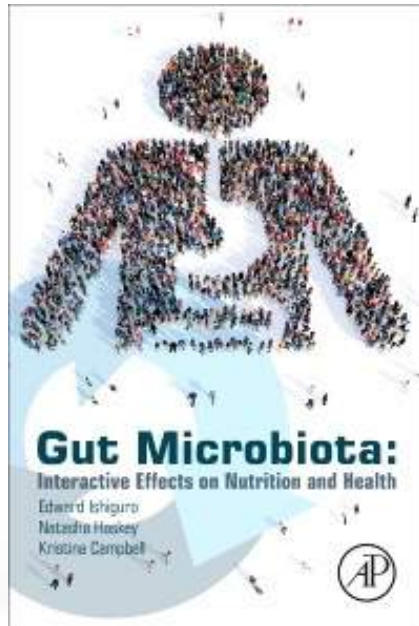
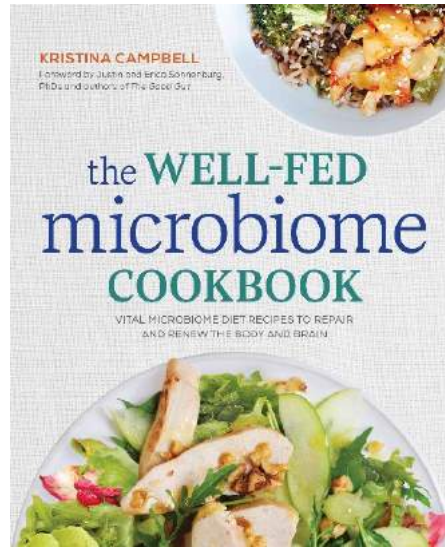


# How to Communicate the Microbiome in a Responsible, Resonating Way

**Kristina Campbell, M.Sc.**

Science & medical writer; communications consultant

Victoria, Canada



**Kristina Campbell, microbiome science writer @bykriscam...** · Nov 4

Here's where I distract you with a puzzle about Akkermansia. 🧐

So Akkermansia have a reputation as beneficial bacteria in the gut, because they're associated with leanness and better metabolic health, but...

10 11 69

**Kristina Campbell, microbiome science writer @bykriscam...** · Nov 4

Here's a study on how high-sugar diets make gut inflammation worse in mice via the gut microbiota...

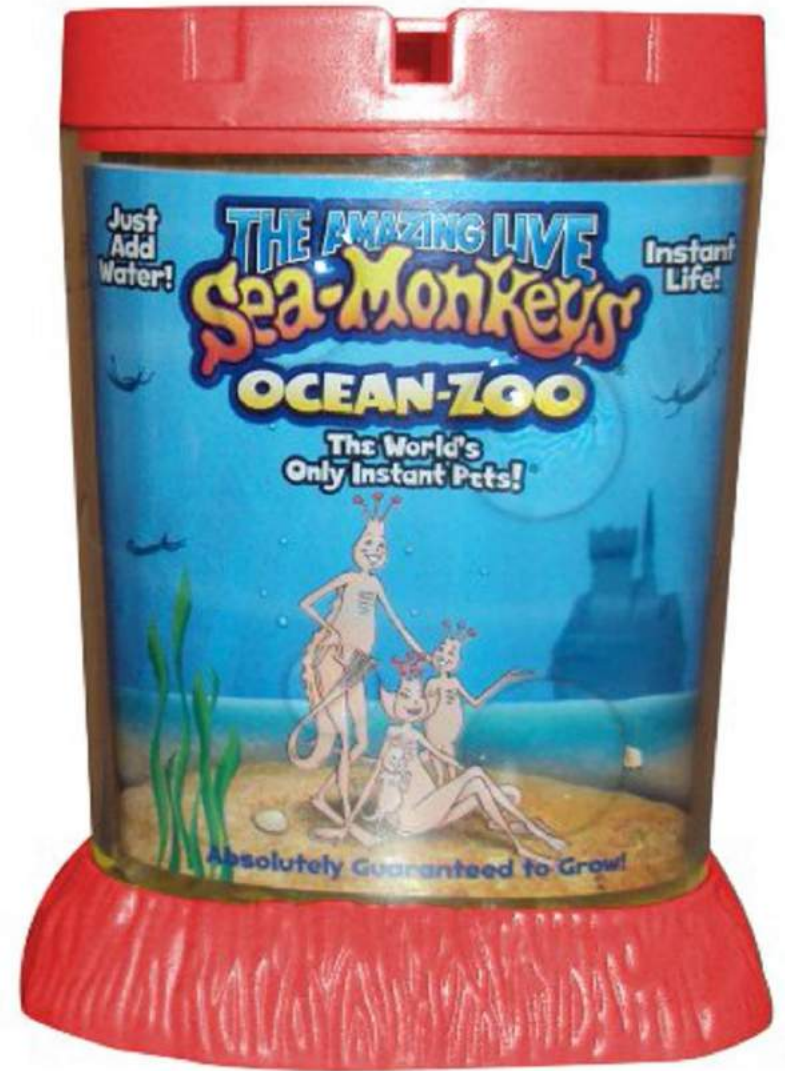
and in healthy mice, consuming more sugar led to an increase in Akkermansia muciniphila, which eroded the gut mucus barrier.

