

Gates backs malaria research

An international group of researchers, including Wageningen entomologists, has been awarded 8.3 million dollars (7 million euros) by the Gates Foundation to spend on the development of scent traps for malaria mosquitoes over the next five years. Malaria expert Dr Willem Takken is the coordinator in Wageningen.

On Tuesday 28 June, Bill Gates, the richest man in the world and also the biggest modern philanthropist, announced the new research programme 'Grand Challenges for Global Health'. The founder of Microsoft set up the Bill & Melinda Gates Foundation, worth about 24 billion euros, to promote education and public libraries in the US and worldwide health care. Part of this is the Grand Challenges programme, which focuses on infectious diseases such as Aids, tuberculosis and malaria.

'It is a highly competitive programme,' explains Takken. 'Two years ago we submitted the first research proposal. Last year we were asked to elaborate our proposal to develop lures for malaria mosquitoes. In the end we survived all the selection rounds.' There are five partners involved in the project: Vanderbilt and Yale universities in the US, Wageningen University, the Ifakara Health Research and Development centre in Tanzania and the Medical Research Centre Laboratories in Gambia.

Takken: 'The Americans will select and test scents using tissue culture and molecular techniques. We will test the scents that are selected on malaria mosquitoes in the wind tunnel in Wageningen. The ones that withstand our test will then be tested under controlled field conditions in a biosphere by our partner in Tanzania.' This biosphere (the Malariasphere) was developed by a Wageningen researcher Dr Bart Knols, and is a greenhouse in which African village conditions are simulated. Test subjects can be exposed to uninfected mosquitoes in the Malariasphere to see whether the mosquitoes are attracted to the scents used as lures.

The last part of the project is a real field experiment with the most successful scent traps, which will be done in Gambia in West Africa. 'Now we will be able to go through the whole development trajectory,' tells Takken. 'This is something that researchers normally can only dream of, but thanks to Gates it has become a reality.' The ultimate aim is to lure away as many malaria mosquitoes in villages by using scent traps, so that the people living there are bitten less and therefore less infected by the malaria parasite. This is vital because most medicines against malaria are no longer effective. The disease causes almost a million deaths each year, mostly among children in Africa.

The whole project will be carried out by a team of 22 people, five of whom are in Wageningen. Takken: 'We can now take on two postdocs, two PhD researchers and an analyst. I am incredibly pleased with this. It means that we know we can continue our malaria research for at least five years. That's an unknown luxury.' The Wageningen part of the award is worth about two million euros. / Gert van Maanen