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Autore	Giltrap Andrew
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Sommario/riassunto	This thesis focuses on the development of efficient and scalable total syntheses of natural products that can be used as preferred scaffolds for anti-infective drug discovery. It describes the total synthesis of two classes of antimicrobial non-ribosomal peptides (NRPs) – teixobactin and the skyllamycins – with subsequent biological evaluation. The first part describes the first total synthesis of teixobactin by means of a solid-phase peptide synthesis-macrolactamisation approach, yielding a synthetic natural product that can combat a number of clinically relevant Gram-positive bacterial pathogens. The second part describes the first total synthesis of skyllamycins A-C, a family of structurally complex cyclic NRPs, which inhibit the growth of the Pseudomonas aeruginosa biofilms that are responsible for significant mortality among cystic fibrosis patients.