

Tulane researcher receives grant to improve diagnostic tools for congenital Chagas disease

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Claudia Herrera, PhD, researcher at Tulane's School of Public Health and Tropical Medicine, will lead a team of researchers in developing more reliable tools for the diagnostic and genotyping for congenital Chagas disease. (Photo by Sally Asher)

Dr. Claudia Herrera, assistant professor of tropical medicine at the Tulane University School of Public Health and Tropical Medicine, was recently awarded a five-year, \$2.6 million grant from the Eunice Kennedy Shriver National Institute of Child Health & Human Development for the “Development of Improved Serological Diagnostic and Parasite Genotyping Tools for Congenital Chagas Disease.”

Herrera is leading a team of researchers including Tulane’s Dr. Eric Dumonteil, associate professor of tropical medicine, as well as researchers from the Johns Hopkins Bloomberg School of Public Health, the Free University of Brussels in Belgium, Access Bio Inc., the Institute for Investigations in Genetic Engineering and Molecular Biology in Argentina, and the Clinical and Epidemiological Research Unit of Montevideo in Uruguay.

Chagas disease is a neglected disease caused by the protozoan parasite *Trypanosoma cruzi*. The disease is a serious public health issue in Latin America and the southern United States and is severely undiagnosed.

In the Americas, less than 1% of the over 6 million expected cases have been identified, according to Herrera, who is also a member of the Tulane’s Vector-Borne Infectious Diseases Research Center. Current diagnostic tests often result in

discordant results. As a result, the World Health Organization recommends a minimum of two positive tests to confirm diagnosis.

The research team plans to develop more reliable tools for the diagnostic and genotyping of *T. cruzi*.

“This would be fundamental to better understand *T. cruzi* molecular and clinical epidemiology, including the links between parasite diversity and congenital infection, leading to better health care for Chagas disease patients and particularly infected pregnant women,” says Herrera.

“These advances will also spur molecular research on *T. cruzi* much beyond our own research focus, by further exploring parasite evolution and genetic diversity allowing us to understand the potential relations between parasite characteristics, congenital transmission and clinical symptoms.”