CAPITAL HEALTH *Research in Progress*

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Research Services: A 20-Year Retrospective

Research Services celebrated its twentieth anniversary in 2012. Twenty years is a short time compared with the fact that the Victoria General Hospital (now part of Capital Health) was founded well over a century ago. In twenty years both the health research community and its support system has changed dramatically.

Before 1992, there was no assistance available to researchers—there was no help in negotiating contracts with sponsors. Sponsors did not pay overhead costs and the health centre bore the costs for many of the research-related tests and procedures. There were no standards, no guides, no forms, no research staff training and no research grants from the health centre. There was no protection of intellectual or patent rights nor consideration of risk and liability.

Everyone recognized that research was the way of the future and that the hospital had to sustain, encourage and support it. Something had to be done to facilitate a burgeoning research enterprise.

Research Services began as a one-person operation housed in an office in the West Annex (now known as the Centre for Clinical Research). Its mandate was to put in place a support unit that would ultimately "facilitate the conduct of exemplary research to enhance quality patient care." The office assisted and promoted research activities while developing a structure which was committed to being accountable, fair and transparent to the investigators. Early goals were to achieve financial stability for the Research Services office, effectively administer the Research Fund, streamline the research ethics approval process, standardize clinical trial agreements and ensure that the terms covered all the bases, including risk, liability, indemnification, publication, ownership of intellectual property, patent rights and licensing arrangements.

Research growth has been intense in the past two decades—Capital Health is now one of Canada's top forty research hospitals. Research Services constantly strives to keep pace with this growth, providing an environment and the services necessary to support a thriving research culture.

Research Services now offers researchers and their teams services such as: research education, contract/grant facilitation and support, a quality management program, human resources services, regular publications (newsletter, annual report, Focus profiles), and infrastructure support. The Capital Health Research Fund awards financial support to researchers through peer reviewed competitions twice a year. In addition, there is an Ethics Review team which coordinates and facilitates weekly Research Ethics Review Board meetings and provides pre-review assistance to improve submission quality.

During its twenty-year history, Lisa Underwood has been director of Capital Health Research Services. Under her leadership, the department has grown and diversified. Much of the office's original mandate has been realized and the Research Services team continues to encourage and facilitate the conduct of exemplary research at Capital Health to achieve that original and most important goal—enhanced quality of patient care.

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Focus on Evidence: FAQs

RMU Research Methods Unit RMU

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Q. I recently saw an article that gave the impression that searching Google is all that is necessary for a systematic review. I have always heard that more than one database should be searched. Can you clarify?

A: The recent article in *BMC Medical Informatics Decision Making*, "Is the coverage of Google Scholar enough to be used alone in systematic reviews", http://www.ncbi.nlm.nih.gov/pubmed/23302542, has caused a stir among those who support systematic reviews, particularly health librarians.[1] The authors' objective is to examine the coverage of Google Scholar (GS) for clinical studies such as those included in systematic reviews. Their methods involved creating a gold standard database of all the included studies in a large set of published systematic reviews and then checking to see if those articles could be retrieved using GS. Using this methodology, they came to the positive conclusion that GS has 100 percent coverage of the included articles and, therefore, they concluded that GS is nearly exhaustive for high quality, relevant articles for systematic reviews. To this point, the reading audience generally agrees, although many point out that searching for a known article is much different from trying to identify a number of unknown citations.

The arguments start with the secondary conclusion, outside the stated objective of the paper, wherein the authors assert that searching GS may be sufficient for conducting a systematic review. There are several reasons this conclusion is problematic. First, acknowledged by the authors, is the low precision of GS searching. In a test search, the authors found that the precision of GS for identifying the included studies in a given systematic review was 0.1 percent or lower. Given the very real time and resource limitations of all systematic review teams, this low precision presents a significant barrier. The needle in a haystack metaphor comes to mind.

The second issue is the lack of transparency in GS retrieval.[2] One of the goals of any research study is that the methods should be reproducible. A systematic review is no different—the review authors must thoroughly document their means of searching and identifying potential studies. However, because the scope and search algorithms of GS are secret and potentially changing, it is impossible to say whether a similar search conducted at a later point would retrieve the same results.

