Krisztina M Papp-Wallace

List of Publications by Year in Descending Order

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	Structural Characterization of the D179N and D179Y Variants of KPC-2 β-Lactamase: β-Loop Destabilization as a Mechanism of Resistance to Ceftazidime-Avibactam.. *Antimicrobial Agents and Chemotherapy*, **2022**, e0241421	5.9	1
80	Different Conformations Revealed by NMR Underlie Resistance to Ceftazidime/Avibactam and Susceptibility to Meropenem and Imipenem among D179Y Variants of KPC β-Lactamase.. *Antimicrobial Agents and Chemotherapy*, **2022**, e0212421	5.9	1
79	The Class A β-Lactamase Produced by Burkholderia Species Compromises the Potency of Tebipenem against a Panel of Isolates from the United States. *Antibiotics*, **2022**, 11, 674	4.9	0
78	Staphylococcus aureus Potentiates the Hemolytic Activity of Burkholderia cepacia Complex (Bcc) Bacteria. *Current Microbiology*, **2021**, 78, 1864-1870	2.4	1
77	Structural and Biochemical Characterization of the Novel CTX-M-151 Extended-Spectrum β-Lactamase and Its Inhibition by Avibactam. *Antimicrobial Agents and Chemotherapy*, **2021**, 65,	5.9	1
76	Assessing the Potency of β-Lactamase Inhibitors with Diverse Inactivation Mechanisms against the PenA1 Carbapenemase from. *ACS Infectious Diseases*, **2021**, 7, 826-837	5.5	4
75	Human Pleural Fluid and Human Serum Albumin Modulate the Behavior of a Hypervirulent and Multidrug-Resistant (MDR) Representative Strain. *Pathogens*, **2021**, 10,	4.5	4
74	Antibacterial Activity and Efficacy of Sulbactam-Durlobactam against Pathogenic Species. *Antimicrobial Agents and Chemotherapy*, **2021**, 65,	5.9	2
73	Cerebrospinal fluid (CSF) augments metabolism and virulence expression factors in Acinetobacter baumannii. *Scientific Reports*, **2021**, 11, 4737	4.9	7
72	Structural Characterization of Diazabicyclooctane β-Lactam "Enhancers" in Complex with Penicillin-Binding Proteins PBP2 and PBP3 of Pseudomonas aeruginosa. *MBio*, **2021**, 12,	7.8	10
71	Interaction of with Human Serum Albumin: Does the Host Determine the Outcome?. *Antibiotics*, **2021**, 10,	4.9	1
70	Activity of Imipenem-Relebactam against Multidrug- and Extensively Drug-Resistant Burkholderia cepacia Complex and Burkholderia gladioli. *Antimicrobial Agents and Chemotherapy*, **2021**, 65, e0133221	5.9	3
69	A β-lactam siderophore antibiotic effective against multidrug-resistant Pseudomonas aeruginosa, Klebsiella pneumoniae, and Acinetobacter spp. *European Journal of Medicinal Chemistry*, **2021**, 220, 113436	6.8	8
68	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	2.4	1
67	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	5.9	4
66	Structural Insights into Ceftobiprole Inhibition of Pseudomonas aeruginosa Penicillin-Binding Protein 3. *Antimicrobial Agents and Chemotherapy*, **2020**, 64,	5.9	7
65	A β-Lactam Siderophore Antibiotic Effective against Multidrug-Resistant Gram-Negative Bacilli. *Journal of Medicinal Chemistry*, **2020**, 63, 5990-6002	8.3	10

64	Structures of FOX-4 Cephamycinase in Complex with Transition-State Analog Inhibitors. *Biomolecules*, **2020**, 10,	5.9	2
63	A Standard Numbering Scheme for Class C Lactamases. *Antimicrobial Agents and Chemotherapy*, **2020**, 64,	5.9	25
62	Resistance to Novel Lactam-Lactamase Inhibitor Combinations: The "Price of Progress". *Infectious Disease Clinics of North America*, **2020**, 34, 773-819	6.5	30
61	The latest advances in lactam/lactamase inhibitor combinations for the treatment of Gram-negative bacterial infections. *Expert Opinion on Pharmacotherapy*, **2019**, 20, 2169-2184	4	57
