

# Christoph Becker-Pauly

## List of Publications by Year in descending order

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Version: 2024-02-01

90  
papers

3,701  
citations

136950

32  
h-index

144013

57  
g-index

96  
all docs

96  
docs citations

96  
times ranked

4697  
citing authors

#	ARTICLE	IF	CITATIONS
1	Regulation of meprin metalloproteases in mucosal homeostasis. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2022, 1869, 119158.	4.1	7
2	Meprin and ADAM proteases as triggers of systemic inflammation in sepsis. <i>FEBS Letters</i> , 2022, 596, 534-556.	2.8	9
3	Inhibition of ADAM17 impairs endothelial cell necroptosis and blocks metastasis. <i>Journal of Experimental Medicine</i> , 2022, 219, .	8.5	35
4	Protein Synthesis/Degradation: Protein Degradation â€“ Protease Classes â€“ Metalloproteases Meprin Î± and Meprin Î² in Health and Disease. , 2022, , .		0
5	Meprin Î² knockout reduces brain AÎ² levels and rescues learning and memory impairments in the APP/lon mouse model for Alzheimerâ€™s disease. <i>Cellular and Molecular Life Sciences</i> , 2022, 79, 168.	5.4	3
6	PCSK9 acts as a key regulator of AÎ² clearance across the bloodâ€“brain barrier. <i>Cellular and Molecular Life Sciences</i> , 2022, 79, 212.	5.4	16
7	Meprin Î²: A novel regulator of bloodâ€“brain barrier integrity. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2021, 41, 31-44.	4.3	8
8	Discovery and Optimization of Selective Inhibitors of Meprin Î± (Part I). <i>Pharmaceuticals</i> , 2021, 14, 203.	3.8	8
9	Discovery and Optimization of Selective Inhibitors of Meprin Î± (Part II). <i>Pharmaceuticals</i> , 2021, 14, 197.	3.8	6
10	Cell Surface Processing of CD109 by Meprin Î² Leads to the Release of Soluble Fragments and Reduced Expression on Extracellular Vesicles. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 622390.	3.7	8
11	Phosphorylation of meprin Î² controls its cell surface abundance and subsequently diminishes ectodomain shedding. <i>FASEB Journal</i> , 2021, 35, e21677.	0.5	6
12	Distinct contributions of meprins to skin regeneration after injury â€“ Meprin Î± a physiological processor of pro-collagen VII. <i>Matrix Biology Plus</i> , 2021, 11, 100065.	3.5	11
13	Identification of Mep1a as a susceptibility gene for atherosclerosis in mice. <i>Genetics</i> , 2021, 219, .	2.9	6
14	Syndecan-1 shedding by meprin Î² impairs keratinocyte adhesion and differentiation in hyperkeratosis. <i>Matrix Biology</i> , 2021, 102, 37-69.	3.6	6
15	The Swedish dilemma - the almost exclusive use of APP <sup>sw</sup> -based mouse models impedes adequate evaluation of alternative Î²-secretases. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2021, , 119164.	4.1	13
16	Characterization of the Cancer-Associated Meprin Î² Variants G45R and G89R. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 702341.	3.5	4
17	Degradome of soluble ADAM10 and ADAM17 metalloproteases. <i>Cellular and Molecular Life Sciences</i> , 2020, 77, 331-350.	5.4	46
18	Loss of ADAMTS19 causes progressive non-syndromic heart valve disease. <i>Nature Genetics</i> , 2020, 52, 40-47.	21.4	46

