Treatment of gastrointestinal dysbiosis

- Use of the soil bacterium *Methylococcus capsulatus*

Value Proposition
Gastrointestinal dysbiosis is associated with many health problems. This invention allows for treatment of gastrointestinal dysbiosis by normalizing the gut microbiota or maintaining a healthy microbiome. The indented products offers the end-user a tool to mitigate the deleterious effects of a dysbiosis and restore a healthy microbiome. Potent anti-inflammatory properties of the technology has been demonstrated in mice.

Technology Description
The technology is based on the use of lysates from the soil bacterium *Methylococcus capsulatus*. Intended products may be in the form of a freeze-dried lysate or minced bacterium for food or feed applications.

Intellectual Property Rights

Current State
The claimed effects have been shown in therapeutic mouse studies. Mice were fed lysates of the bacterium as protein source. Analyses of fecal microbiota samples demonstrated that bacterial taxa distribution changed dramatically during the intervention period. Animals fed the bacterial meal gradually changed their microbiota composition towards a composition typical of lean animals fed a low fat diet. Lipidomic analyses of liver biopsies

The Inventors
Karsten Kristiansen  Benjamin Anderschou Jensen  Ida Søgaard Larsen  Charlotte Kleiveland  Morten Jacobsen  Tor Lea

Contact information
Niels Lysholm Engelhard  Senior Commercial Officer
+45 28 75 63 30
nie@ku.dk.

Call to action
The University of Copenhagen, NMBU (Norway) and Sykehuset Østfold are seeking a licensee to commercialize the invention. The technology offers the opportunity to develop and sell products based on the freeze-dried lysate or minced bacterium for various food and feed applications such as feed/food supplement, medical food products for patient suffering from effects of dysbiosis.

The Capital Region of Denmark