Brian L Mark

List of Publications by Year
in descending order

59 papers	2,923 citations	182225 30 h-index	190340 53 g-index
60 all docs	60 docs citations	60 times ranked	3581 citing authors

#	Article	IF	Citations
1	Increased phosphorylation of HexM improves lysosomal uptake and potential for managing GM2 gangliosidoses. BBA Advances, 2022, 2, 100032.	0.7	0
2	Letter to the Editor. Molecular Therapy, 2021, 29, 3.	3.7	0
3	Characterization of the sorbitol dehydrogenase SmoS from Sinorhizobium meliloti 1021. Acta Crystallographica Section D: Structural Biology, 2021, 77, 380-390.	1.1	2
4	Frontrunners in the race to develop a SARS-CoV-2 vaccine. Canadian Journal of Microbiology, 2021, 67, 189-212.	0.8	11
5	The endopeptidase of the maize-affecting Marafivirus type member maize rayado fino virus doubles as a deubiquitinase. Journal of Biological Chemistry, 2021, 297, 100957.	1.6	5
6	Adding Insult to Injury: Mechanistic Basis for How AmpC Mutations Allow Pseudomonas aeruginosa To Accelerate Cephalosporin Hydrolysis and Evade Avibactam. Antimicrobial Agents and Chemotherapy, 2020, 64, .	1.4	27
7	Molecular characterization of the RNA-protein complex directing â˜'2/â˜'1 programmed ribosomal frameshifting during arterivirus replicase expression. Journal of Biological Chemistry, 2020, 295, 17904-17921.	1.6	10
8	Independent inhibition of the polymerase and deubiquitinase activities of the Crimean-Congo Hemorrhagic Fever Virus full-length L-protein. PLoS Neglected Tropical Diseases, 2020, 14, e0008283.	1.3	12
9	Independent Inhibition of the Polymerase and Deubiquitinase Activities of the Crimeanâ€“Congo Hemorrhagic Fever Virus Full-Length L-Protein. Proceedings (mdpi), 2020, 50, .	0.2	0
10	Molecular Basis for the Potent Inhibition of the Emerging Carbapenemase VCC-1 by Avibactam. Antimicrobial Agents and Chemotherapy, 2019, 63, .	1.4	4
11	Structural and mechanistic analysis of a Î²-glycoside phosphorylase identified by screening a metagenomic library. Journal of Biological Chemistry, 2018, 293, 3451-3467.	1.6	18
12	A mechanism-based GlcNAc-inspired cyclophellitol inactivator of the peptidoglycan recycling enzyme NagZ reverses resistance to Î²-lactams inPseudomonas aeruginosa. Chemical Communications, 2018, 54, 10630-10633.	2.2	12
13	Structure and Function of Viral Deubiquitinating Enzymes. Journal of Molecular Biology, 2017, 429, 3441-3470.	2.0	66
14	Conformational flexibility of the glycosidase NagZ allows it to bind structurally diverse inhibitors to suppress Î²â€lactam antibiotic resistance. Protein Science, 2017, 26, 1161-1170.	3.1	18
15	Synergistic activity of fosfomycin, Î²-lactams and peptidoglycan recycling inhibition againstPseudomonas aeruginosa. Journal of Antimicrobial Chemotherapy, 2017, 72, 448-454.	1.3	25
16	Potent and selective inhibition of pathogenic viruses by engineered ubiquitin variants. PLoS Pathogens, 2017, 13, e1006372.	2.1	48
17	Mutations in HYAL2, Encoding Hyaluronidase 2, Cause a Syndrome of Orofacial Clefting and Cor Triatriatum Sinister in Humans and Mice. PLoS Genetics, 2017, 13, e1006470.	1.5	20
18	Structural and Biochemical Insights into the Peptidoglycan Hydrolase Domain of FlgJ from Salmonella typhimurium. PLoS ONE, 2016, 11, e0149204.	1.1	20

