



Master Thesis

FeHBI - Influence of sex hormones on the biomechanics and injuries of the lower extremities in female recreational athletes

The FeHBI study is currently running at the ZHAW Zurich University of Applied Sciences. The study was initiated because ligament injuries to the knee and ankle are very common and have serious consequences. They impose high costs on the healthcare system and can have a negative impact on athletic careers or sports activities. Women have a significantly higher risk of sustaining a ligament injury compared to men. Evidence suggests that the risk of injury may depend on the menstrual cycle. The goal of this research project is to understand the relationship between female hormone profiles, biomechanics during physical activity, and ligament injuries among female recreational athletes.

Students can complete their master's thesis as part of this project.

Tasks During the Master's Thesis

- Data processing using Vicon Nexus and MATLAB
- Assistance with data collection in the motion capture lab

Master's Thesis Topic

The specific research question for the Master's thesis will be determined by the student in collaboration with the advisor after the thesis project begins.

Student Profile

- Interest in working with research data and new analysis methods
- Good communication skills, ability to work in a team, and some flexibility in working hours

Students will be part of the project team, which also includes bachelor's, master's, and PhD students, as well as research staff. The work location is at the ZHAW School of Health Sciences in Winterthur (Katharina-Sulzer-Platz 9).

We look forward to hearing from you with a cover letter and resume.

Supervisor

Prof. Dr. Eveline Graf, Projektleiterin, eveline.graf@zhaw.ch

For more information about the study, visit the [FeHBI project website](#)