

Department of Surgery Research Handbook

For New Department Members

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Welcome

Welcome to the Department of Surgery! Research is an important measure of productivity in our Department and encompasses a variety of disciplines including Fundamental Sciences and Surgical Innovation research, Big Data/ICES research, Surgical Education Research and Patient Centered Research. Our faculty has a strong track record of success in securing both internal and external funding. We expect that trend to grow through new funding initiatives, mentorship and collaboration.

Introduction

The Department of Surgery at Western has a well-established relationship between innovation and improving patient caring. Research and knowledge-creation have been a hallmark of the Department of Surgery since its inception.

Unfortunately there is no ideal recipe for faculty in creating a productive research program while maintaining a successful and fulfilling clinical practice. The goal of the Research Committee is to foster a strong foundation for research in the Department so as to promote a collaborative network of basic scientist and clinicians with the common goal of furthering surgical innovation and translational knowledge.

In order to facilitate research, the Department of Surgery has a Research Committee. The committee is comprised of members of each surgical division, in addition to a basic scientist, and a representative from the Centre for Research Education and Innovation. The Committee is responsible for the review of: Internal research grants, Clinician and Institute scientist applications, and abstracts for Research Day. Furthermore, the committee oversees the functioning of the four research nodes in the department. All members also provide input in to the coordination and planning of the annual Department of Surgery Research Day.

Department of Surgery Research Mission

The Research mission in the department of surgery is to:

- Foster excellence in surgical research through advocacy, education, and providing research infrastructure support
- Create an environment that cultivates and rewards research excellence, leadership and the translation of discoveries to patient care
- Participate in the recruitment, mentoring and protection of surgeon and institute scientists to expand departmental research activities
- Establish the Department of Surgery as a Canadian leader and innovator in surgical research

Department Funding

Clinician Scientists

The Department of Surgery supports a limited number of Clinician Scientist positions annually. The support provided is intended to provide salary and benefit support to protect the time of Clinician Scientists for Research. Clinician Scientist means an individual who has an M.D. and a certificate of registration from the College of Physicians and Surgeons of Ontario (CPSO); has active privileges at London Health Sciences Centre and/or St. Joseph's Health Care, London; and holds a Clinical Academic appointment in the Department of Surgery at the University of Western Ontario. The Research Committee currently funds three Clinician Scientists through a competitive internal review process. Clinician scientists receive \$75,000 per year (comprised of \$50,000 department funding and \$25,000 division funding) for a three year term.

Internal Research Fund Competition

The Department of Surgery holds a fall internal research fund competition every year. This award has always been an excellent way to get seed funding for novel projects so as to generate enough pilot data for larger studies and external awards. Furthermore, we hold annual resident research grant competitions where up to two resident projects are funded at \$5000 each. Many of the resident grant winners have won best presentation at their divisional research days and have then presented at the annual Department Research Day, thus reinforcing that we are fostering the development of successful future surgeon scientists.

Goals

The goals of the Department of Surgery Research Committee are to help and encourage new faculty and existing faculty to get involved in research. The role of the committee is to provide members of the department with information and support to apply for both internal and external research funding.

Research Nodes

Research in the Department of Surgery is organized in four nodes. The four nodes are: Big Data/ICES, Patient Centered Research, Surgical Education and Fundamental Sciences and Surgical Innovation. All members of the department are strongly encouraged to join one or more nodes and to participate in the activities of the nodes.

Big Data/ICES Node

Building upon the existing success of ICES, this node has become a beacon for population based research going on in the Department of Surgery and Western.

Research Areas that would be Included in this Node:

- Health services planning and evaluation
- Population based outcomes research

Patient Centered Research

This area of research which includes quality assurance and patient outcomes is becoming increasingly important with QBP funding models and Ministry of Health metrics on outcomes from each of our Divisions. Many individuals within the Department of Surgery already carry out research in these specific areas but their expertise could be better shared and utilized within a larger Node so as to generate a greater benefit. This Node becomes increasingly important as research is produced from the other Nodes and eventually leads to the bedside. Working with new partners as well as the Innovation Fellows program, ideas should eventually be guided into this Node.

