Karen Bush

List of Publications by Year
in descending order

87 papers	17,029 citations	61687 45 h-index	64407 83 g-index
100 all docs	100 docs citations	100 times ranked	14366 citing authors

#	Article	IF	Citations
1	A functional classification scheme for beta-lactamases and its correlation with molecular structure. Antimicrobial Agents and Chemotherapy, 1995, 39, 1211-1233.	1.4	2,271
2	Carbapenemases: the Versatile Î²-Lactamases. Clinical Microbiology Reviews, 2007, 20, 440-458.	5.7	2,068
3	Updated Functional Classification of Î²-Lactamases. Antimicrobial Agents and Chemotherapy, 2010, 54, 969-976.	1.4	1,817
4	Novel Carbapenem-Hydrolyzing Î²-Lactamase, KPC-1, from a Carbapenem-Resistant Strain of Klebsiella pneumoniae. Antimicrobial Agents and Chemotherapy, 2001, 45, 1151-1161.	1.4	1,415
5	Tackling antibiotic resistance. Nature Reviews Microbiology, 2011, 9, 894-896.	13.6	919
6	Fluoroquinolone-modifying enzyme: a new adaptation of a common aminoglycoside acetyltransferase. Nature Medicine, 2006, 12, 83-88.	15.2	827
7	Î²-Lactams and Î²-Lactamase Inhibitors: An Overview. Cold Spring Harbor Perspectives in Medicine, 2016, 6, a025247.	2.9	663
8	Past and Present Perspectives on Î²-Lactamases. Antimicrobial Agents and Chemotherapy, 2018, 62, .	1.4	554
9	Epidemiology of Î²-Lactamase-Producing Pathogens. Clinical Microbiology Reviews, 2020, 33, .	5.7	425
10	Crystal structure of the wide-spectrum binuclear zinc Î²-lactamase from Bacteroides fragilis. Structure, 1996, 4, 823-836.	1.6	402
11	Epidemiological Expansion, Structural Studies, and Clinical Challenges of New Î²-Lactamases from Gram-Negative Bacteria. Annual Review of Microbiology, 2011, 65, 455-478.	2.9	367
12	New Â-Lactamases in Gram-Negative Bacteria: Diversity and Impact on the Selection of Antimicrobial Therapy. Clinical Infectious Diseases, 2001, 32, 1085-1089.	2.9	348
13	Alarming Î²-lactamase-mediated resistance in multidrug-resistant Enterobacteriaceae. Current Opinion in Microbiology, 2010, 13, 558-564.	2.3	341
14	Interplay between Î²-lactamases and new Î²-lactamase inhibitors. Nature Reviews Microbiology, 2019, 17, 295-306.	13.6	322
15	Proliferation and significance of clinically relevant Î²â€lactamases. Annals of the New York Academy of Sciences, 2013, 1277, 84-90.	1.8	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. Clinical Infectious Diseases, 2008, 46, 647-655.	2.9	245
17	Critical analysis of antibacterial agents in clinical development. Nature Reviews Microbiology, 2020, 18, 286-298.	13.6	204
18	The ABCDâ€™s of Î²-lactamase nomenclature. Journal of Infection and Chemotherapy, 2013, 19, 549-559.	0.8	191

