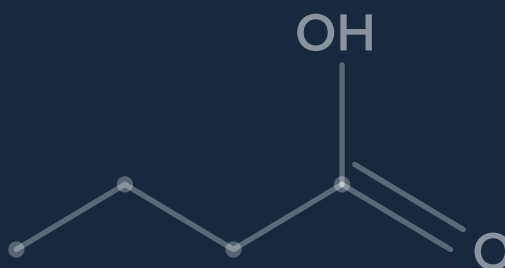


The Microbiome-Independent Future

Probiota Americas 2026 made one shift impossible to miss: the category is moving from live bacteria toward measured biological effect. A field report for the formulators, brand builders, and investors deciding what to build next.



BUTYRATE

SHORT-CHAIN FATTY ACID · C₄H₈O₂

VANCOUVER, BC · JUNE 8–10, 2026

THE WESTIN BAYSHORE · HOSTED BY NUTRAINGREDIENTS & THE IPA

PREPARED BY NUTRASHURE

FROM THE FLOOR

THREE DAYS, ONE DIRECTION

If you formulate, regulate, or invest in the microbiome category, the most useful three days of the year happened in Vancouver this June. Probiota Americas brought the science, the regulators, the data houses, and the brands into one room, and a single direction ran underneath most of what was said.

The category is shifting from the organism to the effect. For two decades the product was a living culture expected to take up residence and change the host, and the conversation in Vancouver kept landing somewhere more specific: the molecule the bacteria produce, the protein that carries the function, the measured signal you can put a number on. When the active is a defined metabolite or protein, a formulator gains stability, dose precision, and format freedom that a viable colony struggles to deliver.

That idea is the spine of this report. Postbiotics, short-chain fatty acids, secretome metabolites, and functional proteins like immunoglobulins and lactoferrin all share one trait: they deliver function without depending on a living, colonizing population. Butyrate. Immunoglobulins. Lactoferrin. Three different molecules, one commercial logic.

The other theme was gravity: nearly every metabolic conversation bent toward GLP-1, and the most interesting science put butyrate inside that story. Six signals stood out, and the rest of this report takes each in turn.

THE SIX SIGNALS

SIGNAL 01 From live bacteria to measured effect

The active is moving from the organism to the molecule it makes, with defined function and no living culture.

SIGNAL 02 GLP-1 is the center of gravity

The metabolic conversation runs through GLP-1, and butyrate has a direct mechanism into the body's own supply.

SIGNAL 03 The gut-brain axis goes commercial

Mood, sleep, and cognition become formulation targets, and the evidence bar rises with them.

SIGNAL 04 The personalization problem

Response to a prebiotic varies by person, which favors delivering the end-product directly.

SIGNAL 05 Phages outnumber the probiotic

The gut's viruses sit near one-to-one with bacteria and prey on them, which a measured molecule sidesteps entirely.

SIGNAL 06 The commercial reality

Demand is durable, the shelf is going mainstream, and the science runs ahead of the products on it.

SIGNAL 01

From live bacteria to measured effect

The most durable idea in Vancouver was also the quietest: the active is moving from the organism to the molecule it produces.

Two presentations made the case from opposite ends of the bench. Professor Stan Kubow of McGill University walked through years of work on the bacterial secretome, the rich set of metabolites, peptides, and bacterial extracellular vesicles that gut bacteria secrete. In his models, cell-free bacterial metabolites blunted inflammatory signaling and restored antioxidant capacity in human colonic cells under chemical stress, with short-chain fatty acids such as acetate doing measurable work on the pathways that govern inflammation. The function traveled with the secreted molecules, and the living organism was upstream of the effect rather than required at the point of action.

From the commercial side, a research team at Morinaga Milk Industry framed the same idea in plain terms for product developers: a postbiotic can deliver a defined biological effect with stable quality and flexible application across food and beverage formats. That sentence is the whole shift. A defined molecule has a dose, a purity, and a shelf life. A living culture has a colony-forming count, a cold chain, and a host it has to negotiate with.

When the active is a molecule you can measure, you formulate to a dose instead of betting on a colony to survive the gut.

THE NUTRASHURE READ

This is the logic that connects butyrate to immunoglobulins to lactoferrin, three molecules that share nothing chemically and everything commercially. None of them asks the host to grow a population. Each carries its function in the molecule itself, which means a formulator can dose it, stabilize it, and put it in a gummy, a stick pack, or a ready-to-mix powder. For a category that has spent twenty years apologizing for viability, potency loss, and cold-chain logistics, that is a structural advantage, and it is where the science is now pointing.

