

Philippe E Van Den Steen

List of Publications by Year in descending order

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104
papers

8,930
citations

61984

43
h-index

42399

92
g-index

104
all docs

104
docs citations

104
times ranked

11364
citing authors

#	ARTICLE	IF	CITATIONS
1	Biochemistry and Molecular Biology of Gelatinase B or Matrix Metalloproteinase-9 (MMP-9). <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2002, 37, 375-536.	5.2	805
2	Matrix metalloproteinase inhibitors as therapy for inflammatory and vascular diseases. <i>Nature Reviews Drug Discovery</i> , 2007, 6, 480-498.	46.4	680
3	Concepts and Principles of O-Linked Glycosylation. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 1998, 33, 151-208.	5.2	633
4	Biochemistry and molecular biology of gelatinase B or matrix metalloproteinase-9 (MMP-9): The next decade. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2013, 48, 222-272.	5.2	622
5	Neutrophil gelatinase B potentiates interleukin-8 tenfold by aminoterminal processing, whereas it degrades CTAP-III, PF-4, and GRO-1 α and leaves RANTES and MCP-2 intact. <i>Blood</i> , 2000, 96, 2673-2681.	1.4	615
6	Gelatinase B: a tuner and amplifier of immune functions. <i>Trends in Immunology</i> , 2001, 22, 571-579.	6.8	363
7	The Biochemical, Biological, and Pathological Kaleidoscope of Cell Surface Substrates Processed by Matrix Metalloproteinases. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2007, 42, 113-185.	5.2	325
8	Zymography methods for visualizing hydrolytic enzymes. <i>Nature Methods</i> , 2013, 10, 211-220.	19.0	271
9	Gelatinase B/MMP-9 and neutrophil collagenase/MMP-8 process the chemokines human GCP-2/CXCL6, ENA-78/CXCL5 and mouse GCP-2/LIX and modulate their physiological activities. <i>FEBS Journal</i> , 2003, 270, 3739-3749.	0.2	253
10	CXCR3 ligands in disease and therapy. <i>Cytokine and Growth Factor Reviews</i> , 2015, 26, 311-327.	7.2	239
11	Inhibition of Enzymatic Degradation of Adhesive-Dentin Interfaces. <i>Journal of Dental Research</i> , 2009, 88, 1101-1106.	5.2	206
12	Cleavage of denatured natural collagen type II by neutrophil gelatinase B reveals enzyme specificity, post-translational modifications in the substrate, and the formation of remnant epitopes in rheumatoid arthritis. <i>FASEB Journal</i> , 2002, 16, 379-389.	0.5	167
13	The Hemopexin and O-Glycosylated Domains Tune Gelatinase B/MMP-9 Bioavailability via Inhibition and Binding to Cargo Receptors. <i>Journal of Biological Chemistry</i> , 2006, 281, 18626-18637.	3.4	163
14	α 4 β 1 integrin and 190-kDa CD44v constitute a cell surface docking complex for gelatinase B/MMP-9 in chronic leukemic but not in normal B cells. <i>Blood</i> , 2008, 112, 169-178.	1.4	140
15	Matrix Metalloproteinase-9 Promotes Chronic Lymphocytic Leukemia B Cell Survival through Its Hemopexin Domain. <i>Cancer Cell</i> , 2010, 17, 160-172.	16.8	138
16	Hemopexin domains as multifunctional liganding modules in matrix metalloproteinases and other proteins. <i>Journal of Leukocyte Biology</i> , 2007, 81, 870-892.	3.3	135
17	Neutrophil MMP-9 Proenzyme, Unencumbered by TIMP-1, Undergoes Efficient Activation in Vivo and Catalytically Induces Angiogenesis via a Basic Fibroblast Growth Factor (FGF-2)/FGFR-2 Pathway. <i>Journal of Biological Chemistry</i> , 2009, 284, 25854-25866.	3.4	119
18	Insights into the Structure and Domain Flexibility of Full-Length Pro-Matrix Metalloproteinase-9/Gelatinase B. <i>Structure</i> , 2007, 15, 1227-1236.	3.3	113

