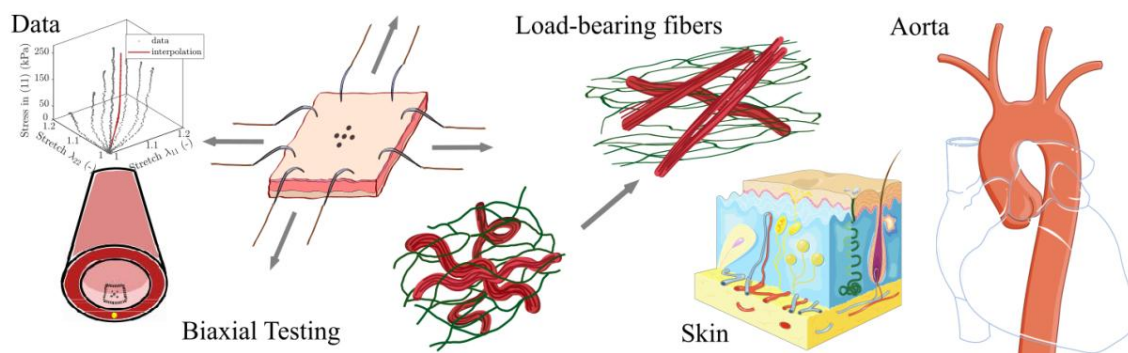


Position overview

The TauMechLab (Biological Tissue Mechanics Lab) at the University of Calgary, co-led by Dr. Tais Sigaeva, Assistant Professor, is currently recruiting Graduate Research Assistants for M.Sc. or Ph.D. positions in Mechanical and Manufacturing Engineering (MME) or Biomedical Engineering (BME). The Lab's research focuses on the Characterization and Modeling of Soft Biological Tissues, including skin and aortic tissues, at the intersection of engineering, biology, and medicine.

Anticipated Starting Date: 2027.

Anticipated Project Description: The project will focus on developing advanced techniques for the biomechanical analysis, characterization, and modeling of soft biological tissues, with an emphasis on load-bearing fibers, their heterogeneity, and variations across healthy, pathological, and aged states. Researchers will explore tissue behavior under multiple loading types in both quasi-static and dynamic regimes, combining mechanical testing with computational modeling to understand how fiber networks contribute to tissue function and how these properties change with disease or aging.



Requirements:

B.Sc. or M.Sc. in engineering, kinesiology or applied mathematics, with a minimum of 3.5 on a 4.00 GPA scale. Must meet admissions requirements for desired academic program ([MME MSc](#), [MME PhD](#), [BME MSc](#), or [BME PhD](#)). Familiarity with solid mechanics (measures of stress and deformations, Hooke's Law), mechanical characterization (e.g., indentation, suction, torsion, shear, uniaxial, or biaxial testing), and statistics. Strong interest of working with tissues. Matlab, Python programming skills, experience with finite element analysis would be an asset. Prior publications and/or research experience are preferred. Ability to conduct independent research. The successful applicant is expected to participate in biosafety, ethics, and EDI training. Students with external scholarship funding will be considered regardless of current availability of open positions. **Application:** Potential candidates interested in the position can contact Dr. Tais Sigaeva via the LAB email (taumechlab@gmail.com), by sending a CV/resume, transcripts, a short statement of interest, 1-2 sample publications (optional) and, for candidates about to complete their degree program, the expected graduation dates. Please use email subject line: "Application for a Position in Soft Tissues' Biomechanics".

Note: Please note that only top-listed candidates will be contacted due to the volume of applications. To ensure your application is reviewed, please refrain from using Dr. Sigaeva's work email address.