

ANNUAL REPORT

April 1, 2012 - March 31, 2013



OUR VISION

“Building the medical network of the 21st century, a network without walls, without boundaries, without limits to quality patient care, research and education”

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EXECUTIVE SUMMARY

The Department of Medicine has 325 members out of which 209 are Academic Alternative Relationship Plan (AARP) members. 61% of the members are men and 39% of the members are women. During the fiscal year 2012-2013 the Department of Medicine (DOM) has embarked on a number of changes. The leadership team has been revamped and aligned with DoM vision and mission focused on quality, research, education and clinical excellence. Dr. Sylvain Coderre has commenced work as Vice Chair of Education. The Section of Rheumatology has successfully moved its clinics to the Richmond Road Diagnostic and Treatment Centre (RRDTC). Strategic Clinical Networks (SCN) have a number of leaders from the Department of Medicine, notably Dr. Alun Edwards who was appointed the Director of the Endocrinology, Metabolism and Nutrition SCN, and Dr. Jayna Holroyd Leduc as the scientific director of the Seniors Health SCN. Dr. Ward Flemons is funded by the AARP of the Department to take on a significant leadership role with the HQCA. Dr. Lee Ann Tibbles has taken on the directorship of the ALTRA program and will provide leadership and integrate transplantation. Physician recruitment for South Health Campus was successful in attracting a number of high quality recruits and several Sections have established a strong presence. The Department of Medicine is planning its transition to the Provincial Academic Alternate Relationship Plan (PAARP) in 2015-16 and continues to work in a transitional phase. The Department of Medicine has introduced a number of changes to its administrative structure and focused on quality of care, safety and access in all its clinical sections. The Department has a strong focus on patient centred care as well as providing care for special populations. Scholarly activities were particularly significant over this fiscal year with a real focus on translational science and significant success at AIHS CRIQ grants and CIHR grants.

Recruitment and retention

Over this fiscal year 89 new members including AARP, Fee for Service and Clinical Scholars were recruited to the Department of Medicine. Over this period there were 11 resignations and retirements. There were several high profile recruits including Dr. Ann Clarke from McGill University, Dr. Doug Hamilton, an internist, engineer and innovator from NASA, Houston and Dr. Ralf Paschke from Germany. Dr. Brenda Hemmelgarn has commenced as the Roy and Vi Baay Chair for Kidney Disease Research. Dr. Norm Campbell renewed his CIHR Canadian Chair for hypertension prevention and control and is playing a leadership role nationally and internationally in this area.

Clinical and Administration

Dr. Richard Leigh was appointed as the Chief for the Section of Respiriology. Dr. Peter Duggan was appointed as the interim Chief for the Section of Hematology after Dr. Doug Stewart took up a position as deputy head of the Department of Oncology. Search and Select Committees have constituted to search for suitable candidates for section chiefs of Nephrology and Hematology. South Health Campus Site Chiefs have been appointed and these include Dr. Ralph Hawkins for General Internal Medicine, Dr. Charlene Fell for Respiratory Medicine and Dr. Alex Aspinall for Gastroenterology. Dr. Ron Read has been appointed Vice Chair of Strategic Affairs, Dr. Lyn Lambert as the Vice Chair of QA/QI, Dr. Kelly Zarnke as the Clinical Lead for Harmonization of ISA (HISA), Dr. Ann Clarke as the Vice Chair of Research and Dr. Maria Bacchus as the Lead for Mentorship and Leadership. This strengthens the existing leadership team of Dr. Syl Coderre (Education) and Dr. Jane Lemaire (Physician Wellness).

Administrative appointments include the recruitment of Ms Helen Kenyon as the DoM manager and appointment of Ms Bonnie McArdle as Physician Recruitment Coordinator. In addition Ms Julie Law was promoted as coordinator of Contracts and Finances and Ms Lanza D'Silva was promoted to Administrative Assistant of the Department Head and Department Manager.

Overall, for Department of Medicine 9960 inpatients were discharged by DOM physicians during fiscal year 2012-13. Compared to the previous year of 2011-12, the total inpatient discharge of 2012-13 increased around 8.7%.

The average length of stay continues to decrease slightly from 10.0 days and is currently 9.8 days overall. Over this period, the DOM members provided over 15,709 inpatient consults, the biggest increase being in infectious diseases, while the Central Access and Triage handled approximately 35,000 outpatients.

The Sections of Endocrinology, Dermatology and Rheumatology have now been successfully re-located to the Richmond Road Diagnostic and Treatment Centre as well as General Internal Medicine Outpatient clinics. This provided additional space and infrastructure facilities that were beneficial to patient access and patient care quality. This will bring several complementary clinics in a multidisciplinary setting together at RRDTC. The South Health Campus has opened its MTU and General Internal Medicine, Respiriology, Gastroenterology, Rheumatology, Geriatrics have developed a strong presence. A

number of innovations have been put in place such as the Digestive Motility Centre, a state of the art centre for a large number of patients suffering from functional gastrointestinal disorders.

The DOM has significant involvement in the care of vulnerable populations. These include diabetes clinics and General Internal Medicine clinics at Stoney Health Centre, CUPS Health Centre, Calgary Zone tuberculosis clinic, Alexandra Community Health Clinic, Elbow River Healing Lodge at Sheldon Shumir Health Centre and Southern Alberta Clinic for patients with HIV. This has been a significant deliverable for the Department's AARP.

A significant Quality Assurance/Quality Improvement (QA/QI) initiative across the Department is being led by Dr. Jayna Holroyd-Leduc – this portfolio has now been taken over by Dr. Lyn Lambert. She leads the Department of Medicine's QA/QI committee with representatives from all the sections. This initiative includes the following focus areas:

- Establishment of In Patient data report
- Medicine/DOM Data dashboard
- Establishment of DoM Out patient data report
- Examination and optimization of clinic flow within various Sections improve access (decreasing wait times) to specialists
- Collaborate with Seniors Health and Alberta Health Services (AHS) Calgary Zone operations on initiation of HELP (Hospital Elders Life Program) in order to help address issues around in hospital delirium management
- Ensuring Seniors are provided with patient-centered high quality care while in hospital
- Hospital length of stay and downstream effects on Emergency Department wait times
- Provincial Hip Fracture Clinical Care Pathway, AHS Bone and Joint Strategic Clinical Network Trauma Working Group
- Resident-driven Project Targeted at Decreasing ED-LOS for Department of Medicine Patients
- Targeting Discharge Resources for Department of Medicine Inpatients (SISDoM project)

A number of projects were accomplished over the fiscal year, these include:

- Introduction of dyspepsia/GERD nurse navigator in gastroenterology to improve access and quality of care
- Introduction of the Cerner Millennium for outpatient scheduling
- Physician Wellness and the Well Doc program under the leadership of Dr. Jane Lemaire.
- Successful accreditation of the Pulmonary Function testing labs
- The expansion and redevelopment of the Thoracic Oncology program (in partnership with the Cancer Care Strategic Clinical network)
- Introduction of new technologies into GI: the Confocal program / Thin scope clinics/telemetry

Education and Research

The highlight of the year was the conceptualization and integration of the Master Clinician program with CANMed roles led by Dr. Syl Coderre and this will commence in early 2014. The DoM education committee has been set up with Drs. Syl Coderre, Jeff Schaefer, Adam Bass and Fiona Dunn. The ARP members of the Department offered nearly 8000 hours of UME and 14000 hours of PGME teachings. The Internal Medicine Residency Program has 90 residents in the "core" PGY 1 to 3 years. The Subspecialty Residency Programs within the DOM contribute an additional 70 residents soon to join the medical workforce as independent specialists. In addition the Alberta International Medical Program contributed 6 entrants. In total, the DOM educates 180 Residents in its own specialty programs. The Department also provides clinical education to Residents from other residency training programs and our undergraduate medical training program. The Internal Medicine clerkship program had 159 students in 2012. Simulation based training and research activity remain very strong in the residency programs.

Over the fiscal year, over 500 peer reviewed publications were authored by DOM members. Over the 2012-13 fiscal year nearly 60 million dollars of external funding was obtained by DOM members.

Recognition and Awards

Dr. Doug Hamilton was awarded the prestigious exceptional engineering achievement award by NASA. Dr. Brenda Hemmelgarn and Dr. Subrata Ghosh were inducted into the Canadian Academy of Health Sciences. Dr. Braden Manns

received the Faculty of Medicine Watanabe award for excellence in research. Dr. Beck received the Van De Sande Distinguished award for excellence in Mentorship and the Canadian Association of Gastroenterology research professorship. Drs. Braden Manns and Brenda Hemmelgarn received the CIHR-CMAJ award for top achievements in health research. Dr. John Conly received the Ronald Christie award from CAPM. Drs. David Hanley, Dianne Mosher and Gordon Ford received the Queen Elizabeth II Diamond Jubilee medal. Dr. Sachin Pendharkar obtained the Governor General's Gold medal. Dr. Gil Kaplan obtained the Canadian Association of Gastroenterology young investigator award.

The Department would also like to acknowledge Drs. Alun Edwards, Remo Panaccione, Brenda Hemmelgarn, Braden Manns and Kevin McLaughlan for their promotions to Full Professor and to Drs. Chris Andrews, Jennifer McRae and Irene Ma, who were promoted to Associate Professor.

Department of Medicine Communications

Department of Medicine has revamped its website which provides up to date information about events, deadlines, educational programs, member information, recognition and awards and other useful information for its members. The Department hosted Meet the Department meetings at Foothills Medical Centre, Rockyview General Hospital and Peter Loughheed Centre with distinguished speakers such as Dr. Dru Marshall and Dr. Steven Lockwood. Further Meet the Department events are planned at all four sites. Interdisciplinary rounds were held between Rheumatology and Gastroenterology.

Future Vision and plans

The Department of Medicine held its Annual Retreat under Dr. Subrata Ghosh in December 2012 to formalize its strategic and operational plans for QA/QI. The Department has also conducted a survey of its members to identify priorities, strengths and weaknesses. A strong focus over the next year will be on QA/QI and access, projects to reduce ED length of stay and discharge planning to reduce hospital length of stay, implementation of plan for further development of DOM presence at RRDTC site, further consolidation of the SHC site including physician workforce recruitment, further linkages with PCNs via nurse navigators and innovative access programs to improve patient access, manage demand and referral, reduction of length of stay via proactive discharge planning, improved accountability of physician ISAs, involvement of the DOM in the Province-wide AARP planning and support of clinician scientists in the post-AHFMR era. It is anticipated that the workforce will have a modest growth at best and optimization of workforce through renewal will be essential.

DEPARTMENT OF MEDICINE – STRUCTURE AND ORGANIZATION
April 1, 2012 to March 31, 2013

Department Head	Dr. Subrata Ghosh
Deputy Head	Dr. C. Maria Bacchus

Site Chiefs

Foothills Medical Centre	Dr. C. Maria Bacchus
Peter Lougheed Centre	Dr. Ian Scott
Rockyview General Hospital	Dr. Stefan Mustata

Section Chiefs

Dermatology	Dr. Richard Haber
Endocrinology & Metabolism (Interim)	Dr. Greg Kline
Gastroenterology	Dr. Mark Swain
General Internal Medicine	Dr. Kelly Zarnke
Geriatric Medicine	Dr. Karen Fruetel
Hematology & Hematological Malignancies	Dr. Douglas Stewart
Infectious Diseases	Dr. Donna Holton
Nephrology	Dr. Nairne Scott-Douglas
Respiratory Medicine	Dr. Christopher Mody
Rheumatology	Dr. Dianne Mosher

Education Directors

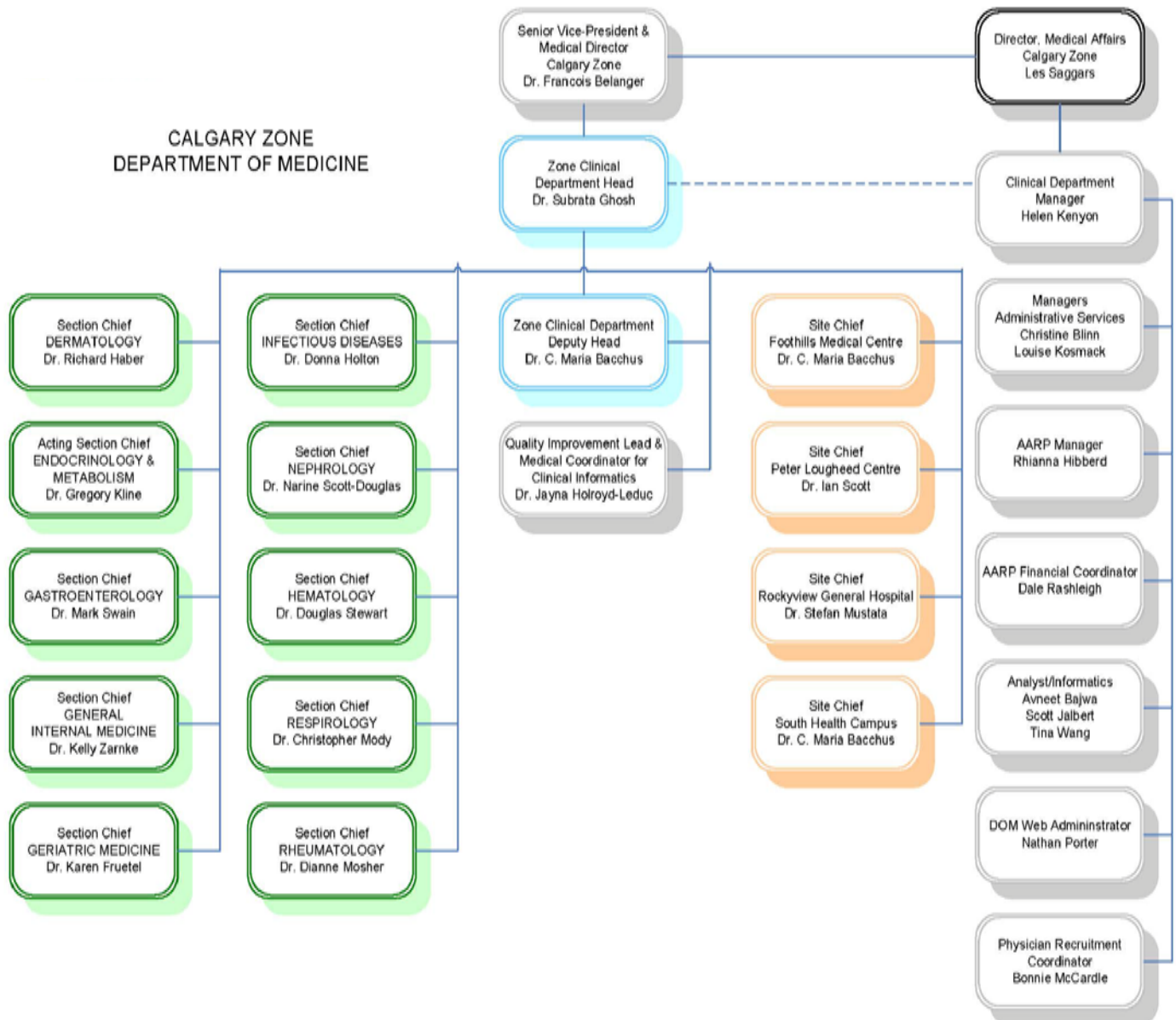
PGME Director	Dr. Jeffrey Schaefer
Clerkship Director	Dr. Fiona Dunne
CME Director	Dr. David Lau (April 2011- July 2011) Dr. Subrata Ghosh (July 2011- present)

Quality

QI Lead	Dr. Jayna Holroyd-Leduc
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DEPARTMENT OF MEDICINE – ORGANIZATION CHART

April 1, 2012 to March 31, 2013



Internal Medicine Residency Training Program – Annual Report April 1, 2012 to March 30, 2013

The Internal Medicine Residency Program (IMRP) is the second largest Post-Graduate training program in the Faculty of Medicine and the largest of the Specialty Programs. The IMRP represents the 'core' training program that is 3 years in duration. After their third year of training, residents undertake either a fourth internal medicine year or enter into a Subspecialty of Internal Medicine or Critical Care Medicine.

Owing to maternity and medical leave and that some residents are 'off-cycle', the following resident numbers are approximate. During the 2012-2013 academic year, there were 90 core internal medicine residents (R1 to R4). The majority of residents entering the Program will do so through the CaRMS Matching Service. Our Program received approximately 300 applications for the 22 positions offered. Interviews are undertaken over 3 days. The Alberta International Medical Graduate Program accounts for 6 entrants per year. AIMG applicants come from different parts of the world. In the years ahead, we anticipate a larger applicant pool from Canadians that have undertaken medical school outside of the country. Additionally, we have accepted a physician from the Department of National Defense and another already practicing in Alberta (re-entry). The Department of Medicine has several accredited subspecialty programs that include approximately 70 residents. In addition to training internal medicine and subspecialty residents, the department provides considerable training to nearly all other departments within the faculty as well as visiting elective residents.

Clinical Care is the strength of our residency training programs. Residents are an integral and valuable part of the patient care experience at all Calgary acute care sites, Richmond Road Diagnostic and Treatment Centre; and at our distributed learning sites in Lethbridge, Grande Prairie, and Yellowknife. The 24/7 nature of resident training significantly increases access to care. We continue to deploy of Senior Medical Residents at the Rockyview General Hospital 365 nights per year. This continues to be very well received by the Emergency Department and Medical Staff. The Senior Residents provide support to the Junior Residents and Clinical Clerks which also enhances their educational experience. We have commenced a Medical Teaching Unit at South Health Campus on July 1, 2013.

Simulation based training continues to be a priority. The Program has 5 ultrasound machines which are used in conjunction with procedural training. In partnership with the Division of General Internal Medicine, the Program has hosted a Western Canada Ultrasound Interest Group. A curriculum for internal medicine was produced and a manuscript has been drafted. The Program launched its Mentorship Program in July 2012. Our Program was carefully developed and is noteworthy for being multi-level and bi-directional within mentorship groups as well as being horizontal among mentorship groups. Evaluation is ongoing.

Research activity remains strong within the residency Program. The 25th Annual Internal Medicine Resident Research Day was held in April 24, 2013. Dr. David Bates from the Brigham and Women's Hospital, Harvard Medical School was our keynote speaker and guest judge. Dr. Bates is an international leader in safety, quality assurance, and health outcomes research. Twelve presentations were awarded best in class with several going on to compete at the Professors of Medicine / Canadian Society of Internal Medicine resident research competitions.

Excellence in Medical Education was acknowledged at our annual fall award dinner held on October 30, 2012. The following are acknowledged: Ectopic Award - Dr. Luc Berthiaume; Rookie of the Year - Dr. Adam Bass; Research Preceptor - Dr. Sofia Ahmed; Work Life Balance Award - Dr. Paul LeBlanc; Silver Finger Award - Dr. Mike Fisher; Silver Tongue Award - Dr. Aleem Bharwani; Repeat Offender Award - Dr. Ian Scott; Golden Bull Award - Dr. Irene Ma. Our faculty continues to be well acknowledged at the Undergraduate level for excellence in teaching.

For the first time in the history of the organization, Calgary hosted the Canadian Association of Internal Medicine Program Directors and Administrators Annual Meeting in April 2013. The meeting was well attended, productive, and owing to a Chinook... free of the previous week's heavy snowfall!

The Program is appreciative of the tremendous support received by preceptors throughout the Faculty of Medicine, the Post-Graduate Medical Education Office, the Undergraduate Medical Education Office, and the many talented and dedicated administrators whom without which our Program could not function.

Jeffrey P Schaefer MSc MD FRCPC FACP is the incumbent program director. He brings a record of excellence in teaching and medical administration to the program. Drs. Ghazwan Altabbaa, Jennifer Landry, and Marcy Mintz are the incumbent Associate Program Directors. Drs. Jayna-Holroyd Leduc (final year) and Sophia Ahmed are Assistant Program Directors - Research. Dr. Jennifer Williams is Assistant Program Director - Curriculum. Dr. Irene Ma is the Assistant Program Director - Procedural Training. Dr. Altabbaa leads simulation training at Rockyview General Hospital, Dr. Irene Ma leads simulation training at Foothills Medical Centre, and Dr. Mike Fisher leads simulation training at the Peter Lougheed Centre. Ms. Jennifer Glow, Ms. Charlene Brass, Ms. Tana McPhee, and Ms. Sherry Schulz administer the IMRP in cooperation with other programs and sites.

Rotation in Health of Vulnerable Populations (HVP) – Annual Report April 1, 2012 to March 31, 2013

The Health of Special Populations rotation started in July 2010 as an elective experience within the Internal Medicine Residency Program curriculum. In 2011 the name was changed to “Health of Vulnerable Populations” (HVP) to better describe the focus. A more complete description of the rotation is available as the “Terms of Reference” or “Objectives” of the rotation presented in Royal College of Physicians and Surgeons format. The HVP rotation is predominantly an elective longitudinal rotation of four weeks duration which can be taken in any of the three core years of residency. In addition HVP offers a supplemental horizontal elective experience and a more substantial project which can be taken during personal academic time such as on Academic Half Day, a research elective block, and/or during weekly horizontal academic time with permission of the primary rotation. The primary objective of the HVP rotation is to focus on the health of peoples who encounter challenges in accessing health care in the traditional Canadian Medical Model. For the purposes of this rotation the following peoples are emphasized: (1) Aboriginal (Indigenous) First Nations peoples, (2) Refugees from other countries, (3) Recent immigrants from developing countries with inadequate health care resources, (4) The homeless (predominantly urban but also in smaller communities), (5) Persons living in poverty.

The experiences planned for the rotation are attendance at structured clinics supervised by a member of the Department of Medicine, directed reading on this topic, and conducting a mini-project on the subject of HVP. Opportunities for clinics included the following:

Diabetes at the Stoney Health Center (SHC) (Dr. Rorstad). The SHC is located in Morley, AB, on the Stoney Reservation, about 50 km west of Calgary

General Internal Medicine at SHC (Dr. Pin Li)

Hepatitis clinic at the Calgary Urban Project Society (CUPS) clinic (Drs. McPhail and Dahlke).

Calgary Zone tuberculosis clinic, Sunridge (Drs. Cowie, Fisher, Jarand and colleagues)

Alexandra Community Health Clinic (Dr. Bassyouni)

Elbow River Healing Lodge in the Sheldon Chumir Health Center

Southern Alberta Clinic for patients with HIV (Drs. Parkins, Janvier, Metherall and Gilmour).

The academic year July 2012 to June 2013 was the third year the HVP rotation was offered. During year three, twelve core (R1 to R3) Internal Medicine residents took the four week rotation. The HVP rotation lends itself particularly well to having residents learn the RCPSC competencies as applied to underprivileged populations: Medical expert, communicator, collaborator, manager, health advocate, scholar, and professional, especially conduct and attitudes toward disadvantaged peoples.

The mini-project during the HSP rotation is a special opportunity for self-directed learning and preparation of a short teaching document which will benefit future residents in taking the rotation. Examples of mini-projects from the third year of the rotation (July 2012- June 2013) are:

Dr. Ryan Lenz: Aboriginal end of life care.

Dr. Arjun Rash: Coronary artery disease in south east asian immigrants.

Dr. Kirsten Smerdon: The economics of obesity: Income level as a predictor of body habitus.

Dr. Linda Sandercock: Diagnosing diabetes in immigrant and refugee populations in Alberta: Can the current guidelines regarding HbA1c be applied?

Dr. Kaylee Milne: An internal medicine resident in the community: Three lessons learned about vulnerable populations.

Dr. Xuemei Li: Hepatitis C review.

Dr. Clement Kwok: Resurgence of syphilis in vulnerable populations.

Dr. Kareem Jamani: Sickle cell disease: Evidence-based management and ongoing challenges.

Dr. Aiden Brazil: Translators and health care delivery to immigrants.

These mini-projects lend themselves to becoming longer term reviews or research projects during residency. In addition, the rotation plans to enter these mini-projects on the Residency Program website for the education of residents and other readers interested in the health of vulnerable populations.

Finally, the Health of Vulnerable Populations rotation should be regarded as a work in progress. A major challenge for the coming years is recruiting more clinical experiences during the four week block. Barriers include workforce shortage of

internists in some areas. The numerous organizations which provide care for vulnerable populations present challenges of jurisdiction and organization.

Calgary Urban Project Society (CUPS) – Annual Report April 1, 2012 to March 31, 2013

EXPECTED OUTCOMES

To improve access to specialist care for marginalized patients by addressing a gap in services to this population and to provide “hands on” advice and education for CUPS clinicians.

VISITS TO DATE

Dr. Liam Martin (Rheumatology): 4 visits with 13 patients seen. There were 7 “no shows” for this physician. This is slightly less than the average number of patients seen last year (4 vs 3.3)

Dr. Lynne Robertson (Dermatology): Program discontinued.

Dr. Eliana Castillo, (Internal Medicine for high risk Obstetrics): 10 visits with 30 patients seen. There were 15 “no shows” for this clinician. This is a slight decrease from the average seen last year (3.3 vs 3) with a higher no show rate.

Dr. Janet Gilmour, Internal Medicine, regular clinic, new this year, 9 visits with 13 patients seen and 5 no shows.

DISCUSSION

The addition of these various specialists to CUPS Health and Education Centre has been extremely valuable.

Firstly, patients have been seen in a very **timely manner**. For people who live their lives on the street or who are marginalized, wait lists of any length generally mean that the patient becomes frustrated and distracted by other activities of life and we then note that many appointments are simply forgotten about

Secondly, CUPS Health Centre is known to the downtown homeless and poor. We see about 130 new patients every month and about one third of these patients engage and require some sort of referral. Our Centre is a **comfortable, non threatening place** to come to and we feel that patients keep appointments because the location works for them. Having specialists come to CUPS allows our patients to come to our site, and again this improves the no show rate and of course, overall ability to treat and care for patients. It is concerning that we do still have a fairly high no show rate and it would be helpful for the future to try and mitigate this in some way. We have not had staff capacity to do this at present but perhaps a volunteer could be found who would be willing to take this on.

Next, CUPS patients are very **complex**, most have a number of concurrent diagnosis’ that include mental health and addiction issues. The clinicians at CUPS have commented on the importance of onsite collaboration with the visiting specialists. This has improved patient care as some follow up work, problem solving and introduction of other CUPS services (eg, mental health) can be done the same day as the visit, that is, there is no waiting time for reports to return with implementation after the receipt of the report. The visiting specialists have taken time to call referring clinicians which establishes a certain collegiality that then allows for easier access for new problems that need solving

Learning through discussion is also benefiting clinicians as we have had some quite unusual problems present and been able to expedite solutions relatively quickly. This has once again been one of the positive aspects of having specialists come to CUPS.

We are very, very pleased with how the visiting specialist program is going. CUPS has moved to its new site and is exploring the option of including other visiting specialists to assist in our work.

We would like to thank all the specialists who are taking the time to come to us and we look forward to continuing with all of them.

Internal Medicine Clerkship – Annual Report April 1, 2012 to March 31, 2013

Class Size Summary:

CLERKSHIP SUMMARY	Class of 2013	Class of 2014 (in progress)	Class of 2015
Total # students with Calgary Clerkship	171 Block 1: 40 Block 2: 38 Block 3: 39 Block 4: 54	178 Block 1: 39 Block 2: 42 Block 3: 40 Block 4: 57	181 Block 1: 41 Block 2: 40 Block 3: 41 Block 4: 59
Students completing Longitudinal Integrated Clerkship (UCLIC) – previously called RICC*	17 (rolled into Block 4)	18 (rolled into Block 4)	18 (rolled into Block 4)
Total graduated May/Nov**	171 (planned)	178 (planned)	181 (planned)
Time away for National Interview period (CaRMS)	Jan 28 - Feb 10, 2013 ***there will be NO clerks available during this time	Jan 20 – Feb 2, 2014 ***there will be NO clerks available during this time	Jan 19 – Feb 1, 2015 ***there will be NO clerks available during this time
Xmas Holiday	Dec 17, 2012 – Jan 1, 2013	Dec 23, 2013 – Jan 5, 2014	Dec 22, 2014 – Jan 4, 2015
Additional information	Clerkship ENDS April 2013	Clerkship Begins April 2013	Mandatory clerkship starts April 14, 2014

**RICC students complete the majority of their clerkship in the rural setting but return in Block 4 to do 4 weeks mandatory MTU and selective rotations*

***predicted graduation class, LOA etc and remediation may alter final number*

The Internal Medicine Clerkship is 10 weeks long. There is a mandatory 4-week Medical Teaching Unit (MTU) rotation, supervised almost entirely by members of the Division of General Internal Medicine. The MTU's at all four sites consistently take students for their rotations (SHC began taking clerks on MTU as of July 2013). There are 3 MTUs at FMC, 3 at PLC, 2 at RGH, and 1 at SHC. The remaining 6 weeks the students rotate through some of the subspecialties of the Department of Medicine, Critical Care, Cardiology, or Neurology selectives.

The Internal Medicine Clerkship functions well due to the dedicated work of the Clerkship Director (Dr. Fiona Dunne), Evaluations Coordinator (Dr Vicky Parkins for Class of 2013, now Dr. Mike Parkins as of Class of 2014), and five educational assistants: Drs. Alex Aspinall, Paul MacEachern, Michaela Jordan, Jennifer Williams, and Susan Huan. We also have a larger group of dedicated clinician/teachers who participate in providing didactic sessions and bedside teaching sessions. There is a heavy emphasis on education. In addition to a twice weekly didactic curriculum covering common topics in Internal Medicine, we provide six 2-hour small group bedside teaching sessions for each clerk rotating through. We are supported in our day to day tasks by an administrative coordinator in UME, and by the UME Assistant Dean of Clerkship and UME Student Affairs Department for any significant issues beyond the scope of our committee.

Internal Medicine Education Committee – Annual Report April 1, 2012 to March 31, 2013

The first order of business for this year was to form a DOM education committee. This committee was struck, and includes: Dr. Jeff Schaefer (PGME), Dr. Fiona Dunne (UME) and Dr. Adam Bass (CME).

We held our first meeting on October 01, 2013. The four following priorities (with updates) were as follows:

Clinic list. This included two aspects:

- Establish a clinic list/contacts for clerks, residents and faculty
 - A list will be generated now that administrative support for this position has been established
- Organize clinics for primary care physicians to attend
 - Dr. Coderre has contacted several PCN's: to date, none of them have shown interest.

Grand rounds:

- A preliminary proposal to revamp grand grounds was created by Dr. Coderre, and discussed with most of the division chiefs individually.
- This will be pursued further once Dr. Bass has completed his Masters thesis work

Learner in difficulty:

- Establish a DOM assessment and remediation unit
- Dr. Coderre has created a plan, and is in discussion with Dr. McLaughlin re: implementation

Mentorship in research:

- Link DOM educators with MERU group
- At this point MERU is being changed, to OHMES, and thus this link will need to be established once the re-organization is completed

After meeting with Dr. Ghosh, a fifth idea was developed, which has now become the primary focus of this position: the Master Clinician program. The following proposal, which summarizes the program, has been discussed at MSEC and submitted to CME office for funding. The plan is for the first iteration of the course to occur in January 2014.

MASTER CLINICIAN PROGRAM

The term “master clinician” has been used in various industries, including dentistry and medicine. A very helpful description of the philosophy behind this term is presented by the University of California (San Francisco), a centre that formally recognizes and rewards this group of outstanding clinicians:

“Virtually every academic medical center has a group of physicians who are considered superior, those who are distinguished from their peers by an unusual depth of knowledge in their field and a willingness to acquire and share new knowledge, by outstanding interpersonal and communication skills, by a commitment to professionalism, by experience with and ability to use the full resources available to provide care that is of optimal value, and by a proven ability to provide compassionate, appropriate, and effective care to all patients.”

The program proposed below, entitled “Master Clinician Program”, aims to provide expert clinicians with a structured, evaluable program that will take these experts from the level of “great” clinician to “master” clinician. The program aims to enhance the “non medical expert” CANMEDS roles, and thus hope to create a breed of physicians that are a “crust above” their peers and colleagues.

8 physicians will attend 8 core teaching modules. These modules will be interactive and delivered over 3 hours. 4 Fridays will be identified in January and February 2014 (2 sessions/ Friday). Faculty members delivering the courses have all been confirmed and are all participants in the research proposal.

	Main CANMEDS role	Key Emphasis	Faculty
1	Communicator	Calgary-Cambridge guide and SPIKES model for breaking bad news	Dr. Sylvain Coderre
2	Collaborator	Working and resolving conflicts in an inter-professional healthcare team	Dr. Heather Baxter
3	Scholar	Analyzing one paper to analyzing several: the road to systematic review	Dr. Steven Edworthy

4	Manager	The physician as a gatekeeper to health care resources	Dr. Braden Manns
5	Manager/Professional	Managing my career and life effectively	Dr. Jane Lemaire
6	Professional	Fundamentals of ethics in a clinical practice	Dr. Kevin McLaughlin
7	Health advocate/Manager	Principles of quality care and patient safety	Dr. Ward Flemons
8	Health advocate	Determinants of health and barriers to health care access	Dr. Sylvain Coderre

For the first iteration, pre/post outcomes measures will be closely followed as part of a research study.

The fundamental research question will be: does a program like the proposed Master Clinician Program lead to identifiable changes in:

- Patient, colleague and self assessment of 21 CANMEDS attributes (identified in a questionnaire)
- Participant performance in an eight-station pre/post course OSCE
- Participant self-assessment of their level of: job satisfaction, wellness, engagement, participation in mentorship programs

Section of Dermatology – Annual Report April 1, 2012 to March 31, 2013

The Section of Dermatology consisted of five full-time ARP members and twenty-three community-based dermatologists during the reporting period. Twenty-three members of the Section of Dermatology held a University of Calgary academic appointment through the Department of Medicine during the reporting period.

CLINICAL

1. Dr. Régine Mydlarski ran specialty clinics in immunobullous disease and immunodermatology. These are tertiary referral clinics with complex patients receiving referrals from other Dermatologists, Rheumatologists and other allied specialists in Calgary, Western Canada, Central Canada, and parts of the United States. She continued to provide dermatologic assessment and treatment of high risk patients in her dermatology solid organ transplant clinic in conjunction with the Southern Alberta Transplant Program.
2. Dr. Laurie Parsons ran three subspecialty patch tests clinic per week with referrals from Dermatologists throughout Calgary. She also participated in three multi-disciplinary wound care clinics and one general dermatology clinic per week. She continued to be active in Telehealth, providing wound care Telehealth sessions.
3. Dr. Richard Haber ran two general dermatology clinics per week. He also conducted a pediatric dermatology clinic at the Alberta Children's Hospital (ACH) once weekly and ran Telehealth Dermatology consultation clinics to the Siksika first nation, Claresholm and High Level, Alberta. Each clinic running once a month.
4. Dr. Habib Kurwa ran a MOHS micrographically controlled Surgical Clinic to treat complex skin malignancies at the Richmond Road Diagnostic and Treatment Centre. He currently does four MOHS surgical clinics per week in addition to two surgical consultation clinics per week.
5. Dr. Lynne Robertson ran six medical dermatology clinics per week as well as running an out-reach dermatology clinic to the Royal Alexandra Hospital once a month.

RESEARCH

1. Dr. Mydlarski continues to conduct dermatologic basic science research. Her areas of expertise are autoimmune bullous diseases, connective tissue diseases and cutaneous skin cancer. The total funding she received from all sources was \$200,000.
2. Dr. Kurwa was involved in dermatologic basic science research in the area of cutaneous skin cancer. His total funding was \$27,000.
3. During the reporting period the Section published 34 peer-reviewed publications, 26 non-peer reviewed publications and 5 abstracts.

EDUCATION

1. Invited Lectures/Presentations:

The Section of Dermatology was very strong in medical education.

- a. The Section continues to run a very highly rated dermatology elective program for Internal Medicine residents with a resident in every block. They also supervised elective undergraduate medical students, clerks, family medicine residents and other medical residents (including medical genetics and pediatrics).
- b. The Section sponsored the Seventh Annual Day in Dermatology CME on October 13, 2012 and this event was attended by over 70 family physicians and approximately 20 final year family practice residents.
- c. Drs. Haber, Mydlarski, Parsons, Poelman, Remington, Robertson, Woolner, and Zip lectured to the Undergraduate Medical Students in MDCN-360 (Course II). Dr. Parsons also lectured on Common Pediatric Lesions to University of Calgary Undergraduate Medical Students in Course VI on Nov 14, 2012.
- d. Dr. Haber was an invited speaker on Dermatologic Features of Neurocutaneous Disorders, Section of Genetics, TSC Symposium, at University of Calgary on May 3, 2012.
- e. Dr. Robertson was an invited speaker on an Approach to Atopic Dermatitis and the Use of Topical Corticosteroids in Pediatric Patients to the Department of Family Medicine, University of Calgary on May 17, 2012.

- j. Dr. Mydlarski presented 2 oral presentations including a plenary lecture on Update on Pemphigus Therapy, Dr. Parsons presented 2 oral presentations and Dr. Haber presented 1 poster presentation at the 87th Canadian Dermatology Association Annual Meeting in Ottawa, Ontario in June 2012.
- f. Dr. Mydlarski was the Canadian Dermatology Foundation 2012 Lecturer at the 87th Canadian Dermatology Association Annual Meeting in Ottawa, Ontario in June 2012 and her talk was entitled “Tales of an Immunodermatologist; from Bullous Disease to Skin Cancer”
- g. Dr. Robertson presented Dermatologic Manifestations of Inflammatory Bowel Disease to the Section of Gastroenterology, University of Calgary on October 10, 2012.
- h. Dr. Habib Kurwa presented Medical Grand Rounds on October 30, 2012 on Photodynamic Therapy for the Skin.
- k. Dr. Mydlarski was a Keynote Speaker on Skin Disease in Solid Organ Transplantation at the University of British Columbia on November 16, 2012.
- l. Dr. Haber was an invited speaker on Skin Manifestations of Systemic Diseases at the 37th Family Practice Review and Update Course, Calgary, Alberta November 22, 2012.
- m. Dr. Haber was an invited speaker at a Forum on Atopic Dermatitis for the Eczema Society of Canada in Calgary on November 22, 2012.
- i. Dr. Mydlarski gave the J. Barrie Ross Annual Lecture on Bullous Disease: From Bench to Bedside in Halifax, Nova Scotia on November 27, 2012.
- j. Dr. Parsons participated in the DRIVE program, a national level preparation course for final year dermatology residents throughout Canada in preparation for their Royal College fellowship examinations in February 2013.

2. Graduate Education:

- a. Dr. Régine Mydlarski was the module co-ordinator for IMM-3, Autoimmunity and Immunodeficiency (MDSC 639.03).
- b. One graduate student and one post doctoral student were trained in the Transitional Dermatology Lab under the supervision of Dr. Regine Mydlarski during the reporting period.

3. Public Service:

- a. Drs. Haber, Parsons, Robertson, and Kalisiak participated in a public skin cancer screening clinic at the Eau Claire Centre in Calgary on June 8, 2012 as part of the Canadian Dermatology Association 24rd National Sun Awareness Week. Over 150 patients were screened for skin cancer.

4. Awards:

Laurie Parsons was awarded the Class of 2014 Course Gold Star for excellence in teaching in Nov. 2012.

ADMINISTRATION

- 1. Dr. Haber continued as the Chair of the Dermatology Specialty Committee of the Royal College of Physicians and Surgeons of Canada. Dr. Haber was also the Prairie Representative on the Canadian Dermatology Association Executive Committee. He continued as the Medical Telehealth Advisor for the Department of Medicine. He organized the Section of Dermatology Patient Viewing Rounds and chaired the accompanying Sectional Business Meetings.
- 2. Dr. Laurie Parsons continued in her respective roles as the Medical Lead – Wound Care for Calgary, Coordinator of the Undergraduate Dermatology Teaching for MDCN-360, and Organizer of the Section of Dermatology Journal Club. In addition, she was a member of the EMIS User Working Group, Wound Advisory Committee and Best Practice Committee of the Department of Medicine. Nationally, she was the Chair of the National Dermatology Undergraduate Education Working Group, an appointment of the Canadian Professors of Dermatology, Canadian Dermatology Association. Dr. Parsons continued in the position of dermatology representative on the ARP Management Committee. Dr. Parsons continued as the Chair of the Selection Committee for the University of Calgary Dermatology Residency Program.
- 3. Dr. Régine Mydlarski continued as the Program Director of the Dermatology Residency Program at the University of Calgary. She was the Medical Co-Director of the Medical Advisory Council of the Canadian Pemphigus and Pemphigoid Foundation. She was a member of the Advisory Board of the Skin Malignancy Working Group in Transplantation. Internationally, Dr. Mydlarski was a Medical Advisor for the Medical Advisory Council of the International Pemphigus and Pemphigoid Foundation. She continued to be the Director of Immunodermatology for the Section of Dermatology and was the Director of Transplant Dermatology for the Southern Alberta Transplant Program.
- 4. Dr. Lynne Robertson continued as the Chair of Evaluations for the University of Calgary Dermatology Residency Program. She was also the President of the Alberta Society for Dermatologists in 2012.

5. Dr. Habib Kurwa continued as the Surgical Chair for the University of Calgary Dermatology Residency Program. He continued as the Section of Dermatology representative to the QA/QI committee of the Department of Medicine at the University of Calgary

CHALLENGES AND FUTURE DIRECTION

1. The full-time ARP members of the Section of Dermatology worked out of their new offices at the Richmond Road Diagnostic and Treatment Centre. Having a centralized and dedicated space for the full-time members of the Section has been a tremendous asset. We now operate out of 6 examination rooms for 4 dermatologists which has been a significant advance.
2. The Section participated in our fourth CaRMS interviews in January 2013 and matched three new residents to our Program to begin July 1, 2013. This will increase our total number of residents to twelve for the year 2013-2014.
3. The phototherapy equipment at Richmond Road Diagnostic and Treatment Centre is not being used, again because of lack of necessary housekeeping funding. This has deprived the public from an important and necessary therapeutic treatment and this situation needs to be remedied on an urgent basis. Efforts to get funding for the Phototherapy Centre at RRDTC have been unsuccessful.
4. The Section of Dermatology urgently needs to recruit a full-time pediatric dermatologist for the Alberta Children's Hospital as a mandatory 3 month rotation, is a requirement for our dermatology residents under the Royal College Specialty Training Requirements. Dr. Haber has been in talks with the Head of Pediatrics, Dr. James Kellner regarding this urgency. Dr. Francois Belanger approved a GFT position at ACH for a pediatric dermatologist at the University of Calgary in January 2012. A Search & Selection committee was struck up in September 2012. A very experienced pediatric dermatologist was interviewed in November 2012. However, recruitment proceedings were stopped because of a Zone directive of no new ARP hires in January 2013. Our Section continues to lobby the Head of Pediatrics and the Zone Chief Medical Officer about the importance of recruiting a full-time ARP pediatric dermatologist to the Alberta Children's Hospital and the University of Calgary.

Section of Endocrinology and Metabolism - Annual Report April 1, 2012 to March 31, 2013

The Section of Endocrinology presently consists of 18 faculty members who maintain offices in Richmond Road Diagnostic and Treatment Centre, Health Sciences Centre FMC and in the Associate Clinic Gulf Canada Square. The majority of the clinical work is conducted in the Endocrine Clinics at RRDTC, in proximity to the Diabetes, Hypertension and Cholesterol Centre and the Osteoporosis Centre. The section includes 5 Full/Clinical Professors, 5 Clinical/Associate Professors, 7 Clinical/Assistant Professors and 1 Clinical Scholar.

CLINICAL

- a) **As a whole, clinical care comprised exactly 50% of the sectional activity.** Due to one departing physician and expanding faculty responsibilities in other areas of service, there was a 14% reduction in clinical care FTE compared to the prior fiscal year.
- b) **The section of endocrinology continues to provide both inpatient and outpatient consultative and chronic care in all areas of the specialty.** In the past year, the Endocrinology Central Access and Triage received almost 6400 outpatient referrals, (not including Diabetes in Pregnancy) of which 80% were accepted and booked into a clinic appointment. This represents a 3% increase in total volume over last year and an 18% increase over 2010-2011. Of all urgent referrals, 90% were seen in less than two weeks. Of all routine referrals, almost 90% were seen within the “longest acceptable wait target” of 26 weeks. However, the mean wait time for a routine consultation has increased to 14.9 weeks, a 33% increase over the past two years. These figures demonstrate the section’s concerted efforts to meet the community demand for endocrine services. However the increasing wait times underline the need for additional recruitment of physicians, especially since the stated figures do not include other DHCC or DIP program referrals or the almost 500 patient referrals which are currently waiting to be processed.
- c) **The section maintains and supervises the regional endocrinology testing unit** under the direction of Dr. Bernard Corenblum where specialized metabolic testing is performed. The majority of such tests are done for endocrinology patients but the testing unit also supports some work by nephrology and general medicine. During the past fiscal year, the unit performed over 250 specialized endocrine test protocols (which typically take one half to one full day) and provided 350 additional patients with specialized parenteral outpatient endocrine therapies and education not otherwise available in Day Medicine.
- d) **The endocrinology section maintains primary responsibility for the Diabetes, Hypertension and Cholesterol Centre (DHCC)** under the direction of Dr. Julie McKeen. In the past year, the DHCC received over 5500 new patient referrals (all separate from Central Access and Triage) and conducted over 30 000 one-on-one patient care visits through the MDs and allied health workers. In addition, there were almost 8500 other patient visits with MD/RN to care for Diabetes in Pregnancy, under the direction of Dr. Lois Donovan.
- e) **The section provided clinical services in a wide diversity of settings.** In addition to clinics for diabetes and hypertension, the section staffs clinics for Diabetes in Pregnancy, General Endocrinology, Osteoporosis and Metabolic Bone Disease, Thyroid Cancer (TBCC), Neuroendocrine Tumour (TBCC), Solid Organ Transplant, Stem Cell Transplant and an Outreach Clinic on the Stoney Reserve run by Dr. Otto Rorstad. Section members have started two separate “tumour boards” for thyroid and neuroendocrine cancers in order to facilitate a multi-disciplinary team approach to management.
- f) **The section has pioneered a weekly “Community Access Physician” program** to assist with urgent referrals and wait list management. Each week, an endocrinologist is available during business hours to assist triage staff, to take all requests for phone advice and to see any urgent referral such as new-onset type 1 diabetes. This has been remarkably successful and is felt to have streamlined the ability of community physicians to get immediate access to endocrinology services.

EDUCATION

- a) **As a whole, educational pursuits comprise just over 12% of the protected time of section members** with an FTE equivalent of 1.7 full time teachers.
- b) **The section has trained 4 new endocrinologists in the past year:** two of the trainees (Drs. Helmle and Saad) will be transitioning to non-salaried faculty positions at the South Health Campus in 2013. The other two trainees, Drs. Venos and Billington will be joined by two new residents accepted into the training program for July 2013. The endocrinology fellowship program continued to be run by Dr. Chris Symonds who has also

continued in his role as Chair of the National Specialty Committee for Endocrinology at the Royal College. For his work with the local and national training programs, Dr. Symonds was also recognized as “Educator of the Year”, a national award from the Canadian Society of Endocrinology and Metabolism.

- c) **Undergraduate medical education continues to be a major focus of the endocrine section.** As a whole, the section provided 315 hours of direct, didactic teaching to the medical school along with over 1000 hours to other direct educational activities for residents, allied health workers and professional CME. Dr. Hanan Bassyouni has continued as co-chair of the endocrinology-nephrology course in the medical school. Section members received 16 different teaching awards in the past year.
- d) **Bedside teaching in the outpatient clinics** was provided with 936 clinics in which a clerk, resident or fellow worked alongside a faculty member, in addition to the regular inpatient service. This represents a 6% increase in faculty availability for bedside training in the past year.
- e) **Over 55% of section members directly supervised at least one student project** in the past year, ranging from medical student projects to PhD theses.
- f) Dr. Karmon Helmle successfully defended her Master’s thesis in Medical Information Technology
- g) Dr. Vicky Parkins has started in a new role as an educational liaison between community/PCN physicians and the section in order to foster better access to industry-free education for all physicians seeking endocrinology CME.

RESEARCH

- a) **As a whole, the section spends 23% of its time in research pursuits**, with protected research time equivalent to 3.6 FTE researchers.
- b) **The section produced 37 peer reviewed publications** in journals with mean impact factor 3.62, 8 non-peer reviewed publications, 38 peer-reviewed abstracts and 1 book chapter. Work published by section members in 2011 was cited 953 times in 2012. The research efforts of Drs. Sigal and Hanley are particularly acknowledged for their section-leading productivity as together they accounted for over 50% of all publications for the second year in a row.
- c) Section members delivered 18 invited local academic presentations, 4 academic presentations at provincial meetings, 6 academic presentations at a national level and 8 invited addresses at international meetings.
- d) A total of 9 new projects were awarded research approval/funding, joining the 30 other funded studies that were ongoing during the year.
- e) Dr. Lois Donovan has continued in the prestigious invited position as advisor to the US National Preventive Services Task Force on management of gestational diabetes.

ADMINISTRATION

- a) **As a whole, the section members spend 16% of their time in various administration activities**, roughly approximating the work of 2.3 FTE administrators.
- b) Dr. Alun Edwards continues as Senior Medical Director, AHS Strategic Clinical Network for Diabetes, Nutrition and Obesity which has been instrumental in bringing the provincial insulin pump program to fruition along with a well developed structure for monitoring of implementation and outcomes. As such, Alberta is the only province in Canada with an insulin pump program that has an outcomes-based evaluation program in place.
- c) Dr. Gregory Kline has continued in the role of Interim Section Head. An international candidate for the position has been identified and negotiations are ongoing.
- d) Dr. Peter Grundy continued in his role as Chair of the ARP Management Committee for the Dept. of Medicine and continued to play a key role for the department of medicine in all aspects of the re-negotiation and administration of this most important salary program.
- e) Dr. David Lau is the president of Obesity Canada
- f) Dr. Julie McKeen is the Medical Director of the Diabetes, Hypertension and Cholesterol Centre
- g) Dr. David Hanley is the Medical Director of the Calgary Osteoporosis and Metabolic Bone Centre
- h) Multiple members sit on national and international committees in metabolic bone disease, diabetes care and obesity.

FUTURE CHALLENGES

- a) **Clinical care in endocrinology and diabetes.** The section received over 6000 requests for outpatient consultation in the past year which continues to increase on an annual basis. Clinical outpatient service represents 50% of the whole sectional activity which in turn approximates the output of nine full time clinicians. For the first time in several years, there has been a significant increase in waiting times as section services have probably reached a maximum productivity plateau. Although the absolute mean wait time is still less than 6 months, some programs (ie. Osteoporosis) now have wait times that exceed 12 months. The contributions of Drs. Helmle and Saad will be useful for the expected increase in referrals from the SHC area but if city-wide referral volume increases again this year, it is virtually guaranteed that wait times will as well. There is an urgent need to recruit at least 2 or 3 additional clinicians to service the current clinical demand.
- b) **South Health Campus** has posed a challenge for provision of inpatient endocrine consultation. The endocrine section currently offers citywide coverage with a single call schedule. A round –trip from the RRDTC home base to each city hospital will be almost 100km which makes in-person, daily, hospital consultations impossible for a single on-call physician. The section was prepared to develop a split call schedule which would have effectively doubled each physician's total weeks on call since it was felt this would be needed to effectively serve the community. Unfortunately, on-call coverage funding was not forthcoming to make this a possibility. As such, the section has had to develop what is hopefully a temporary plan whereby the Community Access Physician will be on call for SHC during business hours and the city-wide person covering all after hours and weekends. The section remains adamant that it is impossible for one person to offer medically adequate coverage to 4 city hospitals all at once and it is hoped that funding will become available to address this immediate need. The future goal of the section will be to develop two separate endocrine services that can truly serve their geographic hospitals properly.
- c) **Geographical disparities in outpatient endocrine/diabetes coverage.** Data from the Diabetes, Nutrition and Obesity SCN indicates that Northeast Calgary in particular requires an urgent concentration of services directed towards even basic diabetes and metabolic management. Patients from this region do not frequently access the diabetes services located at RRDTC in NW/SW Calgary. There is a critical need for University affiliated academic and teaching endocrinologists to move into NE Calgary and recruitment to this post should be a major sectional priority. With the current recruitment freeze, there has been no progress on this issue in the past year.
- d) **Projected retirements:** 30% of the sectional membership is approaching a time of potential retirement in the next 2 to 5 years. Dr. Charlotte Jones closed her practice and re-located to British Columbia in the past year. Several of the senior members have been highly productive researchers and teachers. There is an urgent need to recruit new physicians to continue their work, especially in the research field. GFT-ready young endocrinologists are in very short supply and thus the section will need to make a concerted effort to support any quality trainee with research potential. Until there is the ability to recruit physicians to ARP funded positions, there is a real possibility that Alberta and the University of Calgary may lose the opportunity to attract several years-worth of quality new graduates.

Section of Gastroenterology – Annual Report April 1, 2012 to March 31, 2013

CLINICAL

FMC – Foothills Medical Centre (Site Chief Dr. Jonathon Love): After enduring somewhat cramped quarters during renovations, the newly renovated UCMC Area 2 GI (Gastroenterology) Clinic space at the University of Calgary, Health Sciences Centre was welcomed by the FMC GI group. This wonderful renovated space has significantly improved the overall GI patient clinic experience, and staff morale. As in previous years within the FMC and UCMC GI clinic, the clinical demand for GI services has remained high, with GI Central Triage continuing to receive ~1200 referrals per month, and Hepatology Central Triage receiving ~200 referrals per month. Despite this high demand for GI services, this was a very successful year with the establishment of initiatives to improve patient access and endoscopy utilization. The successful flexible sigmoidoscopy clinic continues in the UCMC area - further improving patient access to investigations. Under the physician leadership of Dr. Kerri Novak, a number of streamlined guidelines for central triage have been introduced to further reduce wait times, and additional guidelines are being developed.

RGH – Rockyview General Hospital (Site Chief, Dr. Tara Chalmers-Nixon): The Gastroenterology team at the RGH is comprised of 9 gastroenterologists, providing strong clinical service supporting both outpatient and inpatient GI care, and averaging over 10,000 endoscopic procedures per year. The RGH typically has ~225 patient ER visits per day, with this number declining slightly since the opening of the SHC – South Health Campus. This year, the GI service at RGH for the first time will have internal medicine residents joining them during their R1 through R3 years. To date the GI service has had only a few elective residents and their first rotating resident, however the feedback has been excellent and the RGH GI service is looking forward to improving GI education among residents in the GIM (General Internal Medicine) program.

PLC – Peter Lougheed Centre (Site Chief, Dr. Tarun Misra): The Gastroenterology group at the PLC, which comprises of 10 gastroenterologists, continues to be a very active and diverse group consisting of a combination of both fee for service and ARP funded physicians. Many of the gastroenterologists at the PLC participate in the citywide GI central triage service. Over 11,000 endoscopic procedures took place at the PLC, including about 1400 therapeutic procedures such as ERCP. The PLC is Southern Alberta's only therapeutic endoscopy centre, performing all adult ERCP and endoscopic procedures which require fluoroscopy in southern Alberta and southeastern BC (British Columbia). Plans are currently in place at the PLC to establish a biliary EUS service. The double balloon enteroscopy program will be phasing out at the PLC as it moves to the FMC site.

SHC - South Health Campus (Site Chief, Dr. Alex Aspinall): The Section of Gastroenterology and Hepatology was established at the new South Health Campus (SHC) in 2012. As a part of the phased opening of the campus, outpatient clinics in Hepatology and Gastroenterology opened in October, 2012 (six weeks ahead of schedule). There are currently five permanent Gastroenterologists at the SHC; three with expertise in GI motility and upper GI oncology, and two Hepatologists. With the newly established Calgary Gut Motility Centre, wait times for motility studies are currently less than one week in the Calgary Zone (compared to a wait of months prior to establishing this centre). The opening of the Endoscopy unit at the SHC in late February, 2013 has contributed much needed endoscopy resources to the Calgary Zone. The creation of a Hepatology service (which is part of the University of Calgary Liver Unit) at the SHC will facilitate patient access, reduce wait times and accommodate an increasing volume of Hepatology consults within the Calgary Zone. Collaborative links have been established with other Calgary Zone adult gastroenterology sites and innovative models to deliver care to patients with motility and functional bowel disorders are being implemented through Nurse Navigator pathways at the South Calgary Primary Care Network. The Hepatology clinics opened at the SHC in October 2012. Two transplant-trained Hepatologists (Drs. Aspinall and Jayakumar) work at the SHC Hepatology clinics, with specialty clinics in non-alcoholic fatty liver disease (NAFLD), Viral Hepatitis, General Hepatology and Hepatocellular Carcinoma. Collaborative links exist with the Southern Alberta Liver Transplant Clinic and through weekly video-conferencing with the University of Alberta Transplant Program. A full-time nurse clinician and a recently hired nurse practitioner support the clinics. The clinic provides a full spectrum of multi-disciplinary support for patients with liver disease, including Fibroscan.

Innovations in Clinical Care:

1. Dyspepsia/GERD Nurse Navigator program: This multidisciplinary, collaborative clinic led by Dr. K. Novak began in the spring of 2012 and has managed over 200 patients to date. In conjunction with the Calgary North West Primary Care network, this clinic was developed in response to lengthy wait times for routine referrals. The clinic has a novel structure, with a group based format (6-8 patients per session) – patients provide informed consent and gather for education sessions facilitated by a nurse clinician (nurse navigator), as well as nutrition (dietitian-led), pharmacy and behavior health consultancy. Patient care is guided by evidence based-clinical guidelines and work is shared with a newly added primary care physician with gastroenterology interest, providing clinical care in conjunction with the attending gastroenterologist. This program has prospectively collected data regarding symptom severity and quality of life, both before and six months after the clinic visit, and includes patient satisfaction, re-referral rates, referring physician satisfaction and wait times. The Dyspepsia/GERD Nurse Navigator program has expanded to the South Health Campus (SHC), led by Drs. M. Buresi and M. Curley, in partnership with the South Calgary PCN. This novel approach to the care of patients with dyspepsia and GERD has already shown benefit in terms of wait times, endoscopy utilization, and patient satisfaction in the Northwest Calgary PCN project. For the SHC-South PCN collaboration, early assessments indicate that the program will produce similar results. As an extension of this model of care, an irritable bowel syndrome (IBS) Nurse Navigator algorithm has been created. Similar to the dyspepsia/GERD pathway, an evidence-based clinical care algorithm will be coordinated by a nurse clinician and will be implemented in partnership with specialist physicians, as well as a multidisciplinary team (dietician, pharmacist, behavior health consultants) from the PCN. At the SHC, this team will be led by the same nurse clinician, Tricia Swallow, with physician support again provided by Drs. Buresi and Curley. The database for the IBS Nurse Navigator pathway is in the last stages of construction, and the project will be implemented at both sites (FMC and SHC) in the near future.

2. Central Access and Triage (CAT): Our single entry model for referrals receives ~1200 referrals per month and includes 25 physicians who are in both academic and private practice. Allocation of triage priority is based on urgency, uses national guidelines and is performed largely by nurses, with physician oversight. Efficiency within CAT has improved significantly through process mapping, education and training of nurses and clerks and benchmarked wait times. Novel clinical care pathways have helped to streamline the triage process, thereby reducing wait times for the sickest patients.

3. Urgent Referral Pathway: Priority is given to the sickest patients, as these patients are top priority in our triage management system. Dedicated urgent GI clinics with matched urgent endoscopy time have been developed, in addition to a direct-to-procedure (DTP) stream for urgent patients to see the GI physician on call. Referrals from the Emergency Department and Tom Baker Cancer Centre are prioritized, in addition to those urgent referrals received by fax from the community. As a result of this focus, since the Fall of 2012 urgent wait times have significantly dropped from greater than 2 months to less than 4 weeks for clinic; and to less than 2 weeks in those triaged as extremely urgent.

4. Telephone Consult Service: Weekly telephone consultative service has been in effect since November of 2011, with over 135 consults completed to date. Of all telephone consults 67% of patients did not require endoscopy and 63% were resolved without further consultation. This is an effective pathway for addressing patients with recurrent symptoms having previously seen gastroenterology, and also for single problem entities with clear etiology.

5. Non-CCSC Colorectal Cancer Screening: Patients who are not Colon Cancer Screening Centre candidates are referred through CAT and comprise approximately 5-10% of our overall referral volume. Patients who are at increased risk or have positive fecal-based testing are currently screened in acute care facilities. A dedicated screening clinic run by a nurse clinician with physician oversight has been developed, to increase access to screening examinations in this population. Follow-up is generally conducted by telephone.

6. Direct to Procedure Clinical Pathway: Approximately 25% of all referrals to CAT are appropriate for assessment and endoscopy on the same day – a pathway called “direct to procedure” (DTP). This pathway has reduced wait times for all triage priorities (urgent, moderate and routine). A nurse navigator-led follow up clinic for patients seen through the DTP pathway has been established, with significant improvements observed to date with continuity of care and improved patient follow-up. Many of these patients are effectively followed up by telephone by the nurse, obviating the need for a clinic visit. One of the main aims of this pathway is to improve communication with referring physicians and improve overall continuity of care.

7. Thin scope endoscopy (TSE) clinics: TSE allows for un-sedated upper endoscopy to be performed in the clinic setting.

By utilizing the clinic setting for low risk patients with certain indications for upper endoscopy (e.g. screening for esophageal varices and Barrett's esophagus, screening for pathology in patients with heartburn or abdominal pain and concerning symptoms) these endoscopies can be taken away from the acute care GI endoscopy unit. Up to 8 such thin scope endoscopies can be performed per half day clinic – endoscopies that would have typically required sedation in an acute care GI endoscopy room in the FMC, recovery time, and endoscopy nursing support. Patient outcomes and satisfaction, as well as economic benefits are being captured prospectively.

8. GI Clinic and Endoscopy Utilization: Utilization of GI clinics and endoscopy slots continue to improve across all sites in the city. It is critical for GI to maximize utilization of this limited resource. City-wide endoscopy patient slot templates have been implemented, and the FMC has also implemented UCMC GI clinic patient templates to optimize patient throughput. At the FMC, patient endoscopy and clinic time slot utilization is managed by a newly identified Physician Booking Optimization clerk within UCMC, and utilization of these resources has been significantly positively impacted by this new management process. A fee-for service locum physician has been a successful addition to the AARP group at the FMC and a full-time position is currently being advertised to continue to optimize resource utilization. At the PLC, endoscopy slot allotment is managed by the site chief and has been successful for optimization and utilization of endoscopy resources there. In addition, a Sunday endoscopy schedule is in place at the PLC for on call weekend procedures, resulting in a significant reduction in nursing overtime and associated costs.

