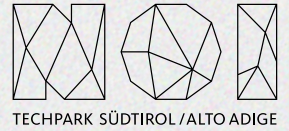


INTERNATIONAL
CONFERENCE
ON FERMENTED
FOODS



27–30TH
OF OCTOBER
2025

BOOK OF ABSTRACTS

Solid-state fungal fermentation of plant-based substrates improves the overall protein quality.

[1] **Eddy. J. Smid**

● Animal-based protein production is responsible for nearly half of all food system greenhouse gas emissions. Moreover, livestock farming uses vast amounts of land and water. For those reasons, we need to shift from predominantly animal-based protein sources to more sustainable alternatives like plant protein, fungal biomass, and/or insect proteins. Especially combining plant-sources with novel protein sources, offers new options for high quality protein foods. I will demonstrate how the nutritional and organoleptic properties of various plant-based substrates can be improved to the level of animal-based foods by using fungal and bacterial fermentation. Results will be presented about substantial improvements in protein quality in staple foods using solid-state fungal fermentation. Finally, I will show the power of *in situ* vitamin B12 fortification of lupin-based solid-state fermented food products using tailored dual cultures consisting of a food-grade fungus and a bacterium.

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