



PROEUHEALTH

Developing synbiotics for improved gut health

Synbiotics are products that have beneficial probiotic microbes together with prebiotics that promote the growth and well being of the living organisms in the human body. To develop synbiotics we need more information about how different prebiotic ingredients interact with probiotic bacteria. The EU& MICROFUNCTION –project has determined what these optimal combinations in food products are.

The possible prebiotic ingredients have been identified by combining them with probiotics and then studying how one influences the other. This gives a preliminary picture of how well the probiotic microbes can use the prebiotic ingredient (a carbohydrate). If the match is good, these tests will be continued with complex model systems whereby conditions simulate those of human colon. Determining the growth of probiotics under this complex environment, gives a better idea of their ability to survive and function in the real gut. The synbiotic study will continue with human clinical trials. The safety of *Lactobacillus* and *Bifidobacterium* strains under use has been confirmed . Participants for the *clinical* study have been recruited and various health parameters will be assayed.

In addition to ingredients already are believed to be prebiotic (mainly oligosaccharides), novel forms are also being manufactured and compared. Understanding the mechanisms of how prebiotics promote the growth of probiotics will provide reliable tools to effectively develop more and better synbiotics.

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