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Antibacterial activity *in vitro* of probiotics on the growth of *Serratia marcescens, Enterobacter cloacae* and *Salmonella spp.*

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Currently nosocomial infections caused by *Serratia marcescens* and *Enterobacter cloacae* have been increasing for this reason its clinical interest has increased as well. Moreover *Salmonella spp*. is considered major pathogenic bacteria due to multiple outbreaks of food poisoning which is caused, as well as gastrointestinal infections. The aforementioned strains are within the family Enterobacteriaceae, this group of microorganisms are characterized by their ubiquity, and are found in soil, water and in the large intestine of some insects and animals, including man. In addition to its ubiquity these organisms are resistant to multiple drugs, hence the severity of the problem, therefore it is necessary to search for new alternatives for treatment and control such as the use of probiotics as numerous studies show the importance of lactic acid bacteria (LAB), considered as probiotics in the treatment and prevention of digestive disorders in man. Conditioned medium freeze dried *Bifidobacterium longum* and *Lactobacillus casei* was added on culture of *Serratia marcescens, Enterobacter cloacae* and *Salmonella spp*. Determination was made by determination of colony forming units per ml. High antibacterial activity was observed. These findings add to the various investigations with probiotics aimed at treating gastrointestinal infections.

Biography

Maria Porfiria Barron Gonzalez is Chemist, Bacteriologist, Parasitologist since 1997, Master of Science in Microbiology since 2005, Doctor of Science in Microbiology in 2007 at the Universidad Autonoma de Nuevo Leon in Mexico. Conducts research in antibiosis in medical important microorganism (emphasis on probiotics and protozoan pathogens). Professor of Cell Biology. Scientific publications: 9 articles in international refereed journals or indexed (more than 25 citations). Recognized by the National Research System. Awarded with: UANL prize for basic research (1997), Best research of the year by NADRO/FUNSALUD (2008). Best research of the year by Secretaria de Salud del Estado de Nuevo Leon, Mexico (1997 at 2010).

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