

# Catherine L Grimes

## List of Publications by Year in descending order

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56  
papers

936  
citations

516710

16  
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477307

29  
g-index

58  
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58  
docs citations

58  
times ranked

1002  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Innate Immune Protein Nod2 Binds Directly to MDP, a Bacterial Cell Wall Fragment. <i>Journal of the American Chemical Society</i> , 2012, 134, 13535-13537.	13.7	158
2	Metabolic labelling of the carbohydrate core in bacterial peptidoglycan and its applications. <i>Nature Communications</i> , 2017, 8, 15015.	12.8	119
3	Synthesis of Functionalized <i>N</i> -Acetyl Muramic Acids To Probe Bacterial Cell Wall Recycling and Biosynthesis. <i>Journal of the American Chemical Society</i> , 2018, 140, 9458-9465.	13.7	63
4	A two-track model for the spatiotemporal coordination of bacterial septal cell wall synthesis revealed by single-molecule imaging of FtsW. <i>Nature Microbiology</i> , 2021, 6, 584-593.	13.3	55
5	Distinct cytoskeletal proteins define zones of enhanced cell wall synthesis in <i>Helicobacter pylori</i> . <i>ELife</i> , 2020, 9, .	6.0	51
6	Peptidoglycan Modifications Tune the Stability and Function of the Innate Immune Receptor Nod2. <i>Journal of the American Chemical Society</i> , 2015, 137, 6987-6990.	13.7	46
7	Molecular Recognition of Muramyl Dipeptide Occurs in the Leucine-rich Repeat Domain of Nod2. <i>ACS Infectious Diseases</i> , 2017, 3, 264-270.	3.8	35
8	The Molecular Chaperone HSP70 Binds to and Stabilizes NOD2, an Important Protein Involved in Crohn Disease. <i>Journal of Biological Chemistry</i> , 2014, 289, 18987-18998.	3.4	31
9	The effect of NOD2 on the microbiota in Crohn's disease. <i>Current Opinion in Biotechnology</i> , 2016, 40, 97-102.	6.6	29
10	A Unifying Nitrososynthase Involved in Nitrosugar Biosynthesis. <i>Journal of the American Chemical Society</i> , 2008, 130, 15756-15757.	13.7	28
11	Bacterial Peptidoglycan Fragments Differentially Regulate Innate Immune Signaling. <i>ACS Central Science</i> , 2021, 7, 688-696.	11.3	28
12	Membrane Association Dictates Ligand Specificity for the Innate Immune Receptor NOD2. <i>ACS Chemical Biology</i> , 2017, 12, 2216-2224.	3.4	26
13	Chemical Biology Tools for Examining the Bacterial Cell Wall. <i>Cell Chemical Biology</i> , 2020, 27, 1052-1062.	5.2	25
14	Synthesis of biologically active biotinylated muramyl dipeptides. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2010, 20, 6061-6063.	2.2	24
15	Identification and biological consequences of the O-GlcNAc modification of the human innate immune receptor, Nod2. <i>Glycobiology</i> , 2015, 26, cwv076.	2.5	21
16	Postsynthetic Modification of Bacterial Peptidoglycan Using Bioorthogonal <i>N</i> -Acetylcysteamine Analogs and Peptidoglycan <i>O</i> -Acetyltransferase B. <i>Journal of the American Chemical Society</i> , 2017, 139, 13596-13599.	13.7	21
17	Differential Peptidoglycan Recognition Assay Using Varied Surface Presentations. <i>Journal of the American Chemical Society</i> , 2020, 142, 10926-10930.	13.7	19
18	New use for CETSA: monitoring innate immune receptor stability via post-translational modification by OGT. <i>Journal of Bioenergetics and Biomembranes</i> , 2018, 50, 231-240.	2.3	16

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19	Protected <i>N</i> -Acetyl Muramic Acid Probes Improve Bacterial Peptidoglycan Incorporation via Metabolic Labeling. <i>ACS Chemical Biology</i> , 2021, 16, 1908-1916.	3.4	16
20	Bacterial Derived Carbohydrates Bind Cyr1 and Trigger Hyphal Growth in <i>Candida albicans</i> . <i>ACS Infectious Diseases</i> , 2018, 4, 53-58.	3.8	15
21	Elucidating the inhibition of peptidoglycan biosynthesis in <i>Staphylococcus aureus</i> by albocycline, a macrolactone isolated from <i>Streptomyces maizeus</i> . <i>Bioorganic and Medicinal Chemistry</i> , 2018, 26, 3453-3460.	3.0	15
22	Synthesis and Application of Methyl <i>N,O</i> -Hydroxylamine Muramyl Peptides. <i>ChemBioChem</i> , 2019, 20, 1369-1375.	2.6	14
23	Modulation of the NOD-like receptors NOD1 and NOD2: A chemist's perspective. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2019, 29, 1153-1161.	2.2	13
24	Revisiting peptidoglycan sensing: interactions with host immunity and beyond. <i>Chemical Communications</i> , 2020, 56, 13313-13322.	4.1	12
25	Metabolic Incorporation of <i>N</i> -Acetyl Muramic Acid Probes into Bacterial Peptidoglycan. <i>Current Protocols in Chemical Biology</i> , 2019, 11, e74.	1.7	11
26	Passing the baton: Mentoring for adoption of active learning pedagogies by research-active junior faculty. <i>Biochemistry and Molecular Biology Education</i> , 2015, 43, 345-357.	1.2	8
27	Pathogen- and Microbial- Associated Molecular Patterns (PAMPs/MAMPs) and the Innate Immune Response in Crohn's Disease. , 2018, , 175-187.		6
28	Crohn's Disease Variants of Nod2 Are Stabilized by the Critical Contact Region of Hsp70. <i>Biochemistry</i> , 2017, 56, 4445-4448.	2.5	5
29	Localizing Peptidoglycan Synthesis in <i>Helicobacter pylori</i> using Clickable Metabolic Probes. <i>Current Protocols</i> , 2021, 1, e80.	2.9	5
30	Tools for probing host-bacteria interactions in the gut microenvironment: From molecular to cellular levels. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2020, 30, 127116.	2.2	4
31	Multiscale Invasion Assay for Probing Macrophage Response to Gram-Negative Bacteria. <i>Frontiers in Chemistry</i> , 2022, 10, 842602.	3.6	4
32	Structural and functional characterization of a modified legionaminic acid involved in glycosylation of a bacterial lipopolysaccharide. <i>Journal of Biological Chemistry</i> , 2018, 293, 19113-19126.	3.4	3
33	<i>Staphylococcus aureus</i> resistance to albocycline can be achieved by mutations that alter cellular NAD/PH pools. <i>Bioorganic and Medicinal Chemistry</i> , 2021, 32, 115995.	3.0	2
34	Purification and Characterization of a Stable, Membrane-Associated Peptidoglycan Responsive Adenylate Cyclase LRR Domain from Human Commensal <i>Candida albicans</i> . <i>Biochemistry</i> , 2022, 61, 2856-2860.	2.5	2
35	Redefining the Defensive Line: Critical Components of the Innate Immune System. <i>ACS Infectious Diseases</i> , 2016, 2, 746-748.	3.8	1
36	Synthesis of Bacterial-Derived Peptidoglycan Cross-Linked Fragments. <i>Journal of Organic Chemistry</i> , 2020, 85, 16243-16253.	3.2	1