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19	The immunological balance between host and parasite in malaria. <i>FEMS Microbiology Reviews</i> , 2016, 40, 208-257.	8.6	112
20	Glycosylation of Natural Human Neutrophil Gelatinase B and Neutrophil Gelatinase B-Associated Lipocalin. <i>Biochemistry</i> , 1999, 38, 13937-13950.	2.5	108
21	Matrix metalloproteinases as therapeutic targets in protozoan parasitic infections. , 2012, 133, 257-279.		98
22	Carboxyterminal cleavage of the chemokines MIG and IP-10 by gelatinase B and neutrophil collagenase. <i>Biochemical and Biophysical Research Communications</i> , 2003, 310, 889-896.	2.1	97
23	CXCR3 determines strain susceptibility to murine cerebral malaria by mediating T α lymphocyte migration toward IFN γ -induced chemokines. <i>European Journal of Immunology</i> , 2008, 38, 1082-1095.	2.9	97
24	Immunopathology and Dexamethasone Therapy in a New Model for Malaria-associated Acute Respiratory Distress Syndrome. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2010, 181, 957-968.	5.6	96
25	Gelatinase B/matrix metalloproteinase-9 cleaves interferon γ and is a target for immunotherapy. <i>Brain</i> , 2003, 126, 1371-1381.	7.6	93
26	Enzymatic degradation of adhesive dentin interfaces produced by mild self-etch adhesives. <i>European Journal of Oral Sciences</i> , 2010, 118, 494-501.	1.5	89
27	O-Glycan Analysis of Natural Human Neutrophil Gelatinase B Using a Combination of Normal Phase-HPLC and Online Tandem Mass Spectrometry: Implications for the Domain Organization of the Enzyme. <i>Biochemistry</i> , 2000, 39, 15695-15704.	2.5	87
28	Matrix remodelling enzymes, the protease cascade and glycosylation. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2001, 1528, 61-73.	2.4	84
29	A monoclonal antibody inhibits gelatinase B/MMP-9 by selective binding to part of the catalytic domain and not to the fibronectin or zinc binding domains. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2007, 1770, 178-186.	2.4	81
30	Pathogenesis of malaria-associated acute respiratory distress syndrome. <i>Trends in Parasitology</i> , 2013, 29, 346-358.	3.3	79
31	Hemozoin Induces Lung Inflammation and Correlates with Malaria-Associated Acute Respiratory Distress Syndrome. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2013, 48, 589-600.	2.9	76
32	Endothelial Response to Glucocorticoids in Inflammatory Diseases. <i>Frontiers in Immunology</i> , 2016, 7, 592.	4.8	76
33	Direct Visualization of Protease Action on Collagen Triple Helical Structure. <i>PLoS ONE</i> , 2010, 5, e11043.	2.5	70
34	Matrix metalloproteinases, tissue inhibitors of MMPs and TACE in experimental cerebral malaria. <i>Laboratory Investigation</i> , 2006, 86, 873-888.	3.7	64
35	Replication of <i>Plasmodium</i> in reticulocytes can occur without hemozoin formation, resulting in chloroquine resistance. <i>Journal of Experimental Medicine</i> , 2015, 212, 893-903.	8.5	62
36	Gelatinase B is diabetogenic in acute and chronic pancreatitis by cleaving insulin. <i>FASEB Journal</i> , 2003, 17, 1-13.	0.5	61

