Krisztina M Papp-Wallace

List of Publications by Year
in descending order

83 papers	4,823 citations	87888 38 h-index	98798 67 g-index
85 all docs	85 docs citations	85 times ranked	4920 citing authors

#	ARTICLE	IF	CITATIONS
1	Carbapenems: Past, Present, and Future. Antimicrobial Agents and Chemotherapy, 2011, 55, 4943-4960.	3.2	1,053
2	Manganese Transport and the Role of Manganese in Virulence. Annual Review of Microbiology, 2006, 60, 187-209.	7.3	270
3	New Î²-Lactamase Inhibitors: a Therapeutic Renaissance in an MDR World. Antimicrobial Agents and Chemotherapy, 2014, 58, 1835-1846.	3.2	258
4	Inhibitor Resistance in the KPC-2 Î²-Lactamase, a Preeminent Property of This Class A Î²-Lactamase. Antimicrobial Agents and Chemotherapy, 2010, 54, 890-897.	3.2	161
5	New Î²-Lactamase Inhibitors in the Clinic. Infectious Disease Clinics of North America, 2016, 30, 441-464.	5.1	138
6	Treatment options for infections caused by carbapenem-resistant<i>Enterobacteriaceae</i>: can we apply â€œprecision medicineâ€•to antimicrobial chemotherapy?. Expert Opinion on Pharmacotherapy, 2016, 17, 761-781.	1.8	135
7	Unexpected Challenges in Treating Multidrug-Resistant Gram-Negative Bacteria: Resistance to Ceftazidime-Avibactam in Archived Isolates of Pseudomonas aeruginosa. Antimicrobial Agents and Chemotherapy, 2015, 59, 1020-1029.	3.2	121
8	Strategic Approaches to Overcome Resistance against Gram-Negative Pathogens Using Î²-Lactamase Inhibitors and Î²-Lactam Enhancers: Activity of Three Novel Diazabicyclooctanes WCK 5153, Zidebactam (WCK 5107), and WCK 4234. Journal of Medicinal Chemistry, 2018, 61, 4067-4086.	6.4	117
9	Activity of ceftazidime/avibactam against isogenic strains of <i>Escherichia coli</i> containing KPC and SHV Î²-lactamases with single amino acid substitutions in the Î©-loop. Journal of Antimicrobial Chemotherapy, 2015, 70, 2279-2286.	3.0	105
10	<i>Klebsiella pneumoniae</i> Carbapenemase-2 (KPC-2), Substitutions at Ambler Position Asp179, and Resistance to Ceftazidime-Avibactam: Unique Antibiotic-Resistant Phenotypes Emerge from Î²-Lactamase Protein Engineering. MBio, 2017, 8, .	4.1	93
11	WCK 5107 (Zidebactam) and WCK 5153 Are Novel Inhibitors of PBP2 Showing Potent â€œÎ²-Lactam Enhancerâ€• Activity against Pseudomonas aeruginosa, Including Multidrug-Resistant Metallo-Î²-Lactamase-Producing High-Risk Clones. Antimicrobial Agents and Chemotherapy, 2017, 61, .	3.2	92
12	The latest advances in Î²-lactam/Î²-lactamase inhibitor combinations for the treatment of Gram-negative bacterial infections. Expert Opinion on Pharmacotherapy, 2019, 20, 2169-2184.	1.8	89
13	Variants of Î²-Lactamase KPC-2 That Are Resistant to Inhibition by Avibactam. Antimicrobial Agents and Chemotherapy, 2015, 59, 3710-3717.	3.2	85
14	Exploring the Role of a Conserved Class A Residue in the Î©-Loop of KPC-2 Î²-Lactamase. Journal of Biological Chemistry, 2012, 287, 31783-31793.	3.4	84
15	Molecular Investigations of PenA-mediated Î²-lactam Resistance in Burkholderia pseudomallei. Frontiers in Microbiology, 2011, 2, 139.	3.5	76