9. Calgary GI Motility Centre at SHC. The Calgary Gut Motility Center opened at the South Health Campus (SHC) in December 2012. The official opening included a media event involving local television and radio stations, local newspapers, and Alberta Health Services website. The mandate of the CGMC is to provide excellence in care for patients with gastrointestinal motility disorders. Three full time physicians with specific interest/training in motility disorders (Drs. Gupta, Buresi, and Curley) work directly at the center. A fourth physician (Dr. Andrews) will begin having motility clinics at the CGMC in July, 2013. Recruitment plans are in place for an additional physician (Dr. Rezaie) with a specific interest in the overlap of functional disorders and inflammatory bowel disease. Commonly seen disorders at CGMC include motility disorders such as gastroesophageal reflux disease and gastroparesis, as well as functional disorders such as irritable bowel syndrome, chronic constipation, and functional dyspepsia. The CGMC has innovative technology which is only available at a few centers in Canada and includes the Bravo probe (48 hour wireless pH probe); 24 hour combined multichannel intraluminal impedance (MII) and pH testing; and high resolution esophageal manometry. Combined MII and pH testing allows for the detection and characterization of esophageal exposure to acid, weak acid and non-acid refluxate. Esophageal manometry is used for the detection and characterization of esophageal motility disorders such as achalasia. The waiting time for these procedures has fallen from months to within two weeks. In-clinic endoscopy is also available and allows for un-sedated thin-scope endoscopy to be performed when necessary. The CGMC has dedicated motility clinics in which patients with various motility disorders are seen. These are true multidisciplinary clinics which include participation by physicians, nurses, pharmacists, and dietitians. The CGMC also has close ties with the South Primary Care Network nurse navigator program (currently functional dyspepsia and plans for irritable bowel syndrome) as the two supervising physicians are based at the CGMC (Buresi and Curley). Future plans include the generation of a database of motility disorder patients and participation in clinical research trials, as well as the development of a GI Motility Fellowship training program.

10. High Risk Malnutrition Clinic: This clinic has now been fully established, being led by Dr. M. Raman and involving a dedicated nutritionist. The clinic initially has targeted malnourished patients waiting on the liver transplant list, and malnourished IBD patients who have recently been discharged from hospital.

11. Non-alcoholic Fatty Liver Disease (NAFLD)/diabetes Clinic at SHC: A multidisciplinary NAFLD clinic has been established at the SHC. Currently, there are two half-day NAFLD clinics per week, conducted by both an attending hepatologist (Dr. Jayakumar) and a dietician trained in NAFLD diets who is available to advise patients. Currently, there are ~8-12 patients seen in each clinic, with disease severity ranging from hepatic steatosis to NAFLD-related decompensated cirrhosis. Currently, patients requiring a biopsy also consent for research inclusion, and have storage of both serum and liver tissue in the Liver Unit Biobank and database. As of September 2013, an extra, multi-disciplinary clinic will occur one half-day every other week. This clinic will be multidisciplinary, with a hepatologist, a general internist, and a dietician, and will be geared to patients with high-risk NASH (as defined by the presence of hepatic fibrosis, and also vascular disease or risk factors). The general internist, Dr. Ralph Hawkins, will be responsible for the management of risk factors for vascular disease (ie hyperlipidemia, diabetes, hypertension), and vascular disease itself (either coronary artery disease, cerebrovascular disease, or peripheral vascular disease). This multidisciplinary approach will allow for optimization of care for these patients whose risk factors and diseases are currently managed either by their family doctor or a nurse practitioner, and will also allow for further research to be undertaken into patients with NAFLD and vascular disease/risk factors. This clinic also allows for

the establishment of an additional database for future longitudinal studies, and for the identification of special groups of patients that might benefit from inclusion into NASH/NAFLD studies (such as patients with “lean” NASH, and patients with advanced disease, but not cirrhosis).

12. Esophageal Diseases Clinic at SHC: A weekly “esophageal diseases clinic” is held at SHC, dedicated to general esophageal conditions including gastroesophageal reflux disease, eosinophilic esophagitis, motility disorders, and functional esophageal diseases (visceral hypersensitivity; functional heartburn; dyspepsia). This clinic runs in conjunction with the Calgary GI Motility Centre, and can perform esophageal manometry, 24h pH and impedance studies. As well, availability of thin scope endoscopy in the same clinic space allows for immediate endoscopic assessment when indicated. Having all of these tests available at one center allows for truly integrated provision of care. These clinics run weekly and are staffed by two alternating gastroenterologists with an interest in the esophagus (Drs. M. Curley and M. Gupta) and assess an average of 9-12 patients/wk. Endoscopic mucosal resection and radio frequency ablation (RFA) have been established for the treatment of Barrett’s Esophagus (BE) in Calgary. These techniques have been transferred to the SHC for integration and consolidation with other esophageal testing programs (described above). These minimally invasive endoscopic techniques are an alternative option to surgery (esophagectomy), and offer a safe method of managing early esophageal cancer/dysplastic Barrett’s esophagus and have been well validated in multiple research trials. In conjunction with the Department of Anesthesia, bimonthly endoscopic treatments of such patients are performed. Two gastroenterologists with experience in this field (Drs. P. Belletrutti and M. Gupta) perform these procedures with dedicated nursing personnel. In the near future a dedicated Barrett’s esophagus clinic will also be started bimonthly to streamline evaluation and management of Barrett’s esophagus patients within Southern Alberta and surrounding area.

13. Home Nutrition Support Program: Under the direction of Drs. Raman, Chalmers-Nixon and Stapleton, the new IV/MG (intravenous magnesium support) program has been established allowing patients to avoid going to the hospital to receive intravenous magnesium infusions.

14. GI Section Website: A sectional website has been developed and will be launched Sept 2, 2013. The website will integrate clinical, research and educational information and updates and will be an access point and resource for GI Section members, non-GI Section clinicians and patients. It will be a patient centered resource regarding wait times, access and disease specific education.

15. Small Bowel Capsule Program at SHC: The Small Bowel Capsule Program was transitioned from the FMC to the SHC, and the lead transferred from Dr. S. Heitman to Dr. M. Buresi. The capsule nurse role was taken over temporarily by Georgia Tabler from Veronica Henkel (Webbink). Despite some equipment and personnel-related issues, thanks to the extraordinary efforts of Georgia Tabler and the commitment of those doctors reading capsules (Dr. M. Ma and Dr. F. Adams) the capsule program has overcome these challenges. Wait times (time to report) are currently 4-8 weeks for routine referrals and less than 2 weeks for urgent referrals. The recent addition of three new doctors with expertise in capsule image reading (Dr. M. Buresi, Dr. S. Congly, and Dr. S. Devlin) will improve wait times even further. Training of a new, permanent capsule nurse will begin soon. The difficulties encountered with the Miroview capsule software, and the lack of on-site manufacturer support, has led program leadership to initiate a request for proposal from video capsule endoscopy vendors. This process is currently awaiting approval.

16. Direct Bile Duct Visualization with Spyglass at the PLC: Spyglass technology for direct visualization of the biliary tree has been purchased and implemented this past year at the PLC. To date about 10 procedures have been performed. The Spyglass procedure better facilitates management of patients with biliary tract disease and also provides future research opportunities.

17. Establishment of a Dedicated Pregnancy in IBD Clinic: A specialized clinic has been established by Drs. Y. Leung and C. Seow at the FMC to offer advice, counseling and specialized care for women with IBD who become pregnant, or are looking to become pregnant.

18. Establishment of a High Risk Inflammatory Bowel Disease (IBD) Clinic (HRIBDC): A specialized clinic was developed to identify symptomatic individuals at high risk for Inflammatory Bowel Disease (IBD) and to facilitate timely evaluation of symptoms [Goal: 2-4 week time period]. The goals of this clinic are to increase timely access of patients to gastroenterologists and reduced wait time to diagnosing IBD, to improve long-term outcomes in IBD management and health care costs, and ultimately improve patient satisfaction and quality of life. Running in parallel to the HRIBDC Clinical Care Pathway is a research pathway that screens for and facilitates enrollment into the Intestinal Inflammation Tissue Bank (IITB)

for gastrointestinal research, and the Alberta IBD Consortium for IBD-specific research.

19. Point-of-care Ultrasound in the Clinic for IBD Patients: Dr. Novak has brought ultrasound (US) to the IBD clinic, where US is used as an adjunct to the clinical exam. Moreover, US in this setting is helpful in directing further clinical investigation, including endoscopy and cross sectional imaging. Since being trained in this modality in Germany, Dr. Novak uses US routinely in her clinic as part of the clinical exam (point of care US). She is also conducting a large prospective trial in clinic, to establish the accuracy of US used by gastroenterology and its' impact on clinical decision making and patient satisfaction/perception of US. The over arching aim is to bring US into the IBD clinic as part of routine clinical assessment of patients with inflammatory bowel disease, as well as guide the need for endoscopy in patients with diarrhea predominant irritable bowel syndrome.

20. Liver Transplant Clinic: The Liver Transplant Clinic (Director, Dr. Kelly Burak) continues to excel at providing true multidisciplinary care of patients before and after liver transplantation. This clinic consists of 5 hepatologists, 4 RNs, a social worker, a dietician, and pharmacists. The clinic operates 3 half days per week with a weekly teleconference with the University of Alberta liver transplant group. This year the University of Calgary Liver Transplant Group initiated two retreats with Edmonton: (i) to review outcomes of living-related donor liver transplant recipients (led by Drs. B. Eksteen and K. Burak) and (ii) to establish liver transplant selection criteria for HIV positive patients (led by Dr. C Coffin).

21. Hepatocellular Cancer (HCC) Clinics: These clinics were originally held only at the FMC, but are now also taking place at the SHC. Weekly multidisciplinary team conferences are held at the TBCC to discuss patients with liver cancer and are led by a HCC dedicated nurse practitioner and hepatologists in association with hepatobiliary surgeons and diagnostic/interventional radiologists. In conjunction with this clinic, a new automated HCC surveillance program has been developed and implemented in partnership with EFW Radiology for high risk patients with liver disease. This program involves specialized ultrasound clinics, standardized reporting, database and automated recall policies to improve uptake. In addition, Dr Burak has recently been cross appointed to Medical Oncology to facilitate multidisciplinary care of HCC patients.

22. Calgary Cirrhosis Clinic: This nurse practitioner run clinic utilizes 2 NP's to care for patients with the complications of cirrhosis, and includes 2 abdominal paracentesis clinics per week that have been implemented to keep patients with refractory ascites from needing to come to radiology and emergency departments.

RESEARCH

Research within the Section remains strong in the areas of basic science, clinically focused studies, and clinical trials. Inflammatory bowel disease (IBD), liver disease research (including viral hepatitis), GI inflammation, colorectal cancer screening, and gastrointestinal motility remain the core research areas of excellence within the Section. Both the IBD and Hepatology programs continue to have very strong international clinical trial involvement and remain two of the most active groups in the Department of Medicine.

The University of Calgary Liver Unit (UCLU) is the premier liver unit in Canada (Lead, Dr. K. Burak), and the IBD Group (Lead, Dr. R. Panaccione) is recognized nationally and internationally for excellence. Links between the IBD and Hepatology groups have been further strengthened by the formation of a combined PSC-IBD clinic (PSC; primary sclerosing cholangitis which is a lethal biliary tract disease closely associated with IBD) funded in part by a successful Faculty of Medicine (FoM) Emerging Team grant. The IBD group continues to lead research efforts regionally, nationally and internationally with ties to the University of Alberta, University of Manitoba, and University of Toronto, several European centers and Japan. The Alberta IBD consortium facilitates ongoing recruitment of patients and specimens and now is considered one of the largest IBD biobanks in the world, and has opened more international partnerships. The University of Calgary IBD unit continues to be a leading recruiting centre into the GEM project run under the umbrella of the CCFC. Under the guidance of Dr. M. Iacucci the IBD team has expanded into leading edge endoscopic research in IBD in an attempt to better understand and classify the disease.

The Section continues to have strong ties with basic scientists in the Gastrointestinal Research Group, Inflammation Research Network, Cancer Biology and Immunology. Many Section members have collaborative grants with basic scientists and are involved in Provincial and National Group Grants. The Shaffer Awards day, one of the longest standing research days in the Faculty of Medicine, this year was combined with the Alberta Digestive Diseases Summit and the combination was a huge success.

The GI Section was again very successful in securing both external peer-reviewed and industry sponsored funds. Total funds awarded to the Section include those to support peer reviewed basic science and clinically focused research, as well as funds obtained to support clinical trial research.

Research Milestones

a) Research Funding: Total research funds received by the GI Section last year exceeded \$12 million.

b) Publications: Members of the GI Section continued to publish extensively last year in areas of research arising from a diverse array of scholarly endeavors including basic science, clinical research and education research.

Faculty Awards

- Dr. Marietta Iacucci was awarded (in conjunction with Dr. Leslie Street, Hematology) the Department of Medicine Development Fund Award for her research project entitled “iScan/confocal endomicroscopy as novel endoscopic technique for evaluating gastric and intestinal lymphoma.”
- Dr. Steven Heitman was awarded the Department of Medicine Development Fund Award for his research project entitled “Endoscopic ultrasound in AB: Health care utilization and outcomes from 2003-2011.”
- Dr. Kerri Novak was awarded the Department of Medicine Research and Development Fund Award for her research project entitled “Innovations to improve access to gastroenterology: the gastrointestinal nurse navigator for chronic dyspepsia and heartburn: a quality improvement project.”
- Dr. Gilaad Kaplan received the Canadian Association of Gastroenterology Young Investigator Award which recognizes outstanding contributions to gastroenterology through basic and/or clinical research by a young investigator.
- Dr. Paul Beck received the Canadian Association of Gastroenterology (CAG) Visiting Research Professorship which is awarded to a member of CAG who is a proven teacher and an outstanding researcher.

Innovations in Research

1. The Section has implemented a number of strategic plans to allocate contiguous space near the GI clinic, and within GI office space on the 6th floor of the TRW, for the facilitation of translational clinical research:

- The Clinical Integrative Research Space (CIRS)* has been physically established in a room in close proximity to the Gastrointestinal Ambulatory Clinic within UCMC (HSC Rm G152). The CIRS supports multidisciplinary research including: epidemiological and clinical research, population health, health services & outcomes research, gene-environment interaction studies, biomarker studies, translational studies, and biobanking. The CIRS also facilitates patient recruitment, consenting, phenotyping, genotyping, envirotyping, serotyping, and microtyping. Researchers can use the CIRS to collect comprehensive phenotypic data through patient interviews, medical chart review, and electronic medical records. All data extracted in the CIRS is stored in the Research Data Haven supported by a Canadian Foundation for Innovation Leaders of Opportunity (\$175,391) and Alberta Advanced Education and Technology Small Equipment Grant Program (\$175,391) (grant recipients Drs. G. Kaplan, C. Saunders and C. Coffin). The Research Data Haven is a Citrix-based server that creates a virtual research environment that is secure, accessible, and supportive of collaboration.
- The GI Clinical Research Unit* is fully established and currently houses research staff, data analysts, and trainees who are supervised by several members of the Section of Gastroenterology. The Clinical Research Unit is located in dedicated space within the GI Section footprint on the 6th floor of the TRW building. This unit allows for seamless interactions between translational clinical researchers and research staff, and directly supports translational research projects within the Section.

2. Establishment of the University of Calgary Liver Unit (UCLU) Biobank. Through support from the Metcalfe Foundation, and the Cal Wenzel Family Foundation Chair in Hepatology, the UCLU Biobank has been established and is operational; housed within the GIRG footprint. The UCLU-Metcalfe BioBank will be linked with the IBD Consortium Biobank which has already been established within the GIRG.

3. A dedicated PSC-IBD clinic has been established in UCMC (the first in Canada; PSC Lead, Dr. B. Eksteen; IBD Lead, Dr. G. Kaplan). Funds obtained through a successful FoM Team Grant allowed for the establishment of this joint clinic, with

dedicated research assistant support, which allows for the performance of excellent clinical care for these patients coupled with world class translational research.

4. Significant progress has been made in the establishment of state-of-the-art IBD and Hepatology databases funded through a successful CFI grant awarded to Drs. G. Kaplan, C. Coffin and C. Saunders. A BioBank Biosample Manager has been hired (funded 75% AI-HS IBD Consortium and 25% Cal Wenzel Family Foundation Chair in Hepatology) to oversee tissue and sample processing, storage and retrieval for the Biobank.

5. A 0.5 FTE data analyst (0.25 funded through the GI Section and 0.25 through AHS) has been hired and is in place to facilitate extraction of AHS data (and patient billings data linked through DIMR) to support excellence in patient care, as well as facilitate clinically based outcome and cost analysis research within the Section.

EDUCATION

The Section has again excelled in both internal and external awards that reflect the highest standards and commitment of Section faculty to educational programs and service.

i. Faculty Awards:

- Dr. Sylvain Coderre has been appointed as the DoM Education Vice Chair.
- Dr. Paul Beck was awarded the University of Calgary, Faculty of Medicine's Watanabe Award for Overall Excellence.
- Dr. Paul Beck was awarded the University of Calgary Faculty of Medicine's van de Sande Distinguished Achievement Award for extraordinary contribution to mentoring within the Faculty.
- Dr. Sylvain Coderre was awarded the University of Calgary Killam Award for Leadership in Teaching.
- Dr. Sylvain Coderre received the Canadian Association of Gastroenterology Education Excellence award which is awarded to a member of the CAG who has made an outstanding contribution to education on a national or international basis.
- Dr. Remo Panaccione was awarded the Finkelstein Award which is the highest award bestowed by the CCFC and recognizes outstanding contribution to the field of IBD.
- Dr. Robert Myers was awarded the Queen Elizabeth II Diamond Jubilee Medal in recognition of his significant contributions in support of the Canadian Liver Foundations fight against liver disease.
- Dr. Michael Ma received the Dr. Howard McEwan Award for Clinical Excellence at the PLC.
- Dr. Subrata Ghosh was elected to the Fellowship in the Canadian Academy of Health Sciences (CAHS).
- Dr. Tara Chalmers-Nixon was elected as Head, Alberta Society of Gastroenterology.
- Dr. Remo Panaccione was elected to the International Organization of Inflammatory Bowel Disease (IOIBD). IOIBD is an international think tank of IBD experts from around the world. Membership is through nomination and election based on contribution to the field of IBD.
- Dr. Kerri Novak and Dr. Sylvain Coderre were awarded the UME Class of 2014 Gold Star Awards for exceptional classroom instruction.
- UME Class of 2014 Hellbender Honor Roll, recognizing excellent instructors, included Drs. Sam Lee, Rachid Mohamed, Chris Andrews, Alex Aspinall, Tara Chalmers-Nixon, Edwin Cheng, Bertus Eksteen, Remo Panaccione, Eldon Shaffer, Melanie Stapelton.

ii. GI Section Rounds:

Sectional rounds under the leadership of Dr. K. Rioux have been rejuvenated with the Friday morning rounds now including a rotating pathology/radiology rounds, interesting case rounds, state-of-the-art lectures, and translational rounds. These reinvigorated rounds have been a tremendous success. In the fall of 2013 a new M&M Round will be introduced to the Friday round format.

iii. CME:

Dr. Paul Belletrutti continued as the Coordinator of the City Wide Continuing Medical Education Lecture Series. Our plan is to reinvigorate this program in 2013-14.

In November 23-25, 2012, the final combined IBD Update/Highlights in Hepatology meeting (organized by Drs. Shane Devlin and Kelly Burak) was held in Banff. This meeting was again highly successful and in the future will be folded into the annual ADDS meeting.

The inaugural Alberta Digestive Diseases Summit (organizing committee included Drs. T. Chalmers-Nixon, S. Devlin, K. Burak, P. Beck, and M. Kareemi), held in June 2013, was a huge success. Over 200 people registered for this meeting with many outstanding international speakers.

iv. Postgraduate:

The GI Residency program in Calgary, led by Dr. Shane Devlin (Program Director), has established itself as the premier GI training program in Canada. This year's graduating class had a successful celebration and awards dinner in June which included Drs. Meena Mathivanan – Chief GI Resident, Yasmin Nasser, Meredith Borman and Liisa Meddings. Our graduating residents and fellows have distinguished themselves in the following ways:

- Dr. Meena Mathivanan - accepted to a 1 year subspecialty training program in Inflammatory Bowel Disease at the University of Calgary.
- Dr. Yasmin Nasser – awarded a prestigious CAG-CIHR award which will be used to fund subspecialty training in gastrointestinal motility at Queen's University.
- Dr. Liisa Meddings – will be pursuing further training in nutrition at the University of Alberta.
- Dr. Meredith Borman –is undertaking a 6 month Vertex Hepatology Fellowship in Calgary, followed by a 12 month Hepatology training program in Birmingham, UK.
- Dr. Angeli Chopra completed a Hepatology Fellowship and will be undertaking a 6 month Hepatology locum in Edmonton.
- Dr. Ali Rezaie completed his IBD Fellowship in Calgary and will be pursuing further training in motility at Cedars-Sinai Medical Center in Los Angeles, California.

The residents selected the following faculty members for teaching excellence awards:

Overall Excellence in Teaching:	Dr. Shane Devlin
Research Mentorship Excellence:	Dr. Paul Beck
Formal Teaching Excellence:	Dr. Paul Belletrutti
Clinical Teaching Excellence:	Dr. Jose Ferraz
Endoscopy Teaching Excellence:	Dr. Alaa Rostom
Excellence in Providing Feedback:	Dr. Maitreyi Raman

The GI trainees were once again well represented this year at the annual Shaffer awards which were held as part of the inaugural Alberta Digestive Disease Summit (ADDS) in Lake Louise, Alberta.

As of July 1, 2013 Dr. Melanie Stapleton will be taking over as the program director for adult gastroenterology at the University of Calgary. She and her excellent training program committee will continue the proud tradition and successes of the GI training program in Calgary.

As of July 1, 2013 Dr. Saumya Jayakumar will be taking over as the Hepatology Fellowship Training Program Director from Dr. Alex Aspinall.

The incoming new GI residents are Dr. Sundeep Singh from the University of Alberta, Dr. Andrew Flynn from the University of Calgary and Dr. Tiffany Poon from the University of Calgary, as well Dr. Ahmed Al-Darmaki from Oman.

Calgary Fellowship training positions have been awarded to the following:

IBD:	- Meena Mathivanan, University of Calgary
Hepatology:	- Abdullah Al Kathlan, from the Kingdom of Saudi Arabia

Therapeutic Endoscopy: - Paul James, University of Toronto, who will continue into his 2nd year of therapeutic endoscopy. Dr. James was awarded a prestigious CIHR Clinical Fellowship award and an AIHS fellowship award.

- Apostolos Tsolakis, Uppsala University in Sweden, will continue his therapeutic endoscopy fellowship until April of 2014. He is a recipient of a grant from the Swedish Medical Association.

v. Undergraduate:

Course 1 (Gastroenterology and Hematology) flourished during 2012-2013 with Dr. M. Raman functioning in the capacity of course chair and evaluation coordinator. Course ratings were high. Innovations to Course 1 this past year included incorporation of an expanded nutrition and obesity section to increase awareness of population health. Additionally, the core document housing course details and supplemental content has been completely revised and updated to maximize knowledge. There has been an increased effort to maximize student interaction with preceptors which has led to the incorporation of office hours for one-on-one consultative time. As the first course in UME, it has been recognized that learners have extensively varied backgrounds, often leading to disparate performances in examinations despite adequately perceived knowledge. Consequently, more review sessions have been added teaching students to problem solve and increase examination readiness. For the upcoming year a much needed evaluation coordinator for course 1 will be identified. Additionally, there are plans to study additional modalities of content delivery to enhance knowledge transfer further.

vi. International Collaborations and Educational Initiatives:

1. Faculty of Medicine Dean Jon Meddings made an official visit to Beijing, Youan Hospital; the Chinese site of the joint University of Calgary/Chinese Medical University (CMU) Liver Unit, in May 2013.
2. Official contingent from CMU made a site visit to University of Calgary Liver Unit to present and unveil a commemorative plaque highlighting the link between the CMU Liver Unit and the University of Calgary Liver Unit.
3. In the summer of 2012 the first two co-tutelle PhD students arrived from CMU Youan Hospital to begin the University of Calgary portion of their research programs within the University of Calgary Liver Unit.
4. A contingent from the University of Calgary Liver Unit began a formal collaboration with King Saud University (KSU) Liver Unit in Riyadh, Saudi Arabia. This collaboration officially began with a co-organized symposium entitled “Building International Bridges”, and included topics on NAFLD, HBV and complications of cirrhosis. This collaboration also resulted in two students from KSU pursuing MSc programs in GIRG labs at the University of Calgary.
5. In March of 2013 Calgary was selected as one of four units in the world to host the International IBD Expert Exchange. This program allows gastroenterologists from around the world to visit world renowned centers of excellence for a first-hand look at operations of these centers, as well as share best practice. The program was a huge success and has spawned interest from GIs all over the world to spend time in the University of Calgary IBD clinic for prolonged periods of time.

Innovations in Education

1. The Section has established a formal mentorship program for the Fellows, and this will be led by Dr. Eldon Shaffer
2. Creation of a GI Sectional website to function in part as a portal for education of staff and patients.
3. Dr. Paul Beck continues as the Director of the highly successful Leaders in Medicine Program. This program has 70-80 students that are jointly pursuing an MD degree combined with either a PhD or MSc or MBA. The Leaders in Medicine Program is one of the largest, most active and innovative program in Canada, and was highlighted as a strength in recent reviews of both the University of Calgary Medical School and the Faculty of Medicine Graduate Program.

ADMINISTRATION

FMC

- Dr. Puja Kumar was hired November 1st, 2012 as a one year renewable FFS locum in GI to help support clinic and endoscopy utilization optimization initiatives within the Section.
- Dr. Maitreyi Raman was promoted to Clinical Associate Professor of Medicine.

PLC

- Dr. Edwin Cheng was appointed to a 0.3 clinical FTE position to allow him to complete a 2 year course in Education

through John Hopkins University.

RGH

- Dr. Jennifer Bailey was recruited to the RGH and started in July 2012. She completed her medical degree and training at the University of Alberta, and her GI residency at the University of Calgary. She is a strong addition to the clinical team at the RGH.

SHC

- Dr. Milli Gupta was recruited to the SHC in 2012. She completed her GI Residency at the University of Alberta and completed further training in GI motility and esophageal diseases at the Mayo Clinic. With Dr. Paul Belletrutti, she implemented the BARRX program (radiofrequency ablation to treat Barrett's Esophagus) at the SHC.

- Dr. Michael Curley was recruited to the SHC in 2012 from Halifax, where he had been in a clinically focused academic practice for 4 years, with a specific interest in esophageal disease, motility and non-acid dyspepsia/reflux disease. With Dr. M. Buresi, Dr. C. Andrews and Dr. M. Gupta, Dr. Curley has established the very successful Motility program at the SHC. Dr. Buresi and Dr. Curley established collaborative links with the South Calgary PCN. A Nurse Navigator for motility and functional bowel disorders has been hired and trained by Dr.'s Buresi and Curley. Michael taught in UME Course One in 2012 and has joined the Gastroenterology Section GEC.

- Dr. Michelle Buresi was recruited to the SHC in 2012. She completed her PhD at the University of Calgary studying colonic secretion visceral hypersensitivity, and completed her GI Residency at the University of British Columbia. She then undertook a one month advanced training program at UCLA in GI motility. Her specific interests include motility, irritable bowel syndrome, and health economics. She is the Medical Lead, Small Bowel Capsule Program for the Calgary Zone (centered at the SHC). She has also had significant leadership roles in motility and in collaborative models to deliver innovative care.

- Dr. Saumya Jayakumar was recruited from the FMC to the SHC in late 2012. She has expertise in non-alcoholic fatty liver disease (NAFLD) and has implemented a multi-disciplinary clinic for NAFLD at the SHC. She is the primary investigator for several clinical trials including novel therapeutics for treating NAFLD. Dr. Jayakumar assumed the role of Fellowship Director for Hepatology in 2012. She is one of two Hepatologists at the SHC.

- Dr. Alex Aspinall is the SHC Site Lead for Gastroenterology and Hepatology. He led the start up of the outpatient, inpatient and endoscopy services at the SHC, with the first clinic opening in October 2012. He runs outpatient Hepatology clinics (viral hepatitis, general Hepatology and hepatocellular carcinoma) and provides inpatient Gastroenterology and Hepatology consultation. He left the position of Fellowship Director for Hepatology in October, 2012. He is primary investigator on several clinical trials, including those in hepatocellular carcinoma and viral hepatitis.

- Dr. Ali Rezaie completed his GI Residency at the University of Calgary and has completed a year as a Clinical Scholar in IBD in Calgary. Dr. Rezaie provided call coverage and inpatient consultation support at the SHC in 2012. He is spending the second year of his Clinical Scholarship at the Cedars Sinai Clinic studying motility. The plan is for Ali to be recruited to the SHC starting in July 2014, with a specific interest in IBD/IBS overlap syndromes.

- Dr. Martin Storr will not be returning to Calgary.

Career Transitions:

- Dr.'s Catherine Dube and Alaa Rostom will be leaving Calgary as of August 1st, 2013 to return to Ottawa where they are both taking up positions there in the Section of Gastroenterology. We thank them for all of their hard work and contributions on behalf of the Section through the years and wish them well.
- Dr. Chris Andrews returns from a one year motility sabbatical in Belgium as of July 1st, 2013.
- Dr. Kelly Burak returned from a one year sabbatical, studying Medical Education in Australia, on July 1st, 2012.

UPDATE ON GI SECTION LINKED ENDOWED CHAIRS

- a) **Cal Wenzel Family Foundation Chair in Hepatology** (Held by Dr. M. Swain): The interest generated from the \$3.5 million Chair endowment was leveraged and used to support basic science and clinical research within the University of Calgary Liver Unit, the Liver Unit Biobank infrastructure and support personnel, bridge operating and pilot study funding, database support, data analyst salary support, and a Snyder Institute Endowed Chair seminar series visitor (Dr. Mitch Kronenberg, Scripps Institute of Allergy and Immunology, San Diego, CA).
- b) **N.B. Hershfield Professorship in Therapeutic Endoscopy** (Held by Dr. S. Heitman): The therapeutic endoscopy group developed a vision and embarked on a pathway to become a world-class clinical research and academic

training program in therapeutic endoscopy. To support this, an Award of \$75,000 was granted to Dr. Heitman through the Noel Hershfield Professorship in Therapeutic Endoscopy, based on the interest generated from the current Chair endowment. These funds were used to hire a data analyst to support research and quality assurance initiatives for the program, which has focused on using some of the rich existing clinical databases in Calgary and the United States. Success has already been achieved with 4 abstracts presented at national and international meetings including an oral presentation. The analyst has been instrumental in supporting the current academically focused therapeutic endoscopy fellows who have also earned provincial, national and international recognition through awards from AIHS, CIHR and the Swedish Medical Association. Additional research funding has also been leveraged through a successful Department of Medicine Research and Development Fund grant evaluating endoscopic ultrasound in Alberta, and through strategic collaborations with other members of the Section of Gastroenterology and Hepatology. Academic output has been ignited within the therapeutic endoscopy group which continues on an upward trajectory. Future plans are to establish a prospective database for therapeutic endoscopy that will ensure sustainable high quality research in the future.

- c) **Dr. Lloyd Sutherland Professorship in IBD/GI Research:** A decision was made in the Spring of 2013 through the Dean's Office to use the interest generated from this partially endowed Chair to support a New Investigator Award in IBD research. Dr. Simon Hirota was selected as the recipient of this Investigatorship and will hold this award for 3 years

CHANGES IN LEADERSHIP POSITIONS FOR SECTION MEMBERS

- Dr. Paul Belletrutti was appointed as Medical Lead GI Clinic, UCMC.
- Dr. Kerri Novak was appointed as QA Medical Lead for the Section, and continues in her role as Medical Lead GI Central Access and Triage.
- Dr. Michelle Buresi was appointed as Medical Lead, Small Bowel Capsule Program
- Dr. Shane Devlin stepped down as the GI Fellowship Program Director in July 2013 after raising the program to be the National leader, and Dr. Melanie Stapleton has assumed this role.
- Dr. Steven Heitman will be assuming the role of Director, Forzani and MacPhail Colon Cancer Screening Center and the Southern Alberta Colon Cancer Screening program as of August 1st, 2013.

SECTIONAL QA/QI INITIATIVES

1. Innovations to Improve Access:

- a. *Wait times* for the sickest patients have improved markedly (see clinical innovations), given increased dedicated clinic and endoscopy times for urgent referrals (wait time reduction from greater than 10 weeks to less than 4 weeks). However, waits for routine requests exceed 18 months. Activities aimed at enhancing access for routine referrals include:
 - i. Telephone consultation service
 - ii. Nurse Navigator expansion into irritable bowel syndrome, as well as geographic expansion to include the South Health Campus and FMC clinic site
 - iii. Direct to Procedure (DTP) optimization - 12 months of retrospective data including procedural indication, endoscopy, histologic and endoscopic outcome, and wait-times to evaluate workflow and, given the documented reduced wait times, expansion of clinical indication was undertaken to increase throughput within this pathway. In addition: o Nurse-led follow up and specialty clinics (e.g. microscopic colitis), with appropriate physician oversight to improve communication with referring physicians and quality of follow-up.
 - iv. Evaluation of report quality has been undertaken with guidelines in development to ensure quality and completeness of reports for DTP patients
- b. *Policy for preventing preferential GI clinic access:* a policy has been developed for the GI Section regarding guidelines for potential GI patient referral bypass of CAT, and will be implemented in the summer/fall of 2013. This policy has been vetted through the DoM MSEC, Zone Medical Leadership, and the CPSA.

2. Clinic Workflow Optimization: The NC role is evolving into one that encompasses more direct patient care and education in clinic. Increasing participation in clinic by NCs is underway, with physician oversight/responsibility and

associated dedicated endoscopy time, and has increased access to GI care for patients. Nurse-led clinics run parallel to physicians' clinics, for a multidisciplinary approach to patient care and to improve patient flow through clinic.

3. Endoscopy Utilization, Quality and Reporting: Endoscopy utilization has been optimized at the FMC endoscopy unit using the newly identified Physician Booking Optimization clerk. Across the Zone a validated process (every 6 months) has been implemented to optimize patient centered care within endoscopy, including systematic assessment of the process of consent, procedure safety and comfort, quality, appropriateness as well as the quality of the reporting process (GRS or Global Rating Scale). The plan is to issue a confidential report to each endoscopist within the GI Section, with total procedures completed in the year 2012 (including gastroscopy and colonoscopy) and total number completed with a trainee (GI fellow). These reports will be expanded to include patient-centered quality measures (patient comfort, conscious sedation use/average dose), completion quality (percentage of terminal ileal intubations, photographic depiction of the appendiceal orifice) and preparation quality. A Sectional policy has also been implemented to ensure all patients in all units receive a copy of their endoscopy report. Finally, as of June, 2013 endoscopy reports (Endopro) are available (not retrospectively) on Netcare, increasing accessibility to electronic endoscopy reports.

4. Helicobacter pylori (Hp) eradication: Hp is a common bacterial infection of the upper gastrointestinal tract implicated in the pathogenesis of gastric cancer, peptic ulcer disease, and likely dyspepsia. We have implemented a telephone consultation service to enhance eradication of this infection by primary care physicians. In addition, in collaboration with microbiology and Calgary Laboratory Services, we have developed and implemented a dedicated endoscopy pathway to test for antibiotic resistance (biopsies taken on endoscopy are cultured and tested for antibiotic resistance). The aim is to optimize recurrent use of antibiotics, resistance and optimize patient care. A Sectional academic rounds on this subject, with a guest speaker, is slated for the fall of 2013.

5. Clinic Patient Teaching Documents: Complete revision of endoscopy preparation and teaching sheets has been undertaken, with the goal being standardization across the Zone for both academic and private physician's offices. Three components include preparation, procedure information (risks, expectations) and frequently asked questions. In addition, teaching sheets specific for inpatients have been developed and will be included upon discharge for all patients who've undergone an inpatient procedure (this was a clearly identified gap as no inpatients received this information previously).

6. Standardization of Admission Orders for Inflammatory Bowel Disease (IBD): With an aim to improve inpatient care of patients with IBD in the Zone, the Section is working to develop (in collaboration with the University of Alberta IBD Group in Edmonton) order sets for admission to hospital. These will include standard blood work for baseline including nutritional parameters (iron indices, vitamin B12, vitamin D), as well as investigations for occult infections including tuberculosis (TB) which are necessary for future potential immune-suppressive therapy.

7. Hepatology Clinic Process Review: In order to better understand bottlenecks and improve access for patients awaiting Hepatology consultation, the Liver Unit formally consulted with a Process Engineer to conduct a review of clinic practices and process design in the Viral Hepatitis clinic. The goal was to identify opportunities to enhance access to care, and the plan is to implement critical report findings in 2013-14.

8. Development of Province-wide Electronic Gastroenterology Referral Guidelines and Standardized Referral Process: Dr. K. Novak with Dr. S. van Zanten (Head GI, Edmonton) co-led a multidisciplinary team charged with the development electronic province-wide referral guidelines for GI. With input from multiple stakeholders, including surgery, primary care, cancer care and rural and urban gastroenterology, the aim of this project is to improve referral quality, enhance transparency and consistency of wait times, and ultimately improve referral process efficiency using an electronic system. The guidelines will be published in the fall of 2013.

QA/QI GOALS AND DIRECTIONS for 2013/14:

1. Innovations to Improve Access: As outlined above, efforts will continue to increase nurse-navigator directed patient care in clinic to optimize access. These clinics will be expanded from their current format (approximately 2-3 half days per week to 10 half days per week, with 4-5 consults completed per half day) and will focus on routine referrals including screening (non-CCSC candidates), functional abdominal syndromes, and DTP follow-ups.

2. Patient Education: Documents for patient education (nurse-led) are in development, and should be available early in 2014. Formal group education sessions will also be developed, also led by nurse clinicians for common luminal GI

conditions.

3. Central Access and Triage (CAT) Process Mapping and Audit: Ongoing evaluation of CAT to ensure quality of triage process, by both physicians and nurses, will be completed. In addition, validation of wait times will be evaluated and these quality measures will be implemented quarterly. Current notification systems are being developed, when triage process lags behind a 3-day processing period, with wait times for key patient streams (urgent clinic, urgent to endoscopy) exceeding 2 weeks, so that interventions may be undertaken to reduce the wait times back to < 2 weeks.

4. Acute Endoscopy Unit QA/QI Data Collection: Currently, there is no infrastructure to collect quality data in acute care GI endoscopy units. The goal in the latter part of 2013 and early 2014 is to implement a sustainable system for data collection (nurse-generated, clerk entered) starting with patient-centered quality measures (validated scores for preparation quality, comfort scores) with expansion to established endoscopic quality measures (completion, that is documentation of the appendiceal orifice, withdrawal times, adenoma detection rates, complication rates).

5. Expansion of Endoscopist's Quality Reports: As above, the current reports will be expanded to include more exhaustive quality indicators. In addition, continued practice support/ education plans will be implemented to support those physicians whose quality scores do meet required expectations.

6. QA/QI Projects for GI Trainees: Starting July 1, 2013, GI trainees will be expected to complete an annual (or larger 2 year project) QA/QI project which will be presented at a city-wide Sectional QA/QI meeting (annual). QA/QI is also being incorporated into the post-graduate training curriculum and faculty support will be provided to each trainee to provide guidance and supervision for each project (through Drs. K. Novak and L. Lambert [DoM QA/QI Lead]).

Section of General Internal Medicine - Annual Report April 1, 2012 – March 31, 2013

CLINICAL SERVICES

In 2012-13, General Internal Medicine (GIM) provided the following clinical services to the AHS Calgary Zone:

1. Eight Medical Teaching Units and one General Medical Unit at three acute care hospital sites. A ninth GIM inpatient service has started at the South Health Campus and anticipates growth as the number of beds opening increases and ambulances begin to stop at the SHC site. These services are all 24/7, 365 days per year. Based on AHS separation data, the clinical volume on these services continues to increase over and above the previous year (2011/12) by approximately 15%; this single year increase is similar in magnitude to the previous year and to the total cumulative increase over the prior five years (2006-2011). Volumes in part have been managed by continued gradual reductions in the ALOS by 2 days over the past six years, 1.1 days of this reduction occurring in the past year;
2. Five inpatient consultation services (most run 24/7/365d/yr), including an Obstetrical Medicine service – to Surgical, Hospitalist, Neuroscience and Psychiatry colleagues. A sixth inpatient consultation service has been initiated at the SHC and includes GIM back up to the newly initiated and Hospitalist-run Rapid Assessment Unit;
3. Five daily streams of pre-operative surgical assessment clinics (mostly Monday-Friday) at three sites, including a pre-admission central intake clinic for the low-risk orthopaedic arthroplasty stream with the McCaig MSK program at Foothills Medical Centre (FMC); off-site pre-operative consultation also occurs in the community (e.g., Gulf Canada clinic); the delivery of pre-operative assessment has also been initiated at the SHC and further expansion is anticipated at the surgical activities increase at the SHC;
4. Outpatient clinics:
 - a. Difficult to tabulate the total activity given a sizeable private clinic activity, much of it based in the community, among the division's membership;
 - b. The IMA associates involving GIM members at the Peter Lougheed Centre (PLC) run an Internal Medicine (IM) referral and follow up practice;
 - c. The membership leads and/or participates in the Chronic Complex Care clinics (PLC), Endocrine (DM) clinics at Richmond Road Diagnostic and Treatment Centre (RRDTC), Atrial Fibrillation clinics (FMC) and the Outpatient Anticoagulation program;
 - d. At RRDTC, between 75 (summer) and 100 GIM clinics/month and 200-280 new referrals/month; wait list times have been successfully reduced;
 - e. At the RGH site, approximately 125 GIM clinics were held in the UCMG area, a number that can grow (MD HR capacity met, but physical capacity not met)
 - f. WRT (d & e), Central Access and Triage data for the past five years show approximately a 10% per year increase in the number of consultations requested and provided while maintaining a short time to urgent OP consultation of around one week. However in this past year, the wait times for routine consultation have begun to increase from approximately 6 weeks to 12-13 weeks in the first half of 2012, after having improved in previous years from around 9-11 weeks. This trend is likely to continue, given that increased inpatient pressures outlined above will necessitate shifting some proportion of the GIM workforce from outpatient to inpatient clinical services.
 - g. Almost 300 Obstetrical Medicine clinics provided at the three acute care sites
 - h. Outreach clinics occur regularly (with expanding numbers due to an increased divisional focus on vulnerable populations):
 - Within the city at the following centres, focusing on populations with health disparities: SAC (HIV/GIM), CUPs (ObMed related and GIM) and the Calgary Refugee Clinic
 - Outside of the city: Brooks, Canmore, Claresholm, Didsbury, Strathmore, Morley and now Tsuu T'ina (all GIM consultations and optimization of CV risk)

Areas for necessary or possible growth and challenges in meeting these needs and opportunities:

1. Foremost, this will depend on available physician resources and the necessary support to make clinical services run efficiently
2. Necessary growth:
 - a. It is anticipated that as our population grows and ages, the pressures on our inpatient services (in absolute numbers and acuity) will continue to rise. This is illustrated in the AHS separation data: the greatest growth within the 15% increase in inpatients cited above occurred in those 50 years of age and older (EG, continuing increase in the number and percentage of octogenarians in the past year).
 - b. These same pressures will add to outpatient referral requests and opportunities to offer preventative care and management services among complex patients with chronic diseases
3. Opportunities for Growth:
 - a. Outpatient models of care that facilitate continuity of care following hospital discharge, management of complex patients and potential avoidance of admission or re-admission. This past year, the Division had hoped to add a CCDM clinic to the RGH site. AHS budgetary and GIM HR realities prevented this. However, a second MTU follow up clinic has now been started to at least in part address the issue of capacity to discharge early with prompt follow up. The Foothills MC site is using RRDTTC clinic capacity to arrange timely follow up of MTU and IP consultation patients with residual issues for the same purpose;
 - b. Consultative, leadership and participation in short-stay units (e.g., medical assessment, clinical decision or rapid assessment units) or innovative models such as a virtual hospital ward have been discussed within the Division – intuitively, these have appeal, but any or all require investment in operational support, space and the HR to allow any such innovation to function;
 - c. The GIM HR needs for the South Health Campus have grown and will need further growth to sustain the inpatient services and to balance out what is currently a disproportionate call service compared with the other acute care facilities in the Calgary Zone;
 - d. Discussion with leaders in Aboriginal Health Services reveals an opportunity to provide consultative services, especially within the urban setting. A subgroup of the Division has been formed and continues to develop to create strategies for high yield clinical work with vulnerable populations with health disparities;
 - e. The indigent population of Calgary is sizeable and the ARP model of physician remuneration would permit provision of outpatient services to those who are complex and unwell (see d. immediately above); currently, three Division members and one Fellow provide services at CUPS and the Refugee Clinic. Conversations to strategize with Community Health Sciences, AHS and others, continue.
4. Challenges:
 - a. Our current clinical work force is at its capacity and is in need of augmentation at all three existing sites within the next year, given retirements and career transitions. More than one third of the Division is older than age 50 years of age. Some workforce planning data (CIHI) suggests that career transitions at this age often involve reductions in on-call participation. This will prove to be a challenge when such acute care needs are increasing while the available work force is decreasing.
 - b. The ongoing uncertainty regarding the conditions for and availability of FTE within both the current extended ARP and the anticipated provincial AARP have significantly increased uncertainty about and compromised our ability to recruit necessary GIM members. Expansion under FFS models and use of locums have been our primary methods of meeting these HR needs.
 - c. The most sustainable model for the necessary expansion of our physician staffing the SHC remains unclear. The Division has developed a number of alternative models and planning remains ongoing in active discussion with both SHC medical leadership and with other departments including critical care and family medicine. In brief, if SHC is to have any meaningful academic presence, liberalization of at least some of the previously committed eight ARP FTE is necessary;

RESEARCH

All GFT members had multiple publications and carried grant funding:

Metrics (with some missing data points) are as follows:

Peer-Reviewed Manuscripts	70 (plus 13 in press and 9 submitted)
Non Peer-Reviewed Manuscripts	11
Book Chapters	3
Scientific/Technical Reports, Abstracts, Presentations	84

Invited Presentations	56
Funded Research	\$11,069,600

Research Chairs held (2):

- N Campbell: CIHR Canadian Chair Hypertension Prevention and Control
- W Ghali: John A Buchanan Chair in General Internal Medicine
- Both of our research Chairs continue to be extremely productive in their work; supporting them remains a constant Divisional focus.

Divisional Research progress and opportunities:

- Research productivity within some of the growing areas of divisional strengths: e.g., health services research (ongoing work of Ghali, Campbell, Leung and others), obstetrical medicine (a database to capture baseline demographics for one of the largest and most cohesive ObMed program – Hawkins, Castillo, Sam, Gibson), physician wellness and workloads (Lemaire, CIHR grant recipient), medical education research (Ma, Bacchus, Altabbaa and colleagues), and cardiovascular clinical research (Herman, Hamilton, Campbell and others)
- Working with and engaging the research resources associated with W21C
- Using recruitment to foster the research profile of the Division (Evan Minty, Gabriel Fabreau, Ben Wilson and possibly the Buchanan Chair position in 2012-13, Clinical Scholars)

EDUCATION

Estimated Teaching Hours*

Outside of clinical settings:	Hours	Comments
UME, PGME, CME combined	3388	Based only on STAR report for ARP members (thus, underestimates participation of non-ARP members)
Supervision of Trainees of mixed levels in clinical settings:		
UME, PGME combined	~14,000	Crude estimate: Assumes ~20% teaching time in teaching services
Supervision/mentoring	4,047	More easily estimated for ARP members based on reporting system

*Requires some [conservative] modeling assumptions, given that ~45% of Division works in a private practice model, but contributes significantly to delivery of the clinical education mandate at all levels

The Internal Medicine Residency Training Program:

With the large number of UofC Medical School and Clerkship (170 UME student per year) and Internal Medicine (IM) Residency Programs (~30 incoming residents per year) together with an additional intake of well-trained foreign graduates (2-5 per year) through the Alberta International Medical Graduate Program, we participated in the continuing expansion of the IM Residency Program to the RGH. The leadership of the IM Residency Program currently lies with Jeffrey Schaefer (Program Director) and three Associate PDs, all four being GIM Division members.

THE GIM MTUs serve as a critical setting for the instruction of not just Department of Internal Medicine postgraduate trainees, but also residents from other programs. As noted above, this year the number of R1's has increased substantially and the number of MTU blocks may increase from five to six. In addition, Family Medicine especially, but also Psychiatry and Surgery have added more MTU time for their trainees. The MTUs have been a setting for innovation: for example, after the successful introduction and evaluation of the senior resident night float model of nocturnal on-call coverage (a subject of a number of divisional publications and presentations), a junior night float model was piloted successfully and implemented this reporting year. Additionally, the formal study of the role of the preceptor is the topic of successful CIHR and RCPSC grant applications (Lemaire et al). Finally, the MTUs continue to serve as the setting for evaluation of new technology through the W21C innovation program.

The Division of GIM has been very involved and active in the increasing focus of medical education delivered through simulation techniques. Members have been involved as leaders, developers, adopters and evaluators of simulation methods in both UME and PGE. Development and delivery of simulation-based cases has particularly notable at both the RGH and the FMC sites. Another application of innovation in the educational setting during this year has been the launch of teaching of bedside ultrasound use for enhanced safety of bedside procedures (EG, central line insertion) and for enhancement of and immediate validation of physical exam findings.

GIM R4 FELLOWSHIP AND CLINICAL SCHOLARS PROGRAMS:

In 2012/13, the Division had 3 GIM PGY4 and 1 PGY5 and 4 Clinical Scholars. These were:

1. Dr. Jack Cruikshank (U of C)
2. Dr. Andreea Ionescu (U of C)
3. Dr. Jasjeet Rai (U of A/McGill)
4. Dr. Karen Tang (U of A) R5, MSc in CHS
5. Dr. Simona Burs (U of C) Clinical Scholar
6. Dr. Gabriel Fabreau (U of C) Clinical Scholar
7. Dr. Alexander Leung (U of A) Clinical Scholar
8. Dr. Evan Minty (U of C) Clinical Scholar

Starting in July 2013 (this AR goes to 31 Mar 2013) the Division has 5 GIM PGY4 and 2 PGY5 and 3 Clinical Scholars. These are:

1. Dr. Rahim Kachra (U of C)
2. Dr. Brendan Kerr (U of C)
3. Dr. Ryan Lenz (U of C)
4. Dr. Birinder Mangat (UBC)
5. Dr. Alison Walzak (U of C)
6. Dr. Andreea Ionescu (U of C) R5
7. Dr. Jasjeet Rai (McGill) R5
8. Dr. Karen Tang (U of A), Clinical Scholar, MSc in CHS
9. Dr. Gabriel Fabreau (U of C) Clinical Scholar
10. Dr. Evan Minty (U of C) Clinical Scholar

Regarding the GIM Clinical Scholar Program, Dr. Burs continues to work at RGH as she completes her Masters Degree in Clinical Epidemiology at the U of C (Expected completion December 2013). Dr. Leung will be finishing at Harvard Medical School in Boston, Massachusetts (Patient Safety, PharmacoEpidemiology; Expected completion June 2013). Dr. Fabreau has started his first of two years at Harvard, studying vulnerable and disadvantaged populations and population health; (estimated completion: June 2014). Dr. Minty's Clinical Scholarship involves studying Clinical Informatics, Information and Advanced Technology at Stanford and working with UofC's Community Health Sciences/W21C (expected completion: June 2014).

Clinical Assistant (CA) Program

The UofC Department of Medicine CA program, while serving as a departmental resource, is managed almost exclusively by the Division of GIM. The CA program has a mixed mandate: (i) to provide a skilled physician assistant resource that helps with coverage of service requirements among various clinical divisions within DOM but also outside of DOM (e.g., Neurology); This forthcoming year, this mandate will take on an increased importance as recruitment of five additional clinical assistants will aid in the staffing of the internal medicine inpatient beds at the South Health Campus; (ii) to provide opportunities for International Medical Graduates to advance their careers into the Canadian health care system (mostly into a residency program, usually through AIMG program); and (iii) depending on the outcome of (ii), to provide well-trained physicians who may be able to serve in underserved areas. Subsequent to this mixed mandate, a high rate of turn-over among the CAs continues to vex steady-state HR planning for this program; however, the philosophy of the CA Program Committee considers that if it reflects successful career advancement of the CAs, it is to be celebrated, even if it comes at the cost of instability of the CA workforce.

Last year, we had 3 CAs successfully transitioned to the AIMG Program.

Our current Clinical Assistants are the following individuals:

1. Yakob Berhane

2. Gerardo Cuadros Romero
3. Sidra Javed
4. Natalia Leah
5. Uzma Naheed
6. Palli Shetty
7. Andrey Terry

LEADERSHIP and ADMINISTRATION

The Division membership participates extensively in important and influential Leadership and Administrative roles at International, National, Provincial, Zonal, University, Faculty, Departmental and other levels of Health Care organizations. The total extent is difficult to quantitate. A self-reported estimate from the ARP membership cites over 11,000 hours. This would be an incomplete and probably underestimate, given many individuals report roles but not time commitment and does not include participation of our non-ARP membership. A partial list of leadership roles that members have taken on would include positions in the following spheres:

1. International (e.g., Chair Pan-American Health Organization Salt reduction committee, Chair, World Health Organization Quality and Safety TAG for ICD-11, Associate Editor, Open Medicine)
2. National (e.g., Chair, RCPSC IM Executive Committee, Integrated three national HT societies in single entity (HT Canada), CSIM Chair, Globalization Committee),
3. Provincial (e.g., AH&W Expert Committee on Drug Evaluation and Therapeutics, AHS medical lead on Chronic Disease Management)
4. Regional (Western Canada): Members of the GIM Division, under the leadership of Robert Herman, organize and Chair the annual Rocky Mountain/ACP Internal Medicine Conference, a large and long running annual CPD Internal Medicine conference in Western Canada
5. University (e.g., Scientific director, CIPPH; both co-directors W21C*; Vice Chair, Health Promotion, Libin CV Institute), Internal Medicine Clerkship Director; CPD Chair, Calgary Therapeutics Course;
6. Zonal (e.g., PLC and FMC medical directors, SHC departmental physician lead; development and evaluation of a discharge summary located on the in-patient electronic medical record; systematic review for AHS of Medical Assessment units)
7. Departmental (e.g., Vice Chair, Strategic Planning; Vice Chair, Physician Wellness; IM RTP director).

Recruitment during this period included:

Name	Area of Interest	Primary Site
Dr. Alejandra Boscan	Medical Education, Quality Improvement	SHC
Dr. J. Paul Davis	Clinician/Educator	SHC
Dr. Sandeep Deol	Clinician	RGH
Dr. Gabriel Fabreau	Clinical Scholar, Health Services Research	PLC
Dr. Horacio Groshaus	Quality Improvement, Health Care Administration	RGH
Dr. Alexander Leung	Clinical Scholar, Health Services Research	PLC
Dr. Evan Minty	Clinical Scholar; Clinical Informatics	PLC
Dr. Leanne Reimche	Part-Time; Drug Safety, Health Administration	SHC
Dr. Ben Wilson	Clinician/Educator	PLC

Locums providing significant Clinical Contributions: Dr. Selena Au, Dr. Nidhi Sood,

Honors and Awards

- Alberta Medical Association/Meloche Monnex Scholarship, Alberta Medical Association, \$5,000 – Dr. Gabriel Fabreau
- Alberta Heritage Foundation Fellowship Award – Dr. Susana Grinman
- Best Oral Presentation in Medical Education. University of Calgary Internal Medicine Resident Research Day – Dr. Irene Ma
- Work Life Balance Award – Dr. Paul LeBlanc
- Department of Medicine Research Development Fund Award. The University of Calgary – Dr. Marcy Mintz,

- Nominated for the McLeod Distinguished Achievement Award for Excellence in Teaching. University of Calgary, Department of Medicine – Dr. Irene Ma
- Certificate of Merit Award, Radiological Society of North America, November 2012 – Dr. Douglas Hamilton
- ARP Fund Awardee – Dr. Aleem Bharwani
- Department of Medicine ARP Merit Award, University of Calgary, \$5,000 – Dr. Irene Ma

RECOGNITION AWARD:

- NASA Exceptional Engineering Award, NASA-USA – Dr. Douglas Hamilton
- Top 10 Most Read Recent Articles, Journal of Radiology – Dr. Douglas Hamilton
- Alberta Health Services President's Excellence Awards, Alberta Health Services – Dr. Jane Lemaire

National:

- 2012 George Fodor Award, Hypertension Canada – Dr. Norman Campbell
- Globe and Mail feature on Canadian Research "Stars" – Dr. William Ghali

University:

- Bronze Award for Teaching Contribution in Course 8 – Dr. Irene Ma
- Silver Award for Teaching Contributions in Course 8 – Dr. Ghazwan Altabbaa
- Bronze Award for Teaching Contributions AEBM Course/Apr 2011- Jan 2012 – Dr. Kelly Zarnke
- Bronze Award for Teaching Contributions AEBM Course/Apr 2011- Jan 2012 – Dr. Irene Ma
- Silver Award for Teaching Contributions AEBM Course/Apr 2011- Jan 2012 – Dr. Ghazwan Altabbaa
- Associate Dean's Letter of Excellence. Awarded by the Associate Dean of Undergraduate Medicine Education, Faculty of Medicine, University of Calgary – Dr. Alexander Leung

Departmental:

- 2012 Golden Bull Award – Dr. Irene Ma
- Repeat Offender Award – Dr. Ian Scott
- Dr. C. Maria Bacchus - Dr. John M. Conly Innovation Award, Department of Medicine
- Dr. Mike Fisher - Dr. John M. Conly Innovation Award, Department of Medicine
- Dr. Irene Ma - Dr. John M. Conly Innovation Award, Department of Medicine
- Dr. Jeffrey Schaefer - Dr. John M. Conly Innovation Award, Department of Medicine

DOM Residency Training Program Awards:

- Golden Bull Award 2012 – Dr. Irene Ma
- Silver Finger, IM Residency Program Teaching Award, 2012 – Dr. Mike Fisher
- Silver Tongue Award – Dr. Aleem Bharwani

DOM Clerkship Awards:

- Clerkship Letter of Excellence, 2012-2013 – Dr. Christine Banage
- Gold Star Award, 2012-2013 – Dr. Irene Ma
- Gold Star Award, 2012-2013 – Dr. Jeffrey Schaefer Advanced Evidence Based Medicine Course, Faculty of Medicine, University of Calgary
- Silver Star Award, UME Simulation Teaching, The University of Calgary – Dr. Ghazwan Altabbaa
- Hellbender Honour Roll Recipient, UME, University of Calgary – Dr. Aleem Bharwani
- Clerkship Teaching Award, 2012-2013 – Dr. Paul LeBlanc
- Clerkship Teaching Award, 2012-2013 – Dr. Christine Banage

Faculty Development:

- Dr. David Sam completed his Masters in Clinical Epidemiology and Public Health.
- Dr. Ghazwan Altabbaa successfully defended a Masters Thesis in Clinical Epidemiology at U of C.
- Dr. Irene Ma is enrolled in a PhD in Medical Education at the UofC beginning September 2010.

CHALLENGES AND FUTURE DIRECTION

1. 2012/2013 has been a year of relative stability for the Division of GIM in Calgary.
During the forthcoming year, the Division will need to continue to plan carefully for the expanding GIM physician needs at SHC as well as the impact of the aging HR workforce at the other more established three acute care sites. SHC opened February 2013 with some outpatient/PAC clinics, then GIM inpatient opened March, and MTU opened July.
2. The continued expansion of clinical services at all sites is anticipated, given inevitable growth and aging of our population.
3. Given these two factors (SHC and continued growth in clinical service needs at all sites) as well as ongoing career transitions (retirements, departures), the Division welcomes the recently initiated AHS physician workforce planning initiative.
4. The continuing uncertainty regarding control of and decision making for the current DOM ARP and the nature of a provincial AARP. The planning for changes as outlined above will continue despite continuing uncertainty around the ARP negotiations. One must hope that this does not impede efforts to train, attract, recruit and retain generalist physicians with strong academic and non-clinical skills and aspirations.
5. The Division's contributions to the Faculty's education mission at all levels will continue and we aspire to make further research efforts as a result of developments such as a greater alliance with the W21C, the growth of the Maternal Disorders of Pregnancy program and the maturation of the Physician Wellness Initiative
6. The development of a two year RCPSC GIM Subspecialty Fellowship Program is ongoing with full divisional participation.
7. Preparedness and participation in ongoing AHS transitions such as clarifying where GIM fits into future complex medicine strategic clinical networks concept requires ongoing engagement

Section of Geriatric Medicine – Annual Report April 1, 2012 to March 31, 2013

The Section of Geriatric Medicine consists of 10 members. 6 are full time in the ARP and 4 are part time members. Three of our members have GFT appointments while the others have Major Clinical appointments with the University of Calgary.

While the Section has 10 members, the full time equivalent in our Section is 7.55 and the clinical FTE is 5. For 6 months of this time period our total FTE was reduced to 6 and Clinical FTE was 3.8 due to prolonged leaves of two of our members.

Of note, for some sections we will not be able to provide data for the fiscal year, as certain reports and information is reported in a calendar year.

CLINICAL

The clinical activities of the Section of Geriatric Medicine are closely intertwined with those of the Seniors Services, SubAcute Care and Transition Services, Calgary Health Zone.

Clinical activities that are the responsibility of the Section of Geriatric Medicine include Consultation Services at all the Acute Care sites and Seniors Health Clinic and the Falls Prevention Clinic. The Section members also support programs of Seniors Health including Day Hospital, Geriatric Assessment and Rehabilitation Program and provide support to Geriatric Mental Health. We provide support to other programs outside of the Seniors Health program including Primary Care Network senior's teams.

We have been at the forefront in the Department for a number of years in developing interdisciplinary and transdisciplinary approaches to service delivery. Our working relationships with the other disciplines in the Seniors Health Program are both collegial and effective.

During this fiscal year there have been challenges due to two members having prolonged leaves during 6 months of this reporting cycle.

Ambulatory Services:

- **Seniors Health Clinics:** There are two clinic sites for Seniors Health Clinic, Rockyview Seniors Health Clinic and Bridgeland Seniors Health Clinic. Both have a multidisciplinary team and functions in a transdisciplinary model and provide comprehensive assessment and consultation. Currently 9 Geriatricians and 4 care of the elderly physicians run 26 half day clinics/week between the two sites with a total of 2200 visits in calendar year of 2012.

The Bridgeland site also includes the Falls Prevention Clinic.

- **Teleconsultation:** Geriatric Medicine continues their active teleconsultation program that supports six rural communities (Banff, Canmore, Cardston, Didsbury, Drumheller, and Strathmore). Also, the Fall Prevention Program is building linkages with remote communities (Canmore). There appears to be a decrease in the utilization of these clinics which makes for inefficient use of Geriatrician time. We will be monitoring the need for this service
- **Support for PCN teams:** Two Geriatricians provide consultative support to the West Central PCN Geriatrics team and the Alex Seniors clinic. In 2013 we hope to provide support to the Foothills PCN navigation team.

In 2012 the Seniors Health Clinic developed working groups to review our waitlist, mandate and processes. This work is ongoing.

Hospital Consultation:

The Section offers in-patient consultation services at the three adult hospitals in Calgary and in 2013 have started providing consultation to the South Health Campus.

For this reporting period there were about 1,538 new consultation requests. This number is artificially low as it does not capture consultations done by the Nurse Practitioner, which may also be reviewed by a geriatrician.

