

FibeBiotics aims to prove benefits of polysaccharides in clinical trials

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Staying healthy requires constantly stimulating the immune system. Ingesting non-digestible fibres such as polysaccharides is thought to help. Yet companies including such ingredients in their food products cannot claim that they boost the immune system. At least, not until they have been scientifically tested and proven in clinical trials. Only then, would the European Food Safety Agency (EFSA) allow such health claims.

For the first time a consortium of European scientists, named FibeBiotics, is attempting to prove the benefits of polysaccharides, such as beta-glucans, in clinical trials. "We now started to prepare our first clinical trials with 40 people for each of the five tested compounds and one placebo group," Jurriaan Mes tells youris.com. He is a microbiology researcher at the Food & Biobased Research Center at Wageningen University in the Netherlands and the FibeBiotics coordinator. The first compounds tested are beta-glucans from yeast, oat and Shiitake mushrooms and from microorganism involved in yoghurt fermentation. "Later we will test the most potent compound or compounds with 400 people in a large clinical trial."

During the trials, elderly healthy people are administered an [influenza vaccine](#) combined with a food supplement containing the different types of beta-glucans tested. Since, polysaccharides can be digested in the gut, they can have a direct immune response, as they are considered by the body as foreign matter. During the trial the scientists thus look for the amount of [antibody](#) formation in the different test groups to check whether beta-glucans have primed the immune reaction of the tested persons.

There are innumerable types of beta-glucans but one of the most interesting might be the beta-glucans from yeast, which are known to activate the immune system. "In Europe's totally clean society with its modern food production all natural yeast is nearly gone", says Jan Oddvar Johansen, chairman of Swedish healthcare company Immitec, based in Tønsberg, Norway, and a partner of the FibeBiotics project seeking EFSA approval. In Mexico, Thailand, the United States and Canada this product is already commercialised as an ingredient found in biscuits, soups, juices and dietary supplements.

But such innovative food with health claims leaves some scientists sceptical. Hans-Dieter Volk, head of the Institute for Medical [Immunology](#) at the Charité University Hospital in Berlin questions the usefulness of adding such active ingredients to our daily food. "You just have to adopt a very diverse diet and your immune system will be good," he explains to youris.com. He believes that blurring the boundary between food and drug may be inappropriate. "Some compounds may really have a benefit, but in my opinion it is crucial that they are targeted only to specific [immune] deficiencies."

Microbiologist Karen Scott from the University of Aberdeen, UK further comments: "If you have a food supplement, people may think that all they have to do is take this pill to stay healthy. But it would have a much greater effect if they would change their whole diet." Scott is right now researching on the beta-glucans in traditional varieties of oats and barley, independently from FibeBiotics. She thinks that it may be more important to grow and eat healthy varieties: "Oats for example provide much more health benefits than just their beta-glucans." That certainly leaves food for thought!

Source: Wageningen University