Panel	Group	Value
F (pH (cm))	Control	~9.5
	Glucose	~9.8
H (y score)	Control	~4.5
	Glucose	~5.5

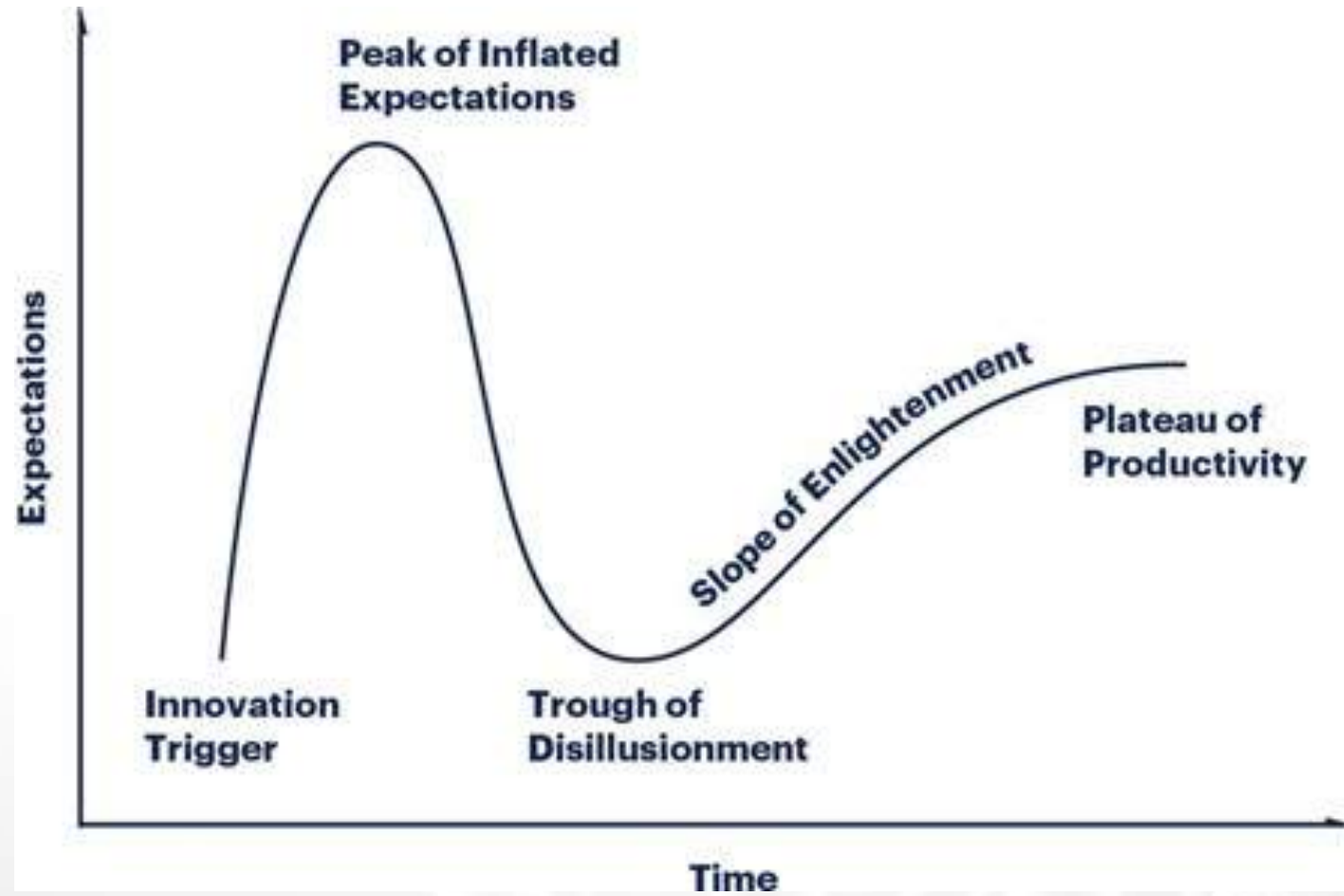
alive leapsmag MicrobiomeTimes GUT MICROBIOTA NEWS WATCH