WHY IT MATTERS FOR WHAT YOU BUILD

The microbiome-independent active is the formulation-friendly active. It survives manufacturing, it travels in more delivery forms, and it removes the variable that has always made probiotic claims hard to defend: whether the organism actually did anything once it arrived. The brands that internalize this early will be choosing molecules with a known mechanism and a measurable exposure, and building the rest of the product around that certainty.

SIGNAL 02

GLP-1 is the center of gravity

Every metabolic conversation in the room bent toward GLP-1. The strongest science put butyrate inside that story.

PRESENTED BY A METABOLIC-HEALTH RESEARCHER WITH NIH ROOTS · WEIGHT-MANAGEMENT & METABOLIC SESSION

The metabolic session delivered the most commercially loaded talk of the conference. The speaker, whose foundational work on microbiome control of short-chain fatty acid production traces to the NIH, drew a line most of the market blurs: there is the GLP-1 your body makes, and there is the GLP-1 a drug imitates, and they are not the same lever.

The drugs are mimetics. They occupy the GLP-1 receptor for days or weeks and, in doing so, can signal the body to quiet its own production. Butyrate works on the other side of that equation. Acting on enteroendocrine L-cells through the short-chain fatty acid receptors, it supports the body's intrinsic GLP-1 output and the cells that produce it, promoting both the signal and its source.

Then came the part the category needs to sit with. On a GLP-1 drug, weight comes off as a mix of fat and lean mass, and when people come off the drug, fat tends to return while lean mass does not. That shifts body composition toward more fat and less muscle, which matters because muscle is a primary site of glucose disposal and a determinant of long-term metabolic health, mobility, and healthy aging.

95%

OF GLP-1 IS PRODUCED IN THE GUT, THE ORGAN BUTYRATE ACTS ON

~1%

MUSCLE MASS LOST PER YEAR AFTER AGE 45, BEFORE ANY GLP-1 EFFECT

Intrinsic

GLP-1 SUPPORT IS A DIFFERENT LEVER THAN A RECEPTOR MIMETIC

A drug imitates the hormone. Butyrate supports the body making its own. For a formulator, that distinction is the entire opportunity.

THE NUTRASHURE READ

CLAIM DISCIPLINE

None of this is a weight-loss claim or a substitute for therapy, and a responsible brand keeps it in structure/function language. The point is mechanism and positioning: the GLP-1 conversation is where demand is concentrated, and the ingredients that earn a seat have real biology behind the story.

SIGNAL 03

The gut-brain axis goes commercial

Mood, sleep, and cognition are moving from research curiosity to formulation target, with the substantiation bar rising in step.

PRESENTED BY MORINAGA MILK INDUSTRY · BRAIN HEALTH & EMOTIONAL WELL-BEING SESSION

The brain-health session showed how far the category has traveled from digestion. The Morinaga Milk Industry team presented a postbiotic developed specifically for emotional resilience, with improvements in positive affect, fatigue, and vigor measured on validated psychological instruments over a four-to-five-week window. The proposed mechanism ran through gut-brain signaling and the normalization of stress-associated changes in gene expression, with the broader thesis that cognition, stress regulation, sleep, and mood can be approached as a lifelong continuum through microbiome-based ingredients.

The mood talk landed on validated scales and gene-expression endpoints, not soft language. That is the substantiation a serious buyer's scientific team will now expect.

THE NUTRASHURE READ

For product teams, this opens real estate. Gut-brain positioning extends a gut-health ingredient into mood, sleep, focus, and stress SKUs that command attention and price. It also raises the bar. Mood and cognitive claims invite scrutiny, and the work that landed in Vancouver carried validated instruments and gene-expression endpoints rather than soft language. The brands that win this space will bring that level of evidence, and an ingredient with measured systemic exposure gives them a mechanism story worth telling.

The mechanism is also where butyrate enters the room. The stress-associated gene expression the talk described is the kind of regulation a short-chain fatty acid is positioned to influence, because butyrate is a histone deacetylase inhibitor, which is one of the cleaner molecular accounts of how a gut metabolite reaches gene transcription, and it signals upward along the vagal and immune routes the session mapped. A measured dose of the molecule gives a mood or sleep formula a mechanism a reviewer can follow, rather than a live strain whose central effect is hard to trace.