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19	Carbapenem-Resistant Strain of Klebsiella oxytoca Harboring Carbapenem-HydrolyzingÎ² -Lactamase KPC-2. Antimicrobial Agents and Chemotherapy, 2003, 47, 3881-3889.	1.4	172
20	A resurgence of Î²-lactamase inhibitor combinations effective against multidrug-resistant Gram-negative pathogens. International Journal of Antimicrobial Agents, 2015, 46, 483-493.	1.1	166
21	Bench-to-bedside review: The role of Î²-lactamases in antibiotic-resistant Gram-negative infections. Critical Care, 2010, 14, 224.	2.5	160
22	Molecular Correlation for the Treatment Outcomes in Bloodstream Infections Caused byEscherichia coliandKlebsiella pneumoniaewith Reduced Susceptibility to Ceftazidime. Clinical Infectious Diseases, 2002, 34, 135-146.	2.9	131
23	Biochemical comparison of imipenem, meropenem and biapenem: permeability, binding to penicillin-binding proteins, and stability to hydrolysis by Î²-lactamases. Journal of Antimicrobial Chemotherapy, 1995, 35, 75-84.	1.3	123
24	SME-Type Carbapenem-Hydrolyzing Class A Î²-Lactamases from Geographically Diverse Serratia marcescens Strains. Antimicrobial Agents and Chemotherapy, 2000, 44, 3035-3039.	1.4	123
25	Effects of Inoculum and Î²-Lactamase Activity in AmpC- and Extended-Spectrum Î²-Lactamase (ESBL)-Producing Escherichia coli and Klebsiella pneumoniae Clinical Isolates Tested by Using NCCLS ESBL Methodology. Journal of Clinical Microbiology, 2004, 42, 269-275.	1.8	123
26	Novel antibacterial agents for the treatment of serious Gram-positive infections. Expert Opinion on Investigational Drugs, 2003, 12, 379-399.	1.9	118
27	Substitution of lysine at position 104 or 240 of TEM-1pTZ18R .beta.-lactamase enhances the effect of serine-164 substitution on hydrolysis or affinity for cephalosporins and the monobactam aztreonam. Biochemistry, 1991, 30, 3179-3188.	1.2	114
28	<i>In Vitro</i> Susceptibility of Characterized Î²-Lactamase-Producing Strains Tested with Avibactam Combinations. Antimicrobial Agents and Chemotherapy, 2015, 59, 1789-1793.	1.4	114
29	New Î²-lactam antibiotics and Î²-lactamase inhibitors. Expert Opinion on Therapeutic Patents, 2010, 20, 1277-1293.	2.4	103
30	Investigational Antimicrobial Agents of 2013. Clinical Microbiology Reviews, 2013, 26, 792-821.	5.7	90
31	Hydrolysis and Inhibition Profiles of Î²-Lactamases from Molecular Classes A to D with Doripenem, Imipenem, and Meropenem. Antimicrobial Agents and Chemotherapy, 2010, 54, 565-569.	1.4	89
32	Interactions of Ceftobiprole with Î²-Lactamases from Molecular Classes A to D. Antimicrobial Agents and Chemotherapy, 2007, 51, 3089-3095.	1.4	84
33	Improving known classes of antibiotics: an optimistic approach for the future. Current Opinion in Pharmacology, 2012, 12, 527-534.	1.7	82
34	Forgotten Antibiotics: An Inventory in Europe, the United States, Canada, and Australia. Clinical Infectious Diseases, 2012, 54, 268-274.	2.9	81
35	Carbapenemases: Partners in crime. Journal of Global Antimicrobial Resistance, 2013, 1, 7-16.	0.9	76
36	Anti-MRSA Î²-lactams in development, with a focus on ceftobiprole: the first anti-MRSA Î²-lactam to demonstrate clinical efficacy. Expert Opinion on Investigational Drugs, 2007, 16, 419-429.	1.9	64

