

## The role of novel probiotics *L. plantarum* and *E. faecium* strains on nutritional status of young children

**Ingrid S Surono**  
BINUS University, Indonesia

*L. plantarum* IS-10506 and *E. faecium* IS-27526 were isolated from Dadih, an Indonesian traditional fermented buffalo milk of West Sumatera. Pilot 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  $10^{10}$  cfu/day and  $10^8$  cfu/day, respectively. Each of the strain showed significant increase of body weight after 90 days supplementation. *L. plantarum* IS-10506 in combination with zinc showed significant increase 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 immunity showed significant increased as shown by increment of fecal sIgA and salivary sIgA, respectively.