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Antibiotic from Bacillus, new compounds to solve an old problem

The worldwide emergence of multidrug-resistant pathogens is a serious medical concern nowadays. The need to discover new bioactive molecules active against these bacteria is crucial and is one of the main fields of research for modern microbiologists. Most natural antibiotics used in medicine are biosynthesized by Gram-positive bacteria. Recent advances in genomics and genome sequencing have shown that the potential of these organisms to produce molecules of pharmacological interest has been greatly underestimated. Full genome sequencing has revealed biosynthesis pathways for peptides manufactured by the conventional ribosomal assembly and NRPS metabolites (nonribosomal peptide synthetase). Here, we will report on the NRPS metabolite Mycosubtilin and the ribosomally synthesized peptide Amylolysin, both produced by *Bacillus sp.*

Biography

Patrick Fickers obtained a PhD from University of Liège (Belgium) in 2004. He worked as Post-doc at Polytech'Lille (France) and as a FNRS fellow at the Centre of Protein Engineering (Liege, Belgium). Between 2009 and 2014, he was an Associated Professor at Unversité libre de Bruxelles and the Head of the Biotechnology and Bioprocess Unit. In January 2015, he joined as a Professor the Microbial Processes and Interactions research unit (MiPI) at Gembloux AgroBiotech (Univerity of Liège). He has published 37 research papers in peer-reviewed journals and six book chapters. His researches focus on the development of yeast and bacterial strains by metabolic engineering and on process development in bioreactor for the production of valuable compounds.

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