

Karen Bush

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6148833/publications.pdf>

Version: 2024-02-01

87
papers

17,029
citations

53794

45
h-index

56724

83
g-index

100
all docs

100
docs citations

100
times ranked

13275
citing authors

#	ARTICLE	IF	CITATIONS
1	A functional classification scheme for beta-lactamases and its correlation with molecular structure. <i>Antimicrobial Agents and Chemotherapy</i> , 1995, 39, 1211-1233.	3.2	2,271
2	Carbapenemases: the Versatile β -Lactamases. <i>Clinical Microbiology Reviews</i> , 2007, 20, 440-458.	13.6	2,068
3	Updated Functional Classification of β -Lactamases. <i>Antimicrobial Agents and Chemotherapy</i> , 2010, 54, 969-976.	3.2	1,817
4	Novel Carbapenem-Hydrolyzing β -Lactamase, KPC-1, from a Carbapenem-Resistant Strain of <i>Klebsiella pneumoniae</i> . <i>Antimicrobial Agents and Chemotherapy</i> , 2001, 45, 1151-1161.	3.2	1,415
5	Tackling antibiotic resistance. <i>Nature Reviews Microbiology</i> , 2011, 9, 894-896.	28.6	919
6	Fluoroquinolone-modifying enzyme: a new adaptation of a common aminoglycoside acetyltransferase. <i>Nature Medicine</i> , 2006, 12, 83-88.	30.7	827
7	β -Lactams and β -Lactamase Inhibitors: An Overview. <i>Cold Spring Harbor Perspectives in Medicine</i> , 2016, 6, a025247.	6.2	663
8	Past and Present Perspectives on β -Lactamases. <i>Antimicrobial Agents and Chemotherapy</i> , 2018, 62, .	3.2	554
9	Epidemiology of β -Lactamase-Producing Pathogens. <i>Clinical Microbiology Reviews</i> , 2020, 33, .	13.6	425
10	Crystal structure of the wide-spectrum binuclear zinc β -lactamase from <i>Bacteroides fragilis</i> . <i>Structure</i> , 1996, 4, 823-836.	3.3	402
11	Epidemiological Expansion, Structural Studies, and Clinical Challenges of New β -Lactamases from Gram-Negative Bacteria. <i>Annual Review of Microbiology</i> , 2011, 65, 455-478.	7.3	367
12	New β -Lactamases in Gram-Negative Bacteria: Diversity and Impact on the Selection of Antimicrobial Therapy. <i>Clinical Infectious Diseases</i> , 2001, 32, 1085-1089.	5.8	348
13	Alarming β -lactamase-mediated resistance in multidrug-resistant Enterobacteriaceae. <i>Current Opinion in Microbiology</i> , 2010, 13, 558-564.	5.1	341
14	Interplay between β -lactamases and new β -lactamase inhibitors. <i>Nature Reviews Microbiology</i> , 2019, 17, 295-306.	28.6	322
15	Proliferation and significance of clinically relevant β -lactamases. <i>Annals of the New York Academy of Sciences</i> , 2013, 1277, 84-90.	3.8	271
16	A Randomized, Double-Blind Trial Comparing Ceftobiprole Medocaril with Vancomycin plus Ceftazidime for the Treatment of Patients with Complicated Skin and Skin-Structure Infections. <i>Clinical Infectious Diseases</i> , 2008, 46, 647-655.	5.8	245
17	Critical analysis of antibacterial agents in clinical development. <i>Nature Reviews Microbiology</i> , 2020, 18, 286-298.	28.6	204
18	The ABCD TM s of β -lactamase nomenclature. <i>Journal of Infection and Chemotherapy</i> , 2013, 19, 549-559.	1.7	191

