



New tools for getting to know our own microbiota

EU-funded project named MICROBE DIAGNOSTICS has developed new tools that enable more extensive and rapid analysis of our gut microbiota than has been possible earlier.

These new methods are based on the unique genetical codes each microbe contains. The project has developed 16 new testing devices, so called *oligonucleotide probes*. These probes are able to describe a more varied set of organisms that live in our microbiota than previously has been recognised by scientific methods. With these methods, researchers in the project have found previously unfamiliar bacteria present in the human gastrointestinal tract. A further improvement in this methodology is applying flow cytometry, which can rapidly analyse a large number of samples reliably.

The reason for developing these new tools is that we still have relatively little information about the variety of different organisms that live in our microbiota. There seems to be great variety among people, but what is the significance of this variation is not yet known. Also the used methods have been slow to apply. This lack of basic understanding is an obstacle if we want to modify the microbiota and increase the amount of beneficial microbes and find relationships between gut microbiota and diseases. Learning to know what the microbes are is not enough, however. In addition, we have to further learn what is their function in the body. The new knowledge can be used to identify the components of normal gut microbiota that may play a part in onset of inflammatory bowel disease (IBD). With this enhanced knowledge we may be able to prevent the disease or improve its treatment with beneficial probiotic microbes.

Further information please contact:

Prof. Dr. Michael Blaut

Department of Gastrointestinal Microbiology

German Institute of Human Nutrition

Arthur-Scheunert-Allee 114-116, 14558 Bergholz-Rehbruecke, Germany

tel: +49 33200 88470, fax: +49 33200 88407, e-mail: blaut@mail.dife.de



More information on the PROEUHEALTH cluster can be obtained from <http://proeuhealth.vtt.fi> or by e-mail proeuhealth@vtt.fi