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37	Utility of bacterial peptidoglycan recycling enzymes in the chemoenzymatic synthesis of valuable UDP sugar substrates. <i>Methods in Enzymology</i> , 2020, 638, 1-26.	1.0	1
38	Rescuing Nod2, an innate immune receptor of bacterial cell wall fragments, in Crohn Disease. <i>FASEB Journal</i> , 2015, 29, 571.19.	0.5	1
39	Customized peptidoglycan surfaces to investigate innate immune recognition via surface plasmon resonance. <i>Methods in Enzymology</i> , 2022, 665, 73-103.	1.0	1
40	Engaging biochemistry students virtually utilizing problem-based learning and at home lab activities. <i>FASEB Journal</i> , 2022, 36, .	0.5	1
41	Designer Dendrons To Dissect Innate Immune Signaling. <i>ACS Central Science</i> , 2018, 4, 948-949.	11.3	0
42	Methods to Investigate Innate Immune Receptors and Their Carbohydrate-Based Ligands. <i>ACS Symposium Series</i> , 2020, , 127-147.	0.5	0
43	It Takes Two: Understanding the Role of Protein-protein Interaction in the Regulation of an Innate Immune Receptor. <i>FASEB Journal</i> , 2021, 35, .	0.5	0
44	Elucidation of Molecular Mechanism of NOD2 Innate Immune Receptor Stabilization by Chaperone HSP70. <i>FASEB Journal</i> , 2021, 35, .	0.5	0
45	Probing the Inflammatory Response Behind Diabetes and Obesity via the Biochemical Characterization of NOD1, an Innate Immune Receptor. <i>FASEB Journal</i> , 2015, 29, 559.40.	0.5	0
46	Chemical Tools for Studying the Activation of the Intracellular Innate Immune Protein Nod2. <i>FASEB Journal</i> , 2015, 29, 358.3.	0.5	0
47	Investigating the Binding Affinity of Nod2 and Soluble Bacterial Cell Wall Dimers. <i>FASEB Journal</i> , 2015, 29, 571.1.	0.5	0
48	Recovery and Response of Crohn's Associated Mutants to Bacterial Cell Wall Fragments. <i>FASEB Journal</i> , 2015, 29, 571.25.	0.5	0
49	Molecular Characterization and Structural Determination of Nod2, an Innate Immune Receptor. <i>FASEB Journal</i> , 2015, 29, 890.7.	0.5	0
50	O-GlcNAcylation Stabilizes Nod2, an Innate Immune Receptor Involved in Crohn's Disease. <i>FASEB Journal</i> , 2015, 29, 570.10.	0.5	0
51	Monitoring Innate Immune Receptor Stability via Post-translational Modification by OGT. <i>FASEB Journal</i> , 2018, 32, 791.20.	0.5	0
52	Probing the Role of Peptidoglycan Metabolism in <i>Helicobacter pylori</i> 's Helical Shape. <i>FASEB Journal</i> , 2018, 32, 673.27.	0.5	0
53	Characterizing the Interaction between Bacterial Derived Carbohydrates and Cyr1 and Its Role in Hyphal Growth in <i>Candida albicans</i> . <i>FASEB Journal</i> , 2018, 32, 534.15.	0.5	0
54	Use of Bioorthogonal N-Acetylcysteamine (SNAC) Analogues and Peptidoglycan N-Acetyltransferase B (PatB) to Label Peptidoglycan. <i>FASEB Journal</i> , 2018, 32, 673.30.	0.5	0

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55	2-Amino Muramyl Dipeptide Derivatives: Chemical probes to assay the stability and activation of NOD2. FASEB Journal, 2019, 33, 798.12.	0.5	0
56	Chaperoning mechanism of innate immune receptor NOD2 by HSP70. FASEB Journal, 2022, 36, .	0.5	0