



## Food Safety Education and Research: A Failing Grade for Canadian Universities



The remarkable success in controlling many foodborne diseases must be considered one of the great achievements of public health in the past century. Due largely to public health laws, food regulatory agencies and continuous improvement by the food industry, we have almost eradicated human disease and death from many foodborne diseases such as scarlet fever, bovine tuberculosis, brucellosis, and botulism in canned food products.

Yet food safety is once again a public health issue. Because of such factors as the growth in world food trade, the scale of food processing facilities, new emerging pathogens, and an aging population, foodborne illness is now the largest class of emerging infectious diseases in Canada.

How have Canadian universities responded to this important new reality? In my experience — with some exceptions — not very well. We're still graduating vets who know nothing about trade or regulatory issues, and food scientists who couldn't pass high school civics. Most universities are generally absent from the major public debates on food safety issues and generally irrelevant to most government policy making.

There are exceptions. The University of Toronto's program in Food Safety, Nutrition and Regulatory Affairs has been a leader for many years. Guelph, Regina, Manitoba, and Dalhousie have some courses. Carleton now has courses in both food regulation and risk analysis in its new Food Science and Nutrition Program. I'm sure I've missed some, but the main point remains: Canadian universities have been generally slow in adapting their research priorities and curricula to address the important and growing challenge of food safety.

A few years ago Dr. John Frank, scientific director with the Canadian Institutes of Health Research, observed that most health research is "pretty useless" for solving real health problems. Nowhere is this more evident than in the absence of adequate research on foodborne illness. There are now more than 250 different types of bacteria, parasites, viruses and toxins that are known to cause

foodborne illness, but little has been done to translate this information so that it is useful for decision-making by food safety regulators. Regulators continue to ask for better and quicker diagnostic tools with little success. Useful research on the causes and management of foodborne illness is urgently required.

In terms of curriculum, every food science graduate should have a basic understanding of the food regulatory system and international trade law. They should understand that science and policy cannot be separated in the real world of food regulation. They need to understand the basic elements of policy-based risk management and communication and not just science-based risk assessment.

The recent announcement of the Munro Chair in Food Safety at McGill could be an important development in food safety education. Named after Dr. Ian Munro and his wife Jayne, this new Chair could make a real difference if McGill does it right. Tragically, Dr. Munro died just days after the announcement. My friend Ian was a giant among Canadian food scientists and he will be sorely missed. A former senior federal food safety regulator and then the founder of Canada's leading toxicology company, CanTox, Ian still made time to publish over 120 scientific papers, serve on countless international science bodies, and to work tirelessly to reform Canada's sclerotic food regulatory system. The McGill program and other universities could do no better than to emulate in their research and curriculum what Ian's life embodied — internationally recognized scientific leadership rooted in a solid understanding of the real world of food safety regulation. ■

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