Kim Lewis

List of Publications by Year
in descending order

73 papers	18,769 citations	66343 42 h-index	76900 74 g-index
161 all docs	161 docs citations	161 times ranked	17701 citing authors

#	Article	IF	Citations
1	A new antibiotic kills pathogens without detectable resistance. Nature, 2015, 517, 455-459.	27.8	1,991
2	Persister Cells. Annual Review of Microbiology, 2010, 64, 357-372.	7.3	1,768
3	Persister cells, dormancy and infectious disease. Nature Reviews Microbiology, 2007, 5, 48-56.	28.6	1,653
4	Platforms for antibiotic discovery. Nature Reviews Drug Discovery, 2013, 12, 371-387.	46.4	1,135
5	Persister cells and tolerance to antimicrobials. FEMS Microbiology Letters, 2004, 230, 13-18.	1.8	926
6	Biofilms and Planktonic Cells of <i>Pseudomonas aeruginosa</i> Have Similar Resistance to Killing by Antimicrobials. Journal of Bacteriology, 2001, 183, 6746-6751.	2.2	792
7	Specialized Persister Cells and the Mechanism of Multidrug Tolerance in <i>Escherichia coli</i>. Journal of Bacteriology, 2004, 186, 8172-8180.	2.2	753
8	Definitions and guidelines for research on antibiotic persistence. Nature Reviews Microbiology, 2019, 17, 441-448.	28.6	748
9	Ciprofloxacin Causes Persister Formation by Inducing the TisB toxin in Escherichia coli. PLoS Biology, 2010, 8, e1000317.	5.6	636
10	GABA-modulating bacteria of the human gut microbiota. Nature Microbiology, 2019, 4, 396-403.	13.3	590
11	Persisters: a distinct physiological state of E. coli. BMC Microbiology, 2006, 6, 53.	3.3	528
12	Emergence of <i>Pseudomonas aeruginosa</i> Strains Producing High Levels of Persister Cells in Patients with Cystic Fibrosis. Journal of Bacteriology, 2010, 192, 6191-6199.	2.2	516
13	Persister formation in Staphylococcus aureus is associated with ATP depletion. Nature Microbiology, 2016, 1, .	13.3	508
14	A new antibiotic selectively kills Gram-negative pathogens. Nature, 2019, 576, 459-464.	27.8	456
15	The Science of Antibiotic Discovery. Cell, 2020, 181, 29-45.	28.9	402
16	Siderophores from Neighboring Organisms Promote the Growth of Uncultured Bacteria. Chemistry and Biology, 2010, 17, 254-264.	6.0	378
17	ATP-Dependent Persister Formation in <i>Escherichia coli</i>. MBio, 2017, 8, .	4.1	371
18	Lassomycin, a Ribosomally Synthesized Cyclic Peptide, Kills Mycobacterium tuberculosis by Targeting the ATP-Dependent Protease ClpC1P1P2. Chemistry and Biology, 2014, 21, 509-518.	6.0	344

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19	Prospects for plant-derived antibacterials. Nature Biotechnology, 2006, 24, 1504-1507.	17.5	324
20	Surpassing nature: rational design of sterile-surface materials. Trends in Biotechnology, 2005, 23, 343-348.	9.3	281
21	Role of Global Regulators and Nucleotide Metabolism in Antibiotic Tolerance in <i>Escherichia coli</i>. Antimicrobial Agents and Chemotherapy, 2008, 52, 2718-2726.	3.2	272
22	Identification of novel antimicrobials using a live-animal infection model. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10414-10419.	7.1	260
23	Recover the lost art of drug discovery. Nature, 2012, 485, 439-440.	27.8	211
24	HipBAâ€“promoter structures reveal the basis of heritable multidrug tolerance. Nature, 2015, 524, 59-64.	27.8	206
25	GlpD and PlsB Participate in Persister Cell Formation in Escherichia coli. Journal of Bacteriology, 2006, 188, 5136-5144.	2.2	188
26	Kinase Activity of Overexpressed HipA Is Required for Growth Arrest and Multidrug Tolerance in <i>Escherichia coli</i>. Journal of Bacteriology, 2006, 188, 8360-8367.	2.2	181
27	Uncultured microorganisms as a source of secondary metabolites. Journal of Antibiotics, 2010, 63, 468-476.	2.0	166
28	Persister Cells: Molecular Mechanisms Related to Antibiotic Tolerance. Handbook of Experimental Pharmacology, 2012, , 121-133.	1.8	161
29	Borrelia burgdorferi, the Causative Agent of Lyme Disease, Forms Drug-Tolerant Persister Cells. Antimicrobial Agents and Chemotherapy, 2015, 59, 4616-4624.	3.2	149
30	Insights into bactericidal action of surface-attached poly(vinyl-N-hexylpyridinium) chains. Biotechnology Letters, 2002, 24, 801-805.	2.2	135
31	Genetic Basis of Persister Tolerance to Aminoglycosides in Escherichia coli. MBio, 2015, 6, .	4.1	127
32	High Persister Mutants in Mycobacterium tuberculosis. PLoS ONE, 2016, 11, e0155127.	2.5	123
33	The antibiotic darobactin mimics a Î²-strand to inhibit outer membrane insertase. Nature, 2021, 593, 125-129.	27.8	112
34	New approaches to antimicrobial discovery. Biochemical Pharmacology, 2017, 134, 87-98.	4.4	88
35	Persisterâ€promoting bacterial toxin TisB produces anionâ€selective pores in planar lipid bilayers. FEBS Letters, 2012, 586, 2529-2534.	2.8	87
36	Bacterial persisters are a stochastically formed subpopulation of low-energy cells. PLoS Biology, 2021, 19, e3001194.	5.6	85