4–5 wk

TO MEASURABLE GAINS IN POSITIVE AFFECT, FATIGUE, AND VIGOR

Validated

ON PANAS AND POMS-2, THE STANDARD MOOD INVENTORIES

Postbiotic

A CLINICALLY VALIDATED POSTBIOTIC, NOT A LIVE STRAIN

SIGNAL 04

The personalization problem

Response to a prebiotic varies widely from person to person, which is a quiet argument for delivering the end-product directly.

PRESENTED BY RACHEL ASBURY, UNIVERSITY OF TORONTO · SCIENTIFIC FRONTIERS (STUDENT AWARD)

The Scientific Frontiers student winner, Rachel Asbury of the University of Toronto, presented high-throughput culturomics on prebiotic selectivity, and the finding underneath the methodology matters for anyone building a fiber or prebiotic product. Butyrate production from a given prebiotic varied widely across individuals. One substrate produced the most butyrate on average, yet each data point was a different person, and the spread between them was large. Her conclusion pointed toward personalized nutrition: matching the prebiotic to the individual to maximize the benefit.

A prebiotic ships a probability, and the microbiome decides the dose. A measured postbiotic ships the dose itself.

THE NUTRASHURE READ

Read commercially, the same finding points somewhere useful. If the amount of butyrate a person makes from a prebiotic depends on the microbiome they happen to carry, then a prebiotic is a probability rather than a dose. Delivering the measured end-product directly removes that dependency. The person does not have to manufacture the molecule from a fiber if the formulation supplies the molecule itself, at a known exposure.

There is a deeper commercial read. Personalization is operationally expensive, because matching a fiber to each person's microbiome means testing, segmentation, and a product that performs differently for everyone who buys it. Delivering the molecule removes the need for any of that. The dose on the label is the dose the body receives, regardless of whose gut it lands in, which is the opposite of a prebiotic whose effect is decided by a microbiome you never get to see. For a brand, that is the difference between a claim you can stand behind and one that depends on the customer's biology to come true, and it is the simpler operational story: one product, one dose, one result to validate.

11 donors

BUTYRATE FROM ONE PREBIOTIC
RANGED WIDELY ACROSS THEM

MOS

THE PREBIOTIC THAT DROVE THE
MOST BUTYRATE ON AVERAGE

Selectivity

A PREBIOTIC'S DEFINING TRAIT:
IT FEEDS SOME MICROBES, NOT
OTHERS

SIGNAL 05

Phages outnumber the probiotic

The most overlooked talk of the week put a number on a quiet liability: in the gut, the viruses that kill bacteria sit at roughly one-to-one with the bacteria themselves.

PRESENTED IN THE PHAGES AND VIROME SESSION · AN EARLY-CAREER VIROME RESEARCHER

The talk walked through the part of the gut ecosystem most of the industry overlooks. Within a single gram of stool there are billions of viruses, which puts them at close to a one-to-one ratio with bacteria, and about ninety-seven percent of them are bacteriophages: viruses whose entire purpose is to infect and kill bacteria. They decide which bacterial populations rise and fall, and they move genes between strains.

The speaker made the consequence explicit for a room full of probiotic companies. This virome can blunt probiotic efficacy. A probiotic is live bacteria introduced into an environment already saturated with the viruses that prey on bacteria, and the resident phages do not distinguish a beneficial strain from any other host. Part of what a consumer swallows can be neutralized before it does the work the label promises.

Ninety-seven percent of the viruses in the gut exist to kill bacteria, and a live probiotic walks straight into them.

THE NUTRASHURE READ

This is the cleanest argument in the report for the measured molecule. A bacteriophage infects a living, replicating cell, so it has nothing to attack in a defined metabolite. Butyrate cannot be infected, lysed, or outcompeted. Deliver the end-product and the virome stops mattering, because the effect already sits in the molecule rather than in an organism that has to survive a hostile ecosystem to make it.

97%

OF GUT VIRUSES ARE
BACTERIOPHAGES

~1:1

RATIO OF PHAGES TO BACTERIA
IN THE GUT

0

PHAGES THAT CAN INFECT A
POSTBIOTIC MOLECULE

SIGNAL 06

The commercial reality

Demand holds through economic pressure, the shelf is moving into mainstream categories, and the science is running ahead of the products on it.

PRESENTED BY NICK GIBSON, PRODUCT INSIGHTS LEAD, NIELSENIQ · OPENING MAIN SESSION

Nick Gibson of NielsenIQ opened the main session with the number that frames everything else: a basket that cost one hundred dollars in 2019 now runs about one hundred and thirty-two. Cost is the largest barrier consumers name to living healthier, yet three-quarters still say their future health is a priority, and gut health lands as important to more than ninety percent of them.

