

**Office of the Vice-President Research
University of Saskatchewan
Integrated Plan and Multi-year Budget
2004-2007**

Executive Summary

The Office of the Vice President Research will serve the University of Saskatchewan academic community with effective research leadership, management, and administration. This plan explains our team-based approach around our common mandate to provide research services and to increase research intensiveness. The plan is based on the goals of the applicable Foundational Documents which encourage:

- The collegial pursuit of research strengths and excellence in all our disciplines (including the concept of 'areas of pre-eminence');
- Wise allocation of increased investments in research infrastructure (e.g. indirect costs funding, CFI Operating Fund, new Chancellor's Research Professorships);
- Review and revision, with the necessary consultative processes, of critical research policies (such as the research contract overhead policy, intellectual property policy);
- Development of strong working relationships with the appropriate governance and consultative entities on campus (e.g. the Associate Deans Research, the RSA Committee, PCIP, and through Executive Sponsorship to PEC); and
- Development and leadership in all aspects of research administration and management, including a critical understanding of the context within which we operate (e.g., the use of benchmarks obtained from comparable universities in Canada and elsewhere).

Recommendation 1. The Research Commons

A dedicated, multi-purpose centralized/distributed Research Commons is required to facilitate and support research, scholarly and artistic activities on campus.

Recommendation 2. Supporting Research Excellence

Chancellor's Research Professorships: Ten Chancellor's Research Professorships to be awarded throughout the university.

Research Group Development: At least ten new research groups across disciplines with the goal of achieving national or international recognition (independently assessed with appropriate criteria and indicators).

Increased Support for Graduate Students: an investment in student funding consistent with the goal of increasing graduate student enrolment at the University of Saskatchewan by 30% across all disciplines, with appropriate sensitivity to needs in specific areas of the university. (Note this is an endorsement of the key recommendation of the College of Graduate Studies and Research, and does not represent a stand-alone, new commitment in the VPR integrated plan).

CORE Operating Funds for Centres: Core funding, under the administration of the VPR, must be made available to assist the Centres in recruiting and retaining top researchers and scientists, providing essential and consistent administrative support, and covering operational expenses falling outside of research grant support.

Increased Matching Funds: We simply must support direct research activities at the institution through greater targeted funds in areas in which we wish to establish or maintain research pre-eminence.

Research, Scholarly and Artistic Infrastructure: Successful pursuit of research, scholarly and artistic activities requires an appropriate infrastructure. The University must ensure that adequate investments are made in areas such as communications and information technology, libraries, laboratories and offices to ensure the appropriate tools and support for campus scholarship.

International Research: An integrated approach to various inter-related aspects internationalization (research, institutional relations, student and scholar exchanges, and development work) must be established and adequately resourced to help the University of Saskatchewan achieve its goals in the evolving international research environment. This will require close collaboration and assessment by key faculty players and units (including University of Saskatchewan International, the Provost's Office and OVPR) and may emerge as an expansion of the Office of the Vice-President Research mandate and portfolio – Research and International Relations.

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I. Introduction

Vision and Mission

The Office of the Vice-President Research was created in 1997 to provide research leadership, administration and management to the faculty, staff and students of the University of Saskatchewan. *Our mission is to serve the existing and future research needs of the campus community by supporting researchers and building research infrastructure, upholding the highest ethical standards in research, providing appropriate support for knowledge transfer and intellectual property management, celebrating and promoting research successes in all disciplines and across knowledge domains, and protecting academic freedom for all members of the University to engage in research, scholarly and artistic work.*

In the Foundational Document on Research, Scholarly and Artistic Work (University Council, 2004), the University of Saskatchewan research goals are broadly stated *'to build on our current and emerging strengths and traditions to increase the intensity of research, scholarly and artistic activity over the next decade to be clearly established as:*

- *Among the top ten medical/doctoral universities in Canada¹; and*
- *One of a select few internationally in key areas'.*

The Office of the Vice President Research has a special role to play in ensuring the goals of the University are realized, and the Office was subsequently re-organized in 2003 with new leadership and the support of the campus community.

This document describes the new Office and its functions but does not extensively review the history or circumstances that have led to the present structure. However, it is important to note that the re-organization was deemed critical to ensure a significant re-orientation of the functions of the Office which, in turn, were made possible by substantial new investments from the federal indirect costs program to help the University of Saskatchewan respond effectively to the challenges contained in Canada's Innovation Strategy (2002); that is, to be more proactive in research development, more supportive of researcher needs, with a greater emphasis on knowledge transfer, intellectual property management, research compliance and overall policy development, and interaction with the University governance at the strategic level. The Office, at the time of writing, is in the midst of implementing changes and a new team approach to supporting the research agenda of the University of Saskatchewan.

Relationship to Strategic Directions

The Office is organized into seven groups to be responsive to research challenges and proactive in identifying research opportunities, protecting research integrity, supporting knowledge transfer and intellectual property management, and recognizing, rewarding and celebrating research excellence and success. We support the University of Saskatchewan strategic directions in several critical ways. For example:

- Raise the profile of U of S research locally, nationally and internationally
- Encourage and facilitate faculty research activities by building incentives and by working with the Provost and the President to place increased importance on research, scholarly and artistic work as a fundamental value of the University;

¹ Medical/doctoral universities are characterized as universities with a broad range of PhD programs, broad range of research, scholarly and artistic activities, and health science schools. The category includes: British Columbia, Toronto, McMaster, Montréal, Ottawa, McGill, Laval, Alberta, Queen's, Calgary, Dalhousie, Western, Sherbrooke, Memorial and Manitoba.

- Leverage the competitiveness and visibility of U of S research by building strong international, multi- and inter-disciplinary initiatives;
- Develop grant preparation and mentorship programs, provide grant development officers and assistance in large-multi-partnership organization;
- Support and manage U of S 'research centres' (broadly defined at the 'university level'), which typically thrive if provided the freedom and mandate to reach beyond disciplinary and typical governance structures (e.g., Colleges); and support the development of new centres both at the college and university level;
- Manage intellectual property in such a way that faculty can rely on experienced professionals whose focus is to add value to U of S inventions as they engage in a diversity of knowledge transfer and commercialization activities;
- Support contract growth by assisting with revenue opportunities as well as negotiating and administering contracts.

These are just a few examples, although very direct ones, of the many ways in which the Office of the Vice-President Research (OVPR) is a critical component of the successful University enterprise. Although it is a significant challenge to identify all the ways in which the OVPR influences and engages in academic achievements and aspirations, some of the more obvious interactions occur with faculty, staff and students in dynamic and synergistic environments. There is no doubt that effective research leadership, management and administration are critical components necessary in any planning initiative designed to enhance and improve the potential for the University of Saskatchewan to achieve its goals, including:

- Enhance the experience of undergraduate and graduate students;
- Support the recruitment/retention of high quality faculty and support staff;
- Launch successful Aboriginal initiatives, engage in increased internationalization, improve teaching and learning;
- Enhance the University's ability to increase its research productivity and develop a strong reputation for academic excellence;
- Support a wide range of College-based and inter-College initiatives;
- Provide exciting and enriching consultation and collaboration opportunities.

Comparables

The University of Saskatchewan's scrutiny of its research, scholarly and artistic performance and support systems is consistent with the growing trend on Canadian university campuses to plan for strategic research development (including the Canada Research Chairs Program, for example). Recent national initiatives – including the Innovation Agenda and new funding opportunities – have prompted a number of Canadian universities to re-examine their research offices in terms of scope and mandate, personnel and organizational structure, and program and services. For example, the University of New Brunswick conducted an external review (similar to an SPR) of its research administration and leadership, resulting in significant restructuring based on a commitment to research-intensiveness, an expanding understanding of research activities, and an increasing competitive attitude related to university scholarly work. More generally, issues surrounding the tension between corporate (managerial), political, and academic cultures have been discussed with a view to encouraging serious reflection upon our priorities (e.g., "New Scholarship: New Leadership" Sept 28 2001 address by Dean Emeritus Raymond F. Currie to Western Deans Meeting in Winnipeg).

Through participation in recent federal initiatives (e.g., CFI and Indirect Costs programs), and this Integrated Plan, the University of Saskatchewan will expand the scope of the Office of the Vice-President Research to meet the needs of the research community and our partners. For example, in 2003, the formation of Industry Liaison as an in-line office reporting to the VPR established closer ties between the University's research agenda and its commercialization and knowledge transfer activities. Similarly, the OVPR has initiated steps to bring international contract research activities under the Office's jurisdiction. As part of this expansion, the Office will consider adoption of similar staffing and positional requirements to our comparable institutions, relative to the particular or unique needs of our research community; in this planning cycle, in addition, we must make some decisions around which universities to compare to establish benchmarks. Some general observations of comparable mandates and executive structure include:

- The University of Western Ontario includes an Industry Liaison Office reporting to the Vice-President Research, and an International Research Office reporting through the Associate Vice-President Research. With an annual research income of approximately \$140 million (about 10% more than UofS), the University of Western Ontario (UWO) research executive includes the VPR, two Directors, and one Associate Vice-President with direct responsibility for research ethics and research development services.
- Dalhousie University has recently created the six-person Lester Pearson International office reporting to the VPR; in addition Dalhousie partners with the Nova Scotia Agricultural College to address commercialization and knowledge transfer activities.
- The title of the VPR at the University of Calgary – Research and International – formally recognizes the broad scope of the office's activities; this change has occurred on many other Canadian University campuses in recent years (e.g., McMaster, Regina).
- The University of Manitoba has one Associate Vice-President Research and has recently added a second responsible for health research. Guelph, Calgary, and Alberta all have at least two AVPRs. With an annual research income of approximately \$200 million (just less than twice the UofS), the University of British Columbia administers its VPR Office responsibilities through one AVPR along with seven director/coordinators supporting the Vice-President Research.

In all of these universities, the Vice-President Research portfolio will include responsibility for research services, ethics and increasing research development support. In addition, some Canadian universities (notably Guelph) have an internal dedicated office for research communications and promotion.

Objective of the Integrated Plan and Multi-year Budget

The Integrated Plan and Multi-year Budget of the Office of the Vice President Research will serve to establish a common understanding of the University of Saskatchewan academic community of the functions and goals of research administration and management at the University of Saskatchewan. The plan explains our team-based approach around our common mandate to increase research intensiveness at the U of S – while continuing to recognize the traditional OVPR mandate of broadly defined 'research services'. The plan shows how we intend to reach the goals of the applicable Foundational Documents by the collegial pursuit of research strengths and excellence in all our disciplines (including the concept of 'areas of pre-eminence'); wisely allocating increased investments in research infrastructure (e.g. indirect costs funding); reviewing and revising critical research policies (such as the research contract overhead policy, intellectual property policy); developing strong working relationships with the appropriate governance and consultative entities on campus (e.g. the Associate Deans Research, the RSA Committee, PCIP, and through Executive Sponsorship to PEC); and developing an understanding of the context within which we operate by examining carefully the use of benchmarks obtained from comparable universities in Canada and elsewhere.

An on-going process, this cycle of integrated planning focuses on the immediate need to develop a common research space and the programs that will support the goals of the University in enhancing research services and increasing research intensiveness.

II. Programs and Services

In 2003, a broad-brush strategic plan to re-organize the Office of the Vice-President Research was conceived and specific initiatives implemented as part of the new leadership team and with strong support from the academic community for a more proactive and extensive engagement with research needs at the University of Saskatchewan. Critical components of the plan included creating a strong executive management team, establishing a research communications office, and ensuring a dynamic relationship with researchers - to provide proactive support and assistance to researchers in developing grant and contract proposals. In a parallel process, the University also saw lengthy discussions to re-organize its knowledge transfer and commercialization activities crystallize - the newly created Industry Liaison Office now provides the basis for the University's new focus on aggressively pursuing and fostering knowledge transfer and commercialization opportunities.

A visual representation of the re-structured Office of the Vice-President Research is provided in Appendix I: Organization Chart. The seven units comprising the Office of the Vice-President Research are described in this section.

Vice-President Research Executive Group

Led by the Vice-President Research (VPR), the VPR Executive Group (including, in this planning cycle, two Associate Vice-Presidents and appropriate levels of administrative and support staff) is responsible for providing leadership to the campus community's efforts to develop and enhance research, scholarly and artistic activities, and for overseeing the development and maintenance of a responsive research administration. Fulfilling this broad mandate requires the Executive Group both to represent the research agenda in the University's internal decision-making processes – ensuring that the ambitious aims of the University as described in the *Research, Scholarly and Artistic Foundational Document* are realized – and to secure an appropriate local, national and international profile for the University's research concerns and capabilities.