nature MicrobiomePost.com SCIENCE TRENDS NUTRA ingredients.com

Sea-Monkeys



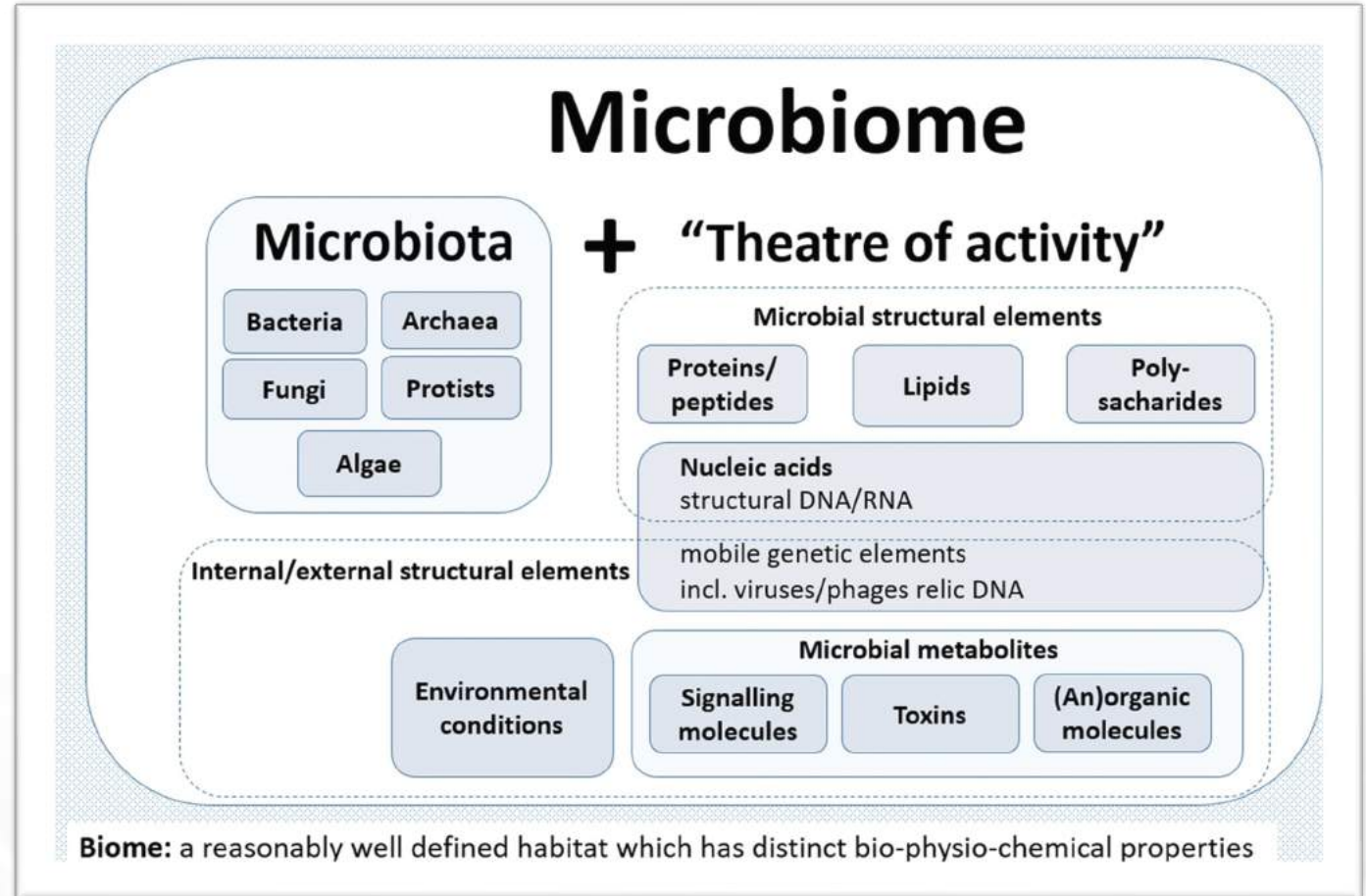
# Hype cycle



# The microbiome

- Definition: “a characteristic microbial community occupying a reasonable well-defined habitat which has distinct physio-chemical properties.”

PMID: 32605663





# Making sense of the microbiome

- Microbiome: “unfamiliar object” that requires us to “establish an order that enables individuals to become familiar”
- representations
- “co-constructed and circulating in our society”

## 2020 Article

**Public understanding of science and common sense: Social representations of the human microbiome among the expert and non-expert public**

