

# **Regulatory cross talk and microbial induction of fungal secondary metabolite gene clusters.**

Nützmann HW, Schroech V, Brakhage AA (2012) Regulatory cross talk and microbial induction of fungal secondary metabolite gene clusters. *Methods Enzymol* 517, 325-341.

## Details



## **Abstract**

Filamentous fungi are well-known producers of a wealth of secondary metabolites with various biological activities. Many of these compounds such as penicillin, cyclosporine, or lovastatin are of great importance for human health. Genome sequences of filamentous fungi revealed that the encoded potential to produce secondary metabolites is much higher than the actual number of compounds produced during cultivation in the laboratory. This finding encouraged research groups to develop new methods to exploit the silent reservoir of secondary metabolites. In this chapter, we present three successful strategies to induce the expression of secondary metabolite gene clusters. They are based on the manipulation of the molecular processes controlling the biosynthesis of secondary metabolites and the simulation of stimulating environmental conditions leading to altered metabolic profiles. The presented methods were successfully applied to identify novel metabolites. They can be also used to significantly increase product yields.

## Involved units

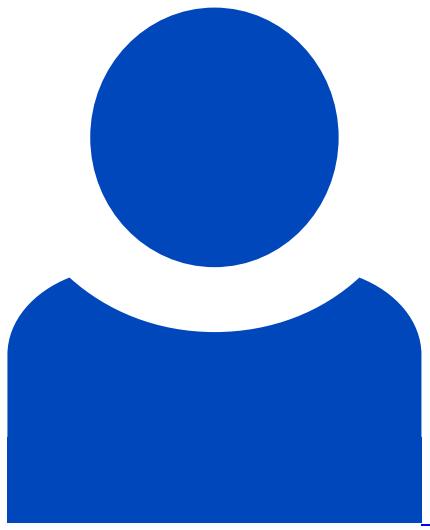
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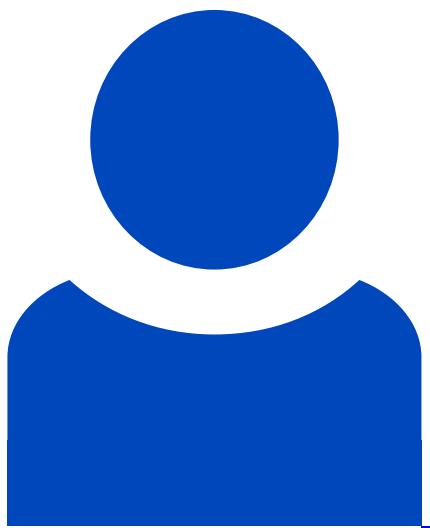
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