

# Kelsey Mainard

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## EDUCATION

**BS: Texas A&M University May 2023** | Honors Biology | Business Minor | GPA: 3.482

Coursework: Biochemistry, Molecular and Cell Biology, Bioinformatics, Computational Genomics, Genetics, Statistics, Calculus, Entrepreneurship, Product Design, Information Systems, Business Law, Finance, Accounting, Marketing, Management

## RELATED WORK EXPERIENCE

**Research Assistant** | Dr. Wanhe Li Lab, Texas A&M | College Station, TX | Summer 2023 - Present

- Lab Skills: fly handling, brain, CNS, and salivary gland dissection, immunohistochemistry, creation of graphics and statistical tests using both R and GraphPad Prism, large scale fly food preparation, application of genetic cross principles, shadowed Nobel Laureate Dr. Michael W. Young in polytene chromosome squash procedure
- Management Skills: mentoring and training undergraduates and rotational students, communicating schedules and resource availability for lab members, presenting findings and research to lab members
- Lab Equipment Used: Nikon AXR laser scanning confocal microscope (Z stack and 3D projection), Zeiss LSM900 Confocal microscope with Airyscan, Drosophila Activity Monitors

**Undergraduate Researcher** | Dr. L.R. Garcia Lab, Texas A&M | College Station, TX | Fall 2021 - Spring 2023

- Formulated personal research question examining how stress is spread in *Caenorhabditis elegans* nematode males.
- Completed control experiments to determine controls such as temperature, mating time, and male:female ratio
- Recorded data which was then presented in weekly meetings/reports and received feedback from P.I. and associates
- 10+ hours per week in lab assisting Dr. LeBoeuf's molecular/genetic research of *C. elegans* nematodes in relation to understand gene interactions in tail muscle development
- Processed samples using PCR, gene transformation, mini/midi preps, gel electrophoresis, enzyme reactions
- Lab Equipment Used: multidimensional FRET imaging from conical microscope, gel electrophoresis cameras, compound microscopes, autoclave, agarose pump

## AWARDS AND ACTIVITIES

**Co-Chair** | Freshman Orientation Camp (Fish Camp), Texas A&M | College Station, TX | Spring 2021 – Fall 2022

- Lead and delegated responsibilities to 24 counselors through program preparation
- Managed counselors in overseeing 120 freshmen
- Nominated by 100 peers for exceptional "support in co-chair partnership," "heart," and "integrity"
- Accountable for formal compliance (i.e. background checks, trainings, waivers, insurance)
- Collaborated closely with vendors to design, order, pay for, and deploy camp apparel
- Accepted as one of fourteen graduate and post-Doc trainees to deeply examine *Drosophila* studies
- Managed financial camp accounts through the school's financial center
- Intensive all-day courses including labs with experts in *Drosophila* genetics, Circuitry, and Behavior
- Created detailed event itineraries and presented numerous formal presentations

**Counselor** | Fish Camp, Texas A&M | College Station, TX | Spring 2020 – Fall 2020, Spring 2021 – Fall 2021

- Prepared presentations, creative educational skits, and orientation activities for the freshmen
- Designed digital banner and apparel concepts
- Maintained year-long mentorship with 12 freshmen each year through planned gatherings and ad hoc meetings
- Identified physical, reputational, emotional, financial, and facilities risks as well as mitigations strategies

**Texas Society for Circadian Biology and Medicine Conference** | 2<sup>nd</sup> Place Winner in Poster Contest | April 2024

- Presented poster amongst other circadian post-Docs, graduate, and undergraduate students

**Cold Spring Harbor Laboratory Course "Drosophila Neurobiology: Genes, Circuits, and Behavior"** | June-July 2024

- Accepted as one of fourteen graduate and post-Doc trainees to deeply study *Drosophila* research techniques
- Intensive all-day courses including labs with experts in *Drosophila* genetics, Circuitry, and Behavior

## ADDITIONAL SKILLS

- Microsoft Office, PyMol, R, GitHub, Galaxy, Ensembl, NCBI Blast, Photoshop, PubMed, IGV, EndNote, RegEx
- Certifications: Excel Essential Training (Microsoft 365), CPR/AED, Hazard Communication and Lab Safety
- Other Skills: Strong oral and written communications, conflict management, leadership, event planning
- Personal Interests: Illustration (Published Spring 2023), animation, video production