

Postdoctoral Research Associate- Canine Chagas Disease December 2024

A Postdoctoral Research Associate position is available in the [laboratory of Dr. Sarah Hamer](#) at Texas A&M University (TAMU) in the Department of Veterinary Integrative Biosciences, College of Veterinary Medicine & Biomedical Sciences. The Postdoctoral Research Associate will advance research programs on canine Chagas disease, including new studies of treatment, diagnostics and epidemiology that have recently been funded by the National Institutes of Health and the Department of Homeland Security. The Postdoctoral Research Associate will work collaboratively with additional investigators at TAMU ([Dr. Ashley Saunders](#)) and University of Georgia ([Dr. Rick Tarleton](#)). The DHS-funded work will be managed by the [Cross-Border Threat Screening and Supply Chain Defense \(CBTS\)](#), a U.S. Department of Homeland Security Center of Excellence led by Texas A&M University.

The protozoan parasite *Trypanosoma cruzi* causes Chagas disease in humans and other mammals. The parasite is transmitted by triatomine insects (kissing bugs) across Latin America and the southern United States. Building from our studies of canine and wildlife disease ecology and epidemiology, vector interventions, and diagnostic advances, we are excited to study therapeutic approaches to benefit both veterinary and human health.

Our **NIH-funded** project aims to understand how the timing of detection and treatment of *T. cruzi* relates to treatment outcomes and the degree of heart damage. We will also study if parasitological cure provides lasting immunity to reinfection and disease. Given dogs develop very similar patterns of immune control, disease development, and response to therapy as humans, we will study naturally-infected dogs as models in this work. These dogs will largely live in multi-dog kennels in Texas, including dogs at hunting ranches.

Our **DHS-funded** project aims to protect the operational capacity of the government working dogs (including dogs that provide security force in Customs and Border Protection along the borders, Transportation Security Administration in the airports and more) by studying their exposure to the Chagas parasite and clinical outcomes. We will conduct new epidemiological investigations to measure prevalence and risk factors, and design studies to mitigate disease threats with approaches including screening, treatment, vector control and more.

Both projects will involve field sampling of dogs, advanced parasitological, immunological, molecular diagnostics in a BSL-2 laboratory environment combined with clinical assessments focused on the heart. The Postdoctoral Research Associate will provide project management, coordinate field sampling with dog managers/local veterinarians, collect data, analyze and disseminate data, and mentor students. The position involves travel to dog kennels, ranches, and border checkpoints and ports of entry along the US-Mexico border.

Required qualifications include a PhD in epidemiology, biomedical sciences or a related field or a DVM (or equivalent) degree. Start date is flexible, ideally **February 1, 2025**, for two years, subject to annual re-appointment. Experience in canine restraint and blood collection; managing large projects; and a strong publication record is required.

Interested candidates should send an email and CV to Dr. Sarah Hamer, shamer@cvm.tamu.edu.

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