Fighting malaria: Genetic modification offers two promising tools

In the annals of deadly diseases, few have plagued humankind as viciously as malaria.

…But the disease continues to take its toll. In 2015, there were roughly 212 million cases of malaria and 429,000 deaths. And the disease has become increasing resistant to drugs.

In recent years, one new tool — genetic modification — has appeared especially promising. Two studies published Thursday in the journal Science illustrate the potential of genetic engineering for fighting the disease. Both studies were conducted at Johns Hopkins University's Malaria Research Institute.

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The first study focused on whether mosquitoes that have been genetically modified to be more resistant to the malaria-causing parasite would become weaker and less able to mate and breed.

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The second study published Thursday uses genetic modification of bacteria found inside mosquitoes to fight malaria. Researchers genetically modified a type of bacteria, which caused it to secrete a substance inside the mosquitoes' gut that kills off the malaria-causing parasite before it can develop properly.

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The next step for both approaches — the genetically modified mosquitoes and bacteria — is to test if they work outside the lab in conditions simulating nature. Johns Hopkins has built a "mosquito house" research facility in Zambia designed specifically for such experiments.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: Genetically modified approaches to fighting malaria succeed in new tests