



University Communications

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U of S researchers take on global Grand Challenges in cancer, nutrition, and nursing education

Saskatoon – Three University of Saskatchewan researchers are partnering with colleagues in Vietnam, Bangladesh, the Philippines and Russia to provide low-cost breast cancer screening, combat iron deficiency, and bring effective nursing education to rural areas.

Each research team has been awarded a \$112,000 seed grant by Grand Challenges Canada through their Stars in Global Health program. The three are among 65 grants across the country announced May 22nd.

"This funding backs the work of our researchers with impact far beyond our own borders, with benefits in health care and nutrition for some of the world's most vulnerable populations," said U of S Vice-President Research Karen Chad. "It also creates opportunities for our students to acquire both skills and a sense of how they can contribute at home and on the international stage."

Lorna Butler, dean of the College of Nursing, is partnering with colleagues Carmelita Divinagracia from the University of the East, Ramon Magsaysay in the Philippines and Nikolai Semenovich Diachkovskii from Northeastern Federal University in Yakutsk, Russia to address the shortage of nurses in rural areas. The team's strategy is to use technology to develop the university's ability to provide nursing education to these remote communities. This will allow local people to get the training and clinical practice they need right where they live. The goal is to create a stable, home-grown health care work force that will be the foundation for better health care in the rural Philippines and Russian Far East.

Anh Dinh, a professor of electrical and computer engineering is working with biomedical engineering professor Toi Vo at the International University in Vietnam to develop a low-cost screening device for breast cancer, which kills more Vietnamese women than any other cancer. Early detection and screening programs, including mammograms, are not popular in Vietnam, even when they are available. Dinh and Vo are building a proof-of-concept prototype of an ultra-wideband device to provide an alternative to mammograms to help doctors identify breast tumours.

Bert Vandenberg, a professor in the Department of Plant Sciences and pulse crop breeder, along with Carol Henry and Gord Zello at the Department of Nutrition, are working on a <u>diet-based solution</u> to iron deficiency with Zeba Mahmud, Kaosar Afsana, and researchers at the James P Grant School of Public Health, BRAC University. The research team will evaluate the perception and acceptance of iron-fortified lentils in Bangladeshi population. Lentils are a staple in South Asian diets, which is widely consumed as dhal on a daily basis. Iron is an essential nutrient, particularly vital to health, growth and development in children and good health in adults. Its lack will lead to iron-deficiency anemia, impaired growth and development in children, reduced productivity in adults, and in severe cases morbidity and death.

Grand Challenges Canada backs "bold ideas with big impact in global health" that integrate science and technology, social and business innovation to find sustainable solutions to health challenges. Funded by the Government of Canada, the agency supports innovators in low- and middle-income countries and Canada.

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