

DEPARTMENT OF SURGERY RESEARCH HANDBOOK

FOR FACULTY AND RESIDENTS





2023 FACULTY & RESIDENT RESEARCH HANDBOOK

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PURPOSE OF THIS HANDBOOK

This handbook has been designed to facilitate applying for funding and to inform about the steps that need to be taken to apply for a grant. This handbook will be very helpful especially to those individuals that have never written a grant before.

This handy 25-page booklet covers everything from how to obtain research ethics, how to find research funding, how to write a grant, and how to establish a research program, and includes a resident research project roadmap.

YOUR RESEARCH DIRECTOR

The Research Director oversees the research initiatives within the Department of Surgery.

- Promote a dynamic research culture within the department
- Increase research productivity
- Mentor new faculty
- Oversee the research committee
- Oversee funding for new faculty
- Advance resident research program
- Highlight faculty & resident research



Dr. Daryl Fourney Research Director Department of Surgery <u>daryl.fourney@usask.ca</u> 306-844-1107

YOUR RESEARCH COORDINATOR

Your Research Coordinator is here to help walk you through the grant writing process.

- Provide mentorship and research support for faculty & residents
- Help faculty to develop their own research program
- Identify funding opportunities
- Review grant proposals
- Provide help with budget development
- Help find research collaborators
- Answer research-related inquiries



Karen E. Mosier Research Coordinator Department of Surgery <u>karen.mosier@usask.ca</u> 306-966-8935

DEPARTMENT OF SURGERY CONTACT INFORMATION

Name/Title	Phone Number	Name/Title	Phone Number
Dr. Daryl Fourney, Research Director	306-844-1107	Karen Mosier, Research Coordinator	306-966-8935
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U OF S ETHICS APPROVAL

Obtaining USask Ethics approval is a 6 step process:

- 1. Determine if your project requires ethics approval
- 2. Determine which ethics board your project should be reviewed by
- 3. Assess the risk level of your project (minimal risk or above minimal risk)

- 4. Submit an ethics application to the ethics office
- 5. Make the requested revisions as suggested by the research ethics board
- 6. Receive the certificate of approval

OVERVIEW OF RESEARCH ETHICS APPROVAL PROCESS

Determine If Your Project Requires Ethics Approval

Review is required for:

- Research involving living human participants
- Research involving human remains, cadavers, tissues, biological fluids, embryos or fetuses
- Observation of human behaviour
- Use of identifiable data
- Course-based research activities, including the primary purpose of which is pedagogical

Review is not required for:

- Research relies exclusively on information that is in the public domain and the individuals to whom the information refers have no reasonable expectation of privacy
- Quality assurance studies, performance reviews or testing within normal educational requirements
- Publicly available reports, literature, STATS CAN data

1. DETERMINE WHICH ETHICS BOARD YOUR PROJECT SHOULD BE REVIEWED BY

Biomedical Research Ethics Board (Bio-REB)

- Medically invasive physical procedures, invasive interventions and invasive measures (includes administration and testing of drugs)
- Physical interventions that have the potential for adverse effects such as drug, exercise, and dietary interventions
- Surgical procedures such as biopsies, the collection of blood or other specimens
- Use of permanent health charts or records in accordance with provincial legislation.

Behavioural Research Ethics Board (Beh-REB)

- Non-invasive interventions and measures including interviews, surveys, questionnaires, psychological, social or behavioural interventions, non-invasive physiological measures (e.g. heart rate, blood pressure)
- Observation or descriptive research, including drug, dietary, and exercise protocols that are observational in nature with no intervention
- Audio and/or visual recording or other monitoring

ETHICS OFFICE CONTACT INFORMATION

Name/Title	Phone Number	Name/Title	Phone Number
Dr. Nick Reymond, Human Research Ethics Specialist (Behavioural), Research Excellence and Innovation	306-966-2084	Caitlin Prebble, Human Research Ethics Specialist (Biomedical), Research Excellence and Innovation	306-966-1854
nick.reymond@usask.ca		caitlin.prebble@usask.ca	

