

## **Mitigation of Ochratoxin A in the food chain, from prevention to remediation**

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Mycotoxins are metabolites produced by a few filamentous fungi, that are ubiquitous in nature, being found in many food crops. Their toxicity to humans demands a very strict control under a properly designed food safety program. Also, food losses due to fungal deterioration raise food security concerns. Mitigation actions to avoid or reduce human exposure to mycotoxins start in the field, where most mycotoxin producing fungi are active and mycotoxin accumulation starts. These actions include strategies to prevent mycotoxin-producing fungi from proliferating in the food or feed, to prevent these same fungi to produce the toxins, and to either remove, segregate or degrade the mycotoxins that have been produced. Using the case of ochratoxin A in our food, different strategies to mitigate contamination, from the screening of mycotoxigenic strains, integrated in a preventive approach, to the use of enzymes, as a remediation approach, will be discussed in this presentation. The screening of mycotoxin-producing strains will be discussed based on a microbiome approach, where the producing fungi may be spotted without their isolation, while the use of enzymes will be discussed along with a molecular modelling approach to elucidate enzymatic activity.

**Keywords:** ochratoxin A; mitigation; mycotoxins; enzymes; remediation approach

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