

# Krisztina M Papp-Wallace

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

81 papers	3,687 citations	35 h-index	60 g-index
85 ext. papers	4,439 ext. citations	5.4 avg, IF	5.75 L-index

#	Paper	IF	Citations
81	Carbapenems: past, present, and future. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2011</b> , 55, 4943-60	5.9	752
80	New $\beta$ -lactamase inhibitors: a therapeutic renaissance in an MDR world. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2014</b> , 58, 1835-46	5.9	227
79	Manganese transport and the role of manganese in virulence. <i>Annual Review of Microbiology</i> , <b>2006</b> , 60, 187-209	17.5	222
78	Inhibitor resistance in the KPC-2 $\beta$ -lactamase, a preeminent property of this class A $\beta$ -lactamase. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2010</b> , 54, 890-7	5.9	132
77	New $\beta$ -lactamase Inhibitors in the Clinic. <i>Infectious Disease Clinics of North America</i> , <b>2016</b> , 30, 441-464	6.5	109
76	Treatment options for infections caused by carbapenem-resistant Enterobacteriaceae: can we apply "precision medicine" to antimicrobial chemotherapy?. <i>Expert Opinion on Pharmacotherapy</i> , <b>2016</b> , 17, 761-81	4	108
75	Unexpected challenges in treating multidrug-resistant Gram-negative bacteria: resistance to ceftazidime-avibactam in archived isolates of <i>Pseudomonas aeruginosa</i> . <i>Antimicrobial Agents and Chemotherapy</i> , <b>2015</b> , 59, 1020-9	5.9	104
74	687. In vitro Activity of a New Generation Oxopyrazole Antibiotic Against <i>Acinetobacter</i> spp.. <i>Open Forum Infectious Diseases</i> , <b>2019</b> , 6, S312-S312	1	78
73	698. Nacubactam Inhibits Class A $\beta$ -lactamases. <i>Open Forum Infectious Diseases</i> , <b>2018</b> , 5, S251-S252	1	78
72	Strategic Approaches to Overcome Resistance against Gram-Negative Pathogens Using $\beta$ -lactamase Inhibitors and $\beta$ -lactam Enhancers: Activity of Three Novel Diazabicyclooctanes WCK 5153, Zidebactam (WCK 5107), and WCK 4234. <i>Journal of Medicinal Chemistry</i> , <b>2018</b> , 61, 4067-4086	8.3	77
71	Activity of ceftazidime/avibactam against isogenic strains of <i>Escherichia coli</i> containing KPC and SHV $\beta$ -lactamases with single amino acid substitutions in the $\beta$ -loop. <i>Journal of Antimicrobial Chemotherapy</i> , <b>2015</b> , 70, 2279-86	5.1	73
70	Variants of $\beta$ -lactamase KPC-2 that are resistant to inhibition by avibactam. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2015</b> , 59, 3710-7	5.9	72
69	WCK 5107 (Zidebactam) and WCK 5153 Are Novel Inhibitors of PBP2 Showing Potent " $\beta$ -lactam Enhancer" Activity against <i>Pseudomonas aeruginosa</i> , Including Multidrug-Resistant Metallo- $\beta$ -lactamase-Producing High-Risk Clones. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2017</b> , 61, 1007-1014	5.9	68
68	Carbapenemase-2 (KPC-2), Substitutions at Ambler Position Asp179, and Resistance to Ceftazidime-Avibactam: Unique Antibiotic-Resistant Phenotypes Emerge from $\beta$ -lactamase Protein Engineering. <i>MBio</i> , <b>2017</b> , 8, e00000-17	7.8	68
67	Non-phenotypic tests to detect and characterize antibiotic resistance mechanisms in Enterobacteriaceae. <i>Diagnostic Microbiology and Infectious Disease</i> , <b>2013</b> , 77, 179-94	2.9	61
66	Molecular Investigations of PenA-mediated $\beta$ -lactam Resistance in <i>Burkholderia pseudomallei</i> . <i>Frontiers in Microbiology</i> , <b>2011</b> , 2, 139	5.7	58
65	The latest advances in $\beta$ -lactam/ $\beta$ -lactamase inhibitor combinations for the treatment of Gram-negative bacterial infections. <i>Expert Opinion on Pharmacotherapy</i> , <b>2019</b> , 20, 2169-2184	4	57

