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Synergistic effects between conventional antibiotics and 2-aminoimidazole-derived antibiofilm agents.

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Abstract

2-aminoimidazoles are an emerging class of small molecules that possess the ability to inhibit and disperse biofilms across bacterial order, class, and phylum. Herein, we report the synergistic effect between a 2-aminoimidazole/triazole conjugate and antibiotics toward dispersing preestablished biofilms, culminating with a 3-orders-of-magnitude increase of biofilm dispersion toward *Staphylococcus aureus* biofilms. Furthermore, we document that the 2-aminoimidazole/triazole conjugate will also resensitize multidrug-resistant strains of bacteria to the effects of conventional antibiotics, including methicillin-resistant *Staphylococcus aureus* (MRSA) and multidrug-resistant *Acinetobacter baumannii*.

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