Still, GS is a very useful tool and systematic review authors frequently use it in conjunction with other databases to identify relevant articles. One handy function is the "cited by..." link that connects the user to more recent articles. Because GS is good at locating seminal articles and has a large coverage, the ability to track citations forward in time can help retrieve other related articles. In addition, you can directly export citations from Google Scholar into your citation manager of choice. The interface has a recent addition that allows you to save that preference so that an import link appears under each citation whenever you search. Combined with some other newer features such as the ability to sort the results by date as well as by relevance, no one will deny the usefulness of Google Scholar in the research activities of finding and using quality evidence. However, it falls far short of being a tool that can be employed systematically to complete the task of identifying all the relevant articles for a systematic review. If you are starting a systematic review, plan to search several health sciences and medical databases and consult a medical librarian for help developing a structured and comprehensive search strategy for each. Consult a medical librarian for tips on how to optimize your use of Google and Google Scholar to find relevant, trust-worthy health information for research, clinical use and patient education.

[1] Jean-Francois, G, Laetitia, R, & Stefan, D. (2013). Is the coverage of google scholar enough to be used alone for systematic reviews. BMC medical informatics and decision making, 13, 7-7

[2] Giustini, D. (January 11, 2013). Is Google scholar enough for SR searching? No [blog post]. Retrieved from http://blogs.ubc.ca/dean/2013/01/is-google-scholar-enough-for-sr-searching-no/

For your information...

Capital Health Research Annual Report 2011-12

The 2011-12 annual report focuses on researchers finding solutions for today's health challenges. Nova Scotia has more than its share of health issues, including diabetes, heart disease, cancer and osteoarthritis as well as high rates of obesity. Researchers are tackling these health challenges in innovative and clever ways.

If you haven't seen a copy yet, please view it online at:
http://www.cdha.nshealth.ca/discovery-innovation/research-news
If you would like a paper copy, please contact:
emily.walker@cdha.nshealth.ca

Night of Discovery Research Fund Raiser a Success

The QEII Health Sciences Centre's research community got a $207,000 boost of support this past fall from guests of the Charm Diamonds Centres Night of Discovery gala. Over 700 people packed the black-tie QEII Foundation gala to discover extraordinary research underway at the QEII. Proceeds from this year's gala support research grants awarded from the QEII Research Endowment Fund and the Capital Health Research Fund. Next year's event will take place on Saturday, October 5. For more information, please contact: Jennie Ewert. 902.442-7141 jennie.ewert@qe2foundation.ca

Research Methods Unit (RMU) Annual Report

The Research Methods Unit is pleased to present its first annual report. You may access it at: http://www.cdha.nshealth.ca/discovery-innovation/research-methods-unit

Please visit the RMU web site at: www.cdha.nshealth.ca/rmu
or contact the RMU: rmu@dal.ca

Innovation Award

Congratulations to Dr. Christopher McMaster who was awarded the 2012 Innovation Award for DeNovaMed Inc. at the 10th Annual Discovery Awards for Science and Technology event.

Dr. McMaster is a scientific co-founder of DeNovaMed, a biotechnology company whose mission is to "bring to market new antibacterials, with entirely new mechanisms of action, to provide new weapons against antibiotic resistance and help people suffering from resistant infections." DeNovaMed is working on developing effective treatment for MRSA and VRE infections which plague hospitals and other care facilities.

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Kevin Hollis, Desjardins Financial Security, is shown with Dr. Christopher McMaster (right) at the Discovery Centre's annual fundraiser event held on November 15, 2012

Introduction to Clinical Epidemiology Workshop (November 2012): Second Offering Another Great Success

"Evidence-based medicine" and "evidence-informed practice" are terms used to describe the application of clinical epidemiology to the care of patients. A primary goal of clinical epidemiology is to improve health through research involving patients.

Clinical research training for health professionals has been identified as a need nationally and locally. Although there are existing graduate programs in related disciplines, there is no opportunity for training in the application of epidemiology to problems encountered in clinical care here in Halifax—until now.

