

Selective labelling and eradication of antibiotic-tolerant *Pseudomonas aeruginosa* biofilms

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Sub-Optimal Treatment of Bacterial Biofilms. <i>Antibiotics</i> , 2016, 5, 23.	1.5	42
2	Unravelling post-transcriptional PrmC-dependent regulatory mechanisms in <i>Pseudomonas aeruginosa</i> . <i>Environmental Microbiology</i> , 2016, 18, 3583-3592.	1.8	6
3	What's New in Musculoskeletal Infection: Update on Biofilms. <i>Journal of Bone and Joint Surgery - Series A</i> , 2016, 98, 1226-1234.	1.4	38
4	Antimicrobial Activity of Silver Nanoparticles in Polycaprolactone Nanofibers against Gram-Positive and Gram-Negative Bacteria. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 12532-12538.	1.8	89
5	Reactive oxygen species drive evolution of pro-biofilm variants in pathogens by modulating cyclic-di-GMP levels. <i>Open Biology</i> , 2016, 6, 160162.	1.5	62
6	In Vitro and In Vivo Efficacy of an LpxC Inhibitor, CHIR-090, Alone or Combined with Colistin against <i>Pseudomonas aeruginosa</i> Biofilm. <i>Antimicrobial Agents and Chemotherapy</i> , 2017, 61, .	1.4	12
7	In Vitro Tolerance of Drug-Naive <i>Staphylococcus aureus</i> Strain FDA209P to Vancomycin. <i>Antimicrobial Agents and Chemotherapy</i> , 2017, 61, .	1.4	15
8	Molecular mechanisms of biofilm-based antibiotic resistance and tolerance in pathogenic bacteria. <i>FEMS Microbiology Reviews</i> , 2017, 41, 276-301.	3.9	1,062
9	Enzyme-responsive reporter molecules for selective localization and fluorescence imaging of pathogenic biofilms. <i>Chemical Communications</i> , 2017, 53, 3330-3333.	2.2	38
10	Selective Proteomic Analysis of Antibiotic-Tolerant Cellular Subpopulations in <i>Pseudomonas aeruginosa</i> Biofilms. <i>MBio</i> , 2017, 8, .	1.8	40
11	Exploring New Mechanisms for Effective Antimicrobial Materials: Electric Contact-Killing Based on Multiple Schottky Barriers. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 26219-26225.	4.0	16
12	Amplification of electrochemical signal by a whole-cell redox reactivation module for ultrasensitive detection of pyocyanin. <i>Biosensors and Bioelectronics</i> , 2017, 98, 338-344.	5.3	50
13	Formation, physiology, ecology, evolution and clinical importance of bacterial persisters. <i>FEMS Microbiology Reviews</i> , 2017, 41, 219-251.	3.9	291
14	Spatiotemporal pharmacodynamics of meropenem- and tobramycin-treated <i>Pseudomonas aeruginosa</i> biofilms. <i>Journal of Antimicrobial Chemotherapy</i> , 2017, 72, 3357-3365.	1.3	25
15	<i>Pseudomonas aeruginosa</i> Psl Exopolysaccharide Interacts with the Antimicrobial Peptide LG21. <i>Water (Switzerland)</i> , 2017, 9, 681.	1.2	4
16	Reduced Intracellular c-di-GMP Content Increases Expression of Quorum Sensing-Regulated Genes in <i>Pseudomonas aeruginosa</i> . <i>Frontiers in Cellular and Infection Microbiology</i> , 2017, 7, 451.	1.8	61
17	Effects of <i>Bacillus</i> Serine Proteases on the Bacterial Biofilms. <i>BioMed Research International</i> , 2017, 2017, 1-10.	0.9	37
18	ICBS 2017 in Shanghai "Illuminating Life with Chemical Innovation. <i>ACS Chemical Biology</i> , 2018, 13, 1111-1122.	1.6	3

#	ARTICLE	IF	CITATIONS
19	Fighting bacterial persistence: Current and emerging anti-persister strategies and therapeutics. Drug Resistance Updates, 2018, 38, 12-26.	6.5	167
20	A programmable lipid-polymer hybrid nanoparticle system for localized, sustained antibiotic delivery to Gram-positive and Gram-negative bacterial biofilms. Nanoscale Horizons, 2018, 3, 305-311.	4.1	29
