

# Jesper Z Haeggström

## List of Publications by Year in descending order

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106  
papers

5,277  
citations

66336

42  
h-index

91872

69  
g-index

107  
all docs

107  
docs citations

107  
times ranked

5787  
citing authors

#	ARTICLE	IF	CITATIONS
1	Lipoxygenase and Leukotriene Pathways: Biochemistry, Biology, and Roles in Disease. <i>Chemical Reviews</i> , 2011, 111, 5866-5898.	47.7	664
2	Crystal structure of human leukotriene A(4) hydrolase, a bifunctional enzyme in inflammation. <i>Nature Structural Biology</i> , 2001, 8, 131-135.	9.7	266
3	Expression of 5-lipoxygenase and leukotriene A <sub>4</sub> hydrolase in human atherosclerotic lesions correlates with symptoms of plaque instability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 8161-8166.	7.1	222
4	Structural basis for synthesis of inflammatory mediators by human leukotriene C4 synthase. <i>Nature</i> , 2007, 448, 613-616.	27.8	166
5	Leukotriene A4 Hydrolase/Aminopeptidase, the Gatekeeper of Chemotactic Leukotriene B4 Biosynthesis. <i>Journal of Biological Chemistry</i> , 2004, 279, 50639-50642.	3.4	165
6	Leukotriene A4 hydrolase: An epoxide hydrolase with peptidase activity. <i>Biochemical and Biophysical Research Communications</i> , 1990, 173, 431-437.	2.1	138
7	Leukotriene A4 hydrolase: A zinc metalloenzyme. <i>Biochemical and Biophysical Research Communications</i> , 1990, 172, 965-970.	2.1	122
8	Antimicrobial peptide LL-37 promotes bacterial phagocytosis by human macrophages. <i>Journal of Leukocyte Biology</i> , 2014, 95, 971-981.	3.3	122
9	The Atlas of Inflammation Resolution (AIR). <i>Molecular Aspects of Medicine</i> , 2020, 74, 100894.	6.4	110
10	Leukotriene biosynthetic enzymes as therapeutic targets. <i>Journal of Clinical Investigation</i> , 2018, 128, 2680-2690.	8.2	109
11	Advances in eicosanoid research, novel therapeutic implications. <i>Biochemical and Biophysical Research Communications</i> , 2010, 396, 135-139.	2.1	107
12	Molecular cloning of a 12-lipoxygenase cDNA from rat brain. <i>FEBS Journal</i> , 1993, 212, 605-612.	0.2	96
13	The Leukotrienes: Immune-Modulating Lipid Mediators of Disease. <i>Advances in Immunology</i> , 2012, 116, 51-92.	2.2	94
14	Leukotriene B <sub>4</sub> /antimicrobial peptide LL-37 proinflammatory circuits are mediated by BLT1 and FPR2/ALX and are counterregulated by lipoxin A <sub>4</sub> and resolvin E1. <i>FASEB Journal</i> , 2011, 25, 1697-1705.	0.5	82
15	Structure-Based Dissection of the Active Site Chemistry of Leukotriene A4 Hydrolase: Implications for M1 Aminopeptidases and Inhibitor Design. <i>Chemistry and Biology</i> , 2008, 15, 920-929.	6.0	81
16	P2X7 Receptor Regulates Internalization of Antimicrobial Peptide LL-37 by Human Macrophages That Promotes Intracellular Pathogen Clearance. <i>Journal of Immunology</i> , 2015, 195, 1191-1201.	0.8	78
17	Differential induction of BLT receptor expression on human endothelial cells by lipopolysaccharide, cytokines, and leukotriene B4. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 6913-6918.	7.1	77
18	Leukotriene A4Hydrolase/Aminopeptidase. <i>Journal of Biological Chemistry</i> , 2002, 277, 1398-1404.	3.4	76

