Polyketide-chain branching by an enzymatic Michael addition.

Kusebauch B, Busch B, Scherlach K, Roth M, Hertweck C (2009) Polyketide-chain branching by an enzymatic Michael addition. *Angew Chem Int Ed Engl* 48(27), 5001-5004.

Details

PubMed

Abstract

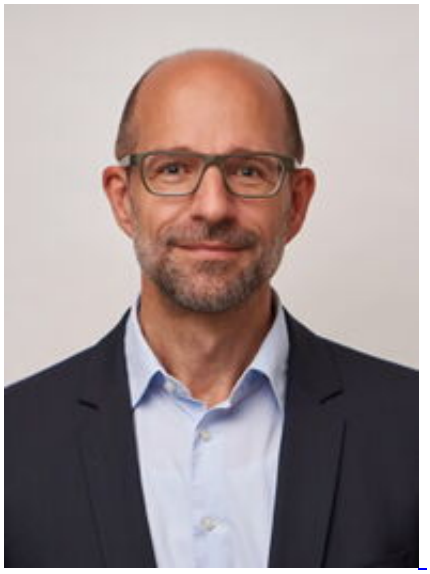
A new "branch" for polyketide synthases was discovered in the biosynthesis of the antimitotic rhizoxin complex in the endofungal bacterium Burkholderia rhizoxinica. Genetic engineering and the structural elucidation of pathway intermediates revealed that a complex polyketide chain is branched at the beta position by an unprecedented conjugate addition of an acetyl building block to an acryloyl precursor (see scheme).

Involved units

Biomolecular Chemistry Christian Hertweck Read more

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Martin Roth

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Kirstin Scherlach

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Identifier

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