

Researchers study Chagas disease—aim to prevent transmission

October 4 2012



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EU funding has supported a major initiative designed to promote research collaboration to support control programmes for Chagas disease in central and southern America.

Chagas disease is caused by a protozoan <u>Trypanosoma cruzi</u> and is contracted mainly in central and southern America. Spread primarily by blood-sucking insect vectors, most commonly species of the Triatoma and Rhodnius genera, the disease can produce life-threatening symptoms in around a third of chronically infected individuals.

One feature of the life-cycle of the insect vector is that deforestation encourages the search for new food sources, in this case <u>human blood</u>, and a <u>human transmission</u> cycle may develop. The 'American



trypanosomiasis update' (ATU) project therefore focused on control activities against the triatomine bug vector.

ATU researchers aimed to investigate the <u>evolutionary processes</u> involved in adaptation from a sylvatic (forest) to a domestic environment and to set up workshops to disseminate the collated information. Three regional initiatives were set up in southern cone countries, the Andean Pact and central America.

In field studies, samples of insects were collected and analysed before comparing with data from before the start of the bug control campaign. The species under study depended on the region as, for example, in the southern cone countries. In this region, T. infestans has been eliminated so the study also focused on other vector species. In the Andean countries, both domestic and sylvatic species came under investigation.

ATU collected new information on the biology and potential vectors for Chagas disease as well as new tools for the control and surveillance of the vector bug. Exchange of information among experts on the disease, professionals involved in control programmes, health workers and scientists proved very fruitful. Abstracts from contributions at the workshops can be viewed online and in a publication distributed to all control programmes, Pan American Health Organization (PAHO) and universities involved in Chagas disease research.

The ATU has promoted a major initiative for information exchange and the standardisation of criteria for control interventions to eliminate the <u>insect vectors</u> of Chagas disease. As Chagas disease affects as many as 8 to 10 million people in Latin American countries, this is a very important issue for healthcare authorities.

Provided by CORDIS



Citation: Researchers study Chagas disease—aim to prevent transmission (2012, October 4) retrieved 19 April 2023 from

https://medicalxpress.com/news/2012-10-chagas-diseaseaim-transmission.html

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