

**O-44: NOVEL ANTIBACTERIAL DAPTOMYCIN ANALOGUES OF RECOMBINANT *STREPTOMYCES***

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Daptomycin (CUBICIN®) is a first-in-class cyclic lipopeptide antibiotic recently approved in the USA for the treatment of complicated skin and skin structure infections caused by *Staphylococcus aureus*. As part of an internal collaborative search for novel lipopeptides with improved spectrum of activity, 27 novel daptomycin analogues have been successfully recovered from fermentation broth of recombinant *Streptomyces roseosporus* strains. Their chemical structures were determined by a combination of predictions based upon the biosynthetic pathway, chemical transformations, and spectroscopic methods. The structure and activity relationship (SAR) evaluation of these compounds will be presented and discussed based on their in vitro bactericidal activity against *S. aureus*.