Ida Galli, Roberto Fasanelli

First Published April 27, 2020 | Research Article |  Check for updates

<https://doi.org/10.1177/2055102920913239>

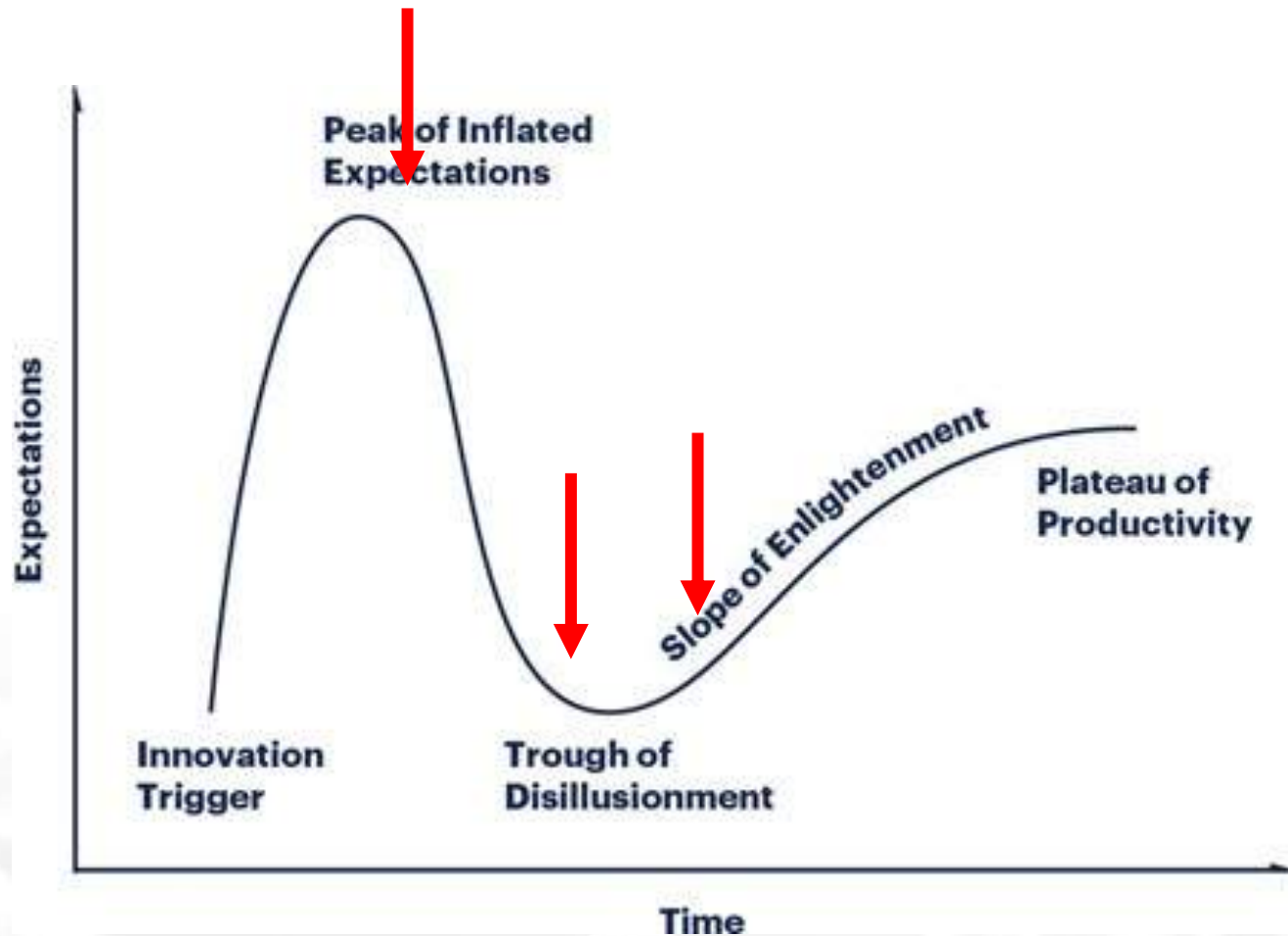
[Article information](#) ▾



### Abstract

The aim of this investigation is to examine the structure and the content of different social groups' representations of the human microbiome. We employed a non-probabilistic sample comprising two groups of participants. The first group ( $n = 244$ ) included university students. The second group included lay people ( $n = 355$ ). We chose a mixed-method approach. The data obtained were processed using IRaMuTeQ software. The results allow us to identify the anchoring and objectification processes activated by the two different groups of interviewees. The results could be

# Microbiome hype cycle



fealth

an Lyall  
3:00 PM · 11 Feb 2022

Follow an on

## Does the Gartner Hype Cycle explain the ebb and flow of the multi-billion dollar human microbiome industry?

In equity research, the hypecycle is used to describe the movement of markets and sectors as well as individual stock

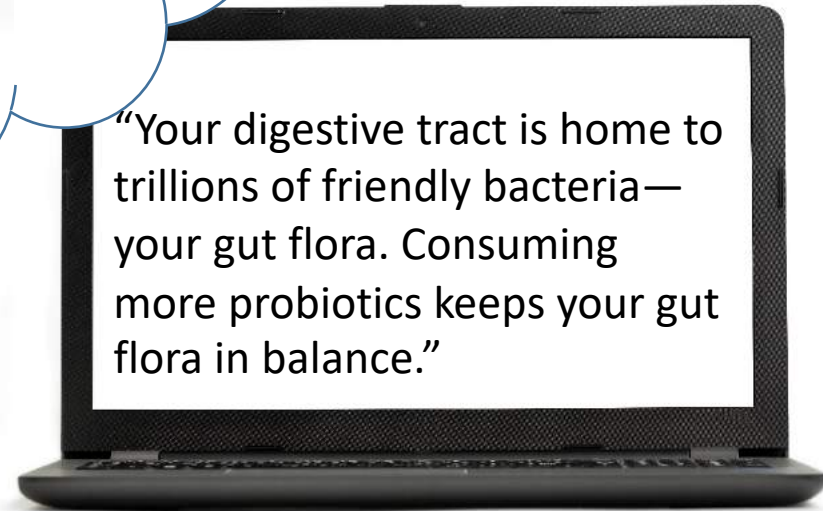


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14 hours, 28 minutes ago

Mining

# How do consumers make sense of the microbiome & related products?



"Your digestive tract is home to trillions of friendly bacteria—your gut flora. Consuming more probiotics keeps your gut flora in balance."



# How do consumers make sense of the microbiome & related products?



2 news articles  
1 blog post  
1 infographic  
1 Wikipedia page  
5 product labels

## HEALTH

### Will Probiotics Ever Live Up to the Hype?

Changing your microbiome takes more than just swallowing a pill full of bacteria.

### Sorry, Your Gut Bacteria Are Not the Answer to All Your Health Problems

*We're told that tweaks to the microbiome can cure everything from allergies to Ebola. Not exactly, say experts.*

## Probiotics: Dispelling Myths

### IS MORE BETTER?

Not necessarily. A greater number of colony forming units (CFU) does not always equate with enhanced effects. The best dose is the one that has been tested in humans and shown to provide positive outcomes. These levels can range from 100 million to over a trillion CFU per day. Most probiotics have been tested at levels between 1-to billion CFU/d.



