University of Lethbridge News Release

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Summer time is research time for six local high school students

Media are invited to attend the HYRS wrap-up event and poster presentations on Wednesday at 1 p.m. in the Markin Hall Atrium.

Summer time usually gives high school students a break from learning, but six local students have spent most of their summer getting educated about research instead.

The Heritage Youth Researcher Summer (HYRS) program, funded by Alberta Innovates Health Solutions (AIHS), gives students in Grade 11 the chance to spend six weeks participating in health-related scientific research labs and research centres at the University of Alberta, the University of Calgary and the University of Lethbridge.

Grace Forster, who will be entering Grade 12 at Lethbridge Collegiate Institute in September, is one of six HYRS students at the U of L this summer. She applied to the HYRS program because she enjoys the sciences and thought the program would help her find out if she enjoys laboratory work and whether she wants to study science after high school.

She began working in Dr. Gerlinde Metz's lab on July 8, analyzing data from a research study into the effects of travel stress on mice.

"We do a lot of stress research in the Metz lab. One of the things that isn't typically controlled very well is shipment stress," says Forster. "Almost every laboratory gets animals

shipped because most don't have the capacity to maintain breeding colonies that will be big enough. We're essentially looking at how shipment stress affects basic motor function in adult mice."

To gauge motor function, Forster took measurements of stride length, distance between the hind feet and rotation of the feet in a sample of travel-stressed mice. These measurements were compared to those gathered from a sample of mice bred in house. Forster spent the first three or four weeks completing the data set, which involved a lot of painstaking hand measurements.

"We found that the shipment-stressed animals had significantly shorter stride lengths, which indicates they would have less postural stability and slower walking speeds," says Forster. "They would respond differently to the behaviour and motor tests."

The results show that findings from research studies could be skewed if both in-house mice and shipment-stressed mice are used in the same project. Forster says the results point to a need to use only one kind of mouse in a research project to ensure consistency.

During the HYRS program, Forster helped out with a variety of other projects, too. She learned how to handle mice, weigh pups and mothers and measure their body circumference. In addition, the HYRS students took part in educational tours, attended brown bag lunches with panels and presentations, and heard from university professors and university students about their scientific careers.

"We had the opportunity to visit the gross anatomy lab in Calgary (the cadaver lab at the University of Calgary medical school), which was very interesting," she says. "That was one of the coolest experiences."

The HYRS students also had some fun — Forster's favourite activity was The Great Escape, a live-action, escape-the-room adventure.

She wouldn't hesitate to recommend the HYRS program to other high school students.

"I don't think there's anything else like this program that can give high school students the type of experience in the sciences that can make an impact on their university education or their careers," she says.

Other HYRS students at the U of L include Eyram Asem, a Winston Churchill High School (WCHS) student, who worked in Dr. Robbin Gibb's lab and Kai Bailey, from Chinook High School, who worked in Dr. Bryan Kolb's lab. Kate Chua, from Catholic Central High School (CCHS), spent time in Dr. Robert Sutherland's lab and Anileen Pageni, a WCHS student, worked in Dr. Ute Kothe's lab. Daniel Rocca, a student from CCHS, worked in Dr. Hans-Joachim Wieden's lab.

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