

Research Guide

2013-2014

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UNBC RESEARCH GUIDE

Knowledge creation and dissemination are important mandates of UNBC. Our faculty, staff and students are making highly valuable research contributions to these mandates. The Office of Research continues to foster this research ethos at UNBC. The purpose of this guide is to assist our researchers and research partners to ensure that we provide them with key information to meet their research goals. This guide is a living document, therefore, please provide us with any feedback you may have to improve it.

ORGANIZATIONAL STRUCTURE

Office of the Vice-President, Research

The Vice-President, Research (VPR) is an advocate and facilitator of UNBC research locally, nationally and internationally. One of the major roles of the VPR is to ensure that multidisciplinary research clusters and groups are continuously sought and developed while keeping the UNBC research community abreast of new developments and opportunities. The VPR ensures that UNBC continues to develop research partnerships with private and public sectors and identifies discoveries and new knowledge that can be transferred to appropriate receptors resulting in societal benefits. University Research is complex and multifaceted. The VPR ensures that all research is conducted with strict adherence to the highest ethical standards while meeting all legal requirements. Ranjana welcomes the opportunity to meet with researchers and work with them to ensure that conducting research will remain a rewarding experience. Please visit our website http://www.unbc.ca/research for additional information.

Primary Contact: Dr. Ranjana Bird



Vice-President, Research Email: <u>Ranjana.Bird@unbc.ca</u> Phone: 250-960-6110

Fax: 250-960-5156

Executive Assistant to the Vice-President, Research Email: Meaghan.Wyatt@unbc.ca, ext. 5820 Website: http://www.unbc.ca/research

Office of Research

The Office of Research (OR) provides support to UNBC researchers in identifying research opportunities and ensuring that adequate support is available during the preparation and execution of the research proposals. Research Universities are expected to train and produce future scholars and leaders, along with being strong partners in regional and national innovation and prosperity initiatives. The OR is committed to enhancing UNBC research successes and to be relevant to our researchers and our community in Northern British Columbia. We encourage you to visit our office, located on the second floor of the Administrative Building in room 2018 (ADM 2018).

MISSION AND VISION STATEMENTS

MISSION STATEMENT

To grow capacity and opportunities for research and creative activities at UNBC by engaging our people and partners, leading to the discovery of new knowledge that has transformative academic, economic or social benefit for the region, province, nation, and beyond.

VISION STATEMENT

To build a flourishing research culture facilitated by state-of-the-art infrastructure and efficient support services, enabling UNBC scholars to undertake leading-edge local, national, and international research with respect for humanity and nature.

SUMMARY OF RESEARCH RESOURCES AND SUPPORT SERVICES

The OR is the primary contact for the federal granting councils (CIHR, NSERC, and SSHRC), government ministries, industry, associations, and foundations that typically provide financial support for scholarships, research and creative activities. The OR exists to promote and enhance the success of research by faculty, students, and partners of UNBC. We do this by:

- providing faculty members with support services to develop outstanding research programs in all disciplines, including offering advice on sources of funding, helping develop proposals, providing institutional letters of support, and negotiating funding agreements;
- ensuring that we meet or exceed all relevant regulatory standards for research, maintaining our eligibility for funding from the agencies with the most stringent standards;
- assisting with maintaining and growing our research infrastructure;
- assisting with the development of research partnerships with local, provincial, national, and international agencies and industry collaborators;

- supporting technology transfer and commercialization of research discoveries;
- managing and maintaining relationships with major research funding agencies, so that
 the local research community has access to the best advice on successful research
 funding strategies, and acting as the primary institutional contact for these agencies;
- engaging in high-level advocacy with all levels of government to promote an environment in which world-class research may flourish at UNBC.

For more information, visit: http://www.unbc.ca/research.

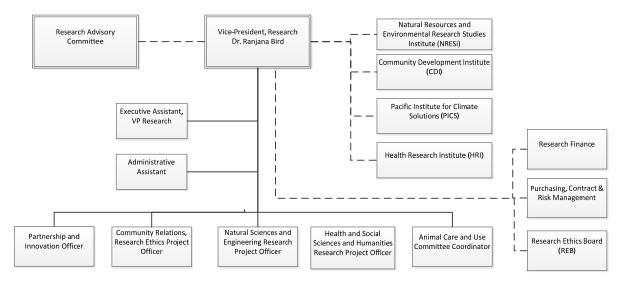
Research Highlights Newsletter

The Office of the Vice-President, Research generates a monthly online newsletter which provides the most up to date information possible to the research community.

Email us to receive an electronic copy of our Research Highlights Newsletter (research@unbc.ca) or visit: http://www.unbc.ca/research/research-connection-newsletter. Read, enjoy and send us your comments!

Office of Research Organizational Chart

Office of Research Organizational Chart

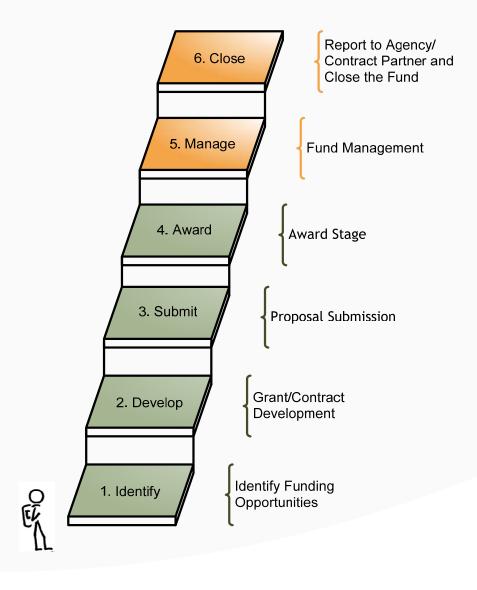


6 Steps to Research Administration

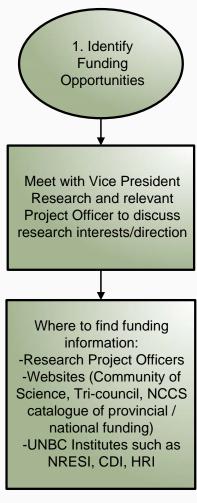
Below is a visual road map to the steps required to access research funding (see also the *Research Funding Guide* under Research Funding at: http://www.unbc.ca/research).

6 Steps to Research Administration

The Office of Research provides support to researchers in the first four steps of the research administration process, in green, and facilitates the transition from funding to fund management and outcomes, in orange.



Step 1: Identify





Natural Sciences and Engineering Research Project Officers: Harold Hume, harold.hume@unbc.ca, X5796
Jacqueline Dockray, jacqueline.dockray@unbc.ca, X6357

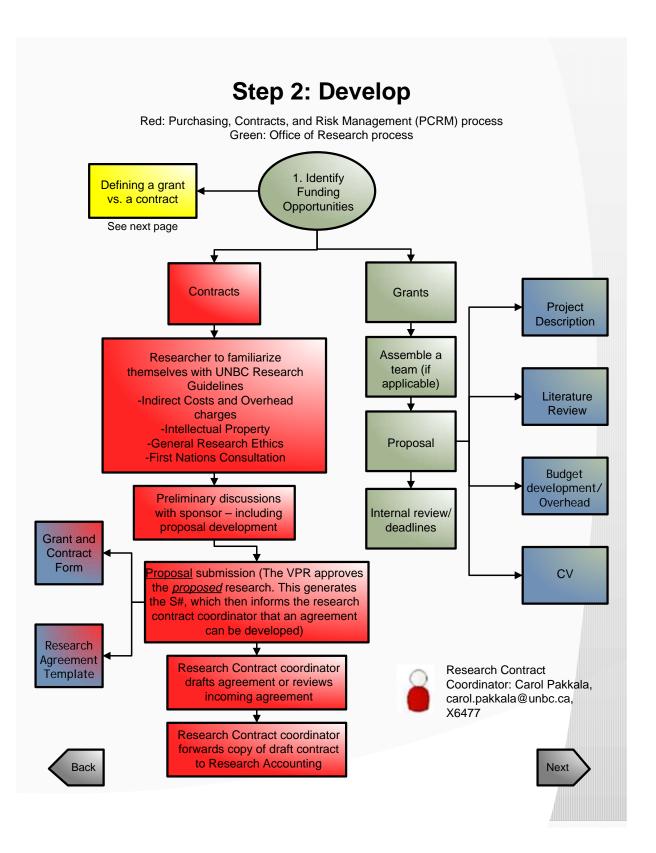


Social Sciences and Humanities and Health Sciences Research Project Officer: Nicole Balliet, nicole.balliet@unbc.ca, X5815



Community Relations, Research Ethics, Research Project Officer: Rheanna Robinson, rheanna.robinson@unbc.ca, X6735





Step 2: Develop cont'd

Defining a grant vs. a contract

What is the difference between a contract and a grant?