In September 2011 Dr. Pearce started providing support to the Transcatheter Aortic Valve Implantation (TAVI) program. This program is in its infancy and there will be ongoing evaluations of our involvement in this program, particularly in the pre-TAVI assessment of the frail elderly and post procedure followup.

Other Clinical Activities: Section members provide case conferencing and clinical support to the following programs:

- Fanning Day Hospital (which was closed in March 2013)
- Glenmore Day Hospital (no geriatrician coverage since November 2012 due to medical leave)
- Geriatric Assessment and Rehabilitation Program (GARP)
- One Line Triage
- Geriatric Psychiatry Unit
- Home Care Teams – In 2013 Home Care created a Home Care Geriatric Consultation team. Seniors Health has provided two Care of the Elderly Physicians to provide consultative support to this program.

Future Clinical Considerations: Our program has been approached to provide clinical consultation and support to the following programs:

- Orthopaedic Surgery
- Long Term Care consultation
- RCTP programs
- Foothills Medical Centre PCN has requested geriatrician support to model support provided to other PCN.

These requests are appropriate and will be the basis for increased recruitment

RESEARCH

i) **Scholarly Productivity:** In 2012, the Section has produced:

- 14 peer reviewed publications and 2 peer reviewed abstracts with a further 2 in press.
- 1 non peer reviewed publications and 7 abstract
- Dr Holroyd Leduc published a textbook on Evidence Based Geriatrics

ii) **Major Funding:** Sum of Successful grants allocated to Members is 5,609,395

iii) **Research Focus of Sectional Members:**

- Knowledge Translation and Quality Improvement in Care of the Elderly
- Health Services – Telehealth, Dementia Care, Community Care, Models of Geriatric Care and Clinical Informatics
- Dr. Hogan is a Co-principle investigator for the Canadian Longitudinal Study of Aging. In 2012 the local research team was hired with the first Calgary participants enrolled.

iv) **Leadership in Research**

- Dr. Hogan is the Chair of the C5R Research Committee, and Associate Editor, Current Gerontology and Geriatrics Research and also the Brenda Strafford Chair in Geriatrics, U of C. He is a member of the Steering Committee for the Canadian Initiative on Frailty and Aging. He is also the Editor of the Canadian Journal of Geriatrics
- Dr. Holroyd-Leduc has been appointed the Scientific Director of the Seniors Strategic Clinical Unit.
- Dr. Silvius is a member of the CIHR Knowledge to Action Grant Review Committee

QUALITY IMPROVEMENT

Dr. J Holroyd Leduc is the Department of Medicine lead for Quality Improvement. Under her leadership the following projects have been undertaken:

1. AHS Calgary Zone Elder Friendly Hospital Initiative. This includes the development and implementation of three evidence-informed key clinical practice strategies on several medical units within Calgary-area hospitals. In collaboration with Medical Operations, a zone and site working groups are currently forming to further disseminate and implement this initiative broadly across the zone. The effectiveness of this initiative is currently being evaluated on 2 of the early adopter units. The concept of Elder Friendly Hospitals is also being considered by the Seniors Health SCN for a future provincial project.
2. Provincial Hip Fracture Clinical Care Pathway, AHS Bone and Joint Strategic Clinical Network Trauma Working Group. Dr. Holroyd Leduc was a member of the working group that is developed and implemented an evidence-informed provincial clinical care pathway in an effort to decrease care gaps and provide standardized care to hip fracture patients in Alberta. A publication of this work is currently IN PRESS in the Canadian Geriatrics Journal.
3. Resident-driven Project Targeted at Decreasing ED-LOS for Department of Medicine Patients. Dr. Holroyd Leduc was the faculty lead on a project supported by AHS Calgary Zone Medical Affairs aimed at working with Internal Medicine Residents to decrease the amount of time it takes to admit a patient from the emergency department. This project demonstrated important decreases in the time to admission to the Medical Teaching Units in Calgary. This work has been accepted for presentation at the 2013 ICRE meeting.
4. Targeting Discharge Resources for Department of Medicine Inpatients. Dr. Holroyd Leduc is the QI Lead on a project supported by AHS Calgary Zone Medical exploring the impact of structured discharge planning on occupancy rates and patient throughput without negatively impacting quality of care.
5. The Hospital Elder Life Program (HELP) was instituted at the Foothills Medical Centre in November 2011. Evaluation of the program has shown a reduction in LOS of 2 days for patients enrolled in HELP and a reduction in delirium rates from 12% to 4%.
6. Reduction of Physical restraints. A QI initiative to reduce the use of physical restraints among older hospitalized patients. This is a joint project between the Section of Geriatric Medicine and the PLC Hospitalist group. This project was started in fall of 2012 and evaluation shows reduction in the use of restraints from 13-27% to 7-14% and no increase in the number of falls. This has been submitted and accepted for publication by the Journal of the American Geriatrics Society.

EDUCATION

The Section is active in Education across all levels of medical education, but also in Multidisciplinary Education. The Section has recorded a total of 1,214 hours to teaching at various levels.

Undergraduate	<ul style="list-style-type: none"> • All Section members are expected to teach in Course V but many members teach in other courses such as Physical Examination, Physicianship and Communication courses for a total of 670 hours of teaching in the UME courses. • 2 members are Master Teachers. • 2 Members chair UME education committees <ul style="list-style-type: none"> ○ Dr. Burbach is co-chair of Course V UGE (Neurology, Aging and Special Senses) ○ Dr Pearce will take on the role of chair of the Integrative Course. • Section members supervised 38 Clerkship rotations ranging from 2-4 weeks. This includes electives of out of town students. • 4 members combined to supervise 4 medical students in Course 440 • Participation in OSCE • Participation in CaRMs interviews • Members participate in the faculty advisor program
Postgraduate	<ul style="list-style-type: none"> • All members participate in teaching and supervision of residents on rotation in Geriatric Medicine. • 51 Residents did a clinical rotation in Geriatric Medicine, from Internal Medicine (35), Family Medicine, PMR and Neurology. Each had a 4 week rotation in Geriatrics • Geriatrics participates in Noon Teaching Rounds and Academic Half day of various

	<p>PGME programs as well as formal teaching during the geriatric medicine rotation estimated at 353 hours of formal teaching.</p> <ul style="list-style-type: none"> • Supervision of Resident Research Projects • 2 Members are Members of the RCPSC Internal Medicine Examination Committee • Dr. Burback sits on the PMR Residency Program Committee • Drs. Pearce and Fruetel sit on the Care of the Elderly Residency Program Committee for Family Medicine • Participation in PGY 1-3 OSCE
Graduate	<ul style="list-style-type: none"> • 7 students were supervised by Section members
CME	<ul style="list-style-type: none"> • Dr. Heidi Schmaltz is the Sectional CME lead and has been integral in the planning of the 1st annual geriatric update for rural/urban primary care held in September 2012 • 14 invited presentations locally, provincially and nationally and 16 workshops or poster presentations
Other	<ul style="list-style-type: none"> • Dr. Holroyd Leduc assisted in the development of a Patient Safety Certificate Course. This involved developing teaching modules related to QI and Knowledge Translation for this new CME course • Dr. Holroyd Leduc has published a book she co-edited, an EBM Geriatric Medicine Book • Dr. Burback is the Chair of the Canadian Geriatrics Society Education Committee

ADMINISTRATION

Members of the Section provide are active in administration and filling leadership roles. Highlighted roles include:

Dr. Fruetel:

- Section Head of Geriatric Medicine
- Medical Leader, Integrated Seniors Health
- Medical Director of Seniors, Subacute and Transition Services
- Executive Member of the Canadian Geriatric Society Executive Committee and in April 2013 was elected Vice President.
- Member, RCPSC Internal Medicine Examination Board

Dr. Holroyd Leduc:

- QI Lead, Department of Medicine
- Alberta Clinical Council
- Program Director, Geriatric Medicine Residency Program
- Scientific Director of Seniors SCN
- Co-chair , KT subcommittee of NCE
- Leader, HELP program
- Member, Geriatric Task Force, Society of General Internal Medicine
- Member, RCPSC Internal Medicine Examination Board
- Working Member, AHS Bone and Joint Clinical Network Trauma Working Group

Dr. Silvius:

- Senior Medical Director, Seniors Health, Alberta Health Services

Dr Burback:

- Chair of the Canadian Geriatrics Education committee
- Co-chair of Course V – Neurosciences, Aging and the Senses, UME.

Dr Pearce:

- Chair, Integrative Course Committee, UME

Dr. Kwok:

- Sectional Representative, ARP Management Committee

Dr Schmaltz:

- CME Lead for the Section of Geriatric Medicine

- Chair, Canadian Geriatrics Society CME committee (April 2013)

Dr Hogan:

- Brenda Strafford Chair in Geriatric Medicine.
- Director for the Brenda Strafford Foundation Centre on Aging..
- Member, Hotchkiss Brain Institute, Hotchkiss Brain Institute
- Advisory Committee for the Brenda Strafford Foundation Chair in Alzheimer Research, Faculty of Medicine, University of Calgary
- Advisory Committee of the Brenda Strafford Centre for Excellence in Gerontological Nursing, Faculty of Nursing, University of Calgary
- Member, Reducing Falls and Injury from Falls Faculty, Canadian Patient Safety Institute
- Co-Chair, Canadian Coalition for Seniors' Mental Health - Update Guidelines on Delirium, Canadian Coalition for Seniors' Mental Health
- Member, Board of Directors, Alberta Medical Foundation

AWARDS AND HONORS

5 Section members received a total of 15 Associate Dean's Letters for Teaching Excellence in the UGE curriculum.

3 Section members were named to the Hellbenders Honor Roll for teaching excellence

Dr Darren Burbach received the Gold Star for his teaching in Course V

Dr Paula Pearce was awarded the "Fish out of Water" award for teaching excellence outside of content expertise.

Dr Jayna Holroyd Leduc was a top 5 finalist for the Alberta Health Services President's Excellence Award for Outstanding Achievements in Quality and Safety Improvement.

CHALLENGES AND FUTURE DIRECTION

Challenges:

- The ability of the Section to manage its current work load is precarious. The absence of 2 members for 6 months was difficult to manage. We were able to cover essential services, however other services such as Day Hospital, Home Visiting and support to Geriatric Psychiatry continue go unserved. This will continue with the retirement of Dr Powell in early 2013.
- The ability to recruit is hampered by the limited number of residents training in Geriatric Medicine across the country. In July 2013 we will welcome 3 PGY4 into our Geriatrics Medicine training program. Our plan is to recruit two of these individuals for July 2015 and perhaps send the third for enhanced academic training. This plan will require ARP support and also AHS support for resources to support additional clinical work such as clinic space and access to multidisciplinary team members.
- Ability to measure outcomes in Seniors Health. Change in process requires information, such as numbers of patients seen and wait times. Measuring these outcomes require infrastructure support. This is something that Seniors Health is working on
- Leadership. Many members have significant FTE devoted to leadership in the Department, University and Zone. While this is a credit to their skills, this has resulted in a reduction in clinical FTE.

Future Directions:

1. **Recruitment to Geriatrics** has to be a priority and supported by the ARP and AHS. Our plan is to recruit through our Geriatric Medicine training program. Geriatrics workforce planning includes:
 - Filling clinical service gaps left by the retirement of Dr Powell. This includes support of Day Hospital, Home visit consultations and support to Geriatric Psychiatry.
 - Reducing wait times for assessment in the Seniors Health Clinic.
 - Increased presence at South Health Campus.
 - Support of ministerial directives which is a priority for the region. With Destination Home, there will be a Geriatric Team developed by Home care that will require geriatrician support.

- Support of FMC PCN navigation team .
 - Consultation to RCTP.
2. **Increased Academic productivity.** Much of the last 3 years has been struggling to cover clinical services. With additional recruitment I would like to focus on increasing the scholarly activities of the Section.
 3. **Seniors Strategic Clinical Network** has great potential for disseminating some of the programs developed in Calgary to the province. 4 section members (Drs. Hogan, Fruetel, Holroyd Leduc and Silvius) are members of the core committee. This will provide opportunities for increasing networking and research opportunities.

Section of Hematology and Hematologic Malignancies - Annual Report April 1, 2012 to March 31, 2013

CLINICAL

1. New Clinics, Initiatives and Innovations
 - a. Recruitment of Natalia Rydz (FMC RBBD), Lesley Street (SHC and PLC General Hematology) and Ted Thael (ARP position at SHC). Also Monica Mody recruited (CA at PLC) for July 1 2013 start and Victor Zepeda (TBCC BMT) for September 1 2013 start.
 - b. Continued development of the Rare Blood and Bleeding Disorders Comprehensive Care Program, under the leadership of Dr. Man-Chiu Poon.
 - c. Meetings held with FMC and PLC site leaders to discuss the amalgamation of Hematology at the FMC site.
2. Key Partnerships
 - a. Provincial Hematology Tumor Group (TBCC, CCI, Associate Cancer Centres, Hematopathology in Calgary and Edmonton)
 - b. World Federation of Hemophilia Country Program for China (Man-Chiu Poon)
 - c. Monthly Hematology Clinics in Medicine Hat
 - d. BMT Clinics every 2 weeks in Edmonton
 - e. International Health Program Project, Laos (Chris Brown)
 - f. Pediatric Hematology: Hematology Training Programs and Hemophilia Programs

RESEARCH

1. Scholarly Productivity

Peer Reviewed Publications/Articles – 35

2. Major Funding (PI only) –Total Approx. \$2,867,020

New: \$1,735,000

Sources: Alberta Cancer Foundation, Canadian Institute of Health Research,

Ongoing: \$1,132,020

Sources: Alberta Heritage Foundation, Alberta Cancer Board, Alberta Cancer Foundation, Alberta Cancer Research Institute, Alberta Innovates Health Solutions, Bayer, Calgary Laboratory Services, NCI/NIH, Canadian Institute of Health Research, Canada Foundation for Innovation Canadian Hemophilia Society, Dept of Medicine Research Development Fund, Section of Hematology Research and Education Fund, GSK ,Genzyme, Hoffman la Roche, NCIC, National Cancer Institute (USA), PDL/Otsuka, Pfizer, Sanofi Aventis Canada Inc., Terry Fox Research Institute, Private Donations.

3. Research Focus of Sectional Members

Malignant Hematology:

- Clinical Trials (novel monoclonal antibodies, lenalidomide, NCIC-CTG cooperative group and industry) for Multiple Myeloma (N Bahlis, P. Duggan), Lymphoma (D Stewart, C Owen) Leukemia/MDS (L Savoie and M Geddes)
- **Highlight: CIHR Grant – Bortezomib mediated BRCAness in myeloma cells: novel therapeutic approach combining PARP1-2 and 26S proteasome inhibitors (N Bahlis, P Neri)**

- Translational: Provincial Hematology Tumor Bank (with Alberta Cancer Research Institute Biorepository, D Stewart), Predictive Biomarkers and Molecular Biology of Lymphoma & Myeloma (D Stewart, N Bahlis). Role of Cereblon in myeloma cells and sensitivity to IMiDs (N Bahlis and J Slaby)

Blood and Marrow Transplantation:

- Busulfan pharmacokinetics, adjusted dose therapy, TBI, ATG (J Russell)
- PET/CT-guided high dose therapy/ASCT for aggressive lymphoma (D Stewart)
- SCT outcomes for indolent and aggressive lymphomas (D Stewart).
- Blood vs Marrow Stem Cell Source for Unrelated Allogeneic SCT (L Savoie)
- Allergy, Immunology and Infection following Allogeneic SCT (J Storek)
- Autologous SCT for autoimmune disorders (J Storek)
- **Highlight: CIHR Grant – Toward improved outcomes of ATG-conditioned (Albertan) hematopoietic cell transplantation (J Storek)**

Hemostasis/Hemophilia (MC Poon, D Goodyear):

- Clotting activity heterogeneity in severe hemophilia A
- Canadian dose escalation prophylaxis study
- Risk of ischemic heart disease in hemophilia patients and carriers
- Treatment of Glanzmann's thrombasthenia: prospective observational registry
- International immune tolerance for eradication of inhibitors in hemophilia A
- Etiology of decreased bone mass density in hemophilia patients

Thrombosis:

- Thrombosis Clinical Research Unit (R Hull).
 - i. PIOPED III (Prospective Investigation of PE disease) using MRI. (R Hull)
 - ii. Thromboprophylaxis in acutely ill patients (EXCLAIM Study). (R Hull)
- Thrombophilia screening practices in the community (MC Poon)

Medical Education:

- Undergraduate: teaching methods, curriculum design, EBM (D Jenkins)

Leadership in Research:

- Canada Research Chair in Immunology. J Storek
- Chief Editor, Clinical and Applied Thrombosis and Hemostasis. (R Hull).
- Editorial Boards: Blood (N Bahlis), Oncology (D Stewart)

EDUCATION

Teaching Hours (Approximate)

	<u>Approximate Number of Hours</u>
Undergraduate	MDCN 350, 440, 540, 320: 350 hrs
Postgraduate	MDSC 731.02 MDSC 678, & Resident Seminars, Journal Club: 60 hrs Hematology Educational Rounds: 40 hrs
CME	National/International: 20 hrs Local: 26 hrs
Thesis Supervision	1 PDF, 2 PhD, 2 MSc

1. Awards

- International
Recipient of the ACHIEVE Program Clinical Placement, Brussels, Belgium 2011-2012 (D Goodyear), Bayer International Clinical Training Award 2010-2012 (D Goodyear), Bayer International Clinical Training Award 2012-2014 (A Lee) PI/Supervisor for all - MC Poon
- Local
Department of Oncology Overall Academic Excellence Award 2012 (D Stewart), Department of Medicine Platinum Teaching Award 2012 (D Jenkins)

2. Educational Leadership

- International: Invited CME (MC Poon), CME International Health Program (C Brown)
- National: Chair, RCPSC Hematology Examination Board (L Savoie) and Member, RCPSC Internal Medicine (L Savoie) and Hematology Exam Boards (K Valentine)
- Local: (including provincial) Director Hematology Residency Program (M Geddes), Director Blood Course (L Savoie), Director Undergraduate Medical Education Student Affairs (D Jenkins), Director Lymphoma Fellowship Program (P Duggan), Director BMT Fellowship Program (M Shafey).

ADMINISTRATION

1. Leadership of Committees

- Local (including provincial) 18
- National 4
- International Total 1

2. Strategic Planning

- Recruitment of new Hematology staff members (2012 Goodyear, Rydz; 2013 Street, Thael, Zepeda)
- Plans for staffing of SHC ongoing
- New Cancer Centre User Groups meeting for planning of Hematology facilities

3. Fundraising for reporting period: Source and dollar value (approximate)

- Corporate/Patient Donations \$274,250
- Industry Donations \$34,500
- Used for Research and Education Purposes

CHALLENGES AND FUTURE DIRECTION

1. Challenges

- Alberta Health Services ongoing restructuring in face of limited resources: lack of bed capacity, functional planning for hematology at the SHC, EMR, Patient Flow, Clinic and Office capacity.
- Operation of high acuity tertiary Hematology Services at 2 hospitals non-sustainable. Need to consolidate to one site to ensure appropriate frequency of staff call, optimize patient care and flow, ensure equal access to novel therapies on clinical research trials and facilitate education programs.
- New ARP and Recruitment: no available funded positions, difficulty in finding office and clinic space, secretarial support.
- Program development for benign Hematology: Inadequate clinic space and allied health staffing for Rare Blood and Bleeding Disorders Program. Need to create Thrombosis Program (CPGs, Research).
- Research: Support for Translational Research (protected time, database infrastructure, tumor bank). Limited Clinical Research infrastructure in Calgary hospitals.
- Increased teaching responsibilities for increasing numbers of medical students and residents.

2. Future Directions - Goals for the coming year include

- Consolidate high acuity tertiary Hematology Services from 2 sites (PLC and FMC) to one site (FMC).
- Recruit 6 new hematologists (3for Benign Hematology/Rare Blood Bleeding Disorders Program, 1 for SHC, 1 for PLC site, and 1for Myeloma Program at FMC/TBCC)..
- Work with Calgary Zone and Cancer Care, AHS, to coordinate cancer treatments
- Expanding Adult Rare Blood and Bleeding Disorders Clinic to include hemoglobinopathies, and further develop the Benign Hematology Program.
- Increase research productivity, including competitive peer-review grants for translational research, establishing hematology tumor bank, and establishing clinical trials for benign hematology studies at FMC.
- Foster mentorship program for diverse needs of young Section members and fellows. C Brown new Mentorship Program Lead for the Section.

Section of Infectious Diseases – Annual Report April 1, 2012 to March 31, 2013

The Adult Infectious Diseases Section has 25 members (17 AARP members (13.2 FTEs) and 8 Fee for Service physicians (1.4 FTEs). Some Section members have a primary appointment in the Department of Medicine (DOM) while others have primary appointments in other areas (Alberta Health Services Executive, Microbiology Laboratories and Intensive Care) and a secondary DOM appointment.

CLINICAL

Infectious Diseases Section provides inpatient care at all adult hospitals in Calgary and outpatient care in a variety of specialized settings as described below. Almost all inpatient consults are completed within 24 hours of when they are requested. The Section encourages physicians to work at different acute care sites because the patient populations at each site are different. The Section ran > 1,700 outpatient clinics (1,600 in prior yr) and oversaw the outpatient treatment of 51,197 ambulatory patients.

Clinic	Access	Innovations	Case Load (previous year in parentheses)
Home Parental Therapy (HPTP)	RGH HPTP moved to more suitable clinic space. SHC HPTP was opened on February 25, 2013. The clinic runs	-initiation of computerized bookings	998 clinics 15,999 (14,961) physician visits 6,877 (6350) new patient visits 6.9% increase
Southern Alberta (HIV) Clinic (SAC)	Use of nurse visits for stable patients once per year. Nurse clinics only run when physician also available (11 clinics, 57 pts).	Third paper on domestic violence published with associated editorial in JAIDS. Emphasis of aging HIV positive patients	231 (220) clinics 3101 (2949) patient visits 162 (163) new patients 1467 (1349) active SAC pt
Sexually Transmitted Infection (STI) Clinic	Won Business Cost Award that is seed money for anal paps	Implement new Treatment guidelines for STIs	174 (161) clinics 30,629 (26,418) pt visits 6,879 (7,043) new pts
Cystic Fibrosis Clinic (CF Clinic)	-2 physicians + Nurse practitioner sees patients -increase in number of pts hospitalized (553 days)	-accreditation review -eradication protocols for newly colonized pts -new infection control practices	132 (143) clinics 867 (894) clinic visits 170 (162) total patients
Transplant Clinics	Dr Johnson attends Hematology clinics as requested and is available at any time for urgent consults	Joint review of treatment of fungal infections in neutropenic patients	42 (40) consults
General ID Clinics	Two ID staff now work with fellows, increased number of clinics	Improved scheduling for the ID Trainees working in the clinic.	123 (70) clinics 203 (456) patients seen 196 (297) new patients
Tropical Diseases Clinic	Second physician hired to work in clinic	Negotiation to become a Geo-sentinel site	28 clinics 79 (31) patients; 46 new
Hepatitis C Treatment (CUPS and SAC)	Hepatologist also comes to SAC re co-infected patients	Paper to be published 2013-06-11, new grant	
MRSA Decolonization Clinic	Clinic closed because of no funding of clinic		36 (40) clinics 277 (290) patients

Other Programs which the Infectious Diseases Section is a major player includes:

1. **Infection Prevention and Control (IPC).** Highlights of this program include.
 - Ongoing emphasis on Hand hygiene
 - Development of province wide IPC surveillance system for hip and knee Surgical Site Infections. Concluded data collection re antibiotic resistance organisms, *C. difficile* infections and CVC blood stream infections
 - Recruited two new IPC physicians: one for PCL and one for SHC
 - Presented abstracts at national and international meetings
 - Published several IPC paper in peer reviewed journals
 - Continued participation in the Canadian Nosocomial Surveillance System
2. **Calgary Zone Clinical Informatics**
 The current Medical Director for the CHR Clinical Informatics team is an ID Section member. This work is done in a separate Alberta Health Services contract and is not directly related to the ID Section.

RESEARCH

The Section is active in research at several levels from bench to bedside. Section members spent 499 hours working as editors on journal boards, as editors for journals and reviewing grant applications.

Reported Section research activities include (date of information Calendar year):

- 65 Papers in peer-reviewed journals
- 31 Abstracts
- 5 book chapters
- Presenting as invited speakers at scientific meetings: 11 local, 19 provincial/national and 8 international scientific meetings. Several members are involved in the organize of local, national and international meetings

Major Funding

Section members currently hold over \$2.2 million in research grants for the 2021 calendar year from agencies ranging from CIHR and PHAC to local sources. Dr Parkins as the Training Program research organizer has been very successful in working with trainees to identify projects. International recognition as leaders in HIV domestic violence research (Dr Gill), CF microbiome research (Drs Rabin and Parkins) and *C. difficile* treatment (Dr. T Louie).

Research focus of members:

- | | |
|----------------------------|--|
| • Dr. A Chu | Osteomyelitis, STIs, anal paps |
| • Dr. D. Church | Medical microbiology, new technology development, HIV |
| • Dr. J. Conly | MRSA biology/epidemiology, infection control, medical innovation |
| • Dr. J. Gill | HIV/AIDS, economic analysis |
| • Dr. D. Gregson | Medical microbiology, new technology development |
| • Dr. J. Janvier | HIV in Aboriginal communities |
| • Dr. A. Johnson | Transplant-related infections |
| • Dr. J. Kim | MRSA, IPC |
| • Dr. O. Larios | IPC, new diagnostic microbiology technology |
| • Dr. K. Laupland | Population based infectious diseases epidemiology, leader of multi-national collaborative on blood stream infections |
| • Dr. M. Louie | Medical microbiology, <i>E. coli</i> O157, environmental antibiotic resistance |
| • Dr. T. Louie | <i>C. difficile</i> , MRSA decolonization, infection control |
| • Dr. G. Macphail | HCV, marginalized patient population |
| • Dr. M. Mah | Social marketing |
| • Dr. B. Meatherall | Tropical and travel medicine |

- **Dr. D. Megran** Determinants of physician well being
- **Dr. B. Missaghi** IPC, Human Microbiome
- **Dr. M. Parkins** Cystic Fibrosis
- **Dr. A. Patullo** Clinical informatics, clinical decision support
- **Dr. D. Pillai** Malaria, *C. difficile*, sepsis
- **Dr. H. Rabin** Cystic fibrosis, major collaboration project with Department of Microbiology
- **Dr. R. Read** Sexually transmitted infection, antibiotic resistance in agriculture
- **Dr. S. Vaughan** Tropical and Travel Medicine: Medical Education

EDUCATION

The Section is committed to providing education to all levels including undergraduate studies (medical and other faculties), postgraduate medical training and academic scholarship (Masters and PhD level students). The Section also provides lectures/information sessions as part of Continuing Medical Education for Family Physicians and physicians from other Sections within DOM and in Departments beyond the DOM.

Type of Education	Number of hours for Section
Undergraduate (Faculty of Medicine)	28 hours formal lectures and 25 small group sessions for medical students i. MDCN 504/514.17 (bedside clerkship teaching) 257 days or 2056 hours ii. 514 clinical teaching hours (0.25% of service hours) 168 hours supervising student projects 6 student projects
Postgraduate	56 hours of formal teaching plus clinical teaching 1. GIM/Family Practice Residents i. 1161 days or 9288 hours service ii. 2322 teaching hours (0.25% of service hours) 2. ID Residents i. 273 days or 2184 hours service ii. 546 teaching hours (0.25% of service hours) 77 hours supervising resident projects
Graduate	10 hours of formal teaching 152 hours supervising Master and PhD candidates
CME	39 hours (local, provincial, national, international)

Teaching Activities:

ID Resident Teaching Program. The adult infectious diseases training program has continued to revise the education content of the program. All members of the Section are actively involved in the ID training program. In the fiscal year of 2012-13, the training program is fully accredited by the Royal College of Physicians and Surgeons of Canada (reviewed 2012).

Educational Leadership

Dr. Ron Read is an active member of the Undergraduate Medical Education Committee of UME. Dr. Bonnie Meatherall (Course 1) and Dr. Michael Parkins (Course 3) are the Infectious Diseases leads for these undergraduate courses.

New Initiatives and Innovations:

- a. Development of nurse lead HIV clinic visits
- b. Increased number of research projects involving trainees
- c. Development of a anal pap program

ADMINISTRATION

Members of the Infectious Disease (ID) Section are involved in Medical Administration of a large number of programs. Among people with primary DOM appointments, administration work accounts for 14.1% of the FTEs (2.6 FTEs). Section members participate in 63 committees (local, regional, national and international). Locally, Section members are the medical director for a) the Southern Alberta Clinic, b) the Sexually Transmitted Infections Clinic, c) the Home Parenteral Treatment Program, d) the Adult Cystic Fibrosis Clinic and e) Infection, Prevention and Control (IPC) program. Five section members are medical IPC site officers at each adult acute care site in Calgary.

- **Dr. John Conly**
 - Co-Director, Calvin, Phoebe and Joan Snyder Institute for Chronic Diseases (Snyder Institute), and Chair of Snyder Institute Finance Committee
 - Chair, Infectious Diseases Research Group, University of Calgary and Health Region
 - Director, Centre for Antimicrobial Resistance, University of Calgary and Health Region
 - Member, Board of Directors, Canadian Foundation for Infectious Diseases
 - Medical Site Officer Infection Prevention and Control FMC
 - Co Chair of the Antimicrobial Stewardship Committee
 - Member, Technical Consultative Group, GIPC Network, WHO – Geneva, Switzerland.
 - Member of Cochrane Collaboration
- **Dr. John Gill**
 - Medical Director, Southern Alberta HIV Clinic (SAC)
 - Director, University of Calgary Retrovirology Laboratory
- **Dr. Donna Holton**
 - Section Chief
 - Medical Director, Home Parenteral Therapy Program (HPTP)
- **Dr. Andrew Johnson**
 - Program Director for the Adult Infectious Diseases Residency Training Program
- **Dr. Joseph Kim**
 - Medical Site officer, Infection Prevention and Control Program
- **Dr. Bayan Missaghi**
 - Medical Site officer, Infection Prevention and Control Program
- **Dr. Oscar Larios**
 - Medical Site officer, Infection Prevention and Control Program
- **Dr. Tom Louie**
 - Infection Prevention and Control Program (IPC) Program Director and PLC Medical Site Officer
- **Dr. Andy Pattullo**
 - Medical Director, Advance Technology Clinical Informatics
- **Dr. Ron Read**
 - Medical Director, Calgary Sexually Transmitted Infection Clinic
- **Dr. Harvey Rabin**
 - Medical Director, Adult Cystic Fibrosis Clinic

Section members with secondary DOM appointments are also involved in administration.

- **Dr. Dan Gregson** (dual trained)

- Section Chief, Medical Microbiology, Calgary Laboratory Services
- **Dr. Marie Louie** (dual trained)
 - Acting Medical Director, Provincial Laboratory, Alberta Health Services
- **Dr. David Megran**
 - Zone Clinical Department Head Administration

Awards and Recognition

Dr. John Conly: Ronald Christie Award

Dr. Mike Parkins: Hellbender Honor Roll (U of C), Robbie Award for most promising new researcher in cystic fibrosis

Dr. Harvey Rabin: Queen Elizabeth II Diamond Jubilee Medal

CHALLENGES AND FUTURE DIRECTION

The Infectious Diseases (ID) Section has experienced an increasing clinical workload because new organisms (HINI) continue to be identified and microbes continue to develop new and complex antimicrobial resistance patterns (MRSA, ESBL, AMPc). The population of Calgary continues to a) age, b) have limited access to primary care, and c) have increasing patient acuity scores that result in increased numbers of patients being more susceptible to acquiring infections.

The ID Section provides 24/7 coverage for all adult acute care sites. This coverage was provided for South Health Campus as of February 25, 2013. Splitting the ID inpatient service at the largest adult site into two services was very successful for patient care and for improving the educational experiences of trainees. The ID Section cares for patients in more than 1,700 half-day outpatient clinics (HPTP, SAC, STI, CF clinics, General ID). The focus of these outpatient clinics is to prevent hospital admissions by providing timely outpatient care. All of the adult HPTP clinics have now been moved to areas with increased space which is important for clinic flow. The Section continues to work in conjunction with the Pediatric Section of Infectious Diseases to become a site with the Geo-Sentinel Program in tropical diseases. The process of developing a clinic to perform high resolution anal paps in high risk individuals is underway. The ID Section works with IPC and public health to try to prevent diseases transmission in both outpatient and inpatient settings.

In 2012-2013, the ID Section hired 3 new physicians and one physician move out of province. The Section hired physicians to work in IPC (2) and Tropical Diseases/HIV. At least two staff physicians now work in all the specialized outpatient clinics (see Clinical). With the current balance of AARP and FFS ID physicians, the Section is able to manage the workload and allow members to have a good life balance.

The Section remains committed to having one of the best if not the best ID training program in the country. We have recruited high quality applicants each year (former chief medical residents). In 2012-2013, 3 fellows were in the training program. There will be 5 trainees in the next fiscal year.

The Section continues to develop algorithms that allow nursing staff (Nurse Practitioners (2) and nurses in specialized areas (HIV and STI) to independent see patients with physician backup (HPTP, CF, HIV and STI clinics). The Section remains committed to using telehealth conferencing to maximize potential connections with rural and urban physicians. We now use teleconferencing for patient care for stable HIV patients who live outside of Calgary on alternate visits. We also use teleconferencing to share information with a variety of care providers when an ID Seminar has a high general interest. The Section will continue to create innovative programs to deliver ID specialty care in a variety of settings. These new service delivery models will have outcome analysis performed to ensure that the programs evolve as needs change.

Section of Nephrology - Annual Report April 1, 2012 to March 31, 2013

CLINICAL

Dimensions Of Quality	Clinic, Innovation, Initiative	Key Personnel / Leads	Outcome Measures (compared to pre-implementation.)
Access	Nephrology Central Referral Clinic	Louis Girard – Chandra Thomas	Decreased wait times to less than 4 months for routine referrals. Urgent patients recognized by standardized measures and seen in less than 0-2 weeks. Semi-urgent clinic (2-4 week wait) working well. Registered Nurse (RN) triaging 95% of referrals. Standardized letters to GP's on 15% of referrals
Access and Effectiveness	<p>1) Kidney Disease Prevention clinic – Outreach to aboriginal population.</p> <p>Nurse practitioner managed protocol driven evidence-based clinical practice guideline for management of diabetes, hypertension, dyslipidemia implementation – added second NP</p> <p>2) Telehealth – Started 2010 - Nephrologist, dietitians, social workers and nurse educators now communicate with patients across southern Alberta via telehealth- Originating centres include Calgary, Lethbridge and Medicine Hat.</p>	<p>B.Hemmelgarn Matt James</p> <p>Ellen Novak NP Sumeet Dhaliwal</p> <p>All Nephrologists – paramedical staff</p>	<p>Interdisciplinary Chronic Disease Collaboration (ICDC) published for effectiveness and cost-effectiveness.</p> <p>None except subjective improvement in patient satisfaction when care delivered by telehealth rather than patient coming to clinic</p>
Effectiveness and Safety	Glomerulonephritis Clinic – Clinical Nurse specialist adjunct to Physician Care of active immunosuppression patients	L. Girard, and Sandra Whelan RN - CNS All nephrologists	Standardize care with evidence based medical decisions. Improved safety using RN to help monitor side effects of immunosuppression including leucopenia, infections and other side effects. Very rare to now use G-CSF fro leucopenia. Freeing up of MD's time to deliver more urgent care assessments. Success of clinic means we have too many patients for one CNS. Trainees patients removed from this clinic to limit number of patients.

1. Dr Chandra Thomas has developed a comprehensive program of Advanced Care Planning including partnering with Palliative Care. This consultative and intense management program initiates conversation with renal patients and supports them over days to years. It also has a strong component relating to End of Life decisions, palliative care and pain control. The Southern Alberta Renal Program has supported this initiative through the funding of 2.5 FTE clinical nurse specialist. We have partnering with NARP and developed a Pain Assessment and Management Tool to be used province-wide. On 3 surveys, 100% of Nephrology patients admitted to hospital have a Goal of Care documented.
2. CKD Exercise Program: Dr. Stefan Mustata and now a third exercise physiologist have developed a specific assessment and exercise program for patients with chronic stable kidney disease, kidney transplant or dialysis patients. Funding for this CKD program has ceases in 2013. SARP is still expanding the Hemodialysis exercise bicycle exercise program that was developed over the past 4-5 years. The Section of Nephrology has allocated over

\$20,000 for the purchase of stationary bicycle used on hemodialysis patients. Private nephrologists and SARP have also purchased a few bicycles. In 2013 we entered a Canada-wide registry of intradialytic exercise patients. Dr. MacRae is the lead on this.

3. Community Kidney Kitchen: The Section of Nephrology is the sole financial supporter of this volunteer Dietician run program that teaches Kidney Failure patients how to grocery shop and cook diets that are friendly to kidney failure. New essential cooking supplies and cooking utensils, pots and pans were purchased to expand this program last year.

Key Partnerships – Provincial, National and International

1. Members of the Section of Nephrology including Drs. Manns, Hemmelgarn (coPI's) Quinn and Ravani received a \$5,000,000, 5 years team grant called the **Interdisciplinary Chronic Disease Collaboration (ICDC)** to investigate the effectiveness and cost-effectiveness of treatments for chronic diseases. This funding is in its' final year. They have already set up partnerships with other researchers in chronic disease and with health services administrators at Alberta Health and Wellness. The aim is health administrator directed, health services research relating to chronic diseases. Clinical Pathways have been developed and are now being distributed. **Past recipient of the AHS President's Award for Innovation.** This is an exciting opportunity for researchers to engage health resource decision makers and give them the evidence they need to go forward with their decisions. This is being expanded into a proposal for a Kidney Strategic Clinical Network
2. Dr. Hemmelgarn and Dr. Ahmed continue to work with First Nations elders and populations (Siksika, Tsuu T'ina, and Blood nations) to investigate the causes of chronic disease burden and implement treatments for these high-risk patients. Their previous work and presentations to the Aboriginal Health Council, University of Calgary Native Centre and the Elbow River healing Lodge has paid off with the opening of the new Outreach Clinic in Standoff for the Blood Nation of Southern Alberta
3. Dr. Hemmelgarn continues to also work on access and delivery of care to disadvantaged and marginalized populations such as aboriginal, elderly and the poor.
4. Ongoing collaboration with researchers from Edmonton under the umbrella of the Alberta Kidney Disease Network (AKDN) with an expansion to a Kidney SCN
5. Drs. Hemmelgarn, MacRae and Scott-Douglas lead a Canada-wide Quality Assurance project that entails the Canadian Nephrology Knowledge Network (CAN-NNET) supported implementation of an evidence-based protocol to prevent dialysis catheter dysfunction and related bacteremia using thrombolytic prophylaxis therapy. It has \$450,000 in support for data collection and analysis

RESEARCH

- i. Scholarly Productivity
 - a. Peer Reviewed Publications / Articles
 - b. Section of Nephrology involved in the publication of over 80 different peer reviewed articles, over 60 as 1st, 2nd or senior authors. 25 more manuscripts in press and over 45 abstracts
 - c. Non-Peer Reviewed Articles
 - d. None in current reporting period
 - e. Book Chapters-none in current reporting period
 - f. Academic Reports or Reviews – 2 guidelines – Canadian Society of Nephrology and Canadian, KDIGO guidelines
 - g. Over 10 invited presentations
- ii Major Funding: Source and dollar value

Members of the Section of Nephrology have active funding of just over \$17 million dollars of which just over \$2,750,000 is payable in the current year of this annual report. The main funding agencies are AHFMR and CIHR

with much smaller amounts attributable to the Kidney Foundation of Canada, CADTH and industry sponsors, Department of Medicine QA projects, ARP business cost program and private philanthropy.

- iii Research Focus of Sectional Members (e.g. health services, immunology, genomics, medical education, etc.)
 1. Health Services – Drs. Manns, Hemmelgarn, Ravani and now Dr. Quinn working through the ICDC and the AKDN with grants totally well over \$5 million
 2. Medical Education – Dr. MacLaughlin and Dr. Chou continue to investigate and publish in the areas of pedagogy. Specifically in the areas of how medical students and trainees learn and the medical trainee evaluation process. Dr. MacLaughlin is particularly prolific in these areas as well as in the area of Simulation teaching.
 3. Drs. MacRae, Ravani and Quinn investigate the areas of Hemodialysis adequacy and Vascular Access and cardiovascular disease
 4. Drs. Hemmelgarn, Manns and Muruve through the AKDN and ICDC are investigating genomic factors that influence chronic kidney disease
 5. Drs. Muruve, Wendy Wang and Tibbles continue to work on basic science areas that include gene therapies, immunologic responses especially inflammasomes, fibrosis and immune tolerance
 6. Dr. Tibbles (PI) in combination with Drs. Hemmelgarn and Manns received just under \$3 million for a multi-centred trial looking at treating BK virus in transplantation. This is a major cause of graft loss. Recruitment to this trial continues in year of this report.
 7. Dr. Ahmed continues strong translational research into the etiology of glomerular nephritis, sleep disorders, CKD in aboriginals, vascular access.
 8. Dr. James receives CIHR clinical trial funding, investigating the prevention of acute renal failure in post operative AAA patients as well as the role of Zinc supplementation in dialysis patients.
 9. The Section is heavily involved in investigator initiated and industry-sponsored clinical trials.
- iv Leadership in Research (e.g. CRC or other Chairs , CIHR Review Committee, Editorial Boards, etc.)

Peer Review Activities

Grant Panels

- Tibbles, Lee Anne. 2007 - present. Biomedical Research Grants Committee. Kidney Foundation of Canada

Grant Review

- Ahmed, Sofia. 2010 Apr - present. Reviewer for the Kidney Research Scientist Core Education and National Training Program Post-Doctoral Fellowship Award Applications. Kidney Foundation of Canada
- Hemmelgarn, Brenda. 2010 Jan 1 - present. Biomedical Scientific Review Committee Internal Reviewer for the Scientific Review Committee. Kidney Foundation of Canada
- Hemmelgarn, Brenda. 2010 Jan 1 - present. External reviewer. Heart and Stroke Foundation of Canada
- Muruve, Daniel. 2006 - 2013. Experimental Medicine. Canadian Institutes of Health Research
- Tibbles, Lee Anne. 2005 - present. External Reviewer. Nova Scotia Health Research Foundation

Journal Reviews

- Ahmed, Sofia. 2010-present. American Journal of Kidney Diseases
- MacRae, Jennifer. 2010 Jan - present. Nephrology dialysis and Transplantation
- Quinn, Robert. 2009 - present. Manuscript Review. American Journal of Kidney Disease, Peritoneal Dialysis, JASN, cJASN
- Tibbles, Lee Anne. 2008 - present. External Reviewer, American Journal of Transplantation. American Society of Transplantation, Nephrology Dialysis and Transplantation, Transplant International, JASN, American Journal of Pathology, American Journal of Physiology

Editorship

- none

Other

- Hemmelgarn, Brenda. 2012. Clinical Trainee Advisory Committee MD/PhD and Clinical Fellowship reviews. Alberta Innovates - Health Solutions
- Hemmelgarn, Brenda. 2012. CIHR Canada Graduate Scholarships PhD Awards Committee. CIHR
- Hemmelgarn, Brenda. 2012. CIHR Canada Graduate Scholarship Master's Awards Committee. CIHR
- Tibbles, Lee Anne. 2010 - present. Abstract Review The Transplantation Society (International).
- Tibbles, Lee Anne. 2010 - present. Abstract Review The Canadian Society of Transplantation.

Over 1000 hrs in peer review processes by Section

CAREER AWARDS, ENDOWED CHAIRS, OTHER FUNDING

- Ahmed, Sofia. 2009 Jul - 2014 Jun. New Investigator. Canadian Institutes for Health Research
- Dr. Muruve now holds a CRC Tier II chair
- The Roy and Vi Baay Chair in Kidney Disease Research is nearing completion of fund raising of \$8 million.
- Dr. Brenda Hemmelgarn was appointed as the inaugural holder Editorial Boards - Can J of Cardiology; and Dr Muruve – Gene Therapy
- Dr. Hemmelgarn – AHFMR Program Advisory Committee member, Canadian Organ Replacement Registry advisory committee member, Heart and Stroke Foundation External Grant Reviewer
- Dr. Manns – Chair of Canadian Society of Nephrology (CSN) Scientific Committee, Chair CSN Anemia Committee
- Dr. Muruve – Member of CIHR Experimental Research Grants Committee and Member of the American Society of Gene Therapy, Immunology of Gene Therapy Committee

EDUCATION

Teaching Hours

	Number of hours
Undergraduate	Over 1600
Postgraduate	Over 1000
Graduate	Over 2500
CME	Over 100
Thesis Supervision	Over 500

Awards / Recognition

- Ahmed, Sofia. Alberta Heritage Foundation for Medical Research Clinical Investigator Award. Alberta Heritage Foundation for Medical Research. \$700,000 - ongoing
- Hemmelgarn, Brenda. Alberta Heritage Foundation for Medical Research Population Health Investigator Award – 1 year extension
- Hemmelgarn, Brenda. Canadian Institutes of Health Research New Investigator Award
- Hemmelgarn, Brenda . Inaugural Chair. Roy and Vi Baay Chair in Kidney disease Research
- Manns, Braden. CIHR New Investigator. CIHR
- McLaughlin, Kevin. Gold Star teaching award for the Internal Medicine clerkship, 2011
- McLaughlin, Kevin. Letter of Excellence in teaching in Course 4 (Renal, Endocrine, and Obesity), 2011
- Muruve, Daniel. Scholar. Alberta Heritage Foundation for Medical Research
- Muruve, Daniel. Canada Research Chair, Tier II
- Quinn, Robert. CIHR Institute for Health Services & Policy Research Fellowship. Canadian Institutes of Health Research. \$110,000

New Initiatives/Innovations (e.g. Curriculum, Courses, Simulation, Technology, etc.)

Hemmelgarn, Brenda. Innovation program - CKD outreach clinic. Set up a clinic at SikSika for patients at high risk of developing kidney disease. Trained a nurse practitioner to run this clinic. Supervise this clinic from a distance, weekly (by phone / pager if required). Meet weekly to biweekly to review patients.

ADMINISTRATION

Leadership:

- a) Local - Dr. Manns – Alberta Blue Cross special committee on Anemia in CKD
- b) National – Dr. Brenda Hemmelgarn - Chair of Hypertension Guidelines - Canadian Hypertension Society
- c) International – Brenda Hemmelgarn – Member of KDIGO CKD guidelines committee

Strategic Planning: Pharmacogenomics and Knowledge Translation.

CANN-NET – Canadian Society of Nephrology lead knowledge evaluation and translation as well as trials design to fill in knowledge gaps – Dr. Manns is National PI with CIHR funding of > \$1 million. Drs. Scott-Douglas, Hemmelgarn and Bass are extensively involved

Fundraising: Source and dollar value

Section of Nephrology with the help of the Kidney Foundation of Southern Alberta raised just over \$650,000 this past year during the Kidney March as part of the five year goal of \$8 million.

CHALLENGES AND FUTURE DIRECTION

Challenges

1. Space for Physician Offices and support staff.
2. Funding for implementation of Dialysis Measurement and Reporting (DMAR) pilot
3. Funding for expanding Home dialysis therapies and In-centre Nocturnal hemodialysis
4. Continued expansion of and alignment with the Northern Alberta Renal Program
5. Cut in medical support staff numbers by AHS
6. Severe budget limitation to the delivery of Renal Services across Alberta

Future Directions

1. Recruitment 2 new researchers in 2013-15
2. Expand evidence-based indications and research in Therapeutic Apheresis
3. Expansion of Basic Science research
4. Expanding Telehealth

Section of Respiratory Medicine – Annual Report April 1, 2012 to March 31, 2013

The Section of Respiriology is delighted to report on our accomplishments for 2012. We have had an exciting and productive year. While there have been a great many changes, and many successes, the Section is also facing a number of significant challenges, which we face with hope, optimism and determination.

The Section consists of 32 full members and 10 associate members based at four hospital sites and private clinics within Alberta Health Services/Calgary Zone. Eight members are University Geographic Full Time, while 24 are University Major Part Time or in Private Practice. The Section provides continuous consultative service and inpatient ward service at four acute care hospitals, while maintaining a very busy outpatient clinical service across the region. Additionally, members of the Section report all pulmonary function tests at the four hospital sites and provide TB services for the region. The Section also has an excellent record of academic productivity, and provides important administrative functions within the Department.

CLINICAL

Members of the Section are one of Canada's leaders in Sleep Medicine. Under the direction of Dr. Pat Hanly, and with the assistance of Drs. Ward Flemons, Willis Tsai, Kris Fraser, Sachin Pendharkar, Andrea Loewen and Dina Fisher, The Sleep Centre has developed a unique and successful working relationship in the assessment and management of Sleep Disordered Breathing within the Calgary Zone. This has improved patient access to diagnosis and treatment both for uncomplicated obstructive sleep apnea and more severe sleep disordered breathing, and has reduced waiting lists. This is the first time that this Public Private Partnership with home care companies has been employed in Canada. The fellowship program in Sleep Medicine continues to offer one position annually. Dr. Marcus Povitz is the current sleep fellow.

The Interventional Pulmonary Medicine Service is one of only two such services in the country. Dr. Alain Tremblay is the leader of this program, and along with Drs. David Stather, Paul MacEachern and Alex Chee, is using a variety of innovative tools and techniques including endobronchial ultrasound, permanent and removable stents, and indwelling pleural catheters. Helped by private donations, this program has been able to purchase the equipment necessary to perform this highly technical and ground-breaking service. The Service is also dedicated to training young respirologists. Dr. Jacob Gelberg completed his training and Ashley Gilson began her fellowship in Interventional Pulmonary Medicine in July.

The Calgary Asthma and COPD Program is nationally recognized for providing a cohesive service that links together family physicians offices, hospitals, and emergency departments. Dr. Richard Leigh leads this team of dedicated health care providers, including physicians, respiratory therapists, kinesiologists and nurses. Dr. Leigh, with the help of Dr. Warren Davidson, and with the assistance of Innovation Initiative Funding, has established a program for assessing sputum inflammation and is being incorporated into the standard management of patients.

The Section of Respiriology has also established an Interstitial Lung Disease Program. Dr. Charlene Fell is the leader of this program and along with Dr. Sharon LeClerq (Rheumatology) and Dr. Kerri Johansson, with the assistance of Dr. Brent Winston, the Program provides integrated radiologic and pathologic diagnostic services, pharmacologic treatment and clinical trials. This is an exciting and developing program.

RESEARCH

Advanced Fellowship and Training

The GlaxoSmithKline Advanced Fellowship Training Program continues to be highly successful. As the field of respirology advances, it has become clear that the only way we can meet our goals is to recruit faculty that possess highly specialized training in focused areas. It is to this end that the Advanced Fellowship was established. While there are outstanding opportunities to fund predominately research experiences (such as AIHS or CIHR), the opportunities to support a balanced, advanced clinical and academic experience are not available. With the goal of providing the highest quality of respiratory care, innovation and research in Canada, and the ability to fund balanced clinical and research-training experience we hope to develop true clinical and academic excellence in many areas. The past and current participants of the program include:

Dr. Naushad Hirani	Pulmonary hypertension
Dr. Charlene Fell	Interstitial lung disease

University of Bologna
Univ. of Michigan (Funded by AHFMR)

Dr. Julie Jarand	Mycobacterial Diseases	University of Colorado and University of Cape Town
Dr. Paul MacEachern	Interventional Pulmonology	University of British Columbia and Thoraxklinik, Heidelberg, Germany
Dr. Tom Lim	Occupational Medicine	University of Toronto
Dr. Mike Roman	Exercise Physiology/Testing	San Diego
Dr. Erika Penz	Health Policy	York University, UK
Dr. Mitesh Thakrar	Lung Transplantation	Newcastle, UK
Dr. Kerri Johansson	Epidemiology of Air Pollution	University of Southern California

Pending

Dr. Natasha Sabur	Mycobacterial Diseases	Johns Hopkins Medical School
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The Section has initiated the Academic Training and Renewal Program (ATRP), which is sponsored by Boehringer Ingelheim and Pfizer. The goal of the program is to provide funding for Major Clinical Faculty to pursue an area of academic or educational interest. Dr. Kris Fraser has gone to Australia to pursue cognitive load theory in medical simulation, and Dr. Karen Rimmer has gone to Australia to pursue neuromuscular disease and noninvasive ventilation.

EDUCATION

The individual contribution of Members resulted in the publication of 122 papers, abstracts and book chapters. This is an increase of 7% over the previous year. More than 100 presentations were given, and Section Members received over \$2.4M in research support.

While it is not possible to mention each report, it is worth highlighting some of these publications, which demonstrate the breadth of academic activity in the Section.

Dr. Mike Roman published “Noninvasive assessment of normality of VD/VT in clinical cardiopulmonary exercise testing utilizing incremental cycle ergometry” in the European Journal of Applied Physiology. This paper is an important contribution to the field of clinical exercise testing.

Dr. Pat Hanly published an important contribution entitled “Declining kidney function increases the prevalence of sleep apnea and nocturnal hypoxia” in Chest. This paper is an important advance on the interaction between sleep apnea and kidney function.

Drs. Kerri Johansson, Chris Mody and Warren Davidson published “*Cryptococcus gattii* pneumonia” in the Canadian Medical Journal, which is an important contribution to the latency of this devastating disease.

Drs. Chee, Stather, MacEachern, Field, and Tremblay published “Cytologic assessment of endobronchial ultrasound guided transbronchial needle aspirates in sarcoidosis” in the Journal of Bronchology and Interventional Pulmonology. This paper is a major advance in the diagnosis of sarcoidosis.

Dr. Richard Leigh published “Rhinovirus induced MMP-9 expression is dependent on Fra-1, which is modulated by formoterol and dexamethasone” in the Journal of Immunology.

Based on a prior needs assessment, the Section has been focusing on Academic activity and Research. We held a highly successful annual retreat focusing on research that was lauded by both fellows and faculty. In 2012 there was a 27% increase in the number of individual contributions to peer reviewed publications, and increase in the number of book chapters a 27% increase in presentations and a 29% increase in grant support.

ADMINISTRATION

South Health Campus

Respirology is a core service at the new South Health Campus, which officially opened its doors on September 6th. Full respirology clinics are present at SHC including PFT testing. The emergency department and a short stay unit opened on January 14th. The Section has been offering consultative services to those units as well as a growing out patient practice. Dr. Charlene Fell is the Section Site Chief at South Health Campus and she is joined by her colleagues, Dr. Alex Chee, Dr. Tom

Lim, Dr. Erika Penz and Dr. Kerri Johannson. The Section is actively recruiting Members to the South Health Campus to achieve a critical mass of respirologists, which is the model for Respirology at all sites. In the meantime, Section Members have agreed to supplement the call schedule so that Respirology is providing 24/7 consultative coverage. This agreement with the Department of Medicine is for 2-years, until additional members can be recruited. The Department of Medicine ARP is an essential element of staffing and recruitment to the South Health Campus during recruitment to a critical mass of respirologists.

Alberta Health Services

This has been a year of great change at AHS. Dr. Chris Eagle remains the CEO and continues to pilot the system through difficult times. Despite the commitment to fund health care mentioned in the popular press, actual funding seems more constrained, and I fear that it will get worse before it gets better. Inpatient services are running at unsustainable levels of overcapacity. We must work hard to avoid counterproductive behaviors between our group and our physician colleagues. The first six Strategic Clinical Networks (which do not include respirology) have been implemented, and are working toward success. Dr. Tom Noseworthy and Tracy Wasylak continue to function as the dyad for the Strategic Clinical Networks. It now seems likely that the second six networks (which will include respiratory) will be delayed. Despite this anticipated delay, the former Respiratory Network continues to enjoy the support of AHS and is doing excellent work in the area of Asthma, COPD and Sleep.

University of Calgary

Dr. John Meddings has begun his appointment as Dean. Many of us know John as a clinical colleague and as the former GI Section Chief. There are some very tough decisions to be made, and we look forward to John's transparent style that will benefit the Faculty of Medicine.

It has been a time of great change at the University. The plan for dealing with termination of the Alberta Heritage Foundation continues to evolve and this has had widespread consequences for recruitment. The challenge will be to continue to renew the faculty with young investigators, scientists and teachers.

The University remains committed to the "Eyes High" goal. The Eyes-High initiative sets the goal of the University of Calgary to be among the top 5 universities in Canada by 2016. The Faculty faces great challenges to achieve this goal in an environment of almost certainly will include budget cut backs.

Recruitment

Drs. Tom Lim (SHC) and Brandie Walker (FMC) have joined the Section as faculty members. We also welcome Dr. Kerri Johannson as a Clinical Scholar.

Dr. Lim completed an advanced fellowship (funded by the Section and Helios) in occupational pulmonary medicine with Susan Talo at the University of Toronto. He has also had additional training in respiratory exposure chamber work. Dr. Lim will join the Section at South Health Campus where he plans to bring expertise in the area of occupational asthma.

Brandie Walker MD, PhD completed her additional training in the laboratory of Dr. David Proud and Richard Leigh (funded by Allergen NCE). She joins the Section with an interest in airways disease, and has already begun to collaborate with AHS to develop models that optimize health care. Dr. Walker will be joining the Section at Foothills Medical Centre.

Dr. Erika Penz is a Clinical Scholar. Building on considerable experience in health policy before pursuing her clinical career, she has now returned from York University, UK where she studied health economics. She returned in the summer and will continue her Clinical Scholarship under the mentorship of Dr. Braden Manns.

Dr. Kerri Johannson began her Clinical Scholarship. She is currently working toward a Master's degree in Public Health (Environmental Health Sciences) from the University of California at Berkeley. She is also a Clinical/Research Fellow in the Interstitial Lung Disease Program in the Department of Pulmonary Medicine at the University of California at San Francisco. Her supervisors for this training are Dr. Harold Collard and Dr. John Balmes, two of the most highly respected clinician scientists in interstitial lung disease and environmental pulmonary medicine respectively.

The Section subcommittee on strategic priorities has completed its work. The report of that committee set the priorities: Clinician Scientist in Airways Disease, Mycobacterial Disease, Mid level (Clinical) Associate Professor for SHC, Sleep, Neuromuscular Disease or Transplant.

Awards

While it is impossible to mention all of the awards received by Members of the Section, it is worth highlighting a few. Dr. Sachin Pendharkar was awarded the Governor General's Gold Medal for outstanding scholastic achievement. Dr. Kris Fraser was awarded the Terry Groves Award for Clinical Excellence. Dr. Richard Leigh received the Lorraine Award of Excellence from the Lung Association of Alberta and NWT. Dr. Flemons received a Gold Star award for Undergraduate Medical Teaching. Dr. Alex Chee received the Geoffrey McClennan Memorial Award for Contributions to Imaging Research and Dr. David Stather received the Alberta Health Services President's Excellence Award for Outstanding Achievements in Quality and Safety Improvement.

We have two endowed professorships within the Section, the GSK-CIHR Professorship in Inflammatory Lung Disease (Leigh) and the Jessie Bowden Lloyd Professorship in Immunology (Mody).

CHALLENGES AND NEW DIRECTIONS

The Section has been increasing its activity at a rapid pace. Clinical activity increased by 8% in the last year and the average full time Section Member is working 1.26 FTE. Recruitment is necessary to sustain this level of service. We also need to increase the number of University Geographic Full Time members. Over the next 5 years, we hope to have 1/3 of our members with a GFT appointment. We will need to recruit 1 member to replace a GFT retirement and an additional 3 GFT faculty to establish this ratio (4 GFT). Moreover, to replace other retirements and provide a critical mass of respirologists at 4 sites (including the new South Health Campus), a total of 8 respirologists will need to be recruited over the next 5 years.

Provision of outpatient services continues to be a pressing problem. Clinic space at three sites (UCMG, RGH and PLC) is insufficient. More outpatient offices are needed. A system of central triage is in place, but there are many challenges. Despite these systems, clinic operations remain inefficient and much time is spent suboptimally. Some of the sites have a number of problems with the handling of charts.

In conjunction with the new central triage system, we urgently need a coordinated system of booking patients, tests, and appointments across the region. A pilot program has been introduced at the PLC, but for the most part, each individual respirologists' secretary is performing these tasks. The system is cumbersome, complex and has great potential for misadventure. A streamlined, coordinated central system would increase the efficiency of providing services, in addition to being required to respond to sudden or emergency changes in provision of services.

The development of Netcare (the provincial database for laboratory results, diagnostic imaging and pharmacy) has been a significant benefit to the Section. It would be of tremendous benefit to have province wide pulmonary function results available on Netcare. Moreover, the Department of Medicine is without an electronic medical record, hence this results in inefficiencies. A new electronic medical record system for the Department of Medicine will need to be identified.

Provision of community services needs to be improved. While great progress has been made, we are still only touching a small fraction of the patients with chronic respiratory illness. Medical staff barely manages their present load. We are not in a position to provide the community rehabilitation, spirometry, patient diagnostic and educational programs that conform to guidelines established by the Canadian Thoracic Society and identified as a priority for the Section.

The Section of Respirology looks forward to the future with enthusiasm. We anticipate that we will be able to continue to provide exemplary service and care, and improve upon the academic and investigative initiatives of the Section.

Section of Rheumatology – Annual Report April 1, 2012 – March 31, 2013

CLINICAL

Physician Manpower/Service Sites

The Section of Rheumatology provides an integrated musculoskeletal program of clinical care using a patient centered collaborative care model with rheumatologists, nursing and allied health professional staff in Southern Alberta.

Our catchment area includes the southern half of Alberta to Red Deer and extends into southeastern British Columbia and southwestern Saskatchewan. The Section of Rheumatology currently delivers services through a multisite model. Our main sites include the Rheumatology Clinic at Richmond Road Diagnostic Treatment Centre (RRDTC), the South Health Campus (SHC), the Peter Lougheed Centre (PLC), and our 5 community-based private office practices. Ancillary clinics are offered in collaboration with the Calgary Urban Projects medical clinic, the Siksika Nation and Stoney Health Centres along with the Southern Alberta Eye Centre. The section also provides consultative services to all the hospitals in the Calgary zone on a 24 hour basis.

Our service underwent two major moves in late 2012, with the main clinic moving from the Foothills Medical Centre to the new outpatient facility at Richmond Road Diagnostic Treatment Centre in November and our colleagues at the Rockyview General Hospital moving to their new space at South Health Campus in early December. Both moves were successful as a result of a collective effort on behalf of AHS management, the Section physicians and administrative staff and the support of the Department of Medicine and their personnel.

The Section of Rheumatology has 18 clinically active members, led by Dr. Dianne Mosher as Section Chief. Members are divided into four categories: 5 GFT's, 10 full time clinical members, 2 part-time clinical members and 2 clinical scholars. In addition, we have a part-time nurse practitioner (NP) who provides clinical service at the RRDTC clinics two half days a week. New members to our clinical service include Dr. Glen Hazlewood, our clinical scholar who joined us last fall and Dr. Elzbieta Kaminska from Hamilton who joined in October 2012.