The Introduction to Clinical Epidemiology Workshop is a unique opportunity for health professionals and/or clinicians in Nova Scotia who have an interest in clinical research. The concept for this workshop was developed by Dr. Jill Hayden, Assistant Professor in the Dept. of Community Health & Epidemiology, Dalhousie University, who obtained funding through a Nova Scotia Health Research Foundation capacity grant. The workshop is offered by the Research Methods Unit (RMU) and is a collaboration among highly experienced researchers. Each presenter has a different area of expertise which results in a rich learning environment.

This year's workshop had 16 participants from various backgrounds, including fellows, residents, specialist physicians, nurses, pharmacists and physiotherapists. Engaging these diverse health professionals creates an interdisciplinary approach to building research capacity. Participants indicated the workshop was extremely valuable and fulfilled a need for the novice researcher. The workshop is a starting point for participants to pursue their own research ideas.

The RMU will offer the Introduction to Clinical Epidemiology workshop annually each November. Please watch for early notifications to save the date and/or contact RMU@dal.ca to be added to the notification list.

Educational Opportunities

Date	Series	Topic	Time	Location
February 7, 2013	Research Education Program Please register with: janet.gallant@cdha.nshealth.ca	Research Study Budget Worshop Cory Schlievert, Coordinator, Contract Facilitation and Support, Research Services (workshop full)	1 p.m. -- 3:30 p.m.	Room 114, Centre for Clinical Research
February 20, 2013	Research Education Program Please register with: janet.gallant@cdha.nshealth.ca	Division 5 Regulations and ICH-GCP Janet Gallant, Program Manager Research Education	12:15 p.m. -- 1:15 p.m.	Royal Bank Theatre, Halifax Infirmary
March 5, 2013	Research Education Across Atlantic Canada (REACH)	Fine Tuning your Knowledge of ICH-GCP Janet Gallant, Program Manager Research Education	12 noon sharp -- 1 p.m.	Room 5110, Dickson Building

Congratulations...

September 2012 Research Fund Award Recipients—Total Funding $270,523

Applications for the next round of awards are due at 4 p.m., March 15, 2013.
Details at: http://www.cdha.nshealth.ca/discovery-innovation/research-fund-competiton

Name	Department	Award	Research Description
Bezhuly, Michael	Surgery/Plastic Surgery	$14,945	Intraoperative hyaluronic acid gel (Restylane®) injection for improvement of scar quality following mammaplasty: Phase III, double blinded single center randomized controlled trial
Easton, Alexander	Pathology/Anatomical Pathology	$15,000	Angiostatin as a therapy for multiple sclerosis
Fleming, Kristen	Pathology/Anatomic Pathology	$5,000	Is p63 expression in Merkel cell carcinoma a prognostic marker?
French, Daniel	Surgery/General Surgery	$2,587	Cost analysis of video-assisted lobectomy versus open lobectomy
Hong, Paul	Surgery/Otolaryngology	$14,907	The effect of N-Acetylcysteine (NAC) on free autologous fat graft survival in a mouse model
Ishigami-Doyle, Yoko	Psychiatry	$4,280	Finding physiological indices of alertness in healthy young and older adults using electroencephalography (EEG)
Kinley, Jacqueline	Psychiatry/Day Treatment Program	$14,277	Facilitating emotional processing in psychotherapy
Landry, Thomas	Surgery/Otolaryngology	$10,000	Ultrasound imaging of the cochlea in decalcified human temporal bones
LeBlanc, Jason	Pathology and Laboratory Medicine/Microbiology	$49,761	Oral delivery of adjuncts therapies for clostridium difficile infections
Liwski, Robert	Pathology/ Hematopathology	$15,000	Point of care diagnostic tools for hematology
MacDougall, Peter	Anesthesia/Pain Management	$14,834	The relationship between hip and knee replacement surgery and opioid prescribing: a COAP dataset review
MacIntyre, Ciorsti	Medicine/Cardiology	$5,000	The effect of shock burden on heart failure and mortality
Malik, Rizwan	Ophthalmology and Visual Science/Ophthalmology	$14,965	Gaining a better understanding of optic disc anatomy inpatients with myopic titled discs from Spectral Domain Ocular Coherence Tomography Imaging and improving detection of glaucoma
Meyer, Tracey	Emergency Medicine	$5,000	Blade tip location to facilitate endotracheal intubation using the king version video laryngoscope: a randomized trial using mannequins and lightly embalmed cadavers
Neufeld, Anastasia	Ophthalmology & Visual Science	$5,000	Analysis of macular pigment density in patients with age-related macular degeneration
Nolan, Stephanie	Pathology/General Pathology	$5,000	Immunohistochemical detection of the BRAF V600E-mutated protein in colonic adenocarcinoma with the VE1 antibody: a comparison of molecular and immunohistochemical approaches
Rockwood, Kenneth	Geriatric Medicine	$15,000	Sedentary behaviours of hospitalized older adults across levels of frailty
Stevens, Tynan	Radiology/Medical Physics	$4,980	Modelling grip force for enhanced specificity of presurgical mapping for primary motor cortex
Stueck, Ashley	Pathology and Laboratory Medicine	$5,000	Regression of cirrhosis: importance of local microvascular sufficiency and hepatocellular senescence In regeneration
Town, Joel	Psychiatry	$49,986	Halifax treatment refractory depression trial: a randomized controlled trial of Intensive Short-Term Dynamic Psychotherapy (ISTDP) compared to secondary care treatment as usual; Study 2: A cost effectiveness analysis; Study 3: A process-outcome analysis