16	Resistance to Novel Î²-Lactamâ€“Î²-Lactamase Inhibitor Combinations. Infectious Disease Clinics of North America, 2020, 34, 773-819.	5.1	76
17	Non-phenotypic tests to detect and characterize antibiotic resistance mechanisms in Enterobacteriaceae. Diagnostic Microbiology and Infectious Disease, 2013, 77, 179-194.	1.8	74
18	Relebactam Is a Potent Inhibitor of the KPC-2 Î²-Lactamase and Restores Imipenem Susceptibility in KPC-Producing Enterobacteriaceae. Antimicrobial Agents and Chemotherapy, 2018, 62, .	3.2	74

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19	Inhibition of Klebsiella Î²-Lactamases (SHV-1 and KPC-2) by Avibactam: A Structural Study. PLoS ONE, 2015, 10, e0136813.	2.5	67
20	Avibactam and Inhibitor-Resistant SHV Î²-Lactamases. Antimicrobial Agents and Chemotherapy, 2015, 59, 3700-3709.	3.2	66
21	Beyond Piperacillin-Tazobactam: Cefepime and AAI101 as a Potent Î²-Lactamâˆ'Î²-Lactamase Inhibitor Combination. Antimicrobial Agents and Chemotherapy, 2019, 63, .	3.2	65
22	Targeting Multidrug-Resistant <i>Acinetobacter</i> spp.: Sulbactam and the Diazabicyclooctenone Î²-Lactamase Inhibitor ETX2514 as a Novel Therapeutic Agent. MBio, 2019, 10, .	4.1	64
23	Overcoming an Extremely Drug Resistant (XDR) Pathogen: Avibactam Restores Susceptibility to Ceftazidime forBurkholderia cepaciaComplex Isolates from Cystic Fibrosis Patients. ACS Infectious Diseases, 2017, 3, 502-511.	3.8	62
24	Deciphering the Evolution of Cephalosporin Resistance to Ceftolozane-Tazobactam in Pseudomonas aeruginosa. MBio, 2018, 9, .	4.1	61
25	Novel Î²-lactamase inhibitors: a therapeutic hope against the scourge of multidrug resistance. Frontiers in Microbiology, 2013, 4, 392.	3.5	59
26	Elucidating the role of Trp105 in the KPCâ€2 Î²â€lactamase. Protein Science, 2010, 19, 1714-1727.	7.6	57
27	Potent Î²-Lactam Enhancer Activity of Zidebactam and WCK 5153 against Acinetobacter baumannii, Including Carbapenemase-Producing Clinical Isolates. Antimicrobial Agents and Chemotherapy, 2017, 61, .	3.2	57
28	Substrate Selectivity and a Novel Role in Inhibitor Discrimination by Residue 237 in the KPC-2 Î²-Lactamase. Antimicrobial Agents and Chemotherapy, 2010, 54, 2867-2877.	3.2	53
29	Avibactam Restores the Susceptibility of Clinical Isolates of Stenotrophomonas maltophilia to Aztreonam. Antimicrobial Agents and Chemotherapy, 2017, 61, .	3.2	52
30	Population Structure, Molecular Epidemiology, and Î²-Lactamase Diversity among Stenotrophomonas maltophilia Isolates in the United States. MBio, 2019, 10, .	4.1	52
31	Understanding the Molecular Determinants of Substrate and Inhibitor Specificities in the Carbapenemase KPC-2: Exploring the Roles of Arg220 and Glu276. Antimicrobial Agents and Chemotherapy, 2012, 56, 4428-4438.	3.2	51
32	Ceftazidime-Avibactam in Combination With Fosfomycin: A Novel Therapeutic Strategy Against Multidrug-Resistant Pseudomonas aeruginosa. Journal of Infectious Diseases, 2019, 220, 666-676.	4.0	51
33	A Standard Numbering Scheme for Class C Î²-Lactamases. Antimicrobial Agents and Chemotherapy, 2020, 64, .	3.2	50
34	Boronic Acid Transition State Inhibitors Active against KPC and Other Class A Î²-Lactamases: Structure-Activity Relationships as a Guide to Inhibitor Design. Antimicrobial Agents and Chemotherapy, 2016, 60, 1751-1759.	3.2	49
