M Joanne Lemieux

List of Publications by Year
in descending order

84	3,879	201674 27	133252 59
papers	citations	h-index	g-index

93	93	93	4874
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structure and Mechanism of the Glycerol-3-Phosphate Transporter from Escherichia coli. Science, 2003, 301, 616-620.	12.6	971
2	Feline coronavirus drug inhibits the main protease of SARS-CoV-2 and blocks virus replication. Nature Communications, 2020, 11, 4282.	12.8	334
3	Crystallographic Structure of Human Î²-Hexosaminidase A: Interpretation of Tay-Sachs Mutations and Loss of GM2 Ganglioside Hydrolysis. Journal of Molecular Biology, 2006, 359, 913-929.	4.2	169
4	Membrane Protein Structure, Function, and Dynamics: a Perspective from Experiments and Theory. Journal of Membrane Biology, 2015, 248, 611-640.	2.1	157
5	The crystal structure of the rhomboid peptidase fromHaemophilus influenzaeprovides insight into intramembrane proteolysis. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 750-754.	7.1	141
6	Threeâ€dimensional crystallization of the Escherichia coli glycerolâ€3â€phosphate transporter: A member of the major facilitator superfamily. Protein Science, 2003, 12, 2748-2756.	7.6	98
7	Comprehensive in vitro characterization of PD-L1 small molecule inhibitors. Scientific Reports, 2019, 9, 12392.	3.3	88
8	The structural basis of substrate translocation by the Escherichia coli glycerol-3-phosphate transporter: a member of the major facilitator superfamily. Current Opinion in Structural Biology, 2004, 14, 405-412.	5.7	81
9	Glycerol-3-phosphate transporter of Escherichia coli: Structure, function and regulation. Research in Microbiology, 2004, 155, 623-629.	2.1	81
10	High-Yield Expression and Functional Analysis ofEscherichia coliGlycerol-3-phosphate Transporterâ€. Biochemistry, 2001, 40, 6628-6635.	2.5	78
11	Proline residues in transmembrane segment IV are critical for activity, expression and targeting of the Na+/H+ exchanger isoform 1. Biochemical Journal, 2004, 379, 31-38.	3.7	76
12	Properties and Biotechnological Applications of Acylâ€CoA:diacylglycerol Acyltransferase and Phospholipid:diacylglycerol Acyltransferase from Terrestrial Plants and Microalgae. Lipids, 2018, 53, 663-688.	1.7	72
13	Practical aspects of overexpressing bacterial secondary membrane transporters for structural studies. Biochimica Et Biophysica Acta - Biomembranes, 2003, 1610, 23-36.	2.6	71
14	Peptidomimetic Î±-Acyloxymethylketone Warheads with Six-Membered Lactam P1 Glutamine Mimic: SARS-CoV-2 3CL Protease Inhibition, Coronavirus Antiviral Activity, and in Vitro Biological Stability. Journal of Medicinal Chemistry, 2022, 65, 2905-2925.	6.4	71
15	Allosteric regulation of rhomboid intramembrane proteolysis. EMBO Journal, 2014, 33, 1869-1881.	7.8	65
16	Importance of detergent and phospholipid in the crystallization of the human erythrocyte anion-exchanger membrane domain. Journal of Structural Biology, 2002, 137, 322-332.	2.8	63
17	Improved SARS-CoV-2 Mpro inhibitors based on feline antiviral drug GC376: Structural enhancements, increased solubility, and micellar studies. European Journal of Medicinal Chemistry, 2021, 222, 113584.	5.5	57
18	A genetically encoded fluorescent biosensor for extracellular l-lactate. Nature Communications, 2021, 12, 7058.	12.8	46