The determination of whether a funding agreement is a grant or a contract is not always clear. One way to differentiate them relates to the expectation of set deliverables. While both grants and contracts are legally binding agreements, funds are *granted* to a researcher with an expectation - but not the requirement – that the task can be accomplished. A funding agreement with a defined scope of work, obligations and responsibilities can include ramifications to the researcher or institution if the task in not accomplished.

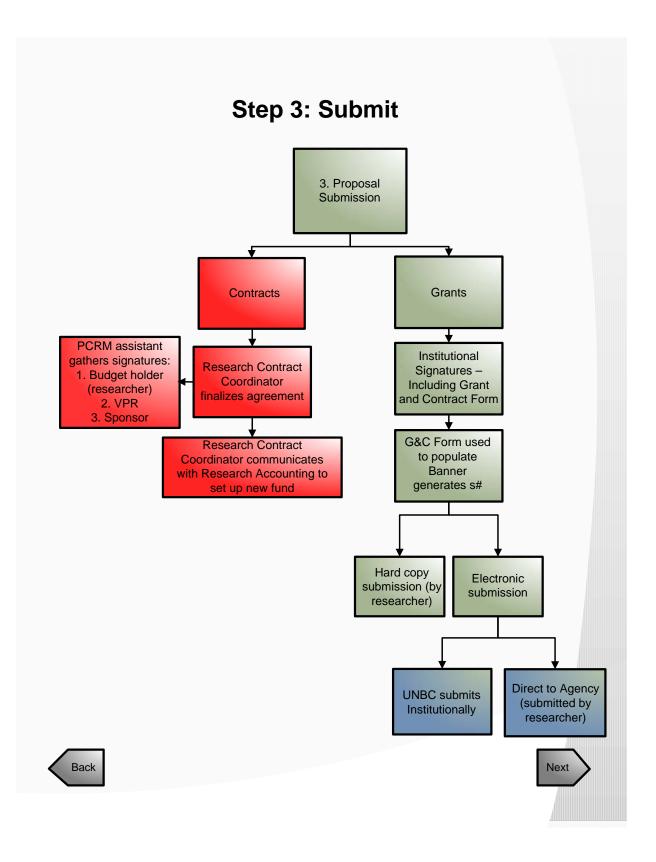
Grant	Contract
Likely no confidentiality restrictions	Could require signing a confidentiality agreement
Ownership of any intellectual property resides with the institution	Includes intellectual property options and licensing arrangements
Unrestricted rights to publish research results without pre-review or time delay involving the sponsor	Includes intellectual property options and licensing arrangements
Annual renewal - no termination provisions	Termination provisions
Flexible time frame; no detailed schedule of work. Research proposal and direction of research lies with the researcher	Detailed work schedule, including milestones and date for final deliverables. Restrictions on scope of research
Few deliverables - could be progress or final report	Specific deliverables, report requirements and timelines defined
Funds are paid in advance or in installments to the University	Payments based on actual expenditures, some portion of the payment may be withheld (holdbacks) until the final report submitted and accepted
The project/budget can be changed by the principal researcher without notice	Changes to scope of work-budget could require consent of sponsor
There is no honorarium or other payment to the principal researcher and co-investigators	Can include honorarium to the principal researcher and co- investigators
Ownership of equipment purchased for project vests with University	Equipment purchased for project may revert back to sponsor at conclusion of project

Negotiation and Administration of Research Agreements

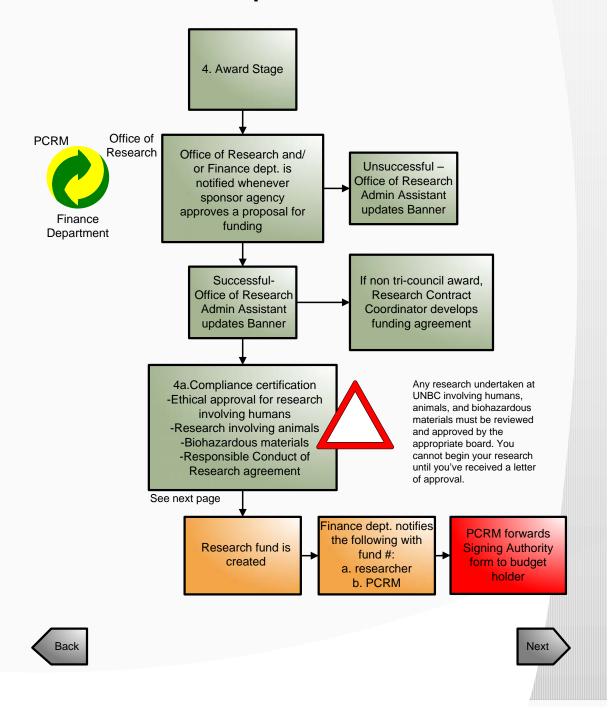
Only the University has the authority to enter into research agreements that are binding on the University. This includes funding agreements, transfer agreements, contribution agreements, service agreements and the like. Thus, agreements concerning research undertaken at the University must be between the Governing Board of the University of Northern British Columbia and the sponsoring agency, and cannot be written in the name of an individual, Department, Institute, Centre, School, or Faculty. All agreements and proposals concerning research must first be reviewed by the Office of Research and signed by the Vice President Research to be legally binding.

Types of Agreements

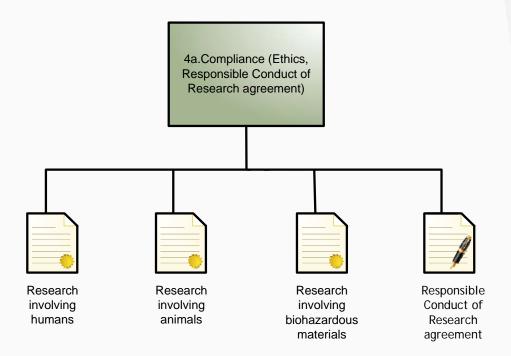
Incoming \$	Outgoing \$	Other
Grants	Funding transfers (sub-awards)	Non-disclosure
Contribution agreements	Research services contracts	Material transfer
Service (consulting) agreements		Data use
		Research collaborations
		Community research agreements
		Intellectual property
		MOUs
		Waivers



Step 4: Award



Step 4: Award cont'd

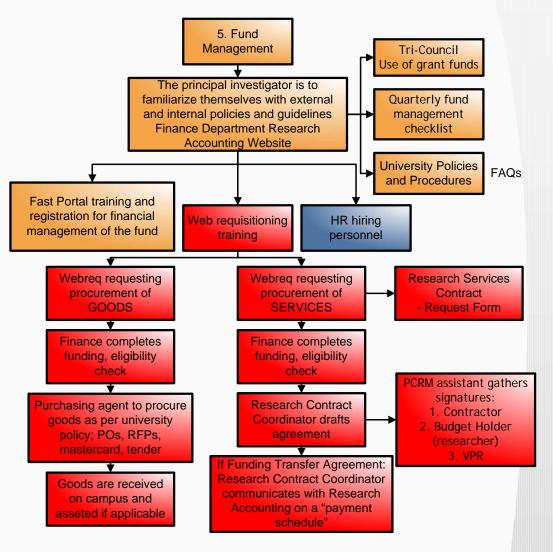


*Ethical certification is only valid for 12 months. Must be renewed after expiry if research is ongoing (abbreviated 3 page form)
*In principle approvals are available for limited release of funds

The researcher must apply for certification which states the study complies with regulations. This detailed process typically involves review by committee and can require changes to the proposal.