2. ASSESS THE RISK LEVEL OF YOUR PROJECT

Minimal Risk	Above Minimal Risk
Minimal risk means that the probability and magnitude of possible harms implied by participation in the research are no greater than those encountered by participants in those aspects of their everyday life that relate to the research.	Minimal risk means that the probability and magnitude of possible harms implied by participation in the research are greater than those encountered by participants in those aspects of their everyday life that relate to the research.
If your study is minimal risk, it will be reviewed via delegated review by the Chair or Vice-Chair of the Research Ethics Board (REB).	If your study is above minimal risk, it will be reviewed by the REB at a full board meeting and will need to be submitted by the appropriate deadlines.

For further information on deadlines see the Human Ethics website at https://research.usask.ca/rei/researchers/ethics/human-ethics.php

3. SUBMIT AN ETHICS APPLICATION TO REI

Behavioural Research Projects	Biomedical Research Projects
There is only <u>one</u> application form to use.	Choose which form you will need to fill out:
Fill out the Behavioural Application Form.	 Secondary Use of Health Data Secondary Use of Biological Materials Prospective Research Creation of Biobank and/or Data Registry

To access the forms, see the Human Ethics website: https://research.usask.ca/rei/researchers/ethics/human-ethics.php

Send your completed applications to ethics.office@usask.ca.

4. MAKE THE SUGGESTED REVISIONS AS REQUESTED BY THE RESEARCH ETHICS BOARD



5. RECEIVE THE CERTIFICATE OF APPROVAL



TIP: Your ethics application shouldn't be a copy and paste of your research grant. An ethics application is all about the data collection and the participants. Tell the research ethics board committee about the activities that the participants will be involved in and how the data will be protected.

SHA OPERATIONAL APPROVAL

1. Obtain Research Ethics Board-issued Research Ethics Certificate 2. Go into the Operational Approval Form online & record the unique link to make changes

3. Share the OA form link with research team members to facilitate completion of the form

4. The PI must include his/her electronic signature on the application form

5. Submit the Operational Approval form 6. The PI must confirm submission of the form before it can be processed

OVERVIEW OF SHA OPERATIONAL APPROVAL

To access the forms, see the Saskatchewan Health Authority website: https://www.saskhealthauthority.ca/our-organization/our-direction/research/getting-approval-conduct-research-sha/operational-approval-applications

Send your completed applications to:

Saskatoon/North

 $\underline{Research Approval. Saskatoon@saskhealthauthority.ca.}$

Regina/South

 $\underline{Research Approval. Regina@saskhealth authority. ca}.$

No project may commence prior to receipt of the Letter of Authorization to Conduct Research.

QUALITY ASSURANCE/IMPROVEMENT, PROGRAM EVALUATION AND RESEARCH

1

• Projects considered quality assurance/improvement or program evaluation may not require operational approval.

5

• Operational approval may be required depending on the scope of the project and the impact on SHA resources.

3

• In some instances, the University of Saskatchewan Research Ethics Board (REB) may waive ethics approval and will provide the researcher with a letter of exemption.

4

• If the project has had ethics approval waived but still requires operational approval, documentation of this waiver must be provided with the Operational Approval application.

ETHICS WAIVER VS. RESEARCH ETHICS BOARD APPROVAL

9

Be warned that if you try to disseminate results of a QI project as "research" (e.g., submission to a journal or peer-reviewed meeting), the journal or the scientific committee of the meeting may not accept a waiver as an ethics approval. Some journals and meetings do not accept waivers for QI work as ethics approval. If you are planning to present your work as a research project, you should endeavor to get Research Ethics Board approval from the University and not rely on an ethics waiver.