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19	Dominant Expression of the CysLT <sub>2</sub> Receptor Accounts for Calcium Signaling by Cysteinyl Leukotrienes in Human Umbilical Vein Endothelial Cells. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2003, 23, e37-41.	2.4	72
20	Lipoxin and resolvin biosynthesis is dependent on 5-lipoxygenase activating protein. <i>FASEB Journal</i> , 2015, 29, 5029-5043.	0.5	70
21	Crystal structures of leukotriene A <sub>4</sub> hydrolase in complex with captopril and two competitive tight-binding inhibitors. <i>FASEB Journal</i> , 2002, 16, 1648-1650.	0.5	69
22	12- and 15-lipoxygenases in human carotid atherosclerotic lesions: Associations with cerebrovascular symptoms. <i>Atherosclerosis</i> , 2011, 215, 411-416.	0.8	68
23	Human umbilical vein endothelial cells generate leukotriene C <sub>4</sub> via microsomal glutathione <i>S</i> -transferase type 2 and express the CysLT <sub>1</sub> receptor. <i>FEBS Journal</i> , 2001, 268, 2578-2586.	0.2	67
24	Evidence for a Catalytic Role of Tyrosine 383 in the Peptidase Reaction of Leukotriene A <sub>4</sub> Hydrolase. <i>FEBS Journal</i> , 1995, 231, 528-534.	0.2	62
25	Leukotriene B <sub>4</sub> triggers release of the cathelicidin LL-37 from human neutrophils: novel lipid-peptide interactions in innate immune responses. <i>FASEB Journal</i> , 2007, 21, 2897-2905.	0.5	62
26	Human CMV infection induces 5-lipoxygenase expression and leukotriene B <sub>4</sub> production in vascular smooth muscle cells. <i>Journal of Experimental Medicine</i> , 2008, 205, 19-24.	8.5	62
27	Leukotriene B <sub>4</sub> -induced changes in vascular permeability are mediated by neutrophil release of heparin-binding protein (HBP/CAP37/azurocidin). <i>FASEB Journal</i> , 2009, 23, 1750-1757.	0.5	61
28	Expression of enzymes and receptors of the leukotriene pathway in human neuroblastoma promotes tumor survival and provides a target for therapy. <i>FASEB Journal</i> , 2008, 22, 3525-3536.	0.5	59
29	Biosynthesis of leukotriene B <sub>4</sub> . <i>Seminars in Immunology</i> , 2017, 33, 3-15.	5.6	59
30	Leukotriene A <sub>4</sub> hydrolase: an anion activated peptidase. <i>Lipids and Lipid Metabolism</i> , 1992, 1123, 275-281.	2.6	58
31	Allergic Asthmatics Show Divergent Lipid Mediator Profiles from Healthy Controls Both at Baseline and following Birch Pollen Provocation. <i>PLoS ONE</i> , 2012, 7, e33780.	2.5	54
32	Increased expression of leukotriene C <sub>4</sub> synthase and predominant formation of cysteinyl-leukotrienes in human abdominal aortic aneurysm. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 21093-21097.	7.1	51
33	Structures and mechanisms of enzymes in the leukotriene cascade. <i>Biochimie</i> , 2010, 92, 676-681.	2.6	50
34	Binding of Pro-Gly-Pro at the active site of leukotriene A <sub>4</sub> hydrolase/aminopeptidase and development of an epoxide hydrolase selective inhibitor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 4227-4232.	7.1	50
35	Cathelicidin LL-37 Induces Angiogenesis via PGE <sub>2</sub> -EP3 Signaling in Endothelial Cells, In Vivo Inhibition by Aspirin. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2013, 33, 1965-1972.	2.4	49
36	Amino hydroxamic acids as potent inhibitors of leukotriene A <sub>4</sub> hydrolase. <i>Bioorganic and Medicinal Chemistry</i> , 1995, 3, 1405-1415.	3.0	46

