



Research project description

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Abstract

There is a great need for new starter cultures to use in the local Mediterranean food of each country partner traditional dairy products and fermented foods from Tunisia and Algeria in the industry.

It has been demonstrated that new strains of LAB so-called "wild strains" can be still isolated from different milk products. This natural biodiversity could offer new possibilities and may select novel beneficial microorganisms when explored and applied in practice. Characterization and selection of such wild LAB should be considered in the search for new industrially important cultures.

The orientation of research of this project will aims between the others, the selection of non starter LAB (NSLAB) able to exert several beneficial effects. This will require the adaptation of the existing production protocols and will involve food technologists in the revision of the traditional manufacture of products.

Isolation and identification of LAB from naturally occurring processes have always been the most powerful means for obtaining useful cultures for scientific and commercial purposes.

Allergy to cow milk (CMA) concerns ~2.5% of children below 3 years of age, hence the feeding of an infant allergic to cow milk casein may create serious trouble. Most studies revealed that caseins and β -lactoglobulin (β -lg) are the main allergens in cow milk (Cocco et al., 2003). Different attempts have been made to reduce the allergenicity of dairy proteins, and various technological processes have been applied. Attempts to modify the protein components of cow milk in an effort to reduce their allergenic potential have included the application of heat treatment, enzymatic treatment with a variety of enzymes and some combination of these processes, such as heating and glycation.