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19	Cathepsin S provokes interleukin-6 (IL-6) trans-signaling through cleavage of the IL-6 receptor in vitro. <i>Scientific Reports</i> , 2020, 10, 21612.	3.3	13
20	Meprin $\hat{I}^2$ cleaves TREM2 and controls its phagocytic activity on macrophages. <i>FASEB Journal</i> , 2020, 34, 6675-6687.	0.5	21
21	IL-6 Trans-Signaling in the Brain Influences the Metabolic Phenotype of the 3xTg-AD Mouse Model of Alzheimer's Disease. <i>Cells</i> , 2020, 9, 1605.	4.1	11
22	Meprin $\hat{I}^2$ induces activities of A disintegrin and metalloproteinases 9, 10, and 17 by specific prodomain cleavage. <i>FASEB Journal</i> , 2019, 33, 11925-11940.	0.5	18
23	IL-6 trans-signaling in the brain influences the behavioral and physio-pathological phenotype of the Tg2576 and 3xTgAD mouse models of Alzheimer's disease. <i>Brain, Behavior, and Immunity</i> , 2019, 82, 145-159.	4.1	26
24	Differences in Shedding of the Interleukin-11 Receptor by the Proteases ADAM9, ADAM10, ADAM17, Meprin $\hat{I}^{\pm}$ , Meprin $\hat{I}^2$ and MT1-MMP. <i>International Journal of Molecular Sciences</i> , 2019, 20, 3677.	4.1	22
25	Role of meprin metalloproteases in metastasis and tumor microenvironment. <i>Cancer and Metastasis Reviews</i> , 2019, 38, 347-356.	5.9	15
26	Mammalian plasma fetuin-B is a selective inhibitor of ovastacin and meprin metalloproteinases. <i>Scientific Reports</i> , 2019, 9, 546.	3.3	44
27	Regulation of the alternative $\hat{I}^2$ -secretase meprin $\hat{I}^2$ by ADAM-mediated shedding. <i>Cellular and Molecular Life Sciences</i> , 2019, 76, 3193-3206.	5.4	19
28	The cancer associated meprin $\hat{I}^2$ variant p.G32R provides an additional activation site and promotes cancer cell invasion. <i>Journal of Cell Science</i> , 2019, 132, .	2.0	11
29	Tethering soluble meprin $\hat{I}^{\pm}$ in an enzyme complex to the cell surface affects IBD-associated genes. <i>FASEB Journal</i> , 2019, 33, 7490-7504.	0.5	20
30	The metalloprotease ADAMTS4 generates N-truncated $A\hat{I}^24$ species and marks oligodendrocytes as a source of amyloidogenic peptides in Alzheimer's disease. <i>Acta Neuropathologica</i> , 2019, 137, 239-257.	7.7	44
31	Propeptide glycosylation and galectin-3 binding decrease proteolytic activation of human pro-MMP-9/progelatinase B. <i>FEBS Journal</i> , 2019, 286, 930-945.	4.7	7
32	ADAM17 is required for EGF-R-induced intestinal tumors via IL-6 trans-signaling. <i>Journal of Experimental Medicine</i> , 2018, 215, 1205-1225.	8.5	63
33	Docking of Meprin $\hat{I}^{\pm}$ to Heparan Sulphate Protects the Endothelium from Inflammatory Cell Extravasation. <i>Thrombosis and Haemostasis</i> , 2018, 118, 1790-1802.	3.4	12
34	Inhibitors of BMP-1/tolloid-like proteinases: efficacy, selectivity and cellular toxicity. <i>FEBS Open Bio</i> , 2018, 8, 2011-2021.	2.3	16
35	Meprin metalloproteases: Molecular regulation and function in inflammation and fibrosis. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2017, 1864, 2096-2104.	4.1	30
36	Meprin Metalloproteases Generate Biologically Active Soluble Interleukin-6 Receptor to Induce Trans-Signaling. <i>Scientific Reports</i> , 2017, 7, 44053.	3.3	49