21	<i>Pseudomonas aeruginosa</i> Biofilms: Host Response and Clinical Implications in Lung Infections. American Journal of Respiratory Cell and Molecular Biology, 2018, 58, 428-439.	1.4	237
22	Achieving a Predictive Understanding of Antimicrobial Stress Physiology through Systems Biology. Trends in Microbiology, 2018, 26, 296-312.	3.5	14
23	Mesoscopic Energy Minimization Drives <i>Pseudomonas aeruginosa</i> Biofilm Morphologies and Consequent Stratification of Antibiotic Activity Based on Cell Metabolism. Antimicrobial Agents and Chemotherapy, 2018, 62, .	1.4	12
24	Mechanisms and Targeted Therapies for <i>Pseudomonas aeruginosa</i> Lung Infection. American Journal of Respiratory and Critical Care Medicine, 2018, 197, 708-727.	2.5	116
25	Use of Whole-Cell Bioassays for Screening Quorum Signaling, Quorum Interference, and Biofilm Dispersion. Methods in Molecular Biology, 2018, 1673, 3-24.	0.4	5
26	Heterogeneous Colistin-Resistance Phenotypes Coexisting in <i>Stenotrophomonas maltophilia</i> Isolates Influence Colistin Susceptibility Testing. Frontiers in Microbiology, 2018, 9, 2871.	1.5	29
27	Understanding the Bacterial Biofilm Resistance to Antibiotics and Immune Evasion. , 2018, , 369-381.		7
28	Breaking the Vicious Cycle of Antibiotic Killing and Regrowth of Biofilm-Residing <i>Pseudomonas aeruginosa</i> . Antimicrobial Agents and Chemotherapy, 2018, 62, .	1.4	23
29	The drug tolerant persisters of <i>Riemerella anatipestifer</i> can be eradicated by a combination of two or three antibiotics. BMC Microbiology, 2018, 18, 137.	1.3	6
31	Targeted disruption of the extracellular polymeric network of <i>Pseudomonas aeruginosa</i> biofilms by alginate oligosaccharides. Npj Biofilms and Microbiomes, 2018, 4, 13.	2.9	119
32	Environmental proteomic studies: closer step to understand bacterial biofilms. World Journal of Microbiology and Biotechnology, 2018, 34, 120.	1.7	8
33	Acquisition of resistance to carbapenem and macrolide-mediated quorum sensing inhibition by <i>Pseudomonas aeruginosa</i> via ICETn43716385. Communications Biology, 2018, 1, 57.	2.0	29
34	Proteomics approach to understand bacterial antibiotic resistance strategies. Expert Review of Proteomics, 2019, 16, 829-839.	1.3	38
35	Big data in yeast systems biology. FEMS Yeast Research, 2019, 19, .	1.1	15
36	Biofilm Disruption Utilizing $\hat{1}\pm/\hat{1}^2$ Chimeric Polypeptide Molecular Brushes. Chinese Journal of Polymer Science (English Edition), 2019, 37, 1105-1112.	2.0	24
37	Discovery and Therapeutic Targeting of Differentiated Biofilm Subpopulations. Frontiers in Microbiology, 2019, 10, 1908.	1.5	28

#	ARTICLE	IF	CITATIONS
38	The MapZ-Mediated Methylation of Chemoreceptors Contributes to Pathogenicity of <i>Pseudomonas aeruginosa</i> . <i>Frontiers in Microbiology</i> , 2019, 10, 67.	1.5	8
39	Glutathione Activates Type III Secretion System Through Vfr in <i>Pseudomonas aeruginosa</i> . <i>Frontiers in Cellular and Infection Microbiology</i> , 2019, 9, 164.	1.8	26
40	Stress-Induced MazF-Mediated Proteins in <i>Escherichia coli</i> . <i>MBio</i> , 2019, 10, .	1.8	17
41	High-Throughput Proteomics Identifies Proteins With Importance to Postantibiotic Recovery in Depolarized Persister Cells. <i>Frontiers in Microbiology</i> , 2019, 10, 378.	1.5	22
42	Effect of Subtilisin-like Proteinase of <i>Bacillus pumilus</i> 3â€“19 on <i>Pseudomonas aeruginosa</i> Biofilms. <i>BioNanoScience</i> , 2019, 9, 515-520.	1.5	3