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37	Stochastic Variation in Expression of the Tricarboxylic Acid Cycle Produces Persister Cells. MBio, 2019, 10, .	4.1	84
38	Dual Targeting of Cell Wall Precursors by Teixobactin Leads to Cell Lysis. Antimicrobial Agents and Chemotherapy, 2016, 60, 6510-6517.	3.2	74
39	Quinones are growth factors for the human gut microbiota. Microbiome, 2017, 5, 161.	11.1	73
40	A Genetic Determinant of Persister Cell Formation in Bacterial Pathogens. Journal of Bacteriology, 2018, 200, .	2.2	61
41	Mechanism-of-Action Classification of Antibiotics by Global Transcriptome Profiling. Antimicrobial Agents and Chemotherapy, 2020, 64, .	3.2	56
42	Recent Progress in Lyme Disease and Remaining Challenges. Frontiers in Medicine, 2021, 8, 666554.	2.6	55
43	Bacterial persisters in long-term infection: Emergence and fitness in a complex host environment. PLoS Pathogens, 2020, 16, e1009112.	4.7	53
44	Developing Equipotent Teixobactin Analogues against Drug-Resistant Bacteria and Discovering a Hydrophobic Interaction between Lipid II and Teixobactin. Journal of Medicinal Chemistry, 2018, 61, 3409-3421.	6.4	35
45	Why tolerance invites resistance. Science, 2017, 355, 796-796.	12.6	33
46	A selective antibiotic for Lyme disease. Cell, 2021, 184, 5405-5418.e16.	28.9	33
47	Gram-scale total synthesis of teixobactin promoting binding mode study and discovery of more potent antibiotics. Nature Communications, 2019, 10, 3268.	12.8	32
48	Persisters: Methods for Isolation and Identifying Contributing Factorsâ€"A Review. Methods in Molecular Biology, 2016, 1333, 17-28.	0.9	30
49	Ureadepsipeptides as ClpP Activators. ACS Infectious Diseases, 2019, 5, 1915-1925.	3.8	27
50	Optimization of heterologous Darobactin A expression and identification of the minimal biosynthetic gene cluster. Metabolic Engineering, 2021, 66, 123-136.	7.0	27
51	Mutasynthetic Production and Antimicrobial Characterization of Darobactin Analogs. Microbiology Spectrum, 2021, 9, e0153521.	3.0	26
52	Cranberry extracts promote growth of Bacteroidaceae and decrease abundance of Enterobacteriaceae in a human gut simulator model. PLoS ONE, 2019, 14, e0224836.	2.5	25
53	Reducing the Bottleneck in Discovery of Novel Antibiotics. Microbial Ecology, 2017, 73, 658-667.	2.8	24
54	Structural studies suggest aggregation as one of the modes of action for teixobactin. Chemical Science, 2018, 9, 8850-8859.	7.4	24

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55	A Distinct Microbiome Signature in Posttreatment Lyme Disease Patients. MBio, 2020, 11, .	4.1	19
56	Biosynthesis and Mechanism of Action of the Cell Wall Targeting Antibiotic Hypeptin. Angewandte Chemie - International Edition, 2021, 60, 13579-13586.	13.8	19
57	Identifying Vancomycin as an Effective Antibiotic for Killing Borrelia burgdorferi. Antimicrobial Agents and Chemotherapy, 2018, 62, .	3.2	18
58	Novel Antimicrobials from Uncultured Bacteria Acting against Mycobacterium tuberculosis. MBio, 2020, 11, .	4.1	16
59	Predicting antimicrobial mechanism-of-action from transcriptomes: A generalizable explainable artificial intelligence approach. PLoS Computational Biology, 2021, 17, e1008857.	3.2	16
60	Diarylacylhydrazones: Clostridium-selective antibacterials with activity against stationary-phase cells. Bioorganic and Medicinal Chemistry Letters, 2014, 24, 595-600.	2.2	14
61	On the Mechanism of Berberineâ€“INF55 (5-Nitro-2-phenylindole) Hybrid Antibacterials. Australian Journal of Chemistry, 2014, 67, 1471.	0.9	14
62	Persister Awakening. Molecular Cell, 2016, 63, 3-4.	9.7	14
63	Intact DNA in ancient permafrost. Trends in Microbiology, 2008, 16, 92-94.	7.7	13
64	A Fluorescent Teixobactin Analogue. ACS Chemical Biology, 2020, 15, 1222-1231.	3.4	12
65	Pulse Dosing of Antibiotic Enhances Killing of a Staphylococcus aureus Biofilm. Frontiers in Microbiology, 2020, 11, 596227.	3.5	10
66	<i>In Vitro</i> and <i>In Vivo</i> Activities of HPi1, a Selective Antimicrobial against Helicobacter pylori. Antimicrobial Agents and Chemotherapy, 2014, 58, 3255-3260.	3.2	9
67	Antibiotics right under our nose. Nature, 2016, 535, 501-502.	27.8	9
68	Persister Formation and Antibiotic Tolerance of Chronic Infections. , 2019, , 59-75.		9
69	The Role of Integration Host Factor in Escherichia coli Persister Formation. MBio, 2022, 13, e0342021.	4.1	7
70	A Silent Operon of Photorhabdus luminescens Encodes a Prodrug Mimic of GTP. MBio, 2022, 13, e0070022.	4.1	7
71	The Making of a Pathogen. Cell Host and Microbe, 2017, 21, 653-654.	11.0	3
72	Biosynthesis and Mechanism of Action of the Cell Wall Targeting Antibiotic Hypeptin. Angewandte Chemie, 2021, 133, 13691-13698.	2.0	3

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73	An <i>in vitro</i> intestinal model captures immunomodulatory properties of the microbiota in inflammation. Gut Microbes, 2022, 14, 2039002.	9.8	3