**University of Maine**

**Job Description**

**TITLE:** Research Assistant

**DATE:** May 2022

**DEPARTMENT:** School of Biology and Ecology

**REPORTS TO:** Professor of Biological Sciences

**Purpose:** This position will investigate skeletal muscle development and disease using the zebrafish model. Research is focused on understanding the molecular and cellular mechanisms underlying altered neuromuscular development in a dystroglycanopathy model, and how NAD+ improves neuromuscular development in zebrafish models of dystroglycanopathies.

**ESSENTIAL DUTIES/RESPONSIBILITIES:**

* Fish Husbandry: Stock keeping and maintenance of approximately 30 fish lines (includes PCR genotyping).
* Provides technical assistance to all lab members including genetic engineering, microinjections of DNA, RNA, and dyes, cell transplantation, immunohistochemistry, confocal and light sheet microscopy.
* This position will also entail extensive image data analysis.
* Develops and maintains professional relationships that reflect courtesy, civility, and mutual respect.
* Builds productive relationships with internal and external constituencies.
* Utilizes coaching and mentoring methods which provide an environment that is anticipatory, supportive, and encourages constructive feedback on performance.
* Commits to organizational improvement by identifying opportunities to improve, and recommending possible alternatives for a situation.
* Performs other reasonably related duties as assigned.

**KNOWLEDGE/SKILLS QUALIFICATIONS:**

**Required:**

* Typically has the education associated with a Bachelor’s or Master’s Degree in Biology, Cell Biology, Developmental Biology, Optical Microscopy, or Molecular Biology or related field or equivalent combination of education and experience.
* 1 year of laboratory experience or more (can be during undergraduate education if extensive research experience was acquired, e.g. a thesis project).
* Required skills to include:
  + Confocal microscopy.
  + Light-Sheet microscopy.
  + Adept in CRISPR-Cas9 mediated genetic engineering.
  + Familiar with Gateway system to generate constructs.
  + Able to inject zebrafish embryos.
  + Molecular biology skills include HRM analysis, sequencing analysis.
  + Familiarity with Fiji and Aivia for image analysis.
  + Must be highly motivated and organized, prudent in time management and capable of juggling multiple tasks and competing priorities.
  + Quick to learn new skills on the job and work independently.
  + Excellent interpersonal, communication and problem solving/analytical skills and the ability to interact professionally with all levels of students and staff. Must be a team player.
  + Critical thinking skills and attention to detail.
  + Oversees purchasing, inventories and maintenance of laboratory equipment, supplies, reagents and stock solutions. Communicates with vendors regarding service contracts, maintenance and repairs.

**Preferred:**

* Prior experience with zebrafish, molecular biology, confocal microscopy, image analysis, CRISPR-Cas9 mediated genetic engineering.

**SUPERVISORY RESPONSIBILITY:** Supervision of 1-2 undergraduate student workers.

**WORK ENVIRONMENT/DYNAMICS:** Employee will be located in 215 Hitchner Hall. Work is carried out in a typical molecular laboratory setting and in a typical office environment.

**WORK YEAR:** Full-time, fiscal year position.

**WORK SCHEDULE:** Normal University of Maine business hours are Monday through Friday 8:00 a.m. to 4:30 p.m. Due to the nature of the position, work beyond regular hours (to include evenings and weekends) will be necessary to meet the requirements of the position. The employee shall establish regular office hours and in consultation with the supervisor, adjust the work schedule as appropriate.

**POSITION TYPE:** Soft Money Grant funded. Contingent on funding and successful performance.

**SCHEDULE FOR EVALUATION:** In accordance with UMPSA agreement

**JOB FAMILY/ SALARY RANGE:** 04**/**01

Appropriate background checks are required.

All UMS employees are required to comply with applicable policies and procedures, as well as to complete applicable workplace related screenings, and required employee trainings, such as Information Security, Safety Training, Workplace Violence, and Sexual Harassment.