Catherine L Grimes

List of Publications by Year
in descending order

56 papers	936 citations	516710 16 h-index	477307 29 g-index
58 all docs	58 docs citations	58 times ranked	1002 citing authors

#	Article	IF	Citations
1	Customized peptidoglycan surfaces to investigate innate immune recognition via surface plasmon resonance. Methods in Enzymology, 2022, 665, 73-103.	1.0	1
2	Multiscale Invasion Assay for Probing Macrophage Response to Gram-Negative Bacteria. Frontiers in Chemistry, 2022, 10, 842602.	3.6	4
3	Engaging biochemistry students virtually utilizing problemâ€based learning and at home lab activities. FASEB Journal, 2022, 36, .	0.5	1
4	Chaperoning mechanism of innate immune receptor NOD2 by HSP70. FASEB Journal, 2022, 36, .	0.5	0
5	Purification and Characterization of a Stable, Membrane-Associated Peptidoglycan Responsive Adenylate Cyclase LRR Domain from Human Commensal Candida albicans. Biochemistry, 2022, 61, 2856-2860.	2.5	2
6	A two-track model for the spatiotemporal coordination of bacterial septal cell wall synthesis revealed by single-molecule imaging of FtsW. Nature Microbiology, 2021, 6, 584-593.	13.3	55
7	Staphylococcus aureus resistance to albocycline can be achieved by mutations that alter cellular NAD/PH pools. Bioorganic and Medicinal Chemistry, 2021, 32, 115995.	3.0	2
8	Bacterial Peptidoglycan Fragments Differentially Regulate Innate Immune Signaling. ACS Central Science, 2021, 7, 688-696.	11.3	28
9	Localizing Peptidoglycan Synthesis in Helicobacter pylori using Clickable Metabolic Probes. Current Protocols, 2021, 1, e80.	2.9	5
10	It Takes Two: Understanding the Role of Proteinâ€protein Interaction in the Regulation of an Innate Immune Receptor. FASEB Journal, 2021, 35, .	0.5	0
11	Elucidation of Molecular Mechanism of NOD2 Innate Immune Receptor Stabilization by Chaperone HSP70. FASEB Journal, 2021, 35, .	0.5	0
12	Protected N-Acetyl Muramic Acid Probes Improve Bacterial Peptidoglycan Incorporation via Metabolic Labeling. ACS Chemical Biology, 2021, 16, 1908-1916.	3.4	16
13	Chemical Biology Tools for Examining the Bacterial Cell Wall. Cell Chemical Biology, 2020, 27, 1052-1062.	5.2	25
14	Methods to Investigate Innate Immune Receptors and Their Carbohydrate-Based Ligands. ACS Symposium Series, 2020, , 127-147.	0.5	0
15	Revisiting peptidoglycan sensing: interactions with host immunity and beyond. Chemical Communications, 2020, 56, 13313-13322.	4.1	12
16	Synthesis of Bacterial-Derived Peptidoglycan Cross-Linked Fragments. Journal of Organic Chemistry, 2020, 85, 16243-16253.	3.2	1
17	Differential Peptidoglycan Recognition Assay Using Varied Surface Presentations. Journal of the American Chemical Society, 2020, 142, 10926-10930.	13.7	19
18	Tools for probing host-bacteria interactions in the gut microenvironment: From molecular to cellular levels. Bioorganic and Medicinal Chemistry Letters, 2020, 30, 127116.	2.2	4

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19	Utility of bacterial peptidoglycan recycling enzymes in the chemoenzymatic synthesis of valuable UDP sugar substrates. Methods in Enzymology, 2020, 638, 1-26.	1.0	1
20	Distinct cytoskeletal proteins define zones of enhanced cell wall synthesis in Helicobacter pylori. ELife, 2020, 9, .	6.0	51
21	Synthesis and Application of Methyl N,Oâ€Hydroxylamine Muramyl Peptides. ChemBioChem, 2019, 20, 1369-1375.	2.6	14
22	Modulation of the NOD-like receptors NOD1 and NOD2: A chemistâ€™s perspective. Bioorganic and Medicinal Chemistry Letters, 2019, 29, 1153-1161.	2.2	13
23	Metabolic Incorporation of N â€Acetyl Muramic Acid Probes into Bacterial Peptidoglycan. Current Protocols in Chemical Biology, 2019, 11, e74.	1.7	11
24	2â€Amino Muramyl Dipeptide Derivatives: Chemical probes to assay the stability and activation of NOD2. FASEB Journal, 2019, 33, 798.12.	0.5	0
25	New use for CETSA: monitoring innate immune receptor stability via post-translational modification by OGT. Journal of Bioenergetics and Biomembranes, 2018, 50, 231-240.	2.3	16
26	Bacterial Derived Carbohydrates Bind Cyr1 and Trigger Hyphal Growth in Candida albicans. ACS Infectious Diseases, 2018, 4, 53-58.	3.8	15
27	Structural and functional characterization of a modified legionaminic acid involved in glycosylation of a bacterial lipopolysaccharide. Journal of Biological Chemistry, 2018, 293, 19113-19126.	3.4	3
28	Pathogen- and Microbial- Associated Molecular Patterns (PAMPs/MAMPs) and the Innate Immune Response in Crohnâ€™s Disease. , 2018, , 175-187.		6
29	Elucidating the inhibition of peptidoglycan biosynthesis in Staphylococcus aureus by albocycline, a macrolactone isolated from Streptomyces maizeus. Bioorganic and Medicinal Chemistry, 2018, 26, 3453-3460.	3.0	15
30	Designer Dendrons To Dissect Innate Immune Signaling. ACS Central Science, 2018, 4, 948-949.	11.3	0
31	Synthesis of Functionalized N-Acetyl Muramic Acids To Probe Bacterial Cell Wall Recycling and Biosynthesis. Journal of the American Chemical Society, 2018, 140, 9458-9465.	13.7	63
32	Monitoring Innate Immune Receptor Stability via Postâ€Translational Modification by OGT. FASEB Journal, 2018, 32, 791.20.	0.5	0
33	Probing the Role of Peptidoglycan Metabolism in Helicobacter pylori 's Helical Shape. FASEB Journal, 2018, 32, 673.27.	0.5	0
34	Characterizing the Interaction between Bacterial Derived Carbohydrates and Cyr1 and Its Role in Hyphal Growth in Candida albicans. FASEB Journal, 2018, 32, 534.15.	0.5	0
35	Use of Bioorthogonal Nâ€•Acetylcysteamine (SNAc) Analogues and Peptidoglycan Oâ€•Acetyltransferase B (PatB) to Label Peptidoglycan. FASEB Journal, 2018, 32, 673.30.	0.5	0
36	Metabolic labelling of the carbohydrate core in bacterial peptidoglycan and its applications. Nature Communications, 2017, 8, 15015.	12.8	119

