## THE POWER OF POSTBIOTICS



**Short-Chain Fatty Acids (SCFAs)** are postbiotic compounds that are important for metabolism and digestive health. They work to support a healthy microbiome by mediating microbe-to-host-immune system crosstalk between **the gut** and **the brain**.



## The Importance of Maintaining Balance of Postbiotic SCFAs

A contributing factor that influences the way the brain and gut communicate is the presence of SCFAs in the gut.

A lack of the proper balance of beneficial postbiotic SCFAs can interrupt the way the two communicate.



Factors that support the body's natural production of postbiotic SCFAs:

- Eating a fiber-rich diet
- · Supplementing with a direct SCFA
- Maintaining healthy lifestyle habits, fitness



Factors associated with a decrease in the body's natural production of postbiotic SCFAs:

- · Lack of fiber in diet
- Consuming too many processed foods
- Age or a slowing metabolism
- Lack of sleep

## Three Common SCFAs That Are Essential to The Gut

Butyrate

gives energy to colonocytes (the cells in the gut lining that require butyrate to function properly) which maintain an oxygen-free environment for beneficial gut microbes (or gut flora) to thrive.

**2** Acetate

the most abundantly produced by the gut, helps maintain the pH and keep gut acid levels low.

**Propionate** assists in the production of glucose in the liver.



When the SCFA production of acetate and propionate **outweighs** the production of butyrate, it can interfere with the colon's ability to metabolize and can contribute to insulin resistance. **Maintaining healthy levels of butyrate can help maintain a healthy metabolism.**