Indirect Costs of Research
Year-End Acknowledgement

Office of the VP (Research & International)
University of Manitoba
2014-2015
About the Program

The Indirect Costs Program funds the hidden costs of research to help Canadian postsecondary institutions (universities and colleges)—and their affiliated research hospitals and institutes—make the most of the federal investment in academic research. Eligible institutions receive an annual grant through the program to help pay for a portion of their indirect costs of research.

Every year, the federal government invests in research excellence in the areas of health sciences, engineering, natural sciences, social sciences and humanities through its three granting agencies:

- the Canadian Institutes of Health Research;
- the Natural Sciences and Engineering Research Council; and
- the Social Sciences and Humanities Research Council.

The Indirect Costs Program reinforces this research investment by helping institutions ensure that their federally funded research projects are conducted in world-class facilities with the best equipment and administrative support available.

Indirect Costs of Research

The central and departmental administrative costs incurred by the University to support research that is not attributable to specific research projects.

These costs include:

1) **Research Facilities:** including but not limited to the renovation and maintenance of research facilities, equipment, and associated operating costs.

2) **Research Resources:** including but not limited to the acquisition of library holdings, library operating costs and administration, insurance on research equipment and vehicles, and improved information resources.

3) **Management and Administration:** including but not limited to support for research proposal development, information systems to track grant applications, payroll costs connected to the support of research administration, and the promotion of research.

4) **Regulatory Requirements and Accreditation:** including but not limited to costs associated with boards of research ethics, animal care and biohazard compliance, technical support for animal care, and the update of facilities to meet regulatory requirements.

5) **Intellectual Property:** including but not limited to the sustenance of a technology transfer office, administration of industry agreements, legal fees associated with licensing, and outreach activities related to knowledge transfer.
Indirect Costs of Research Distribution ($7.6M)

- **Facilities**: $3,111,550
  - Partial support for the Chown Building mechanical, electrical and building envelope upgrade. This building was originally built for research graduate education and administration in 1962-64 including a penthouse addition in 2000 to accommodate 500 level floor animal holding facility. It houses the Deans' Office, the Department of Pharmacology and Therapeutics, animal quarters and now more recently the George and Fay Yee Centre for Healthcare Innovation. Upgrades include ventilation units, temperature control equipment, direct digital controls system, plumbing services, new fire pump to support sprinkler system on the 300 & 400 levels, the main electrical distribution, circuit breakers, fire alarms, windows and wall insulation.

- **Partial Technical Support for the Nano-Systems Fabrication Laboratory (NSFL) Operations Manager**: The NSFL currently supports over $1.5 million in annual research from various areas in Engineering. It is used primarily by Drs. L. Shafai, T. Thomson, G. Bridges, D. Oliver and C. Shafai. The Operations Manager provides technical support, all lab operations, student safety, supervision and training over the $4 million of NSFL equipment. This year a new Laser Micro-machining system...
part of a national CFI initiative (~$500K) is being installed in this laboratory and the clean room enclosure completed to contain it.

- Upgrading Controlled Environment Research Facilities with the installation and commission of three new plant growth chambers in the Richardson Centre for Functional Foods & Nutraceuticals lab 071. The chambers were supplied by Controlled Environment Ltd (Conviron) with Manitoba Agri-Health Research Network (MAHRN) with a credit that arose as a result of a grant from the Government of Canada and the Province of Manitoba. Researchers from the Department of Plant Sciences, Soil Science and Food Science will conduct physiological, molecular, agronomic, pathogenic and genetic research. The plant growth chambers will be of significant value to research programs in the Faculty by providing our students and researchers with a superb portfolio of controlled environment systems.

- Numerous upgrades to research equipment in existing laboratories to enhance the facilities for researchers.

- Much needed technical support in the various research laboratories and other facilities to aid the researchers with the operations of the equipment to produce accurate and efficient data for their research.

Research Resources ($0.62 million):

- High Performance Computing (HPC) facility provides an integrated computing environment used for solving large-scale computationally demanding problems in health, natural and social sciences, engineering and business. A Linux Systems Administrator was provided to HPC to work on the high performance computers and support for research equipment.

- Continued support regarding the cost of electronic resources through the Council of Prairie and Pacific University Libraries (COPPUL) to be able to provide research material to UM faculty and graduate students. Also, the expansion of access to historical Canadian documents through the Canadian Heritage Digitization Project and the Libraries Theses Digitization Project to preserve theses.

