

## Biosafety News

### GM PLANTS COULD HELP ELIMINATE FOOD POISONING

A study led by a team of researchers from German companies Nomad Bioscience and Icon Genetics reveals a new strategy to fight foodborne diseases. The new strategy involved genetically engineering plants to produce antimicrobial proteins, which can then be extracted and applied to contaminated meat and produce.



The team engineered tobacco, beets, spinach, chicory, and lettuce, to produce proteins called colicins, which can kill deadly strains of *E. coli*. They found that plants such as tobacco can yield high levels of active colicins, and identified a mixture of two colicins that can efficiently kill all major disease-causing strains of *E. coli*.

Colicins are extremely potent, and the scientists believe the proteins could be an economically viable way to treat food. Yuri Gleba, CEO of Nomad Bioscience said, "Colicins are 50 times more active against bacteria than normal antibiotics." In the study, Gleba and his colleagues sprayed *E. coli*-laced pork steaks with a mixture of two types of colicins, at 4 milligrams of colicin per kilogram of meat, and found significant reductions in *E. coli* after just an hour.

Read more about this research at [Popular Science](#). More details are available in the paper published by the *Proceedings of the National Academy of Sciences*.

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