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37	Meprin $\hat{1}^2$ and BMP-1 are differentially regulated by CaCl <sub>2</sub> . Cell Calcium, 2017, 65, 8-13.	2.4	5
38	Ectodomain shedding of CD99 within highly conserved regions is mediated by the metalloprotease meprin $\hat{1}^2$ and promotes transendothelial cell migration. FASEB Journal, 2017, 31, 1226-1237.	0.5	31
39	Mucus Detachment by Host Metalloprotease Meprin $\hat{1}^2$ Requires Shedding of Its Inactive Pro-form, which Is Abrogated by the Pathogenic Protease RgpB. Cell Reports, 2017, 21, 2090-2103.	6.4	31
40	Deficiency of the DSPP-cleaving enzymes meprin $\hat{1}^{\pm}$ and meprin $\hat{1}^2$ does not result in dentin malformation in mice. Cell and Tissue Research, 2017, 367, 351-358.	2.9	11
41	Proteolytic Origin of the Soluble Human IL-6R In Vivo and a Decisive Role of N-Glycosylation. PLoS Biology, 2017, 15, e2000080.	5.6	99
42	Metalloproteinase meprin $\hat{1}^{\pm}$ regulates migration and invasion of human hepatocarcinoma cells and is a mediator of the oncoprotein Reptin. Oncotarget, 2017, 8, 7839-7851.	1.8	20
43	Cancer-associated mutations in the canonical cleavage site do not influence CD99 shedding by the metalloprotease meprin $\hat{1}^2$ but alter cell migration <i>in vitro</i> . Oncotarget, 2017, 8, 54873-54888.	1.8	13
44	Determination of cleavage site of Reelin between its sixth and seventh repeat and contribution of meprin metalloproteases to the cleavage. Journal of Biochemistry, 2016, 159, mvv102.	1.7	23
45	Discovery of an enzyme and substrate selective inhibitor of ADAM10 using an exosite-binding glycosylated substrate. Scientific Reports, 2016, 6, 11.	3.3	154
46	The intact Kunitz domain protects the amyloid precursor protein from being processed by matriptase-2. Biological Chemistry, 2016, 397, 777-790.	2.5	10
47	Tetraspanin 8 is an interactor of the metalloprotease meprin $\hat{1}^2$ within tetraspanin-enriched microdomains. Biological Chemistry, 2016, .	2.5	1
48	Tetraspanin 8 is an interactor of the metalloprotease meprin $\hat{1}^2$ within tetraspanin-enriched microdomains. Biological Chemistry, 2016, 397, 857-869.	2.5	14
49	Novel Potent Proline-Based Metalloproteinase Inhibitors: Design, (Radio)Synthesis, and First in Vivo Evaluation as Radiotracers for Positron Emission Tomography. Journal of Medicinal Chemistry, 2016, 59, 9541-9559.	6.4	13
50	Mice are not Men: ADAM30 Findings Emphasize a Broader Look Towards Murine Alzheimer's Disease Models. EBioMedicine, 2016, 9, 19-20.	6.1	0
51	Generation of aggregation prone N-terminally truncated amyloid $\hat{1}^2$ peptides by meprin $\hat{1}^2$ depends on the sequence specificity at the cleavage site. Molecular Neurodegeneration, 2016, 11, 19.	10.8	65
52	Human and Murine Interleukin 23 Receptors Are Novel Substrates for A Disintegrin and Metalloproteases ADAM10 and ADAM17. Journal of Biological Chemistry, 2016, 291, 10551-10561.	3.4	20
53	Development and Validation of a Small Single-domain Antibody That Effectively Inhibits Matrix Metalloproteinase 8. Molecular Therapy, 2016, 24, 890-902.	8.2	23
54	The role of interleukin-6 signaling in nervous tissue. Biochimica Et Biophysica Acta - Molecular Cell Research, 2016, 1863, 1218-1227.	4.1	335

