

## CHAPTER 7

### FUTURE SCOPE OF THE STUDY

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- Fructooligosaccharide is likely to be accepted in large number of product and process development. The technological functionality of FOS as a fat and sugar replacer making some of the products low in calorie and fat can go a long way in providing healthy food choices to health conscious individuals. So it can be widely used in a variety of food products like Indian sweets, snacks, confectionaries, milk products, beverages, fried products and marketed products like noodles, soups, juices and ready to eat foods and same products can be studied for FOS recovery.
- Furthermore, FOS can be incorporated into daily diets of individuals without significantly altering the organoleptic qualities of many food items. Food industry may use FOS as a functional food ingredient and develop instant mixes and frozen foods, thereby provide healthy food choices to the population in general.
- FOS incorporated food products can also be studied for their shelf life of 2-12 months in variety of above mentioned food products and also in the products studied in the phase I of the research.
- More clinical trials can be initiated to study the efficacy of FOS supplementation in various age groups to improve the establishment of beneficial microbiota and further establish its role in other diseases such as depression, cancer, IBS, immune system disorders, oral health and in individuals with minerals deficiencies such as calcium, magnesium and iron.

- Fecal short chain fatty acids such as butyrate, acetate and propionate can also be determined in the stool sample which may give a precise picture of relationship of gut microbiota with reductions in constipation and lipemic parameters.
- Similar study can be carried out with other prebiotics like resistant starch, galactooligosaccharide, xylooligosaccharides and pectin or combination of prebiotic and probiotics (synbiotic).