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19	Construction of a hybrid Î²-hexosaminidase subunit capable of forming stable homodimers that hydrolyze GM2 ganglioside in vivo. Molecular Therapy - Methods and Clinical Development, 2016, 3, 15057.	1.8	39
20	Systemic Gene Transfer of a Hexosaminidase Variant Using an scAAV9.47 Vector Corrects G_{M2}Gangliosidosis in Sandhoff Mice. Human Gene Therapy, 2016, 27, 497-508.	1.4	30
21	A Fluorescent Transport Assay Enables Studying AmpG Permeases Involved in Peptidoglycan Recycling and Antibiotic Resistance. ACS Chemical Biology, 2016, 11, 2626-2635.	1.6	8
22	Novel Vector Design and Hexosaminidase Variant Enabling Self-Complementary Adeno-Associated Virus for the Treatment of Tay-Sachs Disease. Human Gene Therapy, 2016, 27, 509-521.	1.4	35
23	Producing Glucose 6-Phosphate from Cellulosic Biomass. Journal of Biological Chemistry, 2015, 290, 26638-26648.	1.6	17
24	MG-110â€...Intravenous neonatal gene therapy corrects GM2 gangliosidoses in sandhoff mice for â€˜long-termâ€™, by using an aav expressing a new hexosaminidase variant. Journal of Medical Genetics, 2015, 52, A4.2-A4.	1.5	0
25	The Î²-Lactamase Gene Regulator AmpR Is a Tetramer That Recognizes and Binds the d-Ala-d-Ala Motif of Its Repressor UDP-N-acetylmuramic Acid (MurNAc)-pentapeptide. Journal of Biological Chemistry, 2015, 290, 2630-2643.	1.6	77
26	Conformational Itinerary of Pseudomonas aeruginosa 1,6-Anhydro-N-acetylmuramic Acid Kinase during Its Catalytic Cycle. Journal of Biological Chemistry, 2014, 289, 4504-4514.	1.6	7
27	Viral OTU Deubiquitinases: A Structural and Functional Comparison. PLoS Pathogens, 2014, 10, e1003894.	2.1	33
28	Crystal Structure of the Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Papain-like Protease Bound to Ubiquitin Facilitates Targeted Disruption of Deubiquitinating Activity to Demonstrate Its Role in Innate Immune Suppression. Journal of Biological Chemistry, 2014, 289, 34667-34682.	1.6	155
29	Transactivation of programmed ribosomal frameshifting by a viral protein. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E2172-81.	3.3	113
30	Selective trihydroxyazepane NagZ inhibitors increase sensitivity of Pseudomonas aeruginosa to Î²-lactams. Chemical Communications, 2013, 49, 10983.	2.2	36
31	The Development of Selective Inhibitors of NagZ: Increased Susceptibility of Gram-Negative Bacteria to Î²-Lactams. ChemBioChem, 2013, 14, 1973-1981.	1.3	38
32	Deubiquitinase function of arterivirus papain-like protease 2 suppresses the innate immune response in infected host cells. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E838-47.	3.3	108
33	In Cellulo Examination of a Beta-Alpha Hybrid Construct of Beta-Hexosaminidase A Subunits, Reported to Interact with the GM2 Activator Protein and Hydrolyze GM2 Ganglioside. PLoS ONE, 2013, 8, e57908.	1.1	8
34	Platelet Hexosaminidase A Enzyme Assay Effectively Detects Carriers Missed by Targeted DNA Mutation Analysis. JIMD Reports, 2012, 6, 1-6.	0.7	4
35	Active Site Plasticity within the Glycoside Hydrolase NagZ Underlies a Dynamic Mechanism of Substrate Distortion. Chemistry and Biology, 2012, 19, 1471-1482.	6.2	67
36	Providing Î²-lactams a helping hand: targeting the AmpC Î²-lactamase induction pathway. Future Microbiology, 2011, 6, 1415-1427.	1.0	61

