Treatment of gastrointestinal dysbiosis
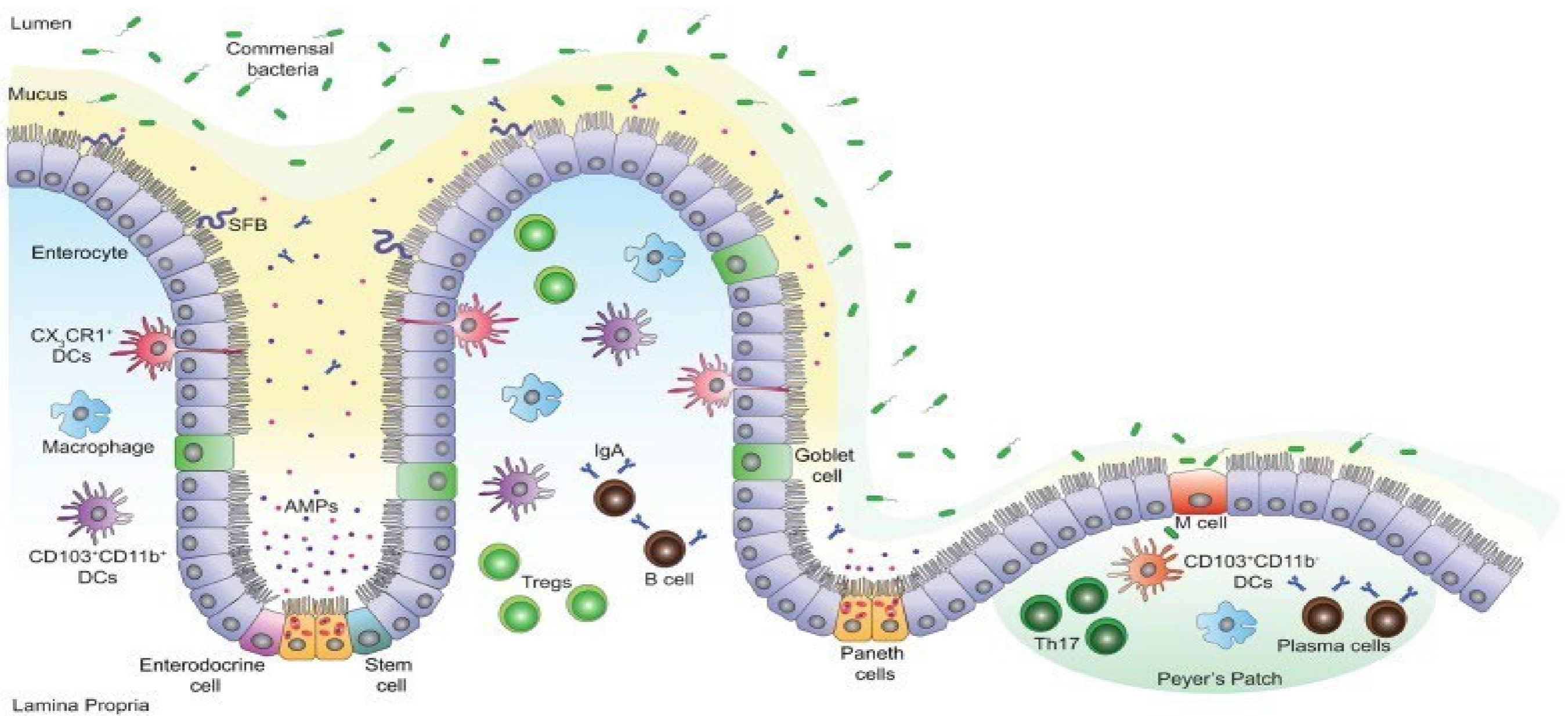
- Use of the soil bacterium *Methylococcus capsulatus*

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 frieze-dried lysate or minced bacterium for food or feed applications.

Intellectual Property Rights

Priority Patent application filed 2 August 2107 extended as a PCT patent application No. PCT/EP2018/071076 filed on 2 August 2018.

The Inventors

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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

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 frieze-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.

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