

INRS-Institut Armand-Frappier Research Centre

INRS-Institut Armand-Frappier Research Centre is celebrating its 75th anniversary this year. Director Dr Charles Dozois joins *International Innovation* to outline the crucial research undertaken there



As Director of the National Institute for Scientific Research 'Institut national de la recherche scientifique' (INRS)-Institut Armand-Frappier Research Centre, what does your role entail?

INRS is a graduate level research university composed of four centres in Quebec, Canada. The INRS-Institut Armand-Frappier Research Centre is devoted to the life sciences. My duties as Director include hiring and evaluation of faculty, tending to the professional and academic needs of research and administrative staff, faculty and students, and coordinating and initiating interactions with potential scientific and industrial partners. This also applies to the Institut Pasteur International Network, of which our centre is a member.

To what extent do your own research interests inform your position?

I have been Professor at INRS-Institut Armand-Frappier Research Centre since 2001 and was nominated Director in 2011. I continue to be an active researcher in the field of bacterial infectious diseases, with a particular focus on pathogenic *Escherichia coli* and salmonella – both of importance to human and animal health, and food safety. My expertise fits well

within two of the major research foci of our university centre: infection and immunity, and microbiology and biotechnology.

Could you briefly outline INRS-Institut Armand-Frappier Research Centre's activities and overall mission?

Our mission is to conduct research and training of graduate students and postdoctoral researchers in the broad area of health and life sciences. We have a faculty of 40 professors whose focus falls into, or overlaps, three major priority areas that include: a) infectious diseases, cancer, immunology and epidemiology; b) toxicology and pharmacology; and c) microbiology and biotechnology. Our mandate is to make important discoveries in fundamental and applied research, and interface with industrial partners and international collaborators in order to find concrete solutions to current problems that society is facing with regards to human health, animal health and food safety, and environmental health.

Further to the above, why does the Centre focus on these three key areas specifically?

The three priority areas of INRS-Institut Armand-Frappier Research Centre cover a very broad range of questions but they all, in a large sense, either contribute to, or are focused on, science, research and applications leading to improved health for society – both locally and internationally.

How well regarded are the Centre and its researchers nationally and abroad?

INRS has contributed to advancing scientific knowledge and training highly qualified students in sectors of great strategic importance for our society: water, earth, and the environment; energy, materials, and telecommunications; human, animal and environmental health; and urbanisation, culture and society. INRS ranks first in Quebec and second in Canada in terms of grants per professor according to Canada's Top 50 Research Universities. Some important laboratories present on our campus include: the dope testing laboratory, which is internationally recognised and tests thousands of samples

from olympic and professional athletes for performance enhancing and other substances each year; the Canadian Centre for Irradiation, a joint facility uniting the expertise of MDS Nordion and INRS-Institut Armand-Frappier Research Centre; and the research groups under the direction of each of our faculties that contribute to important research advances in health and biosciences.

Are there any research projects currently being undertaken that you are particularly excited about?

I am excited about many projects underway at the Centre. Plans to relocate some of our research groups focusing on microbiology and biotechnology research areas will provide us with the opportunity to expand and renovate some of our facilities; furthermore, I am currently excited about our recruitment of new faculty members in the areas of host-pathogen interactions, immunology, microbiology and epidemiology. I am also enthusiastic about the potential for incorporating interdisciplinary approaches in the coming years such as new expertise and technologies in bioimaging and nanosciences. Next year, members of our faculty will also be hosting and organising the International Union of Microbiology Societies (IUMS) 2014 congresses (www.montrealiums2014.org), with thousands of participants expected to attend this event in Montreal in July 2014.

The Centre's 75th anniversary is underway. How do you think it will evolve in the future?

Dr Armand Frappier was a pioneer in public health and a leader in vaccine production and development. Interestingly, the heart of his legacy was based on the application of science and direct solutions to remedy health problems in society, as exemplified by his pioneering work in vaccine development. This direction is much in line with the overall mission of INRS. In the years to come, the future developments of INRS-Institut Armand-Frappier Research Centre will continue to forge forward and maintain a balance of fundamental science and basic discovery, as well as applied research and development and partnerships with industry.

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