

Small Molecule Inhibitors of Bacterial Adhesive Pili

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Abstract:

Adhesive pili are key components of many bacterial virulence systems. In our work we are developing inhibitors of the Type 1 and P pilus systems, which have been identified as key virulence factors for the pathogenesis of urinary tract and kidney infections, from two different angles. Our first approach seeks to characterise and develop a series of lead compounds which interfere with the assembly at the bacterial outer membrane of the pilus organelle. Secondly, we are looking for novel classes of small molecules to target the adhesive receptor domains of the pilus tip.