

## Experimental studies of probiotic traits of wild oral lactobacilli

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Oral cavity is a very complex ecosystem harboring more than 500 species. Pathologies such as dental caries or periodontitis may arise when an imbalance occurs among this ecosystem resulting in a decrease of the indigenous bacteria to the benefit of pathogenic strains. Bacterial competitiveness appears to be a smart way to fight in the mouth against the establishment of a pathogenic flora. This competition must be allowed by probiotics. The most abundantly used probiotic strains come from the genus *Lactobacillus*, generally recognized as safe (GRAS). In the past decades some authors have investigated the role of probiotics in the oral cavity, but the tested species were ATCC strains or well known probiotic species (e.g. *L. rhamnosus* GG). Moreover only few studies have been carried out on the effect of autochthonous oral strains of lactobacilli on species implicated in oral diseases. The aim of our study was to investigate the probiotics traits and properties of salivary lactobacilli that could be used for oral health. Seventy strains isolated from saliva and identified by the PCR method were screened. We evaluated their adherence on a glass surface and the hydrophobicity of the cells surfaces. Antibacterial activity against some oral bacterial pathogens implicated in dental decay (*S. mutans*, *A. viscosus*) or in periodontal diseases (*F. nucleatum*, *P. gingivalis*) was assessed by an agar overlay technique. Because they showed interesting properties, some of our tested autochthonous strains could be considered as suitable probiotics.

### Biography

Badet Cecile obtained his Ph.D. from University of Bordeaux, France. He is presently the Senior lecturer in University Bordeaux Segalen, France. He also serves as a Hospital dentist at CHU Bordeaux, France.

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