



OVC STRATEGIC RESEARCH PLAN:

Overview:

The OVC Strategic Research Plan is a college level plan, formulated in consultation with OVC faculty, that identifies key issues and strategies that will facilitate and guide research activities. By articulating our vision, values, current situation (strengths/weaknesses, opportunities/threats), goals and strategies the objective of the plan is to ensure continued research success and international recognition of our research achievements and sustain and build our research programs into the future.

The OVC Strategic Research Plan complements the OVC Integrated Plan and the Strategic Research Plan of the University of Guelph as well as the mission statements of OVC and the University. The mandate of the Ontario Veterinary College states that “OVC is dedicated to the advancement of veterinary and comparative medicine through leadership in veterinary health care, learning and research that integrates animal, human and ecosystem health.” The mission statement of the University of Guelph identifies “research intensity, learner-centeredness, internationalism, collaboration and open learning as broad strategic objectives. Of these, research intensity, internationalism and collaboration are particularly enhanced by the SRP.” There are six guiding objectives of the University’s SRP: *Research excellence*, *Supporting creativity and diversity* (applied research, knowledge mobilization and community engagement), *Innovation*, *Public policy*, *Training and Collaboration*. The OVC Strategic Research Plan closely adheres to these objectives and will build on the strengths in our college and elsewhere on campus to sustain a robust and competitive research enterprise.

The *rationale* for establishing a strategic research plan for OVC is as follows:

- Acknowledges strengths and encourages competitiveness (distinguishes OVC, increases morale)
- Ensures viability of existing research programs (enhancement and sustainability)
- Allows for strategic use of resources (time, money, people)
- Promotes increased research productivity (publications, grants, patents, awards, training).
- Provides a framework for growth (exploit new opportunities & develop new programs)

Vision:

To position the OVC as a world leader in innovative, collaborative research that improves the health and well-being of animals, humans and the environment.

Mandate:

To excel at the *creation* of knowledge to better understand the prevention, development, diagnosis and treatment of animal diseases and welfare issues, promotion of animal health and productivity, and protection of humans from animal-derived hazards; the *communication* of knowledge to inform the scientific and lay communities; and the *application* of knowledge to

optimize the health of animals, humans and the environment.

Values Statements:

Research at OVC is performed within a framework of the following guiding principles:

Excellence: We will strive to meet and sustain the highest international standards of excellence with respect to health research that integrates the health of animals, humans and the environment. We recognize that we cannot excel in all areas of research and therefore will focus on our internationally recognized areas of strength to develop and maintain a level of distinction and competitive advantage.

Uniqueness: We will make the most of our uniquely trained personnel, exceptional facilities, cutting-edge technologies and access to naturally occurring and experimental animal models of disease to provide distinctive perspectives, key contributions and valuable transformative resolutions to health problems afflicting domestic animals, wildlife and humans.

Collaboration: We will develop networks and encourage integrative, interdisciplinary collaborations between clinical and basic researchers, both internally and externally, to maximize utilization of our expertise, time and resources to achieve our research goals, build capacity and sustain productivity and competitiveness.

Innovation: We will leverage our strengths in training and infrastructure to translate new ideas, creative approaches and novel discoveries into practical value through improved understanding, new effective tools and treatments and evidence-informed policies and practices that provide impact and translational change by solving health challenges affecting animals, humans and the environment.

Communication: We will disseminate and communicate our research findings to inform colleagues, students, clients, industry and government stakeholders and the general public so that our newly generated knowledge can contribute to timely improvements in animal and human health and inform decision-makers and provide direction for health policy reform and development.

Training: We acknowledge the value of training highly qualified personnel because our graduates will become the scientists and leaders of our future. We will provide high quality graduate level training through didactic teaching, experiential learning, research programs and student mentoring in order to impart a solid understanding of rational approaches to investigating important biomedical disease problems, communicating effective solutions and preparing our graduate students for successful careers as scientists.

Overall Goal:

Derive a long-term research strategy that promotes competitiveness by acknowledging and celebrating our past achievements, focusing on excellence, our strengths and uniqueness and building for our future by sustaining existing programs of strength and promoting growth by exploiting new opportunities through cooperation and collaboration.