The gap Gibson kept returning to is the one between what people say and what they buy, and in the United States it is closing. Pre-, pro-, and postbiotic products are outgrowing the total store, showing up in places the category did not used to live.



US PREBIOTIC-CONTAINING PRODUCT GROWTH, BY CATEGORY · SOURCE: NIELSENIQ

The headline category is energy beverages, where prebiotic-containing products now exceed half a billion dollars while still growing near seventy percent. Coffee and broths are smaller but accelerating. Across the store, prebiotics are an \$8.3 billion market, and probiotic-containing products are outgrowing the average in more than a hundred categories at once.

The postbiotic shelf is fifty million dollars while every talk pointed at postbiotics. That gap is the clearest white space in the category.

THE NUTRASHURE READ

\$8.3B

US PREBIOTIC MARKET, AND
GROWING ACROSS THE STORE

~\$50M

US POSTBIOTIC SALES — THE
SCIENCE IS AHEAD OF THE SHELF

+10 pts

GROWTH ADVANTAGE FOR AN
EXPLICIT ON-PACK CLAIM VS.
NONE

THE TAKEAWAY

WHAT IT MEANS FOR WHAT YOU BUILD

Six signals, one strategy. The next decade of this category belongs to ingredients you can measure, positioned where demand is concentrated, and communicated clearly enough to survive a shopper with a scanning app. The moves follow directly.

01 Build on measured effect

Favor postbiotics, short-chain fatty acids, and functional proteins with a defined dose and a known exposure. You gain stability and format freedom, you sidestep a microbiome you cannot predict, and a defined molecule cannot be lysed by the phages that prey on live strains.

02 Earn a mechanism into the GLP-1 conversation

Metabolic demand is concentrated around GLP-1 and the muscle-preservation question behind it. Ingredients with real biology into intrinsic GLP-1 and metabolic support are positioned for the largest tailwind in nutrition.

03 Treat substantiation as the moat

Gut-brain and metabolic claims invite scrutiny, and validated endpoints are becoming the price of entry. Measured bioavailability and real instruments are what separate a defensible brand from a vulnerable one.

04 Make the package say it plainly

An explicit on-pack claim carried roughly a ten-point growth advantage. Translate the mechanism into clear, compliant communication, because the science is only worth what the shelf and the scanning app can read.

05 Follow the shelf into the mainstream

Growth is migrating into beverages, coffee, and functional foods. Formulation-friendly, heat-stable, taste-neutral actives are what let a brand show up in the formats where the category is actually growing.

THE NUTRASHURE LENS

WHERE BIOMEND® FITS

We build at the exact intersection the room kept circling. BIOMEnd® is our patented butyrate, formulated as L-lysine butyrate and engineered for measured bioavailability and formulation freedom. It is a postbiotic active that works by delivering the molecule, which makes it microbiome-independent by design.

The bioavailability is documented rather than asserted. In a head-to-head pharmacokinetic comparison, L-lysine butyrate (BIOMEnd®) reached a peak concentration more than five times greater and an exposure 1.75 times higher than tributyrin, with a faster time to peak (20 minutes versus 51.5). Its taste-neutral, highly soluble, heat-stable form lets it go into ready-to-mix powders, gummies, capsules, and beverages, which are the formats where Signal 06 says the category is growing.

PATENTED

L-LYSINE BUTYRATE

MEASURED PK PROFILE

Read against this report, BIOMEnd® sits inside every signal at once: the measured-effect shift, the butyrate-into-GLP-1 mechanism, the gut-brain story, the case for delivering the molecule rather than a probability, the molecule the phages cannot touch, and the formats the market is moving toward. That is the company we are building, one molecule at a time.

A NOTE FROM THE FOUNDER

I left Vancouver more convinced of a simple idea: the next decade of this category belongs to ingredients you can measure, in formats people actually reach for. If you are building in gut, metabolic, or gut-brain health, and you want a butyrate with the data and the formulation profile to back the story, I would love to discuss where your formulation is headed.

Brandon Sojka

FOUNDER & CEO, NUTRASHURE · CO-INVENTOR, BIOMEND®

[Request a BIOMEnd® sample →](#)



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Build on measured science.

NutraShure is a premium supplier of patented, evidence-led ingredients for dietary supplements, functional foods, and beverages, built for formulators who need a defensible mechanism, a measured dose, and documentation that survives internal review.

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