*Compliance requirements are identified in the Grant and Contract form. This information is entered in the Banner module, and funding is only released once the certificates are issued. Funds frozen if renewal is not obtained after 12 months.



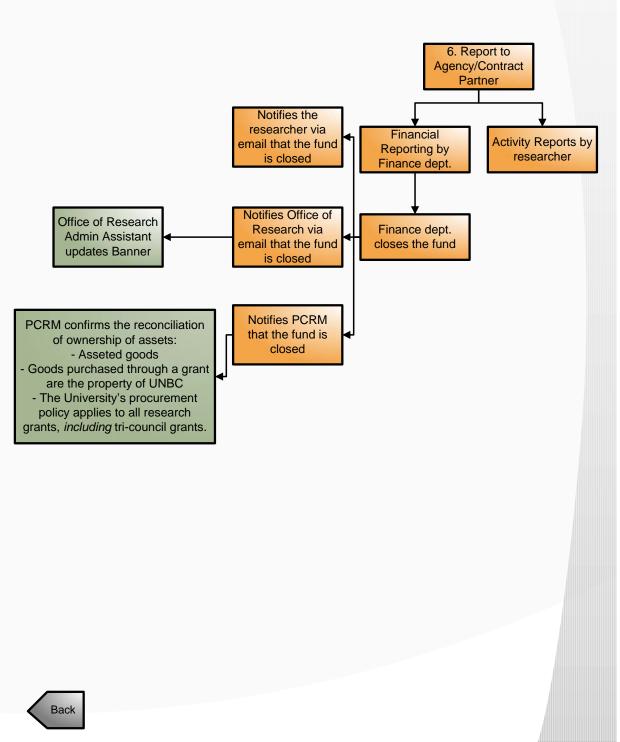


From this point forward, the researcher must work with the Finance Department to manage their research funds. Please see Post-Award Administration Contacts set out below.









CONTACTS

PRE-AWARD ADMINISTRATION CONTACTS

OFFICE OF RESEARCH

The OR oversees all matters pertaining to pre-award research at UNBC. Any questions, concerns, or queries should be directed to a member of the OR. All research grant applications and contracts must meet university requirements as set out by the OR. This includes the proper and timely completion of forms, proposals, and any other required documentation.

Finding suitable sources of funding is a continuous process. It is important to keep up to date with opportunities for funding through the emails provided by the OR and information provided on the website: http://www.unbc.ca/research.

The OR ensures that pre-award documentation is completed according to the policies and procedures of UNBC, granting agencies, foundations, and other entities. The required UNBC forms can be found under Research Funding on the website: http://www.unbc.ca/research.

Name	Title	Email	Phone	
Harold Hume	Research Project Officer – NSERC	harold.hume@unbc.ca	5796	
Jacqueline Dockray	Research Project Officer - NSERC	jacqueline.dockray@unbc.ca	6357	
Rheanna Robinson	Research Project Officer - Community Relations, Research Ethics	rheanna.robinson@unbc.ca	6735	
Nicole Balliet Research Project Officer – Health and Social Sciences and Humanities		nicole.balliet@unbc.ca	5815	
Garth Frizzell	Research Partnership and Innovation Officer	garth.frizzell@unbc.ca	5103	
Diana Kutzner	- Cinicol		6724	
Lydia Troc Animal Care and Use Committee Coordinator		lydia.troc@unbc.ca	5279	
Meaghan Wyatt	Executive Assistant, Vice-President, Research	meaghan.wyatt@unbc.ca	5820	
Tracy Wilson	Administrative Assistant	tracy.wilson@unbc.ca	5852	

POST-AWARD ADMINISTRATION CONTACTS

RESEARCH ACCOUNTING OFFICE

The Research Accounting Office is committed to providing fiscal accountability for faculty-held research funds from public and private sectors by maintaining, monitoring and disseminating data between the sponsor, faculty and administration. Our staff will help disburse your funds and track your spending.

Name	Title	Email	Phone
Aneta Douglas	Accounting Analyst - Research	aneta.douglass@unbc.ca	6534
Kathleen Denis	Research Accounting Assistant	kathleen.denis@unbc.ca	5615
Sean Kinsley	Accounting Analyst - Research	sean.kinsley@unbc.ca	5616

Website: http://www.unbc.ca/finance/research-accounting

PURCHASING & CONTRACT MANAGEMENT

The Purchasing Department procures materials, supplies, equipment and services required by UNBC faculty, staff and researchers.

Name	Title	Email	Phone
Sheila Keith	Director, Purchasing, Contract & Risk Management	sheila.keith@unbc.ca	5502
Carol Pakkala Research Contract Coordinator		carol.pakkala@unbc.ca	6477
Leslie Burke	Purchasing Agent III	leslie.burke@unbc.ca	5006
Savannah Safonoff	Administrative Assistant	savannah.safonoff@unbc.ca	5558

Website: http://www.unbc.ca/purchasing

RISK & SAFETY MANAGEMENT

Name	Title	Email	Phone
Teresa Chernowski	Risk & Safety Coordinator	teresa.chernowski@unbc.ca	5530
Sarah Elliott	Manager, Security & Risk	sarah.elliott@unbc.ca	

Website: http://www.unbc.ca/safety

OTHER CONTACTS

Group	Website	Primary Contact Name	Primary Contact Title	Email	Phone
Animal Care and Use Committee (ACUC)	http://www.u nbc.ca/resear ch/research- ethics-safety- animal- subjects	Dr. Russell Dawson	Chair and UNBC Faculty Member	russell.dawson@unbc.ca	6068
Grants and Contracts	www.unbc.ca/	Nicole Balliet	Research Project Officers	nicole.balliet@unbc.ca	5815
		Harold Hume	Project Officers	harold.hume@unbc.ca	5796
		Jacqueline Dockray		jacqueline.dockray@unbc. ca	6357
Human Resources	http://www.u nbc.ca/human -resources	ТВА	Administrative Assistant	ТВА	

IT Services	http://www.u nbc.ca/inform ation- technology- services/servic es-desk- faculty-staff	N/A	IT Support Desk Staff	support@unbc.ca	5321
Research Ethics Board	http://www.u nbc.ca/resear ch/research- ethics-safety- human- subjects	Dr. Michael Murphy	Chair and UNBC Faculty Member	michael.murphy@unbc.ca	6683
Risk & Safety Mgt.	http://www.u nbc.ca/safety/ lab-safety	Sheila Keith	Director	sheila.keith@unbc.ca	5502

RESEARCH FACILITATION NETWORK

Research Institutes and Facilities

A wide variety of institutes and facilities exist to facilitate research at UNBC.

