

Functional genomics to characterize opportunistic pathogens.

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Abstract

Fungal pathogens cause a wide range of diseases, from allergies and superficial infections to life-threatening invasive mycoses. Often, the outcome of a fungal infection depends on the immune status of the host organism. The most important causes of life-threatening invasive mycoses are infections caused by the yeast *Candida albicans* and the filamentous fungus *Aspergillus fumigatus*. To date, neither reliable diagnostic tools nor effective treatment options are available, resulting in unacceptably high mortality rates of patients suffering from invasive fungal infections. Knowledge of the DNA sequence of microorganisms and the application of functional genomics is a promising tool to understand the interplay between pathogens and host cells and to improve diagnosis, identify new drug targets, and develop tailor-made drugs.

Involved units

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