Molecular basis of pathogenesis of postharvest pathogenic fungi and control strategy in fruits: progress and prospect

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Abstract

The disease caused by pathogenic fungi is the main cause of postharvest loss of fresh fruits. The formulation of disease control strategies greatly depends on the understanding of pathogenic mechanism of fungal pathogens and control strategy. In recent years, based on the application of various combinatorial research methods, some pathogenic genes of important postharvest fungal pathogens in fruit have been revealed, and their functions and molecular regulatory networks of virulence have been explored. These progresses not only provide a new perspective for understanding the molecular basis and regulation mechanism of pathogenicity of postharvest pathogenic fungi, but also are beneficial to giving theoretical guidance for the creation of new technologies of postharvest disease control. Here, we synthesized these recent advances and illustrated conceptual frameworks, and identified several issues on the focus of future studies.