## REMaRAG Newsletter October 2018

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Malaria kills one child every minute. Every day malaria hits the very poorest communities hardest, and the most vulnerable within them like expectant mums and children under five are the most at risk. It keeps kids out of school, adults out of work, and communities stuck in a cycle of poverty they can't escape, over- whelming countries and continents.— that's over 200000 since the last newsletter

## **Happy New Year to Everyone**

In the last newsletter I made an urgent plea for help with projects in District 9101 (West Africa). Although there has been some limited interest we have not as yet had firm offers of help. The malaria situation in that region is desperate and any assistance, however small, would be of great benefit to a large number of people. If you can help please let me know via the usual channels.

### Malarial mosquitoes eliminated

Researchers have eliminated caged mosquitoes using 'gene drive' technology to spread a genetic modification that blocks female reproduction.

The team from Imperial College London carried out experiments and found that the reproductive capacity of the malaria vector mosquito *Anopheles gambiae* could be blocked in only 7-11 generations.

The hope is that mosquitoes carrying a gene drive would be released in the future, spreading female infertility within local malaria-carrying mosquito populations and causing them to collapse.

However, before this is attempted the team need to predict the impact this would have on the local ecosystem. Parallel research reported in <u>Medical and Veterinary</u> <u>Entomology</u>, showed that although some animals do eat *An. gambiae*, those that do also eat other species of mosquito and other insects, meaning they do not need A. gambiae to survive.

Evidently, "As adults, *An. gambiae* mosquitoes are small, hard to catch, most mobile at night and not very juicy, so they are not a rewarding prey for both insect and vertebrate predators. Many do eat them but there is no evidence that they are a big or vital part of the diet of any other animal.

The research found that other species of mosquito are most likely to compensate for fewer *An. gambiae*, so it could be a case of out of the frying pan and into the fire with other disease such as yellow fever becoming more dominant.

#### **Hamburg Convention**

Unfortunately our application for a breakout session was unsuccessful.

However, we have been able to secure a room for our AGM which will be a 14:00 on Monday 3<sup>rd</sup> June (location to be confirmed).

In addition to normal business this will also be an opportunity for interested parties to share their own stories about the projects they have been involved with.

Our friends from Downunder in RAM have already expressed an interest in the meeting and I for one am looking forward to hearing about the latest developments on the trial vaccine PlasProtecT being developed by researchers at Queensland's Griffith University

And finally
If you think you are too
small to make a difference
you haven't spent a night
with a mosquito

#### New and novel research

# Malaria sniffed out by dogs in sock-smelling trial

Dogs could be used to help sniff out malaria in people through an odour in their socks, according to new research.

The animals can be trained to detect the scent of the malaria parasite. Researchers gave nylon socks to a group of children in the Gambia. The children wore the socks overnight, and the samples were then sent to the Medical Detection Dogs charity in Milton Keynes, where three dogs have been trained to distinguish between the scent of those infected with the malaria parasite and those who were uninfected. They managed to correctly identify 70% of the socks worn by malaria-positive children, and 90% of the samples without malaria parasites.

Although the research is in its early stages, Annemarie Meyer from the Malaria No More organisation said ""It's finding a new way to identify people who may not feel sick, but are carrying malaria in their systems and could therefore pass it to other people through the bite of a mosquito"

Such early detection could mean faster treatment for infected people.

Do you have an interesting Rotary Malaria project? Or would you like to contact people in Rotary to talk about Malaria?

If so please contact the editor lan Priestley

(email: remaragmalaria@gmail.com) and we will look to showcase the project in future newsletters

www.remarag.org
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