>Molecular and Cellular Biology</i> , 2007, 27, 758-767.	1.1	172
100	Prohibitins Interact Genetically with Atp23, a Novel Processing Peptidase and Chaperone for the F1FO-ATP Synthase. <i>Molecular Biology of the Cell</i> , 2007, 18, 627-635.	0.9	124
101	OPA1 Processing Reconstituted in Yeast Depends on the Subunit Composition of the m-AAA Protease in Mitochondria. <i>Molecular Biology of the Cell</i> , 2007, 18, 3582-3590.	0.9	162
102	Protein Degradation within Mitochondria: Versatile Activities of AAA Proteases and Other Peptidases. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2007, 42, 221-242.	2.3	228
103	m-AAA protease-driven membrane dislocation allows intramembrane cleavage by rhomboid in mitochondria. <i>EMBO Journal</i> , 2007, 26, 325-335.	3.5	100
104	Studying Proteolysis Within Mitochondria. <i>Methods in Molecular Biology</i> , 2007, 372, 343-360.	0.4	22
105	Evidence for a novel mitochondria-to-nucleus signalling pathway in respiring cells lacking i-AAA protease and the ABC-transporter Mdl1. <i>Gene</i> , 2006, 367, 74-88.	1.0	47
106	Substrate specific consequences of central pore mutations in the i-AAA protease Yme1 on substrate engagement. <i>Journal of Structural Biology</i> , 2006, 156, 101-108.	1.3	23
107	Mitochondrial shaping cuts. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2006, 1763, 422-429.	1.9	23
108	Characterization of Peptides Released from Mitochondria. <i>Journal of Biological Chemistry</i> , 2005, 280, 2691-2699.	1.6	87

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109	Role of the Novel Metallopeptidase MoP112 and Saccharolysin for the Complete Degradation of Proteins Residing in Different Subcompartments of Mitochondria. <i>Journal of Biological Chemistry</i> , 2005, 280, 20132-20139.	1.6	77
110	Formation of Membrane-bound Ring Complexes by Prohibitins in Mitochondria. <i>Molecular Biology of the Cell</i> , 2005, 16, 248-259.	0.9	284
111	The m-AAA Protease Defective in Hereditary Spastic Paraplegia Controls Ribosome Assembly in Mitochondria. <i>Cell</i> , 2005, 123, 277-289.	13.5	344
112	Reversible Assembly of the ATP-binding Cassette Transporter Mdl1 with the F1F0-ATP Synthase in Mitochondria. <i>Journal of Biological Chemistry</i> , 2004, 279, 38338-38345.	1.6	24
113	Loss of m-AAA protease in mitochondria causes complex I deficiency and increased sensitivity to oxidative stress in hereditary spastic paraplegia. <i>Journal of Cell Biology</i> , 2003, 163, 777-787.	2.3	241
114	Oma1, a Novel Membrane-bound Metallopeptidase in Mitochondria with Activities Overlapping with the m-AAA Protease. <i>Journal of Biological Chemistry</i> , 2003, 278, 46414-46423.	1.6	135
115	Membrane protein degradation by AAA proteases in mitochondria. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2002, 1592, 89-96.	1.9	131
116	Role of the ABC Transporter Mdl1 in Peptide Export from Mitochondria. <i>Science</i> , 2001, 291, 2135-2138.	6.0	200
117	AAA proteases of mitochondria: quality control of membrane proteins and regulatory functions during mitochondrial biogenesis. <i>Biochemical Society Transactions</i> , 2001, 29, 431-436.	1.6	91
118	MAP-1 and IAP-1, Two Novel AAA Proteases with Catalytic Sites on Opposite Membrane Surfaces in Mitochondrial Inner Membrane of <i>Neurospora crassa</i> . <i>Molecular Biology of the Cell</i> , 2001, 12, 2858-2869.	0.9	31
119	AAA proteases: cellular machines for degrading membrane proteins. <i>Trends in Biochemical Sciences</i> , 2000, 25, 247-251.	3.7	206
120	Membrane Protein Degradation by AAA Proteases in Mitochondria. <i>Molecular Cell</i> , 2000, 5, 629-638.	4.5	190
121	Chaperone-like activity of the AAA domain of the yeast Yme1 AAA protease. <i>Nature</i> , 1999, 398, 348-351.	13.7	210
122	Prohibitins Regulate Membrane Protein Degradation by the m-AAA Protease in Mitochondria. <i>Molecular and Cellular Biology</i> , 1999, 19, 3435-3442.	1.1	300
123	The YTA10 <sup>Δ</sup> 12 Complex, an AAA Protease with Chaperone-like Activity in the Inner Membrane of Mitochondria. <i>Cell</i> , 1996, 85, 875-885.	13.5	301