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37	Cyclooxygenase-1 and cyclooxygenase-2 expression in rat kidney and adrenal gland after stimulation with systemic lipopolysaccharide. <i>Cell and Tissue Research</i> , 2001, 303, 235-252.	2.9	46
38	Leukotriene A4 Hydrolase. <i>Journal of Biological Chemistry</i> , 2004, 279, 27376-27382.	3.4	46
39	Oxidized but not native cardiolipin has pro-inflammatory effects, which are inhibited by Annexin A5. <i>Atherosclerosis</i> , 2014, 235, 592-598.	0.8	46
40	Molecular cloning and expression of mouse leukotriene A4 hydrolase cDNA. <i>Biochemical and Biophysical Research Communications</i> , 1991, 176, 1516-1524.	2.1	44
41	Thromboxane synthase expression and thromboxane A2 production in the atherosclerotic lesion. <i>Journal of Molecular Medicine</i> , 2010, 88, 795-806.	3.9	44
42	Leukotriene A4 hydrolase: Selective abrogation of leukotriene B4 formation by mutation of aspartic acid 375. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 4215-4220.	7.1	43
43	Structure and catalytic mechanisms of leukotriene A4 hydrolase. <i>Prostaglandins and Other Lipid Mediators</i> , 2007, 83, 198-202.	1.9	43
44	Lipid mediator serum profiles in asthmatics significantly shift following dietary supplementation with omega-3 fatty acids. <i>Molecular Nutrition and Food Research</i> , 2013, 57, 1378-1389.	3.3	43
45	Hexosylceramides as intrathecal markers of worsening disability in multiple sclerosis. <i>Multiple Sclerosis Journal</i> , 2015, 21, 1271-1279.	3.0	43
46	Recombinant mouse leukotriene A4 hydrolase: a zinc metalloenzyme with dual enzymatic activities. <i>BBA - Proteins and Proteomics</i> , 1991, 1080, 96-102.	2.1	42
47	Leukotriene A4 hydrolase. <i>Prostaglandins and Other Lipid Mediators</i> , 2002, 68-69, 495-510.	1.9	37
48	Lipid mediator metabolic profiling demonstrates differences in eicosanoid patterns in two phenotypically distinct mast cell populations. <i>Journal of Lipid Research</i> , 2013, 54, 116-126.	4.2	36
49	Circulating levels of sphingosine-1-phosphate are elevated in severe, but not mild psoriasis and are unresponsive to anti-TNF- $\alpha$ treatment. <i>Scientific Reports</i> , 2015, 5, 12017.	3.3	35
50	Synthesis of glutamic acid analogs as potent inhibitors of leukotriene A4 hydrolase. <i>Bioorganic and Medicinal Chemistry</i> , 2008, 16, 4963-4983.	3.0	34
51	Targeting leukotriene B <sub>4</sub> in inflammation. <i>Expert Opinion on Therapeutic Targets</i> , 2014, 18, 79-93.	3.4	34
52	The Eicosanoids, Redox-Regulated Lipid Mediators in Immunometabolic Disorders. <i>Antioxidants and Redox Signaling</i> , 2018, 29, 275-296.	5.4	33
53	Catalytic Characterization of Human Microsomal Glutathione <i>S</i> -Transferase 2: Identification of Rate-Limiting Steps. <i>Biochemistry</i> , 2013, 52, 1755-1764.	2.5	32
54	Human mast cells express two leukotriene C4 synthase isoenzymes and the CysLT1 receptor. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2002, 1583, 53-62.	2.4	31