35	Insights into Î²-Lactamases from Burkholderia Species, Two Phylogenetically Related yet Distinct Resistance Determinants. Journal of Biological Chemistry, 2013, 288, 19090-19102.	3.4	47
36	Crystal Structures of KPC-2 Î²-Lactamase in Complex with 3-Nitrophenyl Boronic Acid and the Penam Sulfone PSR-3-226. Antimicrobial Agents and Chemotherapy, 2012, 56, 2713-2718.	3.2	46

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37	The CorA Mg²⁺Channel Is Required for the Virulence of<i>Salmonella enterica</i>Serovar Typhimurium. Journal of Bacteriology, 2008, 190, 6517-6523.	2.2	40
38	Design and Exploration of Novel Boronic Acid Inhibitors Reveals Important Interactions with a Clavulanic Acid-Resistant Sulfhydryl-Variable (SHV) Î²-Lactamase. Journal of Medicinal Chemistry, 2013, 56, 1084-1097.	6.4	40
39	Activities of ceftazidime, ceftaroline, and aztreonam alone and combined with avibactam against isogenic Escherichia coli strains expressing selected single Î²-lactamases. Diagnostic Microbiology and Infectious Disease, 2015, 82, 65-69.	1.8	38
40	Regulation of CorA Mg ²⁺ Channel Function Affects the Virulence of <i>Salmonella enterica</i> Serovar Typhimurium. Journal of Bacteriology, 2008, 190, 6509-6516.	2.2	36
41	Reclaiming the Efficacy of Î²-Lactamâ€"Î²-Lactamase Inhibitor Combinations: Avibactam Restores the Susceptibility of CMY-2-Producing Escherichia coli to Ceftazidime. Antimicrobial Agents and Chemotherapy, 2014, 58, 4290-4297.	3.2	35
42	Early Insights into the Interactions of Different Î²-Lactam Antibiotics and Î²-Lactamase Inhibitors against Soluble Forms of Acinetobacter baumannii PBP1a and Acinetobacter sp. PBP3. Antimicrobial Agents and Chemotherapy, 2012, 56, 5687-5692.	3.2	33
43	Exploring the Inhibition of CTX-M-9 by Î²-Lactamase Inhibitors and Carbapenems. Antimicrobial Agents and Chemotherapy, 2011, 55, 3465-3475.	3.2	31
44	Inactivation of the Pseudomonas-Derived Cephalosporinase-3 (PDC-3) by Relebactam. Antimicrobial Agents and Chemotherapy, 2018, 62, .	3.2	28
45	Human pleural fluid triggers global changes in the transcriptional landscape of Acinetobacter baumannii as an adaptive response to stress. Scientific Reports, 2019, 9, 17251.	3.3	27
46	Nacubactam Enhances Meropenem Activity against Carbapenem-Resistant Klebsiella pneumoniae Producing KPC. Antimicrobial Agents and Chemotherapy, 2019, 63, .	3.2	26
47	A kinetic analysis of the inhibition of FOX-4 Â-lactamase, a plasmid-mediated AmpC cephalosporinase, by monocyclic Â-lactams and carbapenems. Journal of Antimicrobial Chemotherapy, 2014, 69, 682-690.	3.0	24
48	Exposing a Î²-Lactamase â€œTwistâ€: the Mechanistic Basis for the High Level of Ceftazidime Resistance in the C69F Variant of the Burkholderia pseudomallei PenI Î²-Lactamase. Antimicrobial Agents and Chemotherapy, 2016, 60, 777-788.	3.2	24
49	â€œSwitching Partnersâ€: Piperacillin-Avibactam Is a Highly Potent Combination against Multidrug-Resistant <i>Burkholderia cepacia</i> Complex and <i>Burkholderia gladioli</i> Cystic Fibrosis Isolates. Journal of Clinical Microbiology, 2019, 57, .	3.9	24