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19	Eukaryotic major facilitator superfamily transporter modeling based on the prokaryotic GlpT crystal structure (Review). Molecular Membrane Biology, 2007, 24, 333-341.	2.0	45
20	Targeting B7â€1 in immunotherapy. Medicinal Research Reviews, 2020, 40, 654-682.	10.5	44
21	Diacylglycerol Acyltransferase 1 Is Regulated by Its N-Terminal Domain in Response to Allosteric Effectors. Plant Physiology, 2017, 175, 667-680.	4.8	43
22	Biochemical characterization and structureâ€"function relationship of two plant NCS2 proteins, the nucleobase transporters NAT3 and NAT12 from Arabidopsis thaliana. Biochimica Et Biophysica Acta - Biomembranes, 2014, 1838, 3025-3035.	2.6	42
23	Peptidomimetic nitrile warheads as SARS-CoV-2 3CL protease inhibitors. RSC Medicinal Chemistry, 2021, 12, 1722-1730.	3.9	40
24	Domain Swapping in the Cytoplasmic Domain of the Escherichia coli Rhomboid Protease. Journal of Molecular Biology, 2013, 425, 1127-1142.	4.2	33
25	Understanding Conformational Dynamics of Complex Lipid Mixtures Relevant to Biology. Journal of Membrane Biology, 2018, 251, 609-631.	2.1	33
26	Insights into Substrate Gating in H. influenzae Rhomboid. Journal of Molecular Biology, 2011, 407, 687-697.	4.2	32
27	Nothing Regular about the Regulins: Distinct Functional Properties of SERCA Transmembrane Peptide Regulatory Subunits. International Journal of Molecular Sciences, 2021, 22, 8891.	4.1	32
28	Dwarf open reading frame (DWORF) is a direct activator of the sarcoplasmic reticulum calcium pump SERCA. ELife, 2021, 10, .	6.0	31
29	Structure-Function Relationship of a Plant NCS1 Member â€" Homology Modeling and Mutagenesis Identified Residues Critical for Substrate Specificity of PLUTO, a Nucleobase Transporter from Arabidopsis. PLoS ONE, 2014, 9, e91343.	2.5	30
30	The Phospholamban Pentamer Alters Function of the Sarcoplasmic Reticulum Calcium Pump SERCA. Biophysical Journal, 2019, 116, 633-647.	0.5	30
31	Untangling structureâ€"function relationships in the rhomboid family of intramembrane proteases. Biochimica Et Biophysica Acta - Biomembranes, 2013, 1828, 2862-2872.	2.6	29
32	Diacylglycerol acyltransferase 1 is activated by phosphatidate and inhibited by SnRK1â€catalyzed phosphorylation. Plant Journal, 2018, 96, 287-299.	5.7	29
33	Reactions at Biomembrane Interfaces. Chemical Reviews, 2019, 119, 6162-6183.	47.7	29
34	Quantitative Multiplex Substrate Profiling of Peptidases by Mass Spectrometry. Molecular and Cellular Proteomics, 2019, 18, 968a-981.	3.8	28
35	The structure of lactoferrin-binding protein B fromNeisseria meningitidissuggests roles in iron acquisition and neutralization of host defences. Acta Crystallographica Section F, Structural Biology Communications, 2014, 70, 1312-1317.	0.8	27
36	Acyl-CoA:diacylglycerol acyltransferase: Properties, physiological roles, metabolic engineering and intentional control. Progress in Lipid Research, 2022, 88, 101181.	11.6	27

