# Thomas Langer

List of Publications by Year
in descending order

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|---|---|---|---|
| 123 papers | 16,604 citations | 15880 67 h-index | 21239 119 g-index |
| 132 all docs | 132 docs citations | 132 times ranked | 16675 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Metabolic control of adult neural stem cell self-renewal by the mitochondrial protease YME1L. Cell Reports, 2022, 38, 110370. | 2.9 | 24 |
| 2 | CLUH controls astrin-1 expression to couple mitochondrial metabolism to cell cycle progression. ELife, 2022, 11, . | 2.8 | 7 |
| 3 | Protein Import Assay into Mitochondria Isolated from Human Cells. Bio-protocol, 2021, 11, e4057. | 0.2 | 5 |
| 4 | Disturbed intramitochondrial phosphatidic acid transport impairs cellular stress signaling. Journal of Biological Chemistry, 2021, 296, 100335. | 1.6 | 10 |
| 5 | The ER protein Ema19 facilitates the degradation of nonimported mitochondrial precursor proteins. Molecular Biology of the Cell, 2021, 32, 664-674. | 0.9 | 18 |
| 6 | Cellular pyrimidine imbalance triggers mitochondrial DNAâ€“dependent innate immunity. Nature Metabolism, 2021, 3, 636-650. | 5.1 | 64 |
| 7 | Highâ€throughput screening identifies suppressors of mitochondrial fragmentation in OPA1 fibroblasts. EMBO Molecular Medicine, 2021, 13, e13579. | 3.3 | 33 |
| 8 | Phosphoproteomics of the developing heart identifies PERM1 - An outer mitochondrial membrane protein. Journal of Molecular and Cellular Cardiology, 2021, 154, 41-59. | 0.9 | 9 |
| 9 | Metabolism and Innate Immunity Meet at the Mitochondria. Frontiers in Cell and Developmental Biology, 2021, 9, 720490. | 1.8 | 43 |
| 10 | Mechanometabolism: Mitochondria promote resilience under pressure. Current Biology, 2021, 31, R859-R861. | 1.8 | 4 |
| 11 | ComplexFinder: A software package for the analysis of native protein complex fractionation experiments. Biochimica Et Biophysica Acta - Bioenergetics, 2021, 1862, 148444. | 0.5 | 6 |
| 12 | Mitochondrial metabolism coordinates stage-specific repair processes in macrophages during wound healing. Cell Metabolism, 2021, 33, 2398-2414.e9. | 7.2 | 89 |
| 13 | MIROs and DRP1 drive mitochondrial-derived vesicle biogenesis and promote quality control. Nature Cell Biology, 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. ELife, 2021, 10, . | 2.8 | 15 |
| 15 | The C-terminal region of the oxidoreductase MIA40 stabilizes its cytosolic precursor during mitochondrial import. BMC Biology, 2020, 18, 96. | 1.7 | 14 |
| 16 | Mitochondrial Proteases: Multifaceted Regulators of Mitochondrial Plasticity. Annual Review of Biochemistry, 2020, 89, 501-528. | 5.0 | 124 |
| 17 | Regulation of mitochondrial plasticity by the i-AAA protease YME1L. Biological Chemistry, 2020, 401, 877-890. | 1.2 | 32 |
| 18 | The mitochondrial intermembrane spaceâ€facing proteins Mcp2 and Tgl2 are involved in yeast lipid metabolism. Molecular Biology of the Cell, 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 | Astrocyteâ€specific deletion of the mitochondrial mâ€AAA 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 (1939â€“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 chaperoneâ€responsive myopathy. EMBO Journal, 2019, 38, . | 3.5 | 34 |
| 29 | Loss of the mitochondrial i â€•<scp>AAA</scp> protease <scp>YME</scp> 1L 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 i â€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 â€“ 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 Ups2â€“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 <scp>TRIAP</scp> 1/ <scp>PRELI</scp> â€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/<scp>IGF</scp>â€1 receptor signaling protects from mitochondriaâ€mediated kidneyÂfailure. 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 In Vivo Mitochondrial Respiratory Chain Supercomplex Formation and Optimal Cell Function. Molecular and Cellular Biology, 2015, 35, 1838-1847. | 1.1 | 67 |
