

CONNECTING Communities
CREATING Opportunities

President's Report 2004



Saint Mary's
University

Halifax, Nova Scotia, Canada

CONNECTING Communities

CREATING Opportunities

Collaboration and partnership are the cornerstones of research. By sharing expertise, resources and a passion for knowledge, Saint Mary's researchers are moving the bar forward on many fronts and in many communities.

The research undertaken by our faculty, staff, graduate and undergraduate students is breaking down traditional geographic barriers and creating lasting and beneficial relationships that hold significant promise locally, nationally and internationally. Saint Mary's is making substantial operating and capital funding commitments to support these endeavours, an investment that is helping to establish our University and the Atlantic region as important centres of discovery and new possibilities.

This direction will make economic and social contributions that are national in scope, and will provide direct benefits to organizations, communities and individuals. Here in Nova Scotia, it will make our academic community more vibrant and our physical communities better places in which to live and work.



The Academic Plan for Research

- Build Strength and the Capacity to Excel
- Appoint Canada Research Chairs
- Develop External Support
- Strengthen our Research Infrastructure
- Recognize our Success

Saint Mary's University's Strategic Directions 2006

- Academic Planning
- Renovation and Renewal of Facilities
- University Development including reconnecting with our Alumni
- Managing Enrollment
- Recruitment and Retention of high-calibre faculty
- Continued Focus on Governance and Accountability

President's Message

The 21st century is proving to be an era of rapid change in our communities and exciting advancements in all academic disciplines. Saint Mary's University is helping communities adjust to change and is leading the way toward new discoveries through the realization of a diverse and ambitious research and innovation agenda that encompasses leading edge scientific, social science, humanities and business initiatives.

The information age is changing the way we conduct research. The research undertaken at Saint Mary's today is more dynamic, and is closely aligned with societal changes and developments. Building partnerships with local institutions, private enterprise and international colleagues has increased overall research capacity and scope. As a result our research is now more accessible to a broader range of stakeholders than ever before.

Technological advancements have played a major role in facilitating the proliferation of collaborative research relationships. Barriers to collaboration such as geographic location and information transfer no longer exist. That means researchers across the globe have new and exciting opportunities to work as part of international teams to advance their theories and ideas. It also means that Saint Mary's can contribute to and draw from an ever-expanding global pool of new knowledge on issues and challenges such as Alzheimer's Disease and the structure of light nuclei.

This new era presents tremendous opportunities for students, faculty and staff alike. For students it means more and better opportunities to participate in and contribute to important

research projects within their chosen field of study. For faculty, a vibrant research culture means new opportunities to advance theories, engage students, support staff, and participate in projects of global scale and implication. This research focus will also help Saint Mary's continue in its quest to attract the best and brightest research minds to our region.

More and more, private and public organizations are turning to the research community to develop system and process improvements to help them better serve their internal and external constituents. This trend has created even more opportunities for researchers and has led to an increase in available funding and support for local, regional and national projects.

Ultimately our communities will benefit because they will be able to apply new approaches and innovations to address local challenges. Saint Mary's will continue to support these community efforts by focusing on research activities that have the potential to improve both our natural and commercial environments.

In the pages that follow you will have an opportunity to learn about some of the exciting projects underway at Saint Mary's. I am very proud of the efforts and achievements of our faculty, staff and students, and I hope you will find their success in developing important and beneficial new knowledge as exciting and inspiring as I do.

J. Colin Dodds, President
colin.dodds@smu.ca

CONTRIBUTING to a Stronger Economy

Helping Organizations Succeed

The Sobey School of Business is implementing a research agenda that seeks to gain insight on how organizations work, and how to help them work better.

As part of this agenda Management Professor Ellen Farrell recently completed a project for the Atlantic Chambers of Commerce to determine whether a Business Angels Network can help to increase the level of venture capital available for entrepreneurs in Atlantic Canada. Business Angels are individuals who invest personal funds, generally taking some form of equity as security. The networks are small groups of business angels who regularly meet to discuss their investments and to educate themselves about new venture opportunities.

"We conducted an extensive, four-part data collection review and survey," explains Farrell. "Ultimately we were able to determine that Angel

Networks can be an important vehicle for capital creation." Capital creation is an important mandate for the Atlantic Chambers of Commerce. The research undertaken by Saint Mary's has provided the organization with new insights into how that mandate can be achieved.

Economics Professor Dr. Andrew Harvey is gaining new insights into how and where people spend their time. Dr. Harvey's Time-Space Use studies could have an impact on everything from child care and recreation to land use planning and transportation.

