



DEPARTMENT OF ANIMAL & FOOD SCIENCES

TEXAS TECH
Davis College

Graduate Research Assistantship

Department of Animal and Food Sciences

Texas Tech University, Lubbock

Field of Study: Meat and Muscle Protein Biochemistry and Mitochondrial Biology

Position Description: A Master and a PhD graduate research assistantship are available beginning in Fall 2027 in the Department of Animal and Food Sciences at Texas Tech University (TTU). The selected student will work for USDA-NIFA-AFRI-funded projects under the direction of [Dr. Chaoyu Zhai](#) in the area of meat science and applied biochemistry.

Studies conducted will focus on exploring how bovine pulmonary hypertension, feed additives, and differences among muscle types influence muscle energy, redox, and proteo-homeostatic processes that ultimately shape fresh beef quality. Specifically, students will conduct interdisciplinary research as directed by the PI and have plenty of opportunities to learn peptidomics, proteomics, metabolomics, mitochondrial biology, R statistical computing and graphics, muscle biochemistry, meat quality evaluation, and enzymatic analysis. Students will also have opportunities to work with scholars across research fields and gain experiences/skills in an interdisciplinary research team. Although the above-mentioned experience is not required, students who are passionate about animal muscle food production and interested in applied biochemistry, high-throughput techniques, and data analysis will be a perfect fit.

Assistance in undergraduate and graduate courses in animal and food science, work in the meat laboratory, and domestic travel will also be expected, depending on prior training and departmental needs. Scholarly activity resulting in peer-reviewed publications and presentations is required.

Minimum Qualifications:

- Bachelor's and Master's degree in Animal Science, Food Science, Biochemistry, Chemistry, Biology, or closely related disciplines.
- Admission and enrollment through the Graduate School at TTU (application requirements and steps can be found at https://www.depts.ttu.edu/afs/grad_prog/how_to_apply.php).
- Ability to work in lab environments as well as write and speak English proficiently.

For further information on the position and/or questions, please contact Dr. Chaoyu Zhai (Chaoyu.Zhai@ttu.edu).

Apply to the TTU Graduate School at <https://ttugradschool.my.site.com/admissions/ApplicationLogin>. **Graduate students will not be considered for admission to the Department of Animal and Food Sciences without a designated faculty member who is willing and able to serve as a faculty advisor.**

Established in 1923, Texas Tech University is a Carnegie R1 (very high research activity) Doctoral/Research-Extensive, Hispanic Serving, and state-assisted institution. Located on a beautiful 1,850-acre campus in Lubbock, a city in West Texas with a growing metropolitan-area population of over 300,000, the university enrolls over 46,000 students with 38,000 undergraduate and 8,000 graduate students. For more information regarding Texas Tech University Department of Animal and Food Sciences, visit our website at: <https://www.depts.ttu.edu/afs/>

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