The effectiveness of the Executive Group is dependent on its ability to forge ties and avenues for communication between the Office and the University community. Traditionally, the Research, Scholarly and Artistic Work (RSA) Committee of Council has been a main vehicle to address and discuss issues of importance to the research community. Representation by the Executive (and other units of the OVPR) on this Committee ensures that it will continue to play an important role in developing strategies for intensifying research activity. In addition, the Office has established two other forums to ensure effective feedback and communication lines: regular meetings are held with the Associate / Assistant Deans Research and with a new body composed of representatives from centres which report to the Vice-President Research. These three forums provide essential two-way communication between the Executive Group and the University community in developing and implementing strategies related to research activities. Though each forum provides a unique perspective on campus research activities, there is and will be considerable overlap of interests and roles; the VPR will ensure communication among these three forums.

The Executive Group is responsible for ensuring that the research, scholarly and artistic agenda is represented in all discussion and major decisions of the University. The Vice-President Research is an active participant on all the University's major academic and administrative decision-making bodies. On the academic side this includes the Budget, RSA, and Planning Committees, and the University Council.

The administrative side includes the President's Advisory Committee, the President's Executive Committee, and the Provost's Committee on Integrated Planning. This breadth of participation is essential to developing a well-represented research agenda in all internal university decisions and in external advocacy positions. It is clear, however, that over the current integrated planning cycle the University must re-examine its current governance structures and procedures to ensure that the institution-wide commitment to research as a core function is consistently and appropriately reflected in key areas traditionally falling outside the research agenda. For example, the VPR or designate needs to play an active role in searches for senior faculty and senior faculty administrative positions (dean, associate vice-presidents).

Interactions with government and industry bodies represent a significant responsibility of the Executive Group. Partnerships with organizations in these categories provide immense potential for furthering the University's research mandate. The Vice-President Research, and, effective July 2004, the Associate Vice-President Research, are the principal research representatives of the University to government and industry partners both through meetings and strategy sessions, and through formal participation on many external boards and agencies. Currently, the Vice-President Research represents the University on the management structures of the many organizations, including the Canadian Light Source.

Effective interplay between the three spheres of influence/responsibility described above is key in the functioning of the Executive Group over the current Integrated Planning cycle. With the approval of the *Research, Scholarly and Artistic Work Foundational Document*, the University community articulated an ambitious goal for the University – to be among the top ten research-intensive universities in Canada. This goal will require strategic decision-making at the Executive level related to disproportionate investment of funds in key subject areas and types of research (collaborative, large science). As detailed under *Challenges and Opportunities*, the Executive Group will help establish processes to:

- (1) Identify areas of research, scholarly and artistic pre-eminence;
- (2) Strategically invest funding arising from research success back into the research enterprise;
- (3) Develop programs to extend the benefits of attending a research-intensive institution to both graduate and undergraduate students;
- (4) Support collaborative research initiatives that span departments, institutions, and/or nations.

The Executive Group consists of two out-of-scope faculty members supported by two FTE out-of-scope ASPA and a member of CUPE. Though reporting through the Provost and Vice-President Academic, the Associate Vice-President Research /Dean of Graduate Studies is also a vital member of the Executive Group. Position descriptions for the members of the Executive Core are provided below:

Vice-President Research (Steven Franklin, July 2003)

This position was created in 1997 as the senior executive of the University with responsibilities to enhance research capacity, strengthen research performance, and promote the transfer of research findings. A strategic leadership position, the VPR reports to the President and functions as a key member of the University's senior administration and a champion and advocate for research; takes primary responsibility for leading policy development on research matters and for the implementation and management of University policies related to research, intellectual property, conflict of interest and commitment, overheads, and related matters; oversees the various components of the VPR Office (e.g., ORS, ILO, Communications); maintains liaison with the various funding partners (e.g., Tri-councils); nurtures opportunities for RSA across all disciplines and knowledge areas, while supporting the development of interdisciplinary and multidisciplinary work and the formation of research groups; facilitates partnerships among academic and other institutions in the community (locally, nationally, and internationally); leads the development of productive relationships with reporting units and 'research centres', including the CLS; collaborates with the Provost and leadership in the university (e.g., heads and associate deans) to foster the development of new faculty, PDFs, and graduate students; serves as a

representative on boards of various research-related organizations; and plays a strategic leadership role in the University's planning and participation in national programs (such as CFI and the CRC).

Associate Vice-President Research (Pending Search, July 2004)

This position was created in 2003 (and temporarily filled as a 'special advisor' position by Dr Bryan Harvey, who formerly held the position of University Coordinator for Agricultural Research, a position no longer supported at the UofS) to provide essential support to the Vice-President Research in leading and promoting the campus research agenda. The AVPR portfolio will include:

- Representing the Vice-President Research on select internal committees and external boards and organizations;
- Assisting the VPR in managing the diverse and growing research portfolio including providing strategic support and input to policy development; working with centres reporting to the VPR; enhancing research support from private, commercial or community organizations; and promoting an international focus for research; and
- Participating in the development and implementation of strategies to promote the expansion of research activities including raising the research profile within the university and externally, and fostering Tri-Council, multi-agency and research projects;

Associate Vice-President Research / Dean of Graduate Studies and Research (Tom Wishart, July 1999)

- Officially reports to the Provost and Vice-President Academic
- Key member of the VPR Executive, participates in policy development related to research; represents the connection between graduate students and research

Confidential Secretary to the Vice-President Research (Sharon Munger-Osborne, February 2001)

- Responsible for the day-to-day administration of the Office of the Vice President Research including scheduling meetings and appointments for the Vice-President, preparing correspondence, budgeting and financial administration, and responding to internal and external inquiries.

Executive Assistant (Laura Zink, December 2002)

- Provides analytical and administrative support to the VPR including researching and drafting policy and discussion papers, and preparing background material.
- Provides administrative support to VPR committees.

Administrative Support (Arlene Zdunich, July 1980)

- Provides administrative support to members of the VPR Office including Research Communications Office and the SSHRC Transformation Officer.
- Effective July 2004 will provide administrative support to the Associate Vice-President Research including scheduling meetings and appointments and preparing correspondence.

Research Services

The Office of Research Services (ORS) is the main administrative section of the Office of the Vice-President Research. Under the leadership of the Director, who is also appointed as an Assistant to the Vice-President Research, and the recently-created position of Associate Director, this unit is responsible for all pre- and post-award administration of grants (individual, collaborative and institutional) and contracts as well as human ethics administration. The unit also administers the Canada Research Chairs (CRC) and Canada Foundation for Innovation Programs.

The ORS is re-establishing itself as a pro-active, client-focused organization. Over the current integrated planning cycle, the ORS will be actively forging new relationships with colleges, research centres and

other administrative units. New and refined services and programs will evolve in response to feedback obtained through discussion and strategy sessions with colleges, centres and individual researchers. The emerging unit will have a higher profile within the University community and will be recognized as providing:

- Seamless services to researchers in grant and contract development through excellent internal communication and cooperation with other administrative units; and
- Discipline-sensitive and comprehensive support to researchers in all administrative functions (identification of funding opportunities, sponsored workshops in theme areas, and support to research groups, grant/contract writing and administration) to support and enhance diverse research activities (including international research) and to protect faculty and researcher time for scholarly activities.

To help create the ORS as a one-stop shop for expert research administration support, strategic investments are being made in personnel and in ensuring ready access to ORS expertise. Appendix II details the expansion of the Office over the current integrated planning cycle. Of primary importance is the addition of new Grant Development Officers. Expansion of personnel is accompanied by a new strategic role (as indicated by the new title) for the Director / Assistant to the Vice-President Research in liaising with college and centre executives, educating the university on services offered through the ORS, identifying funding opportunities, and developing programs that best meet researcher needs.

Overseen by the ORS Executive consisting of one FTE OOS-ASPA, two FTE ASPA and two FTE CUPE support personnel, ORS offers research administration services through three units.

Position descriptions for the ORS Executive are:

Director and Assistant to the Vice President Research (Bryan Schreiner, September 2003)

- Responsible for the overall direction and management of ORS
- Responsible for administration of Human
- Provides policy analysis to the VPR

Associate Director ORS / Senior Contracts Officer (David Harris, March 2004)

- Assists the Director in strategic planning, management, and research policy development
- Manages the Grants/Contracts and the Office of Research Services

Administrative Assistant (Kathy Wulff, January 2004)

- Confidential assistant to the Director
- Office manager (budget, HR, staff scheduling)
- Is responsible for the ORS website, publications, and listservs
- Information management (data requests etc.); IT needs
- Professional research personnel files

Administrative Support (Susan Crush, April 2001)

- Provides support to internal grants (Pres. NSERC, Pres. SSHRC, Visiting Lecturers Fund, Publications Fund, Capital Equipment Start-up Fund)
- Monitors account status (certification/authorization, closing)
- Manages researcher profiles database, including change in status (leaves, termination, etc.)

Administrative Support (Maggie Campbell, January 2003)

- Provides administrative support to the members of the Office of Research Services

The three sub-units of the office are as follows:

Grants / Contracts

This unit is responsible for administration of grant and contract activity including:

- Pre- and post-award administration;
- Acting as a liaison between researchers, granting agencies and other sponsors, and research administration;
- Providing advice and assistance in negotiating research contracts;
- Assisting researchers in all aspects of research grant/contract administration including identification of funding, research group development, proposal writing and administration of large grants; and
- Providing statistical information on U of S research performance.

This unit will experience tremendous changes over the course of the current integrated planning cycle. The addition of new development officers will allow the unit to maintain and then extend the support and education services currently offered to researchers. These new positions will not only result in changed interactions with researchers, but will also challenge the unit to develop extensive and effective relationships with the Industry Liaison Office, the Research Coordinator Offices and the new International unit and; it is essential that the activities around grant and contract development of these four units be coordinated and mutually supported. By the end of the current integrated cycle, this unit will include 9 FTE ASPA positions; more than double the current complement (Funding approved through Indirect Cost Program).

Contracts Officer (Deborah Houston, November 2002)

- Advice and assistance with lead role in negotiating and drafting of industrial, government and institutional contracts

Contracts Officer (T.B.A. / Laurie Munro (on leave))

- Advice and assistance with lead role in negotiating and drafting of industrial, government and institutional contracts

Grants Officer (Diane Harms / Amanda Plante (on leave))

- Grants related to natural sciences and engineering, including continuous research accounts for researchers in these disciplines
- President's NSERC, New Faculty Start-up, Capital Equipment Supplement

Grants Officer (Erin Skrapek / Sabrina Kehoe (on leave))

- Grants related to health research, social sciences and humanities, including continuous research accounts for researchers in these disciplines
- Internal grants (Pres. SSHRC, Visiting Lecturers Fund, Publications Fund)

Major Programs

The Major Programs Unit is responsible for all pre- and post-award administration and financial budgeting for the Canada Foundation for Innovation and the Canada Research Chairs Programs. Housed within ORS, this unit is a successful example of two distinct administrative units collaborating to provide seamless service to researchers. This three FTE unit includes a Major Programs Officer (reporting through the Office of Research Services) and a Financial Analyst (reporting to the Director of Financial Services). In addition, it includes one FTE CUPE support member. The Office was awarded the 2002 CAUBO Western Regional Award in Quality & Productivity for its unique approach to providing one-stop service to researchers and for its efficient tracking system related to reporting requirements.

Position descriptions for the Unit include:

Administrative Officer – Major Programs (Tracey Wray)

- Manages the Major Programs Unit
- Coordinates the Canada Foundation for Innovation and Canada Research Chairs programs
- Coordinates the Innovation and Science Fund for the University

Financial Analyst – Major Programs (Justine Driedger)

- Financial Budgeting and administration for CFI and Canada Research Chairs programs

Administrative Support (Kelley Neale, September 2003)

- Provides administrative support to members of the Major Programs Unit

Ethics

Ethics Review and Monitoring Involving Human Subjects

Over the last two years, the University has made essential investments in ethics administrative personnel to allow for the initiation of policies for ethics review and monitoring of research involving human subjects. These investments have allowed for the formation of the administrative structure for ethics review as approved by University Council.

The Ethics Unit is responsible for providing support to the structure approved by Council in June 2000. The principal tasks are to:

- Provide administrative support to the University Committee on Ethics in Human Research, the Biomedical Research Ethics Board, the Behavioural Research Ethics Board, the Ethics Education Committee, and, as of 1 January 2004 the Department/College Research Ethics Committees
- Liaise with national ethics organizations including the Tri-Councils, the Panel on Research Ethics and the National Council on Ethics in Human Research
- Develop and implement University policies and procedures on human ethics review and monitoring
- Implement University policies on human ethics including developing procedures and educational material.