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37	Crystal structure and mechanism of GlpT, the glycerol-3-phosphate transporter from E. coli. Microscopy (Oxford, England), 2005, 54, i43-i46.	1.5	25
38	PARL Protease: A Glimpse at Intramembrane Proteolysis in the Inner Mitochondrial Membrane. Journal of Molecular Biology, 2020, 432, 5052-5062.	4.2	25
39	Oligomeric state study of prokaryotic rhomboid proteases. Biochimica Et Biophysica Acta - Biomembranes, 2012, 1818, 3090-3097.	2.6	24
40	Rapid expression screening of eukaryotic membrane proteins in Pichia pastoris. Protein Science, 2013, 22, 425-433.	7.6	24
41	Vitamin D is an endogenous partial agonist of the transient receptor potential vanilloid 1 channel. Journal of Physiology, 2020, 598, 4321-4338.	2.9	24
42	N-Terminal Finger Stabilizes the S1 Pocket for the Reversible Feline Drug GC376 in the SARS-CoV-2 Mpro Dimer. Journal of Molecular Biology, 2021, 433, 167003.	4.2	23
43	SARS-COV-2 recombinant Receptor-Binding-Domain (RBD) induces neutralizing antibodies against variant strains of SARS-CoV-2 and SARS-CoV-1. Vaccine, 2021, 39, 5769-5779.	3.8	23
44	Purification and properties of recombinant Brassica napus diacylglycerol acyltransferase 1. FEBS Letters, 2015, 589, 773-778.	2.8	22
45	Multiple mechanisms contribute to increased neutral lipid accumulation in yeast producing recombinant variants of plant diacylglycerol acyltransferase 1. Journal of Biological Chemistry, 2017, 292, 17819-17831.	3.4	22
46	Genetic variation in human carboxylesterase CES1 confers resistance to hepatic steatosis. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2018, 1863, 688-699.	2.4	19
47	Conformational memory in the association of the transmembrane protein phospholamban with the sarcoplasmic reticulum calcium pump SERCA. Journal of Biological Chemistry, 2017, 292, 21330-21339.	3.4	18
48	Photocleavable proteins that undergo fast and efficient dissociation. Chemical Science, 2021, 12, 9658-9672.	7.4	18
49	Crystallization of Feline Coronavirus Mpro With GC376 Reveals Mechanism of Inhibition. Frontiers in Chemistry, 2022, 10, 852210.	3.6	17
50	Crystal structure of the N-lobe of lactoferrin binding protein B from Moraxella bovis¹ ¹This paper is an invited article as a result of a presentation at the International Lactoferrin Conference held in Mazatlan, Mexico (May 2011), and has undergone the Journalâ€™s usual peer review process.. Biochemistry and Cell Biology, 2012, 90, 351-361.	2.0	16
51	Fluorescent Hexose Conjugates Establish Stringent Stereochemical Requirement by GLUT5 for Recognition and Transport of Monosaccharides. ACS Chemical Biology, 2017, 12, 1087-1094.	3.4	16
52	Insights into the catalytic properties of the mitochondrial rhomboid protease PARL. Journal of Biological Chemistry, 2021, 296, 100383.	3.4	16
53	Deciphering the activation and recognition mechanisms of Staphylococcus aureus response regulator ArlR. Nucleic Acids Research, 2019, 47, 11418-11429.	14.5	15
54	Critical Roles of Two Hydrophobic Residues within Human Glucose Transporter 9 (hSLC2A9) in Substrate Selectivity and Urate Transport. Journal of Biological Chemistry, 2015, 290, 15292-15303.	3.4	13

