

# Tapping our microbiomes for new health treatments

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Fecal transplants for treating gut diseases were the first reported therapies based on the idea that the human microbiome is inextricably linked to our health. Now, as researchers further flesh out this connection, dozens of biotechnology and pharmaceutical companies are moving ahead and investigating new therapeutic directions, according to the cover story of *Chemical & Engineering News (C&EN)*, the weekly newsmagazine of the American Chemical Society.

Lisa M. Jarvis, a senior correspondent at C&EN, notes that the [human microbiome](#) consists of a hundred trillion bacteria in and on our bodies. It helps break down food and regulate glucose levels, turns nutrients into vitamins our bodies can use, and sends signals to our immune system. An imbalance in our microbial community can be associated with illness. But scientists have yet to establish whether these disruptions can cause diseases or are a result of them.

Despite the lack of a definitive answer to that question, many researchers are optimistic that understanding our microbial communities could lead to new treatments. A few drug leads for treating gut infections and inflammatory bowel disease are already in early clinical trials. And to move beyond these initial disease targets, scientists plan to deepen their understanding of our microbiome—how it changes as we age, its variations throughout the gut and at disease sites—to try to address more complex conditions such as diabetes and obesity.

**More information:** Harnessing the Hordes -

[cen.acs.org/articles/93/i38/Ha...rdes-Microbiome.html](https://cen.acs.org/articles/93/i38/Ha...rdes-Microbiome.html)

Provided by American Chemical Society

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