Research resources...

ICH-GCP Training for Investigators

Health Canada Inspectors request that investigators and research staff working on clinical trials involving drugs receive training on the applicable regulations (Division 5) and the International Conference on Harmonization: Good Clinical Practices (ICH-GCP). In the course of inspections they have requested documentation of training. To meet this need, Janet Gallant, Program Manager, Research Education, is offering the following training sessions upon request:

ICH-GCP Overview and Investigator Responsibilities (1 hour)
Division 5 Regulations and ICH-GCP Highlights (1 hour)

If you would like to have either or both of these training sessions provided to you and/or your research team at your chosen time and location, please contact:
Janet Gallant (902) 473-2118 janet.gallant@cdha.nshealth.ca

Planning and Development

The Planning and Development Office is working to grow the quality and quantity of the research enterprise. Development and Planning contacts:
Julia Taylor (902) 473-2273 julia.taylor@cdha.nshealth.ca
Shane Grant (902) 473-3829 shane.grant@cdha.nshealth.ca

Research Methods Unit (RMU)

RMU Research Methods Unit RMU

Do you need help refining the methods for your research project, developing an analysis plan, building a database, managing your data, analyzing your data, or advice on qualitative research methods or data collection? Would you like a quote for methods support for an upcoming funding application? The RMU can help. Our priority is to support your research.

It's easy—visit our web site to download an RMU Consultation Request form. Complete and send the form to us. We'll be in touch shortly thereafter to book an initial consult during which we will work with you to identify the best solution(s) for your needs. For more information about how the RMU can help your research, how the RMU consulting process works, or to request a quote for an upcoming research grant application, please visit: www.cdha.nshealth.ca/rmu or contact the RMU: rmu@dal.ca

Clinical Research Unit

Researchers now have access to a 5,400 square-foot, state-of-the-art Clinical Research Unit (CRU), located at the IWK Health Centre, for inpatient and outpatient research needs. Visit the CCfV web site at www.centerforvaccinology.ca for more information and a photo tour of the unit. All inquiries are welcomed. If you would like to tour the CRU and find out more about its services, please contact:
Cathy Brown (902) 470-7015 catherine.brown@iwk.nshealth.ca

CANADA'S TOP 40 RESEARCH HOSPITALS 2012 RESEARCH Infosource

Research in Progress

This newsletter is produced by Research Services. You can view it at:
http://www.cdha.nshealth.ca/discovery-innovation/research-progress-newsletter

Please direct inquiries, comments about or items for the newsletter to:
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