Institute or Facility	Website	Primary Contact Name	Primary Contact Title	Email	Phone
Aleza Lake Research Forest	http://web.unbc.ca/~a leza/	Colin Chisholm RPF	Assistant Manager	colin.chisholm@unbc.ca	6338
Community Development Institute (CDI)	http://www.unbc.ca/c ommunity- development-institute	Dr. Greg Halseth	Institute Director	greg.halseth@unbc.ca	5826
Dr. Max Blouw Quesnel River Research Centre	http://www.unbc.ca/ quesnel-river- research-centre	Sam Albers	Manager	samuel.albers@unbc.ca	250- 790- 2031
Enhanced Forestry Lab	http://www.unbc.ca/ enhanced-forestry-lab	John Orlowsky	Greenhouse Technician	john.orlowsky@unbc.ca	250- 617- 0580
Genetics Lab	http://www.unbc.ca/g enetics	Caitlin Pitt	Analytical Laboratory Support Specialist	caitlin.pitt@unbc.ca	5572
GIS Remote Sensing Lab	http://www.gis.unbc.c	Dr. Roger Wheate	GIS Lab Coordinator	roger.wheate@unbc.ca	5865
High Performance Computing Lab	http://web.unbc.ca/h	Dr. Peter Jackson	Chair, HPC Manage- ment Board	peter.jackson@unbc.ca	5985
John Prince Research Forest	http://researchforest. unbc.ca/jprfintro.htm	Sue Grainger, RPF	Manager	susan.grainger@unbc.ca	250- 996- 0028
National Collaborating Centre for Aboriginal Health	http://www.nccah- ccnsa.ca/en/	N/A		nccah@unbc.ca	5250
Natural Resources and Environmental Studies Institute (NRESI)	http://www.unbc.ca/ nres-institute	Dr. Bill McGill	Institute Director	bill.mcgill@unbc.ca	5308

Northern Analytical Laboratory Services Northern BC Archives	http://www.unbc.ca/ northern-analytical- lab-service http://nbca.library.un bc.ca/	Dr. Francis Appoh	Analytical Services Manager	francis.appoh@unbc.ca archives@unbc.ca	5592
Northern Health Sciences Research Facility	N/A	Dr. Geoffrey Payne	Director	geoff.payne@unbc.ca	5104
Pacific Institute for Climate Solutions at UNBC	http://www.unbc.ca/ pacific-institute-for- climate-solutions	Kyle Aben	Site Coordinator	kyle.aben@unbc.ca	6378
Survey Research Centre	http://www.unbc.ca/s urvey-research-centre	Diana Kutzner	Manager	diana.kutzner@unbc.ca	6724
Tree Ring Lab	http://www.unbc.ca/ dendro-lab	Dr. Kathy J. Lewis & Dr. Scott Green	N/A	kathy.lewis@unbc.ca scott.green@unbc.ca	6659 5817
UNBC Health Research Institute	N/A	Dr. Martha MacLeod	Co-lead	martha.macleod@unbc. ca	6507
Urban Aboriginal Knowledge Network	http://uakn.org/resea rch-centres/western- research-centre/	Dr. Paul Bowles	Research Coordinator	paul.bowles@unbc.ca	6648
Women North Network / Northern FIRE	http://www.unbc.ca/ northern-fire	N/A		wnn@unbc.ca	5284

Website: http://www.unbc.ca/research/research-institutes-and-facilities

Please note that the UNBC policy *Centres and Research Institutes* exists to welcome new centres and research institutes. It is found at:

http://www.unbc.ca/sites/default/files/assets/policy/research/research centres and research institutes.pdf.

Research Chairs

Chair Type	Name	Discipline	Website	Email	Phone
BC Leadership	Dr. Henry Harder	Aboriginal	http://web.unbc.	henry.harder@unb	6506
Chair		Environmental	ca/~harderh/	<u>c.ca</u>	
		Health			
Canada	Dr. Dezene	Forest	http://web.unbc.	dezene.huber@un	5119
Research Chair	Huber	Entomology	ca/~huber/Huber	<u>bc.ca</u>	
		and Chemical	_Lab/Welcome.h		
		Ecology	<u>tml</u>		
Canada	Dr. Greg Halseth	Rural and	www.unbc.ca/gr	greg.halseth@unbc	6533
Research Chair		Small Town	<u>eg-halseth</u>	<u>.ca</u>	
		Studies			
Canada	Dr. Kevin	Literature,	http://www.unbc	kevin.hutchings@u	6621
Research Chair	Hutchings	Culture and	.ca/english/facult	<u>nbc.ca</u>	
		Environmental	Y		
		Studies			
Canada	Dr. Margot	Health,	www.unbc.ca/pa	margot.parkes@un	6813
Research Chair	Parkes	Ecosystems	<u>rkes</u>	<u>bc.ca</u>	
		and Society			
Canada	Dr. Michael	Comparative	http://michaelm	michael.murphy@	6683
Research Chair	Murphy	Indigenous-	urphy.ca/	<u>unbc.ca</u>	
		State			
		Relations			
Canada	Dr. Russell	Avian Ecology	http://web.unbc.	russell.dawson@un	5003
Research Chair	Dawson		ca/~dawsonr/	<u>bc.ca</u>	
Canada	Dr. Stephen Dery	Northern	http://web.unbc.	stephen.dery@unb	5193
Research Chair		Hydro-	ca/~sdery/	<u>c.ca</u>	
		meteorology			
Canada	Dr. Youmin Tang	Climate	http://web.unbc.	youmin.tang@unbc	5190
Research Chair		Prediction and	ca/~ytang/	<u>.ca</u>	
		Predictability			
Canada	Dr. Sarah Gray	Integrative	http://www.unbc	sarah.gray@unbc.c	5442
Research Chair		Physiology of	.ca/sarah-gray	<u>a</u>	
		Diabetes			
Canada	Dr. Brian	Glacial Change	http://couplet.un	brian.menounos@	6266
Research Chair	Menounos		bc.ca/	<u>unbc.ca</u>	
Canada	Dr. Natalia	Aboriginal		natalia.loukacheva	
Research Chair	Loukacheva	Governance		@unbc.ca	
		and Law			
Forest Renewal	Dr. Ellen	Landscape	http://www.unbc	ellen.petticrew@u	6645
BC Endowed	Petticrew	Ecology	.ca/ellen-	nbc.ca	
Chair			<u>petticrew</u>		

Forest Renewal BC Endowed Chair	Dr. Oscar Garcia	Forest Growth and Yield	http://www.unbc .ca/ecosystem- science- management/gar cia-dr-oscar	oscar.garcia@unbc. ca	5004
Forest Renewal BC Endowed Chair	Dr. Phil Owens	Landscape Ecology	http://www.unbc .ca/owens	philip.owens@unb c.ca	6177
Ian McTaggart Cowan Muskwa- Kechika Research Professor	Dr. Katherine Parker	Wildlife Ecology and Nutrition	http://web.unbc. ca/~parker/	katherine.parker@ unbc.ca	5812

Website: http://www.unbc.ca/research/research-chairs

FINDING FUNDING

Funding Opportunities Directory

A list of prominent internal and external funding is available under the Research Funding heading on the OR website at http://www.unbc.ca/research.

Internal Funding Opportunities at UNBC

UNBC researchers are eligible to apply for a number of internal grants administered by the OR. Each grant competition has its own application form and set of guidelines.

Website: http://www.unbc.ca/research/internal-funding-opportunities

BC REAL ESTATE FOUNDATION PARTNERING FUND

The goal of the BC Real Estate Foundation Partnering Fund is to support research and educational programs, following objectives specified in the competition application form. Initiatives should involve collaboration among university entities and public, non-profit and/or professional organizations. Funding is available to faculty and graduate students, the latter with the agreement of their supervisor.

Website: http://www.unbc.ca/research/real-estate-foundation-bc-partnering-fund-projects

Application Form

Guidelines

Past Recipients

CONFERENCE TRAVEL GRANTS

UNBC travel grants are available for national or international conference travel by eligible faculty members who are presenting a paper or poster. There are two rounds of competition per year. Retroactive applications are accepted but only under exceptional circumstances. Please consult the travel grant guidelines for more information on this competition.

Website: http://www.unbc.ca/research/internal-funding-opportunities

Application Form

Guidelines

RESEARCH GRANT IN LIEU OF SALARY

To permit, under certain conditions, a faculty member, professional librarian, and academic administrator to receive a research grant in lieu of salary, through a mechanism which includes peer review.

Please see the UNBC policy titled *Research Grant in Lieu of Salary* for more information at: http://www.unbc.ca/policy.

Website: http://www.unbc.ca/research/internal-funding-opportunities

Application Form

RESEARCH SEED GRANTS

Research seed grants are intended to act as a "springboard" to assist faculty in obtaining external funding for their research. Seed grants are distinct from start-up funding, which is made available to new faculty and negotiated with Chairs/Deans as a part of the appointment process.

Website: http://www.unbc.ca/research/internal-funding-opportunities

Application Form

Guidelines

UNIVERSITY ACHIEVEMENT AWARD-RESEARCH

The University Achievement Award for Research seeks to acknowledge Faculty Association Members who are deemed exceptional researchers and scholars.

