

Subject: Media Review on Gene Drive - Ethics Advisory Committee

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A Vector Control Research Alliance

**Ethics Advisory Committee
Media Review on Gene Drive**

Dear members of the Ethics committee, please find below a selection of the best and most significant articles on issues related to gene drive, malaria and other relevant topics to Target Malaria. It covers the period of April 2017.

[Six ways Imperial researchers are working to eliminate malaria](#)

Over 100 researchers at Imperial, from every faculty, work on different aspects of malaria. To bring this diverse group together, the Imperial College Network of Excellence in Malaria has been set up with the aim of combining scientific insights, technological innovations and evaluations of impact. [...] We talked to six of the teams to find out more about the different plans of attack.

[GM drive against malaria: Treading a fine line](#)

[...] The Target Malaria team is working to modify only the mosquito species that are most important for malaria transmission in Africa. To do that, it collaborates with three partner institutions in Africa: The Malaria Research and Training Center in Mali, the Uganda Virus Research Institute in Uganda and the Institut de Recherche en Sciences de la Santé in Burkina Faso.

[Synthetic gene drives in Australia: implications of emerging technologies](#)

This discussion paper by the Australian Academy of Science considers synthetic gene drives in a specifically Australian context and highlights the potential benefits and hazards of possible applications, emphasising the need to eventually consider these within a risk assessment framework.

[Cali to Deploy Genetically Modified Mosquitoes to Suppress Bloodsucker Population and Fight Disease](#)

[...] The science-based approach comes from U.K. biotechnology company Oxitec Ltd., which has developed a genetically modified male version of the *Aedes aegypti* species that mate with local females to produce offspring that will “inherit a self-limiting gene that causes them to die before reaching functional adulthood,” according to the company.

[Why the University of California Is Appealing the CRISPR Patent Decision](#)

In February, the U.S. Patent and Trademark Office decided in favor of the Broad Institute of Harvard and the Massachusetts Institute of Technology, which has been battling for years with the University of California over patents for the gene-editing technology CRISPR-Cas9, often shorthanded as CRISPR.

[The race is on to stop a Zika virus epidemic in the US](#)

[...] One company on the front lines in the Zika war is Oxitec, a biotech company in the U.K. But if you think they're working on a vaccine, you're wrong. Rather, they're creating genetically modified male *Aedes aegypti* mosquitoes to mate with the females who carry the disease.

[We need to talk about gene drives and gene editing \[Podcat\]](#)

Imagine a New Zealand without introduced wasps, rats and possums, and a world where diseases such as malaria and heritable blindness have been eliminated. This is a future that recent genetic breakthroughs could soon make possible – and scientists say we should be having a national conversation now about how willing we are to go there.

[Gene drives could wipe out diseases – but we need to understand the risks](#)

"I'm not aware of any other technology where one person can affect so many others without their consent," says Kevin Esvelt, associate professor at the MIT Media Lab. Esvelt, 34, specialises in gene drives, a system that ensures man-made genetic alterations are passed on indefinitely, to alter species on a global scale.

[Factbox: Five myths about mosquitoes and malaria](#)

A cutting-edge technology known as gene drive aims to eradicate mosquitoes by altering the genetic code of males in captivity so that they will only be able to produce sterile offspring [...] But there have been ethical objections to wiping out an entire species. Another problem with this approach is that the number of sterile males to be released would have to be vast to make it effective.

[News in the Humanosphere: WHO launches malaria vaccine trial in 3 African countries](#)

The World Health Organization has chosen Ghana, Kenya and Malawi as the countries where the world's first malaria vaccine will be tested next year on young children. The injectable vaccine, known as RTS,S, or Mosquirix, was developed by the British pharmaceutical company, GlaxoSmithKline. The test will be conducted on babies and toddlers, aged 5 to 17 months.

[Change Agent: CRISPR-flavoured fiction](#)

It's 2045, and the genetic editing system CRISPR has become a mainstay of society, producing everything from housecat-sized tigers to geopolitical intrigues. The United Nations has approved a sensible list of gene edits that can be legally used to eliminate specific genetic diseases from human embryos...