WIKIPEDIA  
The Free Encyclopedia

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## Gut microbiota

From Wikipedia, the free encyclopedia

*"Enteric bacteria" redirects here. For other uses, see Enteric bacteria (disambiguation).*

**Gut microbiota** are the microorganisms, including bacteria and archaea, that live in the digestive tracts of vertebrates including humans, and of insects.<sup>[1][2]</sup> Alternative terms include **gut flora** (an outdated term that technically refers to plants) and **gut microbiome**. The gastrointestinal metagenome (sometimes define

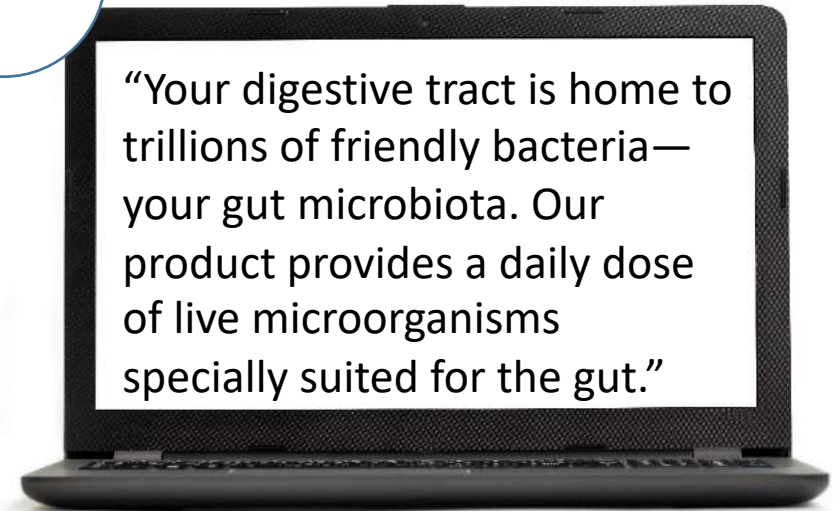
# Consumer Context

- Awareness about disinformation / misinformation
  - Digital media literacy programs & data
- Many health professionals skeptical
- Media widely dismissive

# Solution: Make messages consistent with the science

- Shape language around shared understandings in the scientific field
    - Independent of any single product
  - Be able to trace every statement back to the science
    - Supporting data
- OR
- Broad scientific consensus

# Example of message consistent with the science



"Your digestive tract is home to trillions of friendly bacteria—your gut microbiota. Our product provides a daily dose of live microorganisms specially suited for the gut."



# Communication checklist: Probiotics vs. live cultures

- Probiotics: “live microorganisms which, when administered in adequate amounts, confer a health benefit”.
  - Not always microorganisms in fermented foods
  - Requires data on the strain or closely related strains
- Live cultures: desired or beneficial live microorganisms
  - Research ongoing to link live cultures (“live dietary microbes”) to health benefits (PMID: 35583208)
  - Value is currently based on:
    - Historical precedence
    - Origin
    - Adaptation to conditions of the gut





# Communication checklist: Probiotics vs. live cultures



## What are probiotics?

Probiotics are live microorganisms that, when administered in adequate amounts, have a beneficial effect on health.

[Read more >](#)



# Communication checklist:

## Dose or amount

- A greater quantity is not necessarily better for health
  - Dose should match the level that has shown benefits in an efficacy study
  - Prebiotics are not the same as dietary fiber, so recommended amounts will be different
    - Prebiotic dose should be calibrated for efficacy and avoiding undesirable effects

### Inulin food sources

Chicory roots, Jerusalem artichokes, leeks and onions, green bananas and plantains

