



# Press release

Grand Cayman will use Oxitec solution to suppress wild *Aedes aegypti*, the dangerous mosquito that spreads dengue, Zika and chikungunya, in an effort to help eliminate these diseases

Programme follows successful trial of Oxitec's mosquito in Cayman Islands that reduced Aedes aegypti by 96%

# Grand Cayman, 5<sup>th</sup> May, 2016

Oxitec and the Cayman Islands Mosquito Research and Control Unit (MRCU) announced a new plan to fight wild *Aedes aegypti*, the dangerous mosquito that spreads dengue, Zika and chikungunya, to prevent the threat of these diseases on the island of Grand Cayman. MRCU, a global leader in mosquito control, is planning a multi-phase roll out of Oxitec's solution to help reclaim the island from this disease-carrying pest. In March, the World Health Organization (WHO) recommended pilot deployment of Oxitec's solution to respond to the Zika crisis and the U.S. Food and Drug Administration (FDA) released a preliminary Finding of No Significant Impact (FONSI) on Oxitec's solution for an investigational trial in the Florida Keys.

Dr. Bill Petrie, Director of MRCU said, "We have wanted to remove this invasive pest for a long time, but this has proven very difficult using currently available tools on an island the size of Grand Cayman, so we have been looking for new approaches. The decision to deploy the Oxitec solution comes after the success of a peer-reviewed trial. We believe this environmentally friendly tool can greatly reduce the population of *Aedes aegypti* and has the potential to eliminate it from Grand Cayman."

MRCU performed the world's first suppression trial with Oxitec's OX513A self-limiting mosquito – a genetically engineered non-biting male that mates with disease-transmitting wild *Aedes aegypti* females – which successfully reduced the target mosquito population by 96%. The Sister Islands of Cayman Brac and Little Cayman are not threatened by the diseases as their populations of *Aedes aegypti* remain below transmission threshold; the aim is to achieve the same for Grand Cayman.

Chief Officer in the Cayman Islands Ministry of Health, Jennifer Ahearn, Ministerial Councillor for Health, Councillor Roy McTaggart, Dr. Petrie and Oxitec's Dr. Renaud Lacroix, on Monday (18 April) finalised the partnership by signing the agreement between MRCU and Oxitec to reduce the numbers of *Aedes aegypti* in the Cayman Islands.

"Oxitec is very proud of our continuing partnership with MRCU. We have benefited greatly from their expertise both for the original suppression trial and in the process of preparing for the current project," said Glen Slade, Head of Business Development at Oxitec. "The first trial proved that this approach works, and now we have the opportunity to help protect more people from this mosquito."

Ms. Ahearn, who is responsible for the health policy, said "During the time that we have been planning this project it has unfortunately become all the more urgent, with first chikungunya and now Zika threatening Cayman, the Caribbean and the Americas. Fighting the *Aedes aegypti* vector and potentially eliminating it from the Cayman Islands, is the surest way to protect our residents and tourists from the dengue, Zika and chikungunya viruses."

The first phase of the project will include a series of activities to inform the community about the programme. Over two months, Oxitec and MRCU employees will provide information to local residents about the programme, how the solution works and why it is effective. "Before we release our mosquitoes, which we refer to as 'Friendly Aedes aegypti', it is important to explain that the males do not bite, do not transmit diseases and do not persist in the environment," said Dr. Renaud Lacroix, the project manager. "Our scientists and staff are delighted to talk about this programme, and will be available to answer questions."

The next phase will be deployment of Oxitec's solution initially to treat an area with about 1,800 residents in West Bay, Grand Cayman and an equivalent area without Oxitec treatment will be used for comparison. Then, subject to appropriate approvals and funding, the goal of the programme is to expand from the northwest end of Grand Cayman, where West Bay is located, across the remainder of the island to reduce the population of dangerous *Aedes aegypti* mosquitoes and help eliminate the diseases they carry for residents and tourists alike.

Describing the Oxitec mosquito release process, Dr. Alan Wheeler, Assistant Director of the MRCU, says, "It is one of those times where you are very grateful to see a mosquito, because you know it's going to do its job, and there will be fewer mosquitoes around to bite and transmit disease once it's done."

### Activities to be conducted by MRCU and Oxitec this week:

- Thursday 5<sup>th</sup> to Saturday 7<sup>th</sup> May, 2016: Information booth at the West bay dock.
- Saturday 7<sup>th</sup> May, 2016: Information Desk at a West Bay location to be announced.
- Thursday 5<sup>th</sup> to Saturday 7<sup>th</sup> May 2016: House visits in the treatment area.

A town hall meeting will be planned at the John A. Cumber Primary School within the coming weeks.

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# **Photos by Government Information Services (GIS)**



Caption 1:

Front row: (*I-r*) MRCU Director Dr. Bill Petrie; Ministerial Councillor for Health, Councillor Roy McTaggart; Ministry of Health's Chief Officer, Jennifer Ahearn; and Oxitec's Project Manager Dr. Renaud Lacroix sign agreement.

Back row: (*I-r*) MRCU Research Manager, Fraser Allen; Ministry of Health's Senior Policy Advisor, Janett Flynn; Ministry of Health's Deputy Chief Officer, Nancy Barnard; MRCU Assistant Director, Dr. Alan Wheeler; Acting Policy Advisor (Environmental Health), Natasha Powell.



Caption 2: Front row: (*I-r*) MRCU Director, Dr. Bill Petrie; Ministerial Councillor for Health, Councillor Roy McTaggart; Ministry of Health's Chief Officer, Jennifer Ahearn; and Oxitec's Project Manager, Dr. Renaud Lacroix.

Back row: (*I-r*) MRCU Research Manager, Fraser Allen; Ministry of Health's Deputy Chief Officer, Nancy Barnard; Acting Policy Advisor (Environmental Health), Natasha Powell; Ministry of Health's Senior Policy Advisor, Janett Flynn and MRCU Assistant Director, Dr. Alan Wheeler.

#### Diseases spread by the Aedes aegypti mosquito

- Dengue Fever infects an estimated 400 million people globally every year with about half of the world's population at risk.
- Chikungunya swept into Central America and the Caribbean in 2014 with an epidemic spiking to over a million cases within only a year.
- Zika virus is rapidly spreading into new countries and has caused a state of emergency in Brazil where it has been linked to a sudden increase in birth defects (microcephaly) and nervous system disorders (Guillain-Barré syndrome).
- Yellow Fever remains a major health threat. Globally, there are an estimated 200,000 cases of yellow fever, causing 30,000 deaths each year, with 90% cases occurring in Africa.

#### **About Oxitec**

Oxitec is a pioneer in using genetic engineering to control insect pests that spread disease and damage crops, and was founded in 2002 as a spinout from Oxford University (UK). Oxitec is a subsidiary of Intrexon Corporation (NYSE: XON), which engineers biology to help solve some of the world's biggest problems.

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