

Synthetic biology of fungal natural products.

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Abstract

Synthetic biology is an ever-expanding field in science, also encompassing the research area of fungal natural product discovery and production. Until now, different aspects of synthetic biology have been covered in fungal natural product studies from the manipulation of different regulatory elements and heterologous expression of biosynthetic pathways to the engineering of different multidomain biosynthetic enzymes such as polyketide synthases or nonribosomal peptide synthetases. The following review will cover some of the exemplary studies of synthetic biology in filamentous fungi showing the capacity of these eukaryotes to be used as model organisms in the field. From the vast array of different natural products produced to the ease for genetic manipulation, filamentous fungi have proven to be an invaluable source for the further development of synthetic biology tools.

Involved units

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