### Health Benefits

A prebiotic that supports digestion, improves and maintains regularity

### Effective Dose Range

10-40 g/day



# Communication checklist: Bacterial names

- New names for lactobacilli
- Probiotic effects are considered strain-specific

If your probiotic contains this:	Its new name is this:
<i>Lactobacillus casei</i>	<i>Lacticaseibacillus casei</i>
<i>Lactobacillus paracasei</i>	<i>Lacticaseibacillus paracasei</i>
<i>Lactobacillus rhamnosus</i>	<i>Lacticaseibacillus rhamnosus</i>
<i>Lactobacillus plantarum</i>	<i>Lactiplantibacillus plantarum</i>
<i>Lactobacillus brevis</i>	<i>Levilactobacillus brevis</i>
<i>Lactobacillus salivarius</i>	<i>Ligilactobacillus salivarius</i>
<i>Lactobacillus fermentum</i>	<i>Limosilactobacillus fermentum</i>
<i>Lactobacillus reuteri</i>	<i>Limosilactobacillus reuteri</i>

Supplement Facts	
Serving Size 2 Capsules Servings Per Container 30	
Amount per serving	%DV**
Proprietary Blend	12 billion CFU **
<i>Lactiplantibacillus plantarum</i> subsp. <i>plantarum</i> AB2	
<i>Lacticaseibacillus rhamnosus</i> CD3	
<i>Ligilactobacillus salivarius</i> EF6	
<i>Bifidobacterium longum</i> GH8	
** Daily value not established	
<b>Other ingredients;</b> Capsules (cellulose, water), cellulose, vegetable stearin and silica.	

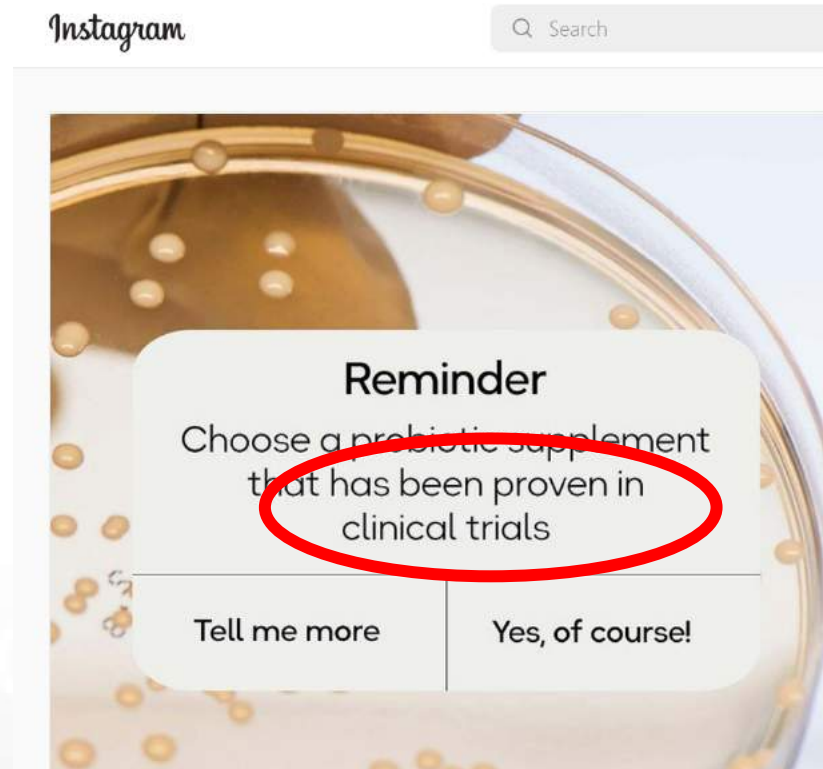


## Communication checklist: Health effects vs. mechanisms

- Health effects are primary
- Mechanisms (if known) are a bonus
  - Microbiome is a MECHANISM, not a health effect
    - What makes a “healthy” or “balanced” microbiome is still unknown
  - By definition, gut microbes are the mechanism of action of a PREbiotic



# Communication checklist: Health effects vs. mechanisms





# Three key elements for communications

- Messages consistent with the science
- Regulatory compliance
- Uniqueness and creativity

**+ Collaboration!**

A faint, grayscale background image of various biological cells, including rod-shaped and spherical forms, is visible at the bottom of the slide. A thin, dark green horizontal line runs across the bottom of the slide, just above the cell images.