USASK INTERNAL REVIEW DEADLINE

Prior to agency submission, all research funding applications to external agencies must be reviewed for compliance as institutional approval may have legally binding consequences for the university. The Research Acceleration and Strategic Initiatives (RASI) internal deadline is 5 business days prior to the agency's competition deadline.

Allowing this processing time will enable Research Support Specialists to:



The internal deadline is defined as RASI receives the application record via UnivRS after academic approvals are completed.

RESEARCH SUPPORT SPECIALISTS (RSS)

Research Support Specialists (RSS) are a team of dedicated and expert pre- and post-award research administrators who provide compliance review and approval of research funding applications to Canadian external agencies. This team aims to facilitate the submission of strong, compliant applications.

COLLEGE OF MEDICINE RSS CONTACT INFORMATION

Name/Title	Phone Number	Name/Title	Phone Number
Cameron Berg Research Support Specialist Research Acceleration and Strategic Initiatives (RASI) cam.burg@usask.ca	306-966-2998	Centaine Raginski Research Support Specialist Research Acceleration and Strategic Initiatives (RASI) centaine.raginski@usask.ca	306-966- 1459

WHEN THE APPLICATION IS RECEIVED ON OR BEFORE THE RASI INTERNAL DEADLINE:

Research Support Specialists may:

- Provide assistance in interpreting agency guidelines and submission instructions.
- Verify eligibility of the applicant and team members (if applicable) based on both university and agency posted policies.
- Cross-reference application and CV documents with agency instructions, policies, and guidelines for the funding call and provide feedback to the applicant around compliance and eligibility concerns.
- Guidance on budget/budget justification to ensure compliance with agency and university eligibility e.g., travel rates, collective agreement compensation rates, institutional costs of research (ICR) etc.
- Check partner organization(s) eligibility, if applicable.
- Liaison with other university units to verify research security issues and review of mitigation plans, if applicable.
- Confirm any USask/academic unit commitments (cash or in-kind).
- Confirm external cost-sharing (cash or in-kind) requirements are in place, if applicable.
- Check for data integrity of UnivRS record (e.g., title, program, agency, amount requested, deadline, ICR%, compliance requirements, university team members).
- Identify unique terms and conditions and liaison with the university's IMP legal counsel, the applicant and agency, as required, to address any issues prior to the application being submitted.
- Facilitate USask approval (and in some cases signature) of the authorized institutional representative.
- Provide institutional approval and forward applications for online portals requiring esubmission processes.
- Offer assistance with UnivRS, agency application forms and online submission portals.

WHEN THE APPLICATION IS RECEIVED <u>AFTER</u> THE RASI INTERNAL DEADLINE:

Research Support Specialists may:

- Assist applicant with any UnivRS issues around creation/submission of application record or follow-up with academic units for approvals (when delayed).
- Complete a general eligibility check, if time allows.
- Facilitate required USask approval (and in some cases signature) of the authorized university representative.
- Provide institutional approval and forward applications for those online portals that require e-submission processes.

In situations where the application is received after the internal deadline, RSSs may facilitate institutional approval without review with the understanding that the applicant, facilitators, and other units on campus who have contributed to the development of the application have ensured that all required elements are complete per the agency guidelines. In the case of submissions submitted without review, the applicant assumes all responsibility for application rejection or compliance issues. Please note that if institutional instances of non-compliance are found after submission, the application may be withdrawn if the issues cannot be remedied, or the acceptance of a research funding may require the removal or modification of any troublesome clauses(s) and/or satisfactory resolution of deviations from university or agency policies.

Applicants should contact their RSS well in advance (4-6 weeks prior to funding agency deadline) when it is a special case such as:

1

• A lengthy and complex application that may require additional time for the RSS to complete the compliance review.

\ 2 To liaison with funding agency is required to confirm special eligibility of applicant/team members and/or expenses; obtain clarification on submission parameters such as formatting and supporting documentation questions, confirmation of Institutional costs of Research (ICR) if not clear.

