



For immediate release — June 7, 2016

## **University of Lethbridge receives grant to help train the next generation of space scientists and engineers**

A proposal developed by Dr. David Naylor of the University of Lethbridge's Astronomical Instrumentation Group (AIG) has won a \$500,000 grant from the Canadian Space Agency.

The Flights and Fieldwork for the Advancement of Science and Technology (FAST) grant will allow the U of L to train up-and-coming astronomers and engineers while contributing to Canada's ability to play leading roles in future space astronomy missions.

Additional support in cash and in kind from the U of L and several industrial partners, including ABB, a global leader in power and automation technologies and one of the main partners in the Solar Impulse plane, the Netherlands Institute for Space Research, QMC Instruments, Zeeko Ltd., and Blue Sky Spectroscopy, bring the total to roughly \$1.2 million.

Naylor says more than 90 per cent of the funds will go to training students as they develop a cryogenic Fabry-Pérot interferometer mechanism for Safari, one of the core instruments being planned for SPICA, a space observatory that will orbit around the second Lagrangian point 1.5 million kilometres from Earth. SPICA is a joint mission between the European Space Agency (ESA) and the Japan Aerospace Exploration Agency (JAXA) expected to be launched in the late 2020s. Because of its super-cooled telescope, SPICA will be more than 100 times more sensitive than the pioneering Herschel Space Observatory.

Instruments being developed for SPICA must operate at extremely cold temperatures and the U of L's AIG has both the expertise and the cryogenic test facility to develop such instruments.

"Proposals submitted to the FAST program had to demonstrate that the training would take place in a realistic space environment, which could include such things as rocket or balloon launches," says Naylor. "Since Herschel and SPICA are both cryogenic systems at extremely low temperature, our cryogenic test facility, while it is earth-bound, is the most realistic space environment.

Naylor says one of the strongest drivers for technology development is space exploration and he expects the Fabry-Pérot technology will be used in other space missions.

“This project builds on the legacy of Herschel and paves the way for an even greater contribution to SPICA and other missions on the far infrared roadmaps of NASA and ESA,” says Naylor. “The CSA deserves credit for providing this funding to prepare the next generation of Canadians for opportunities that are on the horizon. The students trained by FAST today will become the mission scientists of tomorrow.”

—30—

**Contact:**

Caroline Zentner, public affairs advisor

403-394-3975 or 403-795-5403

caroline.zentner@uleth.ca