



**JOIN THE ARCHER LAB – UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN
M.S. Graduate Research Assistantship (Thesis-Based)**

Project: Early, Non-Invasive Detection of PRRS Virus in Swine

The Archer Lab in the Department of Animal Sciences at the University of Illinois Urbana-Champaign is seeking a motivated student interested in pursuing a M.S. degree as part of an interdisciplinary project focused on improving early detection of Porcine Reproductive and Respiratory Syndrome virus (PRRSv) using volatile organic compounds, saliva chemistry, and behavioral monitoring. This thesis-based position offers a **unique opportunity** to work at the intersection of animal behavior, welfare, physiology, and disease diagnostics, with direct application to the U.S. pork industry.

Project Overview

This project will investigate how chemical and behavioral indicators may predict an active infection before clinical signs appear. By integrating air and saliva volatile organic compound analyses with continuous behavioral monitoring, this research aims to define early diagnostic windows with potential to improve herd health management, welfare, and biosecurity.

Key Responsibilities

- Conduct behavioral observations and video analysis of weaned pigs in controlled trials
- Collect and analyze saliva and air samples for volatile organic compounds
- Assist with data processing, statistical modeling, and interpretation of results
- Collaborate with a multidisciplinary team spanning animal welfare, veterinary medicine, and diagnostic chemistry
- Contribute to outreach and publication of findings in scientific and producer-facing venues

Desired Qualifications

- B.S. in Animal Sciences, Veterinary Medicine, or a closely related field
- Strong interest in swine behavior, health, and welfare
- Ability to work in a collaborative research environment

Benefits and Opportunities

- Full stipend and tuition coverage
- Hands-on experience with infectious disease research
- Mentorship and professional development within a supportive, collaborative lab
- Opportunities to present at conferences
- Exposure to industry and academic partners (Texas Tech University, PIC, National Pork Board)

Position Details

- **Start Date:** Summer or Fall 2026
- **Location:** Urbana, Illinois
- **Advisor:** Dr. Courtney Archer, Assistant Professor of Animal Behavior & Welfare
- **Funding:** Fully funded 2-year M.S. program

How to Apply

Email **Dr. Courtney Archer** (arche214@illinois.edu) if you are interested in the position.

Application review will begin immediately and continue until the position is filled.