Research Areas that would be Included in this Node:

- Prospective or observational studies involving patients or control human participants in health care setting (primary, tertiary, long-term, home care, community care etc.)
- Patient rated outcome measure development
- Cost utility and cost effectiveness studies
- Patient surveys
- The direct assessment of natural history, interventions, and outcomes considered important by patients and clinicians

Surgical Education Node

CERI is already an established entity at Western University. Their group is very successful with a multitude of clinical projects. The goal of this node is to expand upon their established success and bring in other partners to strengthen and broaden the scope of ongoing research projects. With the implementation of CBME and the need for simulation and educational evaluation, this is the right time to build these collaborations. CSTAR and the Kelman Center are both state of the art facilities where surgical education and simulation have prospered over the past 5 years. Creating a solid link between CERI, CSTAR, the Kelman Center and other partners in the Department of Education, Psychology and Sociology will enhance surgical education and create innovative assessment tools that can be implemented across all surgical disciplines.

Research Areas that would be Included in this Node:

- Educational projects involving simulation, competency-based education, resident work hours, different teaching styles, resident burnout, fatigue
- Educational projects, such as decision aid development, online material, handouts, models
- Qualitative research projects such as exploring culture in the operating room, hidden curriculum, patient experience & patient expectations

Fundamental Sciences & Surgical Innovation Node

This Node will continue to be a flagship for the Department of Surgery as most of the successful, externally funded ongoing research projects within our individual Divisions are based upon laboratory/bench research. Although there are successful silos of ongoing basic science research within the Department of Surgery, their expertise is often not publicized or shared with the larger group. Surgical innovation depends upon key advancements in surgical techniques and the development of novel biomaterials and bio-technologies. Members in our Department have previously shown excellent productivity and innovation in these facets of research. Creating an environment which brings together basic science laboratories and biotechnology research facilities with these clinical innovators will lead to accelerated translation to mainstream clinical and educational practice through close collaboration with the Innovations Fellows program and World Discoveries.

Research Areas that would be Included in this Node:

- Basic science laboratory or engineering work through proof of concept in animal studies, human pilot studies, other innovations, therapies, surgical samples for basic science descriptive analysis

How to Join a Node(s)

To join one or more research nodes please go to the website at the link below and fill out the on-line form:

https://www.schulich.uwo.ca/surgery/research/research_node_signup_form.html

Department of Surgery Administrative Support

The Department of Surgery Administrative Office provides support to department members. The Research and Graduate program coordinator in the office is the main administrative support for the Research Committee and members in the Department about research.

Research Support

There are various levels of research support available to assist you with your research. The levels of support are: Department of Surgery Office, Lawson Grants Facilitation and Development, Research Western and the Schulich Research Office. These offices each offer varying levels of service in the following areas:

- Identifying research funding opportunities
- Strategies for obtaining grants
- Help with coordination in obtaining letters of support
- Research training opportunities
- Facilitate the development of research teams

New Faculty Support

All new faculty members are assigned a mentorship committee to guide you in your research career. Please meet with your committee and be sure to ask them for assistance. In addition to your mentorship committee, the Chair of the Department of Surgery Research Committee and the committee members are also willing to meet and provide advice. If you require administrative support please contact the staff in the Department of Surgery administrative offices. In particular the Research and Graduate program coordinator may be able to provide assistance and/or direct you to someone who can if they are not able to. The Department of Surgery has a dedicated website for research.

Website: <https://www.schulich.uwo.ca/surgery/research/index.html>

Research Western

Research Western provides services to all members of the Western community. In particular they offer support on grant facilitation, proposal preparation, contacts and commercialization.

Contact Information:

Website: <https://www.uwo.ca/research/services/preparation.html>

Email: res-serv@uwo.ca

Schulich Research Office

The Schulich Research office provides support for members of the Schulich School of Medicine & Dentistry. For more information on the support provided by the Schulich Research Office they can be contacted at:

Contact Information

Website: <https://www.schulich.uwo.ca/research/>

Email: research@schulich.uwo.ca

Lawson Health Research Institute

Lawson Health Research Institute is the research institute of London Health Sciences Centre and St. Joseph's Health Care London. As one of the largest hospital-based research institutes in Canada, Lawson is committed to furthering scientific knowledge to advance health care around the world.

Contact Information

Website: <https://intra.lawsonresearch.ca/>

Email: info@lawsonresearch.com

Finding Funding Opportunities

There are many avenues available to you when you are looking for funding opportunities. Research Western provides a website listing of funding opportunities:

<https://www.uwo.ca/research/funding/index.html>

In addition to the opportunities listed at Research Western, the Schulich Research Office and Lawson Health Research Institute provide a list of funding opportunities that can be located at:

<https://www.schulich.uwo.ca/research/funding/index.html>

And

<https://intra.lawsonresearch.ca/preparing-research/funding>

The Department of Surgery has one annual grant competitions where there is approximately \$140,000 in funding available for research grants for clinical academics. The Fall competition is open to all faculty members and information on the competition can be found at:

<https://www.schulich.uwo.ca/surgery/internal-research-fund>

If you would like more information on the funding opportunities noted above or if you would like assistance in identifying funding opportunities please contact Melissa Serrano.