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37	Gelatin degradation assay reveals MMP-9 inhibitors and function of O-glycosylated domain. <i>World Journal of Biological Chemistry</i> , 2011, 2, 14.	4.3	56
38	Î²-Hematin Interaction with the Hemopexin Domain of Gelatinase B/MMP-9 Provokes Autocatalytic Processing of the Propeptide, Thereby Priming Activation by MMP-3. <i>Biochemistry</i> , 2008, 47, 2689-2699.	2.5	54
39	Generation of Glycosylated Remnant Epitopes from Human Collagen Type II by Gelatinase B. <i>Biochemistry</i> , 2004, 43, 10809-10816.	2.5	50
40	Neutrophil Gelatinase B and Chemokines in Leukocytosis and Stem Cell Mobilization. <i>Leukemia and Lymphoma</i> , 2002, 43, 233-241.	1.3	49
41	Targeting neutrophil collagenase/matrix metalloproteinase-8 and gelatinase B/matrix metalloproteinase-9 with a peptidomimetic inhibitor protects against endotoxin shock. <i>Biochemical Pharmacology</i> , 2005, 70, 535-544.	4.4	49
42	A novel rationale for inhibition of gelatinase B in multiple sclerosis: MMP-9 destroys Î±B-crystallin and generates a promiscuous T cell epitope. <i>Journal of Neuroimmunology</i> , 2003, 141, 47-57.	2.3	46
43	Deficiency of gelatinase B/MMP-9 aggravates lpr-induced lymphoproliferation and lupus-like systemic autoimmune disease. <i>Journal of Autoimmunity</i> , 2011, 36, 239-252.	6.5	46
44	The Collagen Binding Domain of Gelatinase A Modulates Degradation of Collagen IV by Gelatinase B. <i>Journal of Molecular Biology</i> , 2009, 386, 419-434.	4.2	44
45	Expression of angiogenic and fibrogenic factors in proliferative vitreoretinal disorders. <i>International Ophthalmology</i> , 2007, 27, 11-22.	1.4	42
46	Natural haemozoin modulates matrix metalloproteinases and induces morphological changes in human microvascular endothelium. <i>Cellular Microbiology</i> , 2011, 13, 1275-1285.	2.1	42
47	Circular trimers of gelatinase B/matrix metalloproteinase-9 constitute a distinct population of functional enzyme molecules differentially regulated by tissue inhibitor of metalloproteinases-1. <i>Biochemical Journal</i> , 2015, 465, 259-270.	3.7	39
48	Inhibitors of gelatinase B/matrix metalloproteinase-9 activity. <i>Biochemical Pharmacology</i> , 2004, 67, 1001-1009.	4.4	38
49	Remnant epitopes, autoimmunity and glycosylation. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2006, 1760, 610-615.	2.4	38
50	Remnant Epitopes Generate Autoimmunity: From Rheumatoid Arthritis and Multiple Sclerosis to Diabetes. <i>Advances in Experimental Medicine and Biology</i> , 2003, 535, 69-77.	1.6	33
51	Cytokine and Protease Glycosylation as a Regulatory Mechanism in Inflammation and Autoimmunity. <i>Advances in Experimental Medicine and Biology</i> , 1998, 435, 133-143.	1.6	31
52	Gelatinase B/matrix metalloproteinase-9 provokes cataract by cleaving lens Î²B1 crystallin. <i>FASEB Journal</i> , 2005, 19, 29-35.	0.5	30
53	Hemozoin Induces Hepatic Inflammation in Mice and Is Differentially Associated with Liver Pathology Depending on the Plasmodium Strain. <i>PLoS ONE</i> , 2014, 9, e113519.	2.5	30
54	Ajuga remota Benth.: From ethnopharmacology to phytomedical perspective in the treatment of malaria. <i>Phytomedicine</i> , 2011, 18, 1229-1237.	5.3	29

