

Infection treatment and prevention (pre / probiotic)

Microbiota-derived retinoid boosts immunity

Brief Description of Technology

Probiotic bacteria strains increase infection resistance.

TECHNOLOGY ID

2021-0903

BUSINESS OPPORTUNITY

Exclusive License or Sponsored
Research

TECHNOLOGY TYPE

Biologic Therapy

PATENT INFORMATION

PCT Filed

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Technology Overview

Intestinal epithelial and immune cells have been found to play an important role in protecting the gut from pathogenic infection. Cincinnati Children's innovators identified microbiome bacterial strains that colonize the gut and produce retinoic acid. This metabolite effectively enhances host intestinal defense responses. These newly identified bacteria can be incorporated into a supplement, which can be administered individually, in combination, or alongside Vitamin A. This supplementation may release retinoic acid in the intestine, enhancing the immune system.

Applications

This can be formulated as a probiotic gut health supplement that delivers therapeutic benefit to the gut microbiome interface.

Advantages

Recently discovered strains of probiotic bacteria interact with the diet and gut microbiome in a unique way producing the release of retinoic acid and delivering an immunity boost to the host.

Market Overview

The global probiotics market is estimated to have a value of approximately 73 billion US\$ in 2023. (Reports, 2023) The incidence of pediatric gastroenteritis (ages 0-4) is approximately 13.5% according to the CAGE Study (Community Acute Gastroenteritis Study).

Investigator Overview

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