Website: http://www.unbc.ca/research/internal-funding-opportunities

PUBLICATION GRANTS

UNBC publication grants are intended to enable UNBC faculty to disseminate the results of their scholarly endeavors. Please consult the competition guidelines for eligible expenses.

Website: http://www.unbc.ca/research/internal-funding-opportunities

Application Form

Guidelines

External Funding Opportunities

Please visit the UNBC Office of Research website (http://www.unbc.ca/research/external-funding-opportunities) for a list of the most common sources of external funding for UNBC research.

TRI-COUNCIL GRANTS

CANADIAN INSTITUTES OF HEALTH RESEARCH

The Canadian Institutes of Health Research (CIHR) provides funding opportunities for four themes of health research: Biomedical; Clinical; Health systems services; and Social, Cultural, Environmental and Population Health. This integrated approach brings together researchers, health professionals, and policy-makers from voluntary health organizations, provincial government agencies, international research organizations and industry, and patient groups from across the country. CIHR is undergoing a number of changes and refining its funding mandates. In order to receive up-to-date information, including deadlines, please visit the agency's website: http://www.cihr-irsc.gc.ca/e/193.html. The OR will provide updated information in a timely manner as they are received by the agency.

NATURAL SCIENCES & ENGINEERING RESEARCH COUNCIL

The Natural Sciences & Engineering Research Council (NSERC) supports both basic university research through discovery grants and project research through partnerships among universities, governments, and the private sector, as well as the advanced training of highly qualified people. NSERC's role is to make investments in people, discovery, and innovation for the benefit of all Canadians. To learn the most up-to-date information, including deadlines, please visit the agency's website: www.nserc-crsng.gc.ca/index_eng.asp.

SOCIAL SCIENCES AND HUMANITIES RESEARCH COUNCIL

The **Social Sciences and Humanities Research Council (SSHRC)** is the federal agency that promotes and supports university-based research and training in the humanities and social sciences. SSHRC programs also provide support for research training and communication activities. SSHRC administers the Canada Research Chairs Program (see External Funding Opportunities above). SSHRC partners with a variety of government, business, and non-profit organizations to develop and fund strategic research programs. Please visit the agency's website to remain most current with the events sponsored by SSHRC, including deadlines: http://www.sshrc-crsh.gc.ca/home-accueil-eng.aspx.

PREPARING YOUR GRANT APPLICATION

It is up to the researcher to familiarize themselves with the research related policies and procedures that exist at UNBC. Please see attached Appendix A.

Grant Applications: Before you Begin

Find a funding source to meet your research goals and objectives. Contact the OR for assistance.

Before completing the application, be sure to have well thought-out objectives and a clear research plan.

The OR hosts information sessions and workshops that will aid in crafting your grant proposal. Information on research events will be regularly updated on the OR website and distributed by email. However, the best way to keep up to date is by staying in contact with the respective Research Project Officer.

Eligibility Requirements

Review the funding sponsor's eligibility criteria to ensure that you are eligible to apply for the grant.

Proposal Development

Contact your Program Chair, Dean, the VPR, and/or a Research Project Officer in the OR. You may be eligible for faculty-specific seed funding programs or other awards to support development of new proposals. For more information, see the Internal Funding Opportunities at UNBC listed in this guide or listed on the website: http://www.unbc.ca/research/internal-funding-opportunities.

Budget Development

It is important for the researcher to understand the cost of performing research as it is the researchers who are entirely responsible for their budget.

Please see the *Quarterly Fund Management Checklist* to help with financial management of research projects at: http://www.unbc.ca/finance/research-accounting

DIRECT COSTS

Direct costs of research include salary and benefits of researchers, payroll costs of PDFs and research assistants, consultants, consumables, taxes, equipment and capital expenditures, materials and supplies, sometimes space cost (per area), travel, and any applicable taxes.

ELIGIBLE USE OF FUNDS

Eligible expenses are determined by the sponsor or funding agency. For example, Tri-Council Agencies (CIHR, NSERC, and SSHRC) information on expenses can be found at: http://www.nserc-crsng.gc.ca/Professors-Professeurs/FinancialAdminGuide-GuideAdminFinancier/FundsUse-UtilisationSubventions eng.asp.

PERSONNEL

Information on budgeting for research personnel is included in the section titled "Research Personnel".

SALARIES AND BENEFITS

In many cases, such as in the case of Tri-Council grants, the salary of the principal investigator is not an eligible research expense. However, for more information, or for unique cases involving in-kind contributions of the principal investigator's compensation, please consult with the OR. Please see the section of the guide titled Pre-Award Administration Contacts for their contact information.

Please contact HR as listed in the <u>Pre-Award Administration Contact</u> section above for clarification of all other queries on salaries and benefits.

TRAVEL AND ACCOMMODATION

The procedures that all UNBC employees must follow when incurring travel-related expenses are included in the *Travel Reimbursement* policy found at: http://www.unbc.ca/policy.

In cases of Tri-Council travel expenses, the *Travel Claims* document can be viewed at: http://www.unbc.ca/finance/research-accounting.

Please contact HR and/or Research Accounting as listed in the <u>Pre-Award Administration</u> <u>Contact</u> section above for more information.

SPACE

If this is an eligible expense, contact Facilities for current space costs for your area.

Douglas Kean, Capital Projects & Space Allocation Coordinator

Phone: 5158

Email: douglas.kean@unbc.ca

Website: http://www.unbc.ca/facilities

TAXES

Researchers must account for taxes when assembling their budgets. GST has an after rebate rate of 1.65% and PST has a rate of 7%.

Please see the following website for what taxes apply to which expenses: http://www2.gov.bc.ca/assets/gov/topic/BED47DA4EBDBA60A5F28622B8B2E1451/uploads/whats-taxable-whats-not.pdf

INDIRECT COSTS

The indirect costs of research are also known as *overhead costs*, *facilities and administrative* costs, or *facilities and services* costs. They are the operating expenditures that UNBC incurs to undertake its research mandate; they do not include expenses which are directly associated with the research project (e.g., researcher salaries, researcher travel expenses, student stipends, research materials, etc.). These indirect costs include, but are not limited to, the provision of institutional facilities; space within those facilities (including the costs of maintenance and utilities); maintenance, repair, and even replacement costs of research and other equipment*; computing resources; library resources; insurance; technical support for communal equipment and facility operation; intellectual property management costs; etc.

Overhead, or indirect, costs on grants are often an eligible expense, but it is the sponsor who sets the rules. However, overhead, or indirect costs, must be included in the budgets for all contracts, contract proposals, and contract letters of intent. These rates of overhead depend on funding agencies and are negotiated. If no negotiated rate of overhead exists, UNBC holds a minimum of 25% rate.

*Equipment maintenance repairs in the laboratory building must follow the UNBC policy Equipment Maintenance Repairs in Laboratory Building at: http://www.unbc.ca/policy.

For any questions about the above costs, please contact Research Accounting using the Research Accounting section above in this guide.

Website: http://www.unbc.ca/finance/research-accounting

ALLOCATION OF RESEARCH OVERHEAD

At UNBC, overhead is normally distributed as follows: 25% to the Program, 25% to the College, and 50% to the Office of Research. However, researchers can ask – by indication on the Grant and Contract Submission Form – for the overhead on a grant or contract to be redirected to an institute (see the section Research Institutes and Facilities in this guide above).

Follow Application Guidelines Exactly

Each granting agency or foundation have their own guidelines and what they would like to see in an application. The success of your application will depend on your ability to convince the reviewer(s) about the importance of the proposed work and your or your team's ability to conduct the proposed research. To this end, the OR offers grant writing workshops, which includes imparting grant writing tips. A number of grant writing tips are also available online by the funding agencies. Some of these are listed below.

Note: If your research involves Aboriginal communities directly or indirectly, please consult Rheanna Robinson, Office of Research, for advice.

Please contact the appropriate Research Project Officer for additional help, including one-on-one grant writing consultations with a draft grant proposal. This information can be found above in the Pre-Award Administration Contacts section or at: http://www.unbc.ca/research/contact.