The Ethics Unit currently consists of three FTE ASPA personnel and a .5 FTE CUPE support personnel. This complement is not adequate to meet current national and international regulatory and monitoring requirements. Recent and highly publicized cases coupled with an increasing national movement to establish common base-lines and an accreditation process for university ethics review and monitoring require that over the current integrated planning cycle, the University address the more stringent demands related to ethics education and monitoring. (Some of the funding for these changes will come from the Indirect Costs Program, other funding will be available through the operations of the Ethics Office (e.g., fee policy)).

Position profiles are provided below:

Ethics Officer (Susan Blum, August 2001)

- Manages the Ethics office
- Administration of University Committee on Ethics in Human Research (UCEHR), UCEHR Subcommittee for Indigenous Peoples Research Guidelines and Ethics Education Committee
- Development, implementation and administration of University ethics policies and procedures
- Coordination and implementation of Graduate Studies Course on ethics

Administrative Assistant (Biomedical) (Bonnie Korthuis, October 1997)

- Administration of the Biomedical Research Ethics Board
- Ensure implementation of policies and procedures

Administrative Assistant (Behavioural) (Charmaine Kabatoff, May 2002)

- Administration of the Behavioural Research Ethics Board
- Ensure implementation of policies and procedures

Administrative Support (Laurie Johnston, October 2003)

- Provides administrative support to members of the Ethics Unit

Ethics Review and Monitoring of Research Involving Animals

The University Committee on Animal Care and Supply (UCACS) is responsible for developing and implementing programs to ensure U of S compliance with the Canadian Council on Animal Care (CCAC) standards for care and use of animals. Infrastructure support for University programs in these areas is provided through the Animal Resources Centre (ARC). ARC is also the service (including technical expertise) and supply unit for faculty using laboratory animals in their research or teaching programs. There is considerable overlap in both these two mandates and in staff responsibilities and activities. The ARC Director reports both to the Vice-President Research and UCACS; the Director acts as the Executive Officer of UCACS. (Additional information on ARC is provided under *Research Centres*.)

The current structure related to animal care and use has evolved over the years in response to increased campus activity and greater regulation and monitoring requirements. Discussions on the current structure and services of the University's animal care and supply unit will ensure the institution's ongoing ability to meet CCAC regulatory requirements.

Reporting to the Director and located within ARC, the administrative support for ethics review and monitoring research involving animals includes 2 FTE ASPA and 1.5 FTE CUPE. Position profiles are provided below.

Director (Ernest Olfert)

- Executive Officer of UCACS
- Administers the University's experimental animal care and use program, and monitors compliance

Assistant Director (Colette Wheler)

- Implements veterinary care program for experimental animals
- Implements mandated animal user training program

UCACS Office Secretary (Colleen Myers)

- Provides clerical support for all UCACS functions, including database management

UCACS Technical Training Officer (Peggy Nelles)

- Organizes and provides practical skills training in UCACS training program

Industry Liaison

Industry Liaison is a new client-based, service-oriented operation that will focus on adding value. In this planning cycle (2004-2007), the Industry Liaison Office (ILO) will be well staffed with professionals experienced in managing the interface between academic researcher and industry. Such management involves understanding industry priorities by proactively visiting companies and discussing their technology issues, and when possible, matching them with similar research interests of University researchers and with technologies already in the commercialization pipeline at U of S. These interactions cover such diverse matters as confidential disclosure arrangements, material transfers, option agreements, license negotiation, etc. This management also involves understanding the research portfolio and key capabilities of U of S researchers and at the same time helping these researchers to understand the innovation and technology commercialization process. Challenges include:

- Enhance and increase research collaborations between U of S, industry and other institutions by adding value through proactively seeking out appropriate partners and ensuring the resulting legal framework for these collaborations protects the rights of the university, faculty, staff and students in such matters as background and foreground intellectual property (IP) ownership, IP use rights, indemnification, sharing of IP management costs and licensing income, etc. This is a shared responsibility with the Office of Research Services.
- Ensure that all commercially promising University developed IP is identified and treated uniformly and in accordance with the U of S IP policies and procedures. This involves developing close ties with key researchers across campus, understanding their research programs including third party obligations for IP through confidential disclosure agreements (CDAs), material transfer agreements (MTAs), research contracts, industry matching grants (through agencies such as NSERC/CIHR), Networks of Centres of Excellence agreements, and the like.
- Take a lead role with the VPR to periodically review and revise the IP policy and procedures.
- Ensure that U of S researchers are educated regarding the innovation process, the importance of protecting and commercializing promising new discoveries and the policies and processes around these crucial activities.
- Work in close collaboration with U of S researchers to evaluate new inventions, and when commercially promising, add value to these technologies by obtaining statutory protection, providing prototype development funds, marketing and building partnerships with 3rd parties to take them to the marketplace.
- Whenever possible stimulate the Saskatchewan economy by licensing to Saskatchewan companies.
- Work with partners inside and outside U of S that have common objectives, for example, Crop Development Centre, VIDO, Saskatchewan Drug Research Institute, Saskatchewan Cancer Foundation, Canadian Light Source, Agriculture and Agrifood Canada, PBI, SREDA, SRC, Saskatoon Chamber of Commerce, Innovation Place, WED, Saskatchewan Industry and Resources, the University of Regina and others.
- Develop an income stream for inventors that will demonstrate the potential monetary benefits of participating in the innovation process.
- Develop an income stream for the University that will at least allow the ILO operation to break even.
- Implement a shared database(s) or a sharing of databases between research grants/contracts /technical service contracts and IP management.
- Determine the best organizational and governance structure for the new ILO and then create a new image of technology transfer by implementing a new logo, letterhead and name.

Currently, the Office consists of four members – the Managing Director (an FTE OOS ASPA) and three individuals hired through the University's previous tech-transfer organization (UST Inc.). These latter positions currently fall outside of the University's union structure. Over the integrated planning cycle, the Office will be re-assigning responsibilities for current members and hiring additional individuals to fulfill the expanded mandate of the Office. Fully phased in, the Office will consist of 10 to 12 FTE employees. The positions anticipated over the planning period are:

Managing Director (Doug Gill, January 2004)

- Overall management of the ILO including strategic planning, budgeting and accountability, day to day supervision and mentoring of many of the staff, and performance reviews and salary administration
- Responsible for achieving the long term goals for the ILO

Administrative Assistant

- Provides front-line service and reception for the ILO by responding to general internal and external inquiries
- Provides administrative support to the Managing Director and Legal Manager and office management and human resources support for the ILO

Technology Transfer Coordinator (Karen Lendzyk)

- Responsible for coordination of technology transfer activity including maintaining records of all tech transfer transactions; invoice payment associated with patents and licensing agreements and acting as liaison between Tech Transfer Officers, and patent agents and academic and industry clients; ensures that patent deadlines are met and that inventors receive annual report on our progress with their inventions.

Start-Up Company Specialist (Rachelle Girard)

- Instrumental in all aspects of establishing successful start-up companies including assisting in identifying start-up opportunities and general mentoring. Assists start-ups to incorporate and establish by-laws, management, shareholders structure, business plans, financings, etc

Tech Transfer Manager

- Provides leadership and supervision for all members of the tech transfer team (officers, associates and interns)
- Responsible for intellectual property arising from a sector of the University.

Information Officer (.5 FTE)

- Provides patent prior art, and other information, searching services to inventors and tech transfer officers.
- Educates faculty and graduate students on the importance of patent prior art searching and offers training in technique and database use.

Summer Student

- Assists the Tech Transfer Officers by ensuring Invention Disclosures are complete, organizing and reviewing patent prior art searches, writing non-confidential summaries and completing market information searches.

Tech Transfer Intern

- A developmental workplace education position, the intern will gradually develop responsibilities for working with industry to determine market pull and will interact with industry and inventors to evaluate inventions and develop patenting and marketing strategies in cooperation with Tech Transfer Officers.

Tech Transfer Associate

- This position will, under supervision, participate in managing patenting process; negotiating licenses, options and confidential disclosures and material transfer agreements; and will execute marketing and licensing strategies.

Technology Transfer Officers (three)

- Responsible for all aspects of a significant portfolio of IP files with some supervisory responsibilities (summer students, interns and associates).

Legal Manager (Tom Roberts)

- Creates and maintains a comprehensive set of precedent agreements
- Provides support and advice to units within the OVPR regarding research contracts, license agreements, inter-institutional collaboration agreements, etc. and assists in negotiations with third-party legal counsel.

Research Communications

The Research Communications Office received a significant investment of personnel and re-orientation of mandate in 2003 which is expected to reach full maturity in this planning cycle. Working closely with University Advancement, Government Relations and communication experts located in colleges and centres, Research Communications is responsible for developing and implementing strategic communications plans that support key U of S goals of intensifying research efforts, attracting and retaining top faculty and students, enhancing revenue opportunities, and celebrating the University locally, nationally and internationally.

Research Communications handles a vast portfolio bound by the common theme of developing a local, national and international profile for the University and relaying the key message to external (politicians, media, granting agencies, general public) and internal (faculty, student, staff) audiences that the \$115 million per year of research revenue is a worthy investment of public tax dollars. Research centres such as the CLS, VIDO and others have strong potential to increase U of S national profile and are therefore a particular focus for media relations. The Office works closely with granting councils and agencies to identify opportunities for cross-promotion and meet growing demands for greater profile for their research funding initiatives.

Research Communications, and the University as a whole, is increasing the emphasis on the need to celebrate the research successes of our members. During this integrated planning cycle, the Office will be developing additional strategies and programs to ensure that outstanding research and artistic performance is recognized and celebrated internally, locally, nationally and internationally. An aspect of this increased emphasis on celebrating achievement will involve ensuring that university personnel are nominated for national and international competitions, and developing internal recognition events and opportunities.

Initiatives undertaken by the Office include: building relationships with University partners and media (such as organizing a national conference on campus for science journalists); developing communication materials (news releases, brochures, ads, videos, a one-stop shopping website for the U of S research community); co-ordinating events with a wide range of partners to enhance the U of S reputation; providing issues management and communications consulting; offering first contact referral for media; writing speeches for University Executive on research-related topics; creating and managing a student writing program focused on U of S research; and developing and utilizing strategies to inform the University community of research initiatives and successes (On Campus News articles and columns, lecture series organization.)

The four-person Research Communications Office consists of three FTE ASPA and a graduate student intern. Position profiles are provided below:

Director of Research Communications (Kathryn Warden)

- Leads a multi-faceted effort to share with internal and external audiences news about research and creative activity at the University of Saskatchewan.

- Responsible for strategic communications planning, issues management, editorial assistance to the Vice-President, development of research news releases and other publications, oversight of Canadian Light Source communications, and management of Research Communications Office personnel
- Provides communications consulting to a wide range of campus units and committees including the Ethics Education Committee, the RSA Committee, and colleges.

Research Communications Officer (Michael Robin, September 2003)

- Participates in all communication initiatives including writing, editing and publication production; and event organization.
- In-office specialist on the Canadian Light Source, and medical and science media releases and publications.

Research Communications Officer (Sheila Robertson, November 2003)

- Participates in all communication initiatives including writing, editing and publication production; and event organization.
- In-office communication specialist for humanities, fine arts & social sciences, and event organization.

SPARK (Students Promoting Awareness of Research Knowledge) Writer (TBA)

- Develops stories profiling University researchers which are used in OCN and other print and on-line publications, as well as in granting council communications

Research 'Coordinators' (Health CIHR, SSHRC, NSERC)

In response to suggestions arising from preliminary campus consultations, the Office of the Vice-President Research is considering the concept of research coordinators – SSHRC-Social Science², SSHRC-Humanities & Fine Arts, and NSERC – to supplement the current health coordinator office (which is a model but not a template for the SSHRC and NSERC initiatives). These offices would be mandated to represent the broad research communities (defined by the Tri-Council granting agencies) within the VPR Executive and would be responsible for developing and implementing discipline-specific strategies to support and enhance research, scholarly and artistic activities. As evidenced by the success of the Office of the University Coordinator of Health Research (UCHR) over the last three years, this baseline support may provide appropriate infrastructure through which to develop targeted initiatives to enhance research success. The diversity of activities and methodologies used throughout campus scholarly communities, however, cautions against implementing one approach for all. The various research communities will be invited to articulate their needs in consultative and collegial discussions designed to enable the VPR to create the appropriate support mechanism for each research community. Generally, however, the support activities may include establishing programs aimed at improving the quality and quantity of grant and contract proposals including mentorship programs, internal grant review services, and identification of funding opportunities. A strong component of research promotion may also be necessary; for example, in promoting the development of research groups and collaborative opportunities.