#	ARTICLE	IF	CITATIONS
19	Carbapenem-Resistant Strain of <i>Klebsiella oxytoca</i> Harboring Carbapenem-Hydrolyzing β -Lactamase KPC-2. <i>Antimicrobial Agents and Chemotherapy</i> , 2003, 47, 3881-3889.	3.2	172
20	A resurgence of β -lactamase inhibitor combinations effective against multidrug-resistant Gram-negative pathogens. <i>International Journal of Antimicrobial Agents</i> , 2015, 46, 483-493.	2.5	166
21	Bench-to-bedside review: The role of β -lactamases in antibiotic-resistant Gram-negative infections. <i>Critical Care</i> , 2010, 14, 224.	5.8	160
22	Molecular Correlation for the Treatment Outcomes in Bloodstream Infections Caused by <i>Escherichia coli</i> and <i>Klebsiella pneumoniae</i> with Reduced Susceptibility to Ceftazidime. <i>Clinical Infectious Diseases</i> , 2002, 34, 135-146.	5.8	131
23	Biochemical comparison of imipenem, meropenem and biapenem: permeability, binding to penicillin-binding proteins, and stability to hydrolysis by β -lactamases. <i>Journal of Antimicrobial Chemotherapy</i> , 1995, 35, 75-84.	3.0	123
24	SME-Type Carbapenem-Hydrolyzing Class A β -Lactamases from Geographically Diverse <i>Serratia marcescens</i> Strains. <i>Antimicrobial Agents and Chemotherapy</i> , 2000, 44, 3035-3039.	3.2	123
25	Effects of Inoculum and β -Lactamase Activity in AmpC- and Extended-Spectrum β -Lactamase (ESBL)-Producing <i>Escherichia coli</i> and <i>Klebsiella pneumoniae</i> Clinical Isolates Tested by Using NCCLS ESBL Methodology. <i>Journal of Clinical Microbiology</i> , 2004, 42, 269-275.	3.9	123
26	Novel antibacterial agents for the treatment of serious Gram-positive infections. <i>Expert Opinion on Investigational Drugs</i> , 2003, 12, 379-399.	4.1	118
27	Substitution of lysine at position 104 or 240 of TEM-1pTZ18R β -lactamase enhances the effect of serine-164 substitution on hydrolysis or affinity for cephalosporins and the monobactam aztreonam. <i>Biochemistry</i> , 1991, 30, 3179-3188.	2.5	114
28	<i>In Vitro</i> Susceptibility of Characterized β -Lactamase-Producing Strains Tested with Avibactam Combinations. <i>Antimicrobial Agents and Chemotherapy</i> , 2015, 59, 1789-1793.	3.2	114
29	New β -lactam antibiotics and β -lactamase inhibitors. <i>Expert Opinion on Therapeutic Patents</i> , 2010, 20, 1277-1293.	5.0	103
30	Investigational Antimicrobial Agents of 2013. <i>Clinical Microbiology Reviews</i> , 2013, 26, 792-821.	13.6	90
31	Hydrolysis and Inhibition Profiles of β -Lactamases from Molecular Classes A to D with Doripenem, Imipenem, and Meropenem. <i>Antimicrobial Agents and Chemotherapy</i> , 2010, 54, 565-569.	3.2	89
32	Interactions of Ceftobiprole with β -Lactamases from Molecular Classes A to D. <i>Antimicrobial Agents and Chemotherapy</i> , 2007, 51, 3089-3095.	3.2	84
33	Improving known classes of antibiotics: an optimistic approach for the future. <i>Current Opinion in Pharmacology</i> , 2012, 12, 527-534.	3.5	82
34	Forgotten Antibiotics: An Inventory in Europe, the United States, Canada, and Australia. <i>Clinical Infectious Diseases</i> , 2012, 54, 268-274.	5.8	81
35	Carbapenemases: Partners in crime. <i>Journal of Global Antimicrobial Resistance</i> , 2013, 1, 7-16.	2.2	76
36	Anti-MRSA β -lactams in development, with a focus on ceftobiprole: the first anti-MRSA β -lactam to demonstrate clinical efficacy. <i>Expert Opinion on Investigational Drugs</i> , 2007, 16, 419-429.	4.1	64

