



## Research excellence is key to Canadian innovation and prosperity

We must now build upon this achievement to become leaders in innovation on the world stage and to contribute to the making of a successful 21<sup>st</sup> century.

By CHAD GAFFIELD

**OTTAWA**—At Concordia University in Montreal, Joanna Berzowska, a professor in design and computational arts, creates high fashion from circuit boards and LEDs. In Toronto, political scientist David Wolfe discovers how businesses do better on the international market when they are located next door to their competitors. At McMaster University, Shelley Saunders, an expert in ancient Greece, develops new ways to extract DNA from human remains.

There is growing recognition today that research is the key to a country's success in the global economy. As president of the federal funding agency that supports more than 10,000 Canadian researchers and graduate students in the social sciences and humanities each year, I wholeheartedly agree. As the above examples illustrate, Canadian innovation involves political, social, cultural and ethical issues that rely on human ideas and behaviour for success.

Imagine for a moment that you are the CEO of a Canadian mining company embarking on a billion-dollar project in a foreign country. Your chief engineer is one of the best in the world; you have the technology you need. But do you understand sufficiently the local political system, the cultural context, the ethical issues, and the economic setting?

This example illustrates some of the reasons that research in the humanities and social sciences is essential to innovation in Canada and around the world. From anthropology and literature to politics and law, the humanities and social sciences build knowledge about people: what we think, how we act, why we embrace one technology and reject another—indeed, the deep complexity of human ideas and behaviour.

At the Université de Montréal, Gregor Murray is leading a multi-million dollar study into the changing work environment. His research explores the growing disconnect between what we traditionally think of as employment, and the new realities of working in a global economy. Touching on history, psychology, management and quality of life, he is uncovering new working relationships that will allow businesses to take advantage of the emerging global work environment in ways that are appropriate to 21<sup>st</sup> century convictions about justice and equity.

This project shows us how scholars now embrace both specialized and multidisciplinary approaches to studying the complex

connections between the specific and the general, the local and the international, technology and humanity. At the University of Toronto, political scientist David Wolfe leads an international

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study into the role of local industrial clusters—regions where firms and institutions involved in the same industry tend to gather together, such as Calgary's wireless industry, Waterloo's software firm cluster and the biomedical cluster of hospitals, medical researchers and pharmaceutical firms in Toronto. He has discovered that these local clusters are essential to success in the global economy.

By building research excellence across all disciplines, we prepare the way for innovative studies that match the growing complexity of the world in which we live.

Shelley Saunders, Canada



**It's about people:** Chad Gaffield, president of the Social Sciences and Humanities Research Council, says new understandings of the past and present and new imaginings of the future require us to put people in the picture on innovation.

research chair in human disease and population origins at McMaster University, investigates the value of integrating specialized knowledge and approaches in order to explain complex phenomena. As a physical anthropologist, she studies bones and teeth from archaeological sites to determine the origins of specific diseases, and their movement through the human population. While her work focuses on communities from ancient Greece, the Greek colonies and Imperial Rome, the extraction methods she developed to remove minute samples of DNA from poorly preserved remains are now used in forensic labs across the country to solve cases of missing persons and death.

In other words, new understandings of the past and present and new imaginings of the future require us to put people in the picture.

Fortunately, as Canadians, we are well-positioned to

contribute to the development of talent and knowledge about individuals, families, communities and societies. We live in multiple cultures, languages, histories, and perspectives, and we address the issues and conflicts that arise from this complexity everyday. In recent decades, we have built a made-in-Canada research community that offers some of the best thinking in the world on important global issues. We must now build upon this achievement to become leaders in innovation on the world stage and to contribute to the making of a successful 21<sup>st</sup> century.

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