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Boost for research on infectious diseases in dairy cattle

New NSERC industrial research chair receives $1.8 million to help the Canadian dairy industry address economically important infectious diseases

A new research chair established at the University of Calgary Faculty of Veterinary Medicine will build upon extensive research efforts already underway in the faculty to assist the Canadian dairy industry in its battle against infectious diseases, such as Johne’s disease and mastitis.

“We know that Johne’s disease and mastitis have significant impacts on dairy cattle farm productivity. They are two of the most economically important diseases affecting the industry,” says Herman Barkema, the new research chair. “Through our research, we will improve the control of these infectious diseases and reduce the limiting effects they have on the productivity of the Canadian dairy industry. Improved management of mastitis and Johne’s disease would be a significant step forward for the industry.”

Barkema, a professor in epidemiology of infectious diseases with the Department of Production Animal Health, has been appointed as a Natural Sciences and Engineering Research Council of Canada Industrial Research Chair in Infectious Diseases of Dairy Cattle. Barkema is also jointly appointed in the Department of Community Health Services of the Cumming School of Medicine.

Mastitis is an inflammation of the mammary gland which can significantly reduce milk production and milk quality. It is the primary reason producers use antibiotics in their herds. The economic losses due to mastitis exceed $400 million a year in Canada.

Johne’s disease is an infectious, chronic inflammation of the gut caused by Mycobacterium avium subspecies paratuberculosis (MAP). It is a major health concern for domestic ruminants like cattle and wild ruminants like bison and caribou. There is an estimated $90 million loss to the Canadian dairy industry annually as a result.

The five year research award is funded jointly by NSERC and partner organizations: Alberta Milk, Dairy Farmers of Canada, Westgen, Dairy Farmers of Manitoba, CanWest DHI, BC Dairy Association and the Canadian Dairy Network.

“This is great news for the University of Calgary. This research program adds to the University of Calgary’s priority research theme of infections, inflammation and chronic diseases,” says Vice President (Research) Ed McCauley. “It underscores the importance of collaborative partnerships among our university, industry and government. Furthermore it demonstrates ways that research benefits society.”

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About the University of Calgary
The University of Calgary is a leading Canadian university located in the nation's most enterprising city. The university has a clear strategic direction to become one of Canada's top five research universities by 2016, where research and innovative teaching go hand in hand, and where we fully engage the communities we both serve and lead. This strategy is called *Eyes High*, inspired by the university's Gaelic motto, which translates as 'I will lift up my eyes.'

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