#	ARTICLE	IF	CITATIONS
37	Unusual Escherichia coli PBP 3 Insertion Sequence Identified from a Collection of Carbapenem-Resistant Enterobacteriaceae Tested <i>In Vitro</i> with a Combination of Ceftazidime-, Ceftaroline-, or Aztreonam-Avibactam. <i>Antimicrobial Agents and Chemotherapy</i> , 2017, 61, .	3.2	64
38	Epidemiology and Risk Factors for Isolation of Escherichia coli Producing CTX-M-Type Extended-Spectrum β -Lactamase in a Large U.S. Medical Center. <i>Antimicrobial Agents and Chemotherapy</i> , 2013, 57, 4010-4018.	3.2	62
39	What we may expect from novel antibacterial agents in the pipeline with respect to resistance and pharmacodynamic principles. <i>Journal of Pharmacokinetics and Pharmacodynamics</i> , 2017, 44, 113-132.	1.8	62
40	Biochemical Characterization of β -Lactamases Bla1 and Bla2 from Bacillus anthracis. <i>Antimicrobial Agents and Chemotherapy</i> , 2003, 47, 2040-2042.	3.2	60
41	<i>In Vitro</i> Antibacterial Activities of JNJ-Q2, a New Broad-Spectrum Fluoroquinolone. <i>Antimicrobial Agents and Chemotherapy</i> , 2010, 54, 1955-1964.	3.2	58
42	Game Changers: New β -Lactamase Inhibitor Combinations Targeting Antibiotic Resistance in Gram-Negative Bacteria. <i>ACS Infectious Diseases</i> , 2018, 4, 84-87.	3.8	56
43	A Standard Numbering Scheme for Class C β -Lactamases. <i>Antimicrobial Agents and Chemotherapy</i> , 2020, 64, .	3.2	50
44	Discovery and development of new antibacterial agents targeting Gram-negative bacteria in the era of pandrug resistance: is the future promising?. <i>Current Opinion in Pharmacology</i> , 2014, 18, 91-97.	3.5	49
45	Recent Developments in β -Lactamase Research and Their Implications for the Future. <i>Clinical Infectious Diseases</i> , 1988, 10, 681-690.	5.8	48
46	Investigational Agents for the Treatment of Gram-Negative Bacterial Infections: A Reality Check. <i>ACS Infectious Diseases</i> , 2015, 1, 509-511.	3.8	48
47	Is it necessary to change the classification of β -lactamases?. <i>Journal of Antimicrobial Chemotherapy</i> , 2005, 55, 1051-1053.	3.0	47
48	New antimicrobial agents on the horizon. <i>Biochemical Pharmacology</i> , 2011, 82, 1528-1539.	4.4	45
49	Biochemical characterization of the carbapenem-hydrolyzing β -lactamase AsbM1 from Aeromonas sobria AER 14M: a member of a novel subgroup of metallo- β -lactamases. <i>FEMS Microbiology Letters</i> , 1996, 137, 193-200.	1.8	43
50	Cloning and Biochemical Characterization of FOX-5, an AmpC-Type Plasmid-Encoded β -Lactamase from a New York City Klebsiella pneumoniae Clinical Isolate. <i>Antimicrobial Agents and Chemotherapy</i> , 2001, 45, 3189-3194.	3.2	42
51	SME-3, a Novel Member of the Serratia marcescens SME Family of Carbapenem-Hydrolyzing β -Lactamases. <i>Antimicrobial Agents and Chemotherapy</i> , 2006, 50, 3485-3487.	3.2	42
52	Impact of Different Carbapenems and Regimens of Administration on Resistance Emergence for Three Isogenic <i>Pseudomonas aeruginosa</i> Strains with Differing Mechanisms of Resistance. <i>Antimicrobial Agents and Chemotherapy</i> , 2010, 54, 2638-2645.	3.2	42
53	In vitro activity of plazomicin against β -lactamase-producing carbapenem-resistant Enterobacteriaceae (CRE). <i>Journal of Antimicrobial Chemotherapy</i> , 2017, 72, 2792-2795.	3.0	42
54	In vitro susceptibility of β -lactamase-producing carbapenem-resistant Enterobacteriaceae (CRE) to eravacycline. <i>Journal of Antibiotics</i> , 2016, 69, 600-604.	2.0	39