The Research Coordinator offices are considered necessary to develop a significant role in the broader university and external community. For example, the current UCHR Office actively works with provincial funding organizations to develop strategies and agreements to enhance health research, and is instrumental in coordinating university initiatives for the province (such as the successful proposal for the Indigenous Peoples Health Research Centre and involvement with the new Academic Health Science Centre). A recent external review of UCHR emphasized the necessity of ensuring that the growing external relations role and responsibilities of this position are appropriately recognized; the 2003 review of the Health Coordinator position recommend that the position be up-graded to Associate Vice-President

² Social Sciences may include activities in Agriculture, Arts & Science, Commerce, Education, Kinesiology, Law, Nursing and Pharmacy & Nutrition and perhaps other colleges and units.

Health Research in recognition of its expanding mandate. The upgrade of the UCHR position will be completed in 2005 (at the end of the first term of the current incumbent.)

Established through a Memorandum of Agreement with the Saskatchewan Health Research Foundation, the Office of the Coordinator of Health Research consists of one FTE faculty secondment and two FTE ASPA personnel – one administrative support and one development officer position. Position descriptions are provided below:

University Coordinator of Health Research (Bruce Waygood, 2001)

- Encouraging and facilitating Saskatchewan health researchers to respond to opportunities
- Ensuring growth in research success especially with CIHR
- Facilitating collaborations in and between all areas of health research
- Maintaining awareness of health research activity and support in Saskatchewan with external funding agencies
- Administrative management of major projects that involve health research both in the inception and operation phase

Administrative Assistant (Beryl Radcliffe, May 2003)

- Provides administrative support to the Coordinator of Health Research and the Development Officer

Development Officer (Tom Graham, May 2003)

- Organizes health internal review services including grant reading,
- Organizes and delivers workshops and information regarding grant application and matching funding opportunities with research interests in the health domain.
- Assists in the development of major health research initiatives and proposals

Smaller in scope, the SSHRC and NSERC Research Coordinator Offices could be designed around an appropriate FTE faculty secondment and necessary administrative support. The academic leadership will be provided by a faculty members seconded to the positions of Coordinators for SSHRC (Social Sciences and Humanities & Fine Arts) and Coordinator for NSERC. One of the first goals of these Coordinators will be to determine, from the academic community, the extent and level of activity that is considered consistent and desirable with the goals of the respective researchers. Contributing to the overall goal of providing seamless service to the university community, all three research coordinator offices will work closely with, and help guide, development activity undertaken through the Office of Research Services and the Industry Liaison Office.

International Research

Through the *Research, Scholarly and Artistic Work Foundational Document* and *Globalism and the University: The Foundational Document for International Activities*, the campus community has committed to greater participation in international research, scholarly and artistic activities. The changing research context includes increasing levels of complexity, the emergence of new technological tools, the rise of perplexing ethical issues, the creation of innovation systems, and improved research capacity among partners and collaborators across the international research world (IDRC National Roundtable on New Directions in International Research, May 2003). These trends suggest greater preparation and planning is required if the University of Saskatchewan is to foster increased work focused on global issues, scholarship conducted abroad, and international collaborations.

As part of this integrated planning cycle, the OVPR will play a lead role in responding to the needs created by an emerging international research focus. Given the dynamic relationship which exists between international research and international institutional relationships, student and scholar exchanges and development projects, an OVPR response will require both active collaboration with the

Provost's Office and University of Saskatchewan International (USI), and engagement of the larger research community. Discussion is necessary to determine the most appropriate structure(s) to advance the University's broad internationalization mandate. For example, one option is the expansion of the current portfolio and mandate of OVPR – the Office could be restructured as the Office of Research and International Relations and include a dedicated and appropriately resourced unit addressing international research, institutional relations, student and scholar exchanges and development activities. This initiative is in step with developments at many other Canadian universities in which the internationalization agenda has been championed and implemented with leadership from the OVPR. Alternatively, it may be that the University is best able to meet the internationalization needs through a series of inter-related offices – this approach would see the OVPR developing an international research focus compatible and consistent with other developments in the international arena; the creation of an international research unit with the VOPR, for example, may enable more effective development of communication strategies, policies, and incentives aimed at increasing international and domestic research activities. In addition, the integration will facilitate current efforts aimed at rationalizing procedures; for example, research supported by the University – domestic and international contracts - needs to be reported and monitored in the same way.

Research Centres

There are twelve category B or C research centers (as defined under the University Policy on Centres' document recently approved by Council) reporting to the VPR. The diversity and productivity of these centers is nothing short of astonishing; their importance to the university and the academic community as a whole would be impossible to overestimate. They contribute to the intellectual life of the University through direct research activities, facilities, communication and public outreach activities such as conferences, workshops and symposiums, provide support services to promote and enhance particular types or themes of research, and are often actively involved in both undergraduate and graduate programs. Management and planning for these centers represents a significant challenge to the VPR and the UofS as a whole (this is true of most Canadian universities, many of which have been engaged in planning the appropriate level of development and support of research centers).

Generally, existing U of S centers were established, at various times over the course of the previous two decades, in the context of the following general environment:

1. Centres reporting to the VPR have a mandate that transcends any single college or other administrative structure on campus; their breadth and interdisciplinarity characterizes them as 'university-level' structures;
2. The VPR acts as the 'dean of centres'; representing each unit at dean's council and in other settings; and providing a voice to the centers' back into the university governance structures.
3. The range of resources supporting the centers is wide, but while the VPR does have budgetary responsibilities – to the Board – the VPR does not have financial core budget for centers – this situation must change!
4. A wide variety of governance structures, personnel and research emphasis exists among the current centers and in future centers that the university may wish to develop in response to funding opportunities, branding questions, or other developments.

Thumbnail sketches of the twelve centres reporting to the VPR are provided below. Complete centre-specific discussions on the research activities, governance structures, challenges, etc. available in *Appendix III: Integrated Plans for Centres Reporting to the Vice-President Research*.

Animal Resources Centre

The Animal Resources Centre provides infrastructure support for experimental animal care and use as mandated by the Canadian Council on Animal Care (CCAC) and implemented by the University Committee on Animal Care and Supply (UCACS); and is the service (including technical expertise) and supply unit for

faculty using laboratory animals in their research or teaching programs. There is considerable overlap in these two mandates.

Managed by a Director, the Centre consists of a staff of 8.5 FTE – two laboratory animal veterinarians (ASPA, including the Director), two office staff and 4.5 FTE animal care technical staff. The Director reports both to the Vice-President Research and the University Committee on Animal Care and Supply; the Director acts as the Executive Officer of UCACS – the University unit mandated to ensure continued University compliance with CCAC policies.

In addition to maintaining the current level of service and infrastructure support, the ARC has identified the following priorities for the current integrated planning cycle:

- Plan for an anticipated growth in biomedical research involving animals;
- Increase investment in education through continued development of the UCACS Education and Training Program and of a laboratory animal medicine training program; and
- Establish a more comprehensive UCACS, ARC and veterinary website.

The Animal Resources Centre received an essential (and continued) allocation of funds from the Indirect Costs Program; this funding is necessary for the Centre to ensure University compliance with the Canadian Council on Animal Care regulations including implementing new educational requirements. As the education training modules are still in the development stage, the Centre is not able to confirm the adequacy of this budget. In addition, the Centre is requesting additional resources to:

- Implement CCAC recommendations related to the provision of diagnostic and pathology services;
- Support animal health monitoring; and
- Provide additional clinical laboratory animal veterinary support connected with a proposed laboratory animal veterinary training program.

Canadian Centre for Health and Safety in Agriculture

This recently approved national centre aims at fostering a holistic approach to agricultural health and safety issues from “seed to supper.” Its primary objective is to provide adequate resources to develop a critical mass of researchers and trainees to address issues in six key areas: exposure to agricultural dust and odours; exposure to crop and animal protection and enhancement agents; the health and safety of the working and living environments; disease transmission from animals to people; food safety; and innovation in products and services. Based at the University of Saskatchewan, this centre has regional partners extending across Canada. Still in its infancy, the Centre will be formalizing appropriate governance structures in the upcoming months.

Community-University Institute for Social Research

The Community-University Institute for Social Research (CUISR) was established in 1999 and approved as a formal institute/centre by University Council in June, 2000. The mission of CUISR is to “*serve as the focal point for community-based research and to integrate the various social research needs and experiential knowledge within the community with the technical expertise available at the university*”. CUISR is configured to encourage development of a multidisciplinary, team-based and flexible approach to research and training. Although CUISR activities are currently oriented around three research modules – Assessing Quality-of-Life Indicators, Health Determinants and Health Policy, and Community Economic Development – there is an ‘entry and exit’ mechanism built into the administrative and management structure that allows for an evolution in the specific questions and issues that CUISR addresses. This is important in long term planning to adapt to changes in the external environment (e.g., needs of the community, strategic research priorities within granting bodies and foundations) as well as the research interests of the faculty involved with CUISR. In terms of integration, what this also suggests is that the current emphasis on Colleges such as Arts & Science, Commerce and Medicine is a reflection of the current agenda and, in the long term, faculty and students in other units may make more prominent contributions. In fact, graduate students and faculty from other Colleges, including Agriculture, Nursing,

Pharmacy & Nutrition, Extension, Kinesiology and Education have already been involved with CUISR in various projects.

In many respects, CUISR has been the first and visible example of a recent trend at the University of Saskatchewan to engage in community-based research funded by Tri-Council granting agencies. Since the establishment of CUISR, other noteworthy examples associated with the University of Saskatchewan that have adopted similar principles and use similar processes, albeit addressing different topics or issues, have emerged. Personnel in many of these initiatives are interlocking, such that they are involved to a greater or lesser extent in several projects. These initiatives are important in their own right but they also point to a niche or "competitive advantage" in research and training that the University of Saskatchewan appears to have over other universities in Canada; that is in critically examining the process and products of community-based research and the nature and characteristics of community-university collaboration.

CUISR was established with a balanced Management Board and Advisory Council. The Management Board consists of Community and University Co-Directors and Community and University Co-Leads for each of the research modules. This reflects the interlocking nature of social and professional relationships within the University and Saskatoon. It is also a testament to strong working relationships and trust that preceded the original CURA application.

Currently CUISR's staff complement includes 4.0 full-time equivalent positions. These positions include a full-time Administrative Assistant, Community Research Liaisons, a Policy Analyst (60% time), an Evaluator, and an Editor (25% time). At present time CUISR occupies two offices in John Mitchell Building and an adjacent Resource Centre which holds an expanding repository of community-based research literature.

Prairie Swine Centre

The Prairie Swine Centre is the swine research and teaching facility constructed by the University in 1979. The Centre significantly re-organized in 1991; it negotiated an arms-length relationship with the University and was established as a non-profit corporation with members of the University Board of Governors serving as members. The Centre's integrated plan is developed through extensive consultation with members of the pork industry, agribusiness, and the prairie research community. Largely re-affirming its original mandate in research, graduate education and technology transfer, the Centre's research continues to emphasize a commitment to meeting the technology needs of the pork industry with specific objectives of increasing the net income per pig sold and addressing issues related to animal welfare and environment, and ensuring that research results are made available to the industry through an effective technology transfer program. The Centre's strategic directions also emphasize development of research collaborations and strategic alliances, ensuring effective management and financial sustainability, and contributing to the development of highly qualified personnel. This latter objective speaks to the Centre's participation in the University's graduate program; research scientists in the Centre's engineering, ethology and nutrition units all supervise students and teach courses in the Departments of Animal & Poultry Science, and Agricultural & Bioresource Engineering.

Overseen by the President and Chief Executive Office who reports to the Centre's Board of Directors, the Centre consists of 56 full- and part-time staff and students; seven members of the PSC staff hold PhDs. These employees are housed within the Engineering, Ethology, Nutrition, animal production, contract research and technology transfer units.

In the current integrated planning cycle, the PSC will focus on expanding and intensifying research in engineering, ethology and nutrition. There will be limited development of new themes of investigation. In addition, the Centre will aggressively seek to increase its graduate student enrolment.

The Prairie Swine Centre has identified a number of challenges for implementing its strategic plan:

- Lack of core funding - The College of Agriculture contributes to the annual operating budget to the Centre. However, escalating costs (due to inflation, not due to expansion) and the need to maintain aging facilities are placing great pressure on PSC operations and hampering its ability to recruit and retain outstanding scientists PSC is requesting that the University enter into a cost-sharing arrangement to cover the costs of its "faculty-like" positions.
- Need to restructure or re-examine the position of adjuncts to ensure stability of participation of PSC members in graduate education;
- Renovation of aging facilities

Saskatchewan Drug Research Institute (SDRI)

Established in 1993 to forge links between pharmaceutical companies and Saskatchewan researchers with the intent of increasing the quality and quantity of pharmaceutical clinical research conducted in the province, the Saskatchewan Drug Research Institute provides site-management services to all Saskatchewan (U of S and beyond) clinical researchers who chose to access the services. In fulfilling its mission, the Institute serves as a liaison among parties involved in clinical trials, including the University administration (ORS, Financial Services, Corporate Administration), researchers (at the U of S, U of R, and non-university affiliated clinical researchers), health regions and ethics boards. A myriad of activities and services are provided under its mission including: compiling and distributing regulatory documentation for clinical sites/studies; completing local ethics review board submissions and ensuring compliance with local, national, and international regulations; assisting with local health region approval submissions; providing research account administration; providing researcher-initiated protocol development; educational programming; and contract site-monitoring services. In 2000-2001 SDRI serviced clinical trials represented over 9% of the total sponsored research at the University of Saskatchewan. A national report on clinical, pharmaceutical research has recognized SDRI as a "best practice" in Canada for supporting this type of research.