60	Structural Analysis of The OXA-48 Carbapenemase Bound to A "Poor" Carbapenem Substrate, Doripenem. *Antibiotics*, **2019**, 8,	4.9	5
59	Resurrecting Old Lactams: Potent Inhibitory Activity of Temocillin against Multidrug-Resistant Species Isolates from the United States. *Antimicrobial Agents and Chemotherapy*, **2019**, 63,	5.9	6
58	"Switching Partners": Piperacillin-Avibactam Is a Highly Potent Combination against Multidrug-Resistant Complex and Cystic Fibrosis Isolates. *Journal of Clinical Microbiology*, **2019**, 57,	9.7	12
57	Nacubactam Enhances Meropenem Activity against Carbapenem-Resistant Klebsiella pneumoniae Producing KPC. *Antimicrobial Agents and Chemotherapy*, **2019**, 63,	5.9	19
56	Ceftazidime-Avibactam in Combination With Fosfomycin: A Novel Therapeutic Strategy Against Multidrug-Resistant Pseudomonas aeruginosa. *Journal of Infectious Diseases*, **2019**, 220, 666-676	7	27
55	Targeting Multidrug-Resistant spp.: Sulbactam and the Diazabicyclooctenone Lactamase Inhibitor ETX2514 as a Novel Therapeutic Agent. *MBio*, **2019**, 10,	7.8	35
54	Beyond Piperacillin-Tazobactam: Cefepime and AAI101 as a Potent Lactam-Lactamase Inhibitor Combination. *Antimicrobial Agents and Chemotherapy*, **2019**, 63,	5.9	44
53	Structural Insights into the Inhibition of the Extended-Spectrum Lactamase PER-2 by Avibactam. *Antimicrobial Agents and Chemotherapy*, **2019**, 63,	5.9	7
52	Population Structure, Molecular Epidemiology, and Lactamase Diversity among Stenotrophomonas maltophilia Isolates in the United States. *MBio*, **2019**, 10,	7.8	26
51	Whole Genome Sequence Analysis of Burkholderia contaminans FFH2055 Strain Reveals the Presence of Putative Lactamases. *Current Microbiology*, **2019**, 76, 485-494	2.4	2
50	687. In vitro Activity of a New Generation Oxopyrazole Antibiotic Against Acinetobacter spp.. *Open Forum Infectious Diseases*, **2019**, 6, S312-S312	1	78
49	Human pleural fluid triggers global changes in the transcriptional landscape of Acinetobacter baumannii as an adaptive response to stress. *Scientific Reports*, **2019**, 9, 17251	4.9	17
48	Relebactam Is a Potent Inhibitor of the KPC-2 Lactamase and Restores Imipenem Susceptibility in KPC-Producing Enterobacteriaceae. *Antimicrobial Agents and Chemotherapy*, **2018**, 62,	5.9	51
47	Strategic Approaches to Overcome Resistance against Gram-Negative Pathogens Using Lactamase Inhibitors and Lactam Enhancers: Activity of Three Novel Diazabicyclooctanes WCK 5153, Zidebactam (WCK 5107), and WCK 4234. *Journal of Medicinal Chemistry*, **2018**, 61, 4067-4086	8.3	77

46	Inactivation of the Pseudomonas-Derived Cephalosporinase-3 (PDC-3) by Relebactam. *Antimicrobial Agents and Chemotherapy*, **2018**, 62,	5.9	21
45	Characterization of the AmpC β-Lactamase from Burkholderia multivorans. *Antimicrobial Agents and Chemotherapy*, **2018**, 62,	5.9	10
44	698. Nacubactam Inhibits Class A β-lactamases. *Open Forum Infectious Diseases*, **2018**, 5, S251-S252	1	78
43	2385. Ceftazidime-Avibactam in Combination With Fosfomycin: A Novel Therapeutic Strategy Against Multidrug-Resistant Pseudomonas aeruginosa. *Open Forum Infectious Diseases*, **2018**, 5, S711-S711	1	1
42	Deciphering the Evolution of Cephalosporin Resistance to Ceftolozane-Tazobactam in Pseudomonas aeruginosa. *MBio*, **2018**, 9,	7.8	42
41	Sequence heterogeneity of the PenA carbapenemase in clinical isolates of Burkholderia multivorans. *Diagnostic Microbiology and Infectious Disease*, **2018**, 92, 253-258	2.9	8
