OMICS Group Conferences
Accelerating Scientific Discovery

2nd International Conference and Exhibition on
Probiotics & Functional Foods

October 23-25, 2013 Holiday Inn Orlando International Airport, Orlando, FL, USA

The role of novel probiotics *L. plantarum* and *E. faecium* strains of Dadih origin in improving nutritional status of young children

Ingrid S Surono
BINUS University, Indonesia

Lactobacillus plantarum IS-10506 and *Enterococcus faecium* IS-27526 were isolated from Dadih, an Indonesian traditional fermented buffalo milk of West Sumatera. Pilot two serial studies were conducted in apparently healthy young children, a Pre-post Randomized Double Blind Clinical Trial by supplementing each of the probiotic strains for 90 days at 1010 cfu/day and 108 cfu/day, respectively. Blood, stool or saliva were collected at baseline and endline. Fecal sIgA or salivary sIgA and zinc status as serum zinc was assessed with ELISA and ICP-MS, respectively. Anthropometric measurement was conducted for bodyweight to the nearest 0.1 kg accuracy using Secca beam balance, hight with microtoise, and arm circumference with measuring tape. Each of the strain showed significant increased of body weight gain after 90 days supplementation. *L. plantarum* IS-10506 in combination with zinc showed significant increased of serum zinc and serum selenium. In *in vivo* previous study, *L. plantarum* IS-10506 revealed brush border repair in rodent model. Taken together, the improvement of bodyweight gain, serum zinc and serum selenium might be due to the integrity of intestine. Moreover, the humoral immune response showed significant increased as shown by increment of fecal sIgA and salivary sIgA, respectively.

gridsw@yahoo.com