SDRI currently employs 8 FTE staff. The Institute is managed by a team consisting of the Director, Accountant, and the SDRI Board of Directors Executive Committee. Both the Executive Committee and Director are responsible to a Board of Directors chaired by the Vice-President Research, and accountable to the University of Saskatchewan Board of Governors.

It is anticipated that there will be significant opportunity in the next few years for SDRI to expand its activities. Clinical pharmaceutical research is expected to increase by 20% per year, globally, as projected by Health Canada. These expectations must be treated with caution as the pharmaceutical industry operates in an environment that is as volatile as any business environment. However, the Institute is proposing to increase its total contract value by 5-10% per year over the next integrated planning cycle. In gearing up to meet the potential for growth, SDRI must address some long-standing issues regarding resources that have reached a critical point in the last year.

SDRI has never received and continues not to receive any operating support (personnel, space or equipment) from the University of Saskatchewan. The Centre is principally funded through a trust account, established with donations from pharmaceutical companies (which has now been fully expended), and service fees linked to the University's overhead policy and site-management agreements between the Institute and researchers who do not have the University as a party to their research contracts. Revenue from these sources is insufficient to allow the continuation of current SDRI activities. With the University, the Institute is exploring avenues to address operating costs including:

- provision of rent-free University space for SDRI
- revision of both the University contract overhead policy and cost-sharing agreements with SDRI

The University could also consider partnerships with other institutions including the Saskatchewan Academic Health Sciences Network.

Saskatchewan Population Health and Evaluation Research Unit (SPHERU)

Established in 1999, SPHERU is a two-university, interdisciplinary research unit committed to policy relevant, community response research on population health determinants. It is mandated to build provincial population health research capacity and to provide an organizational bridge between the U of S and University of Regina. Research conducted through SPHERU is characterized as being collaborative, interdisciplinary and including community and other agency partners. The Centre has four broad hierarchical research programs (economic and environmental globalization, governance and health; community/environment as a health determinant; multiples roles, gender and health; and determinants of healthy childhood development) supplemented by three which "cross-cut" the different hierarchical levels (cultural identity and health; capacity building, power and powerlessness; and employment, work and health). A second notable feature of the Centre is its Community and Population Health Research Training Program (funded by a CIHR grant) through which the centre enhances the learning experience and provides funding to students at the Masters, PhD and Postdoctoral levels. Over the six years of the funded program, almost 30 new graduate students will receive support.

Managed by an Executive Director (a faculty appointment at the University), the Centre includes 42 members, spread between both sites, including research faculty, assistants, administrative coordinators, and students.

In the upcoming integrated planning cycle, SPHERU will be re-examining its funding model. The unit currently uses external funding to buy out faculty or fully funds new term appointments; however, cancellation of CIHR's Investigator and Senior Investigator Salary Awards and expiration of a RPP preferential funding agreement suggests that this model is not sustainable. The Unit is currently exploring alternatives including: negotiating with Medicine and Arts & Science to have core-funded tenure track positions allocated for potential SPHERU participants. Similarly, as the CPHR Training program expires, the Centre is investigating other means of sustaining its training program. With experience in establishing external agency partnerships, the Unit will also be exploring and expanding on collaborative partnerships with other U of S Units. Finally, like many units, SPHERU will be facing a space crunch in the upcoming cycle which will need to be addressed – likely through the New Academic Health Sciences Centre.

Saskatchewan Process Philosophy Research Unit

The Saskatchewan Process Philosophy Research Unit (SPPRU) advances and disseminates knowledge and understanding about the nature of process thought and its relationship to education, culture, pedagogy, ecology, mathematics and the natural sciences. Since its inception in 1997, the Centre has established a strong record of research performance (as demonstrated both through its publication record – in the last five years, members have produced 29 refereed journal articles, numerous book chapters, 12 articles in conference proceedings – and members' participation in national and international conferences (18 in the last five years)). SPPRU has established a presence in four broad areas; these same areas will be the focus of intensified activity over the current integrated planning cycle. Specifically, SPPRU will continue to increase its:

- Participation in local, national and international conferences;
- Publications with particular plans to produce an anthology of SPPRU members' work and to create an on-line journal *Creation of Rhythms: the Canadian Online Journal of Process thought / Philosophy Process*
- Sponsorship of discussion forums including introducing an annual Speakers' Series, revamping its seminar program.
- Further engage students in the field of process philosophy – introducing interdisciplinary graduate seminars and a new course on process ecology

Established in 1997, the Centre is run by consensus with each of four directors participating in determining its strategic directions. The Centre and directors are supported by a part-time administrative assistant and a post-doctoral research associate, who provides both administrative and research

assistance. Drawing its members from the Colleges of Education and Arts & Science, the Unit has established links with departments spanning a number of colleges and quite recently through a May 2003 conference highlighting the Synchrotron has begun developing a relationship with the executive.

This small but active unit has identified two main obstacles to its continued expansion and intensification of research activities. These are: lack of a central, equipped office, and deficient library resources. The Centre is requesting funding to address these issues.

Saskatchewan Structural Sciences Centre

The Saskatchewan Structural Science Centre (SSSC) is a multi-user facility providing services to the research community in the areas of material science, molecular characterization, biotechnology, and structural biology. The Centre complements the activities of the Canadian Light Source. Scheduled for completion in 2004, the new Centre is mandated to stimulate the research environment in priority and pre-eminent areas of pure and applied research by providing access to sophisticated equipment and methodologies.

In 2003, a permanent and internal management board, chaired by the Vice-President Research, was approved for the Centre. The board includes the SSSC Director (faculty position – part-time secondment) who is responsible for Centre management including stimulating user activity and obtaining commercial contracts. The Director and Centre are supported by a staff of four FTE ASPA personnel including a manager (who handles day-to-day management) and three research officers. In addition, the Director is charged with developing User Groups to provide input on Centre policy and use.

SSSC was proposed on a hybrid model mixing an academic research facility with a service-driven business-oriented research facility. This is in keeping with the thrust of universities being more closely linked to economic development, and this approach must be supported to create new opportunities.

The SSSC faces a number of challenges during its initial years of operation. The Centre must restore confidence in the project among users, staff and funders who have been disillusioned by the two year delay in project completion. In addition, the SSSC needs to address significant funding deficits. The University is being asked to extend the initial and improved "start-up" funding for five years as the Centre develops and implements a business development strategy. This strategy must address ongoing operating costs and inevitable increases in the costs of equipment maintenance.

Toxicology Centre

Established in the early 1980s, the Toxicology Centre has, over the last decade, firmly established itself as a multi-dimensional unit within the University. Governed by a broad mandate to be the primary source for advanced toxicology research and training in Western Canada, the Centre is notable for its active participation in research, extension and undergraduate and graduate education. Specifics of this broad scope of activities include:

- Development of an undergraduate interdisciplinary program - Established in 2002 through the College of Arts & Science, this program is still being developed but initial student interest and enrolment is very positive.
- Administration of an interdisciplinary graduate program in toxicology – Available since 1980, this program currently has 35 students. By the end of the current integrated cycle, the Centre is projecting an annual enrolment of 45 to 50 students. This projection is dependent on filling remaining faculty and chair positions.
- Administers the Northern Ecosystems Toxicology Initiative (a University priority determination area) and the University-wide Toxicology Group (comprised of approximately 70 faculty and scientists).
- Research – The Centre realizes an annual research revenue of approximately one million dollars. This represents approximately 20 projects on the go at any one time in one of three broad areas of expertise: aquatic toxicology and water quality; terrestrial ecotoxicology; and biomedical toxicology.

- Hotline service – the Centre responds daily to a significant number of inquiries on chemical exposure from the general public, media and health care professionals.

The Centre is managed by a Director reporting directly to the Vice-President Research; both the Centre and the Director are accountable to an advisory board which meets twice annually. The Centre's involvement in undergraduate education adds another dimension to its management structure – a reporting line is also required through the Dean of Arts & Science to the Provost & Vice-President Academic. The Centre has approximately 25 to 30 FTE employees including a Directory, four faculty (with academic homes in other departments), administrative staff, research technicians, graduate students and undergraduate students assistants.

Over the current integrated planning cycle, the Toxicology Centre is seeking to establish itself as a premiere institute for environmental toxicology research in Canada. The Centre has identified a number of strategies which will assist in fulfilling this objective. Specifically, the Centre is actively supporting and encouraging more inter-agency collaborations; expanding its research capabilities; focusing research on issues relevant to governments, industry and people of Western Canada; and increasing member participation in national and international forums (advisory boards, committees, meetings, conferences). Undeniably, however, the Centre's success is also linked to meeting a number of resource and personnel issues. The Centre will be working to fill the two vacant NETI faculty positions, and the Toxicology CRC. In addition, the Centre is requesting a financial commitment from the University to cost share on the following items:

- Space – Identified as the single largest impediment to research growth, the Centre is requesting increased administrative/academic offices to house its current and projected personnel and assistance with the construction of an aquatic research facility.
- Non-faculty personnel – the Centre requirements include: office support, a laboratory supervisor, a research scientist position

Vaccine & Infectious Diseases Organizations

The campus's largest centre, the Vaccine & Infectious Diseases Organization (VIDO) was established in 1975 to conduct research into animal and poultry diseases, to extend information on livestock management techniques to the community and to assist in technology transfer. As signaled by its March 2003 name change, VIDO is taking advantage of the increasing potential for connection between human and animal vaccinology to expand its activities. This expansion, however, continues to fit within the organization's commitment to lead in the development of novel therapeutic and prophylactic products for agri-food and health sectors. VIDO has strong formal programs focused on food safety, genomics and proteomics, and vaccine formulation and delivery. VIDO also participates in the training of graduate and post-doctoral students.

VIDO is a non-for-profit organization. It has a Board of Governors consisting of stakeholders from across Canada. The Centre is managed by a five officer operational team led by the Chief Executive Officer. At the time its Integrated Plan was submitted, the Centre consisted of 110 employees – however by year end the number was anticipated to rise to 140.

A consistently strong contributor to the University's research enterprise, VIDO is well placed to take advantage of the new priority placed on vaccinology (as a result of the international situation) and the Government of Canada's new focus on research-driven economic innovation. The Centre will continue to expand its activities to meet new vaccine targets but has also identified three general areas of emphasis for the current integrated planning cycle: genomics and proteomics, vaccine formulation and delivery; and food and water safety.

VIDO has clearly identified three challenges that inhibit its research activities:

- Core Funding for the Centre – Committed and very successful at obtaining funding to finance research projects, VIDO has identified as key to its continued success the need for the University to assist with purchasing equipment and covering operating expenses.
- Space / Facilities – opening of the new 50,000 square foot wing (funded through CFI) coupled with the success of the CFI INTERVAC proposal will address current deficiencies of adequate space.
- Developing an appropriate model for Centre/University interactions – the Centre has identified the need to establish a model for interaction which will balance VIDO's ability to respond quickly to business and scientific opportunities with mandated requirements of the University system.

Western Beef Development Centre

The Western Beef Development Centre is a registered non-profit corporation focused on research with a practical application for the western Canadian cattle industry. The Centre acts as an intermediary between the research community and the cattle industry assisting in the transfer of knowledge and technology.

Managed by an Executive Director, the Centre consists of 8 staff members. The Executive Director is directly responsible to a Board of Governors which includes representatives from the beef industry, government and the University of Saskatchewan.

The Western Beef Development Centre is currently negotiating a new relationship with the University of Saskatchewan. The Centre has identified the necessity of balancing its interactions with the U of S with its commitments to other shareholders.

Women's Studies Research Unit

Conceived in the mid-1980s, the Women's Studies Research Unit is mandated to promote scholarly research for, by and/or about women; to establish a network of women-centred researchers; and to foster links between academic research and community activism. Given this mandate, Centre activities focus on developing and sponsoring strategies to enhance communication and collaboration. This focus links well with an emerging University and Canadian emphasis on interdisciplinary studies. Activities include:

- Organizing and sponsoring lecture series, conferences, political forums and discussion opportunities (i.e. Speaker Series, Canadian Women Writers, Graduate Student Conference, Women's History Month, Qualitative Research sessions, etc.);
- Development and distribution of bi-annual newsletter;
- Facilitates collaborative research projects
- Maintains an extensive network of relations with local and national associates and provides advice and information to external and internal agencies.

