

## How can scientists prevent unintended consequences from CRISPR gene editing?

In an episode of the resurrected X-Files TV show...aliens attack Earth with a bioweapon based on CRISPR, the genome-editing tool that vastly simplifies the ability to modify DNA. Agent Dana Scully, one of the show's main characters, resists the attack because her genome earlier had incorporated some alien DNA that had anti-CRISPR defenses. Now...Researchers have found for the first time anti-CRISPR proteins that shut off the genome editor and shown they can use them to control the cutting of DNA in human cells.

In Cell yesterday, molecular biochemist Erik Sontheimer of the University of Massachusetts Medical School in Worcester and colleagues describe [three proteins in Neisseria meningitidis that inhibit its version of Cas9](#), an enzyme that some CRISPR systems employ to cut the DNA. (N. meningitidis is a bacterium that causes a form of meningitis in humans.) "Any time you have greater control over a useful technology, the utility improves," says Sontheimer....

Sontheimer himself cautions that "there are a lot of things to work out."...but Sontheimer and others predict they will find ones that do. "This paper is a proof of principle," he says. "There definitely are going to be other Cas9 inhibitors. Now, the search is on."

**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [Stopping CRISPR's genome-editing scissors from snipping out of control](#)**