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55	The Metalloprotease Meprin $\hat{I}^2$ Is an Alternative $\hat{I}^2$ -Secretase of APP. <i>Frontiers in Molecular Neuroscience</i> , 2016, 9, 159.	2.9	43
56	Metalloprotease meprin $\hat{I}^2$ is activated by transmembrane serine protease matriptase-2 at the cell surface thereby enhancing APP shedding. <i>Biochemical Journal</i> , 2015, 470, 91-103.	3.7	39
57	Calcium negatively regulates meprin $\hat{I}^2$ activity and attenuates substrate cleavage. <i>FASEB Journal</i> , 2015, 29, 3549-3557.	0.5	17
58	Enhanced Peptide Stability Against Protease Digestion Induced by Intrinsic Factor Binding of a Vitamin B <sub>12</sub> Conjugate of Exendin-4. <i>Molecular Pharmaceutics</i> , 2015, 12, 3502-3506.	4.6	13
59	Meprin $\hat{I}^{\pm}$ and meprin $\hat{I}^2$ : Procollagen proteinases in health and disease. <i>Matrix Biology</i> , 2015, 44-46, 7-13.	3.6	69
60	Evaluation of $\hat{A}^1\hat{A}^1\hat{A}^1$ In-Labelled Exendin-4 Derivatives Containing Different Meprin $\hat{I}^2$ -Specific Cleavable Linkers. <i>PLoS ONE</i> , 2015, 10, e0123443.	2.5	20
61	Development of high throughput screening assays and pilot screen for inhibitors of metalloproteases meprin $\hat{I}^{\pm}$ and $\hat{I}^2$ . <i>Biopolymers</i> , 2014, 102, 396-406.	2.4	20
62	Mapping orphan proteases by proteomics: Meprin metalloproteases deciphered as potential therapeutic targets. <i>Proteomics - Clinical Applications</i> , 2014, 8, 382-388.	1.6	6
63	Microbial-induced meprin $\hat{I}^2$ cleavage in MUC2 mucin and a functional CFTR channel are required to release anchored small intestinal mucus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 12396-12401.	7.1	159
64	LC-MS Based Cleavage Site Profiling of the Proteases ADAM10 and ADAM17 Using Proteome-Derived Peptide Libraries. <i>Journal of Proteome Research</i> , 2014, 13, 2205-2214.	3.7	86
65	TNF $\hat{I}^{\pm}$ cleavage beyond TACE/ADAM17: matrix metalloproteinase 13 is a potential therapeutic target in sepsis and colitis. <i>EMBO Molecular Medicine</i> , 2013, 5, 970-972.	6.9	18
66	Short-term TNF $\hat{I}^{\pm}$ shedding is independent of cytoplasmic phosphorylation or furin cleavage of ADAM17. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2013, 1833, 3355-3367.	4.1	47
67	The substrate degradome of meprin metalloproteases reveals an unexpected proteolytic link between meprin $\hat{I}^2$ and ADAM10. <i>Cellular and Molecular Life Sciences</i> , 2013, 70, 309-333.	5.4	112
68	The metalloproteases meprin $\hat{I}^{\pm}$ and meprin $\hat{I}^2$ : unique enzymes in inflammation, neurodegeneration, cancer and fibrosis. <i>Biochemical Journal</i> , 2013, 450, 253-264.	3.7	120
69	Metalloproteases meprin $\hat{I}^{\pm}$ and meprin $\hat{I}^2$ are C- and N-procollagen proteinases important for collagen assembly and tensile strength. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 14219-14224.	7.1	115
70	Sizzled Is Unique among Secreted Frizzled-related Proteins for Its Ability to Specifically Inhibit Bone Morphogenetic Protein-1 (BMP-1)/Tolloid-like Proteinases. <i>Journal of Biological Chemistry</i> , 2012, 287, 33581-33593.	3.4	30
71	Meprin $\hat{I}^{\pm}$ Transactivates the Epidermal Growth Factor Receptor (EGFR) via Ligand Shedding, thereby Enhancing Colorectal Cancer Cell Proliferation and Migration. <i>Journal of Biological Chemistry</i> , 2012, 287, 35201-35211.	3.4	32
72	Meprins process matrix metalloproteinase-9 (MMP-9)/gelatinase B and enhance the activation kinetics by MMP-3. <i>FEBS Letters</i> , 2012, 586, 4264-4269.	2.8	22