The Women's Studies Research Unit includes in its membership faculty, sessional lecturers, ASPA, graduate students and community members. The Unit is organized around a seven-member (minimum) Executive Committee from which a Chair (or Co-Chairs) is selected. The Chair works closely with the Executive Director – the only position paid through the Unit (1 FTE ASPA) – to implement priorities identified by the Executive Committee.

For the current integrated planning cycle, the Women's Studies Research Unit has adopted the theme "Women and the Environment." Existing services and programs will embrace this focus and new initiatives – particularly an increased emphasis on undertaking research projects and the production of publications and videos – will centre around the theme. The Unit has identified a shortfall in funding to provide administrative support as the largest barrier to ongoing success of its activities. In addition, the Unit has emphasized a need to enhance interactions with the Office of Research Services and to look to the ORS for additional assistance in identifying funding sources and providing assistance in developing research groups.

III. People – Staff Complement and Resource Plan

Resources

For the Integrated Planning cycle 2004-2007, programs, services and personnel in the Office of the Vice-President Research will be funded from the following sources:

- 1) Operating Budgets
- 2) Indirect Costs Program (Federal, SDAFRR, Provincial)
- 3) External Organization Partnerships
- 4) Industry Contract Overhead and other service fees
- 5) Cost recovery and income from licensing of intellectual property

Investments in the Office of the Vice-President Research will grow during the current Integrated Planning cycle in response to the dramatic increase in research services required by the University of Saskatchewan.

Enhancements to Office personnel, services and programs will be funded from a variety of sources, including strategic re-investment of funding received through indirect costs (IC) programs, external organization partnerships, and industry contract overhead and service fees. In each of these areas, policies have been developed to promote growth of the funds and to strategically re-invest in the University's research enterprise. Re-investment or distribution of non-operating funds will be guided by four principles:

- 1) Funds must be directed to the University's operating budget to offset incremental costs associated with the growth of research, scholarly and artistic activity;
- 2) Strategic investments in personnel, programs and services administered through the Office of the Vice-President Research are essential to the on-going viability of the University's research agenda;
- 3) Funds must be made directly available to college and administrative units which contribute to the growth of research and thus to the growth of discretionary research funds (Indirect Costs programs, contract overheads, external partnerships and industry fees); and
- 4) Funds will be managed in a transparent manner; appropriate accounting will be provided to the funding agency (as required) and to the University community.

Fund-specific distribution principles and strategies are described below.

Indirect Costs Programs

Federal Program

In the Fall of 2003, the federal government announced a six-year commitment to the Indirect Costs of Research Program. In response to this federal commitment, the publication of restrictive program guidelines (including an annual eligible expenditure approval and reporting structure), and the increasing campus demands for IC funding, the Provost's Committee on Integrated Planning established a series of principles to guide both the 2003-04 and future allocations to address existing operating fund expenditures, new initiatives in research management and administration, new programs to support researchers, and new growth funds (created if and when the fund increases over time). Approximately 60% of the University's annual IC allocation will be directed to incremental indirect costs largely associated with facilities, resources (such as library acquisitions), and regulatory requirements that were previously committed through operating funds; the remaining 40% will be allocated to introduce programs and services to support increased institutional activity. Up to one quarter of the allocation – more than \$1 million – has been earmarked to assist researchers in preparing grant proposals, supporting collaborative ventures, and developing research groups.

The Office of the Vice-President Research will manage the fund through the IC Advisory Committee (with oversight by PCIP) and, obviously, with the approval of proposed expenditures by the ICP Secretariat. Expenditures are distributed through the eligible categories as follows:

1. Facilities – 28%
2. Research Grant Preparation – 21%
3. Resources (i.e. information technology, library) – 10%
4. Management and Administration – 16%
5. Regulatory Requirements and Accreditation – 13%
6. Intellectual Property Management – 12%

Provincial Indirect Costs Programs

In 2003 the University signed a new five-year Strategic Research Program with the Saskatchewan Department of Agriculture, Food and Rural Revitalization (SDAFRR). A critical aspect of the program, is the agreement that SDAFRR will pay 15% of the Strategic Research Program awarded to the University to cover the indirect costs associated with the funded research activities. The Office of the Vice-President Research is currently in negotiations with the Provincial government and the College of Agriculture to determine an appropriate allocation strategy for the annual indirect costs funding received under the agreement. The federal program is one obvious model for the provincial allocation strategy.

As proposed in its 2004-05 *Operations Forecast*, the University of Saskatchewan is interested in a discussion with the provincial government to establish a provincial indirect costs program modeled after the federal IC program. The SDAFRR Agreement, which included the principle of indirect costs funding, bodes well for the success of these negotiations. Congruent with the federal IC program, the proposed Saskatchewan indirect costs allocations will be based on the total amount of provincial research funding flowing to the University. In 2002-03, the University received \$26 million from provincial government sources.

External Organization Partnerships

MOA with the Saskatchewan Health Research Foundation (previously the Health Services Utilization and Research Commission)

In November 1999 the University of Saskatchewan signed a Memorandum of Agreement with the Saskatchewan Health Research Foundation (SHRF). The MOA established an Office of the University Coordinator of Health Research jointly fund by SHRF and the University. The agreement expires in 2005; both parties are interested and eager to renegotiate a second funding agreement.

Industry Contracts and Services Fees

Research Contract Overhead

In response to growing University concerns, the OVPR is spearheading a review of the policy on the *Administration of Research Grants and Contracts Overhead*. Increasingly both the University and its funding partners are recognizing that there are significant costs associated with the support of research (i.e. preparing and negotiating contracts, administering grants and contracts, technology transfer activities); recent studies estimate that, though such indirect costs vary across disciplines and institutions, the University incurs indirect costs of approximately 40% of the direct research cost. A revision of the *Administration of Research Grants and Contracts Overhead Policy* must consider these realistic estimates of costs incurred through engagement in grant and contract activity. These estimates, however, must also be weighed against a number of other factors including those less quantifiable; policy review must

consider the importance to the University of certain areas or types of research, rates charged at comparable institutions, market forces, etc. It is clear that a number of campus constituencies will be engaged in discussions leading to revisions to the current *Overhead Policy*.

In its final form, the revised *Administration of Research Grants and Contracts Overhead* must lay out clear and research-appropriate guidelines for the assessment and recovery of overhead. Equally important, the policy must also ensure that overhead fees are re-invested in research, scholarly and artistic activities and support systems generally, and that specific units are encouraged to expand their contract activity by receiving a portion of the overhead revenue income.

As part of the policy review the University will be examining procedures around the allocation of overhead; it is anticipated that the current practice of 50% going to the originating College and 50% going to centrally-administered costs will largely continue. However, using the current (2003-04) overhead funding level as a threshold, future increases in overhead revenue income would be divided between the originating College and the VPR office to re-invest in research. In this way, during this planning cycle, the general categories used to distribute funds in the federal indirect costs program would be applied to the research contract overheads funds.

Within the budget cycle, and based on current trends, it is anticipated that the total number of contracts will increase at a rate of 5-10%; overhead income should follow with an additional increase related both to increased activity, and new and consistent overhead rates. However, a plateau may be reached as the market is saturated within the province. It is necessary to expand the market base by attracting more national and international clients to ensure continued growth in research.

Changes in personnel

Over the course of the current integrated planning cycle, the OVPR will be fully implementing its new structure – including filling newly created priority positions. A symbiotic relationship exists between an expansion of campus research, scholarly and artistic activities and the growth of the OVPR personnel and programs. An initial investment in the OVPR is essential to provide campus scholars with essential programming and administrative support to assist their efforts in intensifying their research activities. Research, scholarly and artistic successes and needs will drive program and administrative support investments over the next few years. It is essential that investments in programs and personnel be sufficient to maintain the level of service and support appropriate to a research intensive institution. The Office is anticipating one retirement in the next few years. *Appendix II* contains a table showing the increase in OVPR personnel over the integrated planning cycle under the best case scenario for growth in research and indirect costs.

IV. Challenges and Opportunities

Developing Mechanisms to Support a Proactive, Team Approach

The Office of the Vice-President Research is in the midst of a significant transformation; the Office as it exists in 2004 only remotely resembles the unit in place just a few years ago, and this evolution will continue through the end of the current integrated planning cycle. There have been significant changes (in fact, almost total replacement) in the research leadership (new Vice-President Research, Director of Industry Liaison, Director of Research Services, Associate Vice-President Research, special advisors or 'Research Coordinators' for SSHRC and NSERC), an increase in research administration personnel in communications, grants and contracts, ethics and ILO, and an expansion of mandate – in this planning cycle, the office is gearing-up to assume additional and new responsibilities for leadership and

management of international research activities and dramatically increased knowledge transfer and technology commercialization functions.

These rapid and massive changes provide a unique base from which the Office can offer comprehensive and seamless service to the community on all aspects of research activity. However, they also pose an initial challenge to Office personnel. Over the next year, a primary focus of the OVPR will be to establish strategies for the interaction among its various units. For example, industry liaison and contract activity occur both within the new Industry Liaison Office and in the Grants/Contracts Unit located in the ORS; the focus of the two units, however, is different. Discussions are essential to establish guidelines for responsibility, information sharing and to develop an office-wide overview of activities; this will enable Office members to effectively respond to inquiries, direct researchers to the appropriate personnel and establish the comprehensive service for which the OVPR wishes to be known.

Recognizing that good internal communication is one of the pillars for building a proactive, service-oriented unit, the OVPR has identified a number of strategies to ensure the development of an informed team approach. Over the next year, the OVPR will implement the following priority actions:

- Hold regular OVPR staff meetings and annually schedule a full-day retreat;
- Create discussion groups for units with over-lapping mandates to establish clear understandings of responsibilities and strategies to support the functions of all units. Priorities in this area include:
 - Developing a plan around industry liaison, commercialization and contract activity – these discussions will include the ORS Contracts/Grants Unit, the ILO and International research and other key University agencies;
 - Ensuring interaction between personnel responsible for “development” of research activities with those fulfilling the management and administrative role. Individuals within the Grants/Contracts Unit responsible for pre- and post-award administration will need to work closely with new Development Officers, the ILO and the various Research Coordinator Offices.
 - Establish protocols between the Research Communications Office and other OVPR units to ensure a two-way flow of information regarding researcher successes, major developments, etc. Options to meet this challenge include developing an internal listserv or bulletin board.
- Develop a database or series of linked databases to track and share information related to grant and contract activity, inventions and patents, ethics requirements, etc. and to create a researcher expertise database. The details and implications of this initiative are extensive and are discussed below.
- Proactively pursue solutions to the OVPR space crisis. The OVPR is currently located in leased space in the NRC/PBI Building. This situation is less than ideal: not only is the rent significant, but offices are located in different wings of the building. Effective internal communication and the ability to offer a one-stop approach to researchers requires that all units be located in close proximity and in a central area easily assessable to researchers.

The OVPR’s ability to develop and monitor programs and services targeted at specific areas, involving set funding partners and supporting collaborative activities, is increasingly hindered by an inability to systematically track research-related data. The current in-house database focuses on the operational management of grants, contracts and ethics; it, consequently, records only a minimum set of indicators and has a limited ability to provide information on research-related performance in various areas. To create and maintain programs targeted at specific goals as outlined in the *Research, Scholarly and Artistic Work Foundational Document*, the OVPR needs to develop a single or a set of integrated databases capable of tracking a wide range of data including: funding type, intellectual property implications, patents, collaborators, locale of research, ethics requirements, contractual obligations concerning publicity, etc. The Office is currently engaged in discussions with the Financial Services Division regarding the capacity of the new Banner system to meet the research tracking requirements. Early

indications suggest that the system will be somewhat limited and that the Office will need to develop a series of Oracle-based databases capable of interacting with each other. The OVPR is cognizant of the need to create a sustainable system; discussions over the next year will include prioritizing the potential database fields and establishing the appropriate human resources to maintain the system.

In addition to monitoring the specifics of grant, contract, knowledge transfer and ethics activity, the OVPR has also identified the creation of a researcher expertise database as a top priority. In the upcoming integrated planning cycle, the Office is introducing a proactive approach to researcher support. One aspect of this will be the creation of development officers within ORS. As part of their responsibilities, these individuals will link researchers with funding opportunities, commercialization prospects, and with potential collaborators within the University. To be effective these activities rely on an up-to-date inventory of the campus community's research interests, areas of expertise, and current projects.

