



Responses to hydric stress in the seed-borne necrotrophic fungus *Alternaria brassicicola*

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Résumé en anglais	<p><i>Alternaria brassicicola</i> is a necrotrophic fungus causing black spot disease and is an economically important seed-borne pathogen of cultivated brassicas. Seed transmission is a crucial component of its parasitic cycle as it promotes long-term survival and dispersal. Recent studies, conducted with the <i>Arabidopsis thaliana</i>/<i>A. brassicicola</i> pathosystem, showed that the level of susceptibility of the fungus to water stress strongly influenced its seed transmission ability. In this study, we gained further insights into the mechanisms involved in the seed infection process by analyzing the transcriptomic and metabolomic responses of germinated spores of <i>A. brassicicola</i> exposed to water stress. Then, the repertoire of putative hydrophilins, a group of proteins that are assumed to be involved in cellular dehydration tolerance, was established in <i>A. brassicicola</i> based on the expression data and additional structural and biochemical criteria. Phenotyping of single deletion mutants deficient for fungal hydrophilin-like proteins showed that they were affected in their transmission to <i>A. thaliana</i> seeds, although their aggressiveness on host vegetative tissues remained intact.</p>
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Liens

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