

SUMMARY OF A STRATEGIC RESEARCH PLAN FOR WILFRID LAURIER UNIVERSITY

Planning and Approval Process

Laurier has been expanding its current CFI strategic plan to produce a comprehensive research plan involving all disciplines. This plan reflects emerging and future "clusters" of scholarly activity. The Laurier strategic research plan was developed at VPAC, the VicePresident's Advisory Committee. Each operating Dean brought to the table the relevant faculty interests after extensive consultation at the faculty level. The Vice-president: Academic took the plan developed in this way for discussion and endorsement to two relevant committees of the Laurier Senate: Senate Academic Planning, and the Senate Committee on Research and Publications. The plan, duly endorsed by these committees, was approved by the full Laurier Senate on January 22, 2001.

Major Objectives

Interdisciplinary research is emerging as a major emphasis in the development plans of all Laurier faculties. A prime goal in the Laurier Canada Research Chairs strategy is to appoint chairs who will create synergies among researchers in fields that cut across traditional disciplinary boundaries.

An overriding objective is to build on strengths in basic and applied research, and in student (undergraduate and graduate) research training, primarily in areas where a critical mass of faculty and students is already engaged. At an institution such as Laurier, "critical mass" can be achieved by relatively small numbers of researchers.

Equally important is the intention of building up the infrastructure in each CRC cluster by seeking funds in existing NSERC, SSHRC, CIHR, CFI, ORDCF, OIT and PREA competitions, plus any future programs of research which may emerge; as well as from private sector sources. Implicit in this objective is the desire to increase the involvement by Laurier faculty and students in provincial, national and international research networks.

Evaluation of the Objectives

Once Canada Research Chairs take up their appointments there will be regular reporting and scrutiny of the effects of those appointments on research. Each CRC will report annually to the Vice President: Academic on his/her personal research achievements for the past year; on the incremental and new research activities (contributed by other faculty and students) in the CRC area of strength; and on research plans for the next academic year.

The President, Vice President: Academic and Dean of Graduate Studies and Research will evaluate the effects on research in the relevant areas of the CRC appointees. They will present this summary to Senate, to the Board of Governors, and to the CRC Board (if requested) as part of an annual report.

Major Research Thrusts

The Laurier research environment comprises over two hundred active researchers in five faculties that are housed within a highly interactive academic community. There has long been a strong collaborative tradition within this environment, and the Research Chairs program will be used to intensify and deepen this collaboration within and across departments and faculties. The following section identifies four research "clusters" that reflect, in broad measure, the existing and planned contours of strengths, interests, and objectives of the Laurier research community. These clusters are self-consciously interdisciplinary in character, given Laurier's current research objective to create synergies across disciplines and departments. Individual departments, faculties and research teams may have researchers in more than one cluster. The clusters also provide opportunities for building partnerships with other universities and institutions.

A. Culture And Human Experience

Our understanding of what it is to be human, and how humans function individually and collectively, has evolved over the past few decades. The challenge of understanding "human experience" has cultural, scientific and humanistic dimensions, requiring a range of integrated skills and approaches.

Laurier's roots lie in the liberal arts and science tradition, with its humanistic values and aspirations. Laurier focuses strongly on the value of the individual, and is well connected to and grounded in community and cultural activities. This history and approach are reflected in a variety of research endeavours across the disciplines and faculties. Faculty in the Arts area deal with: the ethical and religious dimensions of community and identity; ancient, aboriginal and tribal cultures and the impact of modernity; imperial as well as post-colonial and diasporic literature and culture; the gender, class and cultural dimensions of human experience; the historical sweep of human and cultural development; and (with colleagues in Music) approaches to aesthetics and criticism. Researchers in Psychology and Kinesiology explore culture and human development in a myriad of ways, including the ways in which social and cultural contexts affect cognition, identity, values, family relations, learning and individual and community well-being. Researchers in Social Work, particularly via a recent CURA grant, examine social support systems for children and families. Faculty members in business and economics investigate the interaction of individuals within organizations, the relationship of corporate and personal life, and the ethical dimensions of business culture. Research activity within this cluster in the future is likely to emerge in a number of interdisciplinary thrusts that animate many of our interdisciplinary academic programs. These themes will range from ancient and modern historical studies to Canadian, aboriginal and gender studies to social, developmental and community psychology, to the impact of business in national and global cultures and the exploration of music around the world. Areas such as History, Film Studies, Communications, Fine Arts, Music and Literature will work together to generate academic programming and research activity in the broad area of cultural studies. This will intersect with the growing activities in graduate programs in History, English, Philosophy, Psychology, Religion and Culture. Faculty in Business and Economics (and in other areas) will examine how best to manage and affect the impacts of the new technologies. Several explore the ethical issues that arise in the business environment. Faculty in Science and Social Work will