#	ARTICLE	IF	CITATIONS
55	In Vitro Activity of Ceftobiprole against Pathogens from Two Phase 3 Clinical Trials of Complicated Skin and Skin Structure Infections. <i>Antimicrobial Agents and Chemotherapy</i> , 2008, 52, 3418-3423.	3.2	36
56	New agents in development for the treatment of bacterial infections. <i>Current Opinion in Pharmacology</i> , 2008, 8, 582-592.	3.5	35
57	The coming of age of antibiotics: discovery and therapeutic value. <i>Annals of the New York Academy of Sciences</i> , 2010, 1213, 1-4.	3.8	34
58	Detection systems for carbapenemase gene identification should include the SME serine carbapenemase. <i>International Journal of Antimicrobial Agents</i> , 2013, 41, 1-4.	2.5	33
59	Novel Carbapenem-Hydrolyzing β -Lactamase, KPC-1, from a Carbapenem-Resistant Strain of <i>Klebsiella pneumoniae</i> . <i>Antimicrobial Agents and Chemotherapy</i> , 2008, 52, 809-809.	3.2	31
60	Forgotten antibiotics: a follow-up inventory study in Europe, the USA, Canada and Australia. <i>International Journal of Antimicrobial Agents</i> , 2017, 49, 98-101.	2.5	31
61	Activity of imipenem/relebactam against carbapenemase-producing Enterobacteriaceae with high colistin resistance. <i>Journal of Antimicrobial Chemotherapy</i> , 2019, 74, 3260-3263.	3.0	29
62	<i>In Vitro</i> Activity of Ceftolozane-Tazobactam as Determined by Broth Dilution and Agar Diffusion Assays against Recent U.S. <i>Escherichia coli</i> Isolates from 2010 to 2011 Carrying CTX-M-Type Extended-Spectrum β -Lactamases. <i>Journal of Clinical Microbiology</i> , 2014, 52, 4049-4052.	3.9	26
63	Overcoming β -lactam resistance in Gram-negative pathogens. <i>Future Medicinal Chemistry</i> , 2016, 8, 921-924.	2.3	23
64	The Curious Case of TEM-116. <i>Antimicrobial Agents and Chemotherapy</i> , 2016, 60, 7000-7000.	3.2	19
65	Comment on: Redefining extended-spectrum β -lactamases: balancing science and clinical need. <i>Journal of Antimicrobial Chemotherapy</i> , 2009, 64, 212-213.	3.0	18
66	Inhibition of metallo- β -lactamases by pyridine monothiocarboxylic acid analogs. <i>Journal of Antibiotics</i> , 2010, 63, 255-257.	2.0	18
67	Cathelicidin Antimicrobial Peptides with Reduced Activation of Toll-Like Receptor Signaling Have Potent Bactericidal Activity against Colistin-Resistant Bacteria. <i>MBio</i> , 2016, 7, .	4.1	17
68	Selection of hyperproduction of AmpC and SME-1 in a carbapenem-resistant <i>Serratia marcescens</i> isolate during antibiotic therapy. <i>Journal of Antimicrobial Chemotherapy</i> , 2018, 73, 1256-1262.	3.0	13
69	Synergistic Antibiotic Combinations. <i>Topics in Medicinal Chemistry</i> , 2017, , 69-88.	0.8	11
70	Consensus on β -Lactamase Nomenclature. <i>Antimicrobial Agents and Chemotherapy</i> , 2022, 66, e0033322.	3.2	11
71	Comment on: Resistance gene naming and numbering: is it a new gene or not?. <i>Journal of Antimicrobial Chemotherapy</i> , 2016, 71, 2677-2678.	3.0	10
72	Synergistic MRSA combinations. <i>Nature Chemical Biology</i> , 2015, 11, 832-833.	8.0	8

#	ARTICLE	IF	CITATIONS
73	Unusual carbapenem resistant but ceftriaxone and cefepime susceptible <i>Klebsiella oxytoca</i> isolated from a blood culture: Case report and whole-genome sequencing investigation. <i>IDCases</i> , 2018, 11, 9-11.	0.9	8
74	Cautious Optimism for the Antibacterial Pipeline. <i>Microbe Magazine</i> , 2014, 9, 147-152.	0.4	8
75	In vitro antibacterial activity of cefiderocol against recent multidrug-resistant carbapenem-nonsusceptible Enterobacterales isolates. <i>Diagnostic Microbiology and Infectious Disease</i> , 2022, 103, 115651.	1.8	8
76	Introduction to <i>Antimicrobial Therapeutics Reviews</i> : The bacterial cell wall as an antimicrobial target. <i>Annals of the New York Academy of Sciences</i> , 2013, 1277, v-vii.	3.8	6
77	Introduction to <i>Antimicrobial Therapeutics Reviews: Infectious Diseases of Current and Emerging Concern</i> . <i>Annals of the New York Academy of Sciences</i> , 2014, 1323, v-vi.	3.8	5
78	Evolution of β -Lactamases: Past, Present, and Future. , 2012, , 427-453.		5
79	Antibacterial Agents. , 0, , 1169-1211.		4
80	The Importance of β -Lactamases to the Development of New β -Lactams. , 2017, , 165-175.		3
81	β -Lactamases: Historical Perspectives. , 0, , 65-79.		3
82	Casting a broader net for approaches to antibacterial research and development. <i>Current Opinion in Biotechnology</i> , 2008, 19, 606-607.	6.6	2
83	Introduction to <i>Antimicrobial Therapeutics Reviews</i> . <i>Annals of the New York Academy of Sciences</i> , 2011, 1241, vii-ix.	3.8	1
84	A Meandering Path from Biochemist to Microbiologist. <i>ACS Infectious Diseases</i> , 2019, 5, 1-3.	3.8	1
85	Success and Challenges Associated with Large-Scale Collaborative Surveillance for Carbapenemase Genes in Gram-Negative Bacteria. <i>Antimicrobial Agents and Chemotherapy</i> , 2022, 66, aac0229921.	3.2	1
86	Reply to Furlan et al., "Importance of Sequencing To Determine Functional bla _{TEM} Variants". <i>Antimicrobial Agents and Chemotherapy</i> , 2017, 61, .	3.2	0
87	A Tribute to George A. Jacoby. <i>Antimicrobial Agents and Chemotherapy</i> , 2022, , e0049822.	3.2	0