 If limited number of applications are allowed to be submitted by one organization.

M

• If an institutional letter for support or confirm eligibility of the applicant e.g., protected time is required.

Y

If the applicant or other team member (co-PI, co-applicant, or collaborator)
may have complex appointment parameters that may require additional time to
confirm eligibility e.g. need to contact the team member's employer/
institution to confirm hiring details; liaison with the university College of
Graduate and Postdoctoral Studies (CGPS); confirm with the university's Provost
office and/or the researcher's academic home unit to confirm appointment
details or verify Indigenous citizenship.

HOW TO SUBMIT YOUR APPLICATION THROUGH UNIVRS FOR ELECTRONIC APPROVALS

UnivRS is the University of Saskatchewan's research management system. This system allows for electronic approvals for your grant from Mike Kelly, Surgery Provincial Lead; Marek Radomski, Vice Dean of Research, College of Medicine; and for the authorizing signature of the institution from RASI (Research Acceleration and Strategic Initiatives).

You can access UnivRS here.

Here is the 6 step process to submit your application via UnivRS:

1

 Log into UnivRS with your NSID & password 2

 Click on the dashboard in the top right hand corner of the screen 3

• Click on "Add New" in the top right hand corner and pick "Project" and then "Project Application"

4

 Choose whether the application is "Internally Funded" or "Externally Funded" 5

 Add your key information under each tab & attach a copy of your full proposal under "Documents" 6

 When you are done, click "Save & Update Status" and then pick "Submit".

You must make any budget changes before you submit it. If you change your budget later <u>the approvals will have to be redone</u> before the grant application can be submitted to the funding agency. You can edit your proposal during the internal review process, but remember to send the revised final version to RASI.

HOW TO FIND RESEARCH FUNDING



Talk to your Research Coordinator

- Talk about your research interests
- Ask about dept funding for faculty & residents
- Discuss relevant upcoming funding opportunities
- Ask for a personalized 12 month timeline of funding opportunities to apply for related to your research area



Meet with your Research Directors

- Meet with the department Research Director
- Talk with your division Research Director



Sign up for USask Listservs

- There are 4 availiable listservs: Agriculture, Health Sciences/CIHR/SHRF, Natural Sciences and Engineering/NSERC, Social Sciences & Humanities/ SSHRC
- They include funding opportunities, deadlines, timelines, workshops, etc.
- You can sign up for it here.



Search for Funding Opportunities

- View the USask grants calendar <u>here</u>.
- Find the tri-agency funding opportunities <u>here</u>.

DEPARTMENT OF SURGERY FUNDING

SURGERY FACULTY

New Faculty Seed Funding

- •Must be within 3 years of your appointment to the Dept of Surgery
- •Award up to \$10,000

Faculty Publication Fund

- Can apply at any time
 Only one award per faculty member per calendar year is allowed
- •Award up to \$1,000

SURGERY RESIDENTS

- •Can only apply for 1 travel request per fiscal year (July-June)
- •You must be the presenter in order to be eligible to apply
- •Award up to \$2,000

Resident Research Award

- Competition offered once per year
- You must have a supervisor to apply
- •Award up to \$5,000

Resident Research **Incentive Program**

- You can apply at any time
- •You can receive \$400 for submitting an ethics application, \$200 for collecting the data, and \$400 for submitting a paper for publication

Resident Research Publication Award

- Submit your best paper for this award
- •You must be the first author on the paper
- Describe your contributions to conception & design of the work and your role in the acquisition/analysis/interpretation of data
- •Award is \$1,000