40	Overcoming an Extremely Drug Resistant (XDR) Pathogen: Avibactam Restores Susceptibility to Ceftazidime for Burkholderia cepacia Complex Isolates from Cystic Fibrosis Patients. *ACS Infectious Diseases*, **2017**, 3, 502-511	5.5	50
39	Exploring the Landscape of Diazabicyclooctane (DBO) Inhibition: Avibactam Inactivation of PER-2 β-Lactamase. *Antimicrobial Agents and Chemotherapy*, **2017**, 61,	5.9	11
38	WCK 5107 (Zidebactam) and WCK 5153 Are Novel Inhibitors of PBP2 Showing Potent "β-Lactam Enhancer" Activity against Pseudomonas aeruginosa, Including Multidrug-Resistant Metallo-β-Lactamase-Producing High-Risk Clones. *Antimicrobial Agents and Chemotherapy*, **2017**, 61,	5.9	68
37	Carbapenemase-2 (KPC-2), Substitutions at Ambler Position Asp179, and Resistance to Ceftazidime-Avibactam: Unique Antibiotic-Resistant Phenotypes Emerge from β-Lactamase Protein Engineering. *MBio*, **2017**, 8,	7.8	68
36	Potent β-Lactam Enhancer Activity of Zidebactam and WCK 5153 against Acinetobacter baumannii, Including Carbapenemase-Producing Clinical Isolates. *Antimicrobial Agents and Chemotherapy*, **2017**, 61,	5.9	50
35	Avibactam Restores the Susceptibility of Clinical Isolates of Stenotrophomonas maltophilia to Aztreonam. *Antimicrobial Agents and Chemotherapy*, **2017**, 61,	5.9	36
34	Exploring the Role of the β-Loop in the Evolution of Ceftazidime Resistance in the PenA β-Lactamase from Burkholderia multivorans, an Important Cystic Fibrosis Pathogen. *Antimicrobial Agents and Chemotherapy*, **2017**, 61,	5.9	8
33	Treatment options for infections caused by carbapenem-resistant Enterobacteriaceae: can we apply "precision medicine" to antimicrobial chemotherapy?. *Expert Opinion on Pharmacotherapy*, **2016**, 17, 761-81	4	108
32	Boronic Acid Transition State Inhibitors Active against KPC and Other Class A β-Lactamases: Structure-Activity Relationships as a Guide to Inhibitor Design. *Antimicrobial Agents and Chemotherapy*, **2016**, 60, 1751-9	5.9	38
31	Exposing a β-Lactamase "Twist": the Mechanistic Basis for the High Level of Ceftazidime Resistance in the C69F Variant of the Burkholderia pseudomallei PenI β-Lactamase. *Antimicrobial Agents and Chemotherapy*, **2016**, 60, 777-88	5.9	18
30	New β-Lactamase Inhibitors in the Clinic. *Infectious Disease Clinics of North America*, **2016**, 30, 441-464	6.5	109
29	Activities of ceftazidime, ceftaroline, and aztreonam alone and combined with avibactam against isogenic Escherichia coli strains expressing selected single β-lactamases. *Diagnostic Microbiology and Infectious Disease*, **2015**, 82, 65-9	2.9	37

28	Activity of ceftazidime/avibactam against isogenic strains of Escherichia coli containing KPC and SHV β-lactamases with single amino acid substitutions in the Ω-loop. *Journal of Antimicrobial Chemotherapy*, **2015**, 70, 2279-86	5.1	73
27	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, 1020-9	5.9	104
26	Inhibition of Klebsiella β-Lactamases (SHV-1 and KPC-2) by Avibactam: A Structural Study. *PLoS ONE* , **2015**, 10, e0136813	3.7	47
25	Avibactam and inhibitor-resistant SHV β-lactamases. *Antimicrobial Agents and Chemotherapy*, **2015**, 59, 3700-9	5.9	56
24	Variants of β-lactamase KPC-2 that are resistant to inhibition by avibactam. *Antimicrobial Agents and Chemotherapy*, **2015**, 59, 3710-7	5.9	72
23	New β-lactamase inhibitors: a therapeutic renaissance in an MDR world. *Antimicrobial Agents and Chemotherapy*, **2014**, 58, 1835-46	5.9	227
22	A kinetic analysis of the inhibition of FOX-4 β-lactamase, a plasmid-mediated AmpC cephalosporinase, by monocyclic β-lactams and carbapenems. *Journal of Antimicrobial Chemotherapy*, **2014**, 69, 682-90	5.1	16
