

Microbiome may spawn new drugs for range of conditions

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What function does your microbiome play in your health? The answer is still a mystery, but emerging scientific evidence suggests it could have implications for treating many chronic diseases. A new class of microbiome drugs in development could eventually be effective against a range of hard-to-treat disorders, including gastrointestinal, metabolic, immunologic, and even neurologic problems.

The microbiome is a complex ecosystem of microbes that live in and among your body's cells. It consists of distinct communities depending on where they live in the body. The microbe community in your mouth, for example, is different in composition from the one in your gut. Changes in the composition of the microbiome—for example, when pathogenic strains invade and push out “good” ones—have been correlated with many diseases.

Most of the initial drugs in development are aimed at the gut microbiome, which is due to “some combination of its importance to key diseases and sampling ease,” says [Peter DiLaura](#), CEO of San Francisco-based Second Genome. Tissue biopsies taken during colonoscopies and fecal samples are rich sources of information about the differences between the microbiomes of healthy and sick people.

Some companies, led by [Seres Therapeutics](#), are developing and testing [drugs made of microbes](#). The idea is that adding carefully chosen species and strains of microbes can restore the gut microbiome's healthy ecology, similar to the way fecal transplants are believed to work.

Read full, original post: [Unraveling the Mysterious Function of the Microbiome](#)