

Genetic engineering might eliminate malaria!

By ACSH Staff — June 12, 2014



Malaria is one of the worst medical scourges in the world

today. [According to](#) ^[1]the World Health Organization (WHO), there were about 207 million cases worldwide in 2012, and the disease was responsible for over 600,000 deaths mostly in children under 5 years old.

Scientists, physicians, and researchers have been fighting it with a multi-pronged approach, using medical treatments, bed nets, and/or pesticides to thwart the *Anopheles gambiae* mosquito - the female of this species is the carrier of the disease. As the death statistics show, none of these approaches has been wildly successful.

But now genetic engineering may be coming to the rescue! A new [report](#) ^[2] describes work done by Dr. Roberto Galzi from Imperial College London and colleagues. Their report, published in the journal *Nature Communications*, describes their technique for manipulating the genes carried by the male *Anopheles* mosquito, resulting in a sire who can only father male offspring. Since the female of the species is the only one that bites humans and carries the malaria parasite, producing only males would mean a drastic decrease in the number of these mosquitoes. It is even possible that this particular species of mosquito would become extinct.

Although the work on this mechanism is still in the laboratory, being tested on caged mosquitoes, it is possibly the most promising new technique to control malaria. Indeed, if it is effective in this species of mosquito, the technique might also be utilized against other mosquito-borne diseases, such as dengue fever in South America and the Caribbean region.

One question remains: what will be the stance of the anti-GMO activists with respect to this potentially life-saving genetic manipulation? We already know that organizations such as Greenpeace are vehemently against the testing and use of Golden Rice, which could save millions of children from blindness and death. But on the other hand, there doesn't seem to be any problem for such groups in the production and use of **bio**-engineered insulin, which has been around for decades.

ACSH's Dr. Ruth Kava opines The anti-GMO crowd will likely not have much to say about this new means of fighting malaria. Of course since the technique is still laboratory-based, it would be

harder for them to disrupt it than to stop field testing of Golden Rice, but they might try. Their ignoring the benefits of genetic engineering would reach new highs (or lows) if they fail to accept the life-saving potential of this manipulation.

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[1] <http://www.who.int/malaria/media/en/>

[2] <http://www.nature.com/ncomms/2014/140610/ncomms4977/full/ncomms4977.html>