Press Release

Mosquito trap is able to reduce the abundance of dengue mosquitoes

Regensburg / Manaus, March 27th, 2014 – Biogents traps, mosquito traps developed in Germany, were recently shown to effectively reduce population levels of dangerous dengue mosquitoes in a large-scale study in Manaus (Brazil).

Dengue fever is widely distributed in Brazil and other tropical and subtropical regions and a constant threat to the local population. Dengue is mosquito-borne virus that infects up to 100 million people each year. Because there is no effective vaccine available, the only way to control the disease is by controlling the dengue mosquitoes. While the use of conventional insecticides is widespread, they have become increasingly ineffective due to insecticide resistance.

A new approach to control the mosquitoes could be a simple, but highly effective, mosquito trap developed by the German company Biogents. An attractive odor plume specifically attracts the dengue mosquitoes (*Aedes aegypti*) and sucks them into a catch bag where they dry up and die. Research scientists have used the Biogents traps for many years to quickly and effectively collect dengue mosquitoes.

A large-scale study published in the Entomological Society of America's Journal of Medical Entomology has demonstrated for the first time that these traps can also reduce the number of dengue mosquitoes in a broad urban area. The study co-financed by the world-bank was conducted over 18 months with more than 1400 households and 450 Biogents traps in Manaus, Brazil.

The result: "The study shows that the Biogents traps can significantly reduce the amount of adult female *Aedes aegypti* especially in the rainy season" says Prof. Eiras from the University Federal de Minas Gerais (Brazil). The number of dengue infections in the test areas also decreased. An additional advantage for household trap users was the Biogents traps also reduced numbers of the annoying and often numerous tropical house mosquito (*Culex quinquefasciatus*). Households that used the traps reported a noticeable reduction in the nuisance from mosquitoes. Additional studies will be required to investigate the effects of trapping on larger scales and during epidemics.

In 2002, Bio**gents AG** was started from the Institute of Zoology of the University of Regensburg, Germany. The founder Dr. Geier and his collegue Dr. Andreas Roseput more than 16 years intensive basic research into the analysis of the composition of scents and odors that were attractive to mosquitoes and finding



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the key factors that influence the behaviour of these important disease vectors. The primary motivation behind this research was the application of the results: to develop better methods to control mosquitoes in an intelligent, environmentally safe and targeted manner. In 2004 they developed the new mosquito trap which exhibits capture rates especially of disease-transmitting mosquitoes that are multiple times better than those of other designs. The trap is used by scientists worldwide as a proven standard tool. The employees of Biogents participate as experts in numerous national and international projects that are engaged with mosquitoes and their role as disease vectors.

Prof. Alvaro Eiras from the University Federal de Minas Gerais in Brazil More information about Prof. Alvaro Eiras <u>here</u>