



University of  
Lethbridge

**NEWS RELEASE**

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## **Lethbridge iGEM teams hit the ground running**

The University of Lethbridge iGEM (International Genetically Engineered Machines) teams are once again demonstrating their innovative spirit.

The collegiate team is attempting an ambitious project inspired by the works of Banting and Best, the researchers who were the first to extract and administer insulin in 1922, later selling their patent to the University of Toronto for a dollar.

Now, almost a century later, diabetes mellitus affects approximately eight per cent of the global population and the price of insulin is soaring. The collegiate team aims to democratize insulin production as an oral alternative in recombinant microalgae. Their project designs have already been validated by GeekStarter, who awarded them \$2,000 for demonstrating the think-design-test cycle for lean start-ups. Additionally, they were also one of 10 teams at iGEM to receive an Opentrons OT-2 Pipetting robot (value \$10,000) that they will use to improve their measurement standards. They hope to continue their success throughout the season as they demonstrate their project's value through various wet-lab experiments and participation in the 2019 iGEM Jamboree.

Meanwhile, the Lethbridge High School team presented its project as part of the GeekStarter 2019 High School Jamboree, hosted by Our Lady of the Snow Catholic Academy in Canmore. Teams from Lacombe, Fort McMurray, Calgary, Edmonton, and Canmore also competed. Team members Shada Aborawi, Rachel Avileli, Thomas Byrne, and Elisha Wong, all first year iGEM participants, made their team proud during the presentation. Judges agreed and awarded the Lethbridge team the Best Potential Impact award.

The high school iGEM team's project will utilize synthetic biology to help fight the growing threat of antibiotic resistance. The team aims to develop a rapid diagnostic device to help identify bacterial pathogens, resulting in more specific antibiotic prescriptions. The team will also design a therapeutic that can be used against bacterial infections. More project information will be available in their forthcoming [BioTreks](#) paper.

"I love the interdisciplinary aspect of iGEM," says Linda He, a Chinook High School Grade 10 student. "I get to learn wet lab skills, coding skills, and marketing skills but I also get to talk to people in our community, experts in the field and work as a team."

The team is made up of students from Winston Churchill High School, Lethbridge Collegiate Institute, Chinook High School and Catholic Central High School.

Follow the high school team: Twitter [@LethHS\\_iGEM](#) and Facebook [@lethbridgehsiGEM](#)

Follow the U of L team: Twitter [@LethbridgeiGEM](#) and Facebook [@LethbridgeiGEM](#)

This news release can be found online at [iGEM teams](#).

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**ABOUT GeekStarter:**

GeekStarter engages students in finding and solving authentic problems, and building solutions based in emerging Science, Technology, Engineering, and Mathematics (STEM) fields. The project-based learning experience culminates in inspiring community events and prestigious international competitions, where students share their research and innovations with other young scientists as well as with leaders in STEM. Through emphasis on multi-media presentations and networking, these events provide students with opportunities to celebrate their successes and build a community of peers across Alberta and the world.

**ABOUT iGEM:**

iGEM, the International Genetically Engineered Machine Competition, is the largest synthetic biology community and the premiere synthetic biology competition for both university and high school level students. iGEM inspires learning and innovation in synthetic biology through education, competition and by maintaining an open library of standard biological parts, the Registry of Standard Biological Parts. Combining molecular biology techniques with engineering concepts, students work in interdisciplinary team to create novel biological systems. At the beginning of the competition season, each registered team is given a kit of 1,000+ standard interchangeable parts called BioBricks from the Registry of Standard Biological Parts. Working at their own schools, teams use these parts and new parts of their own design to build, test, and characterize genetically engineered systems and operate them in living cells in an effort to address real-world issues. Along with submitting their newly created BioBricks to the Registry of Standard Biological Parts, teams are required to actively consider the safety implications of their work and document their projects on team wiki pages. At the end of the competition season, teams converge at the Jamboree event to showcase their research. Teams present their work through posters and oral presentations, and compete for prizes and awards, such as the coveted BioBrick trophy.

For more information about iGEM, visit their [website](#).