

Can genetically modified viruses stop antibiotic-resistant infections?

Genetically modified viruses that cause bacteria to kill themselves could be the next step in [combating antibiotic-resistant infections](#).

Several companies have engineered such viruses, called bacteriophages, to use the CRISPR gene-editing system to kill specific bacteria, according to a presentation at the CRISPR 2017 conference in Big Sky, Montana...These companies could begin clinical trials of therapies as soon as [2018].

Initial tests have saved mice from antibiotic-resistant infections that would otherwise have killed them, said Rodolphe Barrangou, chief scientific officer of Locus Biosciences in Research Triangle Park, North Carolina....

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Other companies are working to get phages to perform different tasks. 'Supercharged' phages, created by a group at Synthetic Genomics in La Jolla, California, could contain dozens of special features, including enzymes that break down biofilms or proteins that help to hide the phages from the human immune system.

But engineered phages still have to overcome some hurdles. Treating an infection might require a large volume of phages, says Elizabeth Kutter, a microbiologist at Evergreen State College in Olympia, Washington, and it's unclear whether this would trigger immune reactions, some of which could interfere with the treatment. Phages could also potentially transfer antibiotic-resistance genes to non-resistant bacteria, she notes.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [Modified viruses deliver death to antibiotic-resistant bacteria](#)