50	Bacterial homologs of eukaryotic membrane proteins: the 2-TM-GxN family of Mg2+transporters (Review). Molecular Membrane Biology, 2007, 24, 351-356.	2.0	22
51	Structural Characterization of the D179N and D179Y Variants of KPC-2 Î²-Lactamase: Î©-Loop Destabilization as a Mechanism of Resistance to Ceftazidime-Avibactam. Antimicrobial Agents and Chemotherapy, 2022, 66, e0241421.	3.2	22
52	A Î³-Lactam Siderophore Antibiotic Effective against Multidrug-Resistant Gram-Negative Bacilli. Journal of Medicinal Chemistry, 2020, 63, 5990-6002.	6.4	20
53	Structural Characterization of Diazabicyclooctane Î²-Lactam â€œEnhancersâ€•in Complex with Penicillin-Binding Proteins PBP2 and PBP3 of Pseudomonas aeruginosa. MBio, 2021, 12, .	4.1	19
54	Human Pleural Fluid and Human Serum Albumin Modulate the Behavior of a Hypervirulent and Multidrug-Resistant (MDR) Acinetobacter baumannii Representative Strain. Pathogens, 2021, 10, 471.	2.8	17

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55	Inactivation of a class A and a class C Î²-lactamase by 6Î²-(hydroxymethyl)penicillanic acid sulfone. Biochemical Pharmacology, 2012, 83, 462-471.	4.4	16
56	Characterization of the AmpC Î²-Lactamase from Burkholderia multivorans. Antimicrobial Agents and Chemotherapy, 2018, 62, .	3.2	16
57	Cerebrospinal fluid (CSF) augments metabolism and virulence expression factors in Acinetobacter baumannii. Scientific Reports, 2021, 11, 4737.	3.3	16
58	Exploring the Landscape of Diazabicyclooctane (DBO) Inhibition: Avibactam Inactivation of PER-2 Î²-Lactamase. Antimicrobial Agents and Chemotherapy, 2017, 61, .	3.2	14
59	A Î³-lactam siderophore antibiotic effective against multidrug-resistant Pseudomonas aeruginosa, Klebsiella pneumoniae, and Acinetobacter spp.. European Journal of Medicinal Chemistry, 2021, 220, 113436.	5.5	14
60	Structural Insights into the Inhibition of the Extended-Spectrum Î²-Lactamase PER-2 by Avibactam. Antimicrobial Agents and Chemotherapy, 2019, 63, .	3.2	11
61	Activity of Imipenem-Relebactam against Multidrug- and Extensively Drug-Resistant Burkholderia cepacia Complex and Burkholderia gladioli. Antimicrobial Agents and Chemotherapy, 2021, 65, e0133221.	3.2	11
62	Different Conformations Revealed by NMR Underlie Resistance to Ceftazidime/Avibactam and Susceptibility to Meropenem and Imipenem among D179Y Variants of KPC Î²-Lactamase. Antimicrobial Agents and Chemotherapy, 2022, 66, e0212421.	3.2	11
63	Exploring the Role of the Î©-Loop in the Evolution of Ceftazidime Resistance in the PenA Î²-Lactamase from Burkholderia multivorans, an Important Cystic Fibrosis Pathogen. Antimicrobial Agents and Chemotherapy, 2017, 61, .	3.2	10
64	Sequence heterogeneity of the PenA carbapenemase in clinical isolates of Burkholderia multivorans. Diagnostic Microbiology and Infectious Disease, 2018, 92, 253-258.	1.8	10
65	Resurrecting Old Î²-Lactams: Potent Inhibitory Activity of Temocillin against Multidrug-Resistant<i>Burkholderia</i>Species Isolates from the United States. Antimicrobial Agents and Chemotherapy, 2019, 63, .	3.2	10
