New antimicrobials produced by *Leuconostoc* bioactive strains against pathogenic bacteria

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Mainly antibiotics produced by bacteria and fungi are characterized by their enzymatic synthesis. The intensive use of these molecules has led since the 1940s, for the emergence of resistant strains. This potential has led scientists to reconsider how to use antibiotics and to look for other antimicrobial agents, would overcome these resistance phenomena. Lactic acid bacteria such as *Leuconostoc mesenteroides* produce a wide variety of substances with antimicrobial activity that can be used to control pathogens. In this study, 90 isolates of lactic acid bacteria isolated from raw camel milk were identified phenotypically and biochemically to select *Leuconostoc* strains from other lactic acid bacteria that reveals. Precisely, twelve strains of *Leuconostoc mesenteroides*, these isolates were tested in order to obtain bacteriocinogenic cultures. A screening of antibacterial activity was carried putative isolates against three pathogenic strains: *Listeria innocua* ATCC 33090, *Staphylococcus aureus* ATCC 6538. A description of the response of a pathogen indicator in the presence of extracellular product of selected isolates was performed followed by a kinetic growth of this pathogen. The initial screening was used to select candidates with best potential antagonist; secondary screening allowed retaining 5 bacteriocinogenic *Leuconostoc*. The growth kinetics of pathogenic indicator strains in mixed culture reveals a significant reduction of antilisterial loads compared to control. These molecules with antagonistic activity against *Listeria* sp. can reduce the problem of bacterial contamination. Likewise antibiotics, target bacteria can mutate and become resistant spontaneously, it is essential to ensure good security against infectious agents.

Biography
Bellil Yahia is a Doctorate (in his 3rd years of PhD studies) in Applied Microbiology from Oran University, Faculty of Life Sciences and Nature, department of biology. In his magister studies (3 years after Engineer studies), he was working on the growth control of *Listeria species* using bioactive *Leuconostoc* strains from dromedary milk which was significant, which deserve to be published in *Omics journals* in 2014. Now in his PhD thesis he is working on characterization and evaluation of lactic acid bacteria to control *Listeria species* using molecular approach (PCR, sequencing, MALDITOF-MS) to characterize LAB strains and their metabolites to be used in biotechnology as bioconservatives to control pathogens bacteria in food. He has collaborated in scientific work with Spanish team from Santiago De Compostela University which was published in *BioMed Journals* in 2013. He has participated in different scientific meeting and international congress.

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