



## New Beta-Lactams, Beta-Lactamase Inhibitors and Targets for Beta-Lactamase Production Blockade: Powerful Allies against Multidrug-Resistant Pathogens

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### Message from the Guest Editor

Dear Colleagues,

Antibiotic resistance, especially referred to nosocomial opportunistic bacterial pathogens, is already an undeniable threat for public health worldwide. In the specific context of beta-lactam antibiotics, the threat is certainly not less severe, given their generalized use. Nevertheless, the appearance of new therapeutic options brings us a reason for hope. Among these therapeutic allies, we acknowledge: (i) the appearance of novel beta-lactam-related drugs (such as cefiderocol or ceftobiprole); (ii) the use of new antibiotic combinations including beta-lactamase activity inhibitors (for instance ceftazidime/avibactam, ceftolozane/tazobactam, imipenem/relebactam, and meropenem-vaborbactam), and (iii) the research on unexplored targets leading to the blockade of intrinsic beta-lactamases production (usually related to cell wall metabolism, such as AmpG or NagZ proteins, which have been shown to be essential for the correct expression of intrinsic beta-lactamases and full virulence in *Pseudomonas aeruginosa* and related species).





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## Message from the Editor-in-Chief

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