The RRDTC site acts as the hub of our Section's clinical activities where 8 of our physicians provide over 30 half day clinics per week with the support of our interdisciplinary allied health team. With the addition of two part time clinical members to our service, they collectively saw over 20,000 patient visits in 2012. The RRDTC site also hosts our Section Biologics Clinic where patients with severe inflammatory arthritis are managed and treated with biological agents by our specialized physician-nurse teams. This comprised a further 3 to 4 half-day clinics providing an additional 1500 clinic visits.

At the RGH site (prior to the move) two full time rheumatologists provided 8.5 clinics per week with the support of 1.5 FTE nursing staff and had a volume of over 6500 patient visits in 2012. The PLC site was serviced by one rheumatologist who does two to three half day clinics a month.

Over this past year the Section has continued to experience serious challenges in our ability to cope with the increasing volume of patient referrals due to our limited physician manpower situation. In 2013 we are also faced with the retirement of two long time community practitioners who have large practices. Compounded with the patients we are still trying to provide care for, from Dr. Choi's untimely passing in 2012.

Ongoing recruitment of physicians remains a priority within the Section. We are pleased to welcome in September 2013 Dr. Ann Clarke from McGill/Montreal General Hospital. Dr. Clarke arrives with a long list of accomplishments both in the clinical sphere and in the areas of health outcomes research with a focus on systemic lupus and allergy.

Section Programs / Specialty Clinics

The Section's Central Triage Program acts as the point of entry for all referrals to the Rheumatology service. Once received, referrals are assessed and triaged by an experienced nurse clinician. This process has resulted in coordinated care across our catchment area and is a model that has been used for the management of referrals by other Sections within the Department of Medicine.

In 2012, we received approximately 6,900 new patient referrals to our Central Triage program, this equates to around 575 per month. Central Triage is managed by our nurse clinician, with two part time nursing staff and two unit clerks assisting. Since its inception in 2006, over 36,000 patients have been triaged and tracked in our centralized database system.

The central triage program's wait time goals continue to be challenged both by the increasing number of patient referrals and the demands on our physician workforce. In 2011, our wait time goals were as follows: Early Inflammatory Arthritis clinic – 2.5 weeks, Urgent referrals – 1.5 weeks, semi-urgent referrals – in 4 weeks, moderate referrals – up to 10 weeks, moderate/routine referrals – up to 52 weeks and routine referrals - up to 2 years. The longer wait times for moderate and routine referrals exists due to increased volume and no change to physician manpower.

Our goal of shorter wait times across all referral categories has led to the formation of several sub-specialty clinics within our service model. These include the Early Inflammatory Arthritis Clinic, Ankylosing Spondylitis Clinic, Nurse Practitioner Clinic, the Urgent Assessment Clinic, Biologics Clinic and the Young Adults with Rheumatic Disease Clinic (YARD).

The Nurse Practitioner clinic, led by Jim Rankin recorded another successful year. In this specialized clinic the NP's major role is as a care provider, coordinator and evaluator of the care plan of individuals, families and/or communities within the rheumatology area of practice. Discussions are underway to expand this clinic in 2013/14.

Our Ankylosing Spondylitis/Spondylarthropathy clinic started in January 2010 and continues to be led by Dr. Dianne Mosher. Dr. Olga Ziouzina from the community also participates and is supported by physiotherapy, social work and nursing expertise from our Section.

Our partnership with the pediatric rheumatologists at the Alberta Children's Hospital to transition care of adolescents to the adult health care system in the YARD continues to be a success. Drs. Nicole Johnson and Paivi Miettunen from pediatric rheumatology along with Drs. Anne-Marie Crawford, Elzbieta Kaminska and Dianne Mosher from the adult rheumatology side run the clinic. This clinic continues to draw attention from our rheumatology colleagues across Canada, as a model that promotes continuity of care by systematic transfer of care to adult rheumatology. We look forward to Dr. Susanne Benseler joining our group this fall from Toronto.

The Section continues to run its cornerstone Biologics Clinic and Pharmacovigilance Registry program at all sites. Led by Drs. Liam Martin and Susan Barr, the purpose of this clinic is to manage patients with inflammatory joint diseases who are being treated with biologic disease modifying agents. Currently we have over 1500 patients who are attending this clinic annually. The program is unique both nationally and internationally in that it collects clinical data prospectively. This data continues to be significant to the rheumatologists from several perspectives providing our researchers with a rich source for studying various aspects of biologic therapies.

The move to Richmond Road and South Health Campus in 2012 was coupled with a move and adoption of new information systems. This included a transition of EMR from EMIS to SCM and the adoption of the Cerner-Millennium scheduler at RRDTC and SHC. These new systems allow us to track wait times for those patients seen at RRDTC, SHC and PLC. Unfortunately, as the community based physicians use their own scheduling systems, we are unable to calculate wait times on all of our patient population collectively. We continue to set the goal of having our physicians move to an EMR from paper charts.

The Section is also involved in discussion and planning on how to transition our Central Triage database, currently on a Microsoft Access platform to a more reliable and robust platform. With provincial initiatives underway including e-referral, we are looking to adopt these new technologies to increase access to our service.

RESEARCH

The Section of Rheumatology holds two chair positions in the Faculty of Medicine at the University of Calgary.

In the fall of 2012, Dr. Deborah Marshall was named the Arthur J.E. Child Chair in Clinical Epidemiology Research. Established in 2005, the Chair's mandate is to build a world-class program of translational research in rheumatology with a focus on clinical and health outcomes research. Dr. Marshall wants to develop a program of evaluative research around bone

and joint health to improve patient health and to transform the delivery of health care to improve access, effectiveness and efficiency.

Dr. Marshall is a professor in the Department of Community Health Services. She is also a member of the McCaig Institute for Bone and Joint Health, the Alberta Bone and Joint Health Institute and the Institute of Public Health. She was recently renewed as the Canada Research Chair, Health Systems and Services Research until 2018.

One of Dr. Marshall's main initiatives has been to spearhead the development of a five-year research plan for the Section of Rheumatology. This focused research plan will be finalized and launched in October of 2013.

The Arthritis Society Research Chair is an endowed chair from the Arthritis Society started in 1989. Dr. Marvin Fritzler continues in this position in 2012/2013, and has used this position to further research into the identification of novel auto antigens that are the targets of the immune response in a number of autoimmune diseases including systemic lupus erythematosus, scleroderma, Sjögren's syndrome, idiopathic ataxia and rheumatoid arthritis.

In September 2013, Dr. Fritzler will step down from this position and the new chair, Dr. Ann Clarke will assume the role. Dr. Clarke, hailing from McGill University is a respected health outcome researcher in the areas of systemic lupus and allergy.

Dr. Fritzler was honored once again in 2012, being named the recipient of CIHR-CMAJ Distinguished Achievement in Health Research Award from the Canadian Institutes of Health Research, and receiving the Outstanding Service to the Alberta Science and Technology Community from the ASTech Foundation. These awards were as a result of his work in the discovery of novel autoantigens, which has led translated into new diagnostic assays or biomarkers that are in wide use in clinical diagnostic and research laboratories around the world.

Dr. Aurore Fifi-Mah, one of our newer Section members with an interest in vasculitis has started the Southern Alberta Vasculitis Patient Registry. Working with both our Section members and now the Alberta Children's Hospital Rheumatology group, Dr. Fifi-Mah hopes to begin characterizing this patient population and use the registry as a springboard for other biomarker and outcomes research projects.

The Section has two Clinical Scholars working on their PhD programs in 2012/2013. Dr. Claire Barber is focused on developing an online consensus platform through which stakeholders and experts in diverse fields will be brought together to suggest critical domains for cardiovascular risk evaluation and management in patients with R.A. Dr. Glen Hazlewood is our newest Section rheumatologist; his PhD thesis is centered on designing a protocol to measure patients' preferences for the relevant aspects of the treatment choice, through a discrete-choice experiment.

Another area of focus is fostering a strong involvement of our Section researchers in the McCaig Institute for Bone and Joint Health in the areas of outcomes research and clinical trials. The McCaig Institute's clinicians and researchers come from diverse backgrounds such as engineering, health service delivery, medicine, kinesiology and science, and are able to investigate questions and find solutions to complex problems about arthritis and bone and joint injury. Our continued involvement with the McCaig Institute is central to our Section's research mandate.

The Section also has a long established Clinical Trials Program led by Dr. Liam Martin. These pharmaceutical sponsored clinical trials of novel anti-rheumatic therapies are conducted with the assistance of a dedicated research nursing staff. Much of the work is focused on biological drugs which have been developed to target the cytokine mediators, such as TNF, IL-1 and IL-6, involved in the inflammatory process.

INNOVATION

An integrative approach for translating research to improve musculoskeletal health

We are pleased to announce that several of our Section members have received a Canadian Foundation for Innovation (CFI) grant in the amount of \$4,739,000. Led by Dr. Steven Boyd of the McCaig Institute, this multi-disciplinary team will focus on developing and validating improved, early diagnosis techniques for the top three MSK diseases, advance better therapeutics for their treatment, and with partners embedded in Alberta's health system, implement novel health care solutions for every Albertan.

Ultrasound Imaging Technology

In this past year, several Section members have engaged in ongoing learning partnerships both in Canada and in the UK to explore the use of ultrasound in Rheumatology and specifically how to incorporate this new technology into our clinical settings. Dr. Martin has led collaboration with Dr. Phil Platt of Freeman Hospital and University of Newcastle, Newcastle-upon-Tyne that focuses on knowledge transfer of ultrasound technology and application of ultrasound imaging in musculoskeletal disease and how to perform ultrasound examination of the hand and knee. With this technology, physicians can “see” inside the joint in real time and find indications of active inflammation or fluid—indicators that are often hard to find by palpation or visual assessment alone, aiding in diagnosis and treatment. We are making plans for Dr. Platt to come for an extended period to teach and mentor Section members.

High Resolution peripheral quantitative computed tomography (HR-pQCT)

Dr. Cheryl Barnabe is working with the SPECTRA collaboration to bring together investigators from Germany, Switzerland, France, the USA, Vancouver and ourselves to develop a network who would bring forward High Resolution peripheral quantitative computed tomography (HR-pQCT) as a novel application to study inflammatory and non-inflammatory peripheral arthritis conditions.

Dr. Barnabe organized and hosted the SPECTRA group here at the University of Calgary in November 2011 and new investigators will be joining the collaboration from the Netherlands, Toronto and Michigan. Next steps include embarking on a multi-site project to standardize the definition of erosion, and proceeding with an application for official recognition as a Special Interest Group with OMERACT, which will allow the group to gain the appropriate traction for proving the validity and applications of the technology.

Immune Mediated Inflammatory Disease (IMID)

The Sections of Gastroenterology and Rheumatology hosted a conference in Spring 2012 focused on IMID. There are many joint interests and projects being explored between the two groups of physicians and researchers – focused on but not limited to IBD and ankylosing spondylitis. In addition to the research agenda, there are ongoing talks regarding joint clinics to share clinical expertise and better serve these patient populations.

Calgary Foothills Primary Care Network

Our partnership with the Foothills Primary Care Network continues to flourish in 2012/2013. The MSK Clinic, run weekly in the community, and the telehealth sessions has been a great success and there are now talks of replicating the model to other PCN's in Calgary. Its goal is to develop and establish new pathways of care using a clinical nurse specialist model and physiotherapist screener to improve access, care and communication with our Primary Care colleagues – thereby increasing access to specialty care in a timely manner.

Alberta Bone and Joint Strategic Clinical Network

Drs. Sharon LeClerc and Dale Sholter from Edmonton are co-chairing of the Arthritis Working Group, under the Alberta Bone and Joint Strategic Clinical Network. Rheumatology's work with the ABJN and the ABJI is to be centered around developing innovative, sustainable bone and joint health care models that are patient-centered, significantly improve access, and advance research and knowledge to ensure the care patients receive is effective.

Over the past year Drs. Dianne Mosher and Sharon LeClerc along with our nurse clinician Theresa Lupton have been working extensively on the Osteoarthritis systems modeling project with Dr. Deborah Marshall and now there are plans to start work on a Rheumatoid Arthritis Systems modeling project in the near future.

Health Outcomes Research in First Nations People

Dr. Cheryl Barnabe is developing a program in health outcomes research in First Nations people. Dr. Barnabe was the successful recipient of several research awards in this past year including a Canadian Institutes of Health Research (CIHR) award for her project on 'Arthritis in First Nations People in Alberta: Prevalence and Health Care Utilization'. She also received a Canadian Initiative for Outcomes in Rheumatology Care (CIORA) grant for 'Access and Utilization of Healthcare for Rheumatoid Arthritis in Aboriginal People in Alberta' and an Osteoarthritis Alberta Team Grant from Alberta Innovates-Health Solutions for her project 'Aboriginal Albertans' Perceptions of Health Service Delivery for Osteoarthritis and Total Joint Replacement'.

EDUCATION

The undergraduate medical teaching program comprising of the Musculoskeletal and Skin course was once again led in the Fall of 2012 by Dr. Gary Morris. Dr. Morris coordinated and scheduled both the site based and community based Section members to teach the course content and small group sessions over the six week period.

Dr. Chris Penney continues in his role coordinating the Section's CME and the Clinical Clerks programs. The clinical clerks continue to experience over 30 hours per week in the varied rheumatology clinics. Dr. Penney also continued to offer his weekly teaching session that is focused on the GALS screening examination. These are open to all trainees and allied health staff and are aimed at improving the examination of the musculoskeletal system in patients.

Our annual CME event for family physicians focused on case-based learning on the topics of MSK examination, gout, complex osteoarthritis and treatment of common non-articular rheumatic syndromes.

The Post Graduate Medical Education program is led by Dr. Susan Barr. We were successful in the CaRMS residency matching system this year and have two new residents starting their specialty fellowship in July 2013.

In addition, the Section PGME program hosted its first Resident Weekend in May 2013, 12 PGY1 and PGY2 residents attended the weekend program on MSK examination skills and exposure to the discipline of Rheumatology. This program was very successful and plans are underway to host again in 2014.

The Section received several teaching excellence awards from the University of Calgary in 2012/2013, these were awarded to Drs. Steve Edworthy, Sharon LeClercq, Liam Martin, Gary Morris and Dianne Mosher.

Dr. Marvin Fritzler applies his wealth of clinical and research experience in the areas of autoimmune disease and novel diagnostic technologies to teaching in both the University's undergraduate and graduate teaching programs. At the undergraduate level, Dr. Fritzler taught in the Department of Biological Sciences CMMB537 course which focuses on autoimmunity and laboratory investigations. At the graduate level, his teaching focuses on autoimmunity and lupus in the IMM7 block teaching. He is also actively involved in the McCaig Institute's research seminar series for graduate students and is actively engaged in mentoring young researchers and clinician scientists.

Dr. Cheryl Barnabe graduated with her Masters in Clinical Epidemiology in Community Health Sciences with a focus on Aboriginal Health issues and is now an Assistant Professor in the Department of Medicine.

Section wide activities include weekly Academic Rounds for all staff and trainees and are organized by Dr. Gary Morris. Our Allied Health Group organizes Rounds twice a month coordinated by Theresa Lupton our Central Triage nurse clinician.

CHALLENGES AND FUTURE DIRECTIONS

The Section and its membership have been working hard on our Five Year Business and Research Plan and plan to release it in September 2013. The plan will address sustainability and provides for long-term growth of the program, identify recruitment strategies for attracting new physicians and fellows to the Section, and outlines the engagement plan for linking research silos across the Section and to other organizations including Alberta Health Services' Bone and Joint Strategic Clinical Network.

Delivering care to patients with complex chronic disease requires a team of dedicated health care providers and support staff. We are privileged to have such a group of professionals within the Department of Medicine. With the increasing number of patients with arthritis expected, it is prudent that we explore and continue to develop team based models of care. Recruitment and retention of both allied health care and support staff continue to remain a priority.

The strength of our Section, as we move forward will be in the collaborations we build with our partners in clinical care and research groups as outlined above. Building on our innovative health care delivery models that we are known for, we will continue to look for ways to build capacity and work smartly in all our endeavors.

**Department of Medicine- Statistics/Demographics
April 1, 2012 to March 31, 2013**

Primary Division	Male		Female		Gender Not Specified	AGE Average	
	Count	%	Count	%	Count	Male	Female
Dermatology	17	68.0%	8	32.0%		50.3	43.4
Endocrinology & Metabolism	11	50.0%	11	50.0%		48.8	34.4
Gastroenterology	32	62.7%	19	37.3%	1	42.8	34.3
General Internal Medicine	45	62.5%	27	37.5%	1	42.9	41.6
Geriatric Medicine	6	54.5%	5	45.5%		51.7	36.3
Haematology	12	48.0%	13	52.0%		46.9	32.3
Infectious Diseases	16	76.2%	5	23.8%		46.0	41.3
Nephrology	20	69.0%	9	31.0%		44.1	39.9
Respirology	24	66.7%	12	33.3%		44.8	36.7
Rheumatology	9	42.9%	12	57.1%		54.6	51.2
Total	192	61.3%	121	38.7%	2	45.7	39.6

Primary Division	Total Members	ARP Members	Secondary Division	Total FTE	ARP FTE	Recruits	Resignees
Dermatology	25	5		25	5	4	
Endocrinology & Metabolism	22	17	2	21	16	3	1
Gastroenterology	52	35	4	49.3	32.3	22	2
General Internal Medicine	73	34	7	70	31	26	2
Geriatric Medicine	11	10	1	8.1	7.1		1
Haematology	25	18	5	20	13	8	2
Infectious Diseases	21	16	6	19.81	14.81	2	
Nephrology	29	19	2	28	18	7	2
Respirology	36	27	5	32.94	23.94	12	1
Rheumatology	21	20	1	17	16	5	
Total	315	201	33	291.741	177.741	89	11

**Table 3:
University
Affiliation**

	Dermato logy	Endocrinolog y & Metabolism	Gastro- enterolo gy	General Internal Medicin e	Geriatric Medicin e	Hematolog y	Infectiou s Diseases	Nephrolog y	Respirolog y	Rheu m- atolog y	Tota l
Assistant Professor	1	2	5	1		1	1	6	2	1	20
Associate Professor	1	1	6	4	2	2	2	6	2	1	27
Clinical Assistant Professor	8	7	17	33	4	12	10	8	17	3	119
Clinical Associate Professor	6	3	5	12	1	3	3	4	4	6	47
Clinical Lecturer	6	2	6	13	1	1		1	4	1	35
Clinical Professor			1	2	2	2	1		2	2	12
Clinical Scholar			3	1		1			1	2	8
Clinician				1							1
Not Specified	2	1	1	2				1			7
Professor		5	7	4	1	2	4	3	4	4	34
Professor (Tenured)	1	1	1			1				1	5
Total	25	22	52	73	11	25	21	29	36	21	315

Recruitment and Departures 2012 - 2013

Recruitment - New Recruits

Primary Section	Last Name	First Name	Start Date	ARP Member	University Appointment
General Internal Medicine	Purdy	Anna Carolyn	1 July, 2012	FALSE	Clinical Assistant Professor
Nephrology	Mortis	Garth Patten	1 July, 2012	FALSE	Clinical Assistant Professor
Cardiology Level2	Hansen	Jim	1 July, 2012	FALSE	Clinical Assistant Professor
Haematology	Lategan	Johannes C	1 July, 2012	FALSE	Clinical Assistant Professor
General Internal Medicine	Godinez-Luna	Tomas	1 July, 2012	FALSE	Clinical Assistant Professor
General Internal Medicine	Feng	Xiumei	1 July, 2012	FALSE	Clinical Assistant Professor
General Internal Medicine	Westra	Yolande	1 April, 2012	FALSE	Clinical Assistant Professor
Cardiology Level1	Schnell	Gregory B.	1 July, 2012	FALSE	Clinical Associate Professor
Dermatology	Cohen	Howard B.	1 July, 2012	FALSE	Clinical Associate Professor
General Internal Medicine	Yau	Jonathan	1 July, 2012	FALSE	Clinical Associate Professor
Nephrology	Scott-Douglas	Nairne	1 July, 2012	FALSE	Clinical Associate Professor
Gastroenterology	Blustein	Philip K.	1 July, 2012	FALSE	Clinical Associate Professor
General Internal Medicine	Singh	Ram R. (Paul)	1 July, 2012	FALSE	Clinical Associate Professor
Respirology	Tsai	Willis	1 July, 2012	FALSE	Clinical Associate Professor
Gastroenterology	Cleary	Cynthia	1 March, 2013	FALSE	Clinical Lecturer
Gastroenterology	Cheng	Edwin James	1 July, 2012	FALSE	Clinical Lecturer
General Internal Medicine	Groschaus	Horacio	1 August, 2012	FALSE	Clinical Lecturer
Gastroenterology	Bailey	Jennifer Lyn	1 July, 2012	FALSE	Clinical Lecturer
General Internal Medicine	Conradie	Johan	1 July, 2012	FALSE	Clinical Lecturer
Dermatology	Redding	Keith G.	1 July, 2012	FALSE	Clinical Lecturer
Nephrology	Wong	Morley Peter	1 July, 2012	FALSE	Clinical Lecturer
Gastroenterology	Mohamed	Rachid	1 July, 2012	FALSE	Clinical Lecturer
General Internal Medicine	Deol	Sandeep Singh	1 July, 2012	FALSE	Clinical Lecturer
Respirology	Lohmann	Tara	1 November, 2012	FALSE	Clinical Lecturer
Gastroenterology	Price	Lawrence M.	1 July, 2012	FALSE	Clinical Professor
Haematology	Owen	Carolyn	1 April, 2012	TRUE	Assistant Professor
Gastroenterology	Andrews	Christopher	1 July, 2012	TRUE	Assistant Professor
Gastroenterology	Seow	Cynthia	1 July, 2012	TRUE	Assistant Professor
General Internal Medicine	Ma	Irene Wai Yan	1 July, 2012	TRUE	Assistant Professor
Dermatology	Mydlarski	P. Regine	1 July, 2012	TRUE	Assistant Professor

Respirology	Davidson	Warren	1 July, 2012	TRUE	Assistant Professor
Respirology	Tremblay	Alain	1 July, 2012	TRUE	Associate Professor
Endocrinology & Metabolism	Edwards	Alun L.	1 July, 2012	TRUE	Associate Professor
Nephrology	Manns	Braden	1 July, 2012	TRUE	Associate Professor
Gastroenterology	Kaplan	Gilaad	11 April, 2012	TRUE	Associate Professor
Gastroenterology	Burak	Kelly	1 July, 2012	TRUE	Associate Professor
General Internal Medicine	Gibson	Paul S.	1 July, 2012	TRUE	Associate Professor
General Internal Medicine	Sargious	Peter	1 July, 2012	TRUE	Associate Professor
Gastroenterology	Panaccione	Remo	1 July, 2012	TRUE	Associate Professor
Rheumatology	Barr	Susan	1 July, 2012	TRUE	Associate Professor
General Internal Medicine	Jhandir	(M) Faisal	1 July, 2012	TRUE	Clinical Assistant Professor
Nephrology	Bass	Adam Jason	1 August, 2012	TRUE	Clinical Assistant Professor
General Internal Medicine	Boscan	Alejandra	1 September, 2012	TRUE	Clinical Assistant Professor
Cardiology Level1	Grant	Andrew	1 September, 2012	TRUE	Clinical Assistant Professor
Haematology	Daly	Andrew	1 July, 2012	TRUE	Clinical Assistant Professor
General Internal Medicine	Wu	Caren	1 July, 2012	TRUE	Clinical Assistant Professor
Gastroenterology	Nash	Carla Louise	1 July, 2012	TRUE	Clinical Assistant Professor
Respirology	Fell	Charlene	1 July, 2012	TRUE	Clinical Assistant Professor
General Internal Medicine	Banage	Christine L.	1 July, 2012	TRUE	Clinical Assistant Professor
General Internal Medicine	Dunne	Fiona M.	1 July, 2012	TRUE	Clinical Assistant Professor
Endocrinology & Metabolism	Bassyouni	Hanan	1 July, 2012	TRUE	Clinical Assistant Professor
General Internal Medicine	Davis	J Paul	1 September, 2012	TRUE	Clinical Assistant Professor
Respirology	Chan	John	1 July, 2012	TRUE	Clinical Assistant Professor
Gastroenterology	Novak	Kerri	1 July, 2012	TRUE	Clinical Assistant Professor
Haematology	Street	Lesley	1 January, 2013	TRUE	Clinical Assistant Professor
Dermatology	Robertson	Lynne	1 July, 2012	TRUE	Clinical Assistant Professor
Gastroenterology	Kothandaraman	Maitreyi	1 July, 2012	TRUE	Clinical Assistant Professor
Gastroenterology	Curley	Michael Andrew	1 July, 2012	TRUE	Clinical Assistant Professor
Cardiology Level1	Slawnych	Michael P.	1 July, 2012	TRUE	Clinical Assistant Professor
Gastroenterology	Buresi	Michelle Catherine	1 August, 2012	TRUE	Clinical Assistant Professor
Gastroenterology	Gupta	Milli	1 November, 2012	TRUE	Clinical Assistant Professor
Haematology	Shafey	Mona	1 July, 2012	TRUE	Clinical Assistant Professor
Haematology	Rydz	Natalia	1 December, 2012	TRUE	Clinical Assistant Professor
Nephrology	Chou	Sophia H	1 July, 2012	TRUE	Clinical Assistant Professor

Haematology	Thaell	Ted (J.F.)	1 July, 2012	TRUE	Clinical Assistant Professor
Respirology	Lim	Thomas	1 January, 2013	TRUE	Clinical Assistant Professor
Nephrology	Wang	Wendy (Xiangyu)	1 August, 2012	TRUE	Clinical Assistant Professor
Gastroenterology	Leung	Yvette	1 July, 2012	TRUE	Clinical Assistant Professor
Infectious Diseases	Pattullo	Andrew L. S.	1 July, 2012	TRUE	Clinical Associate Professor
General Internal Medicine	Baylis	Barry	1 July, 2012	TRUE	Clinical Associate Professor
Rheumatology	Penney	Christopher	1 July, 2012	TRUE	Clinical Associate Professor
General Internal Medicine	Sam	David	1 July, 2012	TRUE	Clinical Associate Professor
Rheumatology	Kaminska	Elzbieta Anna	1 October, 2012	TRUE	Clinical Associate Professor
Endocrinology & Metabolism	Kline	Gregory	1 July, 2012	TRUE	Clinical Associate Professor
General Internal Medicine	Schaefer	Jeffrey P.	1 July, 2012	TRUE	Clinical Associate Professor
Gastroenterology	Love	Jonathan	1 July, 2012	TRUE	Clinical Associate Professor
Gastroenterology	Ferraz	Jose G. P.	1 July, 2012	TRUE	Clinical Associate Professor
Respirology	Rimmer	Karen	1 July, 2012	TRUE	Clinical Associate Professor
Infectious Diseases	Mah	Manuel W.	1 July, 2012	TRUE	Clinical Associate Professor
Haematology	Duggan	Peter R.	1 July, 2012	TRUE	Clinical Associate Professor
Rheumatology	Le Clercq	Sharon Anne	1 July, 2012	TRUE	Clinical Associate Professor
General Internal Medicine	Huan	Susan	1 July, 2012	TRUE	Clinical Associate Professor
General Internal Medicine	Minty	Evan	1 August, 2012	TRUE	Clinical Lecturer
General Internal Medicine	Sporina	Jan	1 July, 2012	TRUE	Clinical Lecturer
Respirology	Sabur	Natasha	1 November, 2012	TRUE	Clinical Lecturer
General Internal Medicine	Lemaire	Jane	1 July, 2012	TRUE	Clinical Professor
General Internal Medicine	Pollak	P. Timothy	1 July, 2012	TRUE	Professor
Respirology	Hanly	Patrick J	1 July, 2012	TRUE	Professor
Respirology	Cowie	Robert L.	1 July, 2012	TRUE	Professor
Rheumatology	Edworthy	Steven M.	1 July, 2012	TRUE	Professor
Gastroenterology	Coderre	Sylvain P.	1 July, 2012	TRUE	Professor
Respirology	Flemons	Ward	1 July, 2012	TRUE	Professor
Gastroenterology	Beck	Paul L.	1 April, 2012	TRUE	Professor (Tenured)

Departures - Separations

Primary Section	Last Name	First Name	Start Date	End Date	ARP Member	University Appointment
Gastroenterology	Ma	Michael Zenghua	30 June, 2009	31 December, 2012	FALSE	Clinical Assistant Professor
Haematology	Bowen	Thomas John	1 July, 2009	30 June, 2012	FALSE	Clinical Professor
General Internal Medicine	Campbell	Norman R.C.	1 April, 2009	30 June, 2012	FALSE	Professor
Haematology	Hull	Russell D.	1 July, 2007	30 June, 2012	FALSE	Professor (Tenured)

Nephrology	Mustata	Stefan	1 July, 2009	30 June, 2012	TRUE	Assistant Professor
Nephrology	Hemmelgarn	Brenda	1 July, 2010	30 June, 2012	TRUE	Associate Professor
Geriatric Medicine	Holroyd-Leduc	Jayna	1 July, 2009	30 June, 2012	TRUE	Associate Professor
Cardiology Level1	Welikovitch	Lisa	1 July, 2007	30 June, 2012	TRUE	Associate Professor
Cardiology Level1	Kealey	Angela	1 February, 2009	30 June, 2012	TRUE	Clinical Assistant Professor
Gastroenterology	Buresi	Michelle Catherine	1 August, 2012	31 March, 2013	TRUE	Clinical Assistant Professor
General Internal Medicine	Minty	Evan	1 August, 2012	31 March, 2013	TRUE	Clinical Lecturer
Cardiology Level1	McMeekin	James	1 July, 2007	30 June, 2012	TRUE	Clinical Professor
Endocrinology & Metabolism	Hanley	David A.	1 July, 2009	30 June, 2012	TRUE	Professor (Tenured)

**List of Awardees
April 1, 2012 – March 31, 2013**

Physician	Section/Group	Award
Dr. David Hanley	Endocrinology	Queen Elizabeth II Diamond Jubilee Medal
Dr. Paul Beck	Gastroenterology	Research Mentor Award
Dr. Subrata Ghosh	Gastroenterology	Fellowship - CAHS
Dr. Sylvain Coderre	Gastroenterology	Killam Award
Dr. Robert Myers	Gastroenterology	Queen Elizabeth II Diamond Jubilee Medal
Dr. Remo Panaccione	Gastroenterology	Finkelstein Award - CCFC
Dr. Sylvain Coderre	Gastroenterology	Education Excellence Award - CAG
Dr. Paul Beck	Gastroenterology	Visiting Research Professorship - CAG
Dr. Gillard Kaplan	Gastroenterology	Young Investigator Award - CAG
Dr. Douglas Hamilton	GIM	Exceptional Engineering Achievement Medal - NASA
Dr. Brenda Hemmelgarn	ICDC	Presidents' Excellence Award - Research
Dr. Bradens Manns	ICDC	Presidents' Excellence Award - Research
Dr. Marcello Tonelli	ICDC	Presidents' Excellence Award - Research
Dr. Brenda Hemmelgarn	ICDC	Top Canadian Achievements in Health Research – CIHR/CMAJ
Dr. Bradens Manns	ICDC	Top Canadian Achievements in Health Research – CIHR/CMAJ
Dr. Marcello Tonelli	ICDC	Top Canadian Achievements in Health Research – CIHR/CMAJ
Dr. John Conly	Infectious Diseases	Ronald Christie Award - CAPM
Dr. Brenda Hemmelgarn	Nephrology	Royal College Medal Award - Medicine
Dr. Sachin Pendharkar	Respirology	Governor General's Gold Medal
Dr. Gordon Ford	Respirology	Queen Elizabeth II Diamond Jubilee Medal
Dr. Dianne Mosher	Rheumatology	Queen Elizabeth II Diamond Jubilee Medal

List of Promotions
April 1, 2012 – March 31, 2013

From Associate to Full Professor:

Alun Edwards	Endocrinology
Braden Manns	Nephrology
Brenda Hemmelgarn	Nephrology
Kevin Laupland	Infectious Diseases
Kevin McLaughlin	Nephrology
Remo Panaccione	Gastroenterology

From Assistant to Associate Professor:

Chris Andrews	Gastroenterology
Irene Ma	General Internal Medicine
Jennifer MacRae	Nephrology
Sofia Ahmed	Nephrology

Medical Access to Service - Annual Report April 1, 2012– March 31, 2013

Medical Access to Service (MAS) has been steadily moving forward throughout the last year. Based on pressure from primary care physicians and the overall positive experience from the participating groups, more groups and areas beyond the Department of Medicine (DOM) continue to have expressed interest in joining the Calgary Zone Central Access and Triage and adopting the associated standards.

The Closed Loop Referral Program (renamed Path 2 Care), a provincial initiative, was launched in November 2011, incorporating many of the successes of the MAS concepts and practices into the provincial model. Physician and CAT staff from the Department of Medicine were involved in vendor evaluation and selection for the provincial referral platform.

Progress over the past year:

- Additions to the Central Access and Triage guide to include a total of 90 clinics/programs/Sections
- Standards of practice, Policies and Procedures for the Central Access and Triage have been incorporated into programs and services joining MAS as well as developed in current CAT programs.
- Standardized data collection between the CAT teams and the DOM on providing improved feedback on referral demand, appointment supply and clinic utilization.
- Working with Sections and clinics to further clarify their referral requirements.
- Many Sections have developed IT strategies to reduce the rework that is associated with Central Access and Triage. General Nephrology and Diabetes Hypertension and Cholesterol Centre (DHCC) have been successful with developing a paper free system which allows for offsite electronic triage and chart retrieval. Gastroenterology is in the process of going through a paper free system with great interest from Hepatology, Calgary Headache Assessment and Management Program (CHAMP) and other CAT teams.
- Many teams have implemented scheduling systems to include referral and waitlist management capabilities
- Several individuals have worked with IT to help develop Cerner® Millennium as an Outpatient Database including reliable and easily retrievable data elements related to both wait times as well as appointment utilization
- The Alberta Thoracic Oncology Program (ATOP) has recently initiated a pilot project of a unique referral stream, receiving referrals arising from abnormal CT scans directly from radiologists.
- Participation with the Alberta Referral Directory (ARD) and wrap up of this project.
- There has been extensive work with existing CAT teams and groups with the opening South Health Campus and its associated Outpatient Departments to ensure a well integrated system across the division.
- There has been ongoing involvement in Gastroenterology pilot with Foothills PCN for Tele-Gastroenterology consults.
- Many individuals have participated with eReferral in regards to its development/ use as a platform for referrals in Alberta.
- In collaboration with many key stakeholders, representatives from the Calgary zone participated in province-wide symptom based referrals and development for a provincial Gastroenterology Pathway. The goal is to develop standardized criteria required for certain Gastroenterology conditions.
- The GI CAT team, led by a Quality Improvement consultant, participated in a project to redesign and streamline the triage processes.

Priority Referral Scoring Tools

This remains on hold due to financial issues, at this time Rheumatology CAT is the only team utilizing this tool.

Rightfax®

All teams have been encouraged to utilize Rightfax® as a clerical solution to faxing any information directly from the computer as against time spent standing and faxing from a fax machine. Many teams have implemented or are interested in using this technology to aid with clerical work flow.

Alberta Children's Hospital

Many of the Pediatric specialty clinics are continuing to become interested in participating with MAS.

Standards for Central Access and Triage

Department of Medicine teams are all at different stages of adhering to these standards.

1. Communication

- Participating clinic will provide faxed confirmation to referring physician that referral has been received within two working days (48 hours).
- Participating clinic will provide faxed letter of appointment details to referring physician within seven working days.
- Central fax number and central phone number will be available for physician referrals.
- Specialist will be available to triage staff for any questions/concerns (may be on a triage rotation or may be on call specialist depending on area).
- Clinics agree to the use of the standard referral form and have the ability to accept any type of referral (letter, EMR) as long as the required information is included.
- Both the patient and referring physician will be given information about the booked appointment by the CAT team.
- Web based Central Access and Triage manual is the most current information (eliminate paper manual), updated with wait times every six months
- Triage is to be done by the triage clinician, with assistance from the triage specialist whenever possible
- Triage teams have relief staff trained.

2. Triage Guidelines

- Participating areas will provide clear guidelines for referral requirements, additional tests required for the initial appointment should be requested by the individual specialist's staff.
- Participating areas provide estimated times for patient to be seen.
- Participating areas have a policy for declining referrals; joining CAT teams will develop policy.
- Participating areas will review and update (if required) their CAT team in the Medical Access to Service brochure.

3. Accountability

- Participating clinics will have a system (database) in place to track referrals (when received, where it was triaged to, etc.).
- For successful booking of patients – require initial appointment slots two - six months in advance to prevent backlogs.
- Clinic has a policy for MD clinic cancellations; joining CAT teams will develop policy.
- Referrals awaiting further information should be less than 10% of all referrals.

**Telehealth – Annual Report
April 1, 2012 to March 31, 2013**

SECTIONS	CLINICIANS	UTILIZATION
Dermatology	<p>Dr. Richard Haber (General Dermatology)</p> <p>Dr. Laurie Parsons (Wound Care)</p>	<p>The following number of patients were assessed: Claresholm, AB – 59 High Level, AB– 24 Siksika, AB - 23</p> <p>Telehealth assessments: 113 Telehealth to the following sites: Bow Island, AB Brooks, AB Canmore, AB Cranbrook, BC Drumheller, AB Elnora, AB Ferne, BC High River, AB Lethbridge, AB Stetler, AB South Health Centre Clinic Sunridge Wound Clinic</p>
Endocrinology	<p>Dr. Peter Grundy</p> <p>Dr. Norm Wong</p>	<p>Did 9 telehealth clinics with the diabetic education nurse and dietician in Canmore AB. Each clinic involved a case conference with the nurse/dietician for about 4 patients. Over 9 clinics, there were 3 actual patient encounters.</p> <p>One telehealth clinic per month assessing 6-12 patients per session.</p>
Geriatrics	<p>Dr. David Hogan</p> <p>Dr. Heidi Schamltz</p> <p>Dr. James Silvius</p>	<p>Telehealth sessions to Canmore/Banff. 2 new patients/month</p> <p>Telehealth sessions to Didsbury and Strathmore AB. Interview with 1 nurse practitioner and 1 new patient per month</p> <p>Monthly telehealth clinic to Drumheller usually 1-2 new patients and 1-2 follow-up per month</p>
Hematology	Dr. Carolyn Owen	Telehealth for followup of patients from Fernie and Cranbrook, BC

	Dr. Lynn Savoie Dr. Mona Shafey	For pre bone marrow transplants, 8-10 time in reporting year For bone marrow transplant consultations from Edmonton and Slave Lake, AB. Total of 3.
Infectious Diseases	Dr. John Gill Dr. Donna Holton Dr. Jack Janvier Dr. Bonnie Meatherall Dr. Vicky Parkins Dr. Stephen Vaughan	Patient Care Telehealth-total of 44 patients seen. 5 telehealth consults by Cystic Fibrosis Clinic for program assessment and development
<u>Additional Information:</u> In the absence of a DOM Clinical Facilitator, this information is based on names and numbers kindly supplied by Section heads of their respective Sections.		

Physician Wellness and Vitality – Annual Report April 1, 2012 to March 31, 2013

BACKGROUND

The portfolio of Vice Chair, Physician Wellness and Vitality was created by Dr John Conly within the Department of Medicine (DOM) in 2004 in order to identify and improve work-life balance issues for members of the Department and to promote physician wellness, in a scholarly fashion. The following document summarizes the activities during April 2012 to March 2013. Our research home is nestled within the W21C Research and Innovation Centre.

RESEARCH AND KNOWLEDGE TRANSLATION

The Well Doc? Initiative was created as a vehicle to research and promote physician wellness issues. Well Doc? Module 1 explored the association between physician workplace nutrition and cognition. From this study, we reported on how physicians need to fuel their bodies in order to function well. In addition to two peer reviewed publications reporting on the scientific study results, this project was featured in the 2012 Alberta Innovates - Health Solutions Knowledge Translation Casebook. Well Doc? Module 2, a randomized controlled trial, demonstrated how a portable biofeedback can serve as a stress management tool for physicians. We are teaching this method of regulating our stress response through hands-on sessions with medical students and residents. Well Doc? Module 3, is a study exploring the dimensions of the complex and demanding task of being a Medical Teaching Unit preceptor and its implications for effective health care delivery, medical education, and health care provider wellness. We received CIHR funding in June 2012 and have begun data collection and analysis. The results of this study will inform us as to how we can better prepare clinicians for this role, support them, evaluate their performance, and develop a national strategy towards these aims. Well Doc? Module 4, is a collaboration with Dr. Judy Boychuk-Duchscher (principal investigator) from the faculty of nursing. We received funding from the Helios Foundation and are studying physicians as they transition from learners to newly licensed independently practicing physicians. Dr. Duchscher, has previously studied this transition in the nursing profession, using the knowledge to develop support systems for nurses during this critical time period.

We have developed a formal Well Doc? Knowledge Translation Initiative aimed at helping doctors manage their workplace stress. The partnership includes the W21C Research and Innovation Centre, Alberta Health Services, and the University of Calgary's Faculty of Medicine. The main messages of the Initiative are the following:

- 1) doctors face the occupational hazard of workplace stress;
- 2) stress is a modifiable risk factor associated with poor health outcomes;
- 3) maintaining good mental health is an important preventative measure; and
- 4) engaged doctors can communicate the importance of strong mental health practices to their patients and act as role models.

We targeted 5 areas fundamental to physician wellness: 1) workplace nutrition, 2) coping strategies, 3) the physical workplace, 4) doctor personality types, and 5) stress modification techniques. Deliberate engagement strategies included a physician leader/champion, teaching materials based on published results from local physician wellness research, and hands-on formal teaching on how to regulate the autonomic nervous system response to stress. We customized our presentations to the level of attendee career stage, received participant feedback, and altered future sessions accordingly. The Well Doc? Knowledge Translation Initiative, by providing simple and practical evidence-based stress-reduction strategies, is engaging doctors at all career levels and creating a culture that promotes mental health as a key component of wellness. To date, there have been presentations adapted to medical students, residents, and staff physicians, including a workshop at the Annual Rheumatology Retreat where wellness was the theme. We are hoping to obtain funding for ongoing support of this KT initiative.

Over the past year, our research was funded at several levels including a CIHR Operating grant and Royal College of Physicians and Surgeons of Canada Medical Education Research Grant (declined), and bridge funds from the Faculty of Medicine for the MTU preceptor project. The Helios Foundation is supporting the Transition project.

EDUCATION AND INFORMATION EXCHANGE

Once again we have had the privilege of speaking at multiple venues, highlighting the 'Well Doc?' research and other wellness related studies. The audience ranged from medical students and post graduate medical trainees (e.g. Well Doc?

Stress Management Workshops), to academic forums. We presented results from our Resilience research at the International Conference on Physician Health held in Montreal October 2012 and were featured in the CMA news online and in print. Dr Lemaire was also invited to facilitate a workshop at this prestigious conference. Other international contributions included presentations at the 2nd Annual Osler Symposium, Doctoring in the 21st Century: Embracing the Challenge, San Diego, California, USA. Nationally, Dr Lemaire contributed to the Canadian Surgery Forum, Alberta Association of General Surgeons Symposium: Heal Thyself – Promoting Surgeon Wellness, Calgary, Alberta. At a local level, other presentations centered around mentoring wellness, and orientation of new faculty members to the concept of wellness, and a pod cast for the W21C Patient Safety Series entitled “Physician Wellness: Fundamental for doctors, vital for patients. Drs J Lemaire, Ray Lewkonina, Kelly Zarnke, Jonathan Love, and Colin Powell collaborated to develop a position paper, *When Physicians’ Practices Change: Balancing Individual Responsibilities, Capabilities and Skills, and Shared Organizational Obligations. Department of Medicine Career Adaptation Guidelines*” that will be circulated soon to the DOM members.

ADMINISTRATION/W21C WELLNESS TEAM/PARTNERSHIPS

We continue to advocate for and to represent physician wellness and vitality through many different avenues. As vice chair within the Department of Medicine, Dr. Jane Lemaire endeavors to advocate for physician wellness at the Medical Services Executive Meetings. Wellness is now officially a portfolio within the W21C Research and Innovation Centre where Dr Jean Wallace, professor of Sociology and Dr Jane Lemaire are Co-Leads. They are supported by the incredible W21C team that includes Jill de Grood, a long standing academic team member now also in a major leadership role. Alicia Polacheck represents the operational foundation of the team and we greatly appreciate her incredible organizational and academic skills. We welcomed Kristen Desjarlais-de Klerk to the CIHR funded MTU preceptor project. Garielle Brown, a research associate at the W21C, and Adriane Lewin, continue to contribute to the Wellness portfolio through their involvement in the SRRB project and manuscript preparation. We are so fortunate to benefit from all the wonderful and wise mentors within the Department and Faculty of Medicine, with expert guidance and advice from many, including Bill Ghali, Subrata Ghosh, John Conly, Hude Quan, Jeff Caird, Maria Bacchus, and Kevin McLaughlin.

The Wellness team continues to seek collaborations and partnerships. Dr. Lemaire is an ongoing member of the AMA Physician and Family Support Group Advisory Committee and was appointed Chair in March 2012. She is also a member of the International Alliance for Physician Health and has recently joined the AHS Physician Health Committee as a member.

FINAL COMMENTS

Recently we sent out an email notice to first and second year medical students inviting them to participate in one of our Well Doc? workshops. Within less than 24 hours we received 25 requests to participate. We interpret this and other signs as a clear shift in paradigms, an openness to discussion and learning about how to thrive within the wonderfully rewarding yet challenging career path we have all chosen. It is not so unusual now to overhear dialogue around physician wellness as it surfaces in the hallways, doctors’ lounge, on the wards, and in the clinics, proof that the profession and the public are beginning to understand that well physicians are essential to the delivery of high quality patient care and to the sustainability of our health care provider workforce. We are grateful to all of the physicians, other health care providers and leaders in the health care systems who take the time to participate in and support our research and knowledge translation endeavors.

DOM Quality Improvement – Annual Report April 1, 2012 to March 31, 2013

During the 2012 fiscal year, Dr. Jayna Holroyd-Leduc was the DOM QI Lead (0.15FTE) . Each section had an appointed Sectional QI Lead (0.05FTE):

Section	QI Lead
Dermatology	Dr. Habib Kurwa
Endocrinology	Dr. Sonia Butalia
Gastroenterology	Dr. Kerri Novak
General Internal Medicine	Dr. Lynne Lambert
Geriatrics	Dr. Jayna Holroyd-Leduc
Hematology	Dr. Karen Valentine
Infectious Diseases	Dr. Donna Holton
Nephrology	Dr. Rob Quinn
Respirology	Dr Sachin Pendharkar
Rheumatology	Dr. Susan Barr

DOM 2012 QI Focus Areas:

AHS Calgary Zone Elder Friendly Hospital Initiative.

This initiative aims to support and improve care provided to older hospitalized patients, and is a collaboration between the Calgary-zone Seniors Health, Medical Operations and the Department of Medicine. It includes the development and implementation of three evidence-informed key clinical practice strategies aimed at improving clinical outcomes and decreasing the number of ALC beds required within Calgary. The three strategies are: i) comfort rounds; ii) delirium detection and management; iii) least restraint practices. Knowledge translation tools to support this initiative were developed through the Calgary-zone Older Patient Working group and have been posted on AHS Insite (<http://insite.albertahealthservices.ca/8305.asp>). Dr. Holroyd-Leduc is one of the leaders of this initiative.

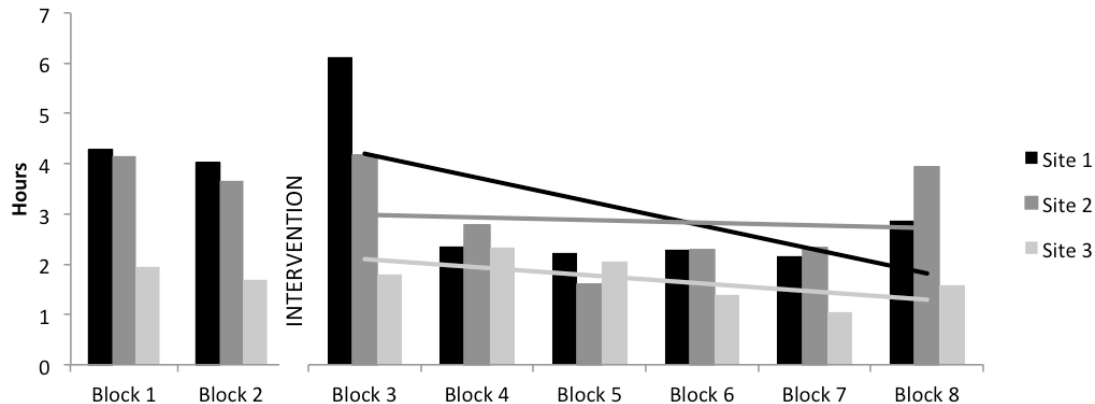
The new South Health Campus opened as an Elder Friendly Hospital, incorporating the three strategies. The other three Calgary area hospitals have implemented various components of this initiative on several medical units. The effectiveness of comfort rounds is currently being evaluated on 2 of the early adopter units (1 at FMC; 1 at RGH). The least restraint strategy was adopted on 4 medical units at PLC and was found to reduce restraints (including bed rail use) from 13-27% to 7-14%. The intervention resulted in a statistically significant reduction in restraint use in the mornings ($p = 0.015$) and restraint use trended down at all other measured time periods. The evaluation of the least restraint strategy was funded by a DOM QI grant and the results have been accepted for peer-reviewed publication.

A zone and 4 site working groups are currently forming to further disseminate and implement this initiative broadly across the Calgary zone. The concept of Elder Friendly Hospitals is also being considered by the Seniors Health SCN for a future provincial project.

Resident-driven Project Targeted at Decreasing ED-LOS for Department of Medicine Patients.

This is a project, supported by AHS Calgary Zone Medical Affairs, aimed at working with Internal Medicine Residents (led by the 2012/13 Chief Residents and Drs. Boscan and Holroyd-Leduc) to decrease the amount of time it takes to admit a patient from the emergency department. This project involved development of a standardized admission process by the senior residents. An electronic newsletter (co-sponsored by the W21C) was developed and regularly circulated to the residents in order to keep them updated on the progress of the initiative. We were able to demonstrate important decreases in the time to

admission to the Medical Teaching Units in Calgary. During the six month intervention period, the decision to admit times at each of our three sites decreased from 3.8, 4.0, and 3.5 hours to 2.9, 3.1, and 3.1 hours respectively. This trend persisted when adjusted for both learner numbers and admission volume.



This work has been accepted for presentation at the 2013 ICRE meeting and a manuscript is being prepared for publication. This initiative will be sustained through the ongoing circulation of the electronic newsletter to all senior Internal Medicine residents by the Chief Residents and the W21C.

Targeting Discharge Resources for Department of Medicine Inpatients: The *SISDoM* Project.

The Department of Medicine members (as the most responsible physicians), in collaboration with other health care team members, provide inpatient care to approximately 7700 Albertans per year. Though several sections within DOM are at, or close to, national targets for inpatient length of stay (LOS), other sections currently have data indicating LOS greater than anticipated. The DOM, in collaboration with Medical Operations, sought out opportunities to address these challenges. The vision was to improve both the flow of patients admitted to DOM inpatient services and the associated data collection elements, without negatively impacting the quality of care being provided. The DOM and site/program operational groups have been working together since November 2012, with the support of Dr. Holroyd-Leduc and Scott Jalbert (AHS CQI), to facilitate this improvement work. The work has been branded as the *SISDoM* project and is a project supported by Calgary Zone Medical Affairs.

The SISDoM Project is focused on optimizing patient flow within two DOM sections in Calgary (Nephrology and Hematology) in an effort to help address the Health Quality Council of Alberta (HQCA) recommendations (specifically reducing inpatient occupancy to target levels below 95%) and is aligned with the AHS Transformational Improvement Program's (TIP's). Specific goals of the project are to reduce appropriate patient Acute Length of Stay (within identified sections) by 20%, while maintaining current levels of unplanned readmission rates (within 7 days via ED).

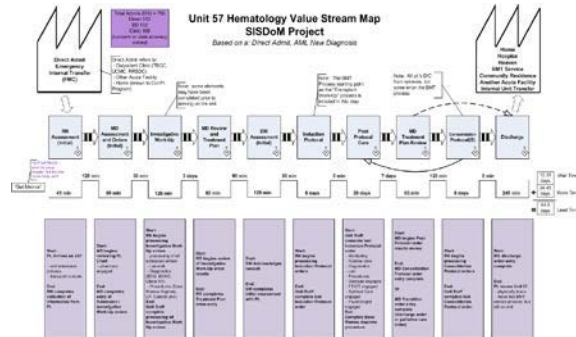
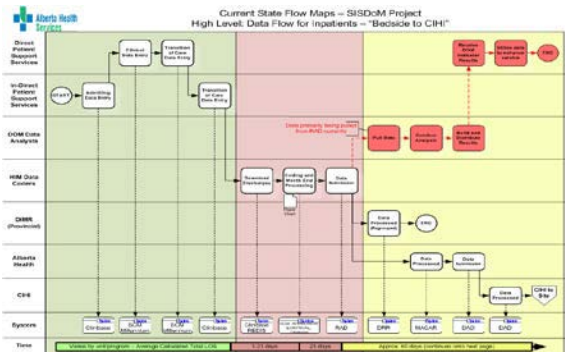
The project approach is strongly aligned to the AHS Improvement Way (AIW). Project design efforts have been purposeful in creating an approach and "branding" that goes beyond project; but rather a "*multigenerational improvement initiative*" repeatable within current participating service areas, or applied within other DOM sections / operational service areas beyond the scope of the first project cycle.

Strengths within *The SISDoM Project* structure lending to a strong "*foundation*" include:

- Implementation of routine unit based *Clinical Improvement Teams* (Unit 37 – Nephrology (FMC); Unit 57 – Hematology (FMC))
- Formalized *Project Team Lead* (PTL) roles (with dedicated capacity) to support the project
- Acquired Quality Improvement Consultant resourcing to facilitate/lead the project through CQI – Calgary Zone
- Strategic Change Management and Communication efforts
- Engaged, visible, and supportive project leadership

Significant project efforts have taken place to construct a clearer "picture" of patient flow and current challenges impacting optimal process efficiency. Milestone activities critical to describing the current state includes:

- Value Stream Mapping (VSM) Events identifying key high level process steps and related data
- Brainstorming and Affinitizing stakeholder identified challenges impacting the value stream
- Prioritization events designed to clarify, prioritize and select areas to focus improvement efforts
- Development of “Data Flow” understanding



facilitating metric understanding, and areas for process enhancements within entry, coding, and reporting

- Development of “Data Flow” understanding facilitating metric understanding, and areas for process enhancements within entry, coding, and reporting

Project efforts are now focused on looking deeper into “*selected areas for improvement*”, clarifying the process details, seeking root causes and gathering data to further inform their findings. Some “*quick wins*” have been identified in each area and are being addressed, while planning is under way to engage appropriate stakeholders to strategically design, test, implement, and evaluate solution elements; ultimately moving towards higher process efficiency, and enhanced health care services to their patients and families.

Support for Sectional QI Initiatives.

During the 2012 fiscal year, DOM QI rounds took place on three occasions (Fall; Winter; Spring). They involved a brief DOM QI update, followed by 1-2 presentations from Sectional QI Leads or relevant outside speakers. Information about previous presentations is posted on the DOM website.

Additionally, the QI leads were invited to a DOM QI retreat in the fall of 2012 and to a AIW workshop in the spring 2013.

The second DOM QI funding competition was held in the spring of 2013. One project was funded:

Investigators	Title	Funds
Irene Ma, Jeff Shrum, Derek Chew, Evan Minty, Alysha Kaba, Jayna Holroyd-Leduc, Jeff Caird, Lynn Lambert	"Evaluating the Implementation of a Procedure Cart for Internal Medicine Postgraduate Training"	\$10,000.00

Other DOM QI Updates:

Establishment of DOM Outpatient Data Report

Tina Wang and Avneet Bajwa (DOM data analysts) have compiled the first DOM Outpatient Indicator report for each of the sections (fiscal years of 2012), using data obtained from the National Ambulatory Care Reporting System (NACRS). This report includes information about clinic visit numbers, patient complexity and visit complexity.

DOM Inpatient Data Report

Tina Wang has continued to compile Inpatient Indicator reports semi-annually for each of the sections, using data obtained from Health Records. These indicators include (where relevant): monthly inpatient discharges, average length of stay, readmission rates, mortality, and consultation volumes. It is anticipated that these reports will continue to help guide DOM and sectional QI initiatives and workforce planning (similar to the SISDoM project).

Medicine/DOM Data Dashboard

The DOM and Medicine Operations continue to collaborate on a QI indicators dashboard. The dashboard focuses primarily on inpatient indicators by medical unit.

Sectional Updates:

Section of Endocrinology and Metabolism

The Section of Endocrinology and Metabolism has several quality improvement initiatives underway. These initiatives include the following:

1. **Diabetes Educational Program for Family Physicians and their Allied Healthcare Providers.** Recognizing that diabetes is a very important, prevalent and complex disease and with the goal to optimize diabetes care, the Division of Endocrinology has been partnering with various Primary Care Network (PCNs) within the Calgary Zone. We have been developing and presenting a Diabetes Educational Program for Family Physicians and their allied health care providers, encouraging an interdisciplinary team approach to diabetes care. Targeting specifically allied healthcare providers, we have given them access to our extensive online learning modules (Blackboard), which cover multiple topics including diabetes, weight management, lipids, hypertension and vascular risk reduction. We have also shared written and on-line patient educational material used and/or developed at the Diabetes, Hypertension, and Cholesterol, Centre (DHCC) so that patients within the Calgary Zone are receiving consistent messaging. New this past fall (September 2012), we have also introduced a set of Diabetes Workshops, which have been very well received such that we have had to add several additional workshops to accommodate demand. Basic and Intermediate level Workshops are being offered to allied healthcare providers within the Calgary Zone. Some of the community allied healthcare providers have also attended the Advanced Diabetes Workshop.
2. **Diabetes Educational Program for the Diabetes Educators within our Specialty Care Program at the Diabetes Hypertension Cholesterol Centre (DHCC).** In order to ensure that the diabetes educators within the DHCC are up-to-date and providing care to patients in an evidence-based fashion, we have been providing a multifaceted Educational Curriculum, which includes monthly half-day educational sessions, access to the online learning modules (Blackboard) as described above and new this fall 2012, we introduced a set of Diabetes Workshops, which have run several times this year and with several more planned for the upcoming year. These 3 workshops, Basic, Intermediate, and Advanced Level, are being offered to all the diabetes educators within the DHCC specialty program, particularly our new staff.
3. **External requests for education.** The DHCC is also providing level appropriate workshops to outside groups such as the Registered Nurses working within Corrections Canada, Calgary Community Pharmacists, etc.
4. **Further Outreach by the Endocrinology and Metabolism Program.** The Endocrinology and Metabolism Program is communicating with partners to inform them of our services by providing sessions including Family Practice Residency Foundational Sessions and CDM/PCN orientation sessions.
5. **Thyroid Tumour Board Rounds.** Thyroid Tumour Board Rounds were started in January 2011 in an effort to bring together not only divisional members that have an interest in thyroid cancer but also to allow direct formal and informal collaboration with interested colleagues from surgery, pathology, radiation oncology and medical oncology. This includes faculty and trainees from all levels. We review 3-4 cases in 1 hour and produce a written Tumour Board Rounds summary or a clinical note for each patient succinctly documenting what was discussed and ultimately decided as the next best plan of investigation or treatment. Decision making by consensus involving the different perspectives has proved to be invaluable.
6. **The Basal Bolus Insulin Project.** The Basal Bolus Insulin Project aims to provide a logical, evidence-informed alternative to sliding scale insulin use in hospital. Initially, the protocol was developed and released using a web-based tool and accompanying pocket cards, and now an electronic order set has now been developed to facilitate ease of use. The electronic order set has been made available at all three adult acute care sites.

7. **Adrenal Vein Sampling.** Adrenal vein sampling (AVS) success rates locally were 40%. An ongoing multidisciplinary team has worked over the past few years to improve technical accuracy, collection and handling accuracy, and reporting standardization. In 2012, AVS success rates were 97% and Calgary was invited to join an international group looking at AVS utilization worldwide. The Adrenal Vein Sampling International Study (AVIS) group, including members from our division, published their quality improvement results in 2012 (Rossi GP et al. JCEM 97:1606-1614, 2012). An AVIS extension database has been created which is permitting ongoing quality improvement research in adrenal vein sampling/aldosteronism.
8. **Central Access and Triage.** Along with many other divisions, Central Access and Triage was initiated in our division. Over the last several months, our program continues grow receiving over 600 referrals per month. Our median wait time for urgent referrals is less than one week and routine referrals are consistently seen within three months, often in less than eight weeks. We continue to re-evaluate our program to ensure key objectives are attained and further strengthened.

Section of Gastroenterology and Hepatology

The Section of Gastroenterology and Hepatology have several quality improvement initiatives underway:

1. **Innovations to Improve Access.**

- a. *Wait times* for the sickest patients have improved markedly (see clinical innovations); given increased dedicated clinic and endoscopy times for urgent referrals (wait time reduction from greater than 10 weeks to less than 4 weeks). However, waits for routine requests exceed 18 months. Activities aimed at enhancing access for routine referrals include:
 - Telephone consultation service
 - Nurse Navigator expansion into irritable bowel syndrome, as well as geographic expansion to include the South Health Campus and FMC clinic site
 - Direct to Procedure (DTP) optimization - 12 months of retrospective data including procedural indication, endoscopy, histologic and endoscopic outcome, and wait-times to evaluate workflow and, given the documented reduced wait times, expansion of clinical indication was undertaken to increase throughput within this pathway. In addition:
 - Nurse-led follow up and specialty clinics (e.g. microscopic colitis), with appropriate physician oversight to improve communication with referring physicians and quality of follow-up.
 - Evaluation of report quality has been undertaken with guidelines in development to ensure quality and completeness of reports for DTP patients.
- b. *Policy for preventing preferential access:* a policy has been developed for the Division regarding guidelines for patient CAT bypass and will be implemented in the summer/fall of 2013. This policy has been vetted through the DoM MSEC, Zone Medical Leadership, and the CPSA.

2. **Clinic Workflow Optimization.** The NC role will evolve into one that encompasses more direct patient care and education in clinic. Increasing participation in clinic by NCs is underway, and has increased access to GI care for patients, with physician oversight/ responsibility and associated dedicated endoscopy time. Nurse-led clinics run parallel to physicians, for a multidisciplinary approach to patient care and to improve patient flow through clinic.
3. **Endoscopy Utilization, Quality and Reporting.** Endoscopy utilization has been optimized at the FMC endoscopy unit using the newly identified Physician Booking Optimization clerk. Across the Zone a validated process (every 6 months) has been implemented to optimize patient centered care within endoscopy, including systematic assessment of the process of consent, procedure safety and comfort, quality, appropriateness as well as the quality of the reporting process (GRS or Global Rating Scale). The plan is to issue a confidential report to each endoscopist within the GI Division, with total procedures completed in the year 2012 (including gastroscopy and colonoscopy) and total number completed with a trainee (GI fellow). These reports will be expanded to include patient-centered quality measures (patient comfort, conscious sedation use/ average dose), completion quality (percentage of terminal ileal intubations, photographic depiction of the appendiceal orifice) and preparation quality. A Divisional policy has also been implemented to ensure all patients in all units receive a copy of their endoscopy report. Finally, as of June, 2013 endoscopy reports (Endopro) are available (not retrospectively) on Netcare, increasing accessibility to electronic endoscopy reports.
4. **Helicobacter pylori (Hp) Eradication.** Hp is a common bacterial infection of the upper gastrointestinal tract implicated in the pathogenesis of gastric cancer, peptic ulcer disease, and likely dyspepsia. We have implemented a telephone consultation service to enhance eradication of this infection by primary care physicians. In addition, in collaboration with

microbiology and Calgary Laboratory Services, we have developed and implemented a dedicated endoscopy pathway to test for antibiotic resistance (biopsies taken on endoscopy are cultured and tested for antibiotic resistance). The aim is to optimize recurrent use of antibiotics, resistance and optimize patient care. A Divisional academic round on this subject, with a guest speaker, is slated for the fall of 2013.

