The chemical heritage of Aspergillus flavus in A. oryzae RIB 40

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Title

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Abstract

*Aspergillus oryzae* is a very important species in biotechnology and has been used for centuries in traditional Asian fermentation. The RIB40 strain is particularly interesting as it was one of the first genome sequenced Aspergilli together with *A. flavus*, a prominent food and feed contaminant capable of producing aflatoxin. These species can be perceived as ecotypes.

We have analyzed *A. oryzae* RIB40 and found that the chemical potential could be enhanced significantly under certain conditions. Delicate analysis of their metabolic profiles allow for chemical insight on the transcription level with indications to specific genetic changes. Several new metabolites and changes in biosynthetic routes have been found in *A. oryzae*, indicating subtle changes in the genomic heritage from *A. flavus*. 