On another front, it is becoming apparent that discussions are needed to develop institutional strategies around approaching external funding partners. A coherent message must be developed and then received by potential partners (e.g., Western Economic Diversification). The AUCC has agreed to general commitments to the Government of Canada that universities will triple their knowledge translation activities by 2010 as part of the responsibilities associated with the Tri-Council Indirect Cost program. The establishment of funding for both the CFI and CRC programs is explicitly based upon a contribution to economic growth, and more specifically, provincial support for these programs involves an expectation of benefit not only to the academic community, but to society through demonstrable economic activities. The CFI proposals for the CLS, Saskatchewan Structural Science Centre, and several other established units or operations are based upon a hybrid business and academic model of funding. The essential requirement of the business model is that these organizations must operate such that they can give assured service, and that they need to market their capabilities. In order to effectively sell research services as method of co-funding or as part of the AUCC commitment, a business strategy should be developed that takes advantage of co-marketing. External partners can be identified: SREDA, Saskatchewan Research Council, NRC-PBI, to name but a few. ILO should have a role in this activity, and co-funding opportunities with Sask Industry & Resources and Western Economic Development are also possible.

Areas of Pre-eminence

Through the *Research, Scholarly and Artistic Work Foundational Document*, the campus community committed to the establishment of 'areas of pre-eminence' as part of the process thought necessary for the University of Saskatchewan to compete nationally and internationally as a research-intensive institution. Discussions around the *Research, Scholarly and Artistic Work Foundational Document*, however, underscored the complexity of identifying areas of pre-eminence – current, emerging and targeted – from the wide range of disciplinary and interdisciplinary creative work undertaken by campus scholars, and highlighted the necessity of establishing a transparent and collegial approach. In response, the OVPR will work with the RSA Committee of Council, and the Associate Deans Research Forum, to develop a plan to identify research, scholarly and artistic areas of pre-eminence during this planning cycle. The critical need, in short, is to confirm the value of this concept as a planning tool, and to develop a report, for presentation and approval at Council, which identifies current, emerging and targeted areas of pre-eminence at the University of Saskatchewan. It will be necessary to develop working definitions of emerging, targeted and current areas of pre-eminence; review the areas of research, scholarly and artistic strength, and their supporting rationale, identified in the College and Centre plans; develop an integrated picture of research, scholarly and artistic activity on campus with particular attention on the ways in which college- or center-specific creative activity is enhanced or supported by activities in another unit; identify, from the many strong campus research themes, five or six broad areas which meet the definition; establish a process by which areas of pre-eminence are reviewed on an ongoing basis and selection of areas of pre-eminence under each category are modified based on the review outcome.

Once identified, the areas of pre-eminence may be used to inform strategic decision-making within the Office of the Vice-President Research and the University as a whole. For example, while continuing to ensure support for the broad range of scholarly activities, the areas of pre-eminence could be used to help build support for donors and other funding opportunities, and to guide the differential allocation of resources in at least three broad categories:

- (1) New support for graduate students;
- (2) Priority allocation of funds from the new programs administered through the Office of the Vice-President Research (e.g., Matching University support for large non-operating grants, and support for the development of research groups and multi-agency collaborative projects);
- (3) Priority for faculty development and new research chairs (including the Chancellor's Research Professorships proposed in this document).

Advertising and publicity focusing on these areas of strength and academic pre-eminence will be instrumental in establishing the U of S research reputation. It is anticipated that such targeted campaigns will have far reaching effects; bringing additional industry, government and other external agency support to bear on the University's research enterprise.

Policy and Structural Review and Revision

The University of Saskatchewan has over twenty-five policies and procedures guiding research, scholarly and artistic activities. Over the course of the current integrated planning cycle, the Executive Group will facilitate and oversee the review, by the appropriate OVPR unit and/or other campus body, of all such policies and procedures. Ensuring a collegial and transparent approach to policy revision, the OVPR will work closely with the three bodies designated as resources for the VPR – the Research, Scholarly and Artistic Work Committee, the Associate / Assistant Deans Research and the Centres reporting to the VPR. The policy reviews must address a number of broad principles including the protection (broadly defined) of the investigator and the university; adherence to external regulatory requirements; the changing nature of research – independent and collaborative ventures; and the necessity of ensuring that the real costs of research, scholarly and artistic work are addressed where appropriate.

The following six policies have been identified as priorities for review during this planning cycle (2004-2007):

- Administration of Research Grants and Contracts (Overheads) – During a period of escalating costs related to research activities, and an increasing understanding among industry and government partners, it is essential that the University policy on the application of overheads be comprehensive and consistent. Equitable application of a realistic policy will provide essential support for research activities across campus.
- Intellectual Property – Current policies are outdated and procedures are poorly outlined. In addition, it excludes copyright materials. The University needs to re-visit this issue in order to take advantage of the commercialization opportunities afforded by software, e-texts and multi-media teaching tools;
- Conflict of Interest and Commitment;
- Appointment of Adjuncts and Associates including Post-Doctoral Fellows – The nature of the relationship between the university and external researchers may have significant impact on their ability to engage in types of and government funded research.
- Code of Ethics related to research, scholarly and artistic activities
- Research involving Indigenous Communities – Indigenous communities are committed to changing their relationship with university research activity from research subject to research partner. This new relationship is not only a requirement to meet the Tri-Council Guidelines on Human Ethics, but

also the development of protocols with Indigenous communities that will facilitate research with these communities.

- Ethics Assessments – Following long-established practices of service to the community, the University REB committees review proposals for researchers from health regions, Saskatchewan Cancer Agency, and even private clinicians. This practice is currently being re-examined in cooperation with the Saskatchewan Academic Health Sciences Network. Industry-sponsored research needs to be assessed appropriate fees to defray costs of the ethics review and monitoring, as the requirements change.

Ongoing policy review and revision will be accompanied by increased OVPR efforts to educate the University community on the specifics of the procedures and policy, and the rationale underpinning them. The emphasis on education is matched by an equal awareness that the policies must be clearly written and need to be accessible to the campus community. The *Research Handbook* needs to be re-worked and made available to researchers in a variety of formats including the OVPR website.

In addition to addressing research-specific policies and procedures, the OVPR will initiate review and revision of related long-standing practices and policies which impact engagement in research, scholarly and artistic activity. Significant changes have and are occurring in the ways in which faculty may pursue scholarly work and in the institution's commitment to the fundamental role of research in the intellectual life of the University; it is important that University structures keep pace with these changes. For example, research interests of both the candidates and the University need to be addressed when hiring faculty and senior administrators. As significant investments are made in faculty careers through Canada Research Chairs or the proposed Chancellor's Research Professorships, the institution needs to address issues around building a critical mass of faculty expertise to enhance and support these personnel investments and to provide scholarly successors in key research areas. In addition, merit and promotion decisions need to ensure appropriate recognition of collaborative or community-partnered research activities. Similarly, the University must re-examine relations it develops with external researchers – the position of adjunct must be structured to the benefit of both the institution and the researcher.

Ensuring Strategic Re-Investment in the Research Enterprise

As described under *Personnel and Resources*, the U of S research community benefits from a number of new external funding programs aimed at covering costs associated with research, scholarly and artistic activity. Though often governed by restrictive fund terms of reference, these monies have the potential to exponentially develop the campus research, scholarly and artistic activity. The Executive Group is responsible for strategically managing these funds for programs related to research activities. The key component of this strategic plan is ensuring input from the research community and university administration. Terms of Reference for the following fund advisory committees have been developed around this principal of consultation: Indirect Costs Program; Canada Foundation for Innovation Infrastructure Operating Fund.

Similarly, the Office will be responsible for ensuring that increased revenues arising from contract overhead, licensing of IP, funds obtained through a proposed provincial indirect costs program will be re-invested in the research, scholarly and artistic activities.

However, these 'targeted funds' from indirect costs and other programs are simply not sufficient to enable the University to reach its goals in the research environment (partly because they are 'restricted' but also because they are too few). The OVPR has identified the following areas in which investments from the University's other available funds are required (and which are described more completely in the Recommendations):

- To provide matching University funds to bolster large collaborative or multi-agency grants;
- To provide the necessary space and infrastructure for an institutional 'Research Commons';

- To support the development and growth of research centers, research groups, areas of pre-eminence;
- To support the establishment of Chancellor's Research Professorships;
- To support graduate students and the development of undergraduate research initiatives (e.g., summer research program for SSHRC students).

Establishing Appropriate Governance Structures for Research Centres

Flexible administrative and research structures afforded to centres is often an impetus for their establishment and rapid development but may also become a concern both of the University and of research centres. The recently approved policy on Centres begins to address the question of recognizing Centres within the resource allocation and academic decision-making structures of the University. The new policy streamlines and formalizes establishment, reporting and disbandment procedures and in doing so, begins the process of assigning appropriate reporting lines for all centres. Implementation of the new policy is fundamental to ensuring continued viability of centres. Over the course of this planning cycle, the OVPR will be engaging in discussions with the various centres already assigned to its jurisdiction to ensure that they report to the administrative body best able to reflect and support their concerns and mandate. These discussions will be guided by three principles. Centres reporting to the Vice-President Research must:

- (1) Be interdisciplinary in nature;
- (2) Be engaged in activities that cross at least two colleges; and
- (3) Have research or supporting research activities as their primary mandate.

It is anticipated that some centres currently under the OVPR may be best served by reporting to a College (for example, Cameco MS Neuroscience Centre, Saskatchewan Process Philosophy Unit), while others may find that reporting to the OVPR – under a new plan which clearly establishes responsibility and leaderships structures - will support their development and evolution. Over the course of this planning cycle a comprehensive discussion is needed that will allow the appropriate reporting structures to emerge and be implemented for all centers at the University of Saskatchewan. And finally, it is anticipated that in remaining years of the current cycle new centres will be established – for example, the proposed Centre for Hydrology and the Canadian Centre for Health and Safety in Agriculture; such new research centres, which cross college boundaries, provide an important avenue by which the University can develop strong research and collaborative groups, attract significant funding, and publicize research expertise that is scattered through a number of traditional administrative units. Currently, interdisciplinary centres contribute significantly to the University in terms of research, undergraduate and graduate teaching and public service. Further, a review of college plans indicates that many traditional academic structures are exploring the flexibility afforded by the centre structure in addressing research and educational questions. This exploration is partially fueled by growing Tri-Council and other granting agency emphasis on interdisciplinary collaboration.

Providing Appropriate Space and Resource Support to Research Centres

Implementation of the new Policy on Centres, however, will not fully address the unique situation of centres reporting to the Vice-President Research. In transcending college boundaries, these centres can sometimes appear to lose their avenue for participating in university decision-making forums and have limited recourse to obtaining appropriate operating funding and space. This situation must be remedied.

The Integrated Plans of the Centres reporting to the Vice-President Research almost uniformly cite the lack of appropriate core funding as the biggest obstacle to their activities. Given the important, and perhaps increasing significant, role played by Centres reporting to the Vice-President Research, it is

essential that the University provide a stable base to develop, support and enhance their research successes. Core funding, under the administration of the VPR, needs to be made available to assist the Centres in recruiting and retaining top researchers and scientists, providing essential and consistent administrative support, and covering operational expenses falling outside of research grant support.

A budget of approximately \$1.5 million is needed to meet current unmet administrative and operating needs of established centers. (This amount is over and above current university support and support received from other agencies.) A core budget for centres must also include adequate support for new centres coming on-line which are deemed to be of strategic significance to the University.

Like other units on campus, Centres frequently identify the lack of adequate space as another significant obstacle to research activities. The integrated plans of centres reporting to the Vice-President Research include a number of space requests ranging from needs for campus office space (Saskatchewan Process Philosophy Centre, Saskatchewan Drug Research Institute) to the more extensive requirements of the Toxicology Centre and Prairie Swine Centre for complete lab and office suites consistent with their research mandates and activities. For example, the Toxicology Centre requires an immediate, short-term increase of space between 80 and 100 m² (long-term requirements are 1500 to 2000 m²) and over the current integrated planning cycle, the Prairie Swine Centre must begin addressing renovations costs associated with aging facilities. None of these specific space situations are consistent with the University's stated goals of increasing research intensiveness; by inadequately resourcing these key research centers, the university is actually significantly reducing its research intensiveness and impoverishing the overall academic environment.

Through its planning process, the University must now recognize the space requirements of centres. The proposed Academic Health Sciences Centre funding has a substantial commitment to creating improved research facilities in the first round of development. This may provide for the space needs of Saskatchewan Population Health and Evaluation Unit, Indigenous Peoples Health Research Centre, and other related research groups such as the Community University Institute of Social Research, all of which are related to provincial health research priorities.

