BIOTECHNOLOGY
Emerging technology for proteomics and genomics provides a powerful platform that transforms both basic understanding of and biotechnology applications for life sciences. Through the Discovery Center, the University of Wisconsin-Stout, Wisconsin’s Polytechnic University, provides proteogenomics faculty expertise, educational programs, and service facilities to enable basic research and product development in fields such as:

- Functional and comparative genomics
- Proteomics
- Bioinformatics
- Personalized medicine
- Medical microbiology
- Drug discovery
- Plant sciences
- Ecology and the environment
- Evolutionary biology
- Systems and computational biology
- Food science

The Genomics Technology Access Center (GTAC) provides an open-access, multi-laboratory facility to support highly collaborative and interdisciplinary research and educational initiatives. GTAC offers a variety of genomics and proteomics services and access to specialized equipment and resources for UW-Stout students and faculty as well as for external academic and corporate partners.

SELECT SERVICES
- Proteomics and genomics consulting
- Chemical library toxicity and efficacy zebrafish assays, including vascular transport and cardiotoxicity assays
- Functional and comparative genomics zebrafish assays
- Real-time qPCR and differential display expression analysis

STUDENT INVOLVEMENT
Collaborative faculty-led teams from all disciplines interact in the Life Sciences Learning Community to conduct academic and corporate research projects. Students participate in proteogenomics activities via volunteer experiences, employment, independent research and capstone courses for Bachelor of Science degrees in Applied Science or Applied Math and Computer Science. Visit: www.uwstout.edu/programs/ugrad.shtml

ACTIVITIES
Medicine: Key collaborations with Marshfield Clinic and UW-River Falls to investigate gene expression in tumor stem cells

Global Collaboration: Development of a scientist/study abroad program with the Institute for Genomics and Integrative Biology, Delhi, India

Education: Joint development of a Biomedical Sciences Master’s degree program with UW-River Falls and Marshfield Clinic

Awards: Prototype development fund from WiSys to evaluate a patent-pending novel gene promoter