Specific Goals:

Goal 1: Articulate a vision and implement a strategic research plan

Goal 2: Focus on research strength, excellence and productivity

Goal 3: Emphasize collaborative and interdisciplinary research

Goal 4: Provide research support and build for our future

Strategies:

Strategies for the above goals will focus on the following key points:

Key points:

- **Leadership:** *Develop a vision and strategic plan for research; focus on strengths, collaborate and build*
- **Personnel:** *Hire strategically, work efficiently, increase graduate student recruitment, promote productivity*
- **Resources:** *Strategically manage research funds, research materials and research infrastructure*
- **Support:** *Provide “Research Support Services” that will increase administrative efficiency and facilitate research*

Goal 1: Establish and articulate a research vision and implement a strategic plan

Strategies:

- Define a vision, mandate, values and goals to structure future planning for research sustainability and development
- Articulate the vision, strategic direction and collective benefits of the strategic research plan to the college community
- Recruit and retain research-focused faculty
- Implement the strategic research plan, communicate expectations and assess measurable outcomes

Actions:

Research leadership at the college level should *develop, articulate and implement a clear vision, mandate and strategic direction for research* at OVC. This strategic research plan (SRP) will emphasize research as an institutional priority within the paradigm of the OVC-Health Sciences Centre. The plan will be developed in consultation with OVC faculty directly via a survey and indirectly via faculty representation on a Research Advisory Committee (RAC) that will provide directional support for research programs.

A college-level strategy will stress *recruitment and retention of research-focused faculty*. Selected faculty should be strategically recruited based on the need to develop and/or sustain strong research programs, build research teams and develop critical mass in key areas. The number of research-intensive faculty will be increased by establishing and recruiting CRCs, industry research chairs, endowed research chairs and faculty with research “career awards”. A strategy will be developed by the RAC to increase success in obtaining these awards (see below).

The Associate Dean, Research and Innovation (ADR) will take an active role in the faculty recruitment process working with the Department Chairs and selection committees to recruit and retain research-intensive faculty. In addition to research-intensive faculty, efforts will be made to attract and retain highly qualified personnel (HQP) e.g. technicians, research associates, PDFs into key research areas by targeting extramural funding and partnering with industry.

The ADR will articulate the vision through community presentations, departmental faculty meetings and internet-based forms of communication. In this way, the OVC community will be informed of the college research goals, targets and expectations and the collective and individual consequences of not meeting expectations and achieving the goals. Outcomes resulting from implementation of the strategic plan will be measured using defined criteria to assess research strength (see below).

Goal 2: Develop research programs that focus on excellence, strength and productivity

Strategies:

- Identify areas of unique research strength and excellence based on acceptable criteria
- Develop succession plans to sustain existing programs of strength
- Build research capacity by capitalizing on existing research programs, by exploiting promising new opportunities for potential research growth and by encouraging and supporting research champions
- Establish high standards and clear objectives for our internal research grant programs and ensure that grants from internal research programs are awarded based on rigorous selection criteria
- Enhance faculty and graduate student productivity, efficiency and timeliness in completing projects and programs
- Assess the quality and impact of our research programs and the degree of knowledge translation through independent arbitrary review

Actions:

The RAC will *identify areas of research strength* and competitive advantage based on clearly defined criteria and implement a SRP that will consolidate strength and generate critical mass in these areas. Collectively, the college administration and faculty will invest time (i.e. focus groups, fund-raising efforts, grant and contract writing) and resources (i.e. technical FTE, secretaries and administrative support) to establish and sustain research efforts in key areas of strength. Risks to the sustainability of strong research programs will be minimized following leadership changes by *planning for succession* through strategic recruitment and leadership development through mentorship programs, leadership training opportunities and administrative support. Establishment and support of strong interdisciplinary teams will minimize this risk. Research leadership plans will be reviewed annually and appropriate action plans will be formulated and implemented.

College administration will work towards *facilitating efficient use of faculty and graduate student time*. Researchers must devote a significant amount of time to conduct high quality research. In this regard, it is important to provide faculty (particularly early career faculty) with sufficient distribution of effort in research to enable them to develop and maintain research programs. In general, the distribution of effort in research should be related to the level of productivity (i.e. grants awarded, publications etc). The ADR and Chairs must provide a

mentorship program to guide faculty (particularly early career faculty) and enhance time-management skills. When possible, departmental research technicians and clerical staff will be available to assist early career faculty in implementing their research programs.

Efforts will focus on *promoting effective use of personnel and encouraging efficient work habits to increase research productivity*. Hospital administration will concentrate on increasing the number of Veterinarians within the “dual path” paradigm for the OVC Health Sciences Centre. This will allow clinical faculty to focus on research rather than on hospital management. Similarly, clinical faculty should increase their involvement in research studies in which data can be collected from naturally occurring diseases whether or not faculty are on hospital duty.

The administration will provide *incentives to augment research productivity* (increased time devoted to research, increased technical support, increased research space) and ensure that there are *consequences for poor research performance* (increase teaching load, reduced technical support and reduced research space). For those research funds administered internally, *grants will be awarded according to rigorous criteria* based on excellence and past productivity to ensure that research is completed and published before additional funds are allocated. Recipients of internal grant awards must participate in communicating to donors and stakeholder groups by writing a lay description of results and participating in extension presentations on a yearly basis.