Investments in both established and new centres must be guided by the University's strategic directions and areas of priorities. Arguments to provide an appropriate budget to support centre activity must be accompanied by a commitment to implement an effective decision-making structure that is able to meet the need for advocacy, resource allocation and oversight, while providing the flexibility to accommodate the diverse structures of interdisciplinary research centres. Further it is clear that the expectations for centre performance must be clearly defined: investments in centres must have clear and measurable benefits to the University as a whole, not only in the research domain, but through their impact on students (undergraduate experience) and graduate/postdoctoral training opportunities.

Facilitating Development of Individual and Research Group Activities

Research Centres are Council-approved structures providing formal and recognized organization to a group of scholars working in related research areas. They can be viewed as the far end of a spectrum which ranges from individual work, to less formal, often-limited term collaborations or research groups. Individual curiosity-driven research remains the dominant and often preferred approach for scholars across a wide-range of fields. In some areas, researchers are also exploring, as an alternative or complement, opportunities to create or identify with a cluster of research expertise in a broader area. Though they may develop into formal Council-recognized centres, these research groups are characteristically limited term entities. They allow scholars to come together around a project and/or to visibly present a cluster of expertise both internally and externally, but do not require the long-term university commitment or the infrastructure associated with a formal centre. Recognizing and providing appropriate support for such research groups can assist the University in establishing a national or

international reputation in an area, attract external funding agencies and allow the University to account for growing areas of expertise in its hiring practices and other decision-making processes. Mechanisms and programs best able to support scholarly activity range broadly across disciplines. It is essential that discipline-specific approaches are made available to researchers. Though further discussion will be required, early indications of the most important common needs – of individual scholars, research centers, and less formal, though not less critical, research groups (apart from time!) include:

- Reducing the administrative burdens of faculty related to grant/contract development and administration, facilitating new opportunities for engaging in research, and sharing research outcomes;
- Funding to assist in the development of proposals, development officers to assist in identifying funding opportunities and assist in writing proposals, communications support, and many types of proactive assistance (e.g., travel, student support);
- Identifying and developing commercialization opportunities for many scholars approaching research in various ways.

Just as the formal structure of centres pose distinct challenges and concerns, the OVPR recognizes that the formation and activities of research groups will require specific programs and supports. Programs to provide administrative support and offset the costs associated with developing internal disciplinary or interdisciplinary groups are essential but can only be implemented with the support and guidance of the community that the programs are intended to serve.

Measuring Success: Identifying and Establishing Appropriate Benchmarks

Measuring the success of the OVPR operations then becomes intricately linked to the University's overall success in reaching the ambitious – though realistic – goal to establish the University of Saskatchewan as one of Canada's top ten medical/doctoral universities. The achievement of this goal will be rather more readily identified than the specific programs and processes that have led to success. Establishing benchmarks to assess the University's research, scholarly and artistic activities is a complex task requiring discussion and input from the broad campus community; clearly, no one set of indicators will be appropriate. The intellectual life of the University community cannot be understood through quantifiable measures alone. Through the *Research, Scholarly and Artistic Work Foundational Document* the OVPR has committed to working with the campus community to develop discipline appropriate understandings of successful creative performance. These discussions will undoubtedly influence the ways in which the OVPR both designs and assesses its programs and services. For example, we will monitor activities related to the following general criteria and adjust programs and services to ensure that the needs of researchers are met:

- Research funding – grant (including Tri-Council) and contract funding
- Commercialization activities – invention disclosures, start-up companies that are still active after 10 years, industrial sponsorship, income from licensing
- Rates of both grant application and success in external competitions
- Research revenue – indirect costs, overhead charges, licensing fees, etc.
- Attracting international and national funding partners
- Outcomes of external audits related to human and animal ethics

Equally important given the OVPR's aim to provide excellence pro-active service to the research community, will be the assessment of the campus community. Through feedback obtained through surveys and from discussion and strategy sessions with colleges, centres and individual researchers, the Office will become more aware of the ways in which services and programs are used by researchers; and try to establish, with the community, the value provided to the campus community. Benchmarking, using comparable universities, and auditing of service, are two obvious tools that will be considered for

implementation in this planning cycle. The Office will develop better – and transparent – ways to monitor its performance related to:

- Relations with other administrative units to provide one-stop, seamless service;
- Developing equitable and realistic policies and procedures;
- Providing information to the campus community on a wide range of topics including ethics, internal and external funding and education opportunities;

In addition, the OVPR will be working with each of the centres reporting to the VPR to develop an understanding of how their diverse activities – research, public outreach and service, undergraduate and graduate education – contribute to the intellectual life of the University and the broader community. As with the larger University community it is clear that no one set of variables will be appropriate. Some centres have begun the process of selecting indicators through which their performance can be assessed. These factors include: number of projects completed, award citations received, publications (both quantity and quality as determined by peer-reviewed journals), numbers of graduate students and career path of these students, success in attracting an informed and target audience to symposiums, workshops and conferences, success of research groups or collaborations, feedback from clients, etc.

V. Recommendations

The development of an Integrated Plan and Multi-year Budget for the Office of the Vice President Research has created one opportunity to articulate the aspirations and needs of the research community within the changing context of research at the University of Saskatchewan, across the Canadian research landscape, and internationally. Research is a critical component of academic life and is constructed on the Foundational Documents and the Strategic Directions of the University. Two broad recommendations have been identified that have far-reaching implications for the VPR Office and which are based on our commitment to continue: 1) maintaining and enhancing research service to the academic community and 2) providing the necessary stimulus to enable the university to achieve its goal of increasing research intensiveness in the 2004-2007 planning cycle.

Recommendation 1. The Research Commons

A dedicated, multi-purpose research building is required to facilitate and support research, scholarly and artistic activities on campus. A Research Commons is a bricks-and-mortar requirement – the building would house all research administration and management units, provide central space for identified centres, house professors emeriti, provide incubation space for new centres and research groups, and house potential spin-off company and other 'structural' research outcomes. This recommendation is based on the obvious observation that it is not appropriate for the various research services, industry liaison, communications and other components of research to be disbursed around the campus in temporary, inadequate, and sub-optimal space. In addition, a centralized Research Commons must be supported by appropriate development of research 'nodes' in which graduate students, researchers, and support people are adequately supported to ensure a critical mass and synergy can be achieved in their activities. We need an opportunity to design and execute the appropriate working environment to best support all aspects of the research enterprise – a University of Saskatchewan Research Commons.

Recommendation 2. Supporting Research Excellence

A suite of initiatives – all linked to the central theme of increasing research intensiveness through research achievement and pre-eminence – is necessary to support the development of a high-quality research culture focused on excellence, innovation, and diversity. The appropriate decision-making structures are needed to ensure that the idea of supporting research excellence is carried out in an inclusive and collegial environment.

Chancellor's Research Professorships: A new designation in our university of "Chancellor's Research Professorships" is required; not only to promote recognition of the emerging research culture, and provide a focus for the development or continuation of research areas or excellence or pre-eminence, but also to provide the recipient with long-term support to increase research and a point of leverage for outside funding. These positions can be established for faculty with either emerging or established research programs. An academic appointment of five to seven years is envisioned with appropriate balance of research and teaching responsibilities. The positions can be linked to existing research infrastructure or capacity, and to the identified areas of pre-eminence, and be designed to provide a leadership role for the development of the areas that the University of Saskatchewan will promote and become known for nationally and internationally. Ideally, these positions will be supported by trusts managed by the OVPR. Funds designated for these professorships will be used to support a combination of full-funded and enhanced chairs. For maximum impact and effectiveness, by 2007 we need to have ten Chancellor's Research Professorships awarded throughout the university.

Research Group Development: A commitment to the concept and practice of research groups is an essential element of increasing research intensiveness. We need to sponsor the development of thematic research groups in areas of institutional pre-eminence or priority; around appropriate partnerships and

existing infrastructure; and in areas of great promise or strategic importance. By 2007, we need to have fully implemented at least ten new research groups across disciplines with the goal of achieving national or international recognition (independently assessed with appropriate criteria and indicators).

Increased Support for Graduate Students: Critical needs have been expressed in the key research area and across the academy of increasing support for graduate students and undergraduates (e.g., support for graduate students as articulated in the CGSR plan for Tuition Equivalent Scholarships to PhD students, Equity Scholarships and increased Graduate Student Scholarships; funds to support NSERC undergraduate student research awards and to create similar opportunities for students in SSHRC and CIHR areas). By 2007, we need an investment in student funding consistent with the goal of increasing graduate student enrolment at the University of Saskatchewan by 30% across all disciplines, with appropriate sensitivity to needs in specific areas of the university. (Note this is an endorsement of the key recommendation of the College of Graduate Studies and Research, and does not represent a stand-alone, new commitment in the VPR integrated plan).

CORE Operating Funds for Centres: The University of Saskatchewan has (at least) 13 Centres which operate at the 'institutional-level', most of which report directly to the Vice-President Research. Varying tremendously in size, scope and structure, these units are connected by an interdisciplinary mandate which, typically, transcends a single college, and consequently often does not emerge as a priority in college-based planning. In many cases, support may already have been provided through colleges and central administration; in many other cases, however, such support is ad hoc and intermittent, and is perhaps only marginally tied to priorities and accountable decision-making. Collectively, the units are of immense value to the institution: in 2003, they accounted for 16% of the University's research revenue. The University must provide a stable base to support and enhance these Centres' research successes. Core funding, under the administration of the VPR, must be made available to assist the Centres in recruiting and retaining top researchers and scientists, providing essential and consistent administrative support, and covering operational expenses falling outside of research grant support.

Increased Matching Funds: Successful major grant proposals frequently depend on demonstrable institutional support; a process and subsequent follow-through are required to ensure that University of Saskatchewan is not facing a competitive disadvantage relative to other Canadian institutions. We simply must support direct research activities at the institution through greater targeted funds in areas in which we wish to establish or maintain research pre-eminence.

Research, Scholarly and Artistic Infrastructure: Successful pursuit of research, scholarly and artistic activities requires an appropriate infrastructure. The University must ensure that adequate investments are made in areas such as communications and information technology, libraries, laboratories and offices to ensure the appropriate tools and support for campus scholarship.

International Research Unit: At an institutional level, we need to develop and maintain a focus on international research. We need procedures and incentives to encourage young faculty to engage in the international research opportunities; set out research priorities; develop systematic communications and reward systems; create networking opportunities; and develop the infrastructure and support systems for international research contracts and collaborative grant teams. An International Research Unit, tightly linked to ORS and ILO, must be established and adequately resourced to help the University of Saskatchewan achieve its goals in the evolving international research environment.

Appendix I: OVPR Organization Chart

Appendix II: Personnel Investments in the Office of the Vice-President Research

Personnel Investments in the OVPR - Year by Year expansion			
	2004-05	2005-06	2006-07
Executive Group	1 Associate Vice-President		
Research Communications	-	-	-
Research Services			
Executive	-	-	-
Grants / Contracts	2 Development Officers	2 Development Officers	2 Development Officers
		1 Grants Officer	1 Grants Officer
		1 Contracts Officer	1 Contracts Officer
		1 Admin Support	1 Admin Support
Major Programs	1 Administrative Officer		
Ethics	1 Ethics Officer		
	.5 Admin Support		
Industry Liaison	1 Tech Transfer Officer	1 Tech Transfer Officer	1 Tech Transfer Officer
	1 Tech Transfer Associate		
	1 Admin Assistant		
	.4 FTE Patent Librarian		
	1 Start-up Company Specialist		
Research Coordinators	1 NSERC Coordinator	Coordinator positions will start as 1FTE/Coordinator and then decrease to .33 FTE by year 3.	
	1 Social Science Coordinator		
	1 Humanities/Fine Arts Coordinator		
	1 Admin Support		
International Research	1 International Development Officer	1 International Development Officer	1 International Development Officer
		1 Admin Support	

Appendix III: Integrated Plans of Centres Reporting to the VPR

Animal Resources Centre (ARC)
Community-University Institute for Social Research
Prairie Swine Centre
Saskatchewan Drug Research Institute (SDRI)
Saskatchewan Population Health and Evaluation Research Unit (SPHERU)
Saskatchewan Process Philosophy Research Unit (SPPRU)
Saskatchewan Structural Sciences Centre (Draft – Board and user response are still being sought)
Toxicology
Vaccine & Infectious Diseases Organization (VIDO)
Women's Studies Research Unit

Appendix IV: Office of the Vice-President Research Academic Priorities Requests

	2004-05	2005-06	2006-07
Integrated Planning Initiatives			
Research Chairs	700,000	1,400,000	2,450,000
Research Group Development	250,000	500,000	250,000
Student Support			
Graduate Scholarships	720,000	720,000	720,000
Undergraduate Research Awards	300,000	300,000	300,000
Core Funding for Centres	1,500,000	2,000,000	2,500,000
Matching Funding Program	500,000	500,000	500,000
International Research Office	275,000	275,000	275,000
<i>Total</i>	4,245,000	5,695,000	6,995,000