Management & Administration ($2.14 million):

- The hiring of three Research Facilitators to assist researchers in identifying funding sources, reviewing submissions, facilitating the submission of large interdisciplinary team grant applications and assisting with knowledge translation, community engagement and exchange activities.

- Continuous support in Central Administration and the addition of a Research Compliance team to ensure that research funds are spent as per the requirements of the funding agencies.
• The Manitoba Centre for Nursing and Health Research (MCNHR) research staff assist faculty members in preparing approximately 53 applications to national, provincial and internal funding agencies. Of these 53 grants, more than three quarters (44) were led or co-led by researchers in the College of Nursing. Of the 44 grant applications in 2014 for projects, 30 (68%) were funded! The College of Nursing has been able to maintain approximately 50% grant success rate, which is remarkable in the current funding environment whereby grant success rates are typically 15-20%. In looking at only tri-council funds for 2014, 16 grant applications were submitted to CIHR and 6 were funded.

• The Natural Resources Institute (NRI) generates more than $1 million in research funding annually, with 6 FTE Academic staff, requiring administration on an ongoing basis. The NRI continues to be a major factor in Environment’s outreach effort as well as University internationalization and aboriginal education. The Office Assistant provides support for the efficient and timely administration of research funds, particularly the numerous projects that fund graduate students.

• The overall support needed at the University to accommodate the increased volume of research grants and contracts and the opportunity to increase efficiency in managing proper and timely research records both internally and externally.

Regulatory Requirements & Accreditation ($1.24 million):

• Enhanced animal care and research spaces to the benefit of the health and care of our animals, our researchers, students and the quality of work that will be carried on in the affected areas.

• The installation of a De-Humidifier system for the Genetic Model Centre, animal holding area of Brodie Centre. It houses a large number of Rodent holding rooms as well as laboratories, offices and ancillary spaces. Concerns of mold growth on wall panels and hidden spaces affecting the occupants and animals health were the driving force behind the installation. The ICP funds allowed us to install an additional cooling coil to remove the humidity from the air before supplying to the space. The space is now a health, mold free environment for people and animals.

• The Environmental Health & Safety Office (EHSO) continues the successful implementation of the Combined Laboratory Inspection Program (CLIP) initiative which focuses on research laboratories and ensuring that they are in compliance with legislative requirement.

• Animal facilities are essential to the research programs of 9 Animal Science researchers and their collaborators who receive tri-council, provincial, federal and industry funding support. Animal facility upgrades to meet CCAC standards occurred to the feeding systems for ruminant and pig facilities to ensure feed quality and safety and the poultry facility to ensure bio-secure environment for the birds.
Intellectual Property ($0.48 million):

- The continuous support towards the salary and operating costs of the Technology Transfer Office and maintains an employee in the Office of Fair Practices and Legal Affairs.

The Technology Transfer Office (TTO) oversees an Intellectual Property estate of over 400 patents covering 300 university developed technologies. They manage over one-hundred technology-based alliances with local and global partners. Over the past two decades, the TTO has launched forty new start-up ventures, creating over 1200 jobs in the local economy.

The University of Manitoba launched a Transformational Partnerships initiative in early 2013. This involves Technology Managers visiting local companies to identify opportunities for collaborative research and identifying researchers for them to collaborate with. This has resulted in retention of research trainees at the University as we work to increase the research base of the institution.

The Office of Fair Practices and Legal Affairs drafts technology commercialization agreements in consultation with the Technology Transfer Office. The University receives royalties for inventions and works with TTO to prepare and negotiate technology commercialization agreements and incorporate start-up companies.

Summary

The Indirect Cost Program has contributed significantly to the attraction and retention of high-quality researchers. The ability to provide technical support, reliable high speed networking technology, upgrades to research equipment and modern & dependable infrastructures through the renovations of research spaces help to push research into new areas and new possibilities.

It has provided the University with the ability to redirect operating funds to support general research development like providing more competitive research start-up packages and establishing funding programs to seed new initiatives.

Without the Indirect Cost Program, the University will fall behind with the latest technologies, researchers would take on additional administrative responsibilities reducing their time for their research and decreasing their success rates for research funding. This would negatively affect the retention of researchers and the University’s ability to attract additional sponsored research support. Also, it puts the University at risk and exposed to penalties for non-compliance with regulatory requirements.

Overall, the Indirect Cost Program has enabled the University and its faculties to take a more strategic approach to the development and maintenance of its research infrastructures and support.