Graduate students play a key role in maintaining research productivity. An effective process will be implemented to *ensure timely student completion of graduate programs and dissemination of research* results through publications and presentations. New graduate programs will be implemented strategically to enhance enrolment and exploit and build promising new avenues of research. Clear criteria for effective graduate student advising will be communicated to faculty members and the consequences of inadequate advisory performance will be enforced through the Promotion and Tenure review process.

Goal 3: Emphasize collaboration and interdisciplinary research

Strategies:

- Build efficiency by breaking down traditional departmental and discipline barriers
- Create a multi-disciplinary, team-based approach moving from individual to program-related research activities thereby enabling thematic networking with a focus on problem-based rather than discipline- or specialty-oriented research
- Increase collaborations with other research groups (i.e. locally, nationally and internationally) as well as with stakeholders (e.g., industry partners, community groups, policy makers, patients, clinicians, etc.) and pursue opportunities for trans-sectoral cooperation
- Target translational endpoints; e.g. commercialization, policy development and improvement; reward intellectual property and patent submissions

Actions:

Interdisciplinary collaboration and teamwork will be encouraged to increase efficiency, minimize duplication of effort and economize individual faculty time committed to research. Administrative leadership and research champions will promote and support the formation of interdepartmental collaborative research teams and research initiatives that will enhance the success of research programs.

The ADR and the RAC, in consultation with faculty and departmental graduate and research committees, will identify interdisciplinary research priorities and strategies for coordinating collaborative efforts between disciplines and developing interdisciplinary leaders. Faculty will be strategically recruited to complement, support and expand interdisciplinary teams.

Collaborations with other research groups, governmental and non-governmental agencies and industry will be encouraged and supported. In consultation with faculty and department chairs, the ADR and the RAC will identify potential areas of collaboration and, through liaison with existing and new partners, promote and facilitate the development and sustainability of these collaborative partnerships.

Goal 4: Provide support and build for our future:

Strategies:

- Increase administrative efficiency and provide strategic support to enhance and sustain our research enterprise
- Create attractive research environments and other incentives (e.g. competitive start-up funds, research support structure) to generate interest in research at OVC in order to attract and retain talented researchers
- Nurture new generations of researchers by promoting research among students, increasing support of research trainees through graduate fellowships and post-doctoral awards, and assisting early career faculty investigators in launching research programs through mentoring and operational support
- Balance research sustainability with innovation and creativity by supporting and sustaining proven research programs, targeting promising, emerging fields of research, and exploring novel, risky areas of research with potentially high impact

Actions:

Efforts will focus on increasing administrative efficiency and providing support researchers and ensure sustainability of key research programs. A college-level *Research Support Services* group will be established for OVC to increase the efficiency of the college administration to support and facilitate research. The Research Support Services group will provide administrative, technical, clerical, financial and advisory support for research, including clinical research, at OVC. OVC Research Support Services will manage and administer funds derived from several sources including the Infrastructure Operating Fund (funds intended to support CFI projects), indirect costs from contract and TriCouncil research projects and MTCU funds resulting from increased graduate student enrolment at OVC. Central management of these resources will ensure efficient and strategic distribution of funds for research, the purpose for which they are intended.

Responsibilities of the OVC Research Support Services group will include:

a) ***Management of Infrastructure:*** Provide input on the management of research facilities and large animal research housing; major equipment acquisition and maintenance

Funds for research infrastructure will be actively sought through fundraising and grant submissions to Canada Foundation of Innovation (CFI) and various Tri-council equipment and

other government funding competitions. The ADR will work with Chairs to establish a consistent process for applying to CFI-Leaders Opportunity Fund (LOF) as a source of research start-up funds. All faculty will be encouraged to account for fees for use of research facilities (e.g. CCRF and core research facilities) in the budgets of grant applications, particularly internal research awards (Pet Trust and Equine Guelph). Long-term planning and budgeting should be in place for prolonged sustainability of research facilities. An organizational and electronic system for management and housing of research horses will be implemented to facilitate planning and conducting of equine research. Funds will be available for maintenance of essential equipment if not covered by infrastructure operating fund. To access equipment maintenance funds faculty will submit proposals outlining the need, information on current use of the equipment, evidence of a user fee collection system, details regarding past expenditures of user fees and mechanisms to promote use of equipment within the college.

b) *Management of Research Funds: Management of infrastructure funds; funding for research personnel and operating funds for research*

Sustainable funding: The success of research programs depends on sustainable funding. Strategies will focus on procuring new or renewed sources of consistent and reliable research funding. This will include increasing participation in applications to, and the success with, existing funding sources, identifying and targeting new tri-council grant opportunities and encouraging participation in industry and contract research partnerships. Efforts will focus on lobbying industry, private donors and government agencies for increasing support for research programs that are not covered by other major funding agencies. Efforts will focus on increasing and/or promoting the presence of Guelph researchers on research grant panels, at international conferences and workshops to increase the profile and influence of Guelph and OVC in the research community.

