

# **Zoey Tucker Macon**

Cell: 254-433-1010

Email: [zoeyaleece16@gmail.com](mailto:zoeyaleece16@gmail.com)

228 CR 324 Gorman, TX 76454

LinkedIn: Zoey Tucker Macon

## **Education**

**M.S. Animal Science - Genetics**                      **Tarleton State University**                      **January 2022 – May 2024**

- Relevant courses: Biochemistry, Molecular Biology, Environmental Physiology, Metabolism, Biotechnology, Research Methods (stats), Analysis of Social Research Data (stats), Graduate Seminar (3x), Rumen Microbiology

**B.S. Animal Science – minor**                      **Tarleton State University**                      **August 2016 – May 2020**  
**Agriculture Business**

- Relevant courses: Chemistry 1 & 2, Organic Chemistry 1 & 2, Biology 1 & 2, Microbiology, Genetics, Genetic Techniques, Biostatistics, Anatomy and Physiology of Domestic Animals, Reproductive Physiology, Animal Breeding
- Minor: Ag Marketing, Ag Statistics, Ag economics, Accounting I, Microeconomics, Macroeconomics, Computer applications

## **Work experience**

**Research / Teaching Assistant**                      **Tarleton State University**                      **June 2024 – July 2024**

- Instructor of genetics labs – prepare and carry out experiments with students, determine supplies to be ordered
- Manage active, live-animal research projects and delegate tasks to team members
  - Observe, care for, formulate diets, and medicate animals as needed
  - Practice aseptic technique in laboratory settings- isolate serum from whole blood samples, run PCR for DNA / gene expression studies, maintain laboratory equipment, ensure quality control of samples.

**Registration Specialist / DNA Department**                      **American DNA Registry**                      **February 2023 – June 2024**  
**American Quarter Horse Registry**

- Register horses of half quarter horse pedigrees or horses of unknown origin / family.
- Order DNA testing through UC Davis veterinary genetics lab or TAMU breed analysis lab.
- Work with owners and other individuals to confirm parentage of registered horses and track down family members when pedigree is unknown.
- Share knowledge of DNA testing and encourage clients to have genetic information about their animals in their possession for production/health decisions.
- Keep detailed records for each animal to compile registry database.

**Academic Coach /  
Instructor**

**Tarleton State University**

**August 2022 – May 2024**

- Meet with students who are on academic suspension / probation to discuss personal goals for academic growth.
- Formulate an action plan for each individual student based off specific needs and areas of difficulty.
- Instruct classes for students to work toward academic success, create assignments to address challenge areas.

**Retail Sales Clerk /  
Administrative Assistant**

**Belton Feed & Supply**

**November 2020 – May 2022**

- Assist customers with feeding decisions for livestock and pets. Demonstrate how to read nutrition labels.
- Advise feeding strategies for metabolic diseases in animals.
- Use base of chemical knowledge to assist customers with pest, parasite and disease control in pets and livestock, around premises, and in structures.
- Receive and input inventory

## Research

### **Graduate Thesis**

Primary objective: **Assessing single nucleotide polymorphisms associated with susceptibility to digital dermatitis in lactating dairy cows**

Secondary objective: Evaluate qPCR as a tool to detect SNPs.

Principle Investigator: Dr. Jolena Waddell

Summary: Extract DNA from whole blood samples, design primers using NCBI primer blast to target loci of SNPs, determine cycle parameters for qPCR, analyze melt curves/peaks and melt temperatures to select ideal products for sequencing, analyze sanger sequencing and cross reference with Bos taurus genome, analyze data using SAS and R software.

<b>Graduate research participant:</b>	<b>Pilot study- The effects on production during heat stress in dairy cattle.</b> Collect milk samples, analyze milk composition, assess relationship between heat stress and change in milk characteristics. P.I. Dr. Barbara Jones	<b>July – August 2023</b>
<b>Research participant:</b>	<b>SEA phages / genes</b> – investigation of significantly functional genes on phage ThetaBob. Assigned 9 genes, successfully isolated and cloned all into plasmids for further investigation.	<b>August – December 2022</b>
<b>Research participant:</b>	<b>Wolbachia project</b> - collect arthropods, purify DNA, and isolate the CO1 gene and Wolbachia DNA1 (if present).	<b>August – December 2019</b>

## Teaching

<b>Instructor – Academic Strategies</b>	<b>Tarleton State University</b>	<b>Fall 2022 – Spring 2024</b>
---	----------------------------------	--------------------------------

Class assigned to students who are on suspension / probation to help improve academic skills. Each week a new module was discussed and assignments were given to focus on a specific aspect of the college experience such as time management, study strategies, note taking, etc. Also served as a point of assistance to students struggling in classes I had taken.

## Publications / Conferences

<b>Thesis</b>	Assessing genetic variants as indicators of susceptibility to digital dermatitis in lactating Holstein cattle	Spring 2024
<b>Graduate Student Literature Review</b>	Assessing genetic variants as indicators of susceptibility to digital dermatitis in lactating dairy cattle	Fall 2023
<b>Progressive Dairy Editorial Article</b>	Research on environmental, genetic components of lameness shows promise	Published online February 2023, in print (Canada) March 2023, in print (America) April 2023
<b>Breeding and Genetics Platform Session: Novel Traits, Novel Technologies – <i>Session Review</i></b>	Blazing the trail for dairy cattle selection: It's in their DNA	Published online June 27, 2023
<b>American Dairy Science Association Annual Meeting 2023</b>	<i>Poster Presentation:</i> Assessing genetic variants as indicators of susceptibility to digital dermatitis in lactating Holstein cattle	June 27, 2023

Graduate Seminar Presentations	<ul style="list-style-type: none"> <li>• <i>Thesis Proposal: Potential Genetics of Ovine Dysgnathia</i></li> <li>• <i>Relevant research literature review poster - Genetic Variants and Parameters Associated with Parasite Resistance in Sheep</i></li> </ul>	March 25, 2022  May 5, 2023
International Livestock Congress	<ul style="list-style-type: none"> <li>• Attendee – Tarleton State University / United States representative</li> </ul>	February 2023 & 2024

### **Volunteer experience**

<b>Show Superintendent</b>	<b>Eastland County Livestock Raisers Association</b>	<b>January 2020, 2021, 2022, 2023, 2024</b>
	Annual County Livestock Show	

### **Description:**

Ensure the cycle of the show runs smoothly- assist species superintendents with check-in, class and division formation; answer question and problem solve to keep facilities acceptable for participants and visitors; assist FFA and 4-H volunteers for concessions, organization for youths; oversee welfare of animals and youths on the premises.

### **Memberships**

- American Dairy Science Association - Graduate Student Division member
- American Society of Animal Science - Graduate Student member

### **References**

Jolena Waddell  
Tarleton State University  
Associate Provost - Geneticist  
[jwaddell@tarleton.edu](mailto:jwaddell@tarleton.edu)

Barbara Jones  
Southwest Regional Dairy Center – Former Director  
Tarleton State University – Former Associate Professor of Animal Science  
Eastern Kentucky University – Associate Professor of Animal Science  
[Barbara.jones@eku.edu](mailto:Barbara.jones@eku.edu)

Adam Lucksinger  
Temple & Belton Feed and Supply – Owner, CEO  
[Zb108@yahoo.com](mailto:Zb108@yahoo.com)