Microbiome may be next big frontier in medicine

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The human gut microbiome — which includes the community of trillions of bacteria living within our intestines — has been called one of the next big frontiers in medicine.

In recent years, a growing body of research has shown that the bacteria in our gut exert a powerful influence on our immune and endocrine systems, brain health, mood and cognitive function, and other key biological processes.

We know that the balance of good and bad bacteria in the gut can keep us healthy — or can contribute to disease. Now, the next step for this exciting medical frontier is learning how to leverage the power of the microbiome to treat disease.

In new research, biologists and medical engineers at the Massachusetts Institute of Technology are doing just that by reprogramming gut bacteria to act as "living therapeutics" that can correct the metabolic dysfunctions underlying certain ailments.

"It's become really clear that the bacteria living in us and on us affect our bodies in a variety of different ways — in ways that we never imagined," Dr. Timothy Lu, a biological engineer at MIT, told The Huffington Post. "The old idea that people are just people and that everything that happens in our bodies is dictated by human cells and DNA is probably not the complete picture."

Read full, original post: Hacking Gut Bacteria Could Be The Future Of Medicine