64	Exploring the role of a conserved class A residue in the Loop of KPC-2 $\beta$ -lactamase: a mechanism for ceftazidime hydrolysis. <i>Journal of Biological Chemistry</i> , <b>2012</b> , 287, 31783-93	5.4	57
63	Avibactam and inhibitor-resistant SHV $\beta$ -lactamases. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2015</b> , 59, 3700-9	5.9	56
62	Relebactam Is a Potent Inhibitor of the KPC-2 $\beta$ -lactamase and Restores Imipenem Susceptibility in KPC-Producing Enterobacteriaceae. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2018</b> , 62,	5.9	51
61	Overcoming an Extremely Drug Resistant (XDR) Pathogen: Avibactam Restores Susceptibility to Ceftazidime for Burkholderia cepacia Complex Isolates from Cystic Fibrosis Patients. <i>ACS Infectious Diseases</i> , <b>2017</b> , 3, 502-511	5.5	50
60	Potent $\beta$ -lactam Enhancer Activity of Zidebactam and WCK 5153 against Acinetobacter baumannii, Including Carbapenemase-Producing Clinical Isolates. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2017</b> , 61,	5.9	50
59	Inhibition of Klebsiella $\beta$ -lactamases (SHV-1 and KPC-2) by Avibactam: A Structural Study. <i>PLoS ONE</i> , <b>2015</b> , 10, e0136813	3.7	47
58	Novel $\beta$ -lactamase inhibitors: a therapeutic hope against the scourge of multidrug resistance. <i>Frontiers in Microbiology</i> , <b>2013</b> , 4, 392	5.7	46
57	Beyond Piperacillin-Tazobactam: Cefepime and AAI101 as a Potent $\beta$ -lactam- $\beta$ -lactamase Inhibitor Combination. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2019</b> , 63,	5.9	44
56	Substrate selectivity and a novel role in inhibitor discrimination by residue 237 in the KPC-2 $\beta$ -lactamase. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2010</b> , 54, 2867-77	5.9	44
55	Elucidating the role of Trp105 in the KPC-2 $\beta$ -lactamase. <i>Protein Science</i> , <b>2010</b> , 19, 1714-27	6.3	44
54	Deciphering the Evolution of Cephalosporin Resistance to Ceftolozane-Tazobactam in Pseudomonas aeruginosa. <i>MBio</i> , <b>2018</b> , 9,	7.8	42
53	Insights into $\beta$ -lactamases from Burkholderia species, two phylogenetically related yet distinct resistance determinants. <i>Journal of Biological Chemistry</i> , <b>2013</b> , 288, 19090-102	5.4	40
52	Boronic Acid Transition State Inhibitors Active against KPC and Other Class A $\beta$ -lactamases: Structure-Activity Relationships as a Guide to Inhibitor Design. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2016</b> , 60, 1751-9	5.9	38
51	Activities of ceftazidime, ceftaroline, and aztreonam alone and combined with avibactam against isogenic Escherichia coli strains expressing selected single $\beta$ -lactamases. <i>Diagnostic Microbiology and Infectious Disease</i> , <b>2015</b> , 82, 65-9	2.9	37
50	Understanding the molecular determinants of substrate and inhibitor specificities in the Carbapenemase KPC-2: exploring the roles of Arg220 and Glu276. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2012</b> , 56, 4428-38	5.9	37
49	Avibactam Restores the Susceptibility of Clinical Isolates of Stenotrophomonas maltophilia to Aztreonam. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2017</b> , 61,	5.9	36
48	Targeting Multidrug-Resistant spp.: Sulbactam and the Diazabicyclooctenone $\beta$ -lactamase Inhibitor ETX2514 as a Novel Therapeutic Agent. <i>MBio</i> , <b>2019</b> , 10,	7.8	35
47	Design and exploration of novel boronic acid inhibitors reveals important interactions with a clavulanic acid-resistant sulfhydryl-variable (SHV) $\beta$ -lactamase. <i>Journal of Medicinal Chemistry</i> , <b>2013</b> , 56, 1084-97	8.3	35