| 56 | A novel prohibitin-binding compound induces the mitochondrial apoptotic pathway through NOXA and BIM upregulation. Oncotarget, 2015, 6, 41750-41765. | 0.8 | 29 |
| 57 | StAR Enhances Transcription of Genes Encoding the Mitochondrial Proteases Involved in Its Own Degradation. Molecular Endocrinology, 2014, 28, 208-224. | 3.7 | 28 |
| 58 | Mitochondrial lipid trafficking. Trends in Cell Biology, 2014, 24, 44-52. | 3.6 | 212 |
| 59 | Dynamic survey of mitochondria by ubiquitin. EMBO Reports, 2014, 15, 231-243. | 2.0 | 55 |
| 60 | Stress-induced OMA1 activation and autocatalytic turnover regulate OPA1-dependent mitochondrial dynamics. EMBO Journal, 2014, 33, 578-593. | 3.5 | 246 |
| 61 | Loss of the m-AAA protease subunit AFG3L2 causes mitochondrial transport defects and tau hyperphosphorylation. EMBO Journal, 2014, 33, 1011-1026. | 3.5 | 62 |
| 62 | The i-AAA protease YME1L and OMA1 cleave OPA1 to balance mitochondrial fusion and fission. Journal of Cell Biology, 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. Cell Reports, 2014, 7, 834-847. | 2.9 | 39 |
| 64 | DNAJC19, a Mitochondrial Cochaperone Associated with Cardiomyopathy, Forms a Complex with Prohibitins to Regulate Cardiolipin Remodeling. Cell Metabolism, 2014, 20, 158-171. | 7.2 | 157 |
| 65 | Loss of Prohibitin Induces Mitochondrial Damages Altering Î²-Cell Function and Survival and Is Responsible for Gradual Diabetes Development. Diabetes, 2013, 62, 3488-3499. | 0.3 | 76 |
| 66 | TRIAP1/PRELI Complexes Prevent Apoptosis by Mediating Intramitochondrial Transport of Phosphatidic Acid. Cell Metabolism, 2013, 18, 287-295. | 7.2 | 167 |
| 67 | The E3 Ligase Parkin Maintains Mitochondrial Integrity by Increasing Linear Ubiquitination of NEMO. Molecular Cell, 2013, 49, 908-921. | 4.5 | 183 |
| 68 | Proteolytic control of mitochondrial function and morphogenesis. Biochimica Et Biophysica Acta - Molecular Cell Research, 2013, 1833, 195-204. | 1.9 | 86 |
| 69 | The i-AAA Protease. , 2013, , 696-701. | | 2 |
| 70 | Mitochondrial lipid transport at a glance. Journal of Cell Science, 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. PLoS Genetics, 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 â€" 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 them-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. Journal of Cell Biology, 2009, 184, 583-596. | 2.3 | 265 |
| 92 | Prohibitin function within mitochondria: Essential roles for cell proliferation and cristae morphogenesis. Biochimica Et Biophysica Acta - Molecular Cell Research, 2009, 1793, 27-32. | 1.9 | 332 |
| 93 | SLP-2 is required for stress-induced mitochondrial hyperfusion. EMBO Journal, 2009, 28, 1589-1600. | 3.5 | 639 |
| 94 | AAA proteases in mitochondria: diverse functions of membrane-bound proteolytic machines. Research in Microbiology, 2009, 160, 711-717. | 1.0 | 79 |
| 95 | An Intersubunit Signaling Network Coordinates ATP Hydrolysis by m-AAA Proteases. Molecular Cell, 2009, 35, 574-585. | 4.5 | 96 |
| 96 | Quality control of mitochondria: protection against neurodegeneration and ageing. EMBO Journal, 2008, 27, 306-314. | 3.5 | 475 |