5. **Clinic Patient Teaching Documents.** Complete revision of endoscopy preparation and teaching sheets has been undertaken, with the goal being standardization across the Zone for both academic and private physician's offices. Three components include preparation, procedure information (risks, expectations) and frequently asked questions. In addition, teaching sheets specific for inpatients have been developed and will be included upon discharge for all patients who've undergone an inpatient procedure (this was a clearly identified gap as no inpatients received this information previously).
6. **Standardization of Admission Orders for Inflammatory Bowel Disease (IBD).** With an aim to improve the inpatient care of patients with IBD in the Zone, the Division is working to develop (in collaboration with the University of Alberta IBD Group in Edmonton) order sets for admission to hospital. These will include standard blood work for baseline including nutritional parameters (iron indices, vitamin B12, vitamin D), as well as investigations for occult infections including tuberculosis (TB) which are necessary for future potential immune-suppressive therapy.
7. **Hepatology Clinic Process Review.** In order to better understand bottlenecks and improve access for patients awaiting Hepatology consultation, the Liver Unit consulted with a Process engineer to conduct a review of clinic practices and process design in the Viral Hepatitis clinic. The goal was to identify opportunities to enhance access to care and the plan is to implement critical report findings in 2013-14.

Section of Geriatric Medicine

Below is an update of a few of the Section of Geriatrics quality improvement initiatives currently underway:

1. Calgary-zone Older Patient Working Group/Elder Friendly Hospital Initiative. The section is involved in a multidisciplinary working group, whose purpose is to engage health care providers in planning, implementing, evaluating and disseminating quality and safety enhancements in an effort to improve the quality of health care services provided to older hospitalized medical patients within Calgary hospitals (co-Chair: Dr. Holroyd-Leduc) . This group has been instrumental in developing an Elder Friendly Hospital Initiative for the Calgary Zone (outlined above), in response to concerns identified in HQCA report and at the request of executives within AHS. In collaboration with Medical Operations, the Older Patient Working group is evolving into a zone advisory committee and 4 site working groups to further disseminate and implement this initiative broadly across the zone. The effectiveness of this initiative is currently being evaluated on 2 of the early adopter units. The concept of Elder Friendly Hospitals is also being considered by the Seniors Health SCN for a future provincial project.
2. AHS Seniors Health SCN. Dr. Holroyd-Leduc has taken on the role as Scientific Director of the Seniors Health SCN and many other section members are on the core committee (Drs. Fruetel, Hogan and Silvius).
3. Provincial Hip Fracture Clinical Care Pathway/AHS Bone and Joint SCN. Dr. Holroyd Leduc was a member of the working group that developed and implemented an evidence-informed provincial clinical acute care pathway in an effort to decrease care gaps and provide standardized care to hip fracture patients in Alberta. A publication of this work is currently IN PRESS in the Canadian Geriatrics Journal. Dr. Hogan is currently participating on a working group within the Bone and Joint SCN, whose goal is to continue to address the issue of falls, osteoporosis and hip fractures within Alberta.

Section of Hematology and Hematologic Malignancies

The Section of Hematology, led by Drs. Karen Valentine and Lynn Savoie, has been active in the *SISDoM* project.

Section of Infectious Diseases

Below is an example of QI work being undertaken by members of the Section of Infectious Diseases:

1. Infection Prevention and Control (IPC). Highlights of this program include.
2. Ongoing emphasis on Hand hygiene
3. Development of province wide IPC surveillance system for hip and knee Surgical Site Infections. Concluded data collection re antibiotic resistance organisms, C. difficile infections and CVC blood stream infections
4. Recruited two new IPC physicians: one for PCL and one for SHC
5. Presented abstracts at national and international meetings
6. Published several IPC paper in peer reviewed journals

7. Continued participation in the Canadian Nosocomial Surveillance System

Section of Nephrology

The Section of Nephrology, led by Drs. Rob Quinn and David Ward, has been active in the SISDoM project. Additionally, the Section has several QI initiatives underway:

1. **An innovative service model for AHS and community-based pharmacy collaborative care of adult rural patients with chronic kidney disease.** This initiative will develop and evaluate the effect of an innovative model with engagement of pharmacists in rural Alberta with Alberta Health Services' Renal Program clinical and pharmacist resources in community management of adult patients with chronic kidney disease (CKD), facilitated by a clinical pathway for CKD.
2. **Implementation and evaluation of a clinical pathway for chronic kidney disease in primary care.** Working in collaboration with key Alberta Stakeholders we will develop and implement a clinical pathway for management of chronic kidney disease patients in primary care. This pathway is based on clinical practice guidelines. We will implement the pathway as a web-based tool and will evaluate whether the pathway improved guideline-concordant care of patients with chronic kidney disease.
3. **Medication Reconciliation at the time of admission to hospital.** Nephrology residents and internal medicine residents rotating through nephrology admit many of the patients to the nephrology service. These trainees have been given education on medication reconciliation and completing a best possible medication history. The trainees are being supported so they can complete a best possible medication history at the time of admission and use this information to generate the admission medication orders and consult the clinical pharmacist if necessary. Nursing staff are currently completing the form after the patient is admitted.
4. **Goals of care designation orders.** Completion of Goals of care designation orders for individuals on dialysis (PD and hemo) is regularly audited. Any patients with missing orders are brought to the attention of the charge nurse and the primary nephrologist. This audit process has resulted in a greater than 85% completion of goals of care designation orders for dialysis patients.
5. **ESA Reduction Protocol.** In this project, the effect of a forced reduction in Eprex and Aranesp dosing to a maximum of 60,000 IU or 300 ug respectively, on hemoglobin levels is examined. This is in response to changes to ESA dosing proposed by Blue Cross in Alberta.
6. **PreCLOT.** The PreCLOT QA project will look at the effects of implementing the results of the PreCLOT study, published in the New England Journal of Medicine by Dr. Brenda Hemmelgarn, in patients at "high risk" of catheter dysfunction. We will compare thrombolytic use, catheter dysfunction, and infections.

Section of Respiriology

The Section of Respiriology has a number of QI activities underway. Faculty leaders for each initiative are provided:

1. **Operations of pulmonary function lab.** There are operational issues at each site that impact access to timely testing for respiratory clinic patients, such that some patients must undergo testing at non-AHS facilities while the lab sites have unfilled testing slots. Given this discrepancy, an exploration of the demand, capacity and operations of two PF lab sites (SHC and FMC) is underway, with the goal of improving access to testing through better capacity/demand matching. A simulation model of scheduling and resource allocation has been developed for the SHC, and stakeholder perceptions and demand data are being collected at the FMC. This work is funded by a grant from the AHS Calgary Zone Medical Affairs Office (Drs. Davidson, Fell, Flemons, Pendharkar).
2. **Alternate care provider clinics.** These are underway in a number of areas, including nurse-led care in the chronic cough clinic (Dr. Field) and respiratory therapy clinics for patients using positive airway pressure therapy for sleep-disordered breathing (Drs. Hanly, Pendharkar). Sleep centre data is under review to study the effectiveness of follow-up at the "CPAP clinic".
3. **Improving efficiency and access to pulmonary clinics.** A number of QI activities are underway in the PLC respiratory clinic with the design of a new outpatient paper based service chart model (goal implementation Oct 2013). This new charting model is aimed to reduce patient safety errors and improve quality of care (Dr. Helmersen).

4. **Neuromuscular respiratory database.** The Neuromuscular Respiratory Clinic has initiated a PIA and REB approval process to develop and maintain a database of neuromuscular patients' respiratory function and ventilation settings (Drs. Loewen, Rimmer).
5. **Amyotrophic lateral sclerosis clinic.** A retrospective chart review is being performed to look at the performance of split-night polysomnography (PSG) in the detection of nocturnal hypoventilation in ALS and initiation of Noninvasive positive pressure ventilation (NIV). Development of criteria for successful split-night PSG will be validated against the interpreting physician's report of the split-night PSG (Drs. Loewen, Rimmer).
6. **NORTH - Noninvasive Ventilation of the Restricted Thorax.** A study looking at pressure support vs pressure control ventilation in patients with restrictive chest wall disease is ongoing. Primary outcome is SAQLI (quality of life). Secondary outcomes include oxygen and carbon dioxide levels, ventilation parameters (Drs. Fraser, Loewen).

Patient Flow - DOM Inpatient Data April 1, 2012 to March 31, 2013

The following tables and graphs present a brief summary of inpatient data for the Department of Medicine (DOM). This information was taken from the Health Record and was grouped according to the patient's Most Responsible Physician. For cross-appointed physicians, their discharged inpatients were counted to one division instead of splitting into two divisions. Since physicians' medical service code affects divisional inpatient counts. Divisional inpatient counts might be varied due to the changes of physician's medical service.

There were 9960 inpatients discharged by DOM physicians during fiscal year 2012-13. Compared to the previous year of 2011-12, the total inpatient discharge of 2012-13 increased around 8.7%.

Inpatient Discharge Summary		
Division	2011-12	2012-13
Dermatology	-	-
Endocrinology	48	45
Gastroenterology	912	1048
Geriatric Medicine	-	-
General Internal Medicine	4920	5446
Hematology	1052	978
Infectious Diseases*	41	64
Nephrology	876	1037
Respirology	1315	1342
Rheumatology	-	-
Total	9164	9960
Yearly Changes (+/-)	15.3%	8.7%

* For infectious Diseases, according to the request of the division chief, three microbiology physicians were counted under infectious diseases. Therefore, inpatients discharged by microbiology physicians as most responsible physicians were reported under infectious diseases.

Department of Medicine physicians also provided more than 15,000 consults for the inpatients discharged during fiscal year 2012-13. Compared to previous fiscal year 2011-12, the total consults of 2012-13 increased around 2.4%

Inpatient Consults Provided by DOM		
Division	2011-12	2012-13
Dermatology	182	200
Endocrinology	585	593
Gastroenterology	3470	3576
Geriatric Medicine	1028	904
General Internal Medicine	3894	3787
Hematology	645	705
Infectious Diseases	2426	2769
Nephrology	891	899
Respirology	1848	1867
Rheumatology	369	409
Total	15338	15709

* For infectious Diseases, according to the request of the division chief, three microbiology physicians were counted under infectious diseases. Therefore, consults provided by microbiology physicians were reported under infectious diseases.

The calculation of average Acute Length of Stay of patients discharged by DOM physicians were based on the following five divisions as shown in the table. Compared to previous fiscal year 2011-12, the average Acute Length of Stay of DOM decreased around 2% in fiscal year of 2012-13.

Average Acute Length of Stay (Days)		
Division	2011-12	2012-13
Dermatology	-	-
Endocrinology	-	-
Gastroenterology	4.9	5.2
Geriatric Medicine	-	-
General Internal Medicine	8.7	8.1
Hematology	15.8	15.7
Infectious Diseases*	-	-
Nephrology	12.3	11.7
Respirology	8.3	8.3
Rheumatology	-	-
Average	10.0	9.8

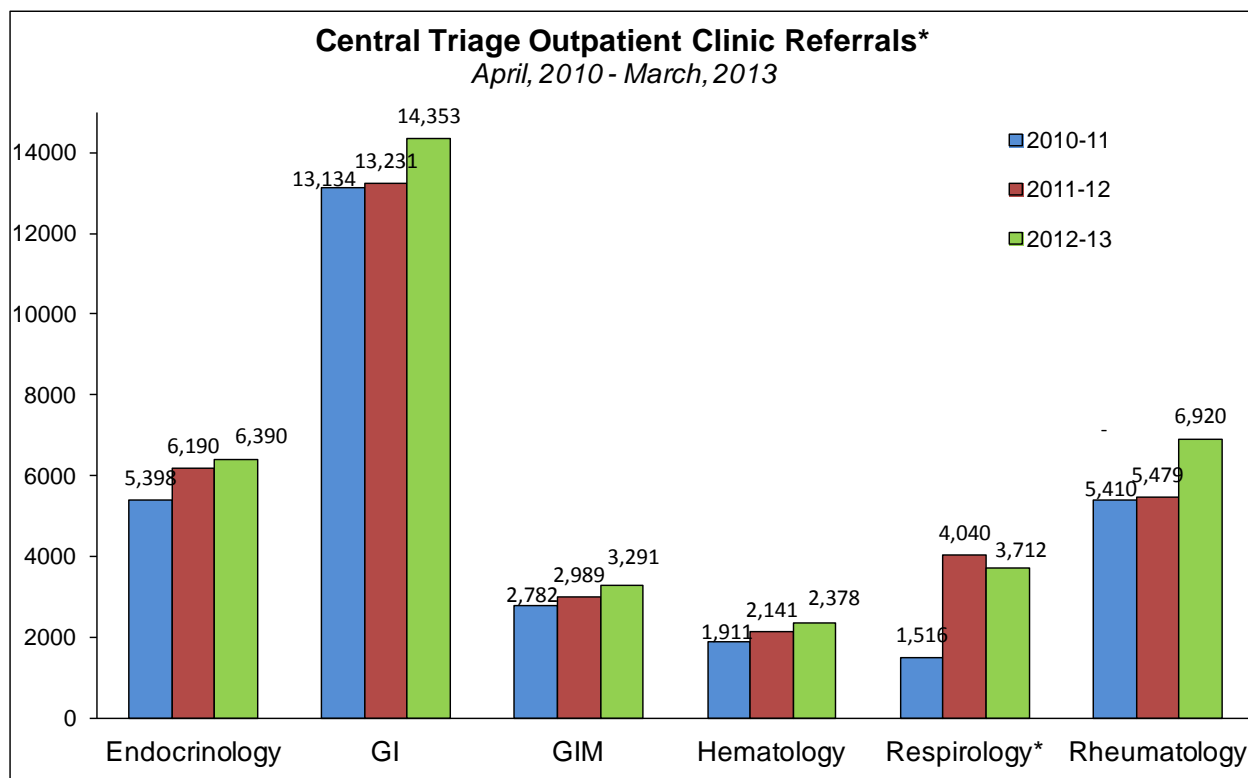
CMG (Case Mix Groups) is a methodology designed to aggregate acute care information for inpatients with similar clinical and resource-utilization characteristics. The following table listed top two CMGs of fiscal year 2011-12 and 2012-13 for the five divisions of the Department of Medicine.

Division	Top 1 CMG		TOP 2 CMG	
	2011-12	2012-13	2011-12	2012-13
GI	Inflammatory Bowel Disease		GI Hemorrhage	
	21.90%	18.51%	7.80%	8.02%
GIM	Diabetes		Other/Unspecified Septicemia	
	5.20%	5.22%	4.20%	5.11%
Nephrology	Renal Failure		Kidney Disease	Convalescence
	7.30%	6.56%	6.40%	5.40%
Hematology	Chemotherapy Neoplasm		BMT	
	21.90%	27.10%	12.50%	12.37%
Respirology	COPD		Other Lung Disease	
	8.00%	20.03%	6.40%	7.59%

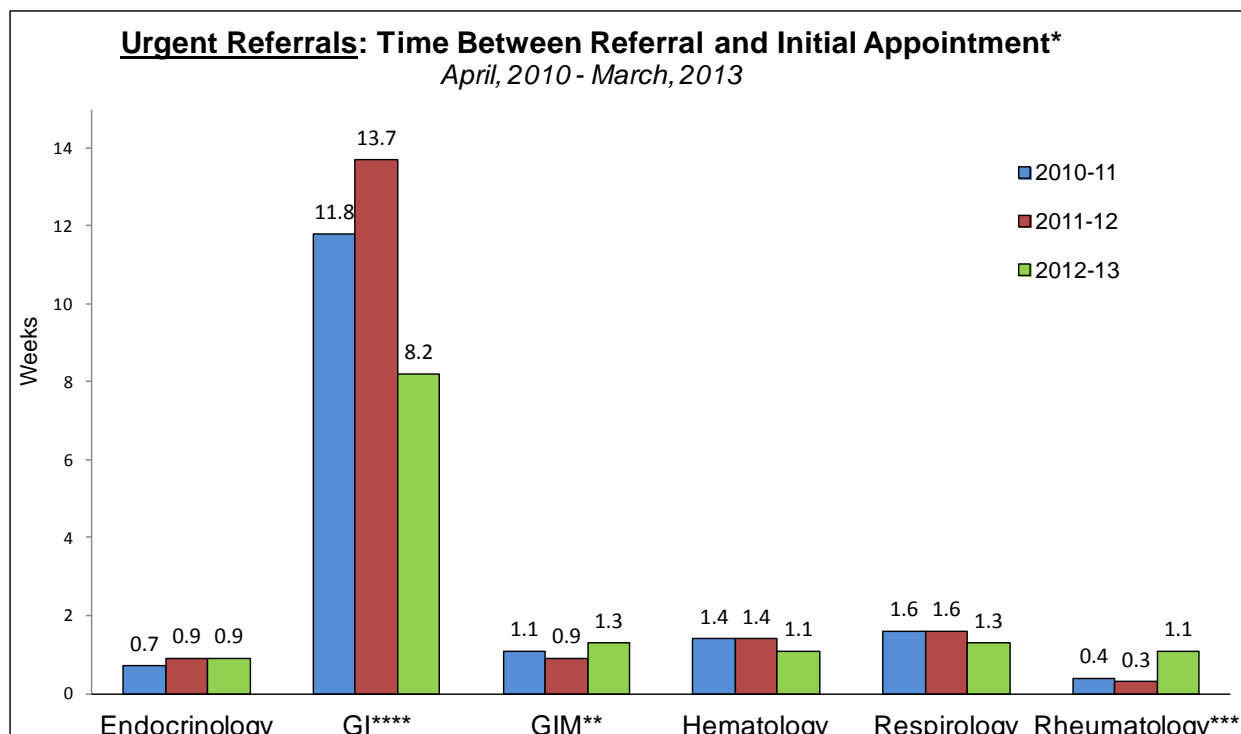
* Each discharged inpatient was assigned a CMG. An occurrence rate of CMG was calculated by using a number of discharged inpatients grouped by the same type of CMG divided by total discharged inpatients within a fiscal year. Divisional assignment of CMG was also affected by if its physicians were the Most Responsible Physicians for the discharged inpatients used in the calculation.

DOM Outpatient Data

Information on DOM outpatient clinic referrals was provided by Central Access & Triage and GI Central Triage. It should be noted that information was not available for all Divisions or for physicians who do not participate in the Central Triage process. Respiriology data is only included from Dec. 2010 onward (when all sites participated in Central Triage). Gastroenterology (GI) data does not include screening colonoscopies performed at the Colon Cancer Screening Centre.



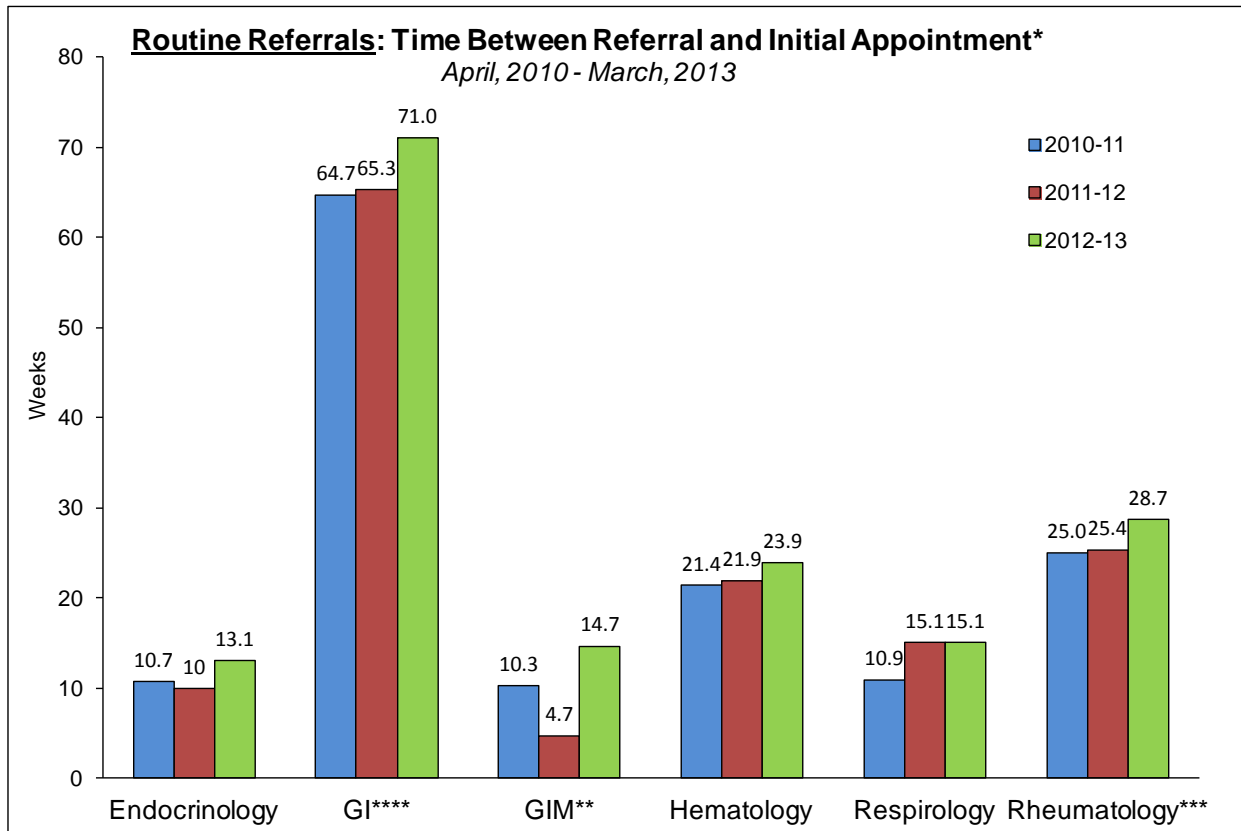
Median wait times of GI for urgent referrals in 2012-13 decreased 40% compared to what was reported in 2011-12. Median wait time of GIM and Rheumatology for urgent referrals in 2012-13 increased 44% and 267% separately compared to the results of 2011-12. Median wait times of Endocrinology for urgent referrals in 2012-13 maintained the same compared to the previous year 2011-12. Haematology and respiriology dropped their median wait times for urgent referrals by 21% and 19% separately compared to the results of the previous year 2011-12.



* The median wait time is presented, except for GI where only the average wait time was available. Due to outliers, the average wait time will typically be longer than the median wait time.

** IBD and DTP cases are not included in GI wait times.

The median wait time for routine referrals increased for majorities of the divisions except for respirology, which maintained the same as the result of previous fiscal year 2011-12.



* The median wait time is presented, except for GI where only the average wait time was available. Due to outliers, the average wait time will typically be longer than the median wait time. GI also reports wait times separately for moderate and routine referrals.

