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*Modular Approaches for the Synthesis of Next-Generation Antibiotics*

Due to the continually increasing prevalence of multidrug-resistant bacterial infections and the paucity of antibiotics in the pipeline, there is a pressing need for new methods to bolster our armamentarium of antimicrobial agents. Our laboratory seeks to address this challenge by developing modular strategies for the assembly of structurally complex classes of antibiotics that have not yet reached their potentials as therapeutics. Unlike many total synthesis programs, our primary goal is not to develop methods for the synthesis of natural products, but rather to use natural product architectures to guide the discovery of new structural classes and to inspire the development of novel chemical methodologies.