Abstract of Presentation

Note: This paper should be typed in "Times New Roman" of 12pt.

Name (Underline the family name)
Graciela L. De Antoni
Centro de Investigación y Desarrollo en Criotecnología de Alimentos.- (CIDCA)- Cátedra de Microbiología. Facultad de Ciencias Exactas - UNLP- CONICET. 47 y 116, 1900.La Plata, Argentina. gdantoni@biol.unlp.edu.ar- gracieladeantoni@yahoo.com.ar

Presentation Title(Should be no more than 20 words):
Probiotic and technological characteristics of microorganisms isolated from the natural ecosystem of the Kefir grain.

Abstract of Presentation

Abstract :

Kefir is a fermented product obtained by fermentation of milk with kefir grains. Kefir grains are clusters of micro-organisms that include primarily lactic acid bacteria (lactobacilli, lactococci, leuconostoc), yeasts and acetic acid bacteria held together in a matrix of polysaccharides and proteins.

Several health-promoting properties are associated to kefir consumption; in this regard, kefir can be considered as a probiotic product. It has been used empirically for the treatment of gastrointestinal and metabolic disorders, atherosclerosis, allergy and tuberculosis. Several studies demonstrated antitumour activity of kefir, stimulation of immunity system and both antibacterial and antifungal activity.

The high microbial complexity of the kefir grain is responsible to the quality fluctuation and the short shelf live of the fermented milk. Kefir grains can be considered as natural reservoirs of potentially probiotic microorganisms.

We have isolated and identified more than one hundred microorganisms from kefir grains. Selected potentially probiotic strains were studied on the basis of their ability to inhibit the growth of enteropathogenic microorganisms (*Salmonella, E. coli* EHEC, *Giardia intestinalis*), to interfere with invasion of intestinal cells *in vitro*, to prevent the action of bacterial toxins *in vitro* and to decrease the infection *in vivo*. Some of the selected strains can be preserved by spray drying and in consequence may be used for the formulation of a new dehydrated probiotic product.