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[Future Microbiol.](#) 2013 Jul;8(7):901-21. doi: 10.2217/fmb.13.57.

Targeting quorum sensing in Pseudomonas aeruginosa biofilms: current and emerging inhibitors.

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Abstract

Bacterial resistance to conventional antibiotics combined with an increasing acknowledgement of the role of biofilms in chronic infections has led to a growing interest in new antimicrobial strategies that target the biofilm mode of growth. In the aggregated biofilm mode, cell-to-cell communication systems involved in the process known as quorum sensing regulate coordinated expression of virulence with immune shielding mechanisms and antibiotic resistance. For two decades, the potential of interference with quorum sensing by small chemical compounds has been investigated with the aim of developing alternative antibacterial strategies. Here, we review state of the art research of quorum sensing inhibitors against the opportunistic human pathogen *Pseudomonas aeruginosa*, which is found in a number of biofilm-associated infections and identified as the predominant organism infecting the lungs of cystic fibrosis patients.

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