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55	Residues from Transmembrane Helices 3 and 5 Participate in Leukotriene B4 Binding to BLT1. <i>Biochemistry</i> , 2006, 45, 5733-5744.	2.5	30
56	Arginine 104 Is a Key Catalytic Residue in Leukotriene C4 Synthase. <i>Journal of Biological Chemistry</i> , 2010, 285, 40771-40776.	3.4	30
57	Targeted knock-down of a structurally atypical zebrafish 12S-lipoxygenase leads to severe impairment of embryonic development. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 20479-20484.	7.1	30
58	Prostaglandin E <sub>2</sub> suppresses hCAP18/LL-37 expression in human macrophages <i>via</i> EP2/EP4: implications for treatment of <i>Mycobacterium tuberculosis</i> infection. <i>FASEB Journal</i> , 2018, 32, 2827-2840.	0.5	30
59	Cathelicidin LL-37 induces time-resolved release of LTB <sub>4</sub> and TXA <sub>2</sub> by human macrophages and triggers eicosanoid generation <i>in vivo</i> . <i>FASEB Journal</i> , 2014, 28, 3456-3467.	0.5	29
60	Cysteinyl Leukotriene Signaling Aggravates Myocardial Hypoxia in Experimental Atherosclerotic Heart Disease. <i>PLoS ONE</i> , 2012, 7, e41786.	2.5	28
61	A dynamic Asp <sup>64</sup> Arg interaction is essential for catalysis in microsomal prostaglandin E <sub>2</sub> synthase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 972-977.	7.1	27
62	Molecular and catalytic properties of three rat leukotriene C4 synthase homologs. <i>Biochemical and Biophysical Research Communications</i> , 2003, 312, 271-276.	2.1	24
63	Zymosan suppresses leukotriene C <sub>4</sub> synthase activity in differentiating monocytes: antagonism by aspirin and protein kinase inhibitors. <i>FASEB Journal</i> , 2011, 25, 1417-1427.	0.5	23
64	Annexin A5 inhibits atherogenic and pro-inflammatory effects of lysophosphatidylcholine. <i>Prostaglandins and Other Lipid Mediators</i> , 2013, 106, 72-78.	1.9	23
65	Crystal Structures of Leukotriene C4 Synthase in Complex with Product Analogs. <i>Journal of Biological Chemistry</i> , 2014, 289, 5199-5207.	3.4	22
66	Cathelicidins positively regulate pancreatic $\beta$ -cell functions. <i>FASEB Journal</i> , 2016, 30, 884-894.	0.5	22
67	Gliotoxin from <i>Aspergillus fumigatus</i> Abrogates Leukotriene B4 Formation through Inhibition of Leukotriene A4 Hydrolase. <i>Cell Chemical Biology</i> , 2019, 26, 524-534.e5.	5.2	22
68	A remarkable activity of human leukotriene A4 hydrolase (LTA4H) toward unnatural amino acids. <i>Amino Acids</i> , 2014, 46, 1313-1320.	2.7	21
69	Capturing LTA <sub>4</sub> hydrolase in action: Insights to the chemistry and dynamics of chemotactic LTB <sub>4</sub> synthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 9689-9694.	7.1	20
70	Biosynthetic metabolomes of cysteinyl $\epsilon$ -containing immunoresolvents. <i>FASEB Journal</i> , 2019, 33, 13794-13807.	0.5	20
71	Tandem Benzophenone Amino Pyridines, Potent and Selective Inhibitors of Human Leukotriene C <sub>4</sub> Synthase. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2015, 355, 108-116.	2.5	19
72	Trimeric microsomal glutathione transferase 2 displays one third of the sites reactivity. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2015, 1854, 1365-1371.	2.3	19

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73	Formation of a Novel Enzymatic Metabolite of Leukotriene A4 in Tissues of <i>Xenopus laevis</i> . <i>FEBS Journal</i> , 1996, 238, 599-605.	0.2	16
74	Pre-Steady-State Kinetic Characterization of Thiolate Anion Formation in Human Leukotriene C <sub>4</sub> Synthase. <i>Biochemistry</i> , 2012, 51, 848-856.	2.5	16
75	Cysteinyl leukotriene receptor 1 antagonism prevents experimental abdominal aortic aneurysm. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 1907-1912.	7.1	16
76	Leukotrien A4 hydrolase and the committed step in leukotriene B4 biosynthesis. <i>Clinical Reviews in Allergy and Immunology</i> , 1999, 17, 111-131.	6.5	15
77	Crystal structures of human MGST2 reveal synchronized conformational changes regulating catalysis. <i>Nature Communications</i> , 2021, 12, 1728.	12.8	15
78	Analysis of the Molecular Mechanism of Substrate-mediated Inactivation of Leukotriene A4 Hydrolase. <i>Journal of Biological Chemistry</i> , 1998, 273, 11570-11575.	3.4	14
79	Human leukocytes selectively convert 4 <i>S</i> ,5 <i>S</i> -epoxy-resolvin to resolvin D3, resolvin D4, and a cys-resolvin isomer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	14
80	Purification and characterization of leukotriene A4hydrolase from <i>Xenopus laevis</i> oocytes. <i>FEBS Letters</i> , 1998, 433, 219-222.	2.8	13
81	High-Dose Simvastatin Exhibits Enhanced Lipid-Lowering Effects Relative to Simvastatin/Ezetimibe Combination Therapy. <i>Circulation: Cardiovascular Genetics</i> , 2014, 7, 955-964.	5.1	13
82	Phosphorylation of Leukotriene C4 Synthase at Serine 36 Impairs Catalytic Activity. <i>Journal of Biological Chemistry</i> , 2016, 291, 18410-18418.	3.4	12
83	Integral Membrane Enzymes in Eicosanoid Metabolism: Structures, Mechanisms and Inhibitor Design. <i>Journal of Molecular Biology</i> , 2020, 432, 4999-5022.	4.2	11
84	Activation of metabolite receptor GPR91 promotes platelet aggregation and transcellular biosynthesis of leukotriene C4. <i>Journal of Thrombosis and Haemostasis</i> , 2020, 18, 976-984.	3.8	11
85	Crystal structure of leukotriene A <sub>4</sub> hydrolase in complex with kelatorphan, implications for design of zinc metallopeptidase inhibitors. <i>FEBS Letters</i> , 2010, 584, 3446-3451.	2.8	10
86	Development of smart cell-free and cell-based assay systems for investigation of leukotriene C 4 synthase activity and evaluation of inhibitors. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2016, 1861, 1605-1613.	2.4	10
87	Kinetic investigation of human 5-lipoxygenase with arachidonic acid. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016, 26, 3547-3551.	2.2	10
88	Structure and Inhibition of Mouse Leukotriene C4 Synthase. <i>PLoS ONE</i> , 2014, 9, e96763.	2.5	10
89	Subcellular localization of leukotriene receptors in human endothelial cells. <i>Experimental Cell Research</i> , 2010, 316, 2790-2796.	2.6	9
90	Commonly used leukotriene B4 receptor antagonists possess intrinsic activity as agonists in human endothelial cells: Effects on calcium transients, adhesive events and mediator release. <i>Prostaglandins Leukotrienes and Essential Fatty Acids</i> , 2011, 84, 109-112.	2.2	8

