New Molecular Scaffolds for Bacterial Biofilm Dispersal

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*Staphylococcus aureus* (*S. aureus*) can cause chronic or relapsing infections. This is mostly due to the formation of biofilms. Biofilms are highly resistant to antibiotic treatment and cause 80% of chronic bacterial infections. Therefore, new chemical entities to eradicate biofilm are of high priority. We have identified several novel compounds, facilely synthesized via multi-component reactions, which display highly potent activities against multi-drug resistant Gram-positive bacteria, including persister bacteria. These compounds eradicate methicillin-resistant *S. aureus* (MRSA) pre-formed biofilm, are non-toxic to mammalian cells and therefore are promising lead compounds for the treatment of bacterial infections, caused by *S. aureus*. 