Research contingency fund: The creation of an internal research contingency fund will allow for continuity of existing research programs or establishment of new programs during brief periods when applicants were unsuccessful in obtaining external funds. Internal research contingency funds will be awarded to unfunded, yet highly ranked grants, however, applicants to this fund must have participated in an internal grant review process. Internal grant review will consist of a rotating panel of faculty with experience in reviewing grants.

c) *Administrative Support: Administration of internal granting organizations (Pet Trust, Equine Guelph); Support for OMAFRA research program; guidance on planning, facilitating and managing clinical trials; grant and research project support; management and optimal use of technical support staff*

Clinical Trials: Successful clinical, applied and basic research programs are dependent on reliable sources of research material. Efforts will focus on increasing the recruitment of cases for clinical research, validation studies, multicenter trials etc. by providing a system of consistent and efficient enrolment of hospital cases into clinical trials, collaboration with external groups including primary and referral veterinary clinics, international research groups etc. Smooth and efficient operation of clinical trials including clear communication will ensure satisfaction, compliance and continued participation of research partners (i.e. client, referring DVMs, international collaborators, government partners etc).

OMAFRA program: The OMAFRA program represents a unique opportunity available to researchers at OVC and the University of Guelph working in the agri-food area. The OVC

research enterprise is dependent on financial support from OMAFRA to sustain a significant number of faculty and staff positions, research animals and facilities and specialty graduate training for veterinarians. The ADR and OVC Research Support Services is committed to maintaining OMAFRA research operating funds by encouraging, supporting and facilitating grant applications and by communicating the expectation of strong and continued faculty commitment and participation in this program.

Research grant support: OVC Research Support Services will provide grant and research project support by establishing an internal grant review process to maximize grant success (see above) and providing grantsmanship and research manuscript writing workshops. Research Support Services will identify new research grant opportunities and facilitate the development of research collaborations. Through liaison with the Office of Research and Animal Care Services the ADR and the OVC Research Support Services group will facilitate and expedite the approval of Animal Utilization Protocols and research contracts. OVC Research Support Services will provide clerical support for grants, application forms, reports, budgets particularly for OMAFRA projects.

Graduate Programs: OVC Research Support Services will support graduate programs and training by providing workshops on graduate student mentoring and advising, obtaining additional graduate student stipend support, administering the DVSc program, monitoring time to graduate completion and graduate program outcomes. The administration and faculty will increase efforts and develop strategies to increase the number of internal and external awards for graduate student stipends to increase research productivity. Additional graduate fellowships and post-doctoral awards will be strategically allocated by OVC Research Support Services and early career faculty investigators and faculty with research scholar awards will be assisted by providing graduate student stipends. Interest in research and future graduate student recruitment will be facilitated through the Summer Leadership and Research Program and other research experiential learning programs for summer students.

d) Strategic planning, liaison and communication: identification of research needs and directions, strategic focus for applications for scholar awards and major infrastructure awards; liaison with OVC Advancement for donor opportunities; identification of new areas of research focus; international research collaboration and exchanges of research personnel for training and study;

Strategic planning: The ADR and the RAC will strategically plan and identify new opportunities for research by hosting research retreats, informal forums, focus group meetings to explore synergy, develop interest and visibility in key areas of research. The ADR will work closely with OVC Advancement to coordinate targeted strategies for donations for research.

Industry collaborations: As mentioned under Goal 3, OVC Research Support Services will assist in the identification of industry partners and facilitation of contract research by organizing information sessions and Memorandums of Understanding/Agreement and through liaisons with Office of Research, Alumni Affairs and Development and Business Development Office. Translation and application of research findings from these relationships will be promoted and facilitated through liaisons with the BDO and Office of Research providing assistance and guidance for the process of IP and patent application and commercialization of research.

Information management and communications: OVC Research Support Services will increase awareness of research both internally and externally and maintain a high profile and

priority for research at OVC. This will be achieved by facilitating electronic communications and management of a revitalized OVC research website that will highlight our research agenda and achievements. Internal access to research information by faculty, staff and students will be facilitated via this research website that will provide timely information concerning research grant opportunities, availability and reservation of equipment, scheduling of research facilities, ordering of research animals etc. Other initiatives include producing an annual research report for OVC, marketing our research facilities, publicizing our results, celebrating research milestones and achievements, providing research communications for donors, public stakeholder groups, industry and government and providing support for technology transfer and extension activities. Research at OVC will also be promoted through special lecture series, public forums, blogs and other extension work.

Appendix:

Sources of Information:

This strategic plan has drawn on several sources including a survey of OVC faculty concerning impediments to research and possible solutions, research achievements and topics for research workshops as well as discussions with members of the University Integrated Planning Committee, the OVC Research Advisory Committee, departmental subcommittees on research and graduate training improvement, departmental meetings and individual OVC faculty.