** IBD and DTP cases are not included in GI wait times.

*** Rheumatology routine referral wait times include Mod-Routine referrals.

Peer Reviewed Journal Articles Published in 2012

Name	Title	Authorship	Publish_Year	Type
Ahmed,Sofia	Increased urinary protein excretion in the 'normal' range is associated with increased renin angiotensin system activity.	Nicholl DD, Hemmelgarn BR, Turin TC, Macrae JM, Muruve DA, Sola DY, Ahmed SB	2012	Journal Article
	Lifetime risk of end-stage renal disease.	Turin TC, Tonelli M, Manns BJ, Ahmed SB, Ravani P, James M, Hemmelgarn BR.	2012	Journal Article
	The impact of nocturnal hemodialysis on sexual function.	Bass A, Ahmed SB, Klarenbach S, Culleton B, Hemmelgarn BR, Manns B.	2012	Journal Article
	The impact of nocturnal hemodialysis on sexual function.	Bass A, Ahmed SB, Klarenbach S, Culleton B, Hemmelgarn BR, Manns B.	2012	Journal Article
	Declining kidney function increases the prevalence of sleep apnea and nocturnal hypoxia	Nicholl DD, Ahmed SB, Loewen AH, Hemmelgarn BR, Sola DY, Beecroft JM, Turin TC, Hanly PJ	2012	Journal Article
	Chronic kidney disease and life expectancy.	Turin TC, Tonelli M, Manns BJ, Ravani P, Ahmed SB, Hemmelgarn BR	2012	Journal Article
	Impact of gender on the cardiac autonomic response to angiotensin II in healthy humans.	Mann MC, Exner DV, Hemmelgarn BR, Turin TC, Sola DY, Ahmed SB	2012	Journal Article
	Value of Screening Instruments for Identifying Obstructive Sleep Apnea in Patients with Kidney Failure.	Nicholl DD, Ahmed SB, Loewen A, Hemmelgarn BR, Sola DY, Beecroft J, Turin TC, Hanly PJ.	2012	Journal Article
	Clinical Presentation of Obstructive Sleep Apnea in Patients with Chronic Kidney Disease	Nicholl DD, Ahmed SB, Loewen A, Hemmelgarn BR, Sola DY, Beecroft J, Turin TC, Hanly PJ	2012	Journal Article
Andrews,Christop	Colometer: a real-time quality feedback system for screening colonoscopy.	Filip D, Gao X, Angulo-Rodriguez L, Mintchev MP, Devlin SM, Rostom A, Rosen W, Andrews CN.	2012	Journal Article
	Cytokines and irritable bowel syndrome: Where do we stand?	Bashashati M, Rezaie N, Andrews C, Chen CQ, Daryani NE, Sharkey KA, Storr MA.	2012	Journal Article
	Technical Note: Evaluation of Tined Endoscopically-Placed Mucosal Leads for Temporary Gastric Neurostimulation.	Mintchev P, Arriagada A, Mintchev MP, Andrews CN.	2012	Journal Article
	Unsedated Peroral Wireless pH Capsule Placement vs. Standard pH Testing: A Randomized Multicenter Study and Cost Analysis.	Andrews CN, Sadowski DC, Lazarescu A, Williams C, Neshev E, Storr M, Au F, Heitman S.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Functional Studies of the gastrointestinal tract in adult surgical clinics: when do they help?	Bashashati M, Andrews CN.	2012	Journal Article
	Increasing incidence rates, distribution and histological characteristics of primary gastrointestinal non-Hodgkin lymphoma in a North American population.	Howell JM, Auer-Grzesiak I, Zhang J, Andrews CN, Stewart D, Urbanski SJ.	2012	Journal Article
	Evaluation of endoscopist and pathologist factors affecting the incidence of microscopic colitis.	Andrews CN, Beck PL, Wilsack L, Urbanski SJ, Storr M.	2012	Journal Article
	The rising incidence of eosinophilic oesophagitis is associated with increasing biopsy rates: a population-based study.	Syed AA, Andrews CN, Shaffer E, Urbanski SJ, Beck P, Storr M.	2012	Journal Article
Aspinall,Alexande				
	Outpatient Thin Scope Endoscopy (TSE) for variceal screening in Child's A Cirrhotics: A single centre satisfaction assessment.	Congly SE, Webbink V, Dube C, Myers RP et al, Aspinall AI	2012	Journal Article
	Prediction of bleeding etiology: the clinician is vindicated!	Congly SE, Aspinall AI.	2012	Journal Article
Bacchus,Maria				
	Implementation of a comprehensive procedural skills examination for Internal Medicine using Simulation at the University of Calgary: a descriptive report	Ma, Bacchus, Glow, Brass, Fradgley, Fisher, Altabba, Schaefer	2012	Journal Article
	Procedural Certification Program: Enhancing Resident Procedural Teaching Skills	Ma, Chapelsky, Bhavsar, Connors, Fisher, Schaefer, Bacchus	2012	Journal Article
Bahlis,Nizar				
	Neri P, Bahlis NJ, Lonial S.	Panobinostat for the treatment of multiple myeloma.	2012	Journal Article
	Stewart, Peter Duggan, and Nizar J.	Jiri Slaby, Jordan Johnson, Paola Neri, K Gratton, Li Ren, Douglas A.	2012	Journal Article
	Vij R, Wang M, Kaufman JL, Lonial S, Jakubowiak AJ, Stewart AK, Kukreti V, Jagannath S, McDonagh KT, Alsina M, Bahlis NJ, Reu FJ, Gabrail NY, Belch A, Matous JV, Lee P, Rosen P, Sebag M, Vesole DH, Kunkel LA, Wear SM, Wong AF, Orlowski RZ, Siegel DS.	An open-label, single-arm, phase 2 (PX-171-004) study of single-agent carfilzomib in bortezomib-naïve patients with relapsed and/or refractory multiple myeloma.	2012	Journal Article
	Neri P, Bahlis NJ.	Targeting of adhesion molecules as a therapeutic strategy in multiple myeloma.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Thirukkumaran CM, Shi ZQ, Luider J, Kopciuk K, Gao H, Bahlis N, Neri P, Pho M, Stewart D, Mansoor A, Morris DG.	Reovirus as a viable therapeutic option for the treatment of multiple myeloma.	2012	Journal Article
	Siegel DS, Martin T, Wang M, Vij R, Jakubowiak AJ, Lonial S, Trudel S, Kukreti V, Bahlis N, Alsina M, Chanan-Khan A, Buadi F, Reu FJ, Somlo G, Zonder J, Song K, Stewart AK, Stadtmauer E, Kunkel L, Wear S, Wong AF, Orlowski RZ, Jagannath S.	A phase 2 study of single-agent carfilzomib (PX-171-003-A1) in patients with relapsed and refractory multiple myeloma.	2012	Journal Article
	Daly A, Savoie ML, Geddes M, Chaudhry A, Stewart D, Duggan P, Bahlis N, Storek J, Brown C, Shafey M, Turner AR, Russell J.	Fludarabine, busulfan, antithymocyte globulin, and total body irradiation for pretransplantation conditioning in acute lymphoblastic leukemia: excellent outcomes in all but older patients with comorbidities.	2012	Journal Article
	Vij R, Siegel DS, Jagannath S, Jakubowiak AJ, Stewart AK, McDonagh K, Bahlis N, Belch A, Kunkel LA, Wear S, Wong AF, Wang M.	An open-label, single-arm, phase 2 study of single-agent carfilzomib in patients with relapsed and/or refractory multiple myeloma who have been previously treated with bortezomib.	2012	Journal Article
	Panobinostat for the treatment of multiple myeloma.	Neri P, Bahlis NJ, Lonial S.	2012	Journal Article
	Bahlis NJ.	Darwinian evolution and tiding clones in multiple myeloma.	2012	Journal Article
	Jagannath S, Vij R, Stewart AK, Trudel S, Jakubowiak AJ, Reiman T, Somlo G, Bahlis N, Lonial S, Kunkel LA, Wong A, Orlowski RZ, Siegel DS.	An open-label single-arm pilot phase II study (PX-171-003-A0) of low-dose, single-agent carfilzomib in patients with relapsed and refractory multiple myeloma.	2012	Journal Article
Barber,Claire	Development and assessment of users' satisfaction with the systemic lupus erythematosus disease activity index 2000 responder index-50 website.	Touma Z, Gladman DD, MacKinnon A, Carette S, Abu-Shakra M, Askanase A, Nived O, Hanly JG, Landolt-Marticorena C, Tam LS, Toloza S, Nikpour M, Riddell C, Steiman A, Eder L, Haddad A, Barber C, Urowitz MB.	2012	Journal Article
	Evaluation of clinical outcomes and renal vascular pathology among patients with lupus.	Barber CE, Herzenberg A, Aghdassi E, Su J, Lou W, Qian G, Yip J, Nasr SH, Thomas D, Scholey J, Wither Urowitz M, Gladman D, Reich H, Fortin PR.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Consensus statements for the use of administrative health data in rheumatic disease research and surveillance	Bernatsky S, Lix L, O'Donnell S, Lacaille D; CANRAD Network (Hudson M, Markland J, Docherty P, Fritzler M, Jones N, Kaminska E, Khalidi N, Ligier S, Masetto A, Mathieu JP, Robinson D, Smith D, Sutton E, Abu-Hakim M, Leclercq S, Lix L, O'Donnell S, Badley E, Hanly J, Hawker G, Henderson J, Lim S, Peschken C, Stringer E, Svenson L, Labrecque J, Widdifield J, Bernatsky S, Askling J, Bergeron L, Dixon W, Kopec J, Paterson M, Raymond C, Solomon D, Suissa S, Vinet E, Lacaille D, Avina-Zubieta A, Fortin P, Hudson M, Jean S, Rahme E, Solomon D, Whitehead G, Barber C, Kuriya B, Labrecque J, Leong A, Sirois C)	2012	Journal Article
Barnabe, Cheryl	Subsequent Entry Biosimilars: A View point from Canada	Russell AS, Ahwulia V, Barnabe C, Jamal S, Offer R, Shojania K, Haraoui B.	2012	Journal Article
	Non-biologic disease-modifying antirheumatic drugs (DMARDs) improve pain in inflammatory arthritis: A systemic literature review of randomized controlled trials.	Steinman A, Pope J, Thiessen-Philbrook H, Li L, Barnabe C, Kalache F, Kung T, Bessette L, Flanagan C, Haraoui B, Hochman J, LeClerc S, Mosher D, Thorne C, Bykerk V.	2012	Journal Article
	The Association of Enrolment in Primary Care Networks on Diabetes Care and Outcomes in First Nations and Low Income Albertans.	Campbell DJT, Ronksley PE, Hemmelgarn BR, Zhang J, Barnabe C, Tonelli M, Manns B.	2012	Journal Article
	Infliximab Therapy Efficacy and Persistence at a Canadian Academic Centre Despite a Change in Access Procedure.	Barnabe C, Barr SG, Martin L.	2012	Journal Article
	Healthcare Service Costs are Reduced When Rheumatoid Arthritis Patients Achieve Sustained Remission	Barnabe C, Thanh NX, Ohinmaa A, Homik J, Barr SG, Martin L, Maksymowych WP.	2012	Journal Article
	Increased Prevalence of Systemic Lupus Erythematosus and Systemic Sclerosis in Alberta's First Nations Population	Barnabe C, Joseph L, Belisle P, Labrecque J, Edworthy S, Barr SG, Fritzler M, Svenson LW, Hemmelgarn B, Bernatsky S.	2012	Journal Article
	Sex Differences in Pain Scores and Localization in Inflammatory Arthritis: A Systemic Review and Meta-Analysis.	Barnabe C, Bessette L, Flanagan C, LeClerc S, Steiman A, Kalache F, Kung T, Pope J, Haraoui B, Hochman J, Mosher D, Thorne C, Bykerk V.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	High-Resolution peripheral Quantitative Computed Tomography (HR-pQCT) Imaging Protocol for Metacarpophalangeal Joints in Inflammatory Arthritis: The SPECTRA Collaboration.	Barnabe C, Feehan L.	2012	Journal Article
	Prevalence of Autoimmune Inflammatory Myopathy in Alberta's First Nations Population.	Barnabe C, Joseph L, Belisle P, Labreque J, Edworthy S, Barr SG, Fritzler M, Svenson LW, Hemmelgarn B, Bernatsky S.	2012	Journal Article
	Abatacept Use After Failure of Multiple Biologic Agents in Patient with Severe Rheumatoid Arthritis.	Hazlewood G, Barnabe C, Barr SG, Martin L.	2012	Journal Article
	Comparison of Radiographic Scoring Methods in a Cohort of RA Patients Treated with Anti-TNF Therapy.	Barnabe C, Hazlewood G, Barr SG, Martin L.	2012	Journal Article
Barr,Susan	Comparison of Radiographic Scoring Methods in a Cohort of RA Patients Treated with Anti-TNF Therapy.	Barnabe C, Hazlewood G, Barr SG, Martin L.	2012	Journal Article
	Increased Prevalence of Systemic Lupus Erythematosus and Systemic Sclerosis in Alberta's First Nations Population.	Barnabe C, Joseph L, Belisle P, Labrecque J, Edworthy S, Barr SG, Fritzler M, Svenson LW, Hemmelgarn B, Bernatsky S.	2012	Journal Article
	Infliximab Therapy Efficacy and Persistence at a Canadian Academic Centre Despite a Change in Access Procedure.	Barnabe C, Barr SG, Martin L.	2012	Journal Article
Bass,Adam	The impact of nocturnal hemodialysis on sexual function.	Bass A, Ahmed SB, Klarenbach S, Culleton B, Hemmelgarn BR, Manns B.	2012	Journal Article
Baylis,Barry	Multidimensional evaluation of a radio frequency identification wi-fi location tracking system in an acute-care hospital setting.	Okoniewska B, Graham A, Gavrilova M, Wah D, Gilgen J, Coke J, Burden J, Nayyar S, Kaunda J, Yergens D, Baylis B, Ghali WA; on behalf of the Ward of the 21st Century team.	2012	Journal Article
Beck,Paul	The rising incidence of eosinophilic oesophagitis is associated with increasing biopsy rates: a population-based study	Syed AA, Andrews CN, Shaffer E, Urbanski SJ, Beck P, Storr M.	2012	Journal Article
	The airway epithelium nucleotide-binding domain and leucine-rich repeat protein 3 inflammasome is activated by urban particulate matter	Hirota JA, Hirota SA, Warner SM, Stefanowicz D, Shaheen F, Beck PL, Macdonald JA, Hackett TL, Sin DD, Van Eeden S, Knight DA.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Activation of neuronal P2X7 receptor-pannexin-1 mediates death of enteric neurons during colitis	Gulbransen BD, Bashashati M, Hirota SA, Gui X, Roberts JA, MacDonald JA, Muruve DA, McKay DM, Beck PL, Mawe GM, Thompson RJ, Sharkey KA.	2012	Journal Article
	Intrarectal instillation of Clostridium difficile toxin A triggers colonic inflammation and tissue damage: development of a novel and efficient mouse model of Clostridium difficile toxin exposure	Hirota SA, Iablokov V, Tulk SE, Schenck LP, Becker H, Nguyen J, Al Bashir S, Dingle TC, Laing A, Liu J, Li Y, Bolstad J, Mulvey GL, Armstrong GD, MacNaughton WK, Muruve DA, MacDonald JA, Beck PL.	2012	Journal Article
	Up-regulation of Annexin-A1 and lipxin A(4) in individuals with ulcerative colitis may promote mucosal homeostasis	Vong L, Ferraz JG, Dufton N, Panaccione R, Beck PL, Sherman PM, Perretti M, Wallace JL.	2012	Journal Article
	Evaluation of endoscopist and pathologist factors affecting the incidence of microscopic colitis	Andrews CN, Beck PL, Wilsack L, Urbanski SJ, Storr M.	2012	Journal Article
	The EGF receptor and HER2 participate in TNF-alpha-dependent MAPK activation and IL-8 secretion in intestinal epithelial cells	Jijon HB, Buret A, Hirota CL, Hollenberg MD, Beck PL.	2012	Journal Article
	Nucleotide-binding oligomerization domain-like receptors and inflammasomes in the pathogenesis of non-microbial inflammation and diseases	Mason DR, Beck PL, Muruve DA.	2012	Journal Article
Bridges,Ronald				
	Canadian Association of Gastroenterology consensus guidelines on safety and quality indicators in endoscopy.	Armstrong D., Barkun A., Bridges RJ., Carter R., de Gara C, Dube C., Enns R., Hollingworth R., MacIntosh D., Borgaonkar M., Forget S., Leontiadis G., Meddings J., Cotton P., Kuipers E., Valori R.	2012	Journal Article
	On behalf of the Canadian Association of Gastroenterology: Safety and Quality Indicators in Endoscopy Consensus Group. Indicators of safety compromise in gastrointestinal endoscopy.	Borgaonkar MR., Hookey L., Hollingworth R., Kuipers EJ.,Forster A., Armstrong D., Barkun A., Bridges RJ., Carter R., de Gara C., Dube C., Enns R., MacIntosh D., Forget S., Leontiadis G., Meddings J., Cotton P., Valori R.	2012	Journal Article
	CDHF Public Impact Series 5: Pancreatitis in Canada. Incidence, prevalence, and direct and indirect economic impact.	Teshima CW., Bridges RJ., Fedorak RN.	2012	Journal Article
	CDHF Public Impact Series 3: Irritable bowel syndrome in Canada. Incidence, prevalence, and direct and indirect economic impact.	Fedorak RN, Vanner S., Paterson W., Bridges RJ.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	CDHF Public Impact Series 4: Celiac Disease in Canada: Incidence, prevalence, and direct economic impact.	Fedorak RN., Switzer CM., Bridges RJ.	2012	Journal Article
Brown,Christopher	Fludarabine, Busulfan, Antithymocyte Globulin, and Total Body Irradiation for Pretransplantation Conditioning in Acute Lymphoblastic Leukemia: Excellent Outcomes in All but Older Patients with Comorbidities.	Daly A, Savoie M L, Geddes M, Chaudhry A, Stewart D, Duggan P, Bahlis N, Storek J, Brown C, Shafey M, Turner A R, Russell J.	2012	Journal Article
	Development and validation of a test dose strategy for once daily IV busulfan: Importance of fixed infusion rate dosing.	Kangarloo SB, Naveed K, Ng ESM, Chaudhry MA, Wu J, Bahlis NJ, Brown CB, Daly A, Duggan P, Geddes M, Quinlan D, Savoie ML, Shafey M, Stewart DA, Storek J, Yang M, Zacarias N, Yue P, Magliocco AM, Russell JA.	2012	Journal Article
Burak,Kelly	Cardiac work-up protocol for liver transplant candidates: experience from a single liver transplant centre.	Ye C, Saincher M, Tandon P, Meeberg G, Williams R, Burak KW, Bain VG.	2012	Journal Article
	Incidence and risk factors associated with de novo autoimmune hepatitis after transplantation.	Montano-Loza AJ, Vargas-Vorackova F, Ma M, Bain VG, Burak K, Kumar T, Mason AL.	2012	Journal Article
	Plasma biomarkers as predictors of outcome in patients with advanced hepatocellular carcinoma	Llovet JM, Peña CE, Lathia CD, Shan M, Meinhardt G, Bruix J; SHARP Investigators Study Group [Burak K, collaborator]	2012	Journal Article
Buresi,Michelle	Venous thromboembolism in cirrhosis; a review of the literature	Buresi M, Hull RD, Coffin CS	2012	Journal Article
	Venous thromboembolism in cirrhosis; a review of the literature	Buresi M, Hull RD, Coffin CS	2012	Journal Article
Campbell,Norman	The gender disparity in hypertension control	Wilkins K, Gee M and Campbell NRC	2012	Journal Article
	A ban on marketing of foods/beverages to children: the who, why, what, and how of a population health intervention	Dutton DJ, Campbell, NRC, Elliott C, McLaren L	2012	Journal Article
	Antihypertensive medication use, adherence, stops and starts in Canadians with hypertension	Gee ME, Campbell NRC, Gwadry-Sridhar F, Nolan RP, Kaczorowski J, Bienek A, Robitaille C, Joffres M, Dai S, Walker RL for the Outcomes Research Task Force of the Canadian Hypertension Education Program	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Prevalence, awareness, treatment and control of hypertension among Canadian adults with diabetes, 2007-2009	Gee ME, Janssen I, Pickett W, McAlister FA, Bancej CM, Joffres M, Johansen H, Campbell N	2012	Journal Article
	A framework for discussion on how to improve prevention, management and control of hypertension in Canada	Campbell N, Young E, Drouin D, Legowski B, Adams M, Farrell J, Kaczorowski J, Lewanczuk R, Moy Lum-Kwong M, Tobe S	2012	Journal Article
	Consumers' attitudes, knowledge and behaviors related to salt consumption in sentinel countries of the Americas	Claro RM, Linders H, Zancheta C, Correa-Rotter R, Legetic B, Campbell NRC	2012	Journal Article
	International collaborative project to compare and track the nutritional composition of fast foods	The Food Monitoring Group (N Campbell International contributor).	2012	Journal Article
	Systematic review of studies comparing 24-hour and spot urine collections for estimating population salt intake	Ji C, Sykes L, Paul C, Dary O, Legetic B, Campbell NRC, Cappuccio FP on behalf of the Sub-Group for Research & Surveillance of the PAHO/WHO Regional Expert Group for Cardiovascular Disease Prevention through population-wide Dietary Salt Reduction.	2012	Journal Article
	Sodium, Blood Pressure and Cardiovascular Disease: Further Evidence Supporting the American Heart Association Sodium Reduction Recommendations, A Presidential Advisory From the American Heart Association	Whelton PK, Appel LJ, Sacco RL, Anderson CMA, Antman EM, Campbell N, Dunbar SB, Frohlich ED, Hall JE, Jessup M, Labarthe DR, MacGregor GA, Sacks FM, Stamler J, Vafiadis DK, Van Horn LV	2012	Journal Article
	Factors associated with lack of awareness and uncontrolled high blood pressure among Canadian adults with hypertension	Gee ME, Campbell NRC, Joffres M, Robitaille C, Tremblay MS, McAlister F, Johansen H, Bienek A	2012	Journal Article
	"Junk Foods", "Treats" or "Pathogenic foods"? A Call for Changing Nomenclature to Fit the Risk of Today's Diets	Campbell NRC, Raine KD, McLaren L	2012	Journal Article
	Systematic review and meta-analysis of intensive blood pressure targets in type 2 diabetes	McBrien K, Rabi D, Campbell N, Barnieh L, Clement F, Hemmelgarn B, Tonelli M, Leiter L, Klarenbach S, Manns B	2012	Journal Article
	Collaboration to optimize dietary intakes of salt and iodine. A critical but overlooked public health issue	Campbell N, Dary O, Cappuccio FP, Neufeld LM, Harding KB, Zimmermann MB	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Re US tops salty fast food league table. Response to letter from Morton Satin. BMJ 2012 http://www.bmj.com/content/344/bmj.e2769/r/r/582338 , Re:Desk-bound authors do not understand food industry. Response to letter from Morton Satin. CMAJ, published on line May 2 2012.	Campbell NRC	2012	Journal Article
	Canadian Hypertension Education Program Recommendations: The Short Clinical Summary - An Annual Update	Campbell N with the CHEP Executive and contributions by Dr. Tavis Campbell, Dr. Steven Grover, Dr. Michael Hill and Dr. Raj Padwal.	2012	Journal Article
	The 2012 Canadian Hypertension Education Program (CHEP) Recommendations for the Management of Hypertension: Blood Pressure Measurement, Diagnosis, Assessment of Risk and Therapy	Daskalopoulou SS, Khan NA, Quinn RR, Ruzicka M, McKay DW, Hackam DG, Rabkin SW, Rabi DM, Gilbert RE, Padwal RS, Dawes M, Touyz RM, Campbell TS, Cloutier L, Grover S, Honos G, Herman RJ, Schiffrin LE, Bolli P, Wilson T, Feldman RD, Lindsay MP, Hemmelgarn BR, Hill MD, Gelfer M, Burns KD, Vallée M, Prasad RVR, Lebel M, McLean D, Arnold JMO, Moe GW, Howlett JG, Boulanger J-M, Larochelle P, Leiter LA, Jones C, Ogilvie RI, Woo V, Kaczorowski J, Trudeau L, Bacon SL, Petrella RJ, Milot A, Stone JA, Drouin D, Lamarre-Cliché M, Godwin M, Tremblay G, Hamet P, Fodor G, Carruthers SG, Pylypchuk G, Burgess E, Lewanczuk R, Dresser GK, Penner B, Hegele RA, McFarlane PA, Sharma M, Campbell NRC, Reid D, Poirier L, and Tobe SW, for the Canadian Hypertension Education Program.	2012	Journal Article
	Response to letter from Jacky Siu et al on Hypertension in People with Type 2 Diabetes: An Update on Pharmacological Management	Campbell NRC, Gilbert RE, Leiter LA, Larochelle P, Tobe S, Chockalingam A, Ward R, Morris D, Tsuyuki RT, Harris S	2012	Journal Article
	A call for action to coordinate programs to improve global health by optimizing salt and iodine intake	Campbell NRC, Dary O, Cappuccio FP, Neufeld LM, Harding KB, Zimmermann MB	2012	Journal Article
	Salt Intake to Prevent Hypertension and Cardiovascular Disease	He FJ, Campbell NRC, MacGregor GA	2012	Journal Article
	Canadian Hypertension Education Program. Challenges and scientific considerations in hypertension management reflected in the 2012 recommendations of the Canadian Hypertension Education Program	Tobe SW, Poirier L, Tremblay G, Lindsay P, Reid D, Campbell NRC	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	The Role of Ambulatory Blood Pressure Monitoring in the Diagnosis of Hypertension. New recommendations?	Campbell NRC, Hemmelgarn BR	2012	Journal Article
	Mining administrative health databases to advance medical science: Geographical considerations and untapped potential in Canada	Quan H, Smith M, Bartlett-Esquilant G, Johansen H, Tu K Lix L for Hypertension Outcome and Surveillance Team (N Campbell co- lead for HOST)	2012	Journal Article
	Population-level interventions in government jurisdictions for dietary sodium reduction: differential effects by social and economic indicators on health outcomes related to high sodium intake (protocol)	McLaren L, Sumar N, Lorenzetti D, Campbell NRC, McIntyre L, Tarasuk V	2012	Journal Article
	Features of Physician Services Databases in Canada. Chronic Diseases and Injuries in Canada	Lix LM, Walker R, Quan H, Nesdole R, Yang J, Chen G on behalf of the CHEP ORTF Hypertension Outcomes and Surveillance Team (Campbell N is a co-lead of Hypertension Outcomes and Surveillance Team)	2012	Journal Article
	Prevalence of, and barriers to, preventive lifestyle behaviors in hypertension (from a national survey of Canadians with hypertension)	Gee ME, Bienek A, Campbell NR, Bancej CM, Robitaille C, Kaczorowski J, Joffres M, Dai S, Gwadry-Sridar F, Nolan RP	2012	Journal Article
	Perception of uncontrolled blood pressure and behaviours to improve blood pressure: Findings from the 2009 survey on living with chronic disease in Canada	Gee M, Campbell NRC, Banceja CM, Robitaille C, Bieneka A, Joffres MR, Walker RI, Kaczorowski J, Dai S	2012	Journal Article
	Incidence, prevalence and mortality of diagnosed hypertension in Canada	Robitaille C, Dai S, Waters C, Loukine L, Bancej C, Quach S, Ellison J, Campbell N, Tu K, Reimer K, Walker R, Smith M, Blais C, Quan H	2012	Journal Article
Castillo,Eliana	A Comparison of Severity of Illness Scores in Critically Ill Obstetric Patients: A Six-Year Retrospective Analysis	Jose Rojas-Suarez, MD; Eliana Castillo, MD; Angel Paternina, MD; Jezid Miranda, MD; Ray Mendoza, MD; Carmelo Dueñas, MD; Ghada Bourjeily, MD	2012	Journal Article
	Acute Respiratory Failure as a Cause of Maternal Mortality in Colombia: An 11-Year Retrospective Study	Camilo Bello Muñoz, MD; Jose Rojas-Suarez, MD; Angel Paternina, MD; Eliana Castillo, MD; Jezid Miranda, MD; Carmelo Dueñas, MD; Ghada Bourjeily, MD	2012	Journal Article
	Clinical Characteristics and Outcomes of Obstetric Patients Requiring Mechanical Ventilation in Colombia	Eliana Castillo, MD; Jose Rojas-Suarez, MD; Carmelo Dueñas, MD; Angel Paternina, MD; Jezid Miranda, MD; Ghada Bourjeily, MD	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Antibiotic prophylaxis in gynaecologic procedures.	Van Eyk N, van Schalkwyk J, Allen VM, Yudin MH, Bouchard C, Boucher M, Caddy S, Castillo E, et al	2012	Journal Article
	Management of Group B Streptococcal Bacteriuria in Pregnancy - SOGC Clinical Practice Guideline	Allen VM, Yudin MH, Bouchard C, Boucher M, Caddy S, Castillo E, et al.	2012	Journal Article
Chee,Alex	Evaluation of Clinical Endobronchial Ultrasound Skills Following Clinical versus Simulation Training	D. Stather, P. MacEachern, A. Chee, E. Dumoulin, A. Tremblay	2012	Journal Article
	Flexible transbronchial optical frequency domain imaging smart needle for biopsy guidance	KM Tan, M Shishkov, A Chee, MB Applegate, BE Bouma, MJ Suter	2012	Journal Article
	Wet Laboratory versus computer simulation for learning endobronchial ultrasound: A randomized trial	DR Stather, P MacEachern, A Chee, E Dumoulin, CA Hergott, A Tremblay	2012	Journal Article
	Safety of Endobronchial Ultrasound-Guided Transbronchial Needle Aspiration for Patients Taking Clopidogrel: A Report of 12 Consecutive Cases	DR Stather, P MacEachern, A Chee, A Tremblay	2012	Journal Article
	Cytologic Assessment of Endobronchial Ultrasound-guided Transbronchial Needle Aspirates in Sarcoidosis	A Chee, M Khalil, DR Stather, P MacEachern, SK Field, A Tremblay	2012	Journal Article
Coffin,Carla	Management of Chronic Hepatitis B: Updated Canadian Consensus Guidelines 2012	Coffin CS, Fung S, Mang M	2012	Journal Article
	Venous Thromboembolism in Cirrhosis: A Case Study and Review of the Literature	Buresi M, Hull R, MD, Coffin CS	2012	Journal Article
	Hepatitis C Virus persistence after sustained virological response to antiviral therapy in patients with or without past exposure to Hepatitis B Virus	Pham TN, Coffin CS, Churchill ND, Urbanski SU, Lee SS, Michalak TI	2012	Journal Article
	Pregnancy following Liver Transplantation: Review of Outcomes and Recommendations for Management	Parhar KS, Gibson PS, Coffin CS	2012	Journal Article
Conly,John	Aerosol generating procedures and risk of transmission of acute respiratory infections to healthcare workers: a systematic review.	Tran K, Cimon K, Severn M, Pessoa-Silva CL, Conly J.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	The WHO policy package to combat antimicrobial resistance	Emily Leung , Diana E Weil , Mario Raviglione , Hiroki Nakatani on behalf of the World Health Organization World Health Day Antimicrobial Resistance Technical Working Group (Awa Aidara-Kane, S Bertagnolio, G Dziekan, O Fontaine, E Mathai, F Ndowa, C Pessoa Da Silva, P Ringwald, K Weerasuriya, M Zignol. R Bhatia, B Ganter, J Mahjour, NE Metwalli, A Seita, W Nkhoma, P Ramon-Pardo and D Shuey, E Back, A Beith, A Cassels, J Conly and L Martinez)	2012	Journal Article
	Ready for a world without antibiotics? The Pensières Antibiotic Resistance Call to Action.Antimicrob Resist Infect Control.	Carlet J, Jarlier V, Harbarth S, Voss A, Goossens H, Pittet D; Participants* (Conly J *, member) of the 3rd World Healthcare-Associated Infections Forum./	2012	Journal Article
	A correlative analysis of epidemiologic and molecular characteristics of methicillin-resistant Staphylococcus aureus clones from diverse geographic locations with virulence measured by a Caenorhabditis elegans host model.	Wu K, Zhang K, McClure J, Zhang J, Schrenzel J, Francois P, Harbarth S, Conly J.	2012	Journal Article
	Carbapenem-resistant Gram-negative bacilli in Canada 2009-10: results from the Canadian Nosocomial Infection Surveillance Program (CNISP).J Antimicrob Chemother.	Mataseje LF, Bryce E, Roscoe D, Boyd DA, Embree J, Gravel D, Katz K, Kibsey P, Kuhn M, Mounchili A, Simor A, Taylor G, Thomas E, Turgeon N, Mulvey MR; Canadian Nosocomial Infection Surveillance Program*(Conly J *, member)	2012	Journal Article
	National surveillance of methicillin-resistant Staphylococcus aureus among hospitalized pediatric patients in Canadian acute care facilities, 1995-2007.	Matlow A, Forgie S, Pelude L, Embree J, Gravel D, Langley JM, Saux NL, Moore D, Mounchili A, Mulvey M, Shurgold J, Simor AE, Thomas E, Vayalunkal J; Canadian Nosocomial Infection Surveillance Program*. (Conly J *, member)	2012	Journal Article
	Enhanced multiplex PCR assay for typing of staphylococcal cassette chromosome mec types I to V in methicillin-resistant Staphylococcus aureus.Mol Cell Probes.	Zhang K, McClure JA, Conly JM.	2012	Journal Article
	Physical interventions to interrupt or reduce the spread of respiratory viruses - resource use implications: a systematic review.	Lee K, Shukla V, Clark M, Mierzwinski-Urbaniak M, Pessoa-Silva C, Conly J	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Infection-induced NETosis is a dynamic process involving neutrophil multitasking in vivo.	Yipp BG, Petri B, Salina D, Jenne CN, Scott BN, Zbytniuk LD, Pittman K, Asaduzzaman M, Wu K, Meijndert HC, Malawista SE, de Boisfleury Chevance A, Zhang K, Conly J, Kubes P.	2012	Journal Article
	Antimicrobial resistance programs in Canada 1995-2010: a critical evaluation. Antimicrob Resist Infect Control.	Conly JM.	2012	Journal Article
	Assessment of virulence diversity of methicillin-resistant Staphylococcus aureus strains with a Drosophila melanogaster infection model.	Wu K, Conly J, Surette M, Sibley C, Elsayed S, Zhang K	2012	Journal Article
Cowie, Robert	Canadian Cohort Obstructive Lung Disease (CanCOLD)) Fulfilling the need for longitudinal observational studies in COPD. OF PRINT	Bourbeau J, Tan W, Benedetti A, Aaron S, Chapman KR, Coxson HO, Cowie RL, et al	2012	Journal Article
	New treatment options for multi-drug resistant tuberculosis	Field SK, Fisher DA, Jarand JM, Cowie RL	2012	Journal Article
Daly, Andrew	Invited Review: Remestemcel-L: The First Commercial Cellular Therapy Product for GVHD.	Daly A.	2012	Journal Article
	Immune reconstitution after anti-thymocyte globulin-conditioned hematopoietic cell transplantation.	Bosch M, Dhadda M, Hoegh-Petersen M, Liu Y, Hagel L M, Podgorny P, Ugarte-Torres A, Khan F M, Luider J, Auer-Grzesiak I, Mansoor A, Russell J A, Daly A, Stewart D, Maloney D, Boeckh M, Storek J.	2012	Journal Article
	Development and validation of a test-dose strategy for once-daily IV busulfan: Importance of fixed infusion rate dosing.	Kangarloo SB, Naveed F, Ng ESM, Chaudhry MA, Wu J, Bahlis NJ, Brown CB, Daly A, Duggan P, Geddes M, Quinlan D, Savoie ML, Shafey M, Stewart DA, Storek J, Yang M, Zacarias N, Yue P, Magliocco AM, Russell JA	2012	Journal Article
	Fludarabine, Busulfan, Antithymocyte Globulin, and Total Body Irradiation for Pretransplantation Conditioning in Acute Lymphoblastic Leukemia: Excellent Outcomes in All but Older Patients with Comorbidities.	Daly A, Savoie M L, Geddes M, Chaudhry A, Stewart D, Duggan P, Bahlis N, Storek J, Brown C, Shafey M, Turner A R, Russell J.	2012	Journal Article
	IL15 levels on day 7 after hematopoietic cell transplantation predict chronic GVHD.	Pratt LM, Liu Y, Ugarte-Torres A, Hoegh-Petersen M, Podgorny PJ, Lyon AW, Williamson TS, Khan FM, Chaudhry MA, Daly A, Stewart DA, Russell JA, Grigg A, Ritchie D, Storek J.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
Davis,Paul	Fever, headache, fatigue and chancre in a traveller returning from Tanzania	JP Davis, VP Chaubey, R Warren, M Parkins, M Louie, D Gregson, D Sabuda, S Kuhn	2012	Journal Article
Donovan,Lois	Screening and Diagnosing Gestational Diabetes Mellitus.	Hartling L, Dryden DM, Guthrie A, Muise M, Vandermeer B, Aktary WM, Pasichnyk D, Seida JC, Donovan L	2012	Journal Article
	Label of Gestational Diabetes (GDM) affects C-section and NICU admission without conventional indications	Lois E. Donovan, Shawna L. Boyle, Deborah A. McNeil, Sue D Pedersen, Stafford R. Dean, Stephen Wood , Alun L Edwards	2012	Journal Article
	Preconception care in women with diabetes: Who gets it? Does it work?	Melissa Kallas-Koeman1 MD MSc, Farah Khandwala2 MSc, and Lois Donovan3 MD	2012	Journal Article
Dube,Catherine	On Behalf Of The Canadian Association Of Gastroenterology Safety And Quality Indicators In Endoscopy Consensus Group. Indicators of safety compromise in gastrointestinal endoscopy	Borgaonkar MR, Hookey L, Hollingworth R, Kuipers EJ, Forster A, Armstrong D, Barkun A, Bridges R, Carter R, de Gara C, Dube C, Enns R, Macintosh D, Forget S, Leontiadis G, Meddings J, Cotton P, Valori	2012	Journal Article
	Tackling colorectal cancer as a public health issue: What can the gastroenterologist do?	Dubé C.	2012	Journal Article
	Identifying gaps in after-hours endoscopic practices	Dubé C, Hilsden RJ.	2012	Journal Article
	Canadian Association of Gastroenterology Safety and Quality Indicators in Endoscopy Consensus Group. Canadian association of gastroenterology Consensus guidelines on safety and quality indicators in endoscopy.	Armstrong D, Barkun A, Bridges R, Carter R, de Gara C, Dube C, Enns R, Hollingworth R, Macintosh D, Borgaonkar M, Forget S, Leontiadis G, Meddings J, Cotton P, Kuipers EJ;	2012	Journal Article
Duggan,Peter	Double high-dose therapy with dose-intensive cyclophosphamide, etoposide, cisplatin (DICEP) followed by high-dose melphalan and autologous stem cell transplantation for relapsed/refractory Hodgkin lymphoma.	Shafey M, Duan Q, Russell J, Duggan P, Balogh A, Stewart DA.	2012	Journal Article
	Development and validation of a test dose strategy for once-daily i.v. busulfan: importance of fixed infusion rate dosing.	Kangarloo SB, Naveed F, Ng ES, Chaudhry MA, Wu J, Bahlis NJ, Brown CB, Daly A, Duggan P, Geddes M, Quinlan D, Savoie ML, Shafey M, Stewart DA, Storek J, Yang M, Zacarias N, Yue P, Magliocco AM, Russell JA.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Upfront thiotepa, busulfan, cyclophosphamide, and autologous stem cell transplantation for primary CNS lymphoma: a single centre experience.	Alimohamed N, Daly A, Owen C, Duggan P, Stewart DA.	2012	Journal Article
	Fludarabine, busulfan, antithymocyte globulin, and total body irradiation for pretransplantation conditioning in acute lymphoblastic leukemia: excellent outcomes in all but older patients with comorbidities.	Daly A, Savoie ML, Geddes M, Chaudhry A, Stewart D, Duggan P, Bahlis N, Storek J, Brown C, Shafey M, Turner AR, Russell J.	2012	Journal Article
	High Epstein-Barr virus-specific T-cell counts are associated with near-zero likelihood of acute myeloid leukemia relapse after hematopoietic cell transplantation.	Hoege-Petersen M, Sy S, Ugarte-Torres A, Williamson TS, Eliasziw M, Mansoor A, Liu Y, Liu S, Podgorny P, Khan F, Duggan PR, Stewart DA, Russell JA, Storek J.	2012	Journal Article
Edwards, Alun	Label of Gestational Diabetes Mellitus Affects Caesarean Section and Neonatal Intensive Care Unit Admission without Conventional Indications.	Donovan LE, Boyle SL, McNeil DA, Pedersen SD, Dean SR, Wood SL, Edwards AL.	2012	Journal Article
	Screening for diabetes with A1c: staring at the empty stable.	Edwards AL	2012	Journal Article
Edworthy, Steven	Prevalence of systemic lupus erythematosus and systemic sclerosis in the First Nations population of Alberta, Canada	Barnebe C, Joseph L, Belisle P, Labrecque J, Edworthy S, Barr SG, Fritzler M, Svenson LW, Hemmelgarn B, Bernatsky S	2012	Journal Article
Eksteen, J. Albertus	CXCR3-dependent recruitment and CCR6-mediated Positioning of Th-17 cells in the Inflamed Liver	Oo Y, Banz V, Kavanagh D, Withers DR, Humphreys E, Lee-Turner L, Reynolds G, Kalia N, Hubscher SG, Eksteen B, Adams DH	2012	Journal Article
Esdaile, John	The risk of gastrointestinal events in rheumatoid arthritis patients after the withdrawal of rofecoxib.	Marra CA, Lynd LD, Colley L, Harvard SS, Lacaille D, Schwenger E, Anis AH, Esdaile JM.	2012	Journal Article
Ferraz, Jose	Endothelin and neonatal capsaicin regulate gastric resistance to injury in BDL rats	Camara PRS, Ferraz GJN, Velloso LA, Zeitune JMR, Suassuna FAB, Ferraz JGP	2012	Journal Article
	Dextran sulfate sodium induces pan-gastroenteritis in rodents: implications for studies of colitis	Elsheikh W, Flannigan KL, McKnight W, Ferraz JGP, Wallace JL	2012	Journal Article
	Hydrogen sulfide: an endogenous mediator of resolution of inflammation and injury	Wallace JL, Ferraz JG, Muscara MN	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Up-regulation of Annexin-A1 and lipoxin A(4) in individuals with ulcerative colitis may promote mucosal homeostasis	Vong L, Ferraz JG, Dufton N, Panaccione R, Beck PL, Sherman PM, Perretti M, Wallace JL.	2012	Journal Article
Field,Stephen	New therapies for multi-drug resistant tuberculosis	Field SK, Fisher D, Jarand JM, Cowie RL.	2012	Journal Article
Fitzgerald,Avril	Time to disease modifying anti-rheumatic drug treatment in rheumatoid arthritis and its predictors: A national, multi-center, retrospective	Tavares R, Pope JE, Tremblay JL, Thorne C, Bykerk VP, Lazovskis J, Blocka KL, Bell MJ, Lacaille D, Hitchon CA, Fitzgerald AA, Fidler WK, Bookman AA, Henderson JM, Mosher DP, Sholter DE, Khraishi M, Haraoui B, Chen H, Li X, Laupacis A, Boire G, Tomlinson G, Bombardier C.	2012	Journal Article
Flemons,Ward	The effect of continuous pressure monitoring on strategic shifting of medical inpatients at risk for Pressure Ulcers	Motamedi, S.M., de Grood, J., Harman, S., Sargious, P., Baylis, B., Flemons, W., Ghali, W.A.	2012	Journal Article
Fraser,Kristin	Diagnostic performance 1 h after simulation training predicts learning.	Consoli A, Fraser K, Ma I, Sobczak M, Wright B, McLaughlin K.	2012	Journal Article
	Emotion, cognitive load and learning outcomes during simulation training	Fraser K, Ma I, Testeris E, Baxter H, Wright B, MacLaughlin K	2012	Journal Article
	Learning during simulation training is prone to retroactive interference	Kristin Fraser, Irene Ma, Elise Teteris, Murray Lee, Bruce Wright, Kevin McLaughlin	2012	Journal Article
Fritzler,Marvin	Clinical correlates of CENP-A and CENP-B antibodies in a large cohort of systemic sclerosis patients.	Hudson M, Mahler M, Pope J, You D, Tatibouet S, Steele R, Baron M, Canadian Scleroderma Research Group (CSRG), Fritzler MJ	2012	Journal Article
	Consensus statements for the use of administrative health data in rheumatic disease research and surveillance.	Bernatsky S, Lix L, O'Donnell S, Lacaille D; Fritzler MJ, CANRAD Network.	2012	Journal Article
	The Clinical Significance of the Dense Fine Speckled Immunofluorescence Pattern on HEp-2 Cells for the Diagnosis of Systemic Autoimmune Diseases.	Mahler M, Fritzler MJ.	2012	Journal Article
	Inflammatory biomarkers of pediatric focal cerebral arteriopathy.	Mineyko A, Narendran A, Fritzler ML, Wei XC, Schmeling H, Kirton A.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Anti-DFS70/LEDGF Antibodies Are More Prevalent in Healthy Individuals Compared to Patients with Systemic Autoimmune Rheumatic Diseases.	Mahler M, Parker T, Peebles CL, Andrade LE, Swart A, Carbone Y, Ferguson DJ, Villalta D, Bizzaro N, Hanly JG, Fritzler MJ.	2012	Journal Article
	Autoantibodies in Systemic Sclerosis.	Mehra S, Walker J, Patterson K, Fritzler MJ.	2012	Journal Article
	Prevalence of Autoimmune Inflammatory Myopathy in Alberta's First Nations Population.	Barnabe C, Joseph L, Belisle J, Labrecque J, Barr SJ, Fritzler MJ, Svenson LW, Peschken CA, Hemmelgarn B, Bernatsky S.	2012	Journal Article
	MJCanadian Scleroderma Research Group. Sociodemographic and disease correlates of body image distress among patients with systemic sclerosis.	Jewett LR, Hudson M, Malarne VL, Baron M, Thoms BD, Fritzler	2012	Journal Article
	The Clinical Significance of Autoantibodies to Proliferating Cell Nuclear Antigen (PCNA).	Mahler M, Miyachi K, Peebles CA, Fritzler MJ.	2012	Journal Article
	Anti-NMDA Receptor Encephalitis The disorder, the diagnosis and the immunobiology.	Peery HE, Day GS, Dunn S, Fritzler MJ, Pruss H, De Souza C, Doja A, Mossman K, Resch L, Xia C, Sakic B, Belbeck L, Foster WG.	2012	Journal Article
	Chronic smoke exposure induces significant Rheumatoid Factor and Anti-Heat Shock Protein 70 responses in mouse models and human lung disease.	Newkirk MM, Mitchell S, Procino M, Li Z, Cosio M, Mazur W, Kinnula VL, Fritzler MJ, El-Gabalawy HS.	2012	Journal Article
	Increased prevalence of systemic lupus erythematosus and systemic sclerosis in Alberta's First Nations population.	Barnabe C, Joseph L, Belisle P, Labrecque J, Edworthy S, Barr SG, Fritzler M, Svenson LW, Hemmelgarn B, Bernatsky S.	2012	Journal Article
	Familial clustering of the serum cytokine profile in the relatives of rheumatoid arthritis patients.	El-Gabalawy HS, Robinson DB, Smolik I, Hart D, Elias B, Wong K, Peschken CA, Hitchon CA, Li X, Bernstein CN, Newkirk MM, Fritzler MJ.	2012	Journal Article
	Autoantibody Markers: Diagnostic Utility for Diagnosis of Encephalitis, Paraneoplastic Syndromes, and Ataxia.	Fritzler MJ.	2012	Journal Article
	Importance of the dense fine speckled pattern on HEp-2 cells and anti-DFS70 antibodies for the diagnosis of systemic autoimmune diseases.	Mahler M, Hanly JG, Fritzler MJ.	2012	Journal Article
	Longitudinal study of renal function in systemic sclerosis.	Caron M, Hudson M, Baron M, Nessim S; Fritzler MJ, Canadian Scleroderma Research Group, Steele R	2012	Journal Article
	Best practices in scleroderma: an analysis of practice variability in SSc centres within the Canadian Scleroderma Research Group (CSRG).	Harding S, Khimdas S, Bonner A, Baron M, Fritzler MJ, Canadian Scleroderma Research Group, Pope J.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Agreement with guidelines from a large database for management of systemic sclerosis: results from the Canadian Scleroderma Research Group.	Pope J, Harding S, Khimdas S, Bonner, Fritzler MJ, Canadian Scleroderma Research Group, Baron M.	2012	Journal Article
	C - reactive protein (CRP) is associated with high disease activity in systemic sclerosis: results from the Canadian Scleroderma Research Group (CSRG).	Muangchan C, Harding S, Khimdas S, Bonner A, Baron M, Pope J, Fritzler MJ; the Canadian Scleroderma Research Group (CSRG).	2012	Journal Article
	Clinical significance of antibodies to Ro52/TRIM21 in systemic sclerosis.	Hudson M, Baron MJ, Canadian Scleroderma Research Group, Fritzler MJ.	2012	Journal Article
	Toward a new autoantibody diagnostic orthodoxy: understanding the bad, good and indifferent.	Fritzler MJ.	2012	Journal Article
Geddes,Michelle				
	Fludarabine, busulfan, antithymocyte globulin, and total body irradiation for pretransplantation conditioning in acute lymphoblastic leukaemia: excellent outcomes in all but older patients with comorbidities.	Daly A, Savoie ML, Geddes M, Chaudhry A, Stewart D, Duggan P, Bahlis N, Storek J, Brown C, Shafey M, Turner AR, Russell J	2012	Journal Article
	Development and validation of a test dose strategy for once-daily IV busulfan: importance of fixed infusion rate dosing.	Kangaroo SB, Naveed F, Ng ES, Chaudhry MA, Wu J, Bahlis NJ, Brown CB, Daly A, Duggan P, Geddes M, Quinlan D, Savoie ML, Shafey M, Stewart DA, Storek J, Yang M, Zacarias N, Yue P, Magliocco AM, Russell JA.	2012	Journal Article
Ghali,William				
	Test result-based sampling: an efficient design for estimating the accuracy of patient safety indicators.	Taffé P, Halfon P, Ghali WA, Burnand B; International Methodology Consortium for Coded Health Information (IMECCHI).	2012	Journal Article
	The effect of continuous pressure monitoring on strategic shifting of medical inpatients at risk for PUs.	Motamedi SM, de Grood J, Harman S, Sargious P, Baylis B, Flemons W, Ghali WA.	2012	Journal Article
	Cardiac rehabilitation attendance and outcomes in coronary artery disease patients.	Martin BJ, Hauer T, Arena R, Austford LD, Galbraith PD, Lewin AM, Knudtson ML, Ghali WA, Stone JA, Aggarwal SG.	2012	Journal Article
	The relationship between urban environment and the inflammatory bowel diseases: a systematic review and meta-analysis.	Soon IS, Molodecky NA, Rabi DM, Ghali WA, Barkema HW, Kaplan GG.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Understanding coronary artery disease patients' decisions regarding the use of chelation therapy for coronary artery disease: descriptive decision modeling.	King-Shier KM, Quan H, Mather C, Verhoef MJ, Knutson ML, Ghali WA.	2012	Journal Article
	Meta-analytic comparison of randomized and nonrandomized studies of breast cancer surgery.	Edwards JP, Kelly EJ, Lin Y, Lenders T, Ghali WA, Graham AJ.	2012	Journal Article
	A dynamic view of depressive symptoms and neurocognitive change among patients with coronary artery disease.	Freiheit EA, Hogan DB, Eliasziw M, Patten SB, Demchuk AM, Faris P, Anderson T, Galbraith D, Parboosingh JS, Ghali WA, Knudtson M, Maxwell CJ.	2012	Journal Article
	A case of histamine fish poisoning in a young atopic woman.	Wilson BJ, Musto RJ, Ghali WA.	2012	Journal Article
	Symptomatic in-hospital deep vein thrombosis and pulmonary embolism following hip and knee arthroplasty among patients receiving recommended prophylaxis: a systematic review.	Januel JM, Chen G, Ruffieux C, Quan H, Douketis JD, Crowther MA, Colin C, Ghali WA, Burnand B; IMECCHI Group.	2012	Journal Article
	Increasing incidence and prevalence of the inflammatory bowel diseases with time, based on systematic review.	Molodecky NA, Soon IS, Rabi DM, Ghali WA, Ferris M, Chernoff G, Benchimol EI, Panaccione R, Ghosh S, Barkema HW, Kaplan GG.	2012	Journal Article
	Atherosclerosis screening by noninvasive imaging for cardiovascular prevention: a systematic review.	Rodondi N, Auer R, de Bosset Sulzer V, Ghali WA, Cornuz J.	2012	Journal Article
	Multidimensional evaluation of a radio frequency identification wi-fi location tracking system in an acute-care hospital setting.	Okoniewska B, Graham A, Gavrilova M, Wah D, Gilgen J, Coke J, Burden J, Nayyar S, Kaunda J, Yergens D, Baylis B, Ghali WA; Ward of the 21st Century team.	2012	Journal Article
Ghosh,Subrata	Postoperative complications following colectomy for ulcerative colitis: a validation study	Ma C, Crespin M, Proulx M-C, DeSilva S, Hubbard J, Prusinkiewicz M, Nguyen GC, Panaccione R, Ghosh S, Myers RP, Quan H, Kaplan GG	2012	Journal Article
	Antibodies to mutated citrullinated vimentin and anti-cyclic citrullinated peptide antibodies in inflammatory bowel disease and related arthritis	Al-Jarallah K, Shehab D, Al-Attayah R, Al-Azmi W, Al-Fadli A, Zafar Haider M, Panaccione R, Ghosh S	2012	Journal Article
	Recommendations for the treatment of ulcerative colitis with infliximab: a gastroenterology expert group consensus	Reinisch W, Van Assche G, Befrits R, Connell W, D'Haens G, Ghosh S, Michetti P, Ochsenuhn T, Panaccione R, Schreiber S, Silverberg MS, Sorrentino D, Van der Woude CJ, Vermeire S, Panes J	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Recommendations for the treatment of Crohn's disease with tumour necrosis factor antagonists: an expert consensus report	Feagan BG, Lemann M, Befrits R, Connell W, D'Haens G, Ghosh S, Michetti P, Ochsenkuhn T, Panaccione R, Schreiber S, silverberg M, Sorrentino D, Van der Woude CJ, Vermeire S, Rutgeerts P	2012	Journal Article
	Biologic therapies : lessons from multiple sclerosis	Ghosh S	2012	Journal Article
	Ustekinumab induction and maintenance therapy in refractory Crohn's disease	Sandborn WJ, Gasink C, Gao LL, Blank MA, Johanns J, Guzzo C, Sands B, Hanauer SB, Targan S, Rutgeerts P, Ghosh S, De Villiers WJS, Panaccione R, Greenberg G, Schreiber S, Lichtiger S, Feagan BG	2012	Journal Article
	Non-specific abdominal pain and air pollution: a novel association	Kaplan GG, Szyszkowicz M, Fichna J, Rowe BH, Porada E, Vincent R, Madsen K, Ghosh S, Storr M	2012	Journal Article
	Tofacitinib, an oral janus kinase inhibitor, in active ulcerative colitis	Sandborn WJ, Ghosh S, Panes J, Vranic I, Su C, Rouseil S, Niezychowski W	2012	Journal Article
	Increasing incidence and prevalence of the inflammatory bowel diseases with time, based on systematic review	Molodecky NA, Soon IS, Rabi DM, Ghali WA, Ferris M, Chernoff G, Benchimol EI, Panaccione R, Ghosh S, Barkema HW, Kaplan GG	2012	Journal Article
Gibson,Paul	Pregnancy following liver transplantation: Review of outcomes and recommendations for management.	Parhar KS, Gibson PS, Coffin CS.	2012	Journal Article
Gill,John	Risk of anal cancer in HIV-infected and HIV uninfected individuals in North America.	223.Silverberg MJ, Lau B, Justice AC, Engels E, Gill MJ, Goedert JJ, Kirk GD, D'Souza G, Bosch RJ, Brooks JT, Napravnik S, Hessel NA, Jacobson LP, Kitahata MM, Klein MB, Moore RD, Rodriguez B, Rourke SB, Saag MS, Sterling TR, Gebo KA, Press N, Martin JN, and Dubrow R for the North American AIDS Cohort Collaboration on Research and Design (NA-ACCORD) of IeDEA.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Retention among North American HIV-infected persons in clinical care 2000-2008.	237. Justice AC, Modu S, Tate JP, Althoff KN, Jacobson LP, Gebo K, Kitahata M, Horberg M, Brooks J, Buchacz K, Rourke SB, Rachlis A, Napravnik S, Eron J, Willig JH, Moore R, Kirk GD, Bosch R, Rodriguez B, Hogg RS, Thorne J, Goedert JJ, Klein M, Gill MJ, Deeks, Sterling TR, Anastos K, Gange SJ for the NA-ACCORD and VACS Project Teams.	2012	Journal Article
	Increasing HIV subtype diversity and its clinical implications in a sentinel North American population.	236. Siemieniuk RAC, Beckthold B, Gill MJ.	2012	Journal Article
	Heterogeneity in outcomes of treated HIV-positive patients in Europe and North America: relation with patient and cohort characteristics.	235. May MT; Hogg RS; Justice AC; Shepherd BE; Costagliola D; Ledergerber B; Thiebaut R; Gill MJ; Kirk O; van van Sighem A; Saag MS; Navarro G; Sobrino-Vegas P; Lampe F; Ingle S; Guest JL; Crane HM; Monforte AD; Vehreschild JJ; Sterne J; the Collaborating Cohorts and Study Groups.	2012	Journal Article
	Two patterns of cerebral metabolite abnormalities are detected on proton magnetic resonance spectroscopy in HIV-infected subjects commencing antiretroviral therapy	234. Winston A, Duncombe C, Li PCK, Gill MJ, Kerr SJ, Puls RL, Taylor-Robinson SD, Emery S, Cooper DA, for the Altair Study Group	2012	Journal Article
	Using root cause analysis and form redesign to induce incorrect ordering of HIV tests.	233. Siemieniuk RAC, Fonseca K, Gill MJ.	2012	Journal Article
	HIV and Hepatitis C virus co-infection in Canada: Challenges and opportunities for reducing preventable morbidity and mortality	230. Klein MB, Rollet KC, Saeed S, Cox J, Potter M, Cohen J, Conway B, Cooper C, Cote P, Gill MJ, Haase D, Haider S, Hull M, Montaner J, Pick N, Rachlis A, Rouleau D, Sandre R, Tyndall M, Walmsley S, for the Canadian HIV-HCV Cohort Investigators.	2012	Journal Article
	Factors associated with discordance between absolute CD4 cell count and CD4 percentage in HIV/Hepatitis C co-infected patients.	224. Hull MW, Rollet K, Oduyungbo A, Saeed S, Potter M, Cox J, Cooper C, Gill MJ, Klein MB, and the Canadian Co-infection Cohort Investigators.	2012	Journal Article
	Hepatitis C virus co-infection increases neurocognitive impairment severity and risk of death in treated HIV/AIDS.	222. Vivithanaporn P, Nelles K, DeBlock L, Newman SC, Houston S, Gill MJ, Power C.	2012	Journal Article
	Guillain-Barre Syndrome	231. Siemieniuk R, Power C, Gill MJ	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Human leukocyte antigen (HLA) and pharmacogenetics: screening for HLA B*57:01 among human immunodeficiency virus - positive patients from Southern Alberta.	225.Berka N, Gill MJ, Liacini A O'Bryan T, Khan FM.	2012	Journal Article
	Characterizing the HIV epidemic in the Prairie Provinces.	221. Becker ML, Kasper K, Pindera C, Cheang M, Rodger D, Sanche S, Skinner S, Gill MJ.	2012	Journal Article
	Difference in uptake of combination antiretroviral therapy (cART) and HIV disease progression according to geographical origin in seroconverters in Europe, Canada and Australia.	229.Jarrin I, Pantazis N, Gill MJ, Geskus R, Perez-Hoyos S, Meyer I, Prins M, Touloumi G, Johnson A, Hamouda O, Garcia de Olalla P, Porter K, del Amo J, and the CASCADE Collaboration in EUROCoord.	2012	Journal Article
	Pill burden in HIV infection: Twenty years of experience.	228.Krentz HB, Cosman I, Lee L. Ming JM, Gill MJ.	2012	Journal Article
	The effect of injection drug use history on disease progression and death among HIV-positive individuals initiating combination antiretroviral therapy.	227.Murray M, Hogg RS, Lima VD, May MT, Moore DM, Abgrall S, Bruyand M, D'Arminio Monforte A, Tural C, Gill MJ, Harris RJ, Reiss P, Justice AC, Kirk O, Saag M, Smith CJ, Weber R, Rockstroh J, Khaykin P, and Sterne JAC for the Antiretroviral Therapy Cohort Collaboration (ART-CC). 7	2012	Journal Article
	he direct medical costs of late presentation (<350/mm3) of HIV infection over a 15 year period.	226.Krentz HB, Gill MJ. T	2012	Journal Article
	Prevalence, clinical associations, and impact of intimate partner violence among HIV-infected gay and bisexual men: a population based study.	232. Siemieniuk RAC, Miller P, Woodman K, Ko K, Krentz HB, Gill MJ	2012	Journal Article
Gupta,Milli	Diagnostic performance of two confocal endomicroscopy systems detecting Barrett's dysplasia - a pilot study using a novel bioprobe in ex vivo tissue.	Gorospe EC, Leggett CL, Sun G, Anderson MA, Gupta M, Penfield JD, Lutzke L, Lewis JT, Wong Kee Song LM, Wang KK	2012	Journal Article
	Double Trouble: Two cases of Squamous Carcinoma arising from Barrett's Dysplasia after endoscopic mucosal resection	Gorospe EC, Gupta M, Prasad GA, Lewis JT, Wang KK	2012	Journal Article
	TNF clockers in Crohn's Disease	Thomson ABR, Gupta M, Freeman H	2012	Journal Article
Haber,Richard	Bilateral acromial dimples: A case report and review of the literature.	Debosz J, Haber RM	2012	Journal Article
	Author's Response.	Kurian A, Haber RM	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Transverse nasal crease and transverse nasal milia: Clinical variants of the same entity. Report of 2 cases and review of the literature.	Waller B, Haber RM	2012	Journal Article
	Canadian consensus on skin barrier therapy in atopic dermatitis	Thomas R, Landells I, Lynde C, Withers M, Weinstein M, Kunynetz R, Haber R, Balbul A, Dion P-L.	2012	Journal Article
	Steven-Johnson syndrome without skin lesions (Fuchs syndrome); a literature review of adult cases with mycoplasma etiology.	Li K, Haber RM	2012	Journal Article
	Idiopathic sporadic onychomadesis; a case report and review of the literature.	Hardin J, Haber RM	2012	Journal Article
Hamilton, Douglas	Estimating Scenario Likelihoods of Astronauts with Myocardial Infarction in Long Duration Space	Gillis DB, Hamilton DR.	2012	Journal Article
	Orbital and Intracranial Effects of Microgravity: 3T MR Imaging Findings	Kramer L, Sargsyan AE, Hasan KM, Polk JD, Hamilton DR	2012	Journal Article
	Just-in-time cost-effective off-the-shelf remote telementoring of paramedical personnel in bedside lung sonography-a technical case study.	Biegler N, McBeth PB, Tevez-Molina MC, McMillan J, Crawford I, Hamilton DR, Kirkpatrick AW.	2012	Journal Article
Hanley, David	The development of national indicators for the surveillance of osteoporosis in Canada.	LeMessurier J, O'Donnell S, Walsh P, McRae L, Bancej C; Osteoporosis Surveillance Expert Working Group.	2012	Journal Article
	Guidelines for preventing and treating vitamin D deficiency and insufficiency revisited.	Holick MF, Binkley NC, Bischoff-Ferrari HA, Gordon CM, Hanley DA, Heaney RP, Murad MH, Weaver CM.	2012	Journal Article
	Quality control for bone quality parameters affected by subject motion in high-resolution peripheral quantitative computed tomography.	Pauchard Y, Liphardt AM, Macdonald HM, Hanley DA, Boyd SK.	2012	Journal Article
	Temporal trends and determinants of longitudinal change in 25-hydroxyvitamin D and parathyroid hormone levels.	Berger C, Greene-Finestone LS, Langsetmo L, Kreiger N, Joseph L, Kovacs CS, Richards JB, Hidioglou N, Sarafin K, Davison KS, Adachi JD, Brown J, Hanley DA, Prior JC, Goltzman D; CaMos Research Group.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	WNT16 influences bone mineral density, cortical bone thickness, bone strength, and osteoporotic fracture risk.	Zheng HF, Tobias JH, Duncan E, Evans DM, Eriksson J, Paternoster L, Yerges-Armstrong LM, Lehtimäki T, Bergström U, Kähönen M, Leo PJ, Raitakari O, Laaksonen M, Nicholson GC, Viikari J, Ladouceur M, Lyytikäinen LP, Medina-Gomez C, Rivadeneira F, Prince RL, Sievanen H, Leslie WD, Mellström D, Eisman JA, Movérare-Skrtic S, Goltzman D, Hanley DA, Jones G, St Pourcain B, Xiao Y, Timpson NJ, Smith GD, Reid IR, Ring SM, Sambrook PN, Karlsson M, Dennison EM, Kemp JP, Danoy P, Sayers A, Wilson SG, Nethander M, McCloskey E, Vandenput L, Eastell R, Liu J, Spector T, Mitchell BD, Streeten EA, Brommage R, Pettersson-Kymmer U, Brown MA, Ohlsson C, Richards JB, Lorentzon M.	2012	Journal Article
	Improved adherence with PTH(1-84) in an extension trial for 24 months results in enhanced BMD gains in the treatment of postmenopausal women with osteoporosis.	Black DM, Bilezikian JP, Greenspan SL, Wüster C, Muñoz-Torres M, Bone HG, Rosen CJ, Andersen HS, Hanley DA.	2012	Journal Article
	Interventions to increase osteoporosis treatment in patients with 'incidentally' detected vertebral fractures.	Majumdar SR, McAlister FA, Johnson JA, Bellerose D, Siminoski K, Hanley DA, Qazi I, Lier DA, Lambert RG, Russell AS, Rowe BH.	2012	Journal Article
	Denosumab: mechanism of action and clinical outcomes.	Hanley DA, Adachi JD, Bell A, Brown V.	2012	Journal Article
	Bisphosphonate therapy for osteoporosis: benefits, risks, and drug holiday.	McClung M, Harris ST, Miller PD, Bauer DC, Davison KS, Dian L, Hanley DA, Kendler DL, Yuen CK, Lewiecki EM.	2012	Journal Article
	Women with previous fragility fractures can be classified based on bone microarchitecture and finite element analysis measured with HR-pQCT.	Nishiyama KK, Macdonald HM, Hanley DA, Boyd SK.	2012	Journal Article
	Skeletal histomorphometry in subjects on teriparatide or zoledronic acid therapy (SHOTZ) study: a randomized controlled trial.	Dempster DW, Zhou H, Recker RR, Brown JP, Bolognese MA, Recknor CP, Kendler DL, Lewiecki EM, Hanley DA, Rao DS, Miller PD, Woodson GC 3rd, Lindsay R, Binkley N, Wan X, Ruff VA, Janos B, Taylor KA.	2012	Journal Article
Hanly,Patrick	Clinical presentation of obstructive sleep apnea in patients with chronic kidney disease.	Nicholl D, Ahmed S, Loewen A, Hemmelgarn B, Sola D, Beecroft J, Turin T, Hanly P.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Declining kidney function increases the prevalence of sleep apnea and nocturnal hypoxia.	Nicholl D, Ahmed S, Loewen A, Hemmelgarn B, Sola D, Beecroft J, Turin T, Hanly P.	2012	Journal Article
	Genioglossus activity available via non-arousal mechanisms vs. that required for opening the airway in obstructive apnea patients.	Younes M, Loewen A, Ostrowski M, Laprairie J, Maturino F, Hanly P.	2012	Journal Article
Hawkins,Tarisha				
	Plasma uric acid remains a marker of poor outcome in hypertensive pregnancy: a retrospective cohort study.	Hawkins TL, Roberts JM, Mangos GJ, Davis GK, Roberts LM, Brown MA	2012	Journal Article
	Transient gestational hypertension: not always a benign event.	Hawkins TL, Brown MA, Mangos GJ, Davis GK	2012	Journal Article
Hazlewood,Glen				
	Multinational evidence-based recommendations for pain management by pharmacotherapy in inflammatory arthritis: integrating systematic literature research and expert opinion of a broad panel of rheumatologists in the 3e Initiative.	Whittle SL, Colebatch AN, Buchbinder R, Edwards CJ, Adams K, Englbrecht M, Hazlewood G, Marks JL, Radner H, Ramiro S, Richards BL, Turner IH, Aletaha D, Bombardier C, Landewé RB, Müller-Ladner U, Bijlsma JW, Branco JC, Bykerk VP, da Rocha Castelar Pinheiro G, Catrina AI, Hannonen P, Kiely P, Leeb B, Lie E, Martinez-Osuna P, Montecucco C, Ostergaard M, Westhovens R, Zochling J, van der Heijde D.	2012	Journal Article
	Emerging issues in pharmacological management of rheumatoid arthritis: results of a national needs assessment survey identifying practice variations for the development of Canadian Rheumatology Association clinical practice recommendations	Bykerk VP, Schieir O, Akhavan P, Hazlewood GS, Cheng CK, Bombardier C	2012	Journal Article
	Canadian Rheumatology Association recommendations for the pharmacological management of rheumatoid arthritis with traditional and biologic disease-modifying antirheumatic drugs: part II safety.	Bombardier C, Hazlewood GS, Akhavan P, Schieir O, Dooley A, Haraoui B, Khraishi M, Leclercq SA, Légaré J, Mosher DP, Pencharz J, Pope JE, Thomson J, Thorne C, Zummer M, Gardam MA, Askling J, Bykerk V	2012	Journal Article
	Paracetamol for the management of pain in inflammatory arthritis: a systematic literature review.	Hazlewood G, van der Heijde DM, Bombardier C.	2012	Journal Article
	Abatacept use after failure of multiple biologic agents in patients with severe rheumatoid arthritis	Hazlewood GS, Barnabe C, Barr SG, Martin L.	2012	Journal Article
	Comparison of radiographic scoring methods in a cohort of RA patients treated with anti-TNF therapy.	Barnabe C, Hazlewood G, Barr S, Martin L	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Canadian Rheumatology Association recommendations for pharmacological management of rheumatoid arthritis with traditional and biologic disease-modifying antirheumatic drugs	Bykerk VP, Akhavan P, Hazlewood GS, Schieir O, Dooley A, Haraoui B, Khraishi M, Leclercq SA, Légaré J, Mosher DP, Pencharz J, Pope JE, Thomson J, Thorne C, Zummer M, Bombardier C	2012	Journal Article
Heitman,Steven	Unsedated peroral wireless pH capsule placement vs. standard pH testing: a randomized study and cost analysis.	Andrews CN, Sadowski DC, Lazarescu A, Williams C, Neshev E, Storr M, Au F, Heitman SJ	2012	Journal Article
	Doing the twist': insight gained from spiral enteroscopy.	Heitman SJ, Akerman PA.	2012	Journal Article
Hemmelgarn,Bren	Association between residence location and likelihood of transplantation among pediatric dialysis patients.	Samuel S, Hemmelgarn BR, Nettel-Aguirre A, Foster B, Soo A, Alexander T, Tonelli M.	2012	Journal Article
	Intensive and standard blood pressure targets in patients with type 2 diabetes mellitus: Systematic review and meta-analysis.	McBrien K, Rabi DM, Campbell N, Barnieh L, Clement F, Hemmelgarn BR, Tonelli M, Letier LA, Klarenbach SW, Manns BJ.	2012	Journal Article
	Risk of future coronary events among people with chronic kidney disease as compared to those with diabetes: a population-level cohort study.	Tonelli M, Muntner P, Lloyd A, Manns B, Klarenbach S, Pannu N, James M, Hemmelgarn BR.	2012	Journal Article
	Increased urinary protein excretion in the "normal" range is associated with increased rennin angiotensin system activity.	Nicholl DD, Hemmelgarn BR, Turin T, MacRae J, Muruve D, Sola D, Ahmed S	2012	Journal Article
	Chronic kidney disease and life expectancy.	Turin TC, Tonelli M, Manns B, Ravani P, Ahmed SB, Hemmelgarn BR.	2012	Journal Article
	Optimizing care for patients with chronic kidney disease.	Ronksley PE, Hemmelgarn BR.	2012	Journal Article
	Multiple versus single and other estimates of baseline proteinuria status as predictors of adverse outcomes in the general population.	Bello A, Thompson S, Lloyd A, Hemmelgarn BR, Klarenbach S, Manns B, Tonelli M	2012	Journal Article
	Association between glomerular filtration rate, proteinuria and adverse outcomes among White, Chinese and South Asian individuals in Canada.	Conley J, Tonelli M, Quan H, Manns BJ, Palacios-Derflingher L, Bresee LC, Khan N, Hemmelgarn BR.	2012	Journal Article
	The impact of nocturnal hemodialysis on sexual function.	Bass A, Ahmed DB, Klarenbach S, Culleton B, Hemmelgarn BR, Manns B.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Validating a Case Definition for Chronic Kidney Disease using Administrative Data.	Ronksley PE, Tonelli M, Quan H, Manns BJ, James MT, Clement FM, Samuel S, Quinn RR, Ravani P, Brar SS, Hemmelgarn BR.	2012	Journal Article
	Increased Prevalence of Systemic Lupus Erythematosus and Systemic Sclerosis in Alberta's First Nations Population.	Barnabe C, Joseph L, Belisle P, Labrecque J, Edworthy S, Barr S, Fritzler M, Svenson L, Hemmelgarn BR, Bernatsky S.	2012	Journal Article
	Clinical risk implications of the CKD-EPI equation compared to the MDRD study equation for estimated glomerular filtration rate.	Matsushita K, Tonelli M, Lloyd A, Levey AS, Coresh J, Hemmelgarn BR.	2012	Journal Article
	Enrolment in primary care networks: impact on outcomes and process of care in patients with diabetes.	Manns B, Tonelli M, Zhang J, Campbell D, Sargious P, Ayyalaso B, Clement F, Johnson J, Laupacis A, Lewanczuk R, McBrien K, Hemmelgarn BR.	2012	Journal Article
	Comparison of concurrent complications of CKD by two risk categorization systems.	Inker LA, Tonelli M, Hemmelgarn BR, Levitan EB, Muntner P.	2012	Journal Article
	A cluster randomized trial of an enhanced eGFR prompt in chronic kidney disease.	Manns BJ, Tonelli M, Culleton B, Faris P, McLaughlin K, Chin R, Gooch K, McAlister FA, Taub K, Thorlacius L, Krause R, Kearns M, Hemmelgarn BR.	2012	Journal Article
	Spatial analysis to locate new clinics for diabetic kidney patients in underserved communities in Alberta.	Faruque LI, Ayyalasomayajula B, Pelletier R, Klarenbach S, Hemmelgarn BR, Tonelli M.	2012	Journal Article
	Reporting of the estimated glomerular filtration rate was associated with increased use of angiotensin-converting inhibitors and angiotensin-II receptor blockers in CKD.	Jain AK, Cuerden MS, McLeod I, Hemmelgarn BR, Tonelli M, Quinn RR, Oliver MJ, Garg AX.	2012	Journal Article
	CNODES: The Canadian Network for Observational Drug Effect Studies.	Suissa S, Henry D, Caetano P, Dormuth CR, Ernst P, Hemmelgarn BR, LeLorier J, Levy A, Martens PJ, Paterson MJ, Platt RW, Sketris I, Teare G.	2012	Journal Article
	Nephrol Dial Transplant 2012;doi: 10.1093/ndt/gfs263.	Turin TC, Coresh J, Tonelli M, Stevens PE, de Jong P, Farmer CKT, Matsushita K, Hemmelgarn BR.	2012	Journal Article
	Use of administrative databases for health-care planning in CKD.	Bello A, Hemmelgarn BR, Manns B, Tonelli M.	2012	Journal Article
	Incidence and causes of end-stage renal disease among Aboriginal and Caucasians.	Samuel S, Foster BJ, Hemmelgarn BR, Nettel-Aguirre A, Crowshoe L, Alexander RT, Soo A, Tonelli M.	2012	Journal Article
	Kidney stones and kidney function loss: A cohort study.	Alexander RT, Hemmelgarn BR, Wiebe N, Bello A, Morgan C, Samuel S, Klarenbach SW, Curhan GC, Tonelli M.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Association of modality with mortality among Canadian Aboriginals.	Sood MM, Hemmelgarn BR, Yeates K, Tangri N, Komenda P, Rigatto C, Mojica J.	2012	Journal Article
	Knowledge translation for nephrologists: strategies for improving the identification of patients with proteinuria.	Hemmelgarn BR, Manns BJ, Straus S, Naugler C, Holroyd-Leduc J, Braun TC, Levin A, Klarenbach S, Lee PF, Hafez K, Schwartz D, Jindal K, Ervin K, Bello A, Turin TC, McBrien K, Elliott M, Tonelli M.	2012	Journal Article
	Experiences of French speaking immigrants and non-immigrants accessing health care services in a large Canadian city.	Ngwakongnwi E, Hemmelgarn BR, Musto R, Quan H, King-Shier KM.	2012	Journal Article
	Cohort profile: The Chronic Kidney Disease Prognosis Consortium.	Matsushita K, Ballew SH, Astor BC, de Jong P, Gansevoort RT, Hemmelgarn BR, Levey AS, Levin A, Wen CP, Woodward M, Coresh J.	2012	Journal Article
	Clinical decision support to improve blood pressure control in hemodialysis: a nonrandomized controlled trial.	Thompson S, Hemmelgarn BR, Wiebe N, Majumdar S, Klarenbach S, Jindal K, Manns B, Mortis G, Campbell P, Tonelli M.	2012	Journal Article
	Clinical presentation of obstructive sleep apnea in patients with chronic kidney disease.	Nicholl D, Ahmed S, Loewen A, Hemmelgarn BR, Turin TC, Hanly P.	2012	Journal Article
	Impact of gender on the cardiac autonomic response to Angiotensin II in healthy humans.	Mann M, Exner D, Hemmelgarn BR, Turin TC, Sola D, Ahmed S.	2012	Journal Article
	Association between chronic disease and perceived unmet health care needs.	Ronksley PE, Sanmartin C, Quan H, Ravani P, Tonelli M, Manns BJ, Hemmelgarn BR.	2012	Journal Article
	ICU bed availability and outcomes for hospitalized patients with sudden clinical deterioration.	Stelfox HT, Hemmelgarn BR, Bagshaw S, Gao S, Doig C, Nijssen-Jordan C, Manns BJ.	2012	Journal Article
	New recommendations for ambulatory blood pressure monitoring in the diagnosis of hypertension?	Campbell N, Hemmelgarn BR.	2012	Journal Article
	Declining kidney function increases the prevalence of sleep apnea and nocturnal hypoxia.	Nicholl D, Ahmed S, Loewen A, Hemmelgarn BR, Sola D, Beecroft J, Turin TC, Hanly P.	2012	Journal Article
	Adding specialized clinics for remote-dwellers with chronic kidney disease: A cost-utility analysis.	Wiebe N, Klarenbach SW, Chui B, Ayyalasomayajula B, Hemmelgarn BR, Jindal K, Manns B, Tonelli M.	2012	Journal Article
	Association between acute kidney injury, recovery of renal function and long-term outcomes after hospital discharge.	Pannu N, James MT, Hemmelgarn BR, Klarenbach S.	2012	Journal Article
	Prevalence of autoimmune inflammatory myopathy in Alberta's First Nations population.	Barnabe C, Joseph L, Belisle P, Labrecque J, Barr SG, Fritzler MJ, Svenson LW, Peschken CA, Hemmelgarn BR, Bernatsky S.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Comparison of risk prediction using the CKD-EPI equation and the MDRD Study equation for estimated glomerular filtration rate.	Matsushita K, Mahmoodi BK, Woodward M, Emberson JR, Jafar TH, Jee SH, Polkinghorne KR, Shankar A, Smith DH, Tonelli M, Warnock DG, Wen CP, Coresh J, Gansevoort RT, Hemmelgarn BR, Levey AS.	2012	Journal Article
	Effect of Fish Oil supplementation on graft patency and cardiovascular events among patients with new synthetic arteriovenous hemodialysis grafts.	Lok CE, Moist L, Hemmelgarn BR, Tonelli M, Vazquez MA, Dorval M, Oliver M, Donnelly S, Allon M, Stanley K.	2012	Journal Article
	Recommendations for optimal ICD codes to study neurological conditions: A systematic review.	St.Germaine-Smith C, Metcalfe A, Pringsheim T, Roberts JI, Beck C, Hemmelgarn BR, McChesney J, Quan H, Jette N.	2012	Journal Article
	Use of cognitive enhancers for mild cognitive impairment:Protocol for a systematic review and network meta-analysis.	Tricco AC, Soobiah C, Lillie E, Perrier L, Chen MH, Hemmelgarn BR, Majumdar SR, Straus SE.	2012	Journal Article
	One-year change in kidney function is associated with an increased mortality risk.	Turin TC, Coresh J, Tonelli M, Stevens PE, de Jong P, Farmer CKT, Matsushita K, Hemmelgarn BR.	2012	Journal Article
	The 2012 Canadian Hypertension Education Program recommendations for the management of hypertension: Blood pressure measurement, diagnosis, assessment of risk and therapy.	Daskalopoulou SS, Khan NA, Quinn RR, Ruzicka M,....Hemmelgarn BR..Tobe SW.	2012	Journal Article
	Evaluating the impact of a novel restricted reimbursement policy for quinolone antibiotics: A time series analysis.	Manns BJ, Laupland K, Tonelli M, Gao S, Hemmelgarn BR.	2012	Journal Article
	Knowledge translation for nephrologists: strategies for improving the identification of patients with proteinuria.	Hemmelgarn BR, Manns BJ, Straus S, Naugler C, Holroyd-Leduc J, Braun TC, Levin A, Klarenbach S, Lee PF, Hafez K, Schwartz D, Jindal K, Ervin K, Bello A, Turin TC, McBrien K, Elliott M, Tonelli M.	2012	Journal Article
	Building knowledge about health services utilization by refugees.	Kiss Val, Pim C, Hemmelgarn BR, Quan H.	2012	Journal Article
	Survival and transplantation outcomes of children less than 2 years of age with end-stage renal disease.	Alexander RT, Foster B, Tonelli M, Soo A, Nettel-Aguirre A, Hemmelgarn BR, Samuel S.	2012	Journal Article
	Long-term risk projection and their application in nephrology research.	Turin TC, Hemmelgarn BR.	2012	Journal Article
	Rates of treated and untreated kidney failure in older vs younger adults.	Hemmelgarn BR, James MT, Manns BJ, O'Hare AM, Muntner P, Ravani P, Quinn RR, Turin TC, Tan Z, Tonelli M.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Lifetime risk of ESRD.	Turin TC, Tonelli M, Manns BJ, Ahmed SB, Ravani P, James M, Hemmelgarn BR.	2012	Journal Article
	Hemodialysis prescription education decreases intradialytic hypotension.	Tai DJ, Conley J, Ravani P, Hemmelgarn BR, MacRae JM.	2012	Journal Article
	Association of enrollment in primary care networks with care and outcomes among First Nations and low-income Alberta.	Campbell DJT, Ronksley PE, Hemmelgarn BR, Zhang J, Barnabe C, Tonelli M, Manns B.	2012	Journal Article
	Association between perceived unmet health care need and risk of adverse health outcomes among patients with chronic medical conditions.	Ronksley PE, Sanmartin C, Quan H, Ravani P, Tonelli M, Manns B, Hemmelgarn BR.	2012	Journal Article
Herman,Robert	The 2012 Canadian Hypertension Education Program (CHEP) Recommendations for the Management of Hypertension: Blood Pressure Measurement, Diagnosis, Assessment of Risk and Therapy	Stella S. Daskalopoulou, MD, PhD, Nadia A. Khan, MD, MSc, Robert R. Quinn, MD, PhD, Marcel Ruzicka, MD, PhD, Donald W. McKay, PhD, Daniel G. Hackam, MD, PhD, Simon W. Rabkin, MD, Doreen M. Rabi, MD, MSc, Richard E. Gilbert, MD, PhD, Raj S. Padwal, MD, MSc, Martin Dawes, MBBS, MD(Lond), Rhian M. Touyz, MD, PhD, Tavis S. Campbell, PhD, Lyne Cloutier, RN, PhD, Steven Grover, MD, MPA, George Honos, MD, Robert J. Herman, MD, Ernesto L. Schiffrin, MD, PhD, Peter Bolli, MD, Thomas Wilson, MD, Ross D. Feldman, MD, M. Patrice Lindsay, BScN, PhD, Brenda R. Hemmelgarn, MD, PhD, Michael D. Hill, MD, MSc, Mark Gelfer, MD, Kevin D. Burns, MD, Michel Vallée, MD, PhD, G.V. Ramesh Prasad, MBBS, MSc, Marcel Lebel, MD, Donna McLean, RN, MN, NP, PhD(c), J. Malcolm O. Arnold, MD, Gordon W. Moe, MD, MSc, Jonathan G. Howlett, MD, Jean-Martin Boulanger, MD, Pierre Larochelle, MD, Lawrence A. Leiter, MD, Charlotte Jones, MD, PhD, et al.	2012	Journal Article
Hilsden,Robert	Validation of administrative data sources for endoscopy utilization in colorectal cancer diagnosis.	Li X., Hilsden RJ, Hossain S., Fleming J., Winget M.,	2012	Journal Article
	Development and validation of an administrative case definition for inflammatory bowel diseases.	Rezaie, Ali. Quan, Hude, Fedorak, Richard N. Panaccione, Remo. Hilsden R.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
Hogan,David	Predictors of a variceal source among patients presenting with upper gastrointestinal bleeding.	Almadi M , Barkun A , Martel M , Reason Investigators (including Hilsden RJ)	2012	Journal Article
	Pathological reporting of colorectal polyps: Pan-Canadian Consensus Guidelines	Driman DK, Marcus VA, Hilsden RJ, Owen DA.	2012	Journal Article
	Qualitative study of physician perspectives on classifying screening and nonscreening colonoscopy using administrative health data: Adding practice does not make perfect,	Sewitch, MJ. Hilsden, RJ, Joseph L., Rabineck L., PaszatL., Bitton A., Cooper MA.,	2012	Journal Article
	Report on the Expert Forum on Using Information Technology to Facilitate Uptake and Impact of Colorectal Cancer Screening Guidelines	Sewitch MJ, Jiang M, Barkun AN, Armstrong D, Manca D, Rossos P, Stein B (Meeting Attendees: including Hilsden RJ).	2012	Journal Article
	Helicobacter pylori in First Nations and recent immigrant populations in Canada.	Jones N, Chiba N, Fallone C, Thompson A, Hunt R, Jacobson K, Goodman K. (including Hilsden RJ),	2012	Journal Article
	Immunogenecity and safety of influenza vaccination in children with inflammatory bowel disease.	deBruyn JCC, Russell M, Kaplan GG, Wrobel I, Hilsden RJ.	2012	Journal Article
	Identifying gaps in after-hours endoscopic practices	Dube C., Hilsden RJ.	2012	Journal Article
	A Dynamic View of Depressive Symptoms and Neurocognitive Change Among Patients with Coronary Artery Disease	Freiheit EA, Hogan DB, Eliasziw M, et al	2012	Journal Article
	Cerebrovascular reserve: the link between fitness and cognitive function?	Davenport MH, Hogan DB, Eskes GA, Longman RS, Poulin MJ	2012	Journal Article
	The Choices Facing Geriatrics	Patterson CJ, Bergman H, Hogan DB	2012	Journal Article
	Comparing frailty measures in their ability to predict adverse outcomes among older residents of assisted living.	Hogan DB, Freiheit EA, Strain LA, Patten SB, Schmaltz HN, Rolfson R, Maxwell CJ	2012	Journal Article
	Specialist Physicians in Geriatrics-Report of the Canadian Geriatrics Society Physician Resource Work Group.	Hogan DB, Borrie M, Basran JFS, et al.	2012	Journal Article
	4th Canadian Consensus Conference on the Diagnosis and Treatment of Dementia.	Gauthier S, Patterson C, Chertkow H, Gordon M, Herrmann N, Rockwood K, Rosa-Neto P, Soucy JP on behalf of the CCCDT4 participants (included DB Hogan)	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Recommendations of the 4th Canadian Consensus Conference on the Diagnosis and Treatment of Dementia (CCCDTD4).	Gauthier S, Patterson C, Chertkow H, Gordon M, Herrmann N, Rockwood K, Rosa-Neto P, Soucy JP on behalf of the CCCDTD4 participants (included DB Hogan).	2012	Journal Article
Holroyd-	A systematic review of cognitive deficits induced by anticholinergic, antihistamine, GABAergic and opioid drugs in healthy individuals	Tannenbaum C, Paquette A, Hilmer S, Holroyd-Leduc JM, Carnahan R	2012	Journal Article
	The seamless transfer-of-care protocol: a randomized controlled trial assessing the efficacy of an electronic transfer-of-care communication tool.	Okoniewska B, Santana MJ, Holroyd-Leduc J, Flemons W, O'Beirne M, White D, Clement F, Forster A, Ghali WA.	2012	Journal Article
	Knowledge translation for nephrologists: strategies for improving the identification of patient with proteinuria	Hemmelgarn B, Manns B, Straus S, Naugler C, Holroyd-Leduc J, et al.	2012	Journal Article
	Use of clinical decision support to improve the quality of care provided to older hospitalized patients.	Groshaus H, Boscan A, Khandwala F, Holroyd-Leduc JM	2012	Journal Article
Hull,Russell	Comparison of 1.5 and 3.0 Tesla for contrast-Enhanced Pulmonary Magnetic Resonance Angiography.	Londy FJ, Lowe S, Stein PD, Weg JG, Eisner RL, Leeper KV, Woodard PK, Sostman HD, Jablonski KA, Fowler SE, Hales CA, Goodman LR, Hull RD, Gottschalk A, Naidich DP, Chenevert TL.	2012	Journal Article
	Value of Patient Self-Assessment in the Diagnosis and Monitoring of Post-Thrombotic Syndrome: The Patient-Track Score Tool Symptoms Questionnaire.	Hull RD, Butcher P.	2012	Journal Article
	Signal Quality of Single Dose Gadobenate Dimeglumine Pulmonary MRA Examinations Exceeds Quality of MRA Performed with Double Dose Gadopentetate Dimeglumine.	Woodard PK, Chenevert TL, Sostman HD, Jablonski KA, Stein PD, Goodman LR, Londy FJ, Narra V, Hales CA, Hull RD, Tapson VF, Weg JG.	2012	Journal Article
	Diagnosis and Management of Isolated Subsegmental Pulmonary Embolism: Review and Assessment of the Options.	Stein PD, Goodman LR, Hull RD, Dalen JE, Matta F.	2012	Journal Article
	Venous Thromboembolism Risk in Ischemic Stroke Patients Receiving Extended-duration Enoxaparin Prophylaxis: Results from the EXCLAIM Study.	Turpie AGG, Hull RD, Schellong SM, Tapson VF, Monreal M, Samama M, Chen M, Yusen RD, for the EXCLAIM Investigator.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Factors in the Technical Quality of Gadolinium Enhanced Magnetic Resonance Angiography for Pulmonary Embolism in PIOPED III.	Sostman HD, Jablonski KA, Woodard PK, Stein PD, Naidich DP, Chenevert TL, Weg JG Hales CA, Hull RD, Goodman LR, Tapson VF. Factors in the Technical Quality of Gadolinium Enhanced Magnetic Resonance Angiography for Pulmonary Embolism in PIOPED III. Int J Cardiovasc Imaging. 2012 Feb;28(2):303-12.	2012	Journal Article
	Disorders of the Pulmonary Circulation.	Pineo GF, Hull RD.	2012	Journal Article
	Anticoagulation in Acute Pulmonary Embolism.	Valentine KA, Hull RD.	2012	Journal Article
	Outpatient Management of Oral Anticoagulation.	Valentine KA, Hull RD.	2012	Journal Article
	Treatment of Lower Extremity Deep Vein Thrombosis.	Lip GY, Hull RD.	2012	Journal Article
	Therapeutic Use of Warfarin. UpToDate in Pulmonary and Critical Care Medicine.	Valentine KA, Hull RD.	2012	Journal Article
	Correcting Excess Anticoagulation After Warfarin.	Valentine KA, Hull RD.	2012	Journal Article
	Therapeutic Use of Heparin and Low Molecular Weight Heparin.	Valentine KA, Hull RD.	2012	Journal Article
	Semuloparin Reduced Venous Thromboembolism in Patients Receiving Chemotherapy for Cancer.	Hull RD.	2012	Journal Article
Iacucci,Marietta	Drug-induced inflammatory bowel disease (IBD) and IBD-like conditions	Marie-France Dubeau , Marietta Iacucci, ; Paul L. Beck, ; Gordon W. Moran; Gilaad G. Kaplan, ; Subrata Ghosh, ; Remo Panaccione	2012	Journal Article
	Recognition of microscopic colitis at colonoscopy	M Iacucci,S.Urbanski	2012	Journal Article
James,Matthew	Rates of treated and untreated kidney failure in older versus younger adults.	Hemmelgarn BR, James MT, Tan Z, Manns BJ, Quinn RR, Ravani P, Munter P, O'Hare AM, Tonelli M.	2012	Journal Article
	Relation between acute kidney injury and use of cardiovascular medications after coronary angiography.	Leung KCW, Pannu N, Tan Z, Ghali WA, Knudtson ML, Tonelli M, Manns BJ, Hemmelgarn BR, James MT.	2012	Journal Article
	Association between acute kidney injury, recovery of renal function, and long-term outcomes after hospital discharge.	Pannu N, James MT, Hemmelgarn BR, Klarenbach SW.	2012	Journal Article
	Lifetime risk of ESRD.	Turin TC, Tonelli M, Manns BJ, Ahmed SB, Ravani P, James M, Hemmelgarn BR.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Risk of coronary events in people with chronic kidney disease compared with those with diabetes: a population-level cohort study.	Tonelli M, Muntner P, Lloyd A, Manns BJ, Klarenbach SW, Pannu N, James MT, Hemmelgarn B.	2012	Journal Article
	Impact of remote location on quality care delivery and relationships to adverse health outcomes in patients with diabetes and chronic kidney disease.	Bello AK, Hemmelgarn B, Lin M. Manns B, Klarenbach S, Thompson S, James M, Tonelli M. .	2012	Journal Article
	Timing the Initiation of Renal Replacement Therapy for Acute Kidney Injury in Canadian Intensive Care Units: A Multicentre Observational Study.	Clark E, Wald R, Levin A, Bouchard J, Adhikari NK, Hladunewich M, Richardson RM, James MT, Walsh MW, House AA, Moist LM, Stollery DE, Burns KE, Friedrich JO, Barton J, Lafrance JP, Pannu N, Bagshaw SM.	2012	Journal Article
	Examining non-cardiovascular outcomes of chronic kidney disease: eGFR and the risk of infection.	James MT, Laupland K.	2012	Journal Article
	Proteinuria and life expectancy.	Turin TC, Tonelli M, Manns BJ, Ahmed SB, Ravani P, James M, Hemmelgarn BR,	2012	Journal Article
Jarand,Julie	New Therapies For Multidrug-Resistant Tuberculosis	Field SK, Fisher D, Jarand J, Cowie RL	2012	Journal Article
Jenkins,Deirdre	The CanMeds role of collaborator: How well is it taught and evaluated from the perspectives of faculty and residents?	E. Berger, M. Alberta, A. Kuper, MK Chan, D. Jenkins, I. Harris	2012	Journal Article
Jijon,Humberto	The EGF receptor and HER2 participate in TNF- α -dependent MAPK activation and IL-8 secretion in intestinal epithelial cells	Humberto Jijon Andre Buret Christina Hirota Morley Hollenbeerg Paul Beck	2012	Journal Article
Johannson,Kerri	Cases: Cryptococcus gattii pneumonia	Kerri A. Johannson, Shaunna M. Huston, Christopher H. Mody, Warren Davidson	2012	Journal Article
Jones,Charlotte	The 2012 Canadian Hypertension Education Program Recommendations for the Management of Hypertension: Blood Pressure Measurement, Diagnosis, Assessment of Risk, and Therapy.	Stella S. Daskalopoulou, Nadia A. Khan, Robert R. Quinn et al	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
Kaplan, Gilaad	Decreasing Colectomy Rates for Ulcerative Colitis: A Population-Based Time Trend Study.	Kaplan GG, Seow C, Ghosh S, Molodecky N, Rezaie A, Moran G, Proulx M, Hubbard JN, MacLean A, Buie D, and Panaccione R.	2012	Journal Article
	Assessment of variables associated with smoking cessation in Crohn's Disease.	Leung Y, Kaplan GG, King A, Kamhavi S, Stasiak S, Rioux K, and Rubin D.	2012	Journal Article
	Setting priorities for comparative effectiveness research in inflammatory bowel disease: results of an international provider survey, expert rand panel, and patient focus groups.	A. Cheifetz, G.Melmed, B.Spiegel, J. Talley, S.Devlin, L.Harrell, J.Jones, G.G.Kaplan, P. Kozuch, M.Sparrow, F.S. Velayos, L.Baidoo, B.Bressel, C. Siegel.	2012	Journal Article
	Drug-induced inflammatory bowel disease (IBD) and IBD-like conditions.	MF Dubeau, M Iacucci, PL Beck, GG Kaplan, S Ghosh, R Panaccione.	2012	Journal Article
	Quantitative Metabolomic Profiling of Serum, Plasma, and Urine by (1)HNMR Spectroscopy Discriminates between Patients with Inflammatory Bowel Disease and Healthy Individuals.	Schicho R, Shaykhtudinov R, Ngo J, Nazyrova A, Schneider C, Panaccione R, Kaplan GG, Vogel HJ, Storr M.	2012	Journal Article
	The relationship between urban environment and IBD: a systematic review and meta-analysis.	Soon IS, Molodecky NA, Rabi DM, Ghali WA, Barkema HW, and Kaplan GG.	2012	Journal Article
	Hospital performance reports based on severity adjustd mortality rates in patients with cirrhosis depend on the method of risk adjustment.	RP Myers, JN Hubbard, AA Shaheen E Dixon, GG Kaplan.	2012	Journal Article
	Postoperative complications following colectomy for ulcerative colitis: A validation study.	Ma C, Crespin M, Proulx MC, DeSilva S, Hubbard J, Prusinkiewicz M, Nguyen GC, Panaccione R, Ghosh S, Myers RP, Quan H, and Kaplan GG.	2012	Journal Article
	Non-specific abdominal pain and air pollution: a novel association.	Kaplan GG, Szyszkowicz M, Fichta J, Rowe BH, Porada E, Vincent R, Madsen K, Ghosh S, and Storr M.	2012	Journal Article
	Depression in Epilepsy: A systematic Review & Meta-Analysis.	Kirsten M Fiest, Jonathan Dykeman, Scott B Patten, Samuel Wiebe, Gilaad Kaplan, Colleen J Maxwell, Andrew G.M. Bulloch, and Nathalie Jette.	2012	Journal Article
Kline, Gregory	Modification of the Protocol for Selective Adrenal Venous Sampling Resulted in both a Significant Increase in the Accuracy and Necessity of the Procedure in the Management of Patients with Primary Hyperaldosteronism.	Harvey A, Pasieka JL, Kline GA, So B.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	THE ADRENAL VEIN SAMPLING INTERNATIONAL STUDY (AVIS) FOR IDENTIFYING THE 2 MAJOR SUBTYPES OF PRIMARY ALDOSTERONISM	GP Rossi, M Barisa, B Allolio, R Auchus, L Amar, D Cohen, C Degenhart, J Deinum, E Fischer, RGordon, R Kickuth, GA Kline, A Lacroix, S Magill, D Miotto, M Naruse, T Nishikawa, M Omura, E Pimenta, P Plouin, M Quinkler, M Reincke, E Rossi, LC Rump, F Satoh, L Schultzekool, T M Seccia, M Stowasser, ATanabe, S Trerotola, O Vonend, J Widimsky Jr., K Wu, V Wu, APessina	2012	Journal Article
Lau,David	The Obesity Epidemic and Its Impact on Hypertension	Lau, DCW, Nguyen, T	2012	Journal Article
	Assessment and treatment of cardiometabolic risk in adults at risk for or with type 2 diabetes mellitus.	Teoh H, Lau DCW, Camelon KM, Gilbert RE, Harris SB, McFarlane PA, Rabasa-Lhoret, Ur E, Leiter LA	2012	Journal Article
	The Alberta moving beyond breast cancer (AMBER) cohort study: a prospective study of physical activity and health-related fitness in breast cancer survivors	Courneya KS, Vallance JK, Culos-Reed N, MaNeely ML, Bell GJ, Mackey JR, Yau Y, Tuan Y, Matthews CE, Lau DCW, Cook D, Friedenreich CM	2012	Journal Article
Laupland,Kevin	Effect of co-morbid illness on the long-term outcome of adults suffering major traumatic injury.	Niven DJ, Kirkpatrick AW, Ball CG, Laupland KB.	2012	Journal Article
	Surveillance and molecular epidemiology of Klebsiella pneumoniae that produce carbapenemases; the first report of OXA-48-like enzymes in North America.	Lascols C, Peirano G, Hackel M, Laupland KB, Pitout JD.	2012	Journal Article
	Assessment of the safety and feasibility of administering antipyretic therapy in critically ill adults: A pilot randomized clinical trial.	Niven DJ, Stelfox HT, Leger C, Kubes P, Laupland KB.	2012	Journal Article
	Characteristics and determinants of outcome of hospital-acquired bloodstream infections in intensive care units: The EUROBACT international cohort study.	Tabah A, Koulenti D, Laupland K, Misset B, Valles J, Bruzzi de Carvalho F, Paiva JA, Çakar N, Ma X, Eggimann P, Antonelli M, Bonten MJM, Csomos A, Krueger WA, Mikstacki A, Lipman J, Depuydt P, Vesin A, Garrouste-Orgeas M, Zahar JR, Blot S, Carlet J, Brun-Buisson C, Martin C, Rello J, Dimopoulos G, Timsit JF.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	The changing epidemiology of Staphylococcus aureus bloodstream infection: A multi-national population-based surveillance study.	Laupland KB, Lyytikäinen O, Søgaaard M, Kennedy KJ, Knudsen JD, Ostergaard C, Galbraith JC, Valiquette L, Jacobsson G, Collignon P, Schönheyder HC, for the International Bacteremia Surveillance Collaborative.	2012	Journal Article
	A cohort study of nutrition practices in the intensive care unit following abdominal aortic aneurysm repair.	Ksienski MR, Fenton TR, Eliasziw M, Zuege DJ, Petrask P, Shapori R, Laupland KB.	2012	Journal Article
	Population-based assessment of the burden of community-onset bloodstream infection in Victoria, Canada.	Laupland KB, Kibsey P, Bailey R, Gregson DB, Galbraith J.	2012	Journal Article
	Outcome of ICU patients with Clostridium difficile infection.	Zahar JR, Schwebel C, Adrie C, Garrouste-Orgeas M, François A, Vesin A, Nguile-Makao M, Tabah A, Laupland K, Le-Monnier A, Timsit JF.	2012	Journal Article
	Update on bloodstream infection in ICUs.	Timsit JF, Laupland KB.	2012	Journal Article
	Matched case control studies: a review of reported statistical methodology.	Niven DJ, Berthiaume LR, Fick GH, Laupland KB.	2012	Journal Article
	Molecular epidemiology of Extended Spectrum β -lactamase-producing Klebsiella pneumoniae over a 10-year period in Calgary, Canada.	Peirano G, Sang JHK, Pitondo-Silva A, Laupland KB, Pitout JDD.	2012	Journal Article
	Fever in the critically ill. A review of epidemiology, immunology, and management.	Niven DJ, Leger C, Stelfox HT, Laupland KB.	2012	Journal Article
	The distinct category of healthcare associated bloodstream infections.	Lenz R, Leal JR, Church DL, Gregson DB, Ross T, Laupland KB	2012	Journal Article
	Assessment of the safety and feasibility of administering antipyretic therapy in critically ill patients: Study protocol of a randomized trial.	Niven DJ, Leger C, Kubes P, Stelfox HT, Laupland KB.	2012	Journal Article
	Severe hypothermia increases the risk for intensive care unit-acquired infection.	Laupland KB, Zahar JR, Adrie C, Schwebel C, Goldgran-Toledano D, Azoulay E, Garrouste-Orgeas M, Cohen Y, Jamali S, Souweine B, Darmon M, Timsit JF.	2012	Journal Article
	Determinants of temperature abnormalities and influence on outcome of critical illness.	Laupland KB, Zahar JR, Adrie C, Schwebel C, Goldgran-Toledano D, Azoulay E, Garrouste-Orgeas M, Cohen Y, Jamali S, Souweine B, Darmon M, Timsit JF.	2012	Journal Article
	Can cervical spine computed tomography assist in detecting occult pneumothoraces?	Ball CG, Roberts DJ, Kirkpatrick AW, Feliciano DV, Kortbeek JB, Datta I, Laupland KB, Brar M.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Evaluating the impact of a novel restricted reimbursement policy for quinolones.	Manns BJ, Laupland KB, Tonelli M, Gao S, Hemmelgarn B.	2012	Journal Article
	Dressing disruption is a major risk factor for catheter-related infections.	Timsit JF, Bouadma L, Ruckly S, Schwebel C, Garrouste-Orgeas M, Montravers P, Bronchard R, Calvino-Gunther S, Arrault X, Laupland K, Lucet JC.	2012	Journal Article
LeClercq, Sharon	Canadian Rheumatology association Recommendations for the Pharmacological Management of Rheumatoid Arthritis with Traditional and Biologic Disease-Modifying Drugs: Part II Safety	Claire Bombardier, Glen Hazelwood, Pooneh Akhavan, Orit Schieir, Anne Dooley, Boulos Haraoui, Majed Khraishi, Sharon LeClercq, Jean Legare, Dianne Mosher, James Pencharz, Janet Pope, John Thomson, Carter Throne, Michel Zimmer, Michael Gardam, Johan Askling, Vivian Bykerk	2012	Journal Article
	Treating Rheumatoid Arthritis to Target: A Canadian Physician Survey	Boulos Haraoui, William Bensen, Louis Bessette, Sharon Le Clercq, Carter Thorne, John Wade	2012	Journal Article
	Sex Differences in Pain Scores and Localization in Inflammatory Arthritis: A Systematic Review and Metaanalysis	Cheryl Barnabe, Louis Bessette, Cathy Flanagan, Sharon LeClercq, Amanda Steinman, Fares Kalache, Tabitha Kung, Janet Pope, Boulos Haraoui, Jacqueline Hochman, Dianne Mosher, Carter Thorne, Vivian Bykerk	2012	Journal Article
Lee, Samuel	Safety of peginterferon alfa-2a plus ribavirin in a large multinational cohort of hepatitis C patients.	Lee SS, Roberts SK, Berak H, Dusheiko GM, Harley HA, Gane EJ, Husa P, Horsmans YJ, Hadziyannis SJ, Heathcote EJ, Messinger D, Tatsch F, Han KH, Ferenci P.	2012	Journal Article
	Randomised clinical trial: the efficacy of treatment, guided by a shorter duration of response, using peginterferon alfa-2a plus ribavirin for hepatitis C virus other than genotypes 2 or 3.	Lee SS, Sherman M, Ramji A, Greenbloom S, Elkashab M, Hilzenrat N, Pluta H, Balshaw R, Usaty C, Myers RP.	2012	Journal Article
	Prevalence and mechanisms of malnutrition in patients with advanced liver disease, and nutrition management strategies.	Cheung K, Lee SS, Raman M.	2012	Journal Article
	Hepatitis C, insulin resistance and fatty liver: bad things come in threes.	Abdo AA, Lee SS.	2012	Journal Article
	The spleen is a player in portal hypertension.	Liu H, Lee SS.	2012	Journal Article
	Protective effect of erythropoietin in cirrhotic cardiomyopathy in rats.	Liu L, Liu H, Nam SW, Lee SS.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Hepatitis C virus persistence after sustained virological response to antiviral therapy in patients with or without past exposure to Hepatitis B virus.	Pham TN, Coffin CS, Churchill ND, Urbanski SJ, Lee SS, Michalak TI	2012	Journal Article
	PPAR α and portal hypertension.	Liu H, Lee SS.	2012	Journal Article
	High rates of viral suppression after longterm entecavir therapy in Asian patients with HBeAg-positive chronic hepatitis B.	Pan CQ, Tong M, Kowdley KV, Hu KQ, Chang TT, Lai CL, Yoon SK, Lee SS, Cohen D, Tang H, Tsai N.	2012	Journal Article
Leigh, Richard	Decreased cerebrovascular response to CO ₂ in women with COPD: role of oxidative stress.	Hartmann SE, Pialoux V, Leigh R, Poulin MJ.	2012	Journal Article
	Cigarette smoke modulates expression of human rhinovirus-induced airway epithelial host defense genes.	Proud D, Hudy MH, Wiehler S, Zaheer RS, Amin MA, Pelikan JB, Tacon CE, Tonsaker TO, Walker BL, Kooi C, Traves SL, Leigh R.	2012	Journal Article
	Rhinovirus induced MMP-9 expression is dependent on Fra-1, which is modulated by formoterol and dexamethasone.	Tacon CE, Newton R, Proud D, Leigh R.	2012	Journal Article
	Effect of Incremental Exercise on Airway and Systemic Inflammation in Patients with COPD.	Davidson WJ, Verity WS, Traves SL, Leigh R, Ford GT, Eves ND.	2012	Journal Article
	Corticosteroid-induced gene expression in allergen-challenged asthmatic subjects taking inhaled budesonide.	Kelly MM, King EM, Rider CF, Gwozd C, Holden NS, Eddleston J, Zuraw B, Leigh R, O'Byrne PM, Newton R.	2012	Journal Article
	Ventilatory responses to exercise and CO ₂ after menopause in healthy women: effects of age and fitness.	Davenport MH, Beaudin AE, Brown AD, Leigh R, Poulin MJ.	2012	Journal Article
	Canadian Thoracic Society 2012 guideline update: Diagnosis and management of asthma in preschoolers, children and adults: executive summary. Canadian Thoracic Society Asthma Clinical Assembly.	Lougheed MD, Leniere C, Ducharme FM, Licskai C, Dell SD, Rowe BH, FitzGerald M, Leigh R, Watson W, Boulet LP.	2012	Journal Article
	Canadian Thoracic Society 2012 Guideline Update: Diagnosis and Management of Asthma in Preschoolers, Children and Adults.	Lougheed M, Lemiere C, Ducharme F, Licskai C, Dell S, Rowe B, Fitzgerald MJ, Leigh R, Watson W, Boulet LP.	2012	Journal Article
Lemaire, Jane	Evaluation of a hands-free communication device in an acute care setting	de Grood J, Wallace JE, White DE, Gilmour JG, Lemaire JB	2012	Journal Article
Leung, Alexander				