21	Reclaiming the efficacy of β-lactam-β-lactamase inhibitor combinations: avibactam restores the susceptibility of CMY-2-producing Escherichia coli to ceftazidime. *Antimicrobial Agents and Chemotherapy*, **2014**, 58, 4290-7	5.9	32
20	Non-phenotypic tests to detect and characterize antibiotic resistance mechanisms in Enterobacteriaceae. *Diagnostic Microbiology and Infectious Disease*, **2013**, 77, 179-94	2.9	61
19	Design and exploration of novel boronic acid inhibitors reveals important interactions with a clavulanic acid-resistant sulfhydryl-variable (SHV) β-lactamase. *Journal of Medicinal Chemistry*, **2013**, 56, 1084-97	8.3	35
18	Insights into β-lactamases from Burkholderia species, two phylogenetically related yet distinct resistance determinants. *Journal of Biological Chemistry*, **2013**, 288, 19090-102	5.4	40
17	Reply to Frère: Covalent trapping and bacterial resistance to ceftazidime. *Journal of Biological Chemistry*, **2013**, 288, 26968	5.4	1
16	Novel β-lactamase inhibitors: a therapeutic hope against the scourge of multidrug resistance. *Frontiers in Microbiology*, **2013**, 4, 392	5.7	46
15	Inactivation of a class A and a class C β-lactamase by 6β-(hydroxymethyl)penicillanic acid sulfone. *Biochemical Pharmacology*, **2012**, 83, 462-71	6	15
14	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, 4428-38	5.9	37
13	Exploring the role of a conserved class A residue in the Ω-Loop of KPC-2 β-lactamase: a mechanism for ceftazidime hydrolysis. *Journal of Biological Chemistry*, **2012**, 287, 31783-93	5.4	57
12	Crystal structures of KPC-2 β-lactamase in complex with 3-nitrophenyl boronic acid and the penam sulfone PSR-3-226. *Antimicrobial Agents and Chemotherapy*, **2012**, 56, 2713-8	5.9	33
11	Early insights into the interactions of different β-lactam antibiotics and β-lactamase inhibitors against soluble forms of Acinetobacter baumannii PBP1a and Acinetobacter sp. PBP3. *Antimicrobial Agents and Chemotherapy*, **2012**, 56, 5687-92	5.9	23

10	Carbapenems: past, present, and future. *Antimicrobial Agents and Chemotherapy*, **2011**, 55, 4943-60	5.9	752
9	Molecular Investigations of PenA-mediated -lactam Resistance in Burkholderia pseudomallei. *Frontiers in Microbiology*, **2011**, 2, 139	5.7	58
8	Exploring the inhibition of CTX-M-9 by beta-lactamase inhibitors and carbapenems. *Antimicrobial Agents and Chemotherapy*, **2011**, 55, 3465-75	5.9	27
7	Inhibitor resistance in the KPC-2 beta-lactamase, a preeminent property of this class A beta-lactamase. *Antimicrobial Agents and Chemotherapy*, **2010**, 54, 890-7	5.9	132
6	Substrate selectivity and a novel role in inhibitor discrimination by residue 237 in the KPC-2 beta-lactamase. *Antimicrobial Agents and Chemotherapy*, **2010**, 54, 2867-77	5.9	44
5	Elucidating the role of Trp105 in the KPC-2 -lactamase. *Protein Science*, **2010**, 19, 1714-27	6.3	44
4	Regulation of CorA Mg2+ channel function affects the virulence of Salmonella enterica serovar typhimurium. *Journal of Bacteriology*, **2008**, 190, 6509-16	3.5	31
3	The CorA Mg2+ channel is required for the virulence of Salmonella enterica serovar typhimurium. *Journal of Bacteriology*, **2008**, 190, 6517-23	3.5	34
2	Bacterial homologs of eukaryotic membrane proteins: the 2-TM-GxN family of Mg(2+) transporters. *Molecular Membrane Biology*, **2007**, 24, 351-6	3.4	20
1	Manganese transport and the role of manganese in virulence. *Annual Review of Microbiology*, **2006**, 60, 187-209	17.5	222