66	Interplay between Meropenem and Human Serum Albumin on Expression of Carbapenem Resistance Genes and Natural Competence in Acinetobacter baumannii. Antimicrobial Agents and Chemotherapy, 2021, 65, e0101921.	3.2	10
67	Structural Analysis of The OXA-48 Carbapenemase Bound to A â€œPoorâ€•Carbapenem Substrate, Doripenem. Antibiotics, 2019, 8, 145.	3.7	9
68	Structural Insights into Ceftobiprole Inhibition of Pseudomonas aeruginosa Penicillin-Binding Protein 3. Antimicrobial Agents and Chemotherapy, 2020, 64, .	3.2	9
69	Assessing the Potency of Î²-Lactamase Inhibitors with Diverse Inactivation Mechanisms against the PenA1 Carbapenemase from Burkholderia multivorans. ACS Infectious Diseases, 2021, 7, 826-837.	3.8	6
70	In Vitro Antibacterial Activity and In Vivo Efficacy of Sulbactam-Durlobactam against Pathogenic Burkholderia Species. Antimicrobial Agents and Chemotherapy, 2021, 65, .	3.2	5
71	Structural and Biochemical Characterization of the Novel CTX-M-151 Extended-Spectrum Î²-Lactamase and Its Inhibition by Avibactam. Antimicrobial Agents and Chemotherapy, 2021, 65, .	3.2	5
72	Interaction of Acinetobacter baumannii with Human Serum Albumin: Does the Host Determine the Outcome?. Antibiotics, 2021, 10, 833.	3.7	5

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73	Structures of FOX-4 Cephamycinase in Complex with Transition-State Analog Inhibitors. Biomolecules, 2020, 10, 671.	4.0	4
74	Staphylococcus aureus Potentiates the Hemolytic Activity of Burkholderia cepacia Complex (Bcc) Bacteria. Current Microbiology, 2021, 78, 1864-1870.	2.2	3
75	Whole Genome Sequence Analysis of Burkholderia contaminans FFH2055 Strain Reveals the Presence of Putative Î²-Lactamases. Current Microbiology, 2019, 76, 485-494.	2.2	2
76	Effect of Serum Albumin, a Component of Human Pleural Fluid, on Transcriptional and Phenotypic Changes on Acinetobacter baumannii A118. Current Microbiology, 2021, 78, 3829-3834.	2.2	2
77	Penicillanic Acid Sulfones Inactivate the Extended-Spectrum Î²-Lactamase CTX-M-15 through Formation of a Serine-Lysine Cross-Link: an Alternative Mechanism of Î²-Lactamase Inhibition. MBio, 0, , .	4.1	2
78	Reply to FrÃ¨re: Covalent Trapping and Bacterial Resistance to Ceftazidime. Journal of Biological Chemistry, 2013, 288, 26968.	3.4	1
79	2385. Ceftazidimeâ€"Avibactam in Combination With Fosfomycin: A Novel Therapeutic Strategy Against Multidrug-Resistant <i>Pseudomonas aeruginosa</i>. Open Forum Infectious Diseases, 2018, 5, S711-S711.	0.9	1
80	Editorial: Structural and Biochemical Aspects of the Interaction of Î²-Lactamases With State-of-the-Art Inhibitors. Frontiers in Microbiology, 2022, 13, 849324.	3.5	1
81	The Class A Î²-Lactamase Produced by Burkholderia Species Compromises the Potency of Tebipenem against a Panel of Isolates from the United States. Antibiotics, 2022, 11, 674.	3.7	1
82	698. Nacubactam Inhibits Class A Î²-lactamases. Open Forum Infectious Diseases, 2018, 5, S251-S252.	0.9	0
83	687. In vitro Activity of a New Generation Oxopyrazole Antibiotic Against Acinetobacter spp.. Open Forum Infectious Diseases, 2019, 6, S312-S312.	0.9	0