build on their ongoing interdisciplinary activities on human and community development.

B. Society and Public Policy

The public policy challenges confronting twenty-first century society remain problematic. Interdisciplinary research, spanning the sciences, humanities and social sciences, seeks to understand these challenges and to increase our capacity to deal with them.

Much of Laurier's research activity has an applied character, a community base, and a policy- or action-orientation. This reflects our strong links with a number of policy-forming communities, including business and industry, social work, and the public sector. Such activity includes both historical and contemporary analysis of a micro and macro character ranging from a focus on the individual, the local, the community to the regional, the national, and finally the international scene. This activity is reflected in a number of Laurier's Research Centres, including the Centre for Military, Strategic and Disarmament Studies, the Institute for the Study of Public Opinion and Policy, the Clarica Financial Services Research Centre, the Research Group for European Studies. Researchers in the School of Business and Economics focus on policy and on corporate performance areas. Research is done in areas such as macroeconomics, national infrastructure, corporate and fiscal policy, stock market and financial performance, organizational behaviour, and accountability in the public and not-for-profit sector. In the faculties of Arts and Social Work, studies focus on gender, class, aboriginal and ethical issues as well as on historical and contemporary investigation of institutions, family, community, globalization, civil society and the state, and broad issues of economic, social and political development. Researchers in the Faculty of Science, such as those in community psychology, carry out action-oriented research addressing issues of gender, disability, children and family, in order to promote social well being, while others explore sports organization and policy.

Research initiatives in this cluster will emanate from the growing graduate programs that intersect with these themes, including those in History, Political Science, Religion and Culture, Business and Economics, Social Work, Psychology, Geography and Environmental Studies. Issues in these topic-areas include: war and peace; immigration; human rights, justice and equality; social activism, social welfare and community development; advocacy and policy making of all kinds.

C. Environment and Health

The range and variety of Canadian health research initiatives, including those of the Canadian Institute for Health Research, demonstrate the social importance and vitality of this area. The scope of needed research ranges from the scientific and clinical to the social and organizational. Equal in importance to the human health agenda is the "health" of the natural environment. Important research ranges from considerations of the social, economic and organizational dimensions of the natural environment (and its related impacts on human health) to the ecological and scientific dimensions of that environment. Health and environmental agendas are linked.

There are many Laurier faculty active in this cluster. The music therapy program uses an

interdisciplinary approach to treat people with mental and physical disabilities, involving faculty from Music, Psychology and Social Work. Funding from the Better Beginnings, Better Futures program and the Family Wellness Project supports research in Social Work and Community Psychology related to community-based development and community mental health for children and adults. Other Psychology faculty are involved in a new Centre of Excellence for Youth Engagement funded by Health Canada. Faculty in Arts, Social Work, and Science investigate a range of public health issues, including health prevention/health promotion, coping with cancer, the geography of health. Science faculty are active in the area of cognitive and behavioural neuroscience, examining the relationship between neurobiology and cognition and behaviour using functional Magnetic Resonance Imaging in a multi-institutional CIHR neuroscience research program. In the natural sciences, the recent acquisition of instrumentation for the study of proteomics, gene expression, and protein structure-function strengthens an already-strong nucleus for research in proteomics and biotechnology.

