University of Lethbridge

News Release

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CREATE grant funding to support development of RNA Bioengineering and Innovation Network

The Government of Canada announced Monday that the University of Lethbridge, in partnership with the Université de Sherbrooke, has been awarded $1.65 million over the span of six years to develop the RNA Bioengineering and Innovation Network Collaborative Research and Training Experience (CREATE).

The Honourable Kirsty Duncan, Minister of Science and Minister of Sport and Persons with Disabilities, announced $29.7 million in CREATE grants to 18 Canadian research teams across the country that are working to further discovery and innovation in areas such as environmental protection, green energy and advanced manufacturing. The teams include a wide range of collaborators from several countries, including Germany, France, Australia, the United States, Switzerland and Brazil.

“When young Canadians choose science, programs like CREATE empower them to pursue their ambitions and gain the hands-on experiences they need to launch their careers,” says Duncan. “Thanks to the worldwide interdisciplinary connections they will build through this program, these talented young researchers will further Canada’s reputation as a leader in research and innovation.”

The CREATE Program improves the mentoring of, and training environment for, the Canadian researchers of tomorrow by improving areas such as communication, collaboration and professional skills, and providing experience relevant to both academic and non-academic research environments.

The U of L’s principal investigator on the project is Dr. Hans-Joachim Wieden, a Alberta Innovates Strategic Chair in RNA Bioengineering, Tier I Board of Governors Research Chair in Biomolecular Design and Function and the founding director of the Alberta RNA Research and Training Institute (ARRTI). He maintains, due to the fundamental role that

RNA-mediated processes play for all living systems, that the next revolution in biotechnology will be the age of rationally designed Ribonucleic acid (RNA)-based systems, molecular machines and devices. Wieden points to the emergence of commercially-successful RNA-based therapeutics and pesticides as examples.

“As manufacturing and production floors become higher tech through advances in biology, materials science and computer applications, it is critical that trainees receive the most advanced and broad education possible in order to be leaders in their careers,” says Wieden. “Compounded by the labour shortage projected by the Government of Canada in this key economic sector, we propose to establish an industry-driven Bioengineering and Innovation Training Network with emphasis on innovative RNA-based technologies.”

The University of Lethbridge and the Université de Sherbrooke are recognized as the country’s leading RNA-research institutions and through this grant, look to jointly train job-ready leaders and innovators in the emerging biotechnology field.

“The innovation potential of RNA Bioengineering has implications in an incredibly diverse range of applications including bioconversion for renewable energy sources, detoxification, recovery from mining tailings, green chemistry and environmental monitoring,” says Wieden.

The institutions propose to establish entrepreneurial research and development challenges, coupled with an extensive internship program that strongly integrates private sector participation.

“The focus here will be on knowledge transfer and migrating students/trainees into the workforce who are job ready,” he says. “This is a critical aspect for accessing the many applications of RNA-based technologies that are developed in our research institutions.”

The timing for the grant support is ideal. With the completion of the University’s new Science and Academic Building on the horizon, the new RNA Bioengineering and Innovation Network CREATE will greatly benefit the new facility, the Synbridge Make Space and the transdisciplinary integration of research activities.

To view online: http://www.uleth.ca/unews/article/create-grant-funding-support-development-rna-bioengineering-and-innovation-network

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