46	The CorA Mg <sup>2+</sup> channel is required for the virulence of <i>Salmonella enterica</i> serovar typhimurium. <i>Journal of Bacteriology</i> , <b>2008</b> , 190, 6517-23	3.5	34
45	Crystal structures of KPC-2 $\beta$ -lactamase in complex with 3-nitrophenyl boronic acid and the penam sulfone PSR-3-226. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2012</b> , 56, 2713-8	5.9	33
44	Reclaiming the efficacy of $\beta$ -lactam- $\beta$ -lactamase inhibitor combinations: avibactam restores the susceptibility of CMY-2-producing <i>Escherichia coli</i> to ceftazidime. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2014</b> , 58, 4290-7	5.9	32
43	Regulation of CorA Mg <sup>2+</sup> channel function affects the virulence of <i>Salmonella enterica</i> serovar typhimurium. <i>Journal of Bacteriology</i> , <b>2008</b> , 190, 6509-16	3.5	31
42	Resistance to Novel $\beta$ -lactam- $\beta$ -lactamase Inhibitor Combinations: The "Price of Progress". <i>Infectious Disease Clinics of North America</i> , <b>2020</b> , 34, 773-819	6.5	30
41	Ceftazidime-Avibactam in Combination With Fosfomycin: A Novel Therapeutic Strategy Against Multidrug-Resistant <i>Pseudomonas aeruginosa</i> . <i>Journal of Infectious Diseases</i> , <b>2019</b> , 220, 666-676	7	27
40	Exploring the inhibition of CTX-M-9 by beta-lactamase inhibitors and carbapenems. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2011</b> , 55, 3465-75	5.9	27
39	Population Structure, Molecular Epidemiology, and $\beta$ -lactamase Diversity among <i>Stenotrophomonas maltophilia</i> Isolates in the United States. <i>MBio</i> , <b>2019</b> , 10,	7.8	26
38	A Standard Numbering Scheme for Class C $\beta$ -lactamases. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2020</b> , 64,	5.9	25
37	Early insights into the interactions of different $\beta$ -lactam antibiotics and $\beta$ -lactamase inhibitors against soluble forms of <i>Acinetobacter baumannii</i> PBP1a and <i>Acinetobacter</i> sp. PBP3. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2012</b> , 56, 5687-92	5.9	23
36	Inactivation of the <i>Pseudomonas</i> -Derived Cephalosporinase-3 (PDC-3) by Relebactam. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2018</b> , 62,	5.9	21
35	Bacterial homologs of eukaryotic membrane proteins: the 2-TM-GxN family of Mg(2+) transporters. <i>Molecular Membrane Biology</i> , <b>2007</b> , 24, 351-6	3.4	20
34	Nacubactam Enhances Meropenem Activity against Carbapenem-Resistant <i>Klebsiella pneumoniae</i> Producing KPC. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2019</b> , 63,	5.9	19
33	Exposing a $\beta$ -lactamase "Twist": the Mechanistic Basis for the High Level of Ceftazidime Resistance in the C69F Variant of the <i>Burkholderia pseudomallei</i> PenI $\beta$ -lactamase. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2016</b> , 60, 777-88	5.9	18
32	Human pleural fluid triggers global changes in the transcriptional landscape of <i>Acinetobacter baumannii</i> as an adaptive response to stress. <i>Scientific Reports</i> , <b>2019</b> , 9, 17251	4.9	17
31	A kinetic analysis of the inhibition of FOX-4 $\beta$ -lactamase, a plasmid-mediated AmpC cephalosporinase, by monocyclic $\beta$ -lactams and carbapenems. <i>Journal of Antimicrobial Chemotherapy</i> , <b>2014</b> , 69, 682-90	5.1	16
30	Inactivation of a class A and a class C $\beta$ -lactamase by 6 $\beta$ -(hydroxymethyl)penicillanic acid sulfone. <i>Biochemical Pharmacology</i> , <b>2012</b> , 83, 462-71	6	15
29	"Switching Partners": Piperacillin-Avibactam Is a Highly Potent Combination against Multidrug-Resistant Complex and Cystic Fibrosis Isolates. <i>Journal of Clinical Microbiology</i> , <b>2019</b> , 57,	9.7	12

