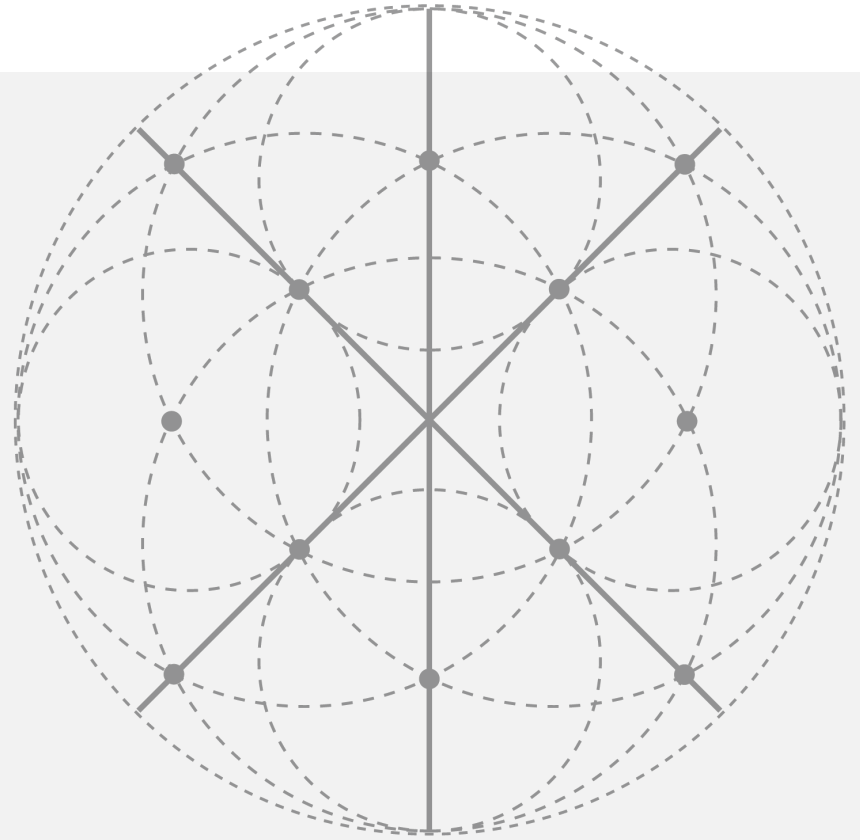




BiotiQuest: Find your balance.
Own your health.



Why Martha started researching Parkinson's disease and alternative therapies

In 2002, Martha's 44-year old husband was diagnosed with Parkinson's Disease. It was a devastating diagnosis for their family, including their two small children.

Unwilling to resign to hopelessness, Martha collaborated with top researchers to find solutions. Previously being a consultant and auditor, she realized that disease is a systems problem, a collapse of the body's ecosystem. And all distress signals kept pointing back to the gut.

When Martha found a [study](#) that identified imbalances in the gut microbiomes of Parkinson's patients she thought,

"That is it. The gut is the general ledger of the body."