The project, funded by the Atlantic Innovation Fund, involves enlisting random groups of people to keep diaries of their daily activities, including when they get up, when they leave their homes, and the specific activities they engage in throughout the day.

"These diaries can also be used to track non-paid work in our society that is currently not accounted for under the GDP," explains Harvey, "such as house work, in-home child care and volunteer work." The World Women's Conference



Professor Ellen Farrell and Dr. Andrew Harvey, Sobey School of Business.

in Beijing passed a resolution calling on governments to measure and report on the contribution of women's labour outside the paid workforce. The resolution also called for time use research as the key means of measurement. These actions captured the attention of the United Nations which is now designing and conducting time use studies.



(L-R): Dr. David Persaud, Assistant Professor, Dalhousie University; Dr. Arla Day, Psychology Professor, Saint Mary's University; Dr. Deborah Tamlyn, President, Canadian Nurses Association; Mary Ellen Gurnham, Chief Nursing Officer, Capital Health; Brenda Sabo, Professional Practice Leader, Capital Health.

A Better Place to Work

Saint Mary's Psychology Professor Dr. Arla Day is working as part of a cross-functional team to examine workplace conditions for health care professionals. The project is funded by Health Canada and will be led by Dr. Micheal Leiter, a Psychology Professor from Acadia University. Health care professionals from the Capital District Health Authority and researchers from Dalhousie and St. Francis Xavier universities will also take part.

The team will study the impact of various recommendations aimed at improving health care in Canada. In particular the project will examine how recent studies like the Romanow Report and the Kirby Senate Report have changed health care facilities in Atlantic Canada.

"We will be asking how widely the recommendations from these reports were communicated to health care professionals and what changes were made because of them," explains Day. "It is not

sufficient to have good suggestions if health care professionals don't know about them and they don't get implemented."

CN CENTRE IMPROVING WORKPLACES

Saint Mary's CN Centre for Occupational Health and Safety is exploring new ways to make Canadian workplaces better for employees. The Centre works with industry and labour on research projects that reflect workplace needs, and develops its findings into useful tools and guidelines that are directly employed in the management of occupational health and safety in Canada.

"Right now we're examining things like accident investigation techniques and work-family conflict," says CN Centre Director and Psychology, Management Professor Dr. Kevin Kelloway. "We're also working on developing safety audit procedures and measuring the effectiveness of safety leadership programs, examining the people issues that contribute to health and safety."

The CN Centre is also working with the Canadian Association of University Teachers as part of a national study on job conditions.

The CN Centre was established in 2002 and is partially funded by the Canadian National Rail Company.



CREATING Opportunities for Student Research

Playing in the Big Leagues

A group of Saint Mary's Commerce undergraduate and MBA students are finding out first hand what it's like to develop and manage an investment portfolio thanks to a new research opportunity at the Sobey School of Business.

The Investment Management of Portfolios in Atlantic Canada Training program or IMPACT, is allowing students to gain real world money management experi-

ence. "Students will face the same constraints that professional money managers face," explains Finance Professor and Academic Co-Director, Dr. Greg MacKinnon. The primary investment goal is the long-term growth of capital.

The program was made possible through a gift by an anonymous donor.

"This is an excellent opportunity for students to apply the economics, accounting and finance theories they're learning in the classroom in order to make assessments," says MacKinnon. "They'll also be required to present their investment decisions and results to the program's Board of Directors." The Board is comprised of Commerce faculty members, investment professionals and private sector business leaders.

The IMPACT fund's returns will be evaluated against an appropriate market-based benchmark. Profits will be reinvested until the fund reaches \$300,000. Returns realized beyond the \$300,000 mark will be allocated to providing scholarships and bursaries for Saint Mary's Commerce students.

Student Research Benefits Local Community

Saint Mary's students are helping local environmental groups by conducting important research aimed at the conservation and protection of ecosystems. Working through the university's Environmental Monitoring Network, students are supporting groups like the Sackville River Association (SRA) monitor and measure the quality of ecosystems in their communities. They're also helping to assess scientific data.

Geography Professor and Network Coordinator, Dr. Cathy Conrad, says the research gives her students the opportunity to get involved in hands-on learning. "I think it's really important for students to see that the knowledge they gain in the classroom can be directly applied to community concerns."

Dr. Conrad also conducts geochemical analysis of sediment and water samples for the SRA. Her research is credited with helping the Association determine the cause of a mysterious fish kill in 2003. She is expanding her work in an effort to extend the scientific knowledge gathered from the Sackville River to the broader community.