Name	Title	Authorship	Publish_Year	Type
	Reviewing the medical literature: five notable articles in general internal medicine from 2010 and 2011.	Leung AA, van Walraven C.	2012	Journal Article
	Impact of vendor computerized physician order entry in community hospitals.	Leung AA, Keohane C, Amato M, Simon SR, Coffey M, Kaufman N, Cadet B, Schiff G, Zimlichman E, Seger DL, Yoon C, Song P, Bates DW.	2012	Journal Article
	Impact of vendor computerized physician order entry in community hospitals.	Leung AA, Keohane C, Amato M, Simon SR, Coffey M, Kaufman N, Cadet B, Schiff G, Zimlichman E, Seger DL, Yoon C, Song P, Bates DW.	2012	Journal Article
	Preoperative hyponatremia and perioperative complications.	Leung AA, McAlister FA, Rogers SO Jr, Pazo V, Wright A, Bates DW.	2012	Journal Article
	Low-dose aspirin is associated with an increased risk of haemorrhage; but not in people with diabetes who have a high baseline rate of bleeding.	Butalia S, Leung AA.	2012	Journal Article
Leung,Yvette	Assessment of variables associated with smoking cessation in IBD.	Leung Y, Kaplan GG, Rioux K, Hubbard J, Kamhawi S, Stasiak L, Cohen R, Devlin S, Hanauer S, Panaccione R, Rubin D.	2012	Journal Article
Li,Pin	Review of computerized physician handoff tools for improving the quality of patient care.	Li P, Ali S, Tang C, Ghali WA, Stelfox HT.	2012	Journal Article
		Department of Medicine, University of Calgary, Calgary, Alberta, Canada. pli@ucalgary.c		
Loewen,Andrea	Clinical Presentation of Obstructive Sleep Apnea in Patients with Chronic Kidney Disease	David D. M. Nicholl, Sofia B. Ahmed, Andrea H. S. Loewen, Brenda R. Hemmelgarn, Darlene Y. Sola, Jaime M. Beecroft, Tanvir C. Turin, Patrick J. Hanly	2012	Journal Article
	Genioglossus Activity Available via Non-arousal Mechanisms vs. that Required for Opening the Airway in Obstructive Apnea Patients	Younes M, Loewen AHS, Ostrowski M, Laprairie J, Maturino F, Hanly PJ	2012	Journal Article
Love,Jonathan	Utility of Double-Balloon Colonoscopy in Patients with prior Incomplete Conventional Colonoscopy.	A Alfadda, J Love, P Kumar, S Heitman	2012	Journal Article

Ma,Irene Wai Yan

Name	Title	Authorship	Publish_Year	Type
	Learning during simulation training is prone to retroactive interference	Fraser K, Ma I, Teteris E, Lee M, Wright B, McLaughlin K	2012	Journal Article
	Diagnostic performance one hour after simulation training predicts learning	Consoli A, Fraser K, Ma I, Sobczak M, Wright B, McLaughlin K	2012	Journal Article
	Conformity of behaviors among medical students: impact on performance of knee arthrocentesis in simulation	Beran TN, McLaughlin K, Al Ansari A, Kassam A	2012	Journal Article
	Emotion, cognitive load and learning outcomes during simulation training	Fraser K, Ma I, Teteris E, Baxter H, Wright B, McLaughlin K	2012	Journal Article
	Directed self-regulated learning versus instructor-regulated learning for simulation training.	Brydges R, Nair P, Ma I, Shanks D, Hatala R	2012	Journal Article
MacEachern,Paul				
	Wet laboratory versus computer simulation for learning endobronchial ultrasound: a randomized trial.	Stather DR, MacEachern P, Chee A, Dumoulin E, Hergott CA, Tremblay A	2012	Journal Article
	Evaluation of Clinical Endobronchial Ultrasound Skills Following Clinical versus Simulation Training.	David R. Stather, Paul MacEachern, Alex Chee, Elaine Dumoulin, Alain Tremblay.	2012	Journal Article
	Cytologic Assessment of Endobronchial Ultrasound-Guided Transbronchial Needle Aspirates in Sarcoidosis.	Alex Chee, Moosa Khalil, David Stather, Paul MacEachern, Stephen Field, Alain Tremblay	2012	Journal Article
	Use of a drug eluting pleural catheter for pleurodesis.	Tremblay A, Dumitriu S, Stather DR, Maceachern P, Illanes O, Kelly MM	2012	Journal Article
	Safety of Endobronchial Ultrasound Guided Transbronchial Needle Aspiration for Patients Taking Clopidogrel: A Report of 12 Consecutive Cases.	Stather, D.R., MacEachern P., Chee A., Tremblay A.	2012	Journal Article
MacRae,Jennifer				
	A Randomized Trial Comparing Buttonhold to Standard Needling in Conventional Hemodialysis patients	MacRae JM, Ahmed SB, Atkar R, Hemmelgarn BR,	2012	Journal Article
	Pneumatic Compression Stockings on Hemodialysis: Randomized Trial.	Tai D, Ahmed S, Hemmelgarn B and MacRae JM	2012	Journal Article
	Hemodialysis prescription education reduces intradialytic hypotension	Tai D, Conley J, Ravani P, Hemmelgarn B, MacRae J	2012	Journal Article
	Increased Urinary Protein Excretion in the "normal" range is associated with increased Renin Angiotensin System Activity	Nicholl DDM, Hemmelgarn BR, Turin TC, MacRae JM, Muruve DA, Sola DDY, Ahmed SB	2012	Journal Article
Manns,Braden				

Name	Title	Authorship	Publish_Year	Type
	Validating a case definition of chronic kidney disease using administrative data.	Ronksley PE, Tonelli M, Quan H, Manns BJ, James MT, Clement FM, Samuel S, Quinn RR, Ravani P, Brar SS, Hemmelgarn BR.	2012	Journal Article
	Association between GFR, proteinuria and adverse outcomes among White, Chinese and South Asian individuals in Canada.	Conley J, Tonelli M, Quan H, Manns BJ, Palacios-Derflinger L, Bresee LC, Khan N, Hemmelgarn BR.	2012	Journal Article
	Adding Specialized Clinics for Remote-Dwellers with Chronic Kidney Disease: A Cost-Utility Analysis.	Wiebe N, Klarenbach SW, Chui B, Ayyalasomayajula B, Hemmelgarn BR, Jindal K, Manns BJ, Tonelli M; on behalf of the Alberta Kidney Disease Network.	2012	Journal Article
	A Cluster Randomized Trial of an Enhanced eGFR Prompt in Chronic Kidney Disease.	Manns B, Tonelli M, Culleton B, Faris P, McLaughlin K, Chin R, Gooch K, McAlister FA, Taub K, Thorlacius L, Krause R, Kearns M, Hemmelgarn B; Alberta Kidney Disease Network.	2012	Journal Article
	Multiple versus single and other estimates of baseline proteinuria status as predictors of adverse outcomes in the general population.	Bello A, Thompson S, Lloyd A, Hemmelgarn B, Klarenbach S, Manns B, Tonelli M.	2012	Journal Article
	The new FDA labeling for ESA--implications for patients and providers.	Manns BJ, Tonelli M.	2012	Journal Article
	Proteinuria and Life Expectancy.	Turin TC, Tonelli M, Manns BJ, Ahmed SB, Ravani P, James M, Hemmelgarn BR.	2012	Journal Article
	Clinical decision support to improve blood pressure control in hemodialysis patients: a nonrandomized controlled trial.	Thompson S, Hemmelgarn B, Wiebe N, Majumdar S, Klarenbach S, Jindal K, Manns B, Mortis G, Campbell P, Tonelli M; Alberta Kidney Disease Network.	2012	Journal Article
	Enrolment in primary care networks: impact on outcomes and processes of care for patients with diabetes.	Manns BJ, Tonelli M, Zhang J, Campbell DJ, Sargious P, Ayyalasomayajula B, Clement F, Johnson JA, Laupacis A, Lewanczuk R, McBrien K, Hemmelgarn BR.	2012	Journal Article
	Chronic kidney disease and life expectancy.	Turin TC, Tonelli M, Manns BJ, Ravani P, Ahmed SB, Hemmelgarn BR.	2012	Journal Article
	Correction: Colorectal Cancer Screening for Average-Risk North Americans: An Economic Evaluation.	Heitman SJ, Hilsden RJ, Au F, Dowden S, Manns BJ.	2012	Journal Article
	A Decade After the KDOQI CKD Guidelines: A Perspective From Canada.	Hemmelgarn BR, Manns BJ, Tonelli M; Interdisciplinary Chronic Disease Collaboration.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Impact of remote location on quality care delivery and relationships to adverse health outcomes in patients with diabetes and chronic kidney disease.	Bello AK, Hemmelgarn B, Lin M, Manns B, Klarenbach S, Thompson S, James M, Tonelli M; for the Alberta Kidney Disease Network.	2012	Journal Article
	Intensive care unit bed availability and outcomes for hospitalized patients with sudden clinical deterioration.	Stelfox HT, Hemmelgarn BR, Bagshaw SM, Gao S, Doig CJ, Nijssen-Jordan C, Manns BJ.	2012	Journal Article
	Risk of coronary events in people with chronic kidney disease compared with those with diabetes: a population-level cohort study.	Tonelli M, Muntner P, Lloyd A, Manns BJ, Klarenbach S, Pannu N, James MT, Hemmelgarn BR; Alberta Kidney Disease Network.	2012	Journal Article
	Intensive and Standard Blood Pressure Targets in Patients With Type 2 Diabetes Mellitus: Systematic Review and Meta-analysis.	McBrien K, Rabi DM, Campbell N, Barnieh L, Clement F, Hemmelgarn BR, Tonelli M, Leiter LA, Klarenbach SW, Manns BJ.	2012	Journal Article
	Evaluating the impact of a novel restricted reimbursement policy for quinolone antibiotics: A time series analysis.	Manns B, Laupland K, Tonelli M, Gao S, Hemmelgarn B.	2012	Journal Article
	Knowledge translation for nephrologists: strategies for improving the identification of patients with proteinuria.	Hemmelgarn BR, Manns BJ, Straus S, Naugler C, Holroyd-Leduc J, Braun TC, Levin A, Klarenbach S, Lee PF, Hafez K, Schwartz D, Jindal K, Ervin K, Bello A, Turin TC, McBrien K, Elliott M, Tonelli M, Collaboration ICDC.	2012	Journal Article
	Use of administrative databases for health-care planning in CKD.	Bello A, Hemmelgarn B, Manns B, Tonelli M; Alberta Kidney Disease Network.	2012	Journal Article
	Lifetime risk of ESRD.	Turin TC, Tonelli M, Manns BJ, Ahmed SB, Ravani P, James M, Hemmelgarn BR.	2012	Journal Article
	Health Care Costs of Peritoneal Dialysis Technique Failure and Dialysis Modality Switching.	Chui BK, Manns B, Pannu N, Dong J, Wiebe N, Jindal K, Klarenbach SW.	2012	Journal Article
	Clinician beliefs and attitudes about home haemodialysis: a multinational interview study.	Tong A, Palmer S, Manns B, Craig JC, Ruospo M, Gargano L, Johnson DW, Hegbrant J, Olsson M, Fishbane S, Strippoli GF.	2012	Journal Article
	Health Care Costs in People With Diabetes and Their Association With Glycemic Control and Kidney Function.	McBrien KA, Manns BJ, Chui B, Klarenbach SW, Rabi D, Ravani P, Hemmelgarn B, Wiebe N, Au F, Clement F.	2012	Journal Article
	Empiric pacemaker compared with a monitoring strategy in patients with syncope and bifascicular conduction block--rationale and design of the Syncope: Pacing or Recording in The Later Years (SPRITELY) study.	Krahn AD, Morillo CA, Kus T, Manns BJ, Rose S, Brignole M, Sheldon RS.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Effectiveness of quality improvement strategies on the management of diabetes: a systematic review and meta-analysis.	Tricco AC, Ivers NM, Grimshaw JM, Moher D, Turner L, Galipeau J, Halperin I, Vachon B, Ramsay T, Manns B, Tonelli M, Shojania K.	2012	Journal Article
	Rates of treated and untreated kidney failure in older vs younger adults.	Hemmelgarn BR, James MT, Manns BJ, O'Hare AM, Muntner P, Ravani P, Quinn RR, Turin TC, Tan Z, Tonelli M; Alberta Kidney Disease Network.	2012	Journal Article
	Attitudes Toward Strategies to Increase Organ Donation: Views of the General Public and Health Professionals.	Barnieh L, Klarenbach S, Gill JS, Caulfield T, Manns B.	2012	Journal Article
	The impact of nocturnal hemodialysis on sexual function.	Bass A, Ahmed SB, Klarenbach S, Culleton B, Hemmelgarn BR, Manns B.	2012	Journal Article
McLaughlin, Kevi				
	Learning during simulation training is prone to retroactive interference.	Fraser K, Ma I, Teteris E, Lee M, Wright B, McLaughlin K.	2012	Journal Article
	Comparing the use of global rating scale with checklists for the assessment of central venous catheterization skills using simulation.	Ma IW, Zalunardo N, Pachev G, Beran T, Brown M, Hatala R, McLaughlin K.	2012	Journal Article
	Podcasting in Medical Education: Can We Turn This Toy into an Effective Learning Tool?	Zanussi L, Paget M, Tworek J, McLaughlin K.	2012	Journal Article
	Navigating in the Fog of Medical School Admissions Data.	McLaughlin K.	2012	Journal Article
	Does Training Learners on Simulators Benefit Real Patients?	Teteris E, Fraser K, Wright B, McLaughlin K.	2012	Journal Article
	Emotion, Cognitive Load, and Diagnostic Performance during Simulation Training.	Fraser K, Ma I, Teteris E, Baxter H, Wright B, McLaughlin K.	2012	Journal Article
Meddings, Jonatha				
	Increased intestinal permeability and Parkinson disease patients: chicken or egg?	Salat-Foix D, Tran K, Ranawaya R, Meddings J, Suchowersky O.	2012	Journal Article
	Canadian Association of Gastroenterology Safety and Quality Indicators in Endoscopy Consensus Group. Canadian Association of Gastroenterology consensus guidelines on safety and quality indicators in endoscopy.	Borgaonkar MR, Hookey L, Hollingworth R, Kuipers EJ, Forster A, Armstrong D, Barkun A, Bridges R, Carter R, de Gara C, Dube C, Enns R, Macintosh D, Forget S, Leontiadis G, Meddings J, Cotton P, Valori R.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Canadian Association of Gastroenterology Consensus Guidelines on Safety and Quality Indicators in Endoscopy. Canadian Association of Gastroenterology Safety and Quality Indicators in Endoscopy Consensus Group.	Armstrong D, Barkun, Bridges R, Carter R, de Gara C, Dube C, Enns R, Hollingworth R, Macintosh D, Borgaonkar M, Forget S, Leontiadis G, Meddings J, Cotton P, Kuipers EJ.	2012	Journal Article
	Studies on bacterial endotoxin and intestinal absorption function in patients with chronic heart failure.	Sandek A, Bjarnason I, Volk HD, Crane R, Meddings JB, Niebauer J, Kalra PR, Buhner S, Herrmann R, Springer J, Doehner W, von Haehling S, Anker SD, Rauchhaus M.	2012	Journal Article
	Abnormal intestinal permeability in Crohn's disease pathogenesis.	Teshima CW, Dieleman LA, Meddings JB.	2012	Journal Article
Mody,Christopher	Real-time in vivo imaging of fungal migration to the CNS. Cell Microbiol. 2012;14(12):1819-27	Shi M, Calaruso P, Mody CH.	2012	Journal Article
	Cryptococcus gattii pneumonia	Johannson, K.A., Huston,S.M., Mody,C.H., Davidson, W	2012	Journal Article
Mosher,Dianne	Canadian Rheumatology Association recommendations for the pharmacological management of rheumatoid arthritis with traditional and biologic disease-modifying antirheumatic drugs: part II safety.	Bombardier C, Hazlewood GS, Akhavan P, Schieir O, Dooley A, Haraoui B, Khraishi M, Leclercq SA, Légaré J, Mosher DP, Pencharz J, Pope JE, Thomson J, Thorne C, Zummer M, Gardam MA, Askling J, Bykerk V; Canadian Rheumatology Association.	2012	Journal Article
	Barnabe C, Bessette L, Flanagan C, Leclercq S, Steiman A, Kalache F, Kung T, Pope JE, Haraoui B, Hochman J, Mosher D, Thorne C, Bykerk V.	Sex differences in pain scores and localization in inflammatory arthritis: a systematic review and metaanalysis.	2012	Journal Article
	Time to disease-modifying antirheumatic drug treatment in rheumatoid arthritis and its predictors: a national, multicenter, retrospective cohort.	Tavares R, Pope JE, Tremblay JL, Thorne C, Bykerk VP, Lazovskis J, Blocka KL, Bell MJ, Lacaille D, Hitchon CA, Fitzgerald AA, Fidler WK, Bookman AA, Henderson JM, Mosher DP, Sholter DE, Khraishi M, Haraoui B, Chen H, Li X, Laupacis A, Boire G, Tomlinson G, Bombardier C.	2012	Journal Article
	Quality assurance study of the use of preventative therapies in glucocorticoid-induced osteoporosis in early inflammatory arthritis: results from the CATCH cohort.	McKeown E, Bykerk VP, De Leon F, Bonner A, Thorne C, Hitchon CA, Boire G, Haraoui B, Ferland DS, Keystone EC, Pope JE; CATCH Investigators.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Increasing treatment in early rheumatoid arthritis is not determined by the disease activity score but by physician global assessment: results from the CATCH study.	Pyne L, Bykerk VP, Boire G, Haraoui B, Hitchon C, Thorne JC, Keystone EC, Pope JE; CATCH Investigators	2012	Journal Article
Myers,Robert	Association of primary biliary cirrhosis with variants in the CLEC16A, SOCS1, SPIB and SIAE immunomodulatory genes.	Hirschfield GM, Xie G, Lu E, Sun Y, Juran BD, Chellappa V, Coltescu C, Mason AL, Milkiewicz P, Myers RP, et al.	2012	Journal Article
	An update on the management of hepatitis C: Consensus guidelines from the Canadian Association for the Study of the Liver.	Myers RP, Ramji A, Bilodeau M, Wong S, Feld JJ	2012	Journal Article
	Immunochip analyses identify a novel risk locus for primary biliary cirrhosis at 13q14, multiple independent associations at four established risk loci and epistasis between 1p31 and 7q32 risk variants.	Juran BD, Hirschfield GM, Invernizzi P, Atkinson EJ, Li Y, Xie G, Kosoy R, Ransom M, Sun Y, Bianchi I, Schlicht EM, Lleo A, Coltescu C, Bernuzzi F, Podda M, Lammert C, Shigeta R, Chan LL, Balschun T, Marconi M, Cusi D, Heathcote EJ, Mason AL, Myers RP, et al.	2012	Journal Article
	Postoperative complications following colectomy for ulcerative colitis: A validation study.	Ma C, Crespín C, Proulx MC, Desilva S, Hubbard J, Prusinkiewicz M, Nguyen GC, Panaccione R, Ghosh S, Myers RP, Quan H, Kaplan GG.	2012	Journal Article
	Randomised clinical trial: the efficacy of treatment, guided by a shorter duration of response, using peginterferon alfa-2a plus ribavirin for hepatitis C virus other than genotypes 2 or 3	Lee SS, Sherman M, Ramji A, Greenbloom S, Elkashab M, Pluta H, Hilzenrat N, Balshaw R, Usaty C, Myers RP	2012	Journal Article
	Controlled Attenuation Parameter (CAP): A noninvasive method for the detection of hepatic steatosis based on transient elastography	Myers RP, Pollett A, Kirsch R, Pomier-Layrargues G, Beaton M, Levstik M, Duarte-Rojo A, Wong D, Crotty P, Elkashab M	2012	Journal Article
	Is the M probe really necessary to measure liver stiffness by fibroscan?	Myers RP	2012	Journal Article
	Discordance in fibrosis staging between liver biopsy and transient elastography using the FibroScan XL probe	Myers RP, Pomier-Layrargues G, Kirsch R, Pollett A, Beaton M, Levstik M, Duarte-Rojo A, Wong D, Crotty P, Elkashab M	2012	Journal Article
	Feasibility and diagnostic performance of the FibroScan XL probe for liver stiffness measurement in overweight and obese patients.	Myers RP, Pomier-Layrargues G, Kirsch R, Pollett A, Duarte-Rojo A, Wong D, Beaton M, Levstik M, Crotty P, Landau M, Miettinen V, Sasso M, Elkashab M.	2012	Journal Article
	Predicting in-hospital mortality in patients undergoing complex gastrointestinal surgery: Determining the optimal risk adjustment method	Grendar J, Shaheen AA, Myers RP, Parker R, Vollmer CM Jr, Ball CG, Quan ML, Kaplan GG, Al-Manasra T, Dixon E	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Hospital performance reports based on severity adjusted mortality rates in patients with cirrhosis depend on the method of risk adjustment.	Myers RP, Hubbard JN, Shaheen AA, Dixon E, Kaplan GG.	2012	Journal Article
	Severe muscle depletion in patients on the liver transplant wait list – its prevalence and independent prognostic value.	Tandon P, Ney M, Irwin I, Ma MM, Gramlich L, Bain VG, Esfandiari N, Baracos V, Montano-Loza AJ, Myers RP.	2012	Journal Article
Owen,Carolyn	Germline GATA2 pThr354Met mutation in familial myelodysplastic syndrome with acquired monosomy 7 and ASXL1 mutation demonstrating rapid onset and poor survival	Bodor C, Renneville A, Charazac A, Iqbal S, Etancelin P, Smith M, Cavenagh J, Barnett MJ, Kramarzova K, Krishnan B, Matolcsy A, Preudhomme C, Fitzgibbon J, Owen C	2012	Journal Article
	Obinutuzumab for the treatment of lymphoproliferative disorders	Owen C and Stewart DA	2012	Journal Article
Panaccione,Remo	Increasing incidence and prevalence of the inflammatory bowel diseases with time, based on systematic review.	Molodecky NA, Soon IS, Rabi DM, Ghali WA, Ferris M, Chernoff G, Benchimol EI, Panaccione R, Ghosh S, Barkema HW, Kaplan GG.	2012	Journal Article
	Recommendations for the treatment of Crohn's disease with tumor necrosis factor antagonists: an expert consensus report.	Feagan BG, Lémann M, Befrits R, Connell W, D'Haens G, Ghosh S, Michetti P, Ochsenkühn T, Panaccione R, Schreiber S, Silverberg M, Sorrentino D, van der Woude CJ, Vermeire S, Rutgeerts P.	2012	Journal Article
	Treatment of hospitalized adult patients with severe ulcerative colitis: Toronto consensus statements.	Bitton A, Buie D, Enns R, Feagan BG, Jones JL, Marshall JK, Whittaker S, Griffiths AM, Panaccione R; Canadian Association of Gastroenterology Severe Ulcerative Colitis Consensus Group.	2012	Journal Article
	Physician perspectives on unresolved issues in the use of conventional therapy in Crohn's disease: results from an international survey and discussion programme.	Ferrante M, Karmiris K, Newnham E, Siffledeen J, Zelinkova Z, van Assche G, Lakatos PL, Panés J, Sturm A, Travis S, van der Woude CJ, Reinisch W, Colombel JF, Panaccione R.	2012	Journal Article
	Development and Validation of an Administrative Case Definition for Inflammatory Bowel Diseases	Rezaie A, Quan H, Fedorak RN, Panaccione R, Hilsden RJ.	2012	Journal Article
	Assessment of variables associated with smoking cessation in Crohn's disease.	Leung Y, Kaplan GG, Rioux KP, Hubbard J, Kamhawi S, Stasiak L, Cohen RD, Devlin SM, Panaccione R, Hanauer SB, Rubin DT.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Anaerostipes hadrus comb. nov., a dominant species within the human colonic microbiota; reclassification of Eubacterium hadrum Moore et al. 1976.	Allen-Vercoe E, Daigneault M, White A, Panaccione R, Duncan SH, Flint HJ, O'Neal L, Lawson PA.	2012	Journal Article
	Implementing changes in clinical practice to improve the management of Crohn's disease.	Panaccione R, Hibi T, Peyrin-Biroulet L, Schreiber S.	2012	Journal Article
	Abatacept for Crohn's disease and ulcerative colitis.	Sandborn WJ, Colombel JF, Sands BE, Rutgeerts P, Targan SR, Panaccione R, Bressler B, Geboes K, Schreiber S, Aranda R, Gujrathi S, Luo A, Peng Y, Salter-Cid L, Hanauer SB.	2012	Journal Article
	Quantitative Metabolomic Profiling of Serum, Plasma, and Urine by (1)H NMR Spectroscopy Discriminates between Patients with Inflammatory Bowel Disease and Healthy Individuals.	Schicho R, Shaykhtudinov R, Ngo J, Nazyrova A, Schneider C, Panaccione R, Kaplan GG, Vogel HJ, Storr M.	2012	Journal Article
	Ustekinumab Induction and Maintenance Therapy in Refractory Crohn's Disease	Sandborn WJ, Gasink C, Gao LL, Blank MA, Johans J, Guzzo C, Sands BE, Hanauer SB, Targan S, Rutgeerts P, Ghosh S, de Villiers WJ, Panaccione R, Greenberg G, Schreiber S, Lichtiger S, Feagan BG; CERTIFI Study Group.	2012	Journal Article
	Up-regulation of Annexin-A1 and lipoxin A(4) in individuals with ulcerative colitis may promote mucosal homeostasis.	Vong L, Ferraz JG, Dufton N, Panaccione R, Beck PL, Sherman PM, Perretti M, Wallace JL	2012	Journal Article
	Postoperative Complications Following Colectomy for Ulcerative Colitis: A Validation Study	Ma C, Crespin M, Proulx MC, DeSilva S, Hubbard J, Prusinkiewicz M, Nguyen GC, Panaccione R, Ghosh S, Myers RP, Quan H, Kaplan GG.	2012	Journal Article
	Recommendations for the treatment of ulcerative colitis with infliximab: a gastroenterology expert group consensus.	Reinisch W, Van Assche G, Befrits R, Connell W, D'Haens G, Ghosh S, Michetti P, Ochskenkühn T, Panaccione R, Schreiber S, Silverberg MS, Sorrentino D, van der Woude CJ, Vermeire S, Panes J.	2012	Journal Article
	Development of the Paris definition of early Crohn's disease for disease-modification trials: results of an international expert opinion process.	Peyrin-Biroulet L, Billioud V, D'Haens G, Panaccione R, Feagan B, Panés J, Danese S, Schreiber S, Ogata H, Hibi T, Higgins PD, Beaugerie L, Chowery Y, Louis E, Steinwurz F, Reinisch W, Rutgeerts P, Colombel JF, Travis S, Sandborn WJ.	2012	Journal Article
	Adalimumab Induces and Maintains Mucosal Healing in Patients with Crohn's Disease: Data from the EXTEND Trial.	Rutgeerts P, Van Assche G, Sandborn WJ, Wolf DC, Geboes K, Colombel JF, Reinisch W; EXTEND Investigators, Kumar A, Lazar A, Camez A, Lomax KG, Pollack PF, D'Haens G.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
Parkins, Mike	Decreasing colectomy rates for ulcerative colitis: a population-based time trend study.	Kaplan GG, Seow CH, Ghosh S, Molodecky N, Rezaie A, Moran GW, Proulx MC, Hubbard J, MacLean A, Buie D, Panaccione R.	2012	Journal Article
	Inflammatory bowel disease: a Canadian burden of illness review.	Rocchi A, Benchimol EI, Bernstein CN, Bitton A, Feagan B, Panaccione R, Glasgow KW, Fernandes A, Ghosh S.	2012	Journal Article
	Deep remission: a new concept?	Colombel JF, Louis E, Peyrin-Biroulet L, Sandborn WJ, Panaccione R.	2012	Journal Article
	Treatment of lung infection in patients with cystic fibrosis: current and future strategies.	Döring G, Flume P, Heijerman H, Elborn JS; Consensus Study Group.	2012	Journal Article
	Fever, headache, fatigue and chancre in a traveller returning from Tanzania.	Davis, JP, Chaubey VP, Warren, R., Parkins MD, Louie M., Gregson, D. Sabuda, D. and S Kuhn.	2012	Journal Article
	Incidence and risk factors for pulmonary exacerbation treatment failures in cystic fibrosis patients chronically infected with <i>Pseudomonas aeruginosa</i> .	Parkins MD, Rendall JC, Elborn JS.	2012	Journal Article
Pineo, Graham	Tigecycline Treatment of Urinary Tract Infection and Prostatitis: Case Report and Literature Review.	Bates, D, Parkins, M.D, Hellweg R, Gibson K, Bugar JM.	2012	Journal Article
	Pyrosequencing reveals complex polymicrobial nature of invasive pyogenic infections: Microbial constituents of empyema, liver abscess and intracerebral abscess.	Sibley, CD, DL. Church, MG. Surette, SE. Dowd and MD Parkins.	2012	Journal Article
	Iliac vein compression syndrome in an active and healthy female	Cerquozzi S, Pineo GF, Wong JK, Valentine KA	2012	Journal Article
	Apixaban versus enoxaparin for thromboprophylaxis after hip or knee replacement	Raskob, GE, Gallus AS, Pineo GF, Chen D, Ramirez LM, Wright RT, Lassen MR	2012	Journal Article
	The economic impact of enoxaparin versus unfractionated heparin for the prevention of venous thromboembolism in acute ischemic stroke patients	Pineo GF, Lin J, Annemans L	2012	Journal Article
	Economic impact of enoxaparin versus unfractionated heparin for venous thromboembolism prophylaxis in patients with acute ischemic stroke: a hospital perspective of the PREVAIL trial	Pineo GF, Lin J, Stern L, Subrahmanian T, Annemans J Hosp Med 2012; 7 (3): 176-82	2012	Journal Article
	Prevention of venous thromboembolism in medical patients	Pineo GF	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Editorial: Disorders of the Pulmonary Circulation	Pineo GF, Hull RD	2012	Journal Article
	Prevention of venous thromboembolism in Surgical Patients	Pineo GF	2012	Journal Article
Poon,Man-Chiu	Pain management issues in hemophilia.	Goodyear MD, Poon M-C	2012	Journal Article
	Hemolytic Anemia: Pathophysiology behind the normocytic anemia.	Lin K, Yu Y, Poon M-C.	2012	Journal Article
	.Cross-Cultural Adaptation of the CHO-KLAT for Boys with Hemophilia in Rural and Urban China.	Wu RH, Zhang JS, Luke KH, Wu XY, Burke TA, Tang L, Poon MC, Li XJ, Zhou M, Sun J, Hang M, Blanchette V, Young NL	2012	Journal Article
	A study of thrombophilia testing and Counseling practices of family physicians using the script concordance method in Calgary, Canada.	Schneider-MacRae N, Jackson SC, Valentine KA, Lockyer J, Poon M-C.	2012	Journal Article
	Hemophilia management in transfusion medicine.	Poon M-C, Card RT.	2012	Journal Article
Quinn,Robert	Likelihood of starting dialysis after incident fistula creation.	Oliver MJ, Quinn RR, Garg AX, Kim SJ, Wald R, Paterson JM.	2012	Journal Article
	Rates of treated and untreated kidney failure in older vs younger adults	Hemmelgarn BR, James MT, Manns BJ, O'Hare AM, Muntner P, Ravani P, Quinn RR, Turin TC, Tan Z, Tonelli M	2012	Journal Article
	The risks of vascular access	Blake PG, Oliver MJ, Quinn RR	2012	Journal Article
	Risk of chronic dialysis and death following acute kidney injury	Wald R, Quinn RR, Adhikari NK, Burns KE, Friedrich JO, Garg AX, Harel Z, Hladunewich MA, Luo J, Mamdani M, Perl J, Ray JG	2012	Journal Article
	Canadian Hypertension Education Program: The science supporting new 2012 CHEP recommendations with an emphasis on this year's theme, prevention	Tobe SW, Poirier L, Tremblay G, Lindsay P, Reid D, Campbell NRC, Khan N, Quinn RR	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	The 2012 Canadian hypertension education program recommendations for the management of hypertension: blood pressure measurement, diagnosis, assessment of risk, and therapy.	Daskalopoulou SS, Khan NA, Quinn RR, Ruzicka M, McKay DW, Hackam DG, Rabkin SW, Rabi DM, Gilbert RE, Padwal RS, Dawes M, Touyz RM, Campbell TS, Cloutier L, Grover S, Honos G, Herman RJ, Schiffrin EL, Bolli P, Wilson T, Feldman RD, Lindsay MP, Hemmelgarn BR, Hill MD, Gelfer M, Burns KD, Vallée M, Prasad GV, Lebel M, McLean D, Arnold JM, Moe GW, Howlett JG, Boulanger JM, Larochelle P, Leiter LA, Jones C, Ogilvie RI, Woo V, Kaczorowski J, Trudeau L, Bacon SL, Petrella RJ, Milot A, Stone JA, Drouin D, Lamarre-Cliché M, Godwin M, Tremblay G, Hamet P, Fodor G, Carruthers SG, Pylypchuk G, Burgess E, Lewanczuk R, Dresser GK, Penner B, Hegele RA, McFarlane PA, Sharma M, Campbell NR, Reid D, Poirier L, Tobe SW; Canadian Hypertension Education Program.	2012	Journal Article
	Measuring asymmetric dimethylarginine (ADMA) in CKD: a comparison between enzyme-linked immunosorbent assay and liquid chromatography-electrospray tandem mass spectrometry.	Pecchini P, Malberti F, Mieth M, Quinn R, Tripepi G, Mallamaci F, Maas R, Zoccali C, Ravani P.	2012	Journal Article
	13. Reporting of the estimated glomerular filtration rate was associated with increased use of angiotensin-converting enzyme inhibitors and angiotensin-II receptor blockers in CKD.	Jain AK, Cuerden MS, McLeod I, Hemmelgarn B, Akbari A, Tonelli M, Quinn RR, Oliver MJ, Garg AX.	2012	Journal Article
	Beta-blockers and cardiovascular outcomes in dialysis patients: a cohort study in Ontario, Canada.	Kitchlu A, Clemens K, Gomes T, Hackam DG, Juurlink DN, Mamdani M, Manno M, Oliver MJ, Quinn RR, Suri RS, Wald R, Yan AT, Garg AX	2012	Journal Article
Rabin,Harvey	The cystic fibrosis airway microbiome	Rabin HR and Surette MG	2012	Journal Article
	Treatment of Aspergillus fumigatus in patients with cystic fibrosis: a randomized placebo-controlled pilot study.	Aaron SD, KL Vandenhoeen, A Freitag, L Pedder, W Cameron, A Lavoie, N Paterson, P Wilcox, H Rabin, E Tullis, N Morrison and F Ratjen	2012	Journal Article
Raman,Maitreyi				

Name	Title	Authorship	Publish_Year	Type
	The potential role of prebiotic fiber for treatment and management of nonalcoholic fatty liver disease and associated obesity and insulin resistance	Parnell JA, Raman M, Rioux KP, Reimer RA	2012	Journal Article
	Prevalence and Mechanisms of Malnutrition in Patients with Advanced Liver Disease and Nutrition Management Strategies	Cheung K, Lee SS, Raman M.	2012	Journal Article
	Prevalence of Vitamin D deficiency and Response to Oral vitamin D supplementation in Patients Receiving Home Parenteral Nutrition.	Kumar, P; Fenton, T; Shaheen AA; Raman, M.	2012	Journal Article
Ravani,Pietro	Hemodialysis prescription education decreases intradialytic hypotension	Tai DJ, Conley J, Ravani P, Hemmelgarn BR, Macrae JM	2012	Journal Article
	The effect of timing of the first kidney transplantation on survival in children initiating renal replacement therapy	Kramer A, Satel VS, Geskus RB, Tizard EJ, Verrina E, Schaefer F, Heaf JG, Kramar R, Krischock L, Leivestad T, Paisson R, Ravani P, Jager KJ	2012	Journal Article
	Chronic kidney disease and life expectancy	Turin TC, Tonelli M, Manns BJ, Ravani P, Ahmed SB, Hemmelgarn BR	2012	Journal Article
	Time trend in access to the waiting list and renal transplantation: a comparison of four European countries	Stel VS, Kramar R, Leivestad T, Hoitsma AJ, Metcalfe W, Smits JM, Ravani P, Jager KJ	2012	Journal Article
	Measuring asymmetric dimethylarginine (ADMA) in CKD: a comparison between enzyme-linked immunosorbent assay and liquid chromatography-electrospray tandem mass spectrometry	Pecchini P, Malberti F, Mieth M, Quinn R, Tripepi G, Mallamaci F, Maas R, Zoccali C, Ravani P	2012	Journal Article
	Optimizing the dialysate calcium concentration in bicarbonate haemodialysis	Bosticardo G, Malberti F, Basile C, Leardini L, Libutti P, Filiberti O, Schillaci E, Ravani P	2012	Journal Article
	Alberta Kidney Disease Network: Rates of treated and untreated kidney failure in older vs younger adults	Hemmelgarn BR, James MT, Manns BJ, O'Hare AM, Muntner P, Ravani P, Quinn RR, Turin TC, Tan Z, Tonelli M	2012	Journal Article
	The Duke Activity Status Index in Patients with Chronic Kidney Disease: A Reliability Study	Ravani P, Kilb B, Bedi H, Groeneveld S, Yilmaz S, Mustata S	2012	Journal Article
	Timing and Outcome of Renal Replacement Therapy in Patients with Congenital Malformations of the Kidney and Urinary Tract	Wühl E, van Stralen KJ, Verrina E, Bjerre A, Wanner C, Heaf JG, Zurriaga O, Hoitsma A, Niaudet P, Palsson R, Ravani P, Jager KJ, Schaefer F	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	Antiplatelet Therapy to Prevent Hemodialysis Vascular Access Failure: Systematic Review and Meta-analysis	Palmer SC, Di Micco L, Razavian M, Craig JC, Ravani P, Perkovic V, Tognoni G, Graziano G, Jardine M, Pellegrini F, Nicolucci A, Webster A, Strippoli GF	2012	Journal Article
	Rituximab in Children with Resistant Idiopathic Nephrotic Syndrome	Magnasco A, Ravani P, Edefonti A, Murer L, Ghio L, Belingheri M, Benetti E, Murtas C, Messina G, Massella L, Porcellini MG, Montagna M, Regazzi M, Scolari F, Ghiggeri GM	2012	Journal Article
	Outcomes of Male Patients with Alport Syndrome Undergoing Renal Replacement Therapy	Temme J, Kramer A, Jager KJ, Lange K, Peters F, Müller GA, Kramar R, Heaf JG, Finne P, Palsson R, Reisaeter AV, Hoitsma AJ, Metcalfe W, Postorino M, Zurriaga O, Santos JP, Ravani P, Jarraya F, Verrina E, Dekker FW, Gross O	2012	Journal Article
	Lifetime risk of ESRD	Turin TC, Tonelli M, Manns BJ, Ahmed SB, Ravani P, James M, Hemmelgarn BR	2012	Journal Article
	Association between pre-transplant dialysis modality and patient and graft survival after kidney transplantation	Kramer A, Jager KJ, Fogarty DG, Ravani P, Finne P, Pérez-Panadés J, Prütz KG, Arias M, Heaf JG, Wanner C, Stel VS	2012	Journal Article
	Mortality due to pulmonary embolism, myocardial infarction, and stroke among incident dialysis patients	Ocak G, van Stralen KJ, Rosendaal FR, Verduijn M, Ravani P, Palsson R, Leivestad T, Hoitsma AJ, Ferrer-Alamar M, Finne P, De Meester J, Wanner C, Dekker FW, Jager KJ	2012	Journal Article
	Proteinuria and Life Expectancy	Turin TC, Tonelli M, Manns BJ, Ahmed SB, Ravani P, James M, Hemmelgarn BR	2012	Journal Article
	Health Care Costs in People With Diabetes and Their Association With Glycemic Control and Kidney Function	McBrien KA, Manns BJ, Chui B, Klarenbach SW, Rabi D, Ravani P, Hemmelgarn B, Wiebe N, Au F, Clement F	2012	Journal Article
	Coexistence of Different Circulating Anti-Podocyte Antibodies in Membranous Nephropathy	Murtas C, Bruschi M, Candiano G, Moroni G, Magistroni R, Magnano A, Bruno F, Radice A, Furci L, Argentiero L, Carnevali ML, Messa P, Scolari F, Sinico RA, Gesualdo L, Fervenza FC, Allegri L, Ravani P, Ghiggeri GM	2012	Journal Article
Read,Ronald	High-throughput species identification of enterococci using pyrosequencing	R Zaheer, LJ Yanke, D Church, E Topp, RR Read, TA McAllister	2012	Journal Article
	Sexual health curriculum and training in Canadian medical schools: A study of family medicine, obstetrics and gynaecology and undergraduate medicine programs in 2011 with comparisons to 1996	M Barrett, A McKay, C Dickson, J Seto, W Fisher, R Read, M Steben, M Gale-Rowe, T Wong	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
Rezaie, Ali	Decreasing Colectomy Rates for Ulcerative Colitis: A Population-Based Time Trend Study	Gilaad G Kaplan, Cynthia H Seow, Subrata Ghosh, Natalie Molodecky, Ali Rezaie, Gordon W Moran, Marie-Claude Proulx, James Hubbard, Anthony MacLean, Donald Buie, Remo Panaccione	2012	Journal Article
	Absolute Versus Relative Risk: Can We Be Persuaded by Information Framing?	Ali Rezaie	2012	Journal Article
	Development and validation of an administrative case definition for inflammatory bowel diseases.	A Rezaie, H Quan, RN Fedorak, R Panaccione, RJ Hilsden	2012	Journal Article
Rioux, Kevin	The human intestinal microbiome: current knowledge, challenges, and future directions.	Dave M, Higgins PD, Middha S, Rioux KP	2012	Journal Article
	Assessment of variables associated with smoking cessation in Crohn's disease.	Leung Y, Kaplan GG, Rioux KP, Hubbard J, Kamhawi S, Stasiak L, Cohen RD, Devlin S, Panaccione R, Hanauer SB, Rubin DT.	2012	Journal Article
Robertson, Lynne	Biologic Therapy in Psoriasis: Prespectives on Associated risks and Patient Management	Papp K., Dekoven J., Pirazada S., Robertson, L., Parsons L., Robern M., Tan J.K.L.	2012	Journal Article
	"Pemphigus Vegetans Associated with Intranasal Cocaine Abuse"	Ngo J., Trotter M., Robertson L.,	2012	Journal Article
Roman, Michael	Noninvasive Assessment Of Normality Of VD/VT In Clinical Cardiopulmonary Exercise Testing Utilizing Incremental Cycle Ergometry	Michael A. Roman, M.D., James D. Casaburi M.S., Janos Porszasz M.D., Ph.D. and Richard Casaburi, Ph.D., M.D	2012	Journal Article
Sabur, Natasha	The impact of tunneled pleural catheters on the quality of life of patients with malignant pleural effusions	Sabur NF, Chee A, Stather DR, Maceachern P, Amjadi K, Hergott CA, Dumoulin E, Gonzalez AV, Tremblay A	2012	Journal Article
Sargious, Peter	How a hobby can shape cognition: visual word recognition in competitive Scrabble players.	Hargreaves IS, Pexman P, Zdrzilova L, Sargious P	2012	Journal Article
	Enrolment in primary care networks: impact on outcomes and processes of care for patients with diabetes.	Manns BJ, Tonelli M, Zhang J, Campbell DJ, Sargious P, Ayyalasomayajula B, Clement F, Johnson JA, Laupacis A, Lewanczuk R, McBrien K, Hemmelgarn BR.	2012	Journal Article

Name	Title	Authorship	Publish_Year	Type
	The effect of continuous pressure monitoring on strategic shifting of medical inpatients at risk for PUs.	Motamedi SM, de Grood J, Harman S, Sargious P, Baylis B, Flemons W, Ghali WA.	2012	Journal Article
	Use of chronic disease management programs for diabetes: in Alberta's primary care networks.	Campbell DJ, Sargious P, Lewanczuk R, McBrien K, Tonelli M, Hemmelgarn B, Manns B.	2012	Journal Article
Savoie, Mary Lynn				
	Development and Validation of a Test Dose Strategy for Once-Daily i.v. Busulfan: Importance of Fixed Infusion Rate Dosing	Kangaroo SB, Naveed F, Ng ES, Chaudhry MA, Wu J, Bahlis NJ, Brown CB, Daly A, Duggan P, Geddes M, Quinlan D, Savoie ML, Shafey M, Stewart DA, Storek K, Yang M, Zacarias N, Yue, P, Magliocco AM, Russell JA	2012	Journal Article
	Classifying Cytogenetics in Patients with Acute Myelogenous Leukemia in Complete Remission Undergoing Allogeneic Transplantation: A Centre for International Blood and Marrow Transplant Research Study	Armand P, Kim HT, Zhang MJ, Perez WS, Dal Clin PS, Klumpp TR, Waller EK, Litzow MR, Liesveld JL, Lazarus HM, Artz AS, Gupta V, Savani BN, McCarthy PL, Cahn JY, Schouten HC, Finke K, Ball ED, Aljurf MD, Cutler CS, Rowe JM, Antin JH, Isola LM, Di Bartolomeo P, Camitta BM, Miller AM, Cairo MS, Stockerl-Goldstein K, Sierra J, Savoie ML, Halter J, Stiff PJ, Nabhan C, Jakubowski AA, Bunjes DW, Petersdorf EW, Diven SM, Maziarz RT, Bornhauser M, Lewis VA, Marks DI, Bredeson CN, Soiffer RJ, Weisdorf DJ	2012	Journal Article
Schaefer, Jeffrey				
	Medical students' attitudes towards treating patients with HIV: A 12-year follow-up study.	Hoffart S, Ibrahim GM, Lam RA, Minty EP, Theam M, Schaefer JP.	2012	Journal Article
Schmaltz, Heidi				
	Activity limitation due to a fear of falling in older adults with eye disease.	Wang MY, Rousseau J, Boisjoly H, Schmaltz H, Kergoat MJ, Mogahdaszadeh S, Djafari F, and Freeman EE	2012	Journal Article
	Comparing frailty measure in their ability to predict adverse outcome among older residents of assisted living.	Hogan DB, Freiheit EA, Strain LA, Patten SB, Schmaltz HN, Rolfson D, Maxwell CJ.	2012	Journal Article
	Explaining the relationship between three eye diseases and depressive symptoms in older adults	Popescu ML, Boisjoly H, Schmaltz H, Kergoat MJ, Rousseau J, Mogahdaszadeh S, Djafari F, and Freeman EE	2012	Journal Article
Seow, Cynthia				

Name	Title	Authorship	Publish_Year	Type
	Decreasing colectomy rates for ulcerative colitis: a population-based time trend study	Kaplan GG, Seow CH, Ghosh S, Molodecky N, Rezaie A, Moran GW, Proulx MC, Hubbard J, MacLean A, Buie D, Panaccione R.	2012	Journal Article
Shaffer,Eldon	The rising incidence of eosinophilic esophagitis is associated with increasing biopsy rates: a population-based study.	Syed A, Andrews CN, Shaffer E, Urbanski SJ, Beck P, Storr M.	2012	Journal Article
Sigal,Ron	Comparison of strength development with resistance training and combined exercise training in type 2 diabetes.	Larose J, Sigal RJ, Khandwala F, Kenny GP.	2012	Journal Article
	Cost effectiveness of exercise programs for type 2 diabetes.	Coyle D, Coyle K, Kenny GP, Boulé NG, Wells GA, Fortier M, Reid RD, Phillips P, Sigal RJ.	2012	Journal Article
	Healthy Eating, Aerobic and Resistance Training in Youth (HEARTY): Study rationale, design and methods.	Alberga AS, Goldfield GS, Kenny GP, Hadjiyannakis S, Phillips P, Prud'homme D, Tulloch H, Gougeon R, Wells GA, Sigal RJ.	2012	Journal Article
	Age and androgen deprivation therapy on exercise outcomes in men with prostate cancer.	Alberga AS, Segal RJ, Reid RD, Scott CS, Sigal RJ, Khandwala F, Jaffey J, Wells GA, Kenny GP.	2012	Journal Article
	Effects of performing resistance exercise before versus after aerobic exercise on glycemia in type 1 diabetes.	Yardley JE, Kenny GP, Perkins BA, Riddell MC, Malcolm J, Boulay P, Khandwala F, Sigal RJ.	2012	Journal Article
	Perceived Facilitators, Barriers, and Changes in a Randomized Exercise Trial for Obese Youth: A Qualitative Inquiry.	Peeters C, Marchand H, Tulloch H, Sigal RJ, Goldfield GS, Hadjiyannakis S, Kenny G.	2012	Journal Article
	The cost of integrating a physical activity counselor in the primary health care team.	Hogg WE, Zhao X, Angus D, Fortier M, Zhong J, O'Sullivan T, Sigal RJ, Blanchard C.	2012	Journal Article
	Overweight and Obese Teenagers: Why is Adolescence a Critical Period?	Alberga A, Sigal RJ, Goldfield G, Prud'homme D, Kenny GP.	2012	Journal Article
	Self-determination and exercise stage progression: Results from the Diabetes Aerobic and Resistance Exercise Trial.	Fortier, M.S., Sweet, S., Tulloch, H., Blanchard, C., Sigal, R., Kenny, G. & Reid, R.	2012	Journal Article
	Resistance versus aerobic exercise: acute effects on glycemia in type 1 diabetes.	Yardley JE, Kenny GP, Perkins BA, Riddell MC, Balaa N, Khandwala F, Malcolm J, Boulay P, Sigal RJ.	2012	Journal Article
	Point accuracy of interstitial continuous glucose monitoring during exercise in type 1 diabetes.	Yardley JE, Sigal RJ, Kenny GP, Riddell MC, Perkins BA.	2012	Journal Article
Stather,David				

Name	Title	Authorship	Publish_Year	Type
	Cytologic Assessment Of Endobronchial Ultrasound Guided Transbronchial Needle Aspirates In Sarcoidosis	Chee A, Khalil M, Stather DR, MacEachern P, Field S, Tremblay A.	2012	Journal Article
	Evaluation Of Clinical Endobronchial Ultrasound Skills Following Clinical versus Simulation Training.	Stather DR, MacEachern P, Chee A, Dumoulin E, Tremblay A.	2012	Journal Article
	Safety of Endobronchial Ultrasound Guided Transbronchial Needle Aspiration for Patients Taking Clopidogrel: A Report of 12 Consecutive Cases	Stather DR, MacEachern P, Chee A, Tremblay A.	2012	Journal Article
	Endobronchial Schwannoma	Dumoulin E, Gui X, Stather DR, MacEachern P, Chee A, Tremblay A.	2012	Journal Article
	A randomized trial of teaching endobronchial ultrasound: wet lab versus computer simulation.	Stather DR, MacEachern P, Chee A, Dumoulin E, Hergott C, Tremblay A.	2012	Journal Article
	Use of a Drug Eluting Pleural Catheter for Pleurodesis	Alain Tremblay, David R Stather, Paul MacEachern, Margaret M Kelly	2012	Journal Article
Storek,Jan	Cytomegalovirus viral load and virus-specific immune reconstitution after peripheral blood stem cell versus bone marrow transplantation.	Guerrero A, Riddell SR, Storek J, Stevens-Ayers T, Storer B, Zaia JA, Forman S, Negrin RS, Chauncey T, Bensinger W, Boeckh M:	2012	Journal Article
	Fludarabine, busulfan, antithymocyte globulin and total body irradiation for pretransplant conditioning in acute lymphoblastic leukemia: Excellent outcomes in all but older patients with comorbidities. .	4.Daly A, Savoie ML, Geddes MN, Chaudhry A, Stewart DA, Duggan PR, Bahlis NJ, Storek J, Shafey M, Russell JA:	2012Journal Article	
	Immune reconstitution after antithymocyte globulin-conditioned hematopoietic cell transplantation.	5.Bosch M, Dhadda M, Hoegh-Petersen M, Liu Y, Hagel LM, Podgorny PJ, Ugarte-Torres A, Khan FM, Luider J, Auer-Grzesiak I, Mansoor A, Russell JA, Daly A, Stewart DA, Maloney D, Boeckh M, Storek J:	2012Journal Article	
	No increased mortality from donor or recipient hepatitis B- and/or C-positive serostatus after related donor allogeneic hematopoietic cell transplantation.	6.Tomblyn M, Chen M, Kukreja M, Aljurf MD, AlMohareb F, Boldwell BJ, Cahn JY, Carabasi MH, Gale RP, Gress RE, Gupta V, Hale GA, Ljungman P, Maziarz RT, Storek J, Wingard JR, Young JA, Horowitz MM, Ballen KK:	2012Journal Article	

Name	Title	Authorship	Publish_Year	Type
	Transplants for autoimmune diseases in North and South America: a report of the Center for International Blood and Marrow Transplant Research (CIBMTR).	7.Pasquini MC, Voltarelli J, Atkins HL, Hamerschlak N, Zhong X, Ahn KW, Sullivan KM, Carrum G, Andrey J, Bredeson CN, Cairo M, Gale RP, Hahn T, Storek J, Horowitz MM, McSweeney PA, Griffith LM, Muraru PA, Pavletic SZ, Nash RA:	2012	Journal Article
	Development and validation of a test dose strategy for once daily i.v. busulfan: Importance of fixed infusion rate dosing.	11.Kangarloo SB, Naveed F, Ng ESM, Chaudhry MA, Wu J, Bahlis NJ, Brown CB, Daly A, Duggan P, Geddes M, Quinlan D, Savoie ML, Shavey M, Stewart DA, Storek J, Yang M, Zacarias N, Yue P, Magliocco MM, Russell JA:	2012	Journal Article
	Immune reconstitution after hematopoietic cell transplantation	Bosch M, Khan FM, Storek J	2012	Journal Article
	Basophil activation test compared to skin prick test and fluorescence enzyme immunoassay for aeroallergen-specific Immunoglobulin-E	Khan FM, Ueno-Yamanouchi A, Serushago B, Bowen T, Lyon AW, Lu C, Storek J	2012	Journal Article
	Low cytomegalovirus specific T cell counts at reactivation are associated with progression to high level viremia or disease in seropositive recipients of hematopoietic cell grafts from seropositive but not seronegative donors	Hoegh-Petersen M, Roa L, Liu Y, Zhou F, Ugarte-Torres A, Louie P, Fonseca K, Khan F, Russell JA, Storek J	2012	Journal Article
Swain,Mark	Regulatory T cells suppress sickness behaviour development without altering liver injury in cholestatic mice.	Nguyen K, D'Mello C, Urbanski S, Le T, Swain M.	2012	Journal Article
	Fatigue in cirrhosis: is transplant the answer?	Stinton L, Swain MG.	2012	Journal Article
Taub,Kenneth	Cardiovascular disease in kidney donors: matched cohort study.	Garg AX. Meirambayeva A. Huang A. Kim J. Prasad GV. Knoll G. Boudville N. Lok C. McFarlane P. Karpinski M. Storsley L. Klarenbach S. Lam N. Thomas SM. Dipchand C. Reese P. Doshi M. Gibney E. Taub K. Young A Donor Nephrectomy Outcomes Research Network	2012	Journal Article
	A cluster randomized trial of an enhanced eGFR prompt in chronic kidney disease	Manns B. Tonelli M. Culleton B. Faris P. McLaughlin K. Chin R. Gooch K. McAlister FA. Taub K. Thorlacius L. Krause R. Kearns M. Hemmelgarn B. Alberta Kidney Disease Network	2012	Journal Article
Tremblay,Alain				