AMOSO AFP Opportunities Fund

The Opportunities Fund was established in 2002 by the Academic Medical Organization of Southwestern Ontario (AMOSO) to support local physicians with teaching and research projects. The fund was created by an allocation of academic funding provided to the London Academic Health Science Centre (AHSC) through the AHSC Alternate Funding Plan (AFP) and is held twice annually in Spring and Fall. More information on AMOSO can be found at the link below:

<https://amosoweb.ca/>

Writing Your Grant Application

The list below identifies websites, books and documents containing helpful information on grant writing:

- Guidebook for New Principal Investigators (CIHR)
<https://www.ccubc.ca/chairs/guidebook.pdf>
- A Guide for Proposal Writing (National Science Foundation)
<https://www.nsf.gov/pubs/1998/nsf9891/nsf9891.htm>
- The art of writing a CIHR application (CIHR)
<https://cihr-irsc.gc.ca/e/45281.html>
- Elements of a Successful Proposal (McMaster University Website)
<https://research.mcmaster.ca/home/support-for-researchers/secure-funding/elements-of-a-successful-proposal/>
- Grant Writing Tips Sheet (National Institute of Health)
<https://grants.nih.gov/grants/how-to-apply-application-guide/format-and-write/write-your-application.htm>

We recommend that you always start writing your grant application well in advance of the deadline and to ask for feedback on your grant before you submit it. Consulting with the members of your mentorship committee for advice and suggestions when you are preparing grant applications is a valuable resource and we encourage you to do this.

Submitting Your Grant Application

A majority of grants may be submitted through Lawson or Western. There are some grant applications that must be submitted through Western and these are: National Sciences and Engineering Research Council of Canada (NSERC), Social Sciences and Humanities Research Council (SSHRC), and the Canadian Institute of Health Research (CIHR). The specific information for each institution on submitting a grant is noted below.

Western

When submitting a grant you must follow the specific instructions of the Funding agency and Westerns procedures outlined by Research Development and Services which are located at: <https://www.uwo.ca/research/procedures/index.html>

Be sure to carefully follow the information provided on the required signatures and approvals needed section. Please note that Schulich School of Medicine & Dentistry nor department chairs are authorized to sign for the institution. Institutional signatures can only be provided by Research Development & Services.

Lawson Health Research Institute

If you are submitting a grant through Lawson you must receive prior approval from the institute. Information on the procedures to follow if submitting through Lawson are located at: <https://intra.lawsonresearch.ca/preparing-research/regulations-procedures/grant-approvals>

Research Accounts

Once you have successfully received a grant you will need to set up your research account so that you can access the funds. Accounts are either held at Western or at Lawson. All grants to be held at Western require the completion of a ROLA application on-line. Research accounts held at Western are managed through the Department of Surgery office. If you require assistance with your account please contact Karen Henry or Tricia Toderick. The link to apply for a ROLA on-line is: <https://uwo.ca/research/rds/ROLA/ROLAFrameset.html>

If you are setting up your account through Lawson Health Research Institute you will need to request an account using the form at the link below:

<https://intra.lawsonresearch.ca/sites/default/files/Request%20for%20Research%20Account%20Dec%202013.pdf>

Research Policies

Before you start your research you need to be aware of the policies governing Research, at Western, Lawson Health Research Institute and the federal regulations for research in Canada. Before you proceed with your research you may need to obtain ethics and/or animal approval, and institutional approval (for example clinical research impact committee). More detailed information on the policies that must be followed is outlined over the next few pages of this handbook.

When you conduct research as a Western faculty member there are various policies you need to be aware of. The information on the policies can be found at the website noted below:

<https://www.uwo.ca/research/policies.html>

In particular you must be aware of the Research Specific policies pertaining to Research and Purchasing found in the Western Manual of Administrative Policies and Procedures (MAPP).

Additionally you must be aware of the various compliance requirements at Western. There are specific requirements related to:

- Animal Care & Veterinary Services
- Human Research Protection
- Biohazardous Materials
- Health, Safety and Wellness
- Laboratory Safety
- Radiation Safety Program

Animal Care & Veterinary Services Department

Animal Research at Western and its affiliated institutions is regulated by the University Council on Animal Care and its working groups. The groups are supported by the Animal Care & Veterinary Services Department.