Dr. Cathy Conrad, Geography Professor, conducting tests at the Sackville River site with Janelle Semper, BSc in Environmental Studies, 2004.

UNLOCKING THE MYSTERIES OF LIGHT NUCLEI

Saint Mary's Physics Professor Dr. Adam Sarty and his students are working as part of an international team probing the structure of light nuclei. "Our research is focused on hydrogen nuclei since it is the most basic of atomic nuclei, containing only one proton," explains Sarty. "What we've been able to do is examine the proton in greater detail than has ever been possible before. As a result we've been able to develop a better understanding of how this fundamental unit of matter behaves."

Dr. Sarty employs Saint Mary's undergraduate Physics students directly in his research. Funded by a Subatomic Physics Discovery Grant from the Natural Sciences and Engineering Research Council of Canada (NSERC), Dr. Sarty has sent students to Jefferson Lab, a U.S. Department of Energy nuclear physics research laboratory in Virginia, to assist an international team with developing the technology needed to study protons.

Working with an international team provides opportunities for Saint Mary's students to collaborate with contemporaries from top U.S. institutions such as the Massachusetts Institute of Technology (MIT) and the University of Maryland. They also have an opportunity to work with some of the world's foremost Nuclear Physics researchers at the Virginia lab.

DEVELOPING Research Partnerships

Atlantic Metropolis Centre takes a Collaborative Approach to Immigration Issues

Saint Mary's is one of four contributing universities in the network supporting the Metropolis Project, a new research centre that will focus on immigration and diversity issues in Atlantic Canada. Metropolis will benefit the region by developing strategies to recruit and retain more immigrants. It also aims to facilitate productive partnerships between academic, government and non-government organizations for the development of research related to immigration, population migrations and cultural diversity.

The project is divided into eight areas of specialization with Saint Mary's taking the lead on economics and gender issues. Economics Professor Dr. Ather Akbari is currently leading two collaborative projects. The first pairs Saint Mary's with Memorial University for a study on the retention of international medical graduates in Atlantic Canada. That project will look at existing retention rates and how more of these medical graduates can be attracted to rural communities in Newfoundland and Labrador and elsewhere throughout the region.

The second project is a collaboration with Simon Fraser University that will analyze the costs and benefits of speeding up Canada's citizenship process.

The Atlantic Metropolis Centre, which is part of a national network, is funded by the Social Sciences and Humanities Research Council (SSHRC), Citizenship and Immigration Canada, and ACOA.



Saint Mary's representatives of the Atlantic Metropolis Centre with Saint Mary's President Dr. J. Colin Dodds (centre). (L-R): Helen Herman, Administrative Assistant; Dr. Ather Akbari, Domain Leader, Economics; Dr. Terry Murphy, Chair, Board of Directors; Dr. Evie Tastsoglou, Domain Leader, Gender; Dr. Madine VanderPlaat, Co-Director.

Improving Environmental Compliance

Saint Mary's Centre for Leadership Excellence is working with the Environment Canada Enforcement Agency to develop a better understanding of indicators of environmental compliance behaviour. University researchers are

working to develop a tool for inspectors to help them gauge whether a particular company is likely to be in compliance with environmental regulations. Project lead and Saint Mary's Psychology Professor Dr. Veronica Stinson says such a tool

could also be used to help train new inspectors. "We're aiming to identify indices of compliance that new inspectors can tap into to guide their inspections," explains Stinson. "This tool would also allow for fairness, consistency, and standardization of environmental inspections across Canada."

According to David Aggett from Environment Canada the research findings may prove beneficial to more than just the inspection side of the department's business. "We think this tool will be useful for more than just our enforcement officers," says Aggett. "Any division of our department that has a mandate to change behaviour could find a tool like this very useful in determining where to focus their energy and attention." Aggett says the research project could have applications to other areas of regulatory compliance at the local, provincial or federal level.



Dr. Veronica Stinson, Psychology Professor, with David Aggett, Manager, Office of Enforcement, Environment Canada.



DELIVERING Value for Local Communities

Re-building Post-Industrial Economies in Cape Breton

Management Professor Dr. Larry Haiven is working with researchers from the United Kingdom to study whether cultural regeneration in post-industrial communities can help to drive local economic and social regeneration. The study will examine former mining and steel communities in both Cape Breton, Nova Scotia and County Durham in the U.K.

“Cape Breton is an excellent example of an area whose industrial heritage has declined, but whose cultural heritage is re-emerging,” explains Haiven.

