IMS-P8 **CPZEN-45, as a Promising Drug Candidate for Treating Extremely Drug-Resistant Tuberculosis (XDR-TB): Synthesis, Activity and Mode of Action**

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Acidic treatment of a mixture of caprazamycins A-G, isolated during screening assays for novel antimycobacterial agents, produced high yields of caprazene, a core structure of caprazamycins. Chemical modification of caprazene generated various attractive derivatives with activity against several mycobacterial species. In particular, CPZEN-45, a 1'''-(4-butyl)anilide of caprazene, displayed good *in vitro* activity against both drug-susceptible and drug-resistant *Mycobacterium tuberculosis*. CPZEN-45 also showed excellent therapeutic efficacy in treating mice infected with extremely drug-resistant tuberculosis. Details of CPZEN-45 synthesis, antibacterial activity and novel mode of action will be discussed.