INTERNAL, PROVINCIAL & NATIONAL FUNDING



INTERNAL

College of Medicine



PROVINCIAL

Jim Pattison Children's Hospital Foundation

Royal University Hospital Foundation

Saskatchewan Centre for Patient-Oriented Research

Saskatchewan Health Research Foundation



NATIONAL

Canadian Foundation for Innovation

Canadian Institutes of Health Research

Canadian Liver Foundation

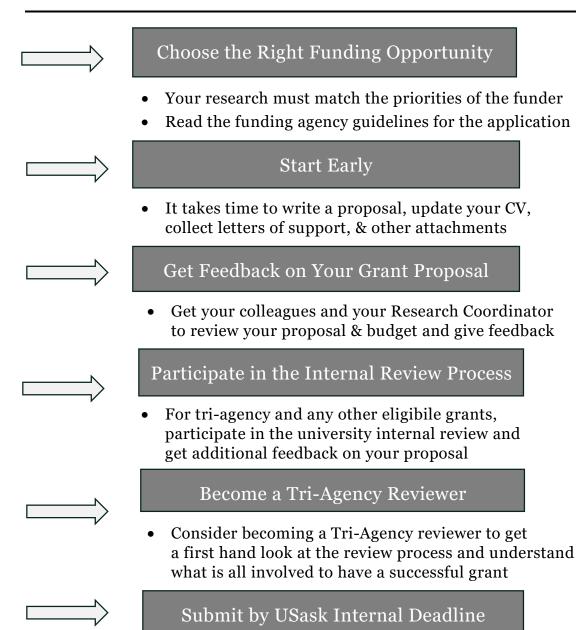
Heart & Stroke

Natural Sciences and Engineering Research Council of Canada

New Frontiers in Research Funding

Social Sciences and Humanities Research Council

HOW TO WRITE A RESEARCH GRANT



- Get a full compliance review
- Ensure compliance with institutional and agency requirements

HOW TO ESTABLISH A RESEARCH PROGRAM



Decide your Research Area of Interest

- Consider what area you are interested in
- Check for gaps in the literature & what hasn't been done
- Address a relevant clinical issue in your field



Find Research Collaborators

- Ask your Research Coordinator to help find collaborators
- Work with your colleagues within/without your institution



Publish Papers

- Make every research opportunity into a publication
- Write a review paper on your area of expertise
- Ask your graduate students to write papers
- Get your summer student to write a paper
- Write paper(s) with your collaborators



Get Research Funding

- Apply for start up/new investigator funding
- Even small pots of internal funding look good on CV
- Collaborate to get co-applicant funding on your CV



Recruit Students

- Recruit graduate/undergraduate/summer students
- Take medical students or volunteers to work on projects



Build & Expand Your Research Program

 Be prepared for your research program to evolve as new collaborators are added & funding changes

PREDATORY OR SUSPICIOUS PUBLISHERS

There are a lot of questionable, scholarly open-access publishers. "Predatory" publishers use deceptive practices to lure authors to publish with them. They exploit the open access author-pays business model for their own profit and conduct <u>little or no peer review</u> or editing work.

You can check out the University of Saskatchewan predatory publishers guide here.

Here is a great rubric tool to help in evaluating journals from librarians at Loyola Marymount University. You can access it <u>here</u>.

UNIVERSITY OF SASKATCHEWAN INSTITUTIONAL REPOSITORY

- Another option to meet the requirement that any peer-reviewed journal articles based on that Agency-supported research must be made freely available is to publish through an online repository.
- HARVEST is the University of Saskatchewan's research archive (institutional repository). The University Library is leading this campus-wide partnership.
- If you are interested in finding how to submit your research, please click on the link below: https://harvest.usask.ca/page/submit.

If you have questions about a journal, please contact Erin Watson, the Clinical Medicine Liaison Librarian at the Leslie and Irene Dubé Health Sciences Library. You can book a session to meet with her here.

Name/Title	Phone Number
Erin Watson Clinical Medicine Liaison Librarian Leslie and Irene Dubé Health Sciences Library University of Saskatchewan <u>e.watson@usask.ca</u>	306-966-7327

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Here is the Think, Check, Submit – Checklist to assess unfamiliar journals.

