Approaches to detect alternative mechanisms of resistance to systemic antifungals

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Résumé en anglais	**From the publisher's website:** Resistance to antifungals is a major concern in the management of fungal infections, especially while the incidence of pathogens with a poor susceptibility to current treatments is rising. New therapeutic strategies could be developed through the discovery of completely new fungal-specific targets or through the identification of new effectors of resistance to existing antifungals. In addition to basic molecular resistance mechanisms that are well understood, there are also numerous additional effectors able to modulate fungi susceptibility to the four main classes of antifungals. These effectors are unable to drive resistance alone, but they are now believed to be crucial for the establishment and maintenance of drug resistance, as they constitute key modulators allowing the phenotypic expression of resistance acquired by basic mechanisms. Formerly limited, the approaches to detect such alternative resistance mechanisms to antifungals were profoundly renewed with the "omics" era, allowing the study of whole organism's response. This chapter will focus on the main strategies implemented in the last two decades, with a particular emphasis on high throughput technologies such as whole genome sequencing, transcriptomics, proteomics, and large-scale mutant collections screening.
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