Edible ‘CRISPR pill’ could make harmful bacteria self-destruct

As resistance to antibiotics grows in the U.S., researchers are looking for new ways to fight germs like Clostridium difficile, a bacterium that can cause fatal infections in hospitals and nursing homes. One way to do that: a “CRISPR pill” that instructs harmful bacteria to self-destruct.

…

To do it, [food scientist Jan-Peter Van Pijkeren] is developing bacteriophage capable of carrying a customized CRISPR message. On their own, the bacteriophage would quickly get broken down by stomach acid. So to get the viruses into a person, Van Pijkeren plans to add them to a cocktail of innocuous bacteria, or probiotic, that a person could swallow as a pill or a liquid. […] Van Pijkeren says the probiotic is still in early stages of development and hasn’t been tested in animals. However, researchers have previously shown that using bacteriophages to trigger CRISPR can efficiently kill skin bacteria.

…

The appeal of using CRISPR is that such drugs would be very specific—theoretically, they would kill a single species of germ while leaving beneficial bacteria intact. Broad-spectrum antibiotics, by contrast, kill off large swaths of both good and bad bacteria. In fact, the overuse and abuse of conventional antibiotics is what leads to resistance in the first place.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: Edible CRISPR Could Replace Antibiotics