

Tuesday, Dec 01, 2015

Two Biological Sciences students showcase research at international genetics conference in Japan

Two Biological Sciences students recently returned from a trip with their faculty mentor, Dr. Randal Westrick, where they presented their research at the **International Mammalian Genome Conference** in Yokohama, Japan. Their research is focused on the genetics of blood clotting as it relates to cardiovascular disease.

Marisa Brake, a senior majoring in Biological Sciences, and Amy Siebert-McKenzie, a Biological and Biomedical Sciences doctoral student, were among 157 presenters at this international conference.

Brake, one of only two undergraduates attending the conference, presented her work on the identification of genes regulating abnormal blood clotting (thrombosis).

“Although thrombosis is 60% heritable, the majority of the genetic risk is still unknown. The identification of the genes involved in this pathological process will significantly advance our ability to predict and treat thrombosis,” says Brake.



Marisa Brake, a senior majoring in Biological Sciences, and Amy Siebert-McKenzie, a Biological and Biomedical Sciences doctoral student, recently presented their research in Japan.

Siebert-McKenzie is looking for ways to lower heart attack risk by lowering the PAI-1 protein within the blood platelets. This protein has been shown to be consistently elevated in persons with cardiovascular disease. Platelets are tiny cells that play a major role in heart attacks and deliver PAI-1 and other blood clotting proteins directly to the blood clots that cause heart attacks. Siebert-McKenzie is examining the gene regulation of PAI-1 and has found a genetic regulatory region for platelet PAI-1. She won both a student travel award to attend the conference as well as an Outstanding Presentation award for her presentation at the conference.

Of the experience, the students said it was amazing, providing a cultural experience they will never forget, including a traditional Japanese dinner and opportunities to visit ancient temples and monuments. The pair also agreed that it was an adventure navigating the multitude of trains, buses and subways of the Tokyo/Yokohama area.