Our first South American field trial has begun in Brazil, with the initial releases of *Wolbachia* mosquitoes taking place in Tubiacanga.

The community of Tubiacanga, in Rio de Janeiro, has shown strong support for the releases and joined our team in a celebration to mark the occasion on September 24, 2014. The event drew attention from news services locally and across Brazil, where dengue is a significant and growing health problem.

Fiocruz researcher Dr Luciano Moreira, who leads the Eliminate Dengue Brazil project, is optimistic about the next steps of the project. “We are facing an innovative and safe scientific strategy, which may contribute to the control of dengue and to improving the health of the population,” he said.

For the past two years, the Eliminate Dengue Brazil team has been monitoring the mosquito population in Tubiacanga and planning for the first release, while working with community members to explain the research and answer residents’ questions.

The team plans to release *Wolbachia* mosquitoes in the Tubiacanga field site once a week for approximately three to four months, with the aim of establishing *Wolbachia* in the local mosquito population. If successful, we expect the risk of local dengue transmission will be reduced.

We will continue to monitor the local mosquito population and we will regularly report the results to the community and on our website.

Early planning is underway for large-scale field trials in Rio de Janeiro, which we hope to begin in 2016. If the site proves suitable, these trials will help us gather formal data on the effectiveness of our method in reducing dengue transmission.

Pictured above: Brazil’s first Wolbachia mosquitoes have been released in Tubiacanga.
Cairns field trial sites

Planning is well underway for the first large-scale releases of Wolbachia mosquitoes in Townsville, with hundreds of community members already signed up to participate. We have been encouraged by the high level of local interest, and we will keep working closely with the Townsville community to explain our research and ensure they understand what we are planning.

We hope to begin releasing Wolbachia mosquitoes later this year, and we will gradually work our way across our Townsville field trial site. The release area covers most of inner Townsville, with the initial release suburbs to include some of the city’s highest-risk dengue areas. This field trial will play a key role as we adapt our methods for larger-scale releases.

Further north, we are seeing the early results of our current Cairns field trials. We are pleased to see that some of the mosquitoes in these areas now carry Wolbachia, as this shows our release method is on track. In the past, we have primarily released adult Wolbachia mosquitoes, which involves hatching and rearing mosquitoes in our laboratory before they are released. We are now releasing Wolbachia mosquitoes as eggs – the first time we have trialled this across entire field trial sites. Over the coming months, further results will tell us how well Wolbachia is establishing in the local mosquito populations.

These field trials began in June and July in the Cairns suburbs of Stratford, Freshwater, Bungalow and Cairns North and are helping us refine our methods for releasing Wolbachia mosquitoes.

Pictured right: Releases are ongoing in the Cairns suburbs of Stratford, Freshwater, Bungalow and Cairns North.

Community shows support for large-scale release

Eliminate Dengue Australia has held information stalls at many key community events in Townsville to give residents an opportunity to find out more about our research.

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Pictured right: Releases are ongoing in the Cairns suburbs of Stratford, Freshwater, Bungalow and Cairns North.
Our Colombian team is working closely with our researchers from around the world to plan for the country’s first trial of the Wolbachia method.

Earlier this month, Eliminate Dengue Colombia representatives – together with international program leaders – met with Colombian health authorities, university representatives and members of the scientific community to provide information about our Colombian research project. We received positive feedback from the meeting, and participants stressed the importance of this research in Colombia, where dengue is a growing health problem.

We are continuing to monitor mosquitoes and meet with communities in Paris, in the Bello municipality of Medellin, where we hope to conduct field trials in the coming year.

Pictured above: A highlight of community engagement efforts in Colombia has been a performance for local school children, in which our method was explained using song, dance and humour.
Wolbachia increasing on Tri Nguyen Island

After 17 weeks of releasing Wolbachia mosquitoes on Tri Nguyen Island in Vietnam, 62% of local Aedes aegypti mosquitoes now carry Wolbachia. This suggests that the wMel strain of Wolbachia is starting to establish in the local mosquito population, and we expect to see the number of mosquitoes with Wolbachia keep increasing.

With ongoing community support and regulatory approval, we will continue our weekly releases as we would like more mosquitoes to carry Wolbachia. We hope that the additional releases will help Wolbachia establish in the local mosquito population and reduce the risk of dengue transmission on Tri Nguyen Island.

Pictured above: School children on Tri Nguyen Island show off their new school timetables, which included information about how to treat mosquito bites.

Melbourne family joins Eliminate Dengue supporters

The Eliminate Dengue research program is receiving support from the Melbourne-based Gillespie Family Foundation. Creators of the Foundation, Lesley Gillespie OAM and Roger Gillespie OAM, joint CEOs of Bakers Delight, have pledged support to our research over the next five years. Their Bakers Delight business, which started with one store in suburban Hawthorn, opened in 1980 and is now a franchise of more than 700 bakeries across Australia, New Zealand and Canada. The group is soon to open a store on the east coast of America.

“We are very grateful to have the Gillespie Family join our program as key philanthropic partners,” Eliminate Dengue program leader Professor Scott O’Neill said. “The Gillespie family is supporting us in our efforts to develop new delivery technologies that will assist in scaling up our dengue control approach. We are all very excited by the possibilities and look forward to a long and happy association.”

The project the Gillespies are supporting aims to develop a low-cost, simple-to-use kit that will allow the community to directly release Wolbachia mosquitoes. “It’s not often that you get an opportunity to help with such a meaningful project and at such a pivotal moment,” Roger Gillespie said.

Lesley Gillespie said the family was impressed by the program’s work in the developing world, the potential impact and the simplicity of the innovative approach. “When this takes off it will make a huge difference in the world,” she said.