43	Temperature-responsive tungsten doped vanadium dioxide thin film starves bacteria to death. <i>Materials Today</i> , 2019, 22, 35-49.	8.3	44
44	<p>Sputum Exosomal microRNAs Profiling Reveals Critical Pathways Modulated By <i>Pseudomonas aeruginosa</i> Colonization In Bronchiectasis</p>. <i>International Journal of COPD</i> , 2019, Volume 14, 2563-2573.	0.9	7
45	Breakdown of <i>Vibrio cholerae</i> biofilm architecture induced by antibiotics disrupts community barrier function. <i>Nature Microbiology</i> , 2019, 4, 2136-2145.	5.9	64
46	Improved SILAC method for double labeling of bacterial proteome. <i>Journal of Proteomics</i> , 2019, 194, 89-98.	1.2	5
47	Itaconimides as Novel Quorum Sensing Inhibitors of <i>Pseudomonas aeruginosa</i> . <i>Frontiers in Cellular and Infection Microbiology</i> , 2018, 8, 443.	1.8	43
48	Molecular insights into the master regulator CysBâ€“mediated bacterial virulence in <i> <i>Pseudomonas aeruginosa</i> </i>. <i>Molecular Microbiology</i> , 2019, 111, 1195-1210.	1.2	10
49	Genetic and Transcriptomic Analyses of Ciprofloxacin-Tolerant <i> <i>Staphylococcus aureus</i> </i> Isolated by the Replica Plating Tolerance Isolation System (REPTIS). <i>Antimicrobial Agents and Chemotherapy</i> , 2019, 63, .	1.4	17
50	How to Identify the â€œLIVE/DEADâ€“States of Microbes Related to Biosensing. <i>ACS Sensors</i> , 2020, 5, 258-264.	4.0	9
51	Multi-omics tools for studying microbial biofilms: current perspectives and future directions. <i>Critical Reviews in Microbiology</i> , 2020, 46, 759-778.	2.7	27
52	Treatment strategies targeting persister cell formation in bacterial pathogens. <i>Critical Reviews in Microbiology</i> , 2020, 46, 665-688.	2.7	30
53	An <i>In Vitro</i> Model of Nonattached Biofilm-Like Bacterial Aggregates Based on Magnetic Levitation. <i>Applied and Environmental Microbiology</i> , 2020, 86, .	1.4	6
54	Vanillin inhibits PqsR-mediated virulence in <i> <i>Pseudomonas aeruginosa</i> </i>. <i>Food and Function</i> , 2020, 11, 6496-6508.	2.1	33
55	An on-demand nanoplatform for enhanced elimination of drug-resistant bacteria. <i>Biomaterials Science</i> , 2020, 8, 6912-6919.	2.6	3

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56	The Role of Proteomics in Bacterial Response to Antibiotics. <i>Pharmaceuticals</i> , 2020, 13, 214.	1.7	25
57	Genetic Variants of the DSF Quorum Sensing System in <i>Stenotrophomonas maltophilia</i> Influence Virulence and Resistance Phenotypes Among Genotypically Diverse Clinical Isolates. <i>Frontiers in Microbiology</i> , 2020, 11, 1160.	1.5	22
58	Pulsed SILAM Reveals In Vivo Dynamics of Murine Brain Protein Translation. <i>ACS Omega</i> , 2020, 5, 13528-13540.	1.6	3
59	Near-Infrared Light Triggered Phototherapy and Immunotherapy for Elimination of Methicillin-Resistant <i>Staphylococcus aureus</i> Biofilm Infection on Bone Implant. <i>ACS Nano</i> , 2020, 14, 8157-8170.	7.3	133
60	Weak acids as an alternative anti-microbial therapy. <i>Biofilm</i> , 2020, 2, 100019.	1.5	34
61	Effect of colistin-based antibiotic combinations on the eradication of persister cells in <i>Pseudomonas aeruginosa</i> . <i>Journal of Antimicrobial Chemotherapy</i> , 2020, 75, 917-924.	1.3	26
62	Inhibitory effects of novel 1,4-disubstituted 1,2,3-triazole compounds on quorum-sensing of <i>P. aeruginosa</i> PAO1. <i>European Journal of Clinical Microbiology and Infectious Diseases</i> , 2021, 40, 373-379.	1.3	6
63	The Pyocin Regulator PrtR Regulates Virulence Expression of <i>Pseudomonas aeruginosa</i> by Modulation of Gac/Rsm System and c-di-GMP Signaling Pathway. <i>Infection and Immunity</i> , 2021, 89, .	1.0	5