We strongly recommend that you build in time to have your proposal reviewed by a colleague for invaluable peer feedback. UNBC also has a number of "Research Mentors" who are willing to volunteer their time. See the Research website for the contact names of 2013-2014 Research Mentors.

CONTRACTS

PROCEDURES FOR CONTRACT NEGOTIATION

All contracts must be developed in concert with the University Contract Coordinator, Research. In some cases government approval may be required. It could take a few to several weeks, depending on the complexity and nature of the research proposed, to finalize a contract. Discussions early on should inform the research recipients (company, government department, etc.) that they are expected to bear overhead costs—for discussion they should be referred to the VPR. Legally, only an officer of the Board (i.e. President or Vice-President, or their designate) can sign a contract in the name of UNBC. In this case, the signature will normally be that of the VPR or his/her/their designate.

The policy is found at: http://www.unbc.ca/policy/category/research

SUBMITTING YOUR GRANT APPLICATION

UNBC aims to hold the highest standards of accountability in the administration of its research activities. UNBC has a process in place for the submission of applications and for the use of research funds. By following these procedures, a sound and effective basis for accountability and ethical integrity takes place in research. Below is an overview of useful information that has been provided to assist in fulfilling your role in regard to research.

Application Submission Process

In preparing applications, it is important to note the requirements of both the sponsor and UNBC. The OR conducts reviews of all applications before they receive institutional approval (or signature) and are forwarded to the sponsor.

Procedures

INTERNAL FUNDING OPPORTUNITIES

For internal funding opportunities, applications must be completed as per their individual requirements. More details for each internal application can be found at: http://www.unbc.ca/research/internal-funding-opportunities.

EXTERNAL FUNDING OPPORTUNITIES

For external funding opportunities, please use the procedures of the *Grant and Contract Form* found at: http://www.unbc.ca/research/external-funding-opportunities

Applications must be submitted to the OR at least 5 business days before the grant application deadline for institutional signature. To obtain a signature, applicants must complete the *Grant and Contract Form* and submit it along with a copy of the application to their program chair, Dean, and OR for approval.

Special Requirements & Ethics Review of Application

Some funding agencies specifically request that necessary certifications (e.g. Animal Care, Biohazard, and Research Ethics) are met prior to applying for the funding. Therefore, it is important to read the Research Guidelines of the sponsoring agencies carefully. Researchers are encouraged to contact the appropriate committee Chair to determine if there are special requirements that may impact the proposal's budget. For these projects yet to be funded, an *In*

Principle Review Form is available for initial approval for their project from the REB at: http://www.unbc.ca/research/research-ethics-safety-human-subjects.

Any research activity involving the use of animals, biohazards, or humans, must be approved by the appropriate certification committee prior to commencing such work regardless of the sources of funding. Please see the attached Appendix B titled "Research Requiring Certification" in this guide for more information, or visit Research Ethics & Safety online at: http://www.unbc.ca/research.

Meaning of Signatures

The UNBC policy and that of most external agencies requires that all outgoing applications for external research funding require the following minimum signatures:

- Principal Investigator indicates acceptance of academic, professional, scientific, and technical responsibility for the project. In addition, it represents an undertaking to observe sponsor and university policies and procedures, as well as any special award conditions. He/She has informed in writing the Chair and/or the Dean about any specific requirement that has to be made to conduct the proposed research.
- Program Chair, College Deans and Northern Medical Program indicates that the
 department is willing to accommodate the project; that required facilities and services
 are available; and that the principal investigator meets known university and sponsor
 eligibility requirements. It also represents general acceptance of expressed or implied
 time commitments, including willingness to recommend leave or other special
 arrangements as specified in the application. It also asserts the fact that space and any
 alteration costs thereto are available from Faculty resources and that if this is not the
 case, they will obtain prior approval from the Provost and Vice-President, Academic
 (such approval to be attached), VP Research or VP Administration and Finance as
 appropriate.
- VPR confirms that the institution will accept and administer funds in accordance with agreed terms and conditions or will negotiate acceptable terms if these are not established at the time of application; that all certification required to conduct research will be secured; that the principal investigator will have access to normal use of UNBC facilities and services.
- Research Project Officer recommends to the VPR whether or not to approve the application. The Research Project Officer will leave comments regarding concerns with the grant application for the VPR to consider. Common concerns pertain to noncompliance issues. These include non-compliance with institutional, funding agency, and government procedures, policies and laws.

For the purposes of research grant applications and contract proposals, institutional signing authority has been delegated to the VPR.

POST-AWARD ADMINISTRATION

Once your application is successful, a new research account must be established; typically one for each agency that is funding your project. The OR facilitates this process in collaboration with the Research Accounting Office and certification committees, if applicable.

General

UNBC, as a steward of the research funds provided through an award, has established a series of policies and procedures (see attached <u>Appendix A</u>) aimed at ensuring:

- the ability to comply with the regulations of the research sponsor;
- the proper management of the funds;
- accountability to the sponsor and other university stakeholders; and
- the effective conduct of the research activities in accordance with the highest standards of professionalism, safety, and ethics.

UNBC delegates the overall responsibility for the pursuit and management of the research proposal to the principal investigator as an employee of UNBC and as the person who is most knowledgeable about the research proposal. UNBC supports the principal investigator in meeting his/her responsibilities by providing organizational infrastructure to support compliance with the requirements of UNBC and the sponsor.

Principal investigators are responsible for conducting their research as indicated in the proposal, and for the overall sound administration of all research funds allocated to them, including:

- the proper allocation of research funds and sound financial management;
- human resource management and supervision of employees and students;
- ensuring a safe working environment;
- ensuring compliance with the terms and conditions governing the grant or contract; and
- ensuring that expenditures do not exceed the value of the award.

Release of Funds Procedure: Projects Involving Animals, Biohazards, or Human Subjects

 For research involving special requirements (human subjects, animals, or biohazards), by persons connected to UNBC, or research or studies conducted at UNBC facilities, the OR requires approval indicating the proposed work has been cleared by the corresponding certification committee (REB, ACUC, and LSC) in accordance with UNBC policies and procedures (please see the attached <u>Appendix B</u>).

- Once you receive your award notification, ensure that you contact the appropriate committee coordinator (REB, ACUC, and LSC) so they may forward the appropriate documentation to the OR to support release of funds. Funds will not be released until the grant holder has obtained the necessary certification(s);
- For Tri-Council grants (CIHR, NSERC, and SSHRC), there is a 6-month window following the notification of an award to submit certification information to the OR. Otherwise, under the Tri-Council Memorandum of Understanding (MOU), the decision to continue the award returns to the funding agency.

Financial Management

The Principal Investigators hold the full financial administrative responsibilities of the fund they receive. Moreover it is required to adhere to the expectations and deliverables of the funding agencies. Contact OR or Research Finance for assistance.

Accountability of these research funds falls under the following categories:

FINANCIAL PLANNING

It is required that all principal investigators plan, allocate and distribute their expenditures in a manner which will provide for reasonable completion of their project within the financial limits of the award. Principal investigators must ensure eligibility of all expenses in accordance with rules and regulations of the sponsor and plan for contingencies.

FINANCIAL TRANSACTIONS

The principal investigator initiates and approves all requests for commitments and transactions for supplies, services, and enumeration complying with UNBC policies and procedures.

FINANCIAL MONITORING

The principal investigator ensures constant supervision and monitoring of the funds by reviewing the monthly accounting statements provided by Research Accounting and identifying and reporting any discrepancies, errors and inconsistencies to Research Accounting.

Please see the <u>Pre-Award Administration</u> section of this guide for their contact information.

FINANCIAL REPORTING

The principal investigator ensures that all financial reports prepared by Research Accounting, as required by the sponsor, are carefully reviewed and approved for submission in a timely manner.

OVER-EXPENDITURES

Principal investigators are accountable and responsible for all deficits resulting from over-expenditures, expenses deemed ineligible by the sponsor or for failure of the principal investigator to comply with the rules and regulations of the sponsor.