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55	Etiology of lactic acidosis in malaria. <i>PLoS Pathogens</i> , 2021, 17, e1009122.	4.7	29
56	Adrenal hormones mediate disease tolerance in malaria. <i>Nature Communications</i> , 2018, 9, 4525.	12.8	27
57	Structural Characterization of the Catalytic Active Site in the Latent and Active Natural Gelatinase B from Human Neutrophils. <i>Journal of Biological Chemistry</i> , 2000, 275, 34335-34343.	3.4	26
58	Improved methods for haemozoin quantification in tissues yield organ-and parasite-specific information in malaria-infected mice. <i>Malaria Journal</i> , 2012, 11, 166.	2.3	26
59	Experimental malaria-associated acute respiratory distress syndrome is dependent on the parasite-host combination and coincides with normocyte invasion. <i>Malaria Journal</i> , 2018, 17, 102.	2.3	25
60	Limitations of neutrophil depletion by anti-Ly6G antibodies in two heterogenic immunological models. <i>Immunology Letters</i> , 2019, 212, 30-36.	2.5	25
61	Oligosaccharides of recombinant mouse gelatinase B variants. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 1998, 1425, 587-598.	2.4	24
62	Overexpression of progelatinase B/proMMP-9 affects migration regulatory pathways and impairs chronic lymphocytic leukemia cell homing to bone marrow and spleen. <i>Journal of Leukocyte Biology</i> , 2014, 96, 185-199.	3.3	23
63	Neutrophil gelatinase B potentiates interleukin-8 tenfold by aminoterminal processing, whereas it degrades CTAP-III, PF-4, and GRO-1 α and leaves RANTES and MCP-2 intact. <i>Blood</i> , 2000, 96, 2673-2681.	1.4	23
64	Meprins process matrix metalloproteinase-9 (MMP-9)/gelatinase B and enhance the activation kinetics by MMP-9. <i>FEBS Letters</i> , 2012, 586, 4264-4269.	2.8	22
65	Simulation of Evolution-Selected Propeptide by High-Throughput Selection of a Peptidomimetic Inhibitor on a Capillary DNA Sequencer Platform. <i>Analytical Chemistry</i> , 2005, 77, 2116-2124.	6.5	21
66	Cancer-Associated Glycoforms of Gelatinase B Exhibit a Decreased Level of Binding to Galectin-3. <i>Biochemistry</i> , 2006, 45, 15249-15258.	2.5	20
67	Enzymatic processing by MMP-2 and MMP-9 of wild-type and mutated mouse β 2-microglobulin. <i>IUBMB Life</i> , 2012, 64, 988-994.	3.4	20
68	Adenylyl cyclase-associated protein-1/CAP1 as a biological target substrate of gelatinase B/MMP-9. <i>Experimental Cell Research</i> , 2008, 314, 2739-2749.	2.6	19
69	Differential induction of malaria liver pathology in mice infected with <i>Plasmodium chabaudi</i> AS or <i>Plasmodium berghei</i> NK65. <i>Malaria Journal</i> , 2018, 17, 18.	2.3	19
70	Neutralizing antibodies in gene-defective hosts. <i>Trends in Immunology</i> , 2003, 24, 94-100.	6.8	18
71	Targeting Matrix Metalloproteinases in Acute Inflammatory Shock Syndromes. <i>Combinatorial Chemistry and High Throughput Screening</i> , 2012, 15, 555-570.	1.1	18
72	Pathogenic CD8+ T Cells Cause Increased Levels of VEGF-A in Experimental Malaria-Associated Acute Respiratory Distress Syndrome, but Therapeutic VEGFR Inhibition Is Not Effective. <i>Frontiers in Cellular and Infection Microbiology</i> , 2017, 7, 416.	3.9	18

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73	Immunopathological effects of malaria pigment or hemozoin and other crystals. <i>BioFactors</i> , 2014, 40, 59-78.	5.4	17
74	Astemizole analogues with reduced hERG inhibition as potent antimalarial compounds. <i>Bioorganic and Medicinal Chemistry</i> , 2017, 25, 6332-6344.	3.0	17
75	Hemozoin in Malarial Complications: More Questions Than Answers. <i>Trends in Parasitology</i> , 2021, 37, 226-239.	3.3	16
76	Insufficiently Defined Genetic Background Confounds Phenotypes in Transgenic Studies As Exemplified by Malaria Infection in Tlr9 Knockout Mice. <i>PLoS ONE</i> , 2011, 6, e27131.	2.5	16
77	Increased gelatinase B/matrix metalloproteinase 9 (MMP-9) activity in a murine model of acute coxsackievirus B4-induced pancreatitis. <i>Virology</i> , 2008, 382, 20-27.	2.4	15
78	Natural Haemozoin Induces Expression and Release of Human Monocyte Tissue Inhibitor of Metalloproteinase-1. <i>PLoS ONE</i> , 2013, 8, e71468.	2.5	15
79	Inhibition of Lethal Endotoxin Shock with an L-Pyridylalanine Containing Metalloproteinase Inhibitor Selected by High-Throughput Screening of a New Peptide Library. <i>Combinatorial Chemistry and High Throughput Screening</i> , 2006, 9, 599-611.	1.1	14
80	Reverse degradation, monitoring of proteolytic trimming by multi-CE and confocal detection of fluorescent substrates and reaction products. <i>Electrophoresis</i> , 2009, 30, 2366-2377.	2.4	13
81	Altered Lipid Composition of Surfactant and Lung Tissue in Murine Experimental Malaria-Associated Acute Respiratory Distress Syndrome. <i>PLoS ONE</i> , 2015, 10, e0143195.	2.5	13
82	MMP-9 affects gene expression in chronic lymphocytic leukemia revealing CD99 as an MMP-9 target and a novel partner in malignant cell migration/arrest. <i>Oncogene</i> , 2019, 38, 4605-4619.	5.9	11
83	Virus entry inhibition by chlorite-oxidized oxyamylose versus induction of antiviral interferon by poly(I:C). <i>Biochemical Pharmacology</i> , 2008, 76, 831-840.	4.4	10
84	CCR2 Is Dispensable for Disease Resolution but Required for the Restoration of Leukocyte Homeostasis Upon Experimental Malaria-Associated Acute Respiratory Distress Syndrome. <i>Frontiers in Immunology</i> , 2020, 11, 628643.	4.8	10
85	<i>Plasmodium berghei</i> NK65 in Combination with IFN- β Induces Endothelial Glucocorticoid Resistance via Sustained Activation of p38 and JNK. <i>Frontiers in Immunology</i> , 2017, 8, 1199.	4.8	9
86	Definition of peptide inhibitors from a synthetic peptide library by targeting gelatinase B/matrix metalloproteinase-9 (MMP-9) and TNF- α converting enzyme (TACE/ADAM-17). <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2012, 27, 533-540.	5.2	8
87	Critical Roles of Endogenous Glucocorticoids for Disease Tolerance in Malaria. <i>Trends in Parasitology</i> , 2019, 35, 918-930.	3.3	8
88	Matrix metalloproteinase-9 induces a pro-angiogenic profile in chronic lymphocytic leukemia cells. <i>Biochemical and Biophysical Research Communications</i> , 2019, 520, 198-204.	2.1	8
89	von Willebrand factor in experimental malaria-associated acute respiratory distress syndrome. <i>Journal of Thrombosis and Haemostasis</i> , 2019, 17, 1372-1383.	3.8	8
90	A catalytically inactive gelatinase B/MMP-9 mutant impairs homing of chronic lymphocytic leukemia cells by altering migration regulatory pathways. <i>Biochemical and Biophysical Research Communications</i> , 2018, 495, 124-130.	2.1	7

