

## Some geneticists worry 'gene drive' tech could create bio-weapon or environmental disaster

A powerful new technique for generating “supercharged” genetically modified organisms that can spread rapidly in the wild has caused alarm among scientists who fear that it may be misused, accidentally or deliberately, and cause a health emergency or environmental disaster.

Some believe it could even be used as a terrorist bio-weapon directed against people or livestock because gene drives – which enable GM genes to spread rapidly like a viral infection within a population – will eventually be easy and cheap to generate.

“Just as gene drives can make mosquitoes unfit for hosting and spreading the malaria parasite, they could conceivably be designed with gene drives carrying cargo for delivering lethal bacterial toxins to humans,” said David Gurwitz, a geneticist at Tel Aviv University in Israel.

A group of senior geneticists have called for international safeguards to apply to researchers who want to develop gene drives, with strict security measures placed on laboratories to prevent the accidental escape of “supercharged” GM organisms that are able to spread rapidly in the wild.

Gene drives could benefit human health by altering insect populations that spread human diseases, such as mosquitoes that transmit malaria, dengue, chikungunya and Lyme disease, so that they were no longer a threat, he said.

They could also be used to reverse the mutations that make crop pests resistant to agricultural pesticides, or they might be used to spread genetic traits within a populations of an invasive species to help kill it off, such as making the skin of cane toads introduced into Australia non-toxic to indigenous predators.

**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: [‘Gene drive’: Scientists sound alarm over supercharged GM organisms which could spread in the wild and cause environmental disasters](#)**