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55	Interaction of a Sarcolipin Pentamer and Monomer with the Sarcoplasmic Reticulum Calcium Pump, SERCA. Biophysical Journal, 2020, 118, 518-531.	0.5	13
56	The crystal structure of Rv0793, a hypothetical monooxygenase from M.â£tuberculosis. Journal of Structural and Functional Genomics, 2006, 6, 245-257.	1.2	12
57	An internally quenched peptide as a new model substrate for rhomboid intramembrane proteases. Biological Chemistry, 2018, 399, 1389-1397.	2.5	12
58	Regulation of 2â€²,3â€²-cyclic nucleotide phosphodiesterase gene expression in experimental peripheral neuropathies. Molecular Brain Research, 1992, 15, 40-46.	2.3	11
59	Intrinsic disorder in the regulatory N-terminal domain of diacylglycerol acyltransferase 1 from Brassica napus. Scientific Reports, 2018, 8, 16665.	3.3	10
60	Accelerated discovery of novel glycoside hydrolases using targeted functional profiling and selective pressure on the rumen microbiome. Microbiome, 2021, 9, 229.	11.1	10
61	High yield expression and purification of equilibrative nucleoside transporter 7 (ENT7) from Arabidopsis thaliana. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 1921-1929.	2.4	9
62	Reversible Unfolding of Rhomboid Intramembrane Proteases. Biophysical Journal, 2016, 110, 1379-1390.	0.5	9
63	Post-translational modifications of apolipoprotein A-I and Po proteins in the avian peripheral nerve. Neurochemical Research, 1995, 20, 269-278.	3.3	8
64	Identification of Key Residues for Urate Specific Transport in Human Glucose Transporter 9 (hSLC2A9). Scientific Reports, 2017, 7, 41167.	3.3	8
65	Purification and Characterization of Transporter Proteins from Human Erythrocyte Membrane. , 2003, 228, 239-256.		7
66	Trimeric structure of the mouse Kupffer cell Câ€type lectin receptor Clec4f. FEBS Letters, 2020, 594, 189-198.	2.8	7
67	A perspective on the structural studies of inner membrane electrochemical potential-driven transporters. Biochimica Et Biophysica Acta - Biomembranes, 2008, 1778, 1805-1813.	2.6	6
68	Probing catalytic rate enhancement during intramembrane proteolysis. Biological Chemistry, 2016, 397, 907-919.	2.5	6
69	The calcium sensitizer drug MCI-154 binds the structural C-terminal domain of cardiac troponin C. Biochemistry and Biophysics Reports, 2018, 16, 145-151.	1.3	6
70	Structure and function of proteins in membranes and nanodiscs. Biochimica Et Biophysica Acta - Biomembranes, 2021, 1863, 183445.	2.6	5
71	Structural comparison of substrate entry gate for rhomboid intramembrane peptidasesThis paper is one of a selection of papers published in a Special Issue entitled CSBMCB 53rd Annual Meeting â€" Membrane Proteins in Health and Disease, and has undergone the Journalâ€™s usual peer review process.. Biochemistry and Cell Biology, 2011, 89, 216-223.	2.0	4
72	Biosynthesis and compartmentalization of Po, apolipoprotein A-I, and lipids in the myelinating chick sciatic nerve. Neurochemical Research, 1995, 20, 1239-1248.	3.3	2

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73	Expression and Purification of Haemophilus influenzae Rhomboid Intramembrane Protease GlpG for Structural Studies. Current Protocols in Protein Science, 2014, 76, 29.9.1-29.9.25.	2.8	2
74	Activity Assays for Rhomboid Proteases. Methods in Enzymology, 2017, 584, 395-437.	1.0	2
75	Highlight: Frontiers in Proteolysis. Biological Chemistry, 2018, 399, 1351-1351.	2.5	2
76	Regulating the regulator: intramembrane proteolysis of vesicular trafficking proteins and the SERCA regulator phospholamban. EMBO Reports, 2019, 20, .	4.5	2
77	Primitive Phospholamban- and Sarcolipin-like Peptides Inhibit the Sarcoplasmic Reticulum Calcium Pump SERCA. Biochemistry, 2022, 61, 1419-1430.	2.5	2
78	Expression and Purification of Human Mitochondrial Intramembrane Protease PARL. Methods in Molecular Biology, 2021, 2302, 1-20.	0.9	1
79	Opening the Lateral Gate of the Rhomboid Protease Couples to Lipid Binding. Biophysical Journal, 2015, 108, 248a.	0.5	0
80	Functional Implications of Domain Organization Within Prokaryotic Rhomboid Proteases. Advances in Experimental Medicine and Biology, 2015, 883, 107-117.	1.6	0
81	Influence of Familial Parkinson's Disease Mutations on Mitochondrial Localization and Secondary Structure of PINK1. Biophysical Journal, 2016, 110, 230a.	0.5	0
82	Production of Recombinant Rhomboid Proteases. Methods in Enzymology, 2017, 584, 255-278.	1.0	0
83	Taking a position on intramembrane proteolysis. Journal of Biological Chemistry, 2018, 293, 4664-4665.	3.4	0
84	The Phospholamban Pentamer Functionally Interacts with the Sarcoplasmic Reticulum Calcium Pump SERCA. Biophysical Journal, 2019, 116, 128a.	0.5	0