POLICIES AND PROCEDURES

Principal investigators must know, understand and apply all applicable policies and procedures of UNBC and of the sponsor. Where there is a difference between the policies of UNBC and the sponsor, the more stringent requirement will be followed.

CONDUCT OF RESEARCH

Principal investigators are responsible for the conduct of their research projects, including:

- doing the work, monitoring, and controlling the progress of the project in a professional manner;
- ensuring compliance with <u>UNBC policies and procedures</u>;
- ensuring compliance with the sponsor's rules and regulations and contractual terms and conditions;
- all scientific and technical discussions with the sponsor and reporting to the sponsor are conducted in a timely manner; and
- supervising their support staff and students, in accordance with the UNBC's policies and procedures, including the HR document titled <u>Choosing and Costing Research</u> <u>Support Personnel</u>.

MATTERS WITH SPONSORS

The principal investigator is responsible for all interactions with the sponsor related to the technical aspects of the research project. The principal investigator must inform and provide any correspondence/documentation to the OR, for all matters related to any changes to the research project.

Only a designated senior administrator is **authorized** to sign applications, proposals, contracts, or contract amendments on behalf of UNBC. Financial statements, reports and invoices are to be submitted as directed by the sponsors to Research Accounting after review and approval.

RESEARCH PERSONNEL

Hiring and employment of employees is subject to a number of policies that govern his or her treatment. Grant holders – as supervisors – are responsible for being aware of and following these policies such as the <u>Academic Services Positions</u>, and <u>Statement of Principles on the Treatment of Postdoctoral Fellows</u>. These policies are found at: http://www.unbc.ca/policy.

Additional guidelines related to the hiring of research support personnel can be found in UNBC's HR document titled <u>Choosing and Costing Research Support Personnel</u>.

BUDGETING FOR SALARY AND BENEFIT

Researchers should review the guidelines set out in the "Use of Grant Funds" section of the *Tri-Agency Financial Administration Guide* found on the NSERC website: http://www.nserc-crsng.gc.ca/Professors-Professeurs/FinancialAdminGuide-guideAdminFinancier/FundsUse-UtilisationSubventions eng.asp.

If the funding agency does not have guidelines or regulations regarding compensation, the rate of pay is negotiated with the student/non-student on an individual basis, but must fall within UNBC's HR guidelines at <u>Choosing and Costing Research Support Personnel</u>.

Benefits will vary with the personnel category, whether the person will be working full or parttime, and the anticipated term of employment.

Please contact HR as listed in the <u>Pre-Award Administration Contact</u> section above for further clarification, or for more information and forms.

Website: http://www.unbc.ca/human-resources/employee-recruitment

INTELLECTUAL PROPERTY

The Partnerships Office is happy to assist or find assistance for any researcher at any stage of research for finding community and industrial partners. We like to identify research leading to technologies with commercial potential in the earliest stages, when possible, in order to give the best services to researchers.

To view UNBC's *Intellectual Property* policy, please visit: http://www.unbc.ca/policy/category/research

Commercialization of Intellectual Property

Recognizing the unique role of universities as public institutions of higher learning with a mandate to produce new knowledge, UNBC strives to produce benefits to society by publicising research findings and, where appropriate, encouraging the application of research results in tangible ways which may include commercial activities.

The newly created Partnerships Office works with the creators of IP to determine the appropriate path for commercialization based on the IP and the abilities and desires of the creator. Possibilities include sale or licensing of the IP and building a company around the IP.

The Partnerships Office encourages the disposition of IP in ways which assure maximum benefit to the creators, to UNBC, and to society-at-large, without whose participation the IP could not have been generated.

For methods of preserving IP with respect to the federal IP guidelines, please visit the Canadian Intellectual Property Office:

Website: www.cipo.ic.gc.ca Email: cipo.contact@ic.gc.ca Phone: 1-866-997-1936

To learn more, please visit Community & Industry Partnerships at http://www.unbc.ca/research.

With any other queries, please contact the Partnerships Office via the Office of Research.

Primary Contact: Garth Frizzell

Please see the <u>Pre-Award Administration Contacts</u> section of this guide for full contact information.

APPENDICES

Appendix A: Policies and Procedures

The following is a list of research-related policies and procedures that exist at UNBC:

- Academic Services Positions
- Adjunct Faculty
- Animal Care
- Carry Forward from University Research Operating Contributions to Canada Research Chairs
- Centres and Research Institutes
- Conflict of Interest
- Equipment Maintenance Repairs in the Laboratory
- General Research
- General Research Ethics
- Hazardous Waste Identification & Reporting
- Incident/Accident Reporting & Investigation
- Indirect Costs and Overhead Charge
- Intellectual Property
- Occupational Health and Safety
- Protective Clothing & Equipment
- Radionuclides & Radiation Hazard
- Research Grant in Lieu of Salary
- Research Involving Human Participants
- Research Vehicle Parking
- Software Acquisitions
- Software Licensing
- Statement of Principles of the Treatment of Post-Doctoral Fellows
- Visiting Scholars and Guest Speakers

Of notable importance is UNBC's "General Research" policy. It governs all research and research-related activities conducted under the aegis of UNBC. Please see http://unbc.ca/policy/unit-responsible/research-graduate for details.

Appendix B: Research Requiring Certification

UNBC is responsible for ensuring that research is carried out in compliance with the guidelines of agencies, institutions, and foundations. All federally-funded research must abide by the Responsible Conduct of Research Guidelines developed by Tri-council. Research that involves human participants must be conducted in accordance with the ethical principles and articles of the *Tri-Council Policy Statement 2: Ethical Conduct for Research Involving Humans (TCPS2) 2011*, and the UNBC policy *Research Involving Human Research Participants*.

UNBC has committees to review research while ensuring compliance with ethical guidelines. These committees are the Research Ethics Board (REB), the Animal Care and Use Committee (ACUC), and the Laboratory & Field Safety Committee (LFSC).

The Interagency Advisory Panel on Research Ethics has developed an Online Tutorial, TCPS2: Course on Research Ethics (CORE). It was designed to support the Canadian research community's implementation of TCPS2.

For more information on TCPS2, please visit: http://www.pre.ethics.gc.ca/eng/policy-politique/initiatives/tcps2-eptc2/Default/.

The Canadian Institutes for Health Research have a number of publications on ethics such as Best Practices for Protecting Privacy in Health Research and Aboriginal Ethics Policy. For more information about ethics at CIHR, visit the <u>CIHR site</u>, including the Online Research Ethics Tutorial, Aboriginal Ethics Policy, and Ethics at CIHR.

All investigators are recommended to apply for the appropriate UNBC approval either prior to, or immediately after receiving funding to ensure that all funds are released in a timely manner.

Please see the section titled <u>Pre-Award Administration Contacts</u> in this guide for any unspecified contact information for the following:

NORTHERN HEALTH AUTHORITY

If you are conducting research in conjunction with Northern Health, please contact their Research Review Committee for information at: researchcommittee@northernhealth.ca on their review processes or visit their webpage with the link below. You are also required to complete and attach the Northern Health Authority Supplement form to your UNBC REB application, which can also be found below.

Please see the website below for more information, including the Northern Health Authority's Application Guidelines & Deadlines, and Application for Research Approval.

Website:

http://www.northernhealth.ca/YourHealth/ResearchandEvaluation/ResearchEthicsNHResearchReviewCommittee.aspx

RESEARCH INVOLVING ANIMALS

Researchers who will be working with animals, and those individuals working in their labs (students, research assistants, etc.), are required to complete a Medical History Questionnaire and the Animal Training Certification Course. This includes researchers and others who may have previous experience.

The Medical History Questionnaire must be completed and submitted to Lydia Troc at Lydia.troc@unbc.ca before any work with animals can be started. The form can be retrieved at the website listed below.

For information about the Animal Training Certification Course, or to register for the program, please contact Lydia Troc at Lydia.troc@unbc.ca.

The Animal Care and Use Committee (ACUC), is responsible for ensuring university-wide understanding of, and compliance with, all applicable external and internal requirements. Prior to commencement of research and teaching activities involving the use of animals, the ACUC must review and approve the activities.