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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. Antimicrobial Agents and Chemotherapy, 2017, 61, .	1.4	64
38	Epidemiology and Risk Factors for Isolation of Escherichia coli Producing CTX-M-Type Extended-Spectrum Î²-Lactamase in a Large U.S. Medical Center. Antimicrobial Agents and Chemotherapy, 2013, 57, 4010-4018.	1.4	62
39	What we may expect from novel antibacterial agents in the pipeline with respect to resistance and pharmacodynamic principles. Journal of Pharmacokinetics and Pharmacodynamics, 2017, 44, 113-132.	0.8	62
40	Biochemical Characterization of Î²-Lactamases Bla1 and Bla2 from Bacillus anthracis. Antimicrobial Agents and Chemotherapy, 2003, 47, 2040-2042.	1.4	60
41	<i>In Vitro</i> Antibacterial Activities of JNJ-Q2, a New Broad-Spectrum Fluoroquinolone. Antimicrobial Agents and Chemotherapy, 2010, 54, 1955-1964.	1.4	58
42	Game Changers: New Î²-Lactamase Inhibitor Combinations Targeting Antibiotic Resistance in Gram-Negative Bacteria. ACS Infectious Diseases, 2018, 4, 84-87.	1.8	56
43	A Standard Numbering Scheme for Class C Î²-Lactamases. Antimicrobial Agents and Chemotherapy, 2020, 64, .	1.4	50
44	Discovery and development of new antibacterial agents targeting Gram-negative bacteria in the era of pandrug resistance: is the future promising?. Current Opinion in Pharmacology, 2014, 18, 91-97.	1.7	49
45	Recent Developments in Â-Lactamase Research and Their Implications for the Future. Clinical Infectious Diseases, 1988, 10, 681-690.	2.9	48
46	Investigational Agents for the Treatment of Gram-Negative Bacterial Infections: A Reality Check. ACS Infectious Diseases, 2015, 1, 509-511.	1.8	48
47	Is it necessary to change the classification of Î²-lactamases?. Journal of Antimicrobial Chemotherapy, 2005, 55, 1051-1053.	1.3	47
48	New antimicrobial agents on the horizon. Biochemical Pharmacology, 2011, 82, 1528-1539.	2.0	45
49	Biochemical characterization of the carbapenem-hydrolyzing ÃŽÂ²-lactamase AsbM1 fromAeromonas sobriaAER 14M: a member of a novel subgroup of metallo-ÃŽÂ²-lactamases. FEMS Microbiology Letters, 1996, 137, 193-200.	0.7	43
50	Cloning and Biochemical Characterization of FOX-5, an AmpC-Type Plasmid-Encoded Î²-Lactamase from a New York City Klebsiella pneumoniae Clinical Isolate. Antimicrobial Agents and Chemotherapy, 2001, 45, 3189-3194.	1.4	42
51	SME-3, a Novel Member of the Serratia marcescens SME Family of Carbapenem-Hydrolyzing Î²-Lactamases. Antimicrobial Agents and Chemotherapy, 2006, 50, 3485-3487.	1.4	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. Antimicrobial Agents and Chemotherapy, 2010, 54, 2638-2645.	1.4	42
53	In vitro activity of plazomicin against Î²-lactamase-producing carbapenem-resistant Enterobacteriaceae (CRE). Journal of Antimicrobial Chemotherapy, 2017, 72, 2792-2795.	1.3	42
54	In vitro susceptibility of Î²-lactamase-producing carbapenem-resistant Enterobacteriaceae (CRE) to eravacycline. Journal of Antibiotics, 2016, 69, 600-604.	1.0	39

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55	In Vitro Activity of Ceftobiprole against Pathogens from Two Phase 3 Clinical Trials of Complicated Skin and Skin Structure Infections. Antimicrobial Agents and Chemotherapy, 2008, 52, 3418-3423.	1.4	36
56	New agents in development for the treatment of bacterial infections. Current Opinion in Pharmacology, 2008, 8, 582-592.	1.7	35
57	The coming of age of antibiotics: discovery and therapeutic value. Annals of the New York Academy of Sciences, 2010, 1213, 1-4.	1.8	34
58	Detection systems for carbapenemase gene identification should include the SME serine carbapenemase. International Journal of Antimicrobial Agents, 2013, 41, 1-4.	1.1	33
59	Novel Carbapenem-Hydrolyzing Î²-Lactamase, KPC-1, from a Carbapenem-Resistant Strain of <i>Klebsiella pneumoniae</i>. Antimicrobial Agents and Chemotherapy, 2008, 52, 809-809.	1.4	31
60	Forgotten antibiotics: a follow-up inventory study in Europe, the USA, Canada and Australia. International Journal of Antimicrobial Agents, 2017, 49, 98-101.	1.1	31
61	Activity of imipenem/relebactam against carbapenemase-producing Enterobacteriaceae with high colistin resistance. Journal of Antimicrobial Chemotherapy, 2019, 74, 3260-3263.	1.3	29
62	<i>In Vitro</i> Activity of Ceftolozane-Tazobactam as Determined by Broth Dilution and Agar Diffusion Assays against Recent U.S. Escherichia coli Isolates from 2010 to 2011 Carrying CTX-M-Type Extended-Spectrum Î²-Lactamases. Journal of Clinical Microbiology, 2014, 52, 4049-4052.	1.8	26
63	Overcoming Î²-lactam resistance in Gram-negative pathogens. Future Medicinal Chemistry, 2016, 8, 921-924.	1.1	23
64	The Curious Case of TEM-116. Antimicrobial Agents and Chemotherapy, 2016, 60, 7000-7000.	1.4	19
65	Comment on: Redefining extended-spectrum Â-lactamases: balancing science and clinical need. Journal of Antimicrobial Chemotherapy, 2009, 64, 212-213.	1.3	18
66	Inhibition of metallo-Î²-lactamases by pyridine monothiocarboxylic acid analogs. Journal of Antibiotics, 2010, 63, 255-257.	1.0	18
67	Cathelicidin Antimicrobial Peptides with Reduced Activation of Toll-Like Receptor Signaling Have Potent Bactericidal Activity against Colistin-Resistant Bacteria. MBio, 2016, 7, .	1.8	17
68	Selection of hyperproduction of AmpC and SME-1 in a carbapenem-resistant Serratia marcescens isolate during antibiotic therapy. Journal of Antimicrobial Chemotherapy, 2018, 73, 1256-1262.	1.3	13
69	Synergistic Antibiotic Combinations. Topics in Medicinal Chemistry, 2017, , 69-88.	0.4	11
70	Consensus on Î²-Lactamase Nomenclature. Antimicrobial Agents and Chemotherapy, 2022, 66, e0033322.	1.4	11
71	Comment on: Resistance gene naming and numbering: is it a new gene or not?. Journal of Antimicrobial Chemotherapy, 2016, 71, 2677-2678.	1.3	10
72	Synergistic MRSA combinations. Nature Chemical Biology, 2015, 11, 832-833.	3.9	8