28	Exploring the Landscape of Diazabicyclooctane (DBO) Inhibition: Avibactam Inactivation of PER-2 $\beta$ -Lactamase. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2017</b> , 61,	5.9	11
27	A $\beta$ -Lactam Siderophore Antibiotic Effective against Multidrug-Resistant Gram-Negative Bacilli. <i>Journal of Medicinal Chemistry</i> , <b>2020</b> , 63, 5990-6002	8.3	10
26	Characterization of the AmpC $\beta$ -Lactamase from Burkholderia multivorans. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2018</b> , 62,	5.9	10
25	Structural Characterization of Diazabicyclooctane $\beta$ -Lactam "Enhancers" in Complex with Penicillin-Binding Proteins PBP2 and PBP3 of Pseudomonas aeruginosa. <i>MBio</i> , <b>2021</b> , 12,	7.8	10
24	Exploring the Role of the $\beta$ -Loop in the Evolution of Ceftazidime Resistance in the PenA $\beta$ -Lactamase from Burkholderia multivorans, an Important Cystic Fibrosis Pathogen. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2017</b> , 61,	5.9	8
23	Sequence heterogeneity of the PenA carbapenemase in clinical isolates of Burkholderia multivorans. <i>Diagnostic Microbiology and Infectious Disease</i> , <b>2018</b> , 92, 253-258	2.9	8
22	A $\beta$ -Lactam siderophore antibiotic effective against multidrug-resistant Pseudomonas aeruginosa, Klebsiella pneumoniae, and Acinetobacter spp. <i>European Journal of Medicinal Chemistry</i> , <b>2021</b> , 220, 113436	6.8	8
21	Structural Insights into Ceftobiprole Inhibition of Pseudomonas aeruginosa Penicillin-Binding Protein 3. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2020</b> , 64,	5.9	7
20	Structural Insights into the Inhibition of the Extended-Spectrum $\beta$ -Lactamase PER-2 by Avibactam. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2019</b> , 63,	5.9	7
19	Cerebrospinal fluid (CSF) augments metabolism and virulence expression factors in Acinetobacter baumannii. <i>Scientific Reports</i> , <b>2021</b> , 11, 4737	4.9	7
18	Resurrecting Old $\beta$ -Lactams: Potent Inhibitory Activity of Temocillin against Multidrug-Resistant Species Isolates from the United States. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2019</b> , 63,	5.9	6
17	Structural Analysis of The OXA-48 Carbapenemase Bound to A "Poor" Carbapenem Substrate, Doripenem. <i>Antibiotics</i> , <b>2019</b> , 8,	4.9	5
16	Assessing the Potency of $\beta$ -Lactamase Inhibitors with Diverse Inactivation Mechanisms against the PenA1 Carbapenemase from. <i>ACS Infectious Diseases</i> , <b>2021</b> , 7, 826-837	5.5	4
15	Human Pleural Fluid and Human Serum Albumin Modulate the Behavior of a Hypervirulent and Multidrug-Resistant (MDR) Representative Strain. <i>Pathogens</i> , <b>2021</b> , 10,	4.5	4
14	Interplay between Meropenem and Human Serum Albumin on Expression of Carbapenem Resistance Genes and Natural Competence in Acinetobacter baumannii. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2021</b> , 65, e0101921	5.9	4
13	Activity of Imipenem-Relebactam against Multidrug- and Extensively Drug-Resistant Burkholderia cepacia Complex and Burkholderia gladioli. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2021</b> , 65, e0133221	5.9	3
12	Structures of FOX-4 Cephamycinase in Complex with Transition-State Analog Inhibitors. <i>Biomolecules</i> , <b>2020</b> , 10,	5.9	2
11	Whole Genome Sequence Analysis of Burkholderia contaminans FFH2055 Strain Reveals the Presence of Putative $\beta$ -Lactamases. <i>Current Microbiology</i> , <b>2019</b> , 76, 485-494	2.4	2

10	Antibacterial Activity and Efficacy of Sulbactam-Durlobactam against Pathogenic Species. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2021</b> , 65,	5.9	2
9	Reply to Frée: Covalent trapping and bacterial resistance to ceftazidime. <i>Journal of Biological Chemistry</i> , <b>2013</b> , 288, 26968	5.4	1
8	Staphylococcus aureus Potentiates the Hemolytic Activity of Burkholderia cepacia Complex (Bcc) Bacteria. <i>Current Microbiology</i> , <b>2021</b> , 78, 1864-1870	2.4	1
7	Structural and Biochemical Characterization of the Novel CTX-M-151 Extended-Spectrum $\beta$ -Lactamase and Its Inhibition by Avibactam. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2021</b> , 65,	5.9	1
6	2385. Ceftazidime-Avibactam in Combination With Fosfomycin: A Novel Therapeutic Strategy Against Multidrug-Resistant Pseudomonas aeruginosa. <i>Open Forum Infectious Diseases</i> , <b>2018</b> , 5, S711-S711	1	1
5	Interaction of with Human Serum Albumin: Does the Host Determine the Outcome?. <i>Antibiotics</i> , <b>2021</b> , 10,	4.9	1
4	Effect of Serum Albumin, a Component of Human Pleural Fluid, on Transcriptional and Phenotypic Changes on Acinetobacter baumannii A118. <i>Current Microbiology</i> , <b>2021</b> , 78, 3829-3834	2.4	1
3	Structural Characterization of the D179N and D179Y Variants of KPC-2 $\beta$ -Lactamase: $\beta$ -Loop Destabilization as a Mechanism of Resistance to Ceftazidime-Avibactam.. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2022</b> , e0241421	5.9	1
2	Different Conformations Revealed by NMR Underlie Resistance to Ceftazidime/Avibactam and Susceptibility to Meropenem and Imipenem among D179Y Variants of KPC $\beta$ -Lactamase.. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2022</b> , e0212421	5.9	1
1	The Class A $\beta$ -Lactamase Produced by Burkholderia Species Compromises the Potency of Tebipenem against a Panel of Isolates from the United States. <i>Antibiotics</i> , <b>2022</b> , 11, 674	4.9	0