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37	Phenylalanine induces Burkholderia cenocepacia phenylacetic acid catabolism through degradation to phenylacetyl-CoA in synthetic cystic fibrosis sputum medium. Microbial Pathogenesis, 2011, 51, 186-193.	1.3	12
38	Experimental mapping of soluble protein domains using a hierarchical approach. Nucleic Acids Research, 2011, 39, e125-e125.	6.5	29
39	Molecular Basis of 1,6-Anhydro Bond Cleavage and Phosphoryl Transfer by Pseudomonas aeruginosa 1,6-Anhydro-N-acetylmuramic Acid Kinase. Journal of Biological Chemistry, 2011, 286, 12283-12291.	1.6	24
40	Structural basis for the removal of ubiquitin and interferon-stimulated gene 15 by a viral ovarian tumor domain-containing protease. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 2222-2227.	3.3	90
41	AmpG Inactivation Restores Susceptibility of Pan-Î²-Lactam-Resistant Pseudomonas aeruginosa Clinical Strains. Antimicrobial Agents and Chemotherapy, 2011, 55, 1990-1996.	1.4	47
42	NagZ Inactivation Prevents and Reverts Î²-Lactam Resistance, Driven by AmpD and PBP 4 Mutations, in Pseudomonas aeruginosa. Antimicrobial Agents and Chemotherapy, 2010, 54, 3557-3563.	1.4	61
43	Crystal Structure of the AmpR Effector Binding Domain Provides Insight into the Molecular Regulation of Inducible AmpC Î²-Lactamase. Journal of Molecular Biology, 2010, 400, 998-1010.	2.0	48
44	Insight into a strategy for attenuating AmpCâ€mediated Î²â€lactam resistance: Structural basis for selective inhibition of the glycoside hydrolase NagZ. Protein Science, 2009, 18, 1541-1551.	3.1	43
45	Mutation of a Gene Essential for Ribosome Biogenesis, EMG1, Causes Bowen-Conradi Syndrome. American Journal of Human Genetics, 2009, 84, 728-739.	2.6	103
46	Inactivation of the Glycoside Hydrolase NagZ Attenuates Antipseudomonal Î²-Lactam Resistance in Pseudomonas aeruginosa. Antimicrobial Agents and Chemotherapy, 2009, 53, 2274-2282.	1.4	65
47	Synthesis and Use of Mechanism-Based Protein-Profiling Probes for Retaining Î²-<scp>d</scp>-Glucosaminidases Facilitate Identification of Pseudomonas aeruginosa NagZ. Journal of the American Chemical Society, 2008, 130, 327-335.	6.6	95
48	Small Molecule Inhibitors of a Glycoside Hydrolase Attenuate Inducible AmpC-mediated Î²-Lactam Resistance. Journal of Biological Chemistry, 2007, 282, 21382-21391.	1.6	103
49	Evaluation of the Risk for Tay-Sachs Disease in Individuals of French Canadian Ancestry Living in New England. Clinical Chemistry, 2007, 53, 392-398.	1.5	13
50	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.	2.0	169
51	Recent Advances in GFP Folding Reporter and Split-GFP Solubility Reporter Technologies. Application to Improving the Folding and Solubility of Recalcitrant Proteins from Mycobacterium tuberculosis. Journal of Structural and Functional Genomics, 2005, 6, 113-119.	1.2	65
52	Crystal Structure of Human Î²-Hexosaminidase B: Understanding the Molecular Basis of Sandhoff and Tayâ€“Sachs Disease. Journal of Molecular Biology, 2003, 327, 1093-1109.	2.0	209
53	Aspartate 313 in the Streptomyces plicatusHexosaminidase Plays a Critical Role in Substrate-assisted Catalysis by Orienting the 2-Acetamido Group and Stabilizing the Transition State. Journal of Biological Chemistry, 2002, 277, 40055-40065.	1.6	126
54	Structure of Arterivirus nsp4. Journal of Biological Chemistry, 2002, 277, 39960-39966.	1.6	71

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55	Anchimeric assistance in hexosaminidases. Canadian Journal of Chemistry, 2002, 80, 1064-1074.	0.6	26
56	Biochemical and Structural Assessment of the 1-N-Azasugar GalNAc-isofagomine as a Potent Family 20 Î²-N-Acetylhexosaminidase Inhibitor. Journal of Biological Chemistry, 2001, 276, 42131-42137.	1.6	42
57	Crystallographic Evidence for Substrate-assisted Catalysis in a Bacterial Î²-Hexosaminidase. Journal of Biological Chemistry, 2001, 276, 10330-10337.	1.6	239
58	Structural and Functional Characterization of Streptomyces plicatus Î²-N-Acetylhexosaminidase by Comparative Molecular Modeling and Site-directed Mutagenesis. Journal of Biological Chemistry, 1998, 273, 19618-19624.	1.6	72
59	Association ofRalGTP-Binding Protein with Human Platelet Dense Granules. Biochemical and Biophysical Research Communications, 1996, 225, 40-46.	1.0	37