The research will look at how these communities have responded to the termination of their historical industries, and will examine how community identity, culture and tradition can be used as a resource to combat social exclusion

and at the same time aid economic regeneration. The project will also provide the participating communities with an opportunity to share best practices.

The project is funded by grants from the Social Sciences and Humanities Research Council of Canada (SSHRC) under its New Economies initiative.

A FORMULA FOR GROWTH

Saint Mary's Biology professor Dr. Zhongmin Dong is attracting international attention to his research on increasing crop production using hydrogen oxidizing bacteria.

Funded by Natural Sciences and Engineering Research Council of Canada (NSERC) grants, Dr. Dong has isolated bacteria in his university lab that can increase cereal crop production by up to 40 percent when seeds are inoculated.

Finding new ways to increase crop yield will have an important impact on the environment, as it will allow growers to move away from damaging nitrogen-based fertilizers toward more sustainable and profitable agricultural practices.

Developing new ways to diagnose Alzheimer's Disease

Saint Mary's English Professor Dr. Elissa Asp is working with a local team to study the discourse patterns of Alzheimer's patients.

As part of the project Dr. Asp interviews Alzheimer's patients who are being treated in clinical trials involving cholinesterase inhibitors. The inhibitors improve patients' short-term memory and attention span.

“Alzheimer's Disease affects patients' ability to process and recall information,” explains Asp. “As a result they adopt strategies to compensate. Instead of making an emphatic statement of fact about themselves when asked their age for instance, they're more likely to phrase their answer in the form of a question. People who don't suffer from Alzheimer's never check on information about themselves. Alzheimer's patients do it a lot.”

The project seeks to determine whether treatment with the inhibitors can impact this behaviour and affect the patient's rate of change. Discourse analysis helps to characterize the stage of the disease.

“Our findings will help us to develop models that can indicate the stage of the disease and the characteristics inherent to that particular stage,” says Asp. “We can then present these models to front line caregivers to help explain what a particular set of characteristics is likely to mean in terms of disease progression.”



Quick Saint Mary's Facts:

- A compact, international campus with students from over 80 countries
- Most external funding for a university of its size in Canada
- Over \$3 million available in scholarships and bursaries
- Co-op programs that connect business and science students with local and international companies

For more information about Saint Mary's please visit our website:

www.smu.ca



**Saint Mary's
University**

Halifax, Nova Scotia, Canada

INCREASING

Research Capacity

ACENet

Saint Mary's University will receive up to \$3 million in Canada Foundation for Innovation (CFI) funding for high-performance computers and visualization tools. The funding is part of \$10 million CFI has awarded to ACENet – the Atlantic Computational Excellence Network. Saint Mary's is one of four partner institutions in the ACENET consortium, which also includes Memorial University, St. Francis Xavier and the University of New Brunswick. The four lead institutions will house high-performance computers that have the capability to address complex scientific problems.

That's good news for Saint Mary's researchers says Dr. Robert Dupree, the university's Canada Research Chair in Astronomy and Astrophysics. "It opens up computational opportunities that simply haven't been there before," says Dupree.

ACENet will also facilitate interaction and collaboration between the Atlantic region's diverse community of researchers and allow them to stay at the forefront of international research.

Science Education Complex Underway

Planning for Saint Mary's new state-of-the-art Science Education Complex is underway. Working plans call for new and upgraded lecture theatres, renovated and upgraded classrooms, seminar rooms, laboratories, new faculty offices and research space. The student-focused project will provide team rooms and study areas, as well as common areas for gathering and group discussions. The Complex will also house ACENet's high-performance computers and visualization tools. It will be connected to adjoining buildings via a two-story atrium.

The Atlantic Commercialization Network

Atlantic Universities are working together to build a stronger research infrastructure for the region. The Atlantic Research Commercialization Network (ARCN) will provide universities with legal advice on licensing, patenting and whether a particular discovery can be brought to market.

As a member of the network Saint Mary's will be able to tap into ARCN resources whenever the need arises. The university will also have affiliated staff on campus to help researchers develop their ideas and discoveries. The staff will work within the Faculty of Graduate Studies and Research.

One of the new appointments will be an Industry Liaison Officer. The Faculty's Acting Dean expects the addition of new resources will help to further develop Saint Mary's Research. "Our goal is to develop more research partnerships with industry," explains Dr. Jones. "A dedicated resource will help Saint Mary's achieve that goal."