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37	Postsynthetic Modification of Bacterial Peptidoglycan Using Bioorthogonal N-Acetylcysteamine Analogs and Peptidoglycan O-Acetyltransferase B. Journal of the American Chemical Society, 2017, 139, 13596-13599.	13.7	21
38	Membrane Association Dictates Ligand Specificity for the Innate Immune Receptor NOD2. ACS Chemical Biology, 2017, 12, 2216-2224.	3.4	26
39	Crohnâ€™s Disease Variants of Nod2 Are Stabilized by the Critical Contact Region of Hsp70. Biochemistry, 2017, 56, 4445-4448.	2.5	5
40	Molecular Recognition of Muramyl Dipeptide Occurs in the Leucine-rich Repeat Domain of Nod2. ACS Infectious Diseases, 2017, 3, 264-270.	3.8	35
41	The effect of NOD2 on the microbiota in Crohn's disease. Current Opinion in Biotechnology, 2016, 40, 97-102.	6.6	29
42	Redefining the Defensive Line: Critical Components of the Innate Immune System. ACS Infectious Diseases, 2016, 2, 746-748.	3.8	1
43	Passing the baton: Mentoring for adoption of activeâ€learning pedagogies by researchâ€active junior faculty. Biochemistry and Molecular Biology Education, 2015, 43, 345-357.	1.2	8
44	Peptidoglycan Modifications Tune the Stability and Function of the Innate Immune Receptor Nod2. Journal of the American Chemical Society, 2015, 137, 6987-6990.	13.7	46
45	Identification and biological consequences of theO-GlcNAc modification of the human innate immune receptor, Nod2. Glycobiology, 2015, 26, cwv076.	2.5	21
46	Probing the Inflammatory Response Behind Diabetes and Obesity via the Biochemical Characterization of NOD1, an Innate Immune Receptor. FASEB Journal, 2015, 29, 559.40.	0.5	0
47	Rescuing Nod2, an innate immune receptor of bacterial cell wall fragments, in Crohn Disease. FASEB Journal, 2015, 29, 571.19.	0.5	1
48	Chemical Tools for Studying the Activation of the Intracellular Innate Immune Protein Nod2. FASEB Journal, 2015, 29, 358.3.	0.5	0
49	Investigating the Binding Affinity of Nod2 and Soluble Bacterial Cell Wall Dimers. FASEB Journal, 2015, 29, 571.1.	0.5	0
50	Recovery and Response of Crohn's Associated Mutants to Bacterial Cell Wall Fragments. FASEB Journal, 2015, 29, 571.25.	0.5	0
51	Molecular Characterization and Structural Determination of Nod2, an Innate Immune Receptor. FASEB Journal, 2015, 29, 890.7.	0.5	0
52	Oâ€GlcNAcylation Stabilizes Nod2, an Innate Immune Receptor Involved in Crohn's Disease. FASEB Journal, 2015, 29, 570.10.	0.5	0
53	The Molecular Chaperone HSP70 Binds to and Stabilizes NOD2, an Important Protein Involved in Crohn Disease. Journal of Biological Chemistry, 2014, 289, 18987-18998.	3.4	31
54	The Innate Immune Protein Nod2 Binds Directly to MDP, a Bacterial Cell Wall Fragment. Journal of the American Chemical Society, 2012, 134, 13535-13537.	13.7	158

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55	Synthesis of biologically active biotinylated muramyl dipeptides. Bioorganic and Medicinal Chemistry Letters, 2010, 20, 6061-6063.	2.2	24
56	A Unifying Nitrososynthase Involved in Nitrosugar Biosynthesis. Journal of the American Chemical Society, 2008, 130, 15756-15757.	13.7	28