



University of  
Lethbridge

## NEWS RELEASE

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# University of Lethbridge researcher receives Banting Discovery Award

[Dr. Jessica Willi](#), an assistant professor in the [Department of Chemistry & Biochemistry](#) at the University of Lethbridge, is one of 10 scientists to receive a [2025 Banting Discovery Award](#) worth \$30,000 and the first to receive the award at ULethbridge.



The [Banting Discovery Foundation](#) recently announced its 100th cohort of Discovery Award recipients. The award is for new investigators who are in their first three years of academic appointment to help them establish their independence and trajectory in research related to health and well-being. In addition to conferring prestige, the awards also help researchers attract more funding.

“I’m extremely grateful for this funding from the Banting Discovery Foundation,” says Willi. “Antibiotic resistance is a growing threat to public health, and through my research, I want to help provide innovative solutions to this problem. This money will finance our lab’s supplies and employ student researchers here at ULethbridge. It’s the spark that will start a whole new branch of research for my team.”

“Dr. Willi has been an outstanding addition to the Department of Chemistry & Biochemistry, and accordingly, I am absolutely thrilled she has received the prestigious and highly competitive Banting Discovery Award,” says Dr. Paul Hayes, professor and department chair. “I had the pleasure of reading Dr. Willi’s application, which was extremely well written and creative. She is unambiguously a rising star who will help define the future of synthetic biology, chemistry and human health.”

Willi’s research project will examine how some bacteria can evade antibiotics.

“Antibiotics are life-saving drugs thanks to their ability to fight bacterial infections in humans and animals,” she says. “Most antibiotics do this by binding to the ribosome and

blocking protein synthesis, which causes the bacteria to stop growing and die. But not all ribosomes are the same — they have some natural variations in their RNA. My project will test how the natural variation of *E. coli* ribosomes helps bacteria change and evade antibiotics. We are interested in what happens right before bacteria gain full-blown resistance.”

Unlocking that mechanism will help safeguard last-resort antibiotics and aid researchers in creating newer drugs that are harder for bacteria to evade.

Willi received her PhD in biochemistry and molecular biology from the University of Bern, Switzerland. After doing postdoctoral work in the United States at Northwestern University, Willi joined ULEthbridge. She focuses on ribosomes by studying the natural functions of RNA and protein synthesis to find new ways to combat bacterial infections.

**About the Banting Discovery Foundation:**

Formerly named the Banting Research Foundation, the Banting Discovery Foundation is a Canadian charity that provides seed grants to budding biomedical researchers, many of whom have produced key findings that have transformed the practice of medicine and health care, reduced illness, and improved wellness.

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*Our University’s Blackfoot name is Iniskim, meaning Sacred Buffalo Stone. The University is located in traditional Blackfoot Confederacy territory. We honour the Blackfoot people and their traditional ways of knowing in caring for this land, as well as all Indigenous Peoples who have helped shape and continue to strengthen our University community.*