FARAH Day 2014 – abstract template

Please, use the template below for submitting your abstract for the FARAH Day 2014 (17 October 2014 – Amphi C). The deadline for submission of the abstract is 15 June 2014. The abstracts have to be sent to: FARAH.Day@ulg.ac.be

The abstract must not exceed 250 words (excluding the title and authors) and is preferentially required in English. The name of the presenting author has to be underlined.

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O Oral presentation

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Evaluation of morphological and functional characteristics of *Carnobacterium maltaromaticum* isolated from vacuum-packaged beef with long shelf life

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Carnobacterium maltaromaticum is a lactic acid bacterium, and many lactic acid bacteria associated with meat are known for their bactericidal or bacteriostatic activity against other strains, species or genera of bacteria. The presence of certain lactic acid bacteria adapted to a low temperature in fresh meat could extend the shelf life and improve the microbial stability and safety of this product. The aim of this study was to perform a morphological and functional characterization of a *C. maltaromaticum* strain with a potential bioprotective effect isolated from vacuum packaged beef with very long shelf life. The morphological, biochemical and enzymatic profiles, the influence of different temperatures and atmospheres, and the microbial stability of fresh beef inoculated with the *C. maltaromaticum* strain were evaluated. The isolated *C. maltaromaticum* strain presented similar morphological, biochemical and enzymatic profiles as those of two reference strains (LMG 11393 and LMG 22902). Among the studied conditions, a temperature of +12 °C and an atmosphere poor in oxygen were optimal for the growth of *C. maltaromaticum*. Vacuum packing is therefore suitable for this bacterium. An antimicrobial effect against *Enterobacteriaceae* was highlighted on inoculated fresh meat stored under N_2. The functional characterization of this isolate will be further pursued by a genotypic characterization. Special attention will be taken to study its bioprotective properties.