| 97 | Prohibitins control cell proliferation and apoptosis by regulating OPA1-dependent cristae morphogenesis in mitochondria. Genes and Development, 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. Molecular and Cellular Biology, 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. Molecular and Cellular Biology, 2007, 27, 758-767. | 1.1 | 172 |
| 100 | Prohibitins Interact Genetically with Atp23, a Novel Processing Peptidase and Chaperone for the F1FO-ATP Synthase. Molecular Biology of the Cell, 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. Molecular Biology of the Cell, 2007, 18, 3582-3590. | 0.9 | 162 |
| 102 | Protein Degradation within Mitochondria: Versatile Activities of AAA Proteases and Other Peptidases. Critical Reviews in Biochemistry and Molecular Biology, 2007, 42, 221-242. | 2.3 | 228 |
| 103 | m-AAA protease-driven membrane dislocation allows intramembrane cleavage by rhomboid in mitochondria. EMBO Journal, 2007, 26, 325-335. | 3.5 | 100 |
| 104 | Studying Proteolysis Within Mitochondria. Methods in Molecular Biology, 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. Gene, 2006, 367, 74-88. | 1.0 | 47 |
| 106 | Substrate specific consequences of central pore mutations in the i-AAA protease Yme1 on substrate engagement. Journal of Structural Biology, 2006, 156, 101-108. | 1.3 | 23 |
| 107 | Mitochondrial shaping cuts. Biochimica Et Biophysica Acta - Molecular Cell Research, 2006, 1763, 422-429. | 1.9 | 23 |
| 108 | Characterization of Peptides Released from Mitochondria. Journal of Biological Chemistry, 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. Journal of Biological Chemistry, 2005, 280, 20132-20139. | 1.6 | 77 |
| 110 | Formation of Membrane-bound Ring Complexes by Prohibitins in Mitochondria. Molecular Biology of the Cell, 2005, 16, 248-259. | 0.9 | 284 |
| 111 | The m-AAA Protease Defective in Hereditary Spastic Paraplegia Controls Ribosome Assembly in Mitochondria. Cell, 2005, 123, 277-289. | 13.5 | 344 |
| 112 | Reversible Assembly of the ATP-binding Cassette Transporter Mdl1 with the F1F0-ATP Synthase in Mitochondria. Journal of Biological Chemistry, 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. Journal of Cell Biology, 2003, 163, 777-787. | 2.3 | 241 |
| 114 | Oma1, a Novel Membrane-bound Metallopeptidase in Mitochondria with Activities Overlapping with the m-AAA Protease. Journal of Biological Chemistry, 2003, 278, 46414-46423. | 1.6 | 135 |
| 115 | Membrane protein degradation by AAA proteases in mitochondria. Biochimica Et Biophysica Acta - Molecular Cell Research, 2002, 1592, 89-96. | 1.9 | 131 |
| 116 | Role of the ABC Transporter Mdl1 in Peptide Export from Mitochondria. Science, 2001, 291, 2135-2138. | 6.0 | 200 |
| 117 | AAA proteases of mitochondria: quality control of membrane proteins and regulatory functions during mitochondrial biogenesis. Biochemical Society Transactions, 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 ofNeurospora crassa. Molecular Biology of the Cell, 2001, 12, 2858-2869. | 0.9 | 31 |
| 119 | AAA proteases: cellular machines for degrading membrane proteins. Trends in Biochemical Sciences, 2000, 25, 247-251. | 3.7 | 206 |
| 120 | Membrane Protein Degradation by AAA Proteases in Mitochondria. Molecular Cell, 2000, 5, 629-638. | 4.5 | 190 |
| 121 | Chaperone-like activity of the AAA domain of the yeast Yme1 AAA protease. Nature, 1999, 398, 348-351. | 13.7 | 210 |
| 122 | Prohibitins Regulate Membrane Protein Degradation by the m-AAA Protease in Mitochondria. Molecular and Cellular Biology, 1999, 19, 3435-3442. | 1.1 | 300 |
| 123 | The YTA10â€“12 Complex, an AAA Protease with Chaperone-like Activity in the Inner Membrane of Mitochondria. Cell, 1996, 85, 875-885. | 13.5 | 301 |