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Spooreformer Microflora : Identification, Toxicity, Heat treatment during Industrial process and Impact on selection

STATUS : under preparation

INSTRUMENT: Integrated project

CALL : 4th call

RESEARCH AREA : Traceability processes along the production chain

TOPIC : Origin and development of unintended micro-organisms in the food and feed chains

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ADRIA Développement, FRANCE

COORDINATOR : ADRIA (member of ACTIA)



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CONSORTIUM : ACTIA food research centers, SMEs developing molecular analysis tools for rapid food and water testing, food factories.

PROJECT DESCRIPTION & STRATEGY: Sporeformers bacillus, including species able to produce highly heat-resistant spores (HRS), have been and are still responsible of contaminations in food industry. Novel species are described, suggesting adaptation to heat treatments applied during food processing, such as *Bacillus smithii!*... Thus, providing rapid and specific new analysis tools represent the first challenge to ensure food safety and quality during process and products self-lives, by optimising raw material production and orientation, by improving formulations and process...and to dread the effectiveness of a real selective pressure!

Key worlds : molecular species identification and strains fingerprinting, toxin synthesis quantification, minimal processing, products self-lives, predictive microbiology, risk analysis.



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PARTNERS SOUGHT :

SMEs and research centers in food diagnostic in order to develop toxin synthesis quantification and strains fingerprinting methods

Research and consulting organisation in risk analysis and minimal thermal processing

Expert in bio-terrorism

Research partner in genomic evolution

Veterinary research organism

Food factories interesting in the validation steps of the analysis tools

INNOVATION & DISSEMINATION STRATEGY :

Innovation in collaboration of SMEs by developing novel markets in veterinary and food diagnostic, when no tools are still provided for sporeformers bacillus analysis

Technology transfert to SMEs performing consulting activity in minimal processing, or developing minimal processing