# Why collaborate?

- Brand content strategy has limits
- Collaborations align you with trusted individuals or organizations who can (indirectly) help advance your brand

Examples:

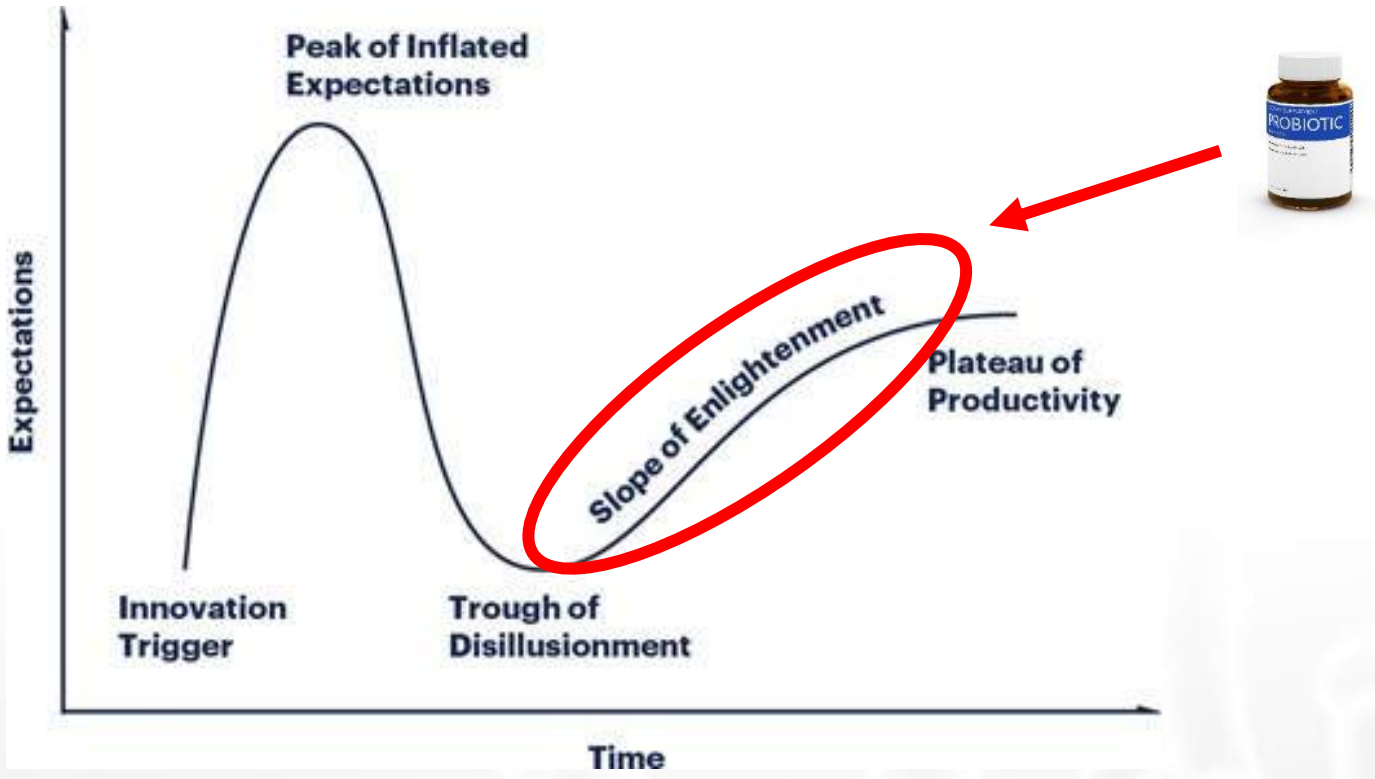
- Scientific initiatives through trade associations
  - Non-profit organizations
  - Medical organizations
  - Content platforms
-

# Practical steps

- Look to the associations (IPA, GPA)
- Bring your science and marketing teams closer together
  - Have the science team review the marketing
  - Workshop some of your content
  - Develop company guidelines / 'style guide' for language
  - Make a routine of working together



# Preparing for the future



# A world of responsible communications

- More transparency
  - Consumers seeing more **alignment** of ideas
  - Media seeing more **consistent** messages
  - Fewer accusations of hype
  - Meeting consumer and healthcare professional expectations that you have **evidence** for your statements
  - The right product reaching the right person at the right time
-



Let's discuss...