The environment has been an area of research concern for many Laurier faculty, who examine the interaction of environmental factors and human populations and conditions, the management of the environment and related policy issues. This is reflected in activities in the work of the Cold Regions Research Centre, as well as that in the Geography and Environmental Studies program. Topics include eco-system management, urban studies, organizational design, and the ethics and policy dimensions of the environmental agenda. A multi-institutional research program on ground water is supported through grants from Crestech (Ontario), while other faculty are part of a National Network Centre of Excellence, Geomatics for Informed Decision Making (GEOIDE). The organization and management of health care and its performance are studied in the School of Business and Economics, and faculty are part of a research team evaluating the use of performance based management information through a SSHRC/NSERC/MRC Centres of Excellence grant and a significant grant from the Ontario Hospital Association. Future work will see closer interactions and collaboration among research faculty. The cognitive neuroscience and proteomic/biotechnology groups will provide a synergistic combination of expertise to identify and characterize proteins and other biomolecules involved in cognitive neurological activity. A connection with the bioinformatics interest in computational science will add to this effort. Cross-faculty initiatives will pursue an integrated approach to the social aspects of health, such as children and adult mental and social well being, and health care promotion and management. There is planning for a Research Centre for Music Therapy. Collaborative work in the environmental area, linked to health, will emanate from the growing graduate programs in Geography and Environmental Studies, Political Science, Philosophy, and Business and Economics.

D. Science and Technology

Scientific and Technological innovations are central to the development of a knowledge-based economy. Science and Technology drive international competitiveness and are important tools in health care activities. The nature of the scientific enterprise now relies on a high level of interdisciplinary research activity for the advancement of knowledge.

Research activity in Science and Technology at Laurier is significant and continues to grow at a

rapid rate. Scientific activities of the faculty are in the main stream of scientific investigation and are increasingly multidisciplinary. The research programs have benefited considerably from infrastructure grants from the CFI and this has been a major contributor to the growth in activity. The majority of faculty in Science receive research funding support from NSERC, contracts and Research Centres of Excellence. Some of the Science research programs have been included in the Health research cluster above. Researchers in the area of optoelectronics and photonics are making important contributions to one of the fastest growing high technology areas locally and in the rest of Canada. Their work receives support from the Canadian Institute for Photonics Innovation, Photonics Research Ontario, the Centre for Information Technology Ontario as well as from the Canadian optoelectronics industry. Another area of common research interest from different disciplines is the application of computational methods to solve significant problems in the natural and physical sciences. Laurier is one of a consortium of five institutions awarded a CFI and ORDCF grant in high-performance computing (SHARC-NET).

Research activity in this cluster is growing. Scientists from several disciplines have formed a computational science working group that will lead to the establishment of a graduate program in this area. The program will involve the use of computational methods to study problems in such topics as molecular dynamics, bioinformatics, spatial data analysis, discrete mathematics, cryptography, and information science. Similarly, the photonics/optoelectronics group has prepared valid proposals for both graduate and undergraduate programs in this theme. An important result of this initiative will be the training of highly qualified scientists in an area where such graduates are in high demand. The potential for technological spin-off is very high. In the School of Business and Economics (SBE), faculty research and the commitment of resources to work on innovation and technology are growing rapidly. A topic of significant interest focuses on the way businesses create value by understanding, designing and managing the flow of goods and information between a firm, its suppliers, and its customers (supply chain management). Central to this process is the use of e-business technology. Supply chain management and e-business are rapidly growing fields in SBE.

Early-stage technology enterprises have unique management problems. SBE is in the process of developing strong research capacity in this area. With a grant from the ORDCF, matched by a corporate donation and university funds, a research chair is being established in this area, and a further faculty position is being added. These research activities will take place in the Schlegel Centre for Entrepreneurship Studies, currently under construction.