

Advance the microbiome supplement market with GlyCare™ HMOs

Innovating with nature's own gut solution

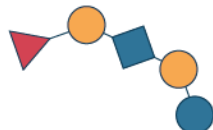
Human milk oligosaccharides (HMOs)

A unique class of carbohydrates identical to those that naturally exist in breastmilk, with special prebiotic effects

HMOs are diverse with **over 200 identified** in Human Milk.²



HMOs have **complex structures** that make them unique.^{3,4}



Novel triple action microbiome ingredient

Unlike ordinary prebiotic fiber, **HMOs build a stronger gut** within through **3 mechanisms**



NOURISH
Selectively stimulate the growth of beneficial bacteria and foster a thriving community from the start.



PROTECT
May inhibit growth of undesirable organisms and limit their adhesion to cell walls.



REINFORCE
May positively impact the gut wall and support gut barrier function

Promising science

The emerging benefits of HMOs in **child and adult health**



Microbiome & Intestinal Health



Immunity



Brain & Cognition

DSM-Firmenich – the HMO Market Maker



World's most **comprehensive portfolio and pipeline**

World's most **extensive market access**

World's largest **fully integrated HMO Production site**

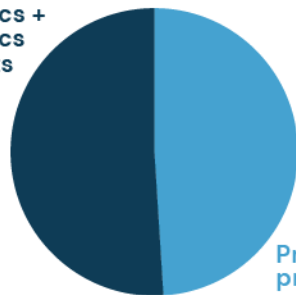
World class **hub of HMO knowledge in science and application**

Prebiotic ingredients¹
~ \$1 billion +10% growth
Non-infant supplement market in 2022

Synbiotic trend in probiotics market²

HMOs could be probiotics' new growth companion

Probiotics + Prebiotics products



Probiotics products

Attractive to consumers³

HMO Natural Gut Support concept **outperforms Speciality Prebiotic benchmark**

Validated by **900** consumers



More natural



More innovative



More premium



Want to know more about HMOs?

1 CBC, Internal/Consultant Analysis 2022; 2 Lumina Probiota 2023; 3 Kantar consumer research 2022 (Project Cocohmo)