Name	Title	Authorship	Publish_Year	Type
	Wet laboratory versus computer simulation for learning endobronchial ultrasound: A randomized trial	DR Stather, P MacEachern, A Chee, E Dumoulin, CA Hergott, A Tremblay	2012	Journal Article
	Evaluation of Clinical Endobronchial Ultrasound Skills Following Clinical versus Simulation Training	Stather D, MacEachern P, Chee A, Dumoulin E, Tremblay A.	2012	Journal Article
	Use of a Drug Eluting Pleural Catheter for Pleurodesis	Alain Tremblay, Severian Dumitriu, David R. Stather, Paul MacEachern, Oscar Illanes, Margaret M. Kelly.	2012	Journal Article
	Hounsfield units, echogenicity and T2 signals: Imaging of cystic structures in the mediastinum.	Tremblay A	2012	Journal Article
	EBUS, Granulomas & Cancer: What Does This Represent?"	Chee, Alex. Tremblay, Alain.	2012	Journal Article
	Safety of Endobronchial Ultrasound Guided Transbronchial Needle Aspiration for Patients Taking Clopidogrel: A Report of 12 Consecutive Case	Stather D.R., MacEachern P., Chee A., Tremblay A.	2012	Journal Article
	Multiple Endobronchial Swannomas	Dumoulin E, Stather DS, MacEachern P, Gui X, Tremblay A.	2012	Journal Article
	Cytologic Assessment of Endobronchial Ultrasound-Guided Transbronchial Needle Aspirates in Sarcoidosis	Chee N, Khalil M, Stather DS, MacEachern P, Field S, Tremblay A.	2012	Journal Article
	A Recalcitrant Foreign Body	Gillson A, Tremblay A	2012	Journal Article
Valentine, Karen	Correcting excess anticoagulation after warfarin. UpToDate in Pulmonary and Critical Care Medicine, 2012.	Valentine KA and Hull RD.	2012	Journal Article
	Outpatient management of oral anticoagulation. UpToDate in Pulmonary and Critical Care Medicine, 2012.	Valentine KA and Hull RD.	2012	Journal Article
	Therapeutic use of Warfarin. UpToDate in Pulmonary and Critical Care Medicine, 2012	Valentine KA and Hull RD	2012	Journal Article
	Therapeutic use of heparin and low molecular weight heparin, UpToDate in Pulmonary and Critical Care Medicine 2012	Valentine KA and Hull RD.	2012	Journal Article
	Anticoagulation in acute pulmonary embolism. UpToDate in Pulmonary and Critical Care Medicine 2012.	Valentine KA and Hull RD	2012	Journal Article

Research Grants – 2012

Name	Prorated Amount	Title	Role	Reporting Year
Ahmed, Sofia				
	\$10,000.00	Vitamin D supplementation and cardiac autonomic tone in hemodialysis patients: a double-blind randomized controlled trial	Principal/Senior investigator	2012
	\$15,000.00	Observation of a highly sensitivity troponin assay in asymptomatic peritoneal dialysis patients	Principal/Senior investigator	2012
	\$53,968.75	Access to and Quality of Cardiac Care for First Nations People	Co-investigator	2012
	\$56,756.76	Evaluation of the renin angiotensin system in Aboriginal People	Principal/Senior investigator	2012
Sum	\$135,725.51			
Altabbaa, Ghazwan				
	\$6,000.00	DOM Business Cost Program ARP Competition Fund for IM Program structure	Principal/Senior investigator	2012
	\$6,666.67	DOM Business Cost Program ARP Competition Fund for IM Program structure	Principal/Senior investigator	2012
Sum	\$12,666.67			
Andrews, Christopher				
	\$41,666.67	GI motility patient management and research	Principal/Senior investigator	2012
Sum	\$41,666.67			
Aspinall, Alexander				
	\$39,753.00	A Multi-Center, open label trial to evaluate the long-term safety and tolerability of Rifaximin 550 mg BID in subjects with a history of Hepatic Encephalopathy (Protocol RFHE3002) [in progress]	Site-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$83,615.00	Randomized, placebo-controlled, multi-centre study to assess the efficacy and safety of eltrombopag in thrombocytopenic subjects with hepatitis C virus (HCV) infection who are otherwise eligible to initiate antiviral therapy (peginterferon alfa-2a plus ribavirin) – ENABLE 1 (Eltrombopag to iNtiate and maintain Antiviral treatment to Benefit subjects with hepatitis C related Liver disease. [in progress]	Site-investigator	2012
Sum	\$123,368.00			
Bacchus, Maria				
	\$20,000.00	Exploring the Medical Teaching Unit Preceptor Role	* Collaborator	2012
	\$20,000.00	Exploring the medical teaching unit preceptor role	Co-investigator	2012
	\$20,372.57	Medical Education Research Grant on Error-based checklists	Co-investigator	2012
	\$20,372.57	Error based checklists after all	Co-investigator	2012
	\$109,888.00	Exploring the Medical Teaching Unit Preceptor Role	* Collaborator	2012
	\$109,888.00	Exploring the medical teaching unit - Preceptor role	Co-investigator	2012
Sum	\$300,521.14			
Bahlis, Nizar				
	\$1,434.43	CD28-mediated regulation of multiple myeloma cell proliferation and survival.	Co-investigator	2012
	\$47,945.21	Improving Health care access and sustainability with Microfluidic platforms	Co-investigator	2012
	\$67,200.00	Role of Integrin beta 7 in myeloma cells survival and proliferation	Principal/Senior investigator	2012
	\$76,923.08	Bortezomib mediated BRCAness in Myeloma cells: novel therapeutic approach combining PARP1-2 and 26S Proteasome Inhibitors	Principal/Senior investigator	2012
	\$96,000.00	Combination of PARP and Proteasome inhibitors in multiple myeloma	Principal/Senior investigator	2012
Sum	\$289,502.71			

Name	Prorated Amount	Title	Role	Reporting Year
Barber, Claire	\$15,000.00	Development and Testing of Quality Indicators for Rheumatoid Arthritis	* Training grant	2012
	\$60,000.00	Development and Testing of Quality Indicators for Rheumatoid Arthritis	* Training grant	2012
Sum	\$75,000.00			
Barnabe, Cheryl	\$5,000.00	University of Calgary Starter Grant	Principal/Senior investigator	2012
	\$13,615.38	Aboriginal Albertans' Perceptions of Health Service Delivery for Osteoarthritis and Total Joint Replacement.	Co-PI	2012
	\$15,424.76	Detecting Inflammatory Arthritis in a First Nations Community	Principal/Senior investigator	2012
	\$17,714.91	"The Window of Opportunity": Seizing the Opportunity for Positive Lifestyle Modifications in Early Inflammatory Arthritis.	Principal/Senior investigator	2012
	\$19,583.33	Rheumatoid Arthritis Management in Alberta's Aboriginal Population	Principal/Senior investigator	2012
	\$21,277.45	Access and Utilization of Healthcare for Rheumatoid Arthritis in Aboriginal People in Alberta.	Co-PI	2012
	\$30,000.00	To Pursue Academic Activities	Principal/Senior investigator	2012
	\$49,600.00	Arthritis in First Nations People in Alberta: Prevalence and Health Care Utilization.	Principal/Senior investigator	2012
Sum	\$172,215.84			
Barr, Susan	\$16,000.00	Rheumatoid Arthritis: Comparison of active therapies in patients with active disease despite methotrexate therapy	Site-investigator	2012
	\$23,369.80	Rheumatoid Arthritis: Comparison of active therapies in patients with active disease despite methotrexate therapy	Site-investigator	2012
Sum	\$39,369.80			
Beck, Paul	\$8,333.33	Alberta Heritage Foundation for Medical Research, Interdisciplinary Team Grant. Etiology of Inflammatory Bowel Disease: Gene, Microbe & Environment Interactions.	Co-investigator	2012
	\$10,000.00	Calcineurin induced heart failure and the inflammasome.	Co-investigator	2012
	\$28,888.89	The role of the inflammasome in the pathogenesis of Clostridium difficile-associated disease	* Post Doc Award For S. Hirota	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$34,285.71	A multicenter national group grant.	Co-investigator	2012
	\$75,000.00	Crohn's and Colitis Foundation of Canada, Operating Grant. The NLRP3-inflammasome is a key regulator of intestinal homeostasis.	Co-PI	2012
	\$141,875.00	Innate Immune Responses in Clostridium Difficile Toxin-induced Intestinal Injury	* Clinical Senior Scholar	2012
	\$149,035.16	Hypoxia-inducible factor-1 (HIF-1) plays an innate protective role in Clostridium difficile-induced colitis	Co-investigator	2012
Sum	\$447,418.09			
Bharwani,Aleem				
	\$32,769.23	Tablet Computer use in Hospitals	Principal/Senior investigator	2012
Sum	\$32,769.23			
Bosch,Mark				
	\$1,666.67	Predicting Benefit of Standard Treatment and Personalized Medicine for Relapse/Refractory Diffuse Large B-Cell Lymphoma Using Genetic and Proteomic Testing	Principal/Senior investigator	2012
	\$8,000.00	Predicting benefit of standard treatment and personalize medicine for relapse/refractory diffuse large B-cell lymphoma using genetic and proteomic testing	Co-investigator	2012
	\$13,766.67	Predicting benefit of salvage and high dose chemotherapy with autologous stem cell transplantation for relapsed Diffuse Large B-cell Lymphoma patients through tissue array based biomarker classifications.draft	Co-investigator	2012
	\$25,000.00	Predicting Benefit of Standard Treatment and Personalized Medicine for Relapse/Refractory Diffuse Large B-Cell Lymphoma Using Genetic and Proteomic Testing	Co-investigator	2012
Sum	\$48,433.33			
Bridges,Ronald				
	\$75,000.00	Optimizing Colorectal Cancer Screening	Co-investigator	2012
Sum	\$75,000.00			
Burak,Kelly				

Name	Prorated Amount	Title	Role	Reporting Year
	\$461.54	A multi-centre 3-year follow-up study to assess the durability of sustained virologic response in Alisporivir-treated chronic Hepatitis C patients.	Site-investigator	2012
	\$701.54	A multi-centre 3-year follow-up study to assess the viral activity in patients who failed to achieve sustained virologic response in Novartis-sponsored Alisporivir-studies for chronic Hepatitis C patients.	Site-investigator	2012
	\$1,256.75	Prospective, Observational, Post-Marketing Renal Safety Surveillance Registry in Patients with Chronic Hepatitis B (HBV) Infection with Decompensated Liver Disease Receiving Nucleotide/side Therapy on the Orthotopic Liver Transplant (OLT) List	Site-investigator	2012
	\$1,923.57	A Long Term Follow-up Registry for Subjects Who Achieve a Sustained Virologic Response to Treatment in Gilead-Sponsored Trials in Subjects with Chronic Hepatitis C Infection	Site-investigator	2012
	\$2,011.00	A Long Term Follow-up Registry Study of Subjects Who Did Not Achieve Sustained Virologic Response in Gilead-Sponsored Trials in Subjects with Chronic Hepatitis C Infection	Site-investigator	2012
	\$2,675.43	Pharmacogenomic Analysis of Blood Samples to Identify Host Genomic Profiles That Segregate Responders From Non-Responders Following Treatment With Peg-Interferon and Ribavirin in HCV-infected Subjects (genotype 1)	Site-investigator	2012
	\$3,614.00	A long-term monitoring study to evaluate the persistence of direct acting antiviral (DAA) treatment-resistant mutations or the durability of sustained virological response (SVR) in patients treated with DAA-containing regimens for chronic hepatitis C infection (CHC)	Site-investigator	2012
	\$5,315.91	A Double-Blind, Randomized, Placebo-Controlled, Single and Multiple-Dose Ranging Study Evaluating the Safety, Tolerability, Pharmacokinetics, Pharmacodynamics, and Antiviral Activity of GS 9620 in Virologically Suppressed Subjects with Chronic Hepatitis B Virus Infection	Site-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$5,410.45	A Double-Blind, Randomized, Placebo-Controlled, Single and Multiple-Dose Ranging, Adaptive Study Evaluating the Safety, Tolerability, Pharmacokinetics, Pharmacodynamics, and Antiviral Activity of GS 9620 in Treatment Naive Subjects with Chronic Hepatitis B Virus Infection	Site-investigator	2012
	\$5,512.20	An Open-Label Study of GS-7977+ Ribavirin for 12 Weeks in Subjects with Chronic HCV Infection who Participated in Prior Studies Evaluating GS-7977	Site-investigator	2012
	\$7,974.86	A Phase 3, Multicenter, Randomized, Double-Blind Study to Investigate the Efficacy and Safety of GS-7977 + Ribavirin for 12 or 16 Weeks in Treatment Experienced Subjects with Chronic Genotype 2 or 3 HCV Infection	Site-investigator	2012
	\$12,267.50	A Phase II, Randomized, Double-Blind, Multicenter, Parallel Group Study to Evaluate the Sustained Virologic Response of the HCV Polymerase Inhibitor Prodrug RO5024048 in Combination with Boceprevir and Pegasys®/Copegus® in Patients with Chronic Hepatitis C Genotype 1 Virus Infection Who Were Prior Null Responders to Treatment with Pegylated Interferon/Ribavirin	Site-investigator	2012
	\$13,928.18	A Long-Term Follow-up Study of Subjects Who Participated in a Clinical Trial in which Asunaprevir BMS-650032 and/or Daclatasvir BMS-790052 was Administered for the Treatment of Chronic Hepatitis C	Site-investigator	2012
	\$14,000.00	A Phase III randomized, double-blind, placebo-controlled study of sorafenib as adjuvant treatment for hepatocellular carcinoma after surgical resection or local ablation (STORM: Sorafenib as adjuvant Treatment in the prevention of Recurrence of hepatocellular carcinoMa). [in progress]	Site/Local PI	2012
	\$14,609.91	A Randomized, Open-Label, Multicenter Study to Evaluate the Antiviral Activity, Safety, and Pharmacokinetics, of ABT-450 with Ritonavir (ABT-450/r) in Combination with ABT-267 and/or ABT-333 With and Without Ribavirin (RBV) for 8, 12 or 24 Weeks in Treatment-Naïve and Null Responder Subjects with Genotype 1 Chronic Hepatitis C Virus Infection	Site-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$17,092.50	A Phase III, randomized, double-blind trial to evaluate the efficacy, safety and tolerability of TMC435 vs. telaprevir, both in combination with PegIFN α -2a and ribavirin, in chronic hepatitis C genotype-1 infected subjects who were null or partial responders to prior PegIFN α and ribavirin therapy.	Site-investigator	2012
	\$18,965.33	A Phase 2b, Randomized, Double-Blind, Placebo-Controlled Trial Evaluating 16 and 24 Weeks of Response Guided Therapy with GS-9190, GS-9256, Ribavirin (Copegus®) and Peginterferon Alfa 2a (Pegasys®) in Treatment Naïve Subjects with Chronic Genotype 1 Hepatitis C Virus Infection	Site-investigator	2012
	\$23,400.00	A Phase III, randomized, double-blind, placebo-controlled study to investigate the efficacy, safety and tolerability of TMC435 versus placebo as part of a treatment regimen including peginterferon alfa-2a and ribavirin in treatment-naïve, genotype 1 hepatitis C-infected subjects.	Site-investigator	2012
	\$27,687.58	A Phase 3, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Investigate the Efficacy and Safety of GS-7977 + Ribavirin for 12 Weeks in Subjects with Chronic Genotype 2 or 3 HCV Infection who are Interferon Intolerant, Interferon Ineligible or Unwilling to Take Interferon	Site-investigator	2012
	\$28,998.00	A Phase 3b Study of 2 Treatment Durations of Telaprevir, Peg-IFN (Pegasys®), and Ribavirin (Copegus®) in Treatment-Naïve and Prior Relapser Subjects With Genotype 1 Chronic Hepatitis C and IL28B CC Genotype	Site-investigator	2012
	\$32,536.36	A 2-Part, Open Label Study of Telaprevir in Combination With Peginterferon Alfa-2a (Pegasys®) and Ribavirin (Copegus®) in Subjects Chronically Infected with Genotype 1 Hepatitis C Virus Following Liver Transplantation	Site-investigator	2012
	\$35,464.55	A Phase 3, Safety and Efficacy Study of Boceprevir/Peginterferon Alfa-2a/ribavirin in Chronic HCV Genotype 1 IL28B CC Subjects	Site-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$39,654.33	Dose-Ranging Study to Evaluate the Safety, Efficacy and Pharmacokinetics of Pegylated Interferon Lambda (BMS-914143) Monotherapy in Interferon-Naive Patients with Chronic Hepatitis B Virus Infection who are HBeAg-positive	Site-investigator	2012
	\$53,280.65	A Phase 3 Evaluation of BMS-790052 (Daclatasvir) Compared with Telaprevir in Combination with Peg-Interferon Alfa-2a and Ribavirin in Treatment-Naive Patients with Chronic Hepatitis-C	Site-investigator	2012
Sum	\$368,742.14			
Campbell,Norman				
	\$54,097.33	Methods of assessing blood pressure: identifying threshold and target values (Measure BP). Investigators Dr. Norman RC CAMPBELL Dr. Martin G. DAWES, Dr. Sheldon William TOBE	* Investigator	2012
	\$65,298.50	Population-level prevention and implications for socioeconomic inequities in health: dietary sodium as a case example. CIHR L McLaren PI, with N Campbell, J Emery, D Lorensetti, L McIntyre and V Tarasuk as investigators- \$43674 in 2011 total grant \$261,194 2011-2014	* Investigator	2012
	\$128,264.68	Utilizing HIV/AIDS infrastructure as a gateway to chronic care of hypertension in Africa. Mr. N. Bansback, Dr. I. Bourgeault, Dr. N. Campbell, Dr. P. Devereaux, Dr. A. Featherstone, Dr. N. Ford, Dr. M. Joffres, Dr. R. Kalyesubula, Dr. J. Kamwesiga, Dr. I. Kanfer, Dr. A. Kengne, Dr. R. Lester, Dr. E. Luyirika, Dr. V. Mutabazi, Dr. J. Nachega, Mr. J. Tayari, Dr. L. Thabane	* Investigator	2012
	\$150,000.00	HSFC-CIHR Chair in Hypertension Prevention & Control	* Chair	2012
	\$390,888.55	DREAM-GLOBAL: Diagnosing hypertension - Engaging Action and Management in Getting/ Lower Bp in Aboriginal and LMIC - A Research Proposal. CIHR Investigators Lui P, Tobe S, Campbell NRC, Yeates K	* CIHR Investigator	2012
	\$1,000,000.00	Improving the Efficient and Equitable Care of Patients with Chronic Medical Conditions Interdisciplinary Chronic Disease Collaboration (ICDC)	Co-investigator	2012
Sum	\$1,788,549.06			

Name	Prorated Amount	Title	Role	Reporting Year
Card,Robert	\$200.00	Development of a Mentorship Program for Undergraduate Medical Students at the University of Calgary	Co-investigator	2012
	\$1,041.67	Multicentre Canadian Study of Prophylaxis in Older Adults with Severe Hemophilia	Co-investigator	2012
Sum	\$1,241.67			
Castillo,Eliana	\$17,635.68	Real-Time Clinical Audit for the Medical Disorders in Pregnancy Program-Clinical Database	Principal/Senior investigator	2012
Sum	\$17,635.68			
Chee,Alex	\$2,402.80	Quantifying procedural performance using electromagnetic tracking of procedural instruments: a pilot study evaluating expert-novice differences	Principal/Senior investigator	2012
Sum	\$2,402.80			
Chu,Angel	\$30,000.00	Equipment to Setup Anal Dysplasia Clinic	Principal/Senior investigator	2012
Sum	\$30,000.00			
Coffin,Carla	\$1,256.75	HBV Registry, Prospective, Observational, Post-Marketing Renal Safety Surveillance Registry in patients with chronic Hepatitis B (HBV) infection with decompensated liver disease receiving Nucleotide/side therapy while on the Orthotopic Liver Transplantation (OLT) list	Site/Local PI	2012
	\$2,675.43	Pharmacogenomic analysis of blood samples to identify host genomic profiles that segregate responders from non-responders following treatment with Peg-Interferon and Ribavirin in HCV-infected subjects (genotype 1)	Site/Local PI	2012
	\$5,315.91	A Double-Blind, Randomized, Placebo-Controlled, Single and Multiple-Dose Ranging Study Evaluating the Safety, Tolerability, Pharmacokinetics, Pharmacodynamics, and Antiviral Activity of GS 9620 in Virologically Suppressed Subjects with Chronic Hepatitis B Virus Infection.	Site/Local PI	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$5,410.45	A Double-Blind, Randomized, Placebo-Controlled, Single and Multiple-Dose Ranging, Adaptive Study Evaluating the Safety, Tolerability, Pharmacokinetics, Pharmacodynamics, and Antiviral Activity of GS 9620 in Treatment Naive Subjects with Chronic Hepatitis B Virus Infection.	Site/Local PI	2012
	\$6,295.08	University of Calgary Liver Unit Hepatitis B Patient Databank	Principal/Senior investigator	2012
	\$6,295.08	Optimize clinical management of Hepatitis B Patient Registry	Principal/Senior investigator	2012
	\$10,101.49	A randomized, double-blind, controlled evaluation of Tenofovir DF versus Adefovir Dipivoxil for the treatment of presumed Pre core mutant chronic Hepatitis B.	Site/Local PI	2012
	\$21,333.33	Molecular Diagnostic Testing of Patients with Chronic Hepatitis B	Site/Local PI	2012
	\$29,166.67	Translational Health Research Collobatorium (Matching funds)	Co-PI	2012
	\$30,000.00	New Investigator Award	Principal/Senior investigator	2012
	\$37,500.00	Molecular Characterization of HBV Reservoirs	Principal/Senior investigator	2012
	\$39,654.33	Dose-Ranging Study to Evaluate the Safety, Efficacy and Pharmacokinetics of Pegylated Interferon Lambda (BMS-914143) Monotherapy in Interferon Naive Patients with Chronic Hepatitis B Virus Infection who are HBeAg-positive	Site/Local PI	2012
	\$60,000.00	Hepatitis C Virus (HCV) Quasispecies and Lymphtropism in Human Immunodeficiency Virus Type 1 (HIV-1) Coinfected Patients	Principal/Senior investigator	2012
	\$73,000.00	Leaders of Opportunity Fund and Alberta Advanced Education Technology: Translational Health Research Collobatorium	Co-PI	2012
Sum	\$328,004.53			
Conly,John				
	\$16,666.67	W21C: Interdisciplinary Research and Innovation for Health System Quality and Safety	Co-investigator	2012
	\$20,000.00	Population based enhanced surveillance for MRSA in Canada	Co-PI	2012
	\$51,265.00	Diagnostic Ultrasound Imaging system featuring 3rd generation OpenSONIX platform GPS Guidance System for specialty specific modified bedside diagnostic ultrasound.	Principal/Senior investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$80,000.00	Alberta Sepsis Network Interdisciplinary Team Grant	Co-investigator	2012
	\$105,000.00	Evaluation of a patient safety monitoring device for the prevention of pressure ulcers	Co-investigator	2012
	\$106,050.00	Detection and Tracking of Hospital Outbreaks of Pathogenic Microbes Using Rapid Whole Genome Sequencing	Principal/Senior investigator	2012
	\$204,340.00	Antimicrobial Use Monitoring and Antimicrobial Resistance Surveillance Project	Co-investigator	2012
	\$901,676.00	Western Economic Diversification, the ATCO Group, Government of Alberta - AET. AHW, University of Calgary, Faculty of Medicine and Office of VPR Ward of the 21st Century Research and Innovation Centre	Co-investigator	2012
Sum	\$1,484,997.67			
Cowie,Robert				
	\$10,000.00	Industry-sponsored drug trials	Site/Local PI	2012
	\$47,500.00	Canadian Chronic Obstructive Lung Disease Cohort Study	Site/Local PI	2012
Sum	\$57,500.00			
Daly,Andrew				
	\$4,545.45	Influence of fludarabine pharmacokinetics on outcome of stem cell transplant with fludarabine-busulfan-tbi conditioning.	Principal/Senior investigator	2012
Sum	\$4,545.45			
Donovan,Lois				
	\$500.00	Use of Metformin in Pregnancy and Neonatal Outcomes; A Metanalysis	Principal/Senior investigator	2012
	\$41,131.40	Assessment of Consequences of Maternal Severe Hypoglycemia During Pregnancy in Women with Type 1 Diabetes on Offspring's Neuropsychological Functioning.	Co-investigator	2012
	\$96,034.91	Families Defeating Diabetes: Canadian Intervention for Family-centered Diabetes Prevention following Gestational Diabetes (GDM)	Site/Local PI	2012
	\$547,692.31	Metformin in Women with Type 2 Diabetes in Pregnancy Trial (MiTy)	Site/Local PI	2012
Sum	\$685,358.62			

Name	Prorated Amount	Title	Role	Reporting Year
Dube,Catherine	\$5,000,000.00		Co-investigator	2012
Sum	\$5,000,000.00			
Edwards,Alun	\$12,500.00	Planning grant for CRIO team application - ACHORD. AIHS	Co-investigator	2012
	\$25,000.00	Planning grant CIHR - Forest and Trees, KT for best practices in diabetes management	Co-investigator	2012
Sum	\$37,500.00			
Edworthy,Steven	\$7,666.67	Understanding Referrals from Primary Care to Rheumatology info:Every primary care physician has their own threshold for referring patients to specialist care. Much research has demonstrated that this threshold not only depends on the nature and complexity of the presenting health problem, but a myriad of other factors such as, confidence in treating the problem financial, time, and patient pressures, as well as patient demographics. This research is proposed to explore the rheumatology referral process from the perspective of primary care physicians and rheumatologists.	Site/Local PI	2012
Sum	\$7,666.67			
Eksteen,J. Albertus	\$13,621.62	Inflammasone in Fatty Liver Disease	Principal/Senior investigator	2012
	\$14,400.00	Inflammasone in Fatty Liver Disease	Principal/Senior investigator	2012
	\$19,332.00	A Phase 3b Study of 2 Treatment Durations of Telaprevir, Peg-IFN (Pegasys®), and Ribavirin (Copegus®) in Treatment-Naive and Prior Relapser Subjects With Genotype 1 Chronic Hepatitis C and IL28B CC Genotype	Site/Local PI	2012
	\$19,672.13	Etiology of Inflammatory Bowel Disease: Gene, Microbe, and Environment Interactions	Co-investigator	2012
	\$25,000.00	CCR9 and CCL25 transgenic mice resource	Principal/Senior investigator	2012
	\$31,475.41	Regulatory T cell Immunotherapy in PSC	Principal/Senior investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$39,557.37	"A 2-Part, Open Label Study of Telaprevir in Combination With Peginterferon Alfa-2a (Pegasys®) and Ribavirin (Copegus®) in Subjects Chronically Infected with Genotype 1 Hepatitis C Virus Following Liver Transplantation"	Site/Local PI	2012
	\$40,000.00	Genetics of PSC	Co-investigator	2012
	\$48,648.65	A Translational Approach to Understanding and Managing Primary Sclerosing Cholangitis	Co-investigator	2012
	\$50,000.00	The role of Glypican-6 in PSC	Principal/Senior investigator	2012
	\$78,260.87	Start-up funds for Dr. Eksteen	Principal/Senior investigator	2012
	\$150,000.00	CIHR Human Immunology Network	Co-investigator	2012
	\$255,000.00	Mucosal T cells in the pathogenesis of PSC	Principal/Senior investigator	2012
Sum	\$784,968.05			
Esdaile, John				
	\$75,125.00	Arthritis in First Nations People in Alberta: Prevalence and HealthCare Utilization	Co-investigator	2012
	\$80,000.00	Development and pilot testing of a culturally relevant family-based self-management program for First Nations peoples	Co-investigator	2012
	\$106,666.67	Burden and co-morbidity of systemic autoimmune rheumatic diseases	Co-investigator	2012
	\$115,090.43	A randomized controlled trial evaluating the effectiveness of the Making It Work program at preventing work loss	Co-investigator	2012
	\$257,142.86	CIHR Skin Research Training Centre	Co-investigator	2012
	\$415,060.33	CIHR team in Investigations of Mobility, Physical Activity, and Knowledge Translation in HIP pain (IMPAKT-HIP)	Principal/Senior investigator	2012
Sum	\$1,049,085.28			
Ferraz, Jose				
	\$93,750.00	Integration of Anti-Inflammatory Pathways in IBD	Co-PI	2012
Sum	\$93,750.00			
Field, Stephen				
	\$1,000.00	Strategies to improve diagnosis and treatment of Asthma in Canadians	Site/Local PI	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$4,285.71	A CRE-managed clinic for patients with COPD considered to be high risk for hospital admission	Principal/Senior investigator	2012
	\$4,760.00	Invigorate comparison of indacaterol to placebo in patients with COPD	Site/Local PI	2012
	\$5,000.00	Effects of A growth hormone release factor analogue in COPD	Site/Local PI	2012
	\$5,586.21	Multi-centre randomized placebo-controlled trial of nocturnal oxygen therapy in COPD. The Canadian Nocturnal Oxygen Trial (CANOX)	Site/Local PI	2012
	\$8,130.00	STATCOPE Prospective placebo controlled trial of simvastatin in the prevention of COPD exacerbations	Site/Local PI	2012
	\$12,502.62	TioSpir A randomised, active-controlled, double-blind, double-dummy, parallel group design, multi-centre trial to compare the efficacy and safety of 2.5 mcg and 5 mcg tiotropium inhalation solution delivered via respimat inhaler with tiotropium inhalation capsules 18 mcg delivered by the handihaler in patients with COPD	Site/Local PI	2012
Sum	\$41,264.54			
Fisher,Dina				
	\$305.22	Vitamin D deficiency and tuberculosis in an immigrant population	Principal/Senior investigator	2012
	\$1,111.11	Vitamin D deficiency and tuberculosis in an immigrant population	Principal/Senior investigator	2012
	\$1,322.60	Protocol: An extension study to QT1571A2301 to evaluate the long-term safety, tolerability and efficacy of oral QT1571 (imatinib) in the treatment of severe pulmonary arterial hypertension: IMPRES Extension	Site-investigator	2012
	\$2,307.00	Protocol: Long-term extension, multi-centre, multi-national study to evaluate the efficacy and safety of oral BAY 63-2521 (1 mg, 1.5mg, 2 mg, or 2.5 mg tid) in patients with Chronic Thromboembolic Pulmonary Hypertension (CTEPH) Sub'I's: Fell, Fisher, Hirani, Jarand, Rimmer, Viner	Site-investigator	2012
	\$2,307.69	Can certified respiratory educators improve the care of patients with COPD	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$4,646.50	Protocol: AMBITION: A Randomized, Multi-Center Study of First-Line Ambrisentan and Tadalafil Combination Therapy in Subjects with Pulmonary Arterial Hypertension. Sub-I's: Fisher, Helmersen, Loewen, Rimmer, Viner	Site-investigator	2012
	\$5,072.67	A 52-week double blind, randomized, placebo-controlled trial evaluating the effect of oral BIBF 1120, 150 mg twice daily, on annual Forced Vital Capacity decline, in patients with Idiopathic Pulmonary Fibrosis (IPF)	Site-investigator	2012
	\$5,137.50	Study with an ERA in Pulmonary Arterial Hypertension to Improve Clinical outcome. Long-term single-arm extension study of the SERAPHIN study, to assess the safety and tolerability of ACT-064992 in patients with symptomatic pulmonary arterial hypertension	Site-investigator	2012
	\$6,782.33	Protocol: Randomized, double-blind, placebo-controlled, multi-centre, multi-national study to evaluate the efficacy and safety of oral BAY 63-2521 (1 mg, 1.5mg, 2 mg, or 2.5 mg tid) in patients with chronic thromboembolic pulmonary hypertension (CTEPH)	Site-investigator	2012
	\$8,538.00	Principal Investigator: Helmersen Sub-I's: Fell, Fisher, Hirani, Jarand, Rimmer, Viner Protocol: Randomized, double-blind, placebo-controlled, multi-centre, multi-national study to evaluate the efficacy and safety of oral BAY 63-2521 (1 mg, 1.5mg, 2 mg, or 2.5 mg tid) in patients with symptomatic Pulmonary Arterial Hypertension (PAH)	Site-investigator	2012
	\$9,170.00	Principal Investigator: Helmersen Sub-I's: Fell, Fisher, Hirani, Jarand, Rimmer, Viner Research Project Title: A Phase-3, Long-term, Open-Label, Multicenter Safety and Efficacy Study of Ambrisentan in Subjects with Pulmonary Hypertension	Site-investigator	2012
	\$9,641.00	A phase II, randomized, double-blind, placebo-controlled parallel group study to evaluate the efficacy and safety of once-daily orally administered PH-797804 for 12 weeks in adults with moderate to severe chronic obstructive pulmonary disease (COPD) on a background of salmeterol xinafoate/fluticasone propionate combination	Site-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$11,698.25	Protocol: A Phase 2, Randomized, Double-blind, Placebo-controlled, Multicenter, Dose-ranging Study of Cicletanine in Subjects with Pulmonary Arterial Hypertension	Site-investigator	2012
	\$11,802.46	Social work services in the treatment of patients with Tuberculosis	Principal/Senior investigator	2012
	\$15,335.00	Understanding of tuberculosis infection,disease,and treatment following TB prophylaxis implementation among people living with HIV in KwaZulu-Natal South Africa	Co-investigator	2012
	\$23,253.00	Improving the diagnosis of Extra-pulmonary Tuberculosis in Bangladesh	Principal/Senior investigator	2012
	\$25,461.17	Protocol: Title of Study: Phase IV, Prospective, Multi-National, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate Smoking Cessation with Varenicline Tartrate Compared with Placebo in the Setting of Patient Self-Selected (Flexible) Quit Date	Site-investigator	2012
	\$29,403.25	TDE-PH-308: A 16-Week, International, Multicenter, Double-Blind, Randomized, Placebo-Controlled Study of the Efficacy and Safety of Oral UT-15C Sustained Release Tablets in Subjects with Pulmonary Arterial Hypertension (FREEDOM-C2) A 12-Week, International, Multicenter, Double-Blind, Randomized, Placebo-Controlled Comparison of the Efficacy and Safety of Oral UT-15C Sustained Release Tablets in Subjects with Pulmonary Arterial Hypertension	Site-investigator	2012
	\$42,586.00	Protocol: Study with Endothelin Receptor Antagonist in Pulmonary arterial Hypertension to Improve cliNical outcome. A Multicenter, Double-blind, Randomized, Placebo-controlled, Parallel group, Event driven, Phase III study to assess the effects of ACT-064992 on Morbidity and Mortality in patients with Symptomatic Pulmonary Arterial Hypertension Sponsor: Actelion Pharmaceuticals Principal Investigator: Hirani Sub-I's: Fell, Fisher, Helmersen, Rimmer, Viner	Site-investigator	2012
Sum	\$215,880.75			

Flemons, Ward

Name	Prorated Amount	Title	Role	Reporting Year
	\$11,778.75	Deriving novel administrative data patient safety indicators for large-scale surveillance.	Co-investigator	2012
	\$162,500.00	Health Quality Council of Alberta contract with the Faculty of Medicine	* Grant Holder	2012

Sum \$174,278.75

Fritzler, Marvin

\$5,416.67	Autoantibodies in Inflammatory Bowel Disease	Principal/Senior investigator	2012
\$14,285.71	CIHR TEAM Scleroderma Research Group	Co-PI	2012
\$21,285.71	Relationship of GWB to Prions and Neurological Disease	Principal/Senior investigator	2012
\$225,000.00	Phase V: Autoimmune System (GW Bodies) Research	Principal/Senior investigator	2012

Sum \$265,988.10

Geddes, Michelle

\$4,900.00	Myelodysplastic Syndromes (MDS) in Canada: A national prospective study of the epidemiology, quality of life and impact of co-morbidity on disease outcome	Site/Local PI	2012
\$7,666.67	Myelodysplastic Syndromes (MDS) in Canada: A national prospective study of the epidemiology, quality of life and impact of co-morbidity on disease outcome	Site/Local PI	2012
\$18,500.00	Infrastructure grant - Post Graduate Medical Education. Funded the purchase of licences for the Cellavision program to allow residents and other learners to view peripheral blood smear films electronically through remote access to slides at the laboratory from the hematology wards at the Foothills Medical Centre, Peter Lougheed Centre, and Alberta Children's Hospital.	Site/Local PI	2012
\$54,545.45	Myelodysplastic Syndromes (MDS) in Canada: A national prospective study of the epidemiology, quality of life and impact of co-morbidity on disease outcome	Co-investigator	2012

Sum \$85,612.12

Ghali, William

\$5,000.00	The quality and Safety Topic Advisory Group. Meeting grant.	Principal/Senior investigator	2012
\$5,322.75	Exploring the dimensions of the Medical Teaching Unit preceptor role.	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$5,996.50	Access and quality of cardiac care for First Nations People.	Co-investigator	2012
	\$6,431.75	Evaluating therapeutic decision-making, outcomes and resource utilization in chronic stable angina: An inter-provincial population-based study.	Co-investigator	2012
	\$11,805.56	Rates and waits for cancer surgery in Canada: A mix methods assessment	Co-PI	2012
	\$17,989.58	Access and quality of cardiac care for First Nations People	Co-investigator	2012
	\$18,599.00	Developing quality indicators to assess the care of adults with major traumatic injuries	Co-investigator	2012
	\$19,838.93	Developing quality indicators to assess the care of adults with major traumatic injuries.	Co-investigator	2012
	\$26,376.00	Deriving novel administrative data patient safety indicators for large-scale surveillance	Principal/Senior investigator	2012
	\$43,200.00	Understanding 'troponinitis': exploring myocardial injury and its clinical and health services implications.	Co-PI	2012
	\$53,125.00	Rates and waits for cancer surgery in Canada: a mix methods assessment	Co-investigator	2012
	\$96,280.00	The Alliance for Canadian Health Outcomes Research in Diabetes	Co-investigator	2012
	\$116,985.33	Efficacy of a web-based seamless discharge communication tool: a randomized controlled trial	Principal/Senior investigator	2012
	\$345,375.56	POISE-2 Clinical Trial	Co-investigator	2012
	\$1,004,651.16	The Medical Ward of the 21st. Century	Principal/Senior investigator	2012
Sum	\$1,776,977.13			
Ghosh,Subrata				
	\$3,000.00	Develop Genome Canada collaborative team grant	Principal/Senior investigator	2012
	\$10,000.00	The evolution of mucosal gene expression in inflammatory bowel disease - a longitudinal prospective follow-up study	* Award winner	2012
	\$15,000.00	Study of lymphocytes plasticity in IBD - AIHS Interdisciplinary team grant	Principal/Senior investigator	2012
	\$16,666.67	Expression arrays in IBD inception cohort	Principal/Senior investigator	2012
	\$16,666.67	A translational approach to understanding and managing primary sclerosing cholangitis'	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$17,704.92	AHFMR Interdisciplinary Team Grant: Tier 1 and Tier 2 of Alberta IBD Consortium	* Executive Committee Member	2012
	\$23,571.43	Tobacco Cessation for Crohn's Patients	Co-investigator	2012
	\$25,000.00	Study of lamina propria immune cells in IBD - AIHS Interdisciplinary team grant	Co-PI	2012
	\$26,666.67	Immune Function & Dendritic cell dysfunction in NLR3P KO mice	Co-PI	2012
	\$40,000.00	Transabdominal Ultrasonography Contrast Enhanced –prospective study to evaluate therapeutic response (\$368,000) for 2 years.	Co-PI	2012
	\$50,000.00	Clinical Research Fellowship - Humberto Jijon	* Supervisor	2012
	\$75,000.00	Fellowship - Ali Rezaie	* Supervisor	2012
	\$75,000.00	Smoking in IBD	Principal/Senior investigator	2012
	\$93,333.33	Dendritic cell function in IBD with defined genetic mutations	Principal/Senior investigator	2012
	\$833,333.33	Interdisciplinary Team Grant - Gene Microbial Environmental Interactions in pathogenesis of IBD: Tier 1 and Tier 2 of Alberta IBD Consortium	Co-investigator	2012
Sum	\$1,320,943.01			
Gibson,Paul				
	\$2,186.27	Real-Time Clinical Audit for the Medical Disorders in Pregnancy Program: Clinical Database. Hardware and Software Requirements.	Co-investigator	2012
	\$2,800.00	Title of Conference:" Contemporary Topics in Prenatal Care: Special Symposium on Hypertension in Pregnancy and New Advances in Molecular Genetics"	Co-investigator	2012
	\$2,998.00	Control of Hypertension in Pregnancy Study (CHIPS)	Site/Local PI	2012
	\$8,769.23	Utilization of LMWH for Prevention and Treatment of Venous Thrombosis During Pregnancy	Principal/Senior investigator	2012
	\$9,729.73	Real-Time Clinical Audit for the Medical Disorders in Pregnancy Program: Clinical Database	Co-investigator	2012
Sum	\$26,483.23			
Gill,John				
	\$4,545.45	HIV/HCV co infection	Co-investigator	2012
	\$7,692.31	Canadian HIV Trials Network	Co-PI	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$12,000.00	Antiretroviral drug studies	Site/Local PI	2012
	\$49,180.33	NA Accord Cohort Collaboration	Co-investigator	2012
Sum	\$73,418.09			
Goodyear,Dawn				
	\$17,647.06	Barriers to Health Care Delivery in Mild Hemophilia	Co-PI	2012
Sum	\$17,647.06			
Hamilton,Douglas				
	\$2,432.43	Comparison of Continuous Noninvasive and Invasive Intracranial Pressure Measurement	Co-investigator	2012
Sum	\$2,432.43			
Hanley,David				
	\$30,523.60	A biomedical engineering approach to investigating bone quality across the lifespan	Co-investigator	2012
	\$41,666.67	Creating Bone and Joint Health from the Bedside to the Bench and Back Again Reducing the Burden of Osteoarthritis (OA) - from Mechanisms to Prevention	Co-investigator	2012
	\$60,000.00	Canadian Multicentre Osteoporosis Study (I am the local Principal Investigator,)	Co-investigator	2012
	\$131,566.00	On the development of bone quality parameters for assessing osteoporosis using peripheral quantitative computed tomography	Co-investigator	2012
Sum	\$263,756.27			
Hanly,Patrick				
	\$1,333.33	Regulation of Cerebral Blood Flow in Obstructive Sleep Apnea	Co-PI	2012
	\$3,583.33	Regulation of Cerebral Blood Flow in Obstructive Sleep Apnea	Co-PI	2012
	\$4,300.00	Regulation of Periperal and Cerebral Blood Flow in Obstructive Sleep Apnea	Co-PI	2012
	\$22,544.07	Regulation of Cerebral Blood Flow in Obstructive Sleep Apnea	Co-investigator	2012
Sum	\$31,760.73			
Heitman,Steven				

Name	Prorated Amount	Title	Role	Reporting Year
	\$769.23	Department of Medicine Research Development Funds Award Fall 2012 Competition	Principal/Senior investigator	2012
	\$12,500.00	Optimizing population-based colorectal cancer screening	Co-investigator	2012
Sum	\$13,269.23			
Helmersen,Douglas				
	\$600.00	Pharmacogenomics in pulmonary arterial hypertension : a multicentre international study to determine clinically in PAH patients if associations exist between efficacy and toxicity of endothelin receptor antagonists and selected gene polymorphisms	Site/Local PI	2012
	\$2,204.33	An extension study to QTI571A2301 to evaluate the long-term safety, tolerability and efficacy of oral QTI571 (imatinib) in the treatment of severe pulmonary arterial hypertension	Site/Local PI	2012
	\$3,845.00	Long Term Extension multicentre multinational study to evaluate the efficacy and safety of oral BAY 63-2521 in chronic thromboembolic pulmonary hypertension (CTEPH)	Site/Local PI	2012
	\$6,113.33	A Phase-3, Long-term, Open-Label, Multicenter Safety and Efficacy Study of Ambrisentan in Subjects with Pulmonary Hypertension	Site/Local PI	2012
	\$8,739.00	Long Term extension multicentre multinational study to evaluate the efficacy and safety of oral BAY 63-2521 in patients with PAH	Site/Local PI	2012
	\$9,641.00	A Phase II Randomized Double Blind Placebo Controlled Parallel Group Study to Evaluate the Efficacy and Safety of Once Daily Orally Administered PH-797804 for 12 weeks in adults with moderate to severe COPD on a background of Salmeterol/Fluticasone Combination	Site/Local PI	2012
	\$10,173.50	Randomized, double blind placebo controlled multicentre multinational study to evaluate the efficacy and safety of oral BAY 63-2521 in chronic thromboembolic pulmonary hypertension (CTEPH)	Site/Local PI	2012
	\$10,862.75	A 52 week treatment, randomized, double blind, placebo controlled parallel group study to assess the efficacy, safety and tolerability of NVA237 in patients with COPD	Site/Local PI	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$16,457.00	Randomized, double blind placebo controlled multicentre multinational study to evaluate the efficacy and safety of oral BAY 63-2521 in patients with symptomatic PAH	Site/Local PI	2012
Sum	\$68,635.92			
Hemmelgarn, Brend				
	\$4,166.67	Determining the research priorities of Canadian dialysis patients, caregivers and clinicians	Co-investigator	2012
	\$5,100.00	Longitudinal comparison of quality of life among kidney transplant recipients and nocturnal home hemodialysis patients	Co-investigator	2012
	\$24,995.00	Translating evidence to improvements in care and outcomes for people with diabetes.	Co-investigator	2012
	\$35,638.56	Assessment of hypertension occurrence, management and outcomes in Canada	Co-PI	2012
	\$38,550.67	Predicting acute kidney injury (AKI) in patients undergoing cardiac surgery	Co-investigator	2012
	\$41,500.00	Influence of deficiency and excess of trace elements on outcomes in hemodialysis patients	Co-investigator	2012
	\$43,333.33	Complications of arteriovenous fistulas, arteriovenous grafts and tunneled cuffed catheters for hemodialysis: Risk patterns, comparability and impact on patient.	Co-PI	2012
	\$53,968.75	Access to and quality of cardiac care for First Nations	Principal/Senior investigator	2012
	\$72,120.00	Arthritis in First Nations People in Alberta: Prevalence and Health Care Utilization.	Principal/Senior investigator	2012
	\$79,895.04	Improving risk prediction for mortality and progression to kidney failure in older adults using eGFR and proteinuria.	Principal/Senior investigator	2012
	\$85,408.67	The impact of primary care networks on the care and outcomes of patients with diabetes	Co-PI	2012
	\$97,872.00	Methods of Assessing blood pressure: Identifying threshold and target values (MeasureBP)	Co-investigator	2012
	\$108,730.00	Role of residence location in the care of elderly Canadians with kidney failure	Co-investigator	2012
	\$109,770.06	Genetic markers of risk in hemodialysis patients	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$150,000.00	The Canadian Kidney Knowledge Translation and Generation Network (CANN-NET)	Principal/Senior investigator	2012
	\$255,714.00	Enhancing existing capacity in applied health services and policy research in Western Canada	* Team Member	2012
	\$316,666.67	Innovative knowledge synthesis methods collaborative at the Li Ka Shing Knowledge Institute.	Co-investigator	2012
	\$663,937.20	The BK: KIDNEY Trial (BK: Kinase inhibition to decrease nephropathy intervention trial)	Co-PI	2012
	\$834,153.33	Improving the efficient and equitable care of patients with chronic medical conditions: the Interdisciplinary Chronic Disease Collaboration (ICDC)	* Team Leader	2012
	\$2,916,666.67	Canadian Network for Observational Drug Effect Studies (cNODES)	* Team Member	2012
Sum	\$5,938,186.61			
Herman, Robert				
	\$69,545.45	Application from the Divisions of General Internal Medicine (GIM), Nephrology and Endocrinology (Department of Medicine) at Foothills Medical Center for OCT-SD	Principal/Senior investigator	2012
	\$110,526.32		Principal/Senior investigator	2012
Sum	\$180,071.77			
Hilsden, Robert				
	\$58,967.38	Colon Cancer Screening Centre Biorepository Infrastructure and Equipment	Co-investigator	2012
	\$61,086.68	CIHR Team in Population-Based Colorectal Cancer Screening	Co-investigator	2012
	\$135,000.00	A research program for the rapid evaluation of novel non-invasive colon cancer screening tests	* Investigator - Salary Support	2012
Sum	\$255,054.05			
Hirani, Naushad				
	\$1,120.00	A 52-week treatment, randomized, double-blind, placebo-controlled, with open label tiotropium, parallel-group study to assess the efficacy, safety and tolerability of NVA237 in patients with chronic obstructive pulmonary disease	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$1,375.00	A phase II, randomized, double-blinded, placebo controlled, parallel group study to evaluate the efficacy and safety of PH-797804 for 12 weeks in moderate COPD	Co-investigator	2012
	\$3,000.00	Potential applications of the Reservoir-Wave Model to hemodynamic analysis in patients being investigated for pulmonary hypertension	Co-investigator	2012
	\$4,646.50	AMBITION: A Randomized, Multi-Center Study of First-Line Ambrisentan and Tadalafil Combination Therapy in Subjects with Pulmonary Arterial Hypertension.	Site/Local PI	2012
	\$5,022.86	DETECT Study: The natural history of early pulmonary vascular disease in Scleroderma	Site/Local PI	2012
	\$7,561.14	AIRES Trials: A Phase-3, Long-term, Open-Label, Multicenter Safety and Efficacy Study of Ambrisentan in Subjects with Pulmonary Hypertension	Co-investigator	2012
	\$7,609.00	A 52-week double blind, randomized, placebo-controlled trial evaluating the effect of oral BIBF 1120, 150 mg twice daily, on annual Forced Vital Capacity decline, in patients with Idiopathic Pulmonary Fibrosis (IPF).	Co-investigator	2012
	\$9,358.60	A Phase 2, Randomized, Double-blind, Placebo-controlled, Multicenter, Dose-ranging Study of Cicletanine in Subjects with Pulmonary Arterial Hypertension	Site/Local PI	2012
	\$16,627.50	IMPRES Studies: A 24-week randomized placebo-controlled, double-blind multi-center clinical trial evaluating the efficacy and safety of oral QTI571 as an add-on therapy in the treatment of severe pulmonary arterial hypertension: Imatinib in Pulmonary arterial hypertension, a Randomized, Efficacy Study	Co-investigator	2012
	\$16,801.86	FREEDOM Trials: A 16-Week, International, Multicenter, Double-Blind, Randomized, Placebo-Controlled Comparison of the Efficacy and Safety of Oral UT-15C Sustained Release Tablets in Combination with an Endothelin Receptor Antagonist and/or a Phosphodiesterase-5 Inhibitor in Subjects with Pulmonary Arterial Hypertension; 12 week placebo controlled trial and open label extension trial also included.	Site/Local PI	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$18,194.00	ARTEMIS Trial: Phase 3, Randomized, Double-Blind, Placebo-Controlled, Multi-Center, Parallel-Group, Event-Driven Study to Evaluate the Efficacy and Safety of Ambrisentan in Subjects with Early Idiopathic Pulmonary Fibrosis	Co-investigator	2012
	\$30,159.20	First-line Bosentan and Sildenafil Combination Therapy for Pulmonary Arterial Hypertension: A safety and efficacy pilot study	Principal/Senior investigator	2012
	\$30,602.60	PATENT and CHEST Trials: Randomized, double-blind, placebo-controlled, multi-centre, multi-national study to evaluate the efficacy and safety of riociguat in patients with symptomatic Pulmonary Arterial Hypertension (PAH) and Chronic Thromboembolic Pulmonary Hypertension (CTEPH)	Co-investigator	2012
	\$35,712.80	SERAPHIN Trial: The effect of a novel dual endothelin receptor antagonist on morbidity and mortality in Pulmonary Arterial Hypertension (including open label trial)	Site/Local PI	2012
Sum	\$187,791.06			
Hogan, David				
	\$10,633.00	Ambulatory Activity of Older Adults in Acute Care	Co-investigator	2012
	\$12,238.00	A Primary Care-based Model of Complex Chronic Disease Management for Seniors	Co-investigator	2012
	\$52,500.00	Enhancing system capacity to improve the quality and continuity of mental health care for seniors in assisted living and long-term	Co-investigator	2012
	\$76,604.20	Canadian Longitudinal Study on Aging	Site/Local PI	2012
	\$76,604.20	Canadian Longitudinal Study on Aging	Site/Local PI	2012
	\$131,840.00	Effects of Regular Exercise on Cerebrovascular Reserve in Older Adults: Role in the Prevention of Age-Related Cognitive Decline	Co-investigator	2012
	\$134,000.00	National Population Health Study of Neurological Conditions	Co-investigator	2012
	\$255,833.33	InfoRehab: Enhancing MSK Rehabilitation through Better Use of Health Information	* Collaborator	2012
	\$288,932.87	Canadian Longitudinal Study on Aging (total national funding \$23.5 million)	Site/Local PI	2012
	\$369,335.50	Innovations in Data, Evidence and Applications for Persons with Neurological Conditions (ideas PNC)	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$575,000.00	Research to Action Program in Dementia	* Collaborator	2012
Sum	\$1,983,521.10			
Holroyd-Leduc, Jayna				
	\$1,923.08	Evaluation of an evidence-informed care pathway for patients with hip fractures.	Co-PI	2012
	\$1,950.00	A quality improvement initiative to reduce the use of physical restraints among older hospitalized patients	Co-investigator	2012
	\$2,222.22	Examining the Sustainability of a Screening for Distress Program in 2 Outpatient Oncology Clinics	* Supervisor	2012
	\$6,315.79	Qualitative evaluation of an evidence-informed basal bolus insulin therapy protocol to improve the care of in-patients with diabetes.	Co-investigator	2012
	\$8,615.38	Resident-driven QI project targeted at decreasing ED-LOS for DOM patients	Principal/Senior investigator	2012
	\$9,261.71	Development and usability testing of a self management web portal for older adults with chronic disease.	Co-PI	2012
	\$9,821.43	Predictors of Acute Kidney Injury after Major Surgical Procedures	Co-investigator	2012
	\$16,363.64	Development and pilot testing of a self management web portal for older adults with chronic disease	Co-PI	2012
	\$30,588.24	Targeting discharge resources for DOM inpatients (SISDoM project)	Principal/Senior investigator	2012
	\$48,813.33	Efficacy of a web-based seamless discharge tool	Co-investigator	2012
	\$66,000.00	Improving appropriate care for those with epilepsy - Knowledge translation of the CASES (Canadian Appropriateness Study of Epilepsy Surgery) clinical decision support tool	Co-PI	2012
	\$87,709.09	Understanding the epidemiology of neurological conditions and building the methodological foundation for surveillance	Co-investigator	2012
	\$502,218.17	Knowledge Translation Canada: Strategic training initiative in health research	Site-investigator	2012
	\$2,128,949.04	Knowledge Translation Canada: A national research network	Co-investigator	2012
Sum	\$2,920,751.12			
Holton, Donna				

Name	Prorated Amount	Title	Role	Reporting Year
	\$2,500.00	Continuous infusion of beta-lactam antibiotics for the management of drug resistant Gram negative infections in individuals with cystic fibrosis and other nosocomial infections	Co-investigator	2012
Sum Hull,Russell	\$2,500.00			
	\$22,000.00	Acute Medically Ill VTE Prevention with EXtended Duration Betrixaban Study (APEX Study)	Principal/Senior investigator	2012
Sum Iacucci,Marietta	\$22,000.00			
	\$1,666.67	Department of Medicine Research Development Fund Award Winners - Fall 2012 Competition \$10000. iSCAN /Confocal Endomicroscopy as novel Endoscopic Technique for evaluating Gastric and Intestinal Lymphoma	Principal/Senior investigator	2012
	\$7,500.00	Surveillance colonoscopy in patients with IBD - comparison of high definition virtual chromoendoscopy using iScan with standard white light endoscopy for detection of colonic dysplastic lesions	Principal/Senior investigator	2012
	\$14,545.45	Department of Medicine -Division of Gastroenterology start-up funds	Principal/Senior investigator	2012
	\$97,297.30	A translational approach to understanding and managing primary sclerosing cholangitis. Faculty of Medicine Emerging Team Grant, University of Calgary, \$300,000 – Team Member	Co-investigator	2012
Sum James,Matthew	\$121,009.42			
	\$4,000.00	Vascular access type and clinical outcomes in hemodialysis: a systematic review and meta-analysis	Principal/Senior investigator	2012
	\$4,166.67	Processes of Care and Clinical Outcomes of Acute Kidney Injury: A Multidisciplinary Research Program	Principal/Senior investigator	2012
	\$4,500.00	Care in Alberta after coronary angiography associated acute kidney injury	Principal/Senior investigator	2012
	\$5,000.00	Definition and outcomes of chronic kidney disease using ambulatory laboratory databases	Principal/Senior investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$6,036.88	Coronary angiography for patients with Stage 4 and 5 non-dialysis chronic kidney disease: a decision analysis	Co-PI	2012
	\$8,928.57	Predictors of acute kidney injury after major surgery	Co-investigator	2012
	\$9,692.31	Identification and evaluation of quality of care indicators for acute kidney injury	Principal/Senior investigator	2012
	\$37,249.50	Complications of arteriovenous fistulae, grafts, and catheters for hemodialysis; risk patterns, comparability and impact on patient outcomes	Co-investigator	2012
	\$47,000.00	Coronary revascularization and quality of life for patients with chronic kidney disease in Alberta	Principal/Senior investigator	2012
	\$50,500.00	Improving risk prediction for mortality and progression to kidney failure in older adults using eGFR and proteinuria	Co-investigator	2012
	\$130,428.00	Curcumin to prevent peri-operative complications after abdominal aortic aneurysm repair	Co-investigator	2012
Sum	\$307,501.92			
Janvier, Jack				
	\$3,846.15	Development of a Clinical Trial Using a Stress-Reducing Therapeutic Intervention Framed Within Aboriginal Perspectives for Aboriginal Women Living with or At Risk of HIV Infection	* Knowledge User	2012
	\$3,846.15	Rural Engagement and Retention in HIV Care Working Group	Co-investigator	2012
	\$11,018.18	Examining the Use of Traditional/Herbal/Alternative Medications by Aboriginals Living with HIV/AIDS	Principal/Senior investigator	2012
Sum	\$18,710.49			
Jayakumar, Saumya				
	\$461.54	A multi-centre 3-year follow-up study to assess the durability of sustained virologic response in Alisporivir-treated chronic Hepatitis C patients.	Site-investigator	2012
	\$701.54	A multi-centre 3-year follow-up study to assess the viral activity in patients who failed to achieve sustained virologic response in Novartis-sponsored Alisporivir-studies for chronic Hepatitis C patients	Site-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$1,256.75	Prospective, Observational, Post-Marketing Renal Safety Surveillance Registry in Patients with Chronic Hepatitis B (HBV) Infection with Decompensated Liver Disease Receiving Nucleotide/side Therapy on the Orthotopic Liver Transplant (OLT) List	Site-investigator	2012
	\$1,923.57	A Long Term Follow-up Registry for Subjects Who Achieve a Sustained Virologic Response to Treatment in Gilead-Sponsored Trials in Subjects with Chronic Hepatitis C Infection	Site-investigator	2012
	\$2,011.00	A long term follow-up registry study of subjects who Did Not achieve a sustained virologic response in Gilead-sponsored trials in subjects with chronic Hepatitis C Infection	Site-investigator	2012
	\$2,675.43	Pharmacogenomic Analysis of Blood Samples to Identify Host Genomic Profiles That Segregate Responders From Non-Responders Following Treatment With Peg-Interferon and Ribavirin in HCV-infected Subjects (genotype 1)	Site-investigator	2012
	\$3,379.96	Antiviral effect and safety of once daily BI 201335 NA in hepatitis C virus genotype 1 infected treatment-naïve patients for 12 or 24 weeks as combination therapy with pegylated interferon-α 2a and ribavirin (open label, randomised, Phase II).	Site-investigator	2012
	\$3,717.26	A long-term monitoring study to evaluate the persistence of direct acting antiviral (DAA) treatment-resistant mutations or the durability of sustained virological response (SVR) in patients treated with DAA-containing regimens for chronic hepatitis C infection (CHC)	Site-investigator	2012
	\$5,057.68	A prospective 3-year follow-up study in subjects previously treated in a Phase IIb or Phase III study with a TMC435-containing regimen for the treatment of hepatitis C virus (HCV) infection	Site-investigator	2012
	\$5,315.91	A Double-Blind, Randomized, Placebo-Controlled, Single and Multiple-Dose Ranging Study Evaluating the Safety, Tolerability, Pharmacokinetics, Pharmacodynamics, and Antiviral Activity of GS 9620 in Virologically Suppressed Subjects with Chronic Hepatitis B Virus Infection	Site-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$5,410.45	A Double-Blind, Randomized, Placebo-Controlled, Single and Multiple-Dose Ranging, Adaptive Study Evaluating the Safety, Tolerability, Pharmacokinetics, Pharmacodynamics, and Antiviral Activity of GS 9620 in Treatment Naive Subjects with Chronic Hepatitis B Virus Infection	Site-investigator	2012
	\$5,512.20	An Open-Label Study of GS-7977+ Ribavirin for 12 Weeks in Subjects with Chronic HCV Infection who participated in prior studies evaluating GS-7977	Site-investigator	2012
	\$7,974.86	A Phase 3, Multicenter, Randomized, Double-Blind Study to Investigate the Efficacy and Safety of GS-7977 + Ribavirin for 12 or 16 Weeks in Treatment Experienced Subjects with Chronic Genotype 2 or 3 HCV Infection	Site-investigator	2012
	\$8,470.50	A Phase II trial of Axitinib (AG-013736) after prior Antiangiogenic Therapy in advanced Hepatocellular Carcinoma	Site-investigator	2012
	\$10,101.49	A Randomized, Double-Blind, Controlled Evaluation of Tenofovir DF versus Adefovir Dipivoxil for the Treatment of Presumed Pre core Mutant Chronic Hepatitis B	Site-investigator	2012
	\$12,267.50	A Phase II, Randomized, Double-Blind, Multicenter, Parallel Group Study to Evaluate the Sustained Virologic response of the HCV Polymerase Inhibitor Prodