Going with the flow: Facile synthesis of a complex biologically active oligopeptide

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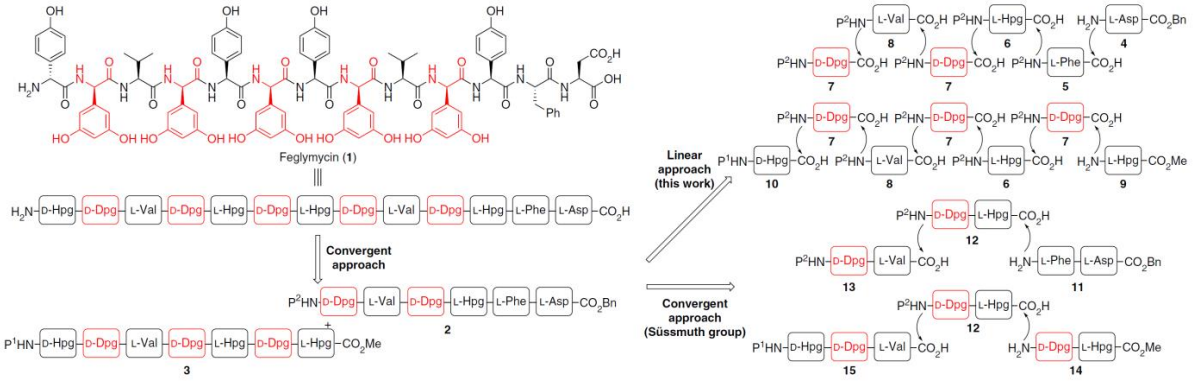

Comparison of synthetic strategies toward the total synthesis of feglymycin. Linear/convergent approach highlighted in this work and the convergent approached previously described by Süssmuth in 2009. Credit: Nature Communications

Scientists at the Tokyo Institute of Technology utilized micro-flow amide bond formation to achieve total synthesis of the structurally complex, biologically active natural product, feglymycin. The technique they developed allows for efficient preparation of requisite oligopeptides containing highly racemizable amino acids and could directly impact how these agents will be synthesized in the future.

The research community and pharmaceutical industry have had a long-standing interest in developing peptide-based therapeutics owing to their

high target specificity, potent activity, and small size relative to protein-based biologics. Towards this end, most peptide-based therapeutics currently available in the market consist of