Mycotoxigenic potential of fungi isolated from highly cured Portuguese cheese.

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The cheese industry in Portugal offers a plethora of high-quality products. The São Jorge cheese is an example and has obtained the Protected Designation of Origin (PDO) certification in 1986. This cheese has long ripening periods of up to 36 months, which raises concerns regarding food losses and health risks due to fungal proliferation. In this study, the mycobiota of three São Jorge cheese samples with different ripening periods (five, nine and thirty months) was studied to predict the associated mycotoxigenic risk. From the three cheese samples, 76 fungal isolates were identified through molecular methods (analysis of ITS and/or partial *benA*). *Penicillium* spp. ser. *Camembertiorum*, mainly *P. solitum* and *P. echinulatum*, were present in all the analyzed cheeses. *Scopulariopsis* spp. and some yeasts (predominantly *Saccharomyces cerevisiae*) were also part of the mycobiota of the cheeses. Although none of these species is a common producer of mycotoxins, an analysis of the cheese by mass spectrometry will be carried out. Furthermore, the overall mycobiota will be studied through metabarcoding to uncover the presence of potential mycotoxigenic species that have not been isolated through the culturomics approach.

Keywords: cheese, *Penicillium*, *Scopulariopsis*, *Saccharomyces cerevisiae*

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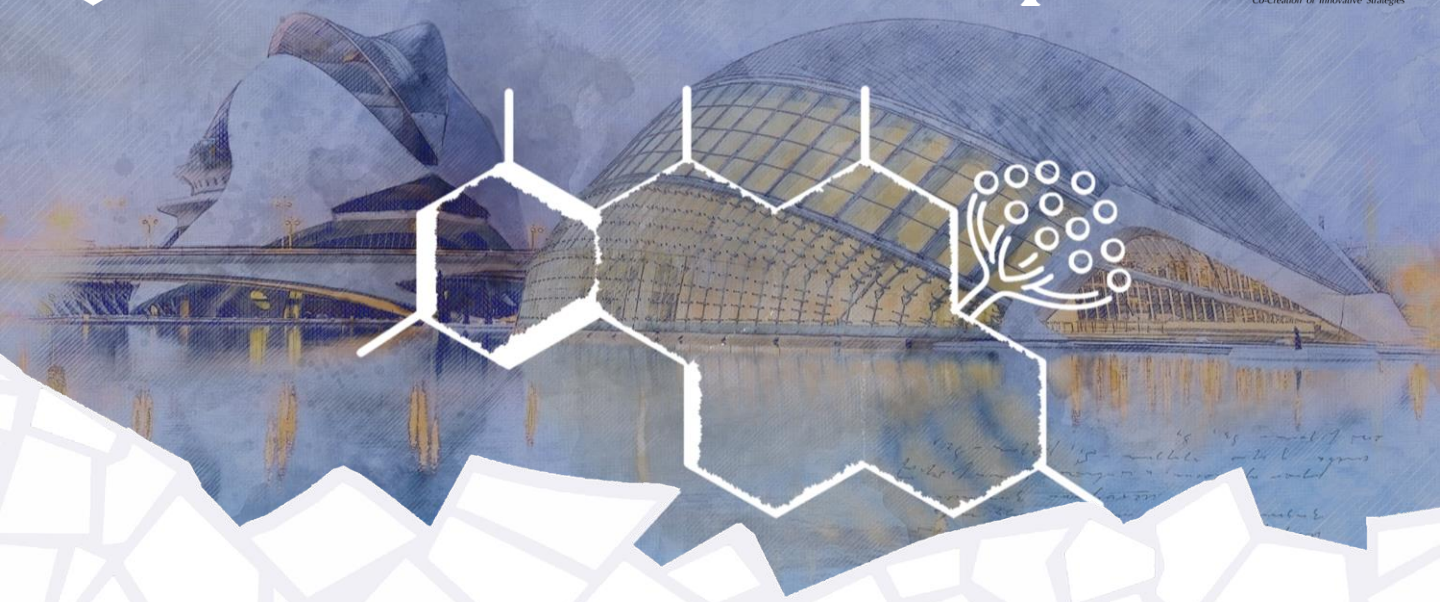

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