DO YOU OR YOUR COLLEAGUES KNOW THE JOURNAL?

- Have you read any articles in the journal before?
- Is it easy to discover the latest papers in the journal?
- Name of the journal: the name is unique; it is not the same or easily confused with another journal.
- Can you cross check with information about the journal in the <u>ISSN portal</u>?

CAN YOU EASILY IDENTIFY AND CONTACT THE PUBLISHER?

- Is the publisher name clearly displayed on the journal website?
- Can you contact the publisher by telephone, email, and post?

IS THE JOURNAL CLEAR ABOUT THE TYPE OF PEER REVIEW IT USES?

- Does the website mention whether the process involves independent/external reviewers, how many reviewers per paper?
- Is the publisher offering a review by an expert editorial board or by researchers in your subject area?
- The journal doesn't guarantee acceptance or a very short peer review time.

ARE ARTICLES INDEXED AND/OR ARCHIVED IN DEDICATED SERVICES?

- Will your work be indexed/archived in an easily discoverable database?
- Does the publisher ensure <u>long term archiving and preservation</u> of digital publications?
- Does the publisher use permanent digital identifiers?

IS IT CLEAR WHAT FEES WILL BE CHARGED?

- Does the journal site explain what these fees are for and when they will be charged?
- Does the publisher explain on their website how they are financially supported?
- Do they mention the currency and amount of any fees?
- Does the publisher website explain whether or not waivers are available?

ARE GUIDELINES PROVIDED FOR AUTHORS ON THE PUBLISHER WEBSITE?

- For open access journals, does the publisher have a clear <u>license</u> policy? Are there preferred licenses? Are there exceptions permitted depending on the needs of the author? Are license details included on all publications?
- Does the publisher allow you to retain <u>copyright</u> of your work? Can you share your work via, for example, an institutional repository, and under what terms?
- Does the publisher have a clear policy regarding potential conflicts of interest for authors, editors and reviewers?
- Can you tell what formats your paper will be available in? (e.g. HTML, XML, PDF)
- Does the journal provide any information about metrics of usage or citations?

IS THE PUBLISHER A CURRENT MEMBER OF A RECOGNIZED INDUSTRY INITIATIVE?

- Are they a <u>current member</u> of the <u>Committee on Publication Ethics (COPE)</u> and follow its <u>guidelines</u>?
- If the journal is open access, is it listed in the <u>Directory of Open Access</u> <u>Journals (DOAJ)</u>?
- If the publisher offers an open access option, is it a <u>current member</u> of the Open Access Scholarly Publishers' Association (OASPA)?

RESIDENT RESEARCH PROJECT ROADMAP



Apply for Funding

- Find a research supervisor
- Apply for Surgery Resident Research Award



Choose Reference Management Software

- Talk to Erin Watson, Health Sciences Library
- Discuss reference management options
- Get tips on how to do literature review



Talk to Statistician

- Submit form to Clinical Research Support Unit
- · Talk to statistician about research design
- Ask for calculation of sample size for your study



Apply for Ethics Approval

- Determine if research is biomedical or behavioral
- Apply for research ethics certificate



Complete your research study

- Collect raw data
- Code it into your database

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Find Statistical Support for Data Analysis

- Submit form to Clinical Research Support Unit
- Talk to statistician about analyzing data



Write a Paper

- Determine which journal you would like to submit to
- The journal will determine the format of paper
- Finish your literature review
- Talk about your research findings
- Mention how your data compares to similar studies



Submit your Paper for Publication

- Look at costs of publication e.g., open access
- Talk to Erin Watson, Health Sciences Library
- Discuss predatory or suspicious journals
- Submit your paper to a credible publisher



Final Reporting

- · Send final report to Surgery Research Coordinator
- Provide a project summary
- Talk about the outcomes of the project
- Include a table to show how the money was spent



Present Your Research Findings

Give a presentation at the surgery research day

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