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73	The Metalloprotease Meprin $\hat{1}^2$ Generates Amino Terminal-truncated Amyloid $\hat{1}^2$ Peptide Species. <i>Journal of Biological Chemistry</i> , 2012, 287, 33304-33313.	3.4	125
74	Structural basis for the sheddase function of human meprin $\hat{1}^2$ metalloproteinase at the plasma membrane. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 16131-16136.	7.1	74
75	TMPRSS4 is a type II transmembrane serine protease involved in cancer and viral infections. <i>Biological Chemistry</i> , 2012, 393, 907-914.	2.5	21
76	Proteomic Identification of Protease Cleavage Sites Characterizes Prime and Non-prime Specificity of Cysteine Cathepsins B, L, and S. <i>Journal of Proteome Research</i> , 2011, 10, 5363-5373.	3.7	148
77	Proteomic Analyses Reveal an Acidic Prime Side Specificity for the Astacin Metalloprotease Family Reflected by Physiological Substrates. <i>Molecular and Cellular Proteomics</i> , 2011, 10, M111.009233.	3.8	113
78	Metalloprotease Meprin $\hat{1}^2$ Generates Nontoxic N-terminal Amyloid Precursor Protein Fragments in Vivo. <i>Journal of Biological Chemistry</i> , 2011, 286, 27741-27750.	3.4	87
79	Role of Meprins to Protect Ileal Mucosa of Crohn's Disease Patients from Colonization by Adherent-Invasive <i>E. coli</i> . <i>PLoS ONE</i> , 2011, 6, e21199.	2.5	41
80	Enhanced Activity of Meprin- $\hat{1}\pm$ , a Pro-Migratory and Pro-Angiogenic Protease, in Colorectal Cancer. <i>PLoS ONE</i> , 2011, 6, e26450.	2.5	30
81	Analyzing the protease web in skin: meprin metalloproteases are activated specifically by KLK4, 5 and 8 vice versa leading to processing of proKLK7 thereby triggering its activation. <i>Biological Chemistry</i> , 2010, 391, 455-60.	2.5	73
82	Processing of Procollagen III by Meprins: New Players in Extracellular Matrix Assembly?. <i>Journal of Investigative Dermatology</i> , 2010, 130, 2727-2735.	0.7	85
83	Fetuin-A and Cystatin C Are Endogenous Inhibitors of Human Meprin Metalloproteases. <i>Biochemistry</i> , 2010, 49, 8599-8607.	2.5	69
84	Specific processing of tenascin-C by the metalloprotease meprin $\hat{1}^2$ neutralizes its inhibition of cell spreading. <i>Matrix Biology</i> , 2010, 29, 31-42.	3.6	35
85	Let It Flow: Morpholino Knockdown in Zebrafish Embryos Reveals a Pro-Angiogenic Effect of the Metalloprotease Meprin $\hat{1}\pm$ . <i>PLoS ONE</i> , 2010, 5, e8835.	2.5	42
86	Transglutaminase-1 and Bathing Suit Ichthyosis: Molecular Analysis of Gene/Environment Interactions. <i>Journal of Investigative Dermatology</i> , 2009, 129, 2068-2071.	0.7	41
87	News from an Ancient World: Two Novel Astacin Metalloproteases from the Horseshoe Crab. <i>Journal of Molecular Biology</i> , 2009, 385, 236-248.	4.2	31
88	Metalloprotease Meprin $\hat{1}^2$ in Rat Kidney: Glomerular Localization and Differential Expression in Glomerulonephritis. <i>PLoS ONE</i> , 2008, 3, e2278.	2.5	31
89	Identification and characterization of onchoastacin, an astacin-like metalloproteinase from the filaria <i>Onchocerca volvulus</i> . <i>Microbes and Infection</i> , 2007, 9, 498-506.	1.9	32
90	The $\hat{1}\pm$ and $\hat{1}^2$ Subunits of the Metalloprotease Meprin Are Expressed in Separate Layers of Human Epidermis, Revealing Different Functions in Keratinocyte Proliferation and Differentiation. <i>Journal of Investigative Dermatology</i> , 2007, 127, 1115-1125.	0.7	101