64	Self-Adaptation of <i>Pseudomonas fluorescens</i> Biofilms to Hydrodynamic Stress. <i>Frontiers in Microbiology</i> , 2020, 11, 588884.	1.5	17
65	Studying Bacterial Persistence: Established Methods and Current Advances. <i>Methods in Molecular Biology</i> , 2021, 2357, 3-20.	0.4	2
66	From Life-Saving to Life-Threatening: A Mathematical Model to Simulate Bacterial Infections in Surgical Procedures. <i>SIAM Journal on Applied Mathematics</i> , 2021, 81, 1226-1247.	0.8	0
67	Bacteriophage-Derived Depolymerases against Bacterial Biofilm. <i>Antibiotics</i> , 2021, 10, 175.	1.5	45
68	The <i>Pseudomonas aeruginosa</i> substrate-binding protein Ttg2D functions as a general glycerophospholipid transporter across the periplasm. <i>Communications Biology</i> , 2021, 4, 448.	2.0	15
69	Rapid fabrication of complex nanostructures using room-temperature ultrasonic nanoimprinting. <i>Nature Communications</i> , 2021, 12, 3146.	5.8	20
70	In vitro and in vivo antibacterial activity of graphene oxide-modified porous TiO ₂ coatings under 808-nm light irradiation. <i>Rare Metals</i> , 2022, 41, 540-545.	3.6	17
71	Sialic Acids as Receptors for Pathogens. <i>Biomolecules</i> , 2021, 11, 831.	1.8	27
72	Phenotypic heterogeneity in persisters: a novel "hunker" theory of persistence. <i>FEMS Microbiology Reviews</i> , 2022, 46, .	3.9	25
73	Proteome Dynamics during Antibiotic Persistence and Resuscitation. <i>MSystems</i> , 2021, 6, e0054921.	1.7	4

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74	Contribution of single-cell omics to microbial ecology. Trends in Ecology and Evolution, 2022, 37, 67-78.	4.2	8
75	Quorum-sensing regulation of virulence factors in bacterial biofilm. Future Microbiology, 2021, 16, 1003-1021.	1.0	32
76	Label-free biosensor of phagocytosis for diagnosing bacterial infections. Biosensors and Bioelectronics, 2021, 191, 113412.	5.3	16
77	Biofilm and Antimicrobial Resistance. , 2019, , 285-298.		2
78	Molecular and Systems Biology Approaches for Analyzing Drug-Tolerant Bacterial Persister Cells. Sustainable Agriculture Reviews, 2020, , 109-128.	0.6	1
79	Improved effect of amikacin-loaded poly(D,L-lactide-co-glycolide) nanoparticles against planktonic and biofilm cells of Pseudomonas aeruginosa. Journal of Medical Microbiology, 2017, 66, 137-148.	0.7	22
81	Biofilm Formation Assay in Pseudomonas syringae. Bio-protocol, 2019, 9, e3237.	0.2	16
82	Biofilm mediated strategies to mitigate heavy metal pollution: A critical review in metal bioremediation. Biocatalysis and Agricultural Biotechnology, 2021, 37, 102183.	1.5	14
83	Proteomics Approaches to Uncover the Drug Resistance Mechanisms of Microbial Biofilms. , 2017, , 129-162.		0
85	Evaluation of the Effect of Zinc Oxide Nanoparticles on the Inhibition of Biofilm formation of standard Pathogenic Bacteria and Comparison with Drug Resistant Isolates. Majallah-i Dānishgāh-i Ārshād-i Pizishk-i Ālām, 2019, 27, 138-149.	0.1	0
87	Formation of Persisters in Clinical Isolates of <i>K.pneumoniae</i> ; Induced with Meropenem, Amikacin, and Their Combination. Antibiotiki I Khimioterapiya, 2020, 65, 27-32.	0.1	1
88	Real-time monitoring of <i>Pseudomonas aeruginosa</i> biofilm growth dynamics and persister cells™ eradication. Emerging Microbes and Infections, 2021, 10, 2062-2075.	3.0	21
90	NIR-Responsive TiO ₂ Biometasurfaces: Toward In Situ Photodynamic Antibacterial Therapy for Biomedical Implants. Advanced Materials, 2022, 34, e2106314.	11.1	51
