

**S001**

**2-hour Symposium**

**New antibacterial drugs**

**Drug pipeline for Gram-negative bacteria**

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Antibacterial resistance has increased dramatically in many regions of the world over the past few years and is currently recognised as a major medical challenge in most healthcare settings. Especially multidrug- and extensively drug-resistant Gram-negative bacteria threaten the advances of modern medicine. Despite the urgent need for new antibiotics effective against these bacteria the drug development pipelines are thin and don't provide the needed supply of new drugs. Due to the long lasting innovation and discovery gap new anti-Gram-negative drugs in late clinical development or recently approved antibiotics are modifications of known drug classes. Examples for iv antibiotics are ceftobiprole, ceftolozane+tazobactam, ceftazidime+avibactam. The revival of the principle of combining an old or new cephalosporin with an old or new beta-lactamase inhibitor brings a quick fix to some of the beta-lactamase based resistance problems. Many more of such combinations are in development. Other improved members of well-known classes such as the aminoglycosides and tetracyclines may be available in a few years. Novel drug classes or non-antibiotics approaches against Gram-negative bacteria are rare and most of them are not even close to the clinical development stage.