Any research or teaching conducted under the auspices of UNBC involving the use of animals (including fish and invertebrates) must conform to the UNBC policy on *Animal Care and Use* and must have the prior approval of the UNBC ACUC.

Please see the website listed below for more information, including the policy on Animal Care & Use, ACUC Membership, Terms of Reference, and the required forms; the Terms of Reference includes ACUC's internal guidelines and approval process.

Website: http://www.unbc.ca/research/research-ethics-safety-animal-subjects

RESEARCH INVOLVING BIOHAZARDOUS MATERIALS

At this time, UNBC is only registered to work with substances/toxins classified as a Risk Group 1 or 2. Before any researcher, student or employee can work with a Risk Group 2 substance/toxin, they are required to complete Biosafety Level 2 training. Please contact the UNBC's Biological Safety Officer, Lydia Troc (Lydia.troc@unbc.ca) to register. This training will be required before you can apply for any permits or purchase any biohazardous materials.

Any protocol using biohazardous substances/toxins will be required to be reviewed and approved by the Laboratory Safety Committee prior to any use.

Research involving any biohazardous material requires special permits. These include bacteria, viruses, plasmids, cell-lines, recombinant DNA, and/or primate body fluids, including blood. Researchers who are proposing to use biohazardous materials or notifiable biological substances must obtain a permit before purchasing these items or commencing laboratory work. An application form for a permit can be obtained from UNBC's Biological Safety Officer, Lydia Troc (Lydia.troc@unbc.ca). The Biological Safety Officer can also provide a copy of the UNBC Laboratory Biological Safety Manual, as well as information regarding the procedure that will occur following submission of a completed application form.

The Laboratory Safety Committee is responsible for all matters pertaining to biosafety, x-ray, laser, chemical and general laboratory safety at UNBC and is mandated to fulfill the responsibilities of a Research Institution as described in the most current version of the Government of Canada, Canadian Biosafety Standards and Guidelines (1st edition, 2013) and the Ministry of Labour. Health and safety at UNBC abides by procedures described in the Government of Canada, Canadian Biosafety Standards and Guidelines and the Occupational Health and Safety Act.

The Laboratory Safety Committee reports to the Risk and Safety Management Office. For more information about safety in biology or chemistry labs, please refer to the Risk and Safety Management Office members.

Please see the website below for more information on Lab Safety and the Risk and Safety Management Office.

Website: http://www.unbc.ca/research/research-ethics-safety-biohazardous-materials

RESEARCH INVOLVING CONTROLLED GOODS

Some research undertaken at UNBC may be subject to export controls administered by the Department of Foreign Affairs and International Trade, particularly in the Faculties of Science and Environmental Engineering.

The funding agency does not take any responsibility for UNBC's compliance, including the actions of applicants. Applicants and their associated institutions bear direct responsibility for ensuring compliance with the laws and regulations regarding controlled goods.

External contact: Public Works and Government Services Canada

Controlled Goods Program Phone: 1-866-368-4646

Email: dmc-cgd@tpsgc-pwgsc.gc.ca

Website: http://ssi-iss.tpsgc-pwgsc.gc.ca/dmc-cgd/index-eng.html

RESEARCH INVOLVING CONTROLLED SUBSTANCES

UNBC works in collaboration with Health Canada, to ensure that controlled substances are handled effectively and remain in legal distribution channels; and that valid commercial, medical and scientific activities are not interfered with.

Research organizations require licensing and permits to obtain, make, store or transport controlled substances. Some research undertaken at UNBC may be subject to import and export controls administered by Health Canada. All legislative documents related to controlled substances can be found on the Health Canada website below.

External contact: Health Canada

Office of Controlled Substances

Phone: 613-954-2177

Email: OCS-BSC@hc-sc.gc.ca

Website: http://www.hc-sc.gc.ca/hc-ps/substancontrol/substan/index-

eng.php

RESEARCH INVOLVING NEW SUBSTANCES

Any researcher who intends to import or manufacture a "new substance" in Canada, whether organic or inorganic, animate (live) or inanimate (lifeless), is required to submit a new substance notification (NSN) package to Environment Canada's New Substance Division prior to importing or manufacturing. Otherwise, all substances acquired by UNBC must be located on Canada's Domestic Substances List.

External contact: Environment Canada, New Substances Division

Phone: 1-800-567-1999 Email: substances@ec.gc.ca

Website: http://www.ec.gc.ca/subsnouvelles-newsubs/

RESEARCH INVOLVING TRANSPORTATION OF DANGEROUS GOODS

Any researcher who will be transporting dangerous goods or controlled products off the UNBC campus may fall under the *Transportation of Dangerous Goods Act*. This includes, but is not limited to, the transportation of dangerous goods (TDG) into or out of the field, community or other institutions by air, rail or road. If you ship, receive or transport dangerous goods, you must be trained and carry a valid TDG certification card, or work under the direct supervision of someone who is trained. To receive TDG training, please send an email to safety@unbc.ca for further instructions. Please refer to the *British Columbia Transportation of Dangerous Goods Handling Act* (at: http://www.bclaws.ca/default.html) and *Federal Transportation of Dangerous Goods Act*, 1992 (listed below) for further information on this legislation.

There are exemptions to the TDG regulations if the quantity of goods to be shipped is below the exemption limit. To check the limits for each dangerous good, contact UNBC as set out below or view the following Government of Canada website.

External contact: Public Works and Government Services Canada

Transportation of Dangerous Goods (CANUTEC)

Phone: 613-992-4624 (call collect)

Email: canutec@tc.gc.ca or tdg-tmd@tc.gc.ca

Website: http://www.tpsgc-pwgsc.gc.ca/comm/index-eng.html

Internal contact: Laboratory & Field Safety

Heath de la Giroday

Phone: 6472

Email: heath.delagiroday@unbc.ca

Website: http://www.unbc.ca/safety/lab-safety

RESEARCH REQUIRING ENVIRONMENTAL ASSESSMENTS

In Canada, environmental assessments (EA)s are triggered whenever a federal department or agency, such as NSERC, proposes a project, provides financial assistance, transfers control of federal land to enable a project, or provides a license, permit or an approval as listed in the Law List Regulations to enable a project. Any research project, which involves any of the activities which trigger an EA, will be reviewed for environmental sensitivity and identify any potential liability for the institution.

All NSERC applications are reviewed by NSERC during the peer review process for compliance to the *Canadian Environmental Assessment Act*. Individual researchers are required to provide more specific environmental information in Form 101 (Appendix A). Please see NSERC's *Guidelines on Environmental Review and Assessment* at the website below.

External contact: Natural Sciences and Engineering Research Council of Canada

Environmental Assessment Unit

Phone: 613-995-8079

Email: enviro.assess@nserc-crsng.gc.ca

Website: http://www.nserc-crsng.gc.ca/NSERC-CRSNG/policies-

politiques/enviroassess-enviroeval eng.asp

Appendix C: Frequently Used Acronyms

ACUC Animal Care and Use Committee

BC British Columbia

CUPE Canadian Institutes of Health Research
CUPE Canadian Union of Public Employees

EA Environmental AssessmentIT Information TechnologyIP Intellectual Property

Laboratory & Field Safety Committee

MOU Memorandum of Understanding

NRESi Natural Resources and Environmental Studies Institute

NSERC Natural Sciences and Engineering Research Council of Canada

NSN New Substance Notification

OR Office of Research
PDF Post-Doctoral Fellow
REB Research Ethics Board

SSHRC Social Sciences and Humanities Research Council of Canada

TCPS2 2nd edition of *Tri-Council Policy Statement: Ethical Conduct for Research*

Involving Humans

TDG Transportation of Dangerous Goods

Tri-Council Three agencies: Canadian Institutes of Health Research (CIHR); the Natural

Sciences and Engineering Research Council of Canada (NSERC), and the Social

Sciences and Humanities Research Council of Canada (SSHRC)

UNBC University of Northern British Columbia (University)

VPR Vice President, Research