**Streptococcus salivarius** ssp. **salivarius**: Study of the oral cavity colonization by yoghurt and fermented milk

Pilleggi, A L O*; Fantinato, V**
*Biosim Research Manager
**pHD UNESP – Universidade Estadual Paulista Júlio de Mesquita Filho – Biosim Research Director
**Corresponding author: biosim.bac@bol.com.br

Strains of *S. salivarius* ssp *salivarius* have been studied to prevent bacterial tonsillitis caused by *S. pyogenes*. These studies initiate with the choice of a strain with effective capacity of mouth colonization. *S. salivarius* strain **BIO 5** was selected for its inhibitory activity against *S. pyogenes* and absence of toxicity. Inoculation of **BIO 5** strain in the mouth of school children, happened through administration of fermented milk and yogurt. For the yogurt formulation, we used **BIO 5** strain and *Lactobacillus bulgaricus*; for fermented milk we used only **BIO 5** strain.

For colonization, we selected children aged between 4 and 15, divided into two groups (A and B). Group A children used a 100ml cup of yogurt for seven days; the same with Group B, but this group used fermented milk.

One day after the use of this dairy food, samples of saliva from all children were collected, to determine which formulation offered better conditions for **BIO 5** strain colonization.

Saliva count results were analyzed carrying out the total count of *S. salivarius* and the counts of the new strain inoculated.

Results showed that children using the yogurt, had 85.35% of **BIO 5** strain in their saliva in relation to total *S. salivarius*. The children who used fermented milk, showed 77.37%.

This positive result showed that both formulations are suitable for colonization studies. Since yogurt is most widely accepted in Brazil, we chose yogurt for prevention trials of tonsillitis which is already being undertaken in partnership with the Hospital Israelita Albert Einstein.