Contact Information:

Website: <https://www.uwo.ca/animal-research/facilities/index.html>

Email Inquiries: acvs@uwo.ca

Office of Research Ethics

Human participant research at Western and its affiliated institutions is governed by the University of Western Ontario Health Sciences Research Ethics Board. The Ethics Board is supported by the Office of Research Ethics at Western.

Contact Information

Website: <https://www.uwo.ca/research/ethics/index.html>

Email Inquiries: res-serv@uwo.ca

In addition to the policies at Western, you also must follow the policies of Lawson Health Research Institute. You must have obtained approval from Lawson prior to commencing your research. Information on the approvals Lawson requires can be found at:

<https://intra.lawsonresearch.ca/preparing-research/regulations-procedures/grant-approvals>

All research in Canada is governed by regulations. For a detailed list of the applicable regulations and information on whether or not your research is subject to a particular regulation please go to the website below:

<https://intra.lawsonresearch.ca/preparing-research/regulations-procedures/regulations-guidelines>

Conducting Research

Lawson provides useful information on conducting research and in particular they have information on hiring personnel, research accounting, clinical study maintenance and maintenance of lab and research space. Detailed information on these topics is available at:

<https://intra.lawsonresearch.ca/conducting-research>

Opportunities to Get Involved

Department of Surgery Research Day

The Department holds an Annual Research Day to showcase the research being conducted across the department. This is a great opportunity to network and see what research is being done by your peers and the residents/fellows in the Department. We encourage you to also consider presenting your research.

MSc in Surgery

The Department of Surgery has a Master of Science in Surgery program. This program is tailored to the unique needs of surgical trainees; providing an intensive research experience and a solid foundation for success as an academic surgeon. If you are interested in getting involved in this program by supervising a graduate student, being on a thesis committee or teaching please contact Melissa Serrano or the Chair of the Graduate Program Committee, Dr. Abdel-Rahman Lawendy (contacted information noted on page 14).

More information on the MSc in Surgery can be found at the link below:

<https://www.schulich.uwo.ca/surgery/graduate-education>

Join a Research Node

To join one or more research nodes please go to the website at the link below and fill out the on-line form:

https://www.schulich.uwo.ca/surgery/research/research_node_signup_form.html

Department of Surgery Research Committee Members for 2023-2024

Member	Office Location	Phone Ext.	Email Address
Dr. Kelly Vogt, Chair	VH, E2-214	58547	Kelly.Vogt@lhsc.on.ca
Dr. Emil Schemitsch Chair/Chief, Department of Surgery	SJHC, E3-116	33349	Emil.Schemitsch@lhsc.on.ca
Ms. Melissa Serrano Research & Graduate Program Coordinator	SJHC, E3-113	34776	Melissa.Serrano@sjhc.london.on.ca
Dr. Luc Dubois Vascular Surgery	VH, E2-117	58161	Luc.Dubois@lhsc.on.ca
Dr. Sayra Cristancho CERI	UWO, HSA, 110	89044	Sayra.Cristancho@schulich.uwo.ca
Dr. Jeremy Burton Scientist	SJHC, LRI-F3-112	61365	Jeremy.burton@lawsonresearch.com
Dr. Caitlin Symonette Plastic & Reconstructive Surgery	VH, E2-631	76757	Caitlin.Symonette@lhsc.on.ca
Dr. Christopher Schlachta General Surgery	UH, B7-216	33478	Christopher.Schlachta@lhsc.on.ca
Dr. Brent Lanting Orthopaedic Surgery	UH, C9-122	33335	Brent.Lanting@lhsc.on.ca
Dr. Natasha Seemann Paediatric Surgery	VH, B1-190	58454	Natasha.Seemann@lhsc.on.ca
Dr. Peter Wang Urology	VH, B1-132B	76584	Peter.Wang@lhsc.on.ca
Dr. Matthew Valdis Cardiac Surgery	UH, B6-108	33336	Matthew.Valdis@lhsc.on.ca
Dr. Michael Chu Ray & Margaret Elliott Chair	UH, B6-102	32271	Michael.Chu@lhsc.on.ca
Dr. Rahul Nayak Thoracic Surgery	VH, E2-004	57976	Rahul.Nayak@lhsc.on.ca
Dr. Abdel-Rahman Lawendy Graduate Program Chair	VH, E1-325	58218	Samantha.Clarkson@lhsc.on.ca