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OU team travels to Germany to share research, promote collaboration

Oakland University students Alex Johnston and Marisa Brake, who work with Randal Westrick, Ph.D., in the Department of Biological Sciences, recently travelled over 4,000 miles to Heidelberg, Germany to attend a conference on mammalian genetics and genomics hosted by the European Molecular Biology Laboratory (EMBL).

“The Biological Sciences Department here at OU has a long tradition of supporting undergraduate research,” Johnston said. “Being a student in Dr. Westrick’s lab has opened the door to several new opportunities and experiences, including the EMBL conference.”

According to the EMBL website, the conference provided an international forum for sharing cutting-edge research in genetics and genomics that addresses fundamental areas of mammalian biology, including epigenetics and gene regulation; human disease modes; translational and systems genetics; development and stem cells; and cancer and immunology.

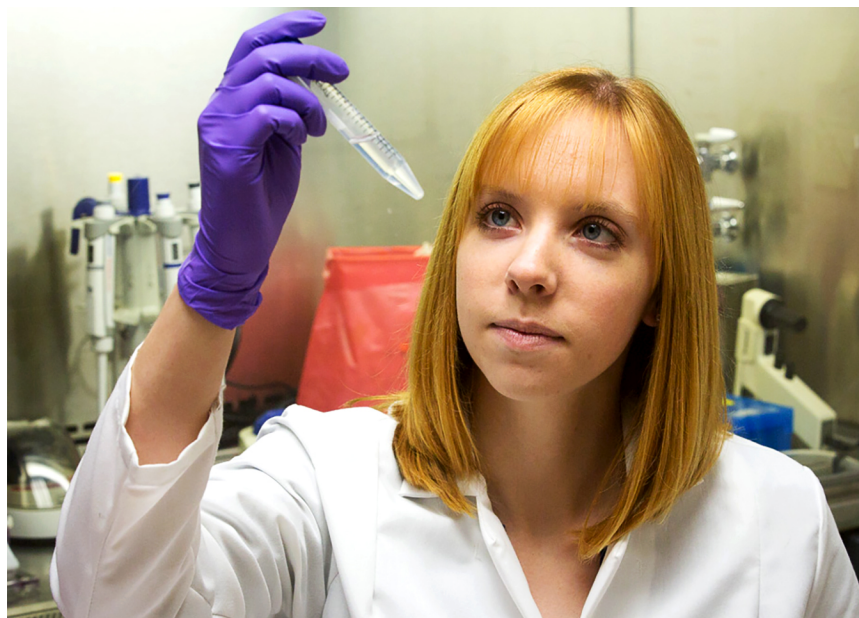
It featured presentations by established and junior investigators, including trainees, as well as trainee mentoring events, workshops and networking opportunities.

“During the trip, Dr. Westrick gave a talk at the Technische Universität Dresden and was able to initiate a new collaboration with faculty there,” Johnston said. “This collaboration will likely lead to larger international projects with Technische Universität Dresden.

“We were also able to meet with some of our existing collaborators during the conference to address some of the future directions with our research projects,” he added. “Overall, I believe this experience has added to the level of research that takes place here at Oakland University.”

At the conference, Brake, a Ph.D. student, was one of 16 students selected to talk during the Trainee Symposium, which is a forum for graduate students to give an oral presentation of their work to an audience consisting of their peers and professionals in the field.

“Not many people get opportunities like that so early in their scientific career,” she said. “I am grateful for the experience. I received valuable insights into my project and even developed new collaboration with another lab, all because I had the opportunity to give an oral presentation.”



Marisa Brake, a Ph.D. student at Oakland University, recently accompanied Dr. Randal Westrick and undergraduate student Alex Johnston to Heidelberg, Germany to attend a conference on mammalian genetics and genomics hosted by the European Molecular Biology Laboratory (EMBL).



For Johnston, an undergraduate student at OU, the highlight of the trip was receiving the “Outstanding Presentation” award for a poster he presented at the conference.

“The poster was about plasminogen activator inhibitor-1, otherwise known as PAI-1, which is a protein that plays an important role in regulating blood clot formation,” Johnston said. “Elevated levels of PAI-1 in mammalian blood causes an impaired breakdown of blood clots and increases the risk of developing life-threatening clots that can travel throughout the vasculature, including to the heart, where they can cause a heart attack.

“I have worked under the guidance of Amy Siebert-McKenzie (a Ph.D. graduate student) to identify a genetic regulatory region of PAI-1 and we are now working on finding the genetic variant that causes different PAI-1 expression levels,” he added. “Being able to identify this PAI-1 expression variant will lead to new treatment options for controlling PAI-1 expression levels for those suffering from cardiovascular disease.”

According to Johnston, there were 92 posters shared at the conference, but only five were presented with awards.

“It was a tremendous honor and an absolute joy to have presented some of our work,” he said. “I strongly encourage other undergraduates to get involved with research while at Oakland University, as this involvement has had a positive impact on my life.”

Alexander Johnston