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73	Unusual carbapenem resistant but ceftriaxone and cefepime susceptible Klebsiella oxytoca isolated from a blood culture: Case report and whole-genome sequencing investigation. IDCases, 2018, 11, 9-11.	0.4	8
74	Cautious Optimism for the Antibacterial Pipeline. Microbe Magazine, 2014, 9, 147-152.	0.4	8
75	In vitro antibacterial activity of cefiderocol against recent multidrug-resistant carbapenem-nonsusceptible Enterobacterales isolates. Diagnostic Microbiology and Infectious Disease, 2022, 103, 115651.	0.8	8
76	Introduction to <i>Antimicrobial Therapeutics Reviews</i>: The bacterial cell wall as an antimicrobial target. Annals of the New York Academy of Sciences, 2013, 1277, v-vii.	1.8	6
77	Introduction to <i>Antimicrobial Therapeutics Reviews: Infectious Diseases of Current and Emerging Concern</i>. Annals of the New York Academy of Sciences, 2014, 1323, v-vi.	1.8	5
78	Evolution of Î²-Lactamases: Past, Present, and Future. , 2012, , 427-453.		5
79	Antibacterial Agents. , 0, , 1169-1211.		4
80	The Importance of Î²-Lactamases to the Development of New Î²-Lactams. , 2017, , 165-175.		3
81	Î²-Lactamases: Historical Perspectives. , 0, , 65-79.		3
82	Casting a broader net for approaches to antibacterial research and development. Current Opinion in Biotechnology, 2008, 19, 606-607.	3.3	2
83	Introduction toâ€‚<i>Antimicrobial Therapeutics Reviews</i>. Annals of the New York Academy of Sciences, 2011, 1241, vii-ix.	1.8	1
84	A Meandering Path from Biochemist to Microbiologist. ACS Infectious Diseases, 2019, 5, 1-3.	1.8	1
85	Success and Challenges Associated with Large-Scale Collaborative Surveillance for Carbapenemase Genes in Gram-Negative Bacteria. Antimicrobial Agents and Chemotherapy, 2022, 66, aac0229921.	1.4	1
86	Reply to Furlan et al., â€œImportance of Sequencing To Determine Functional bla TEM Variantsâ€. Antimicrobial Agents and Chemotherapy, 2017, 61, .	1.4	0
87	A Tribute to George A. Jacoby. Antimicrobial Agents and Chemotherapy, 2022, , e0049822.	1.4	0