91	Pathogenesis of the Pseudomonas aeruginosa Biofilm: A Review. Pathogens, 2022, 11, 300.	1.2	97
92	The Role of Mass Spectrometry in the Discovery of Antibiotics and Bacterial Resistance Mechanisms: Proteomics and Metabolomics Approaches. Current Medicinal Chemistry, 2023, 30, 30-58.	1.2	1
93	Biofilms de Pseudomonas aeruginosa como mecanismos de resistencia y tolerancia a antibióticos. Revisión narrativa. Revista De La Facultad De Ciencias De La Salud, 2021, 23, 47-57.	0.2	1
106	Chimeric Ligands of Pili and Lectin A Inhibit Tolerance, Persistence, and Virulence Factors of <i>Pseudomonas aeruginosa</i> over a Wide Range of Phenotypes. ACS Infectious Diseases, 0, , .	1.8	0
107	Meta-Analysis for the Global Prevalence of Foodborne Pathogens Exhibiting Antibiotic Resistance and Biofilm Formation. Frontiers in Microbiology, 0, 13, .	1.5	9

#	ARTICLE	IF	CITATIONS
108	Innovations in point-of-care electrochemical detection of pyocyanin. <i>Journal of Electroanalytical Chemistry</i> , 2022, 921, 116649.	1.9	5
109	A novel phenolic derivative inhibits AHL-dependent quorum sensing signaling in <i>Pseudomonas aeruginosa</i> . <i>Frontiers in Pharmacology</i> , 0, 13, .	1.6	6
111	Mass spectrometry profiling of single bacterial cells reveals metabolic regulation during antibiotics induced bacterial filamentation. <i>Chinese Chemical Letters</i> , 2023, 34, 107938.	4.8	3
112	pSILAC-Based Determination of Cellular Protein Sorting into Extracellular Vesicles. <i>Methods in Molecular Biology</i> , 2023, , 43-58.	0.4	0
113	Infection Microenvironmentâ€Sensitive Photothermal Nanotherapeutic Platform to Inhibit Methicillinâ€Resistant <i>Staphylococcus aureus</i> Infection. <i>Macromolecular Bioscience</i> , 2023, 23, .	2.1	1
114	Acquisition of T6SS Effector TseL Contributes to the Emerging of Novel Epidemic Strains of <i>Pseudomonas aeruginosa</i> . <i>Microbiology Spectrum</i> , 2023, 11, .	1.2	3
115	Auranofin inhibits virulence pathways in <i>Pseudomonas aeruginosa</i> . <i>Bioorganic and Medicinal Chemistry</i> , 2023, 79, 117167.	1.4	5
116	Mid-Infrared Photothermalâ€Fluorescence In Situ Hybridization for Functional Analysis and Genetic Identification of Single Cells. <i>Analytical Chemistry</i> , 2023, 95, 2398-2405.	3.2	4
117	Beyond the Risk of Biofilms: An Up-and-Coming Battleground of Bacterial Life and Potential Antibiofilm Agents. <i>Life</i> , 2023, 13, 503.	1.1	6
118	N, O-dual coordination regulation directs the design of active sites on nanoclusters for highly efficient catalytic water purification. <i>Applied Catalysis B: Environmental</i> , 2023, 328, 122510.	10.8	5
119	Oxidative stress induced by Etoposide anti-cancer chemotherapy drives the emergence of tumor-associated bacteria resistance to fluoroquinolones. <i>Journal of Advanced Research</i> , 2024, 55, 33-44.	4.4	2
120	Spiramycin Disarms <i>Pseudomonas aeruginosa</i> without Inhibiting Growth. <i>Antibiotics</i> , 2023, 12, 499.	1.5	3
121	Cell division factor ZapE regulates <i>Pseudomonas aeruginosa</i> biofilm formation by impacting the <i>pqs</i> quorum sensing system. , 2023, 2, 28-42.		0
129	Proteomics Analysis for Identification and Antimicrobial Resistance Analysis of Bacteria. , 2023, , 125-153.		0
134	Antibiofilm activity of marine microbial natural products: potential peptide- and polyketide-derived molecules from marine microbes toward targeting biofilm-forming pathogens. <i>Journal of Natural Medicines</i> , 0, , .	1.1	1