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FINANCIAL

Financial Position and Fund Balances

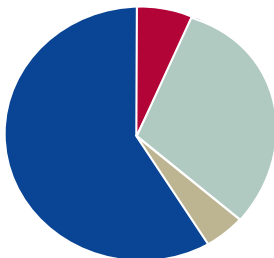
The **Statement of Financial Position**, or Balance Sheet, reports what the university owns (assets), what it owes to others (liabilities) and the university's remaining interest or equity in the assets (fund balances) at the reporting date, March 31, 2004.

The lower part of the chart on the right shows the fund balances. These represent the university's residual interest in its assets after deducting liabilities. In other words, the balances in each fund are the net resources available for carrying out future service delivery activities. In total, the fund balances of Saint Mary's University increased substantially over the previous two years:

2004	2003	2002
\$73.1 million	\$66.1 million	\$62.0 million

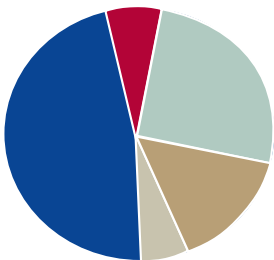
2004/05 Sources of Revenue

Revenue – excluding ancillary operations (\$73.2 million)



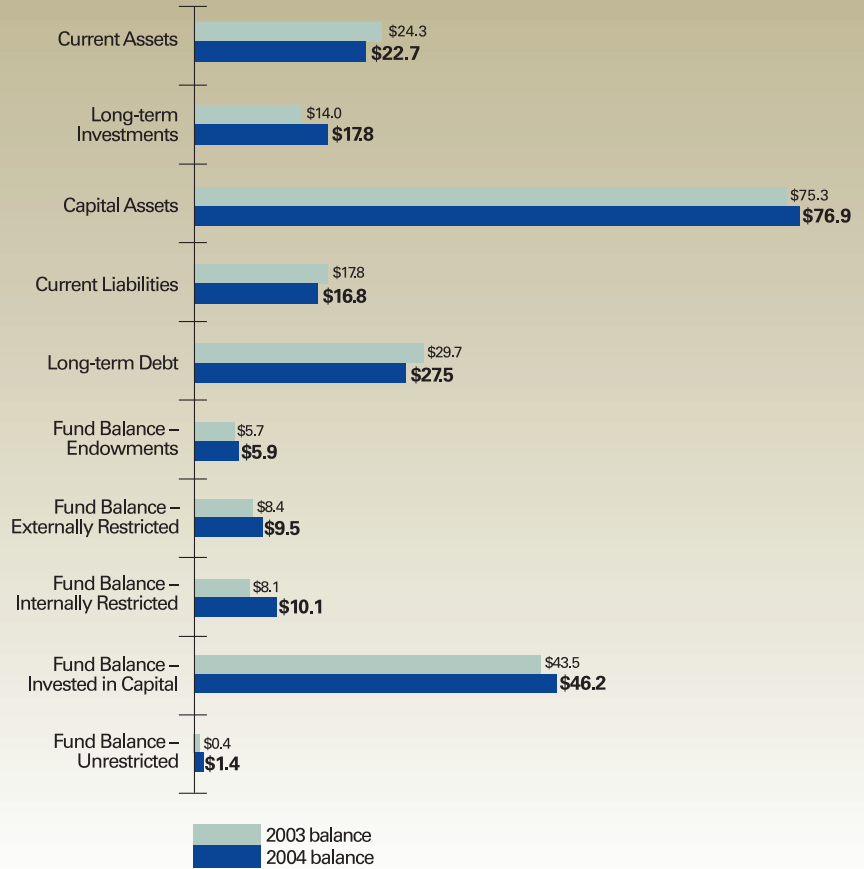
- Credit Programs 58%
- Grants 29.2%
- Non-Credit Programs 7.8%
- Other 4.9%

Revenue – including ancillary operations (\$86.5 million)



- Credit Programs 49.1%
- Grants 24.8%
- Ancillaries 15.4%
- Non-Credit Programs 6.6%
- Other 4.1%

Financial Position – March 31, 2004 (millions, audited)



Enrollment – last five years

Undergraduate/Graduate, full-time and part-time

	Total	Undergraduate		Graduate	
		Full-time	Part-time	Full-time	Part-time
2000/01	7058	4914	1752	194	198
2001/02	7194	5253	1568	213	160
2002/03	7790	5729	1610	234	217
2003/04	8462	6177	1740	268	277
2004/05	8450	6162	1752	224	312

Figures as of October 1 each year
Source: Atlantic Association of Universities (AAU)