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91	Chemically Synthesized Matrix Metalloproteinase and Angiogenesis-inhibiting Peptides as Anticancer Agents. <i>Anti-Cancer Agents in Medicinal Chemistry</i> , 2014, 14, 483-494.	1.7	7
92	Skeleton binding protein-1-mediated parasite sequestration inhibits spontaneous resolution of malaria-associated acute respiratory distress syndrome. <i>PLoS Pathogens</i> , 2021, 17, e1010114.	4.7	7
93	Inhibition of Neutrophil Collagenase/MMP-8 and Gelatinase B/MMP-9 and Protection against Endotoxin Shock. <i>Journal of Immunology Research</i> , 2014, 2014, 1-10.	2.2	6
94	Release of endothelial activation markers in lungs of patients with malaria-associated acute respiratory distress syndrome. <i>Malaria Journal</i> , 2019, 18, 395.	2.3	6
95	MalarImDB: an open-access literature-based malaria immunology database. <i>Trends in Parasitology</i> , 2014, 30, 309-316.	3.3	5
96	11 β -hydroxysteroid dehydrogenase type 1 has no effect on survival during experimental malaria but affects parasitemia in a parasite strain-specific manner. <i>Scientific Reports</i> , 2017, 7, 13835.	3.3	5
97	Neutrophils in malaria: The good, the bad or the ugly?. <i>Parasite Immunology</i> , 2022, 44, e12912.	1.5	5
98	Contribution of the Ly49E Natural Killer Receptor in the Immune Response to Plasmodium berghei Infection and Control of Hepatic Parasite Development. <i>PLoS ONE</i> , 2014, 9, e87463.	2.5	4
99	von Willebrand factor increases in experimental cerebral malaria but is not essential for late-stage pathogenesis in mice. <i>Journal of Thrombosis and Haemostasis</i> , 2020, 18, 2377-2390.	3.8	2
100	Differential Glycosylation of Gelatinase B from Neutrophils and Breast Cancer Cells. <i>Advances in Experimental Medicine and Biology</i> , 2005, 564, 103-112.	1.6	1
101	Overexpression of progelatinase B/proMMP-9 affects migration regulatory pathways and impairs chronic lymphocytic leukemia cell homing to bone marrow and spleen. <i>Journal of Leukocyte Biology</i> , 2014, , .	3.3	1
102	Immunopathology and dexamethasone therapy in a new model for malaria-associated acute respiratory distress syndrome. <i>Malaria Journal</i> , 2010, 9, .	2.3	0
103	Abstract LB-342: Matrix metalloproteinase-9 is a novel pathogenic factor in B-cell chronic lymphocytic leukemia. , 2010, , .		0
104	Taming the neutrophil: Balance between anti-parasite defence and pathogenesis. <i>Parasite Immunology</i> , 2022, 44, .	1.5	0