CHARACTERIZATION OF STRAINS AND BACTERIOCINS PRODUCED BY ACID LACTIC BACTERIA WITH IMPORTANCE FOR HUMAN HEALTH

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SUMMARY

The bacteria producing lactic acid are generally isolated from vegetal remnants. They are used in bacteriocins production–proteic substances with inhibiting effect on many pathogen strains. Thus, Lactobacillus, Streptococcus and Enterococcus strains are selected. Finding new lactic bacteria strains resistant to a higher number of pathogen bacteria represents an important research direction. It also implies the lactic bacteria association with substances that stimulate antimicrobial peptides production, such as lactose, inulin, lactulose, oligosaccharides.

Another important aspect, in the new strains selection, is represented by the immunological effects of the lactic bacteria strains and synthesized bacteriocins utilization. These immunological aspects are present in case of class I bacteriocins–lantibiotics and class II–heat-stable, small peptides. In case of probiotic microorganisms, the immunological effects appear at the administration of viable cells, by the stimulation of macrophages.

Thus, the purpose of this study consists in characterizing the bacteriocins-producing strains and in presenting the immunological aspects implied by each strain, group or type of synthesized bacteriocins. Probiotics stimulate the immunological system, as a protection wall for the digestive apparatus. It is also known that the administration of Lactobacillus products might stimulate the production of γ–globulins, γ–interferons and the activity of macrophages responsible for removing the pathogen agents from the organism.

BIBLIOGRAPHY