

## **SCIENTISTS DEVELOP GM MOSQUITOES TO FIGHT SPREAD OF MALARIA**

A study published in the June 2014 issue of Nature Communications shows how genetic engineering can be used to suppress or eliminate pests, particularly mosquitoes. Roberto Galizi of Imperial College London and colleagues generated a system that distorts the gender ratio of mosquitoes and reduce the number of females. Fewer female mosquitoes means fewer vectors of disease because only female mosquitoes bite.

The researchers used I-PpoI, an enzyme that cuts specifically within the mosquito's ribosomal gene sequences (rDNA), which are located in a single cluster on the X chromosome. They developed a transgenic strain of mosquitoes that expresses I-PpoI in sperm cells to cleave the X chromosome and produce mostly Y chromosome-bearing sperm and thus male progeny. These male progeny would inherit the I-PpoI endonuclease gene, leading to generations of about 95 percent male offspring.

Read the research report at <http://www.nature.com/ncomms/2014/140610/ncomms4977/full/ncomms4977.html>.