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91	Product formation controlled by substrate dynamics in leukotriene A4 hydrolase. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2014, 1844, 439-446.	2.3	8
92	Functional Properties and Molecular Architecture of Leukotriene A4 Hydrolase, a Pivotal Catalyst of Chemotactic Leukotriene Formation. <i>Scientific World Journal, The</i> , 2002, 2, 1734-1749.	2.1	7
93	Activation of succinate receptor 1 boosts human mast cell reactivity and allergic bronchoconstriction. <i>Allergy: European Journal of Allergy and Clinical Immunology</i> , 2022, 77, 2677-2687.	5.7	7
94	Resolving Resolvins. <i>Chemistry and Biology</i> , 2013, 20, 138-140.	6.0	6
95	Potential role of Plasmodium falciparum exported protein 1 in the chloroquine mode of action. <i>International Journal for Parasitology: Drugs and Drug Resistance</i> , 2018, 8, 31-35.	3.4	6
96	Investigation of Clozapine and Olanzapine Reactive Metabolite Formation and Protein Binding by Liquid Chromatography-Tandem Mass Spectrometry. <i>Chemical Research in Toxicology</i> , 2020, 33, 2420-2431.	3.3	6
97	Targeting cysteinyl-leukotrienes in abdominal aortic aneurysm. <i>Prostaglandins and Other Lipid Mediators</i> , 2018, 139, 24-28.	1.9	5
98	Assay for rapid analysis of the tri-peptidase activity of LTA4 hydrolase. <i>Proteins: Structure, Function and Bioinformatics</i> , 2007, 67, 1113-1118.	2.6	4
99	Catalytic Conversion of Lipophilic Substrates by Phase constrained Enzymes in the Aqueous or in the Membrane Phase. <i>Scientific Reports</i> , 2016, 6, 38316.	3.3	4
100	Systems Biology Approaches for Investigating the Relationship Between Lipids and Cardiovascular Disease. <i>Current Cardiovascular Risk Reports</i> , 2011, 5, 52-61.	2.0	2
101	The IRE1 $\pm$ Inhibitor KIRA6 Blocks Leukotriene Biosynthesis in Human Phagocytes. <i>Frontiers in Pharmacology</i> , 2022, 13, 806240.	3.5	2
102	Leukotriene A4 Hydrolase. , 2013, , 468-472.		1
103	Leukotriene A4 Hydrolase and Leukotriene C4 Synthase. , 2016, , 31-46.		1
104	Preparation of high specific activity tritium $\epsilon$ labelled leukotriene B <sub>4</sub> suitable for radioligand binding assay. <i>Journal of Labelled Compounds and Radiopharmaceuticals</i> , 2008, 51, 101-105.	1.0	0
105	Determining site occupancy of acetaminophen covalent binding to target proteins in vitro. <i>Analytical Science Advances</i> , 2021, 2, 263-271.	2.8	0
106	Host Defense Peptides and the Eicosanoid Cascade. , 2016, , 139-158.		0