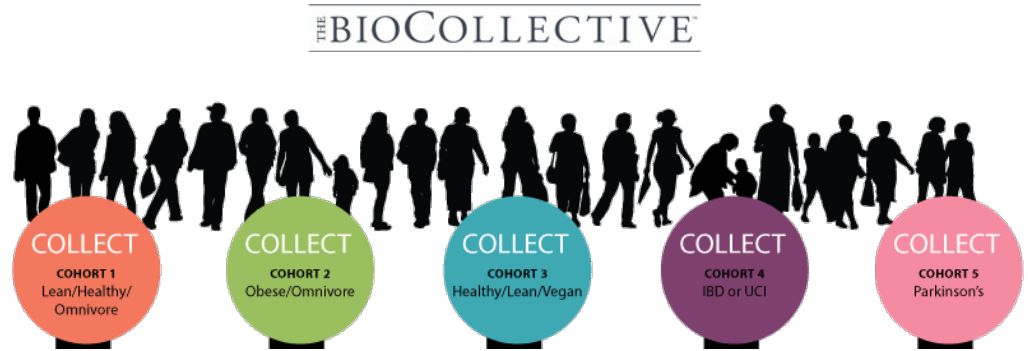
The Bio Collective

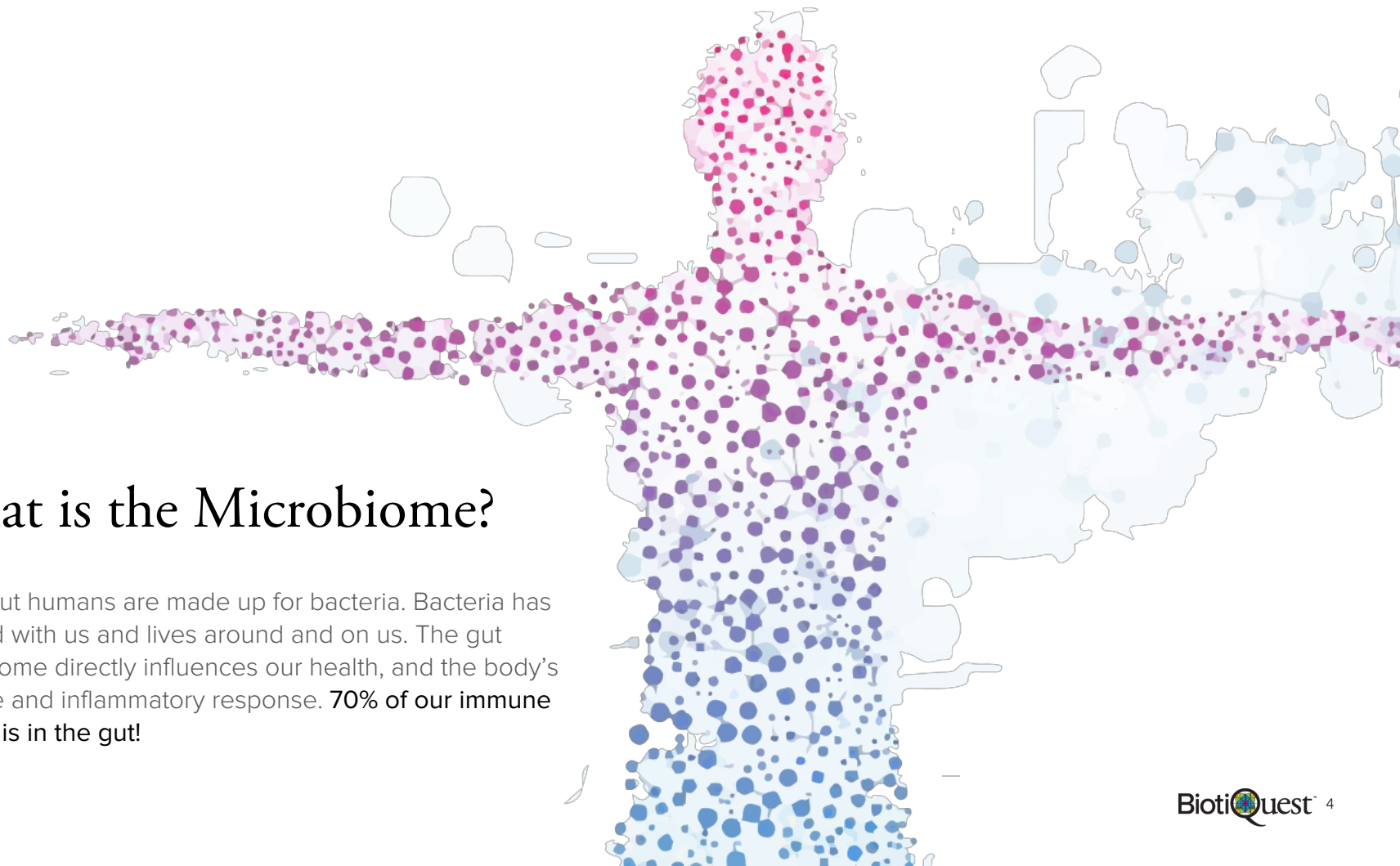
Martha realized that there was a need for deeper research in the gut microbiome if she was going to identify solutions.

She was determined to link personal health history, genetics, and the gut microbiome to chronic disease. And to leverage the gut to restore health.

The Bio Collective processes and analyzes gut microbiome samples in patient cohorts, like PD to further clinical research.

They also utilize the insights they gather from their research to create novel transformative probiotics.





What is the Microbiome?

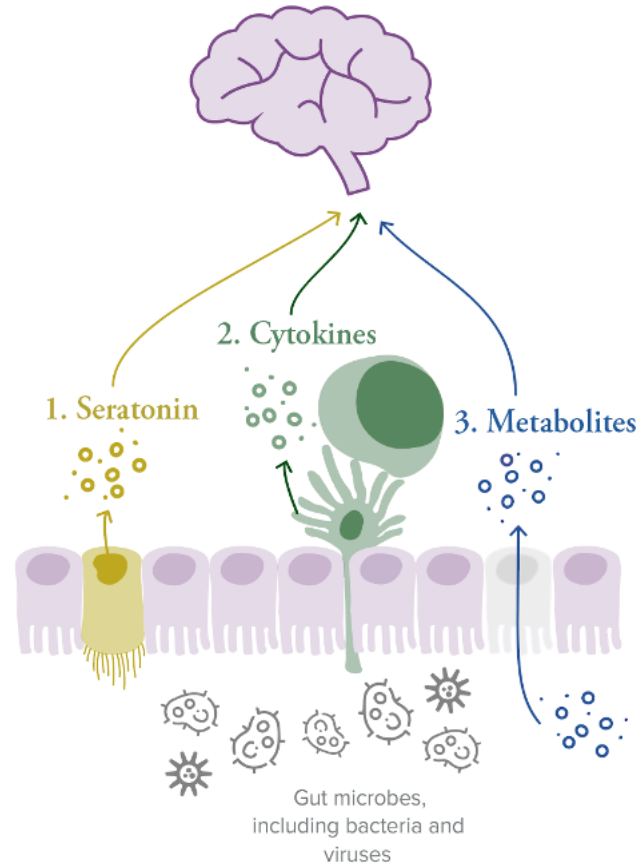
Turns out humans are made up for bacteria. Bacteria has evolved with us and lives around and on us. The gut microbiome directly influences our health, and the body's immune and inflammatory response. **70% of our immune system is in the gut!**

How does the gut affect the brain?

The gut affects the brain in a few ways, including, metabolites, the vagus nerve and via inflammation and immune system.

The Gut – Brain Axis

The mechanisms by which gut microbes and the brain might communicate are unclear, but there seems to be a link.



1. Peripheral Serotonin

Cells in the gut produce large quantities of the neurotransmitter serotonin, which may have an effect on signaling in the brain.

2. Immune System

The intestinal microbiome can prompt cells to produce cytokines that can influence neurophysiology.

3. Bacterial Molecules

Microbes produce metabolites, such as butyrate, which can alter the activity of cells in the blood-brain barrier.

High-level view on the research that is being done in Parkinson's and the microbiome

Intestines as a Window to the Brain



There is a clear effect of Parkinson's disease on the gastrointestinal system. Nearly 80 percent of people with PD have constipation, and this condition often predates the motor symptoms of Parkinson's by several years.

<https://www.michaeljfox.org/news/gut-check-parkinsons-new-findings-bacteria-levels>



And [other research](#) has shown that people with Parkinson's have an altered microbiome, with higher levels of [H. Pylori](#) bacteria.

<https://www.michaeljfox.org/news/ask-phd-parkinsons-and-microbiome>



The researchers show that changes in the composition of gut bacterial populations—or possibly gut bacteria themselves—are actively contributing to and may even cause the deterioration of motor skills that is the hallmark of this disease.

