

## Genes from honeybees and African frogs help create a new species of genetically modified mosquitoes that neutralize malaria at the source

Scientists have genetically modified the main malaria-carrying species of mosquito in sub-Saharan Africa to slow the growth of malaria-causing parasites in their gut, preventing transmission of the disease to humans.

When the *Anopheles gambiae* takes a blood meal, it produces two molecules called antimicrobial peptides in its guts, according to the scientists.

These peptides, which were originally isolated from honeybees and African clawed frogs, impair the malaria parasite's development.

Now researchers from the Transmission Zero team at Imperial College London have come up with a design that can be combined with existing "gene drive" technology to spread the modification and drastically cut malaria transmission.

Follow the latest news and policy debates on sustainable agriculture, biomedicine, and other 'disruptive' innovations. Subscribe to our newsletter.

[SIGN UP](#)

The genetic modification causes mosquitos to produce compounds in their guts that stunt the growth of parasites, meaning that they are unlikely to reach the mosquitoes' salivary glands and be passed on in a bite before the insects die.

So far, the technique has been shown to dramatically reduce the possibility of malaria spread in a lab setting, but if proven safe and effective in real-world settings it could offer a powerful new tool to help eliminate malaria, the study says.

[\*\*This is an excerpt. Read the original post here\*\*](#)