<https://www.neurodegenerationresearch.eu/2017/03/parkinsons-disease-linked-to-gut-microbiome/>



Given the research on the connection between the Gut Microbiome and PD to date, the most certain conclusion is that Gut Microbiome disorder in PD patients exacerbates α -syn deposition in PD via many mechanisms and will aggravate neurodegeneration, and thus, PD-related symptoms, such as movement disorders.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6851172/#s10title>

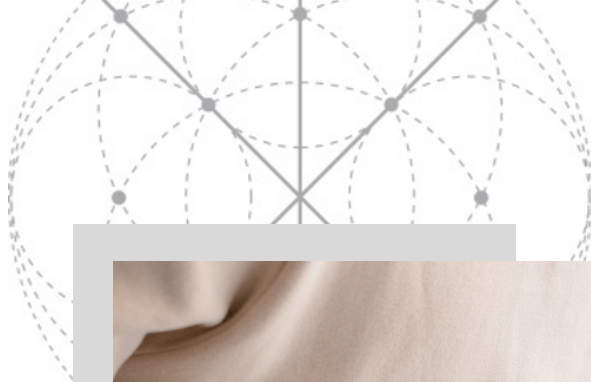
How did you come up with the formula for your probiotic?

Martha was at a conference and heard about research that mannitol was able to help prevent the aggregation of protein in the brain in PD patients.

Mannitol is the most abundant sugar in nature. Martha bought a book on mannitol chemistry and learned that certain bacteria could turn glucose and fructose, which can have a negative impact on the body, into mannitol, which passes through leaving the body is unharmed.

<https://parkinsonsnewstoday.com/2020/07/29/the-science-behind-mannitol-how-a-simple-sweetener-may-help-parkinsons-patients/>





How does the probiotic work?

Sugar Shift targets the way the gut microbiome metabolizes sugars. The Western diet is overloaded with carbohydrate and sugar consumption. This throws the ecosystem of the gut out of balance and burdens the body.

Sugar Shift changes the way your gut microbiome metabolizes sugars, transforming fructose and glucose into a harmless compound that, basically, is mostly eliminated through urine and stool.

Meet Sugar Shift

Shift Your Sugar Metabolism, Shift Your Health

With daily use, Sugar Shift may improve sugar metabolism, help maintain digestive health, boost energy, and support overall immunity.

- Increases butyrate
- Balances your body's PH
- Alters sugar metabolism
- Produces mannitol which impacts aggregation of protein

1

Your gut bacteria transforms glucose and fructose into mannitol.



2

Mannitol is a sugar that your body naturally eliminates



3

The result: **Sugar Shift** reduces undo stress and inflammation normally caused by sugar consumption



Things that people with Parkinson's can do to support a healthier microbiome



Limit sugar and carbs

This means eliminating or significantly reducing the consumption of things like bread, pasta, high glycemic fruits, ice cream, cookies, and foods with added sugars.



Filter water

Most tap water contains pharmaceutical residues and other potentially toxic chemicals which can impact the microbiome. Humans are 70%+ water.



Exercise

Exercise is an important daily routine to establish. Get up and move – walk, run, ride a bike, lift weights or work in the yard that requires physical exertion. This supports your overall health.



Eat more vegetables

Focus on organic foods when possible. Better yet, grow a small garden and produce some of your own salad greens and veggies. Your plate should be mostly veggies.



Pesticide free and herbicide free

Farming chemicals have been shown to have a direct relationship to risk of developing Parkinson's. Avoid foods with pesticides and herbicides. And do not spray chemicals in your home.

Different. Transformative. Targeted.

It's pretty simple: we are scientists who created a way of looking at how gut bacteria metabolize sugars and carbs to better understand how they impact the body. We took that knowledge and used it to alter metabolism in a way that promotes health, and steers the body away from disease

Our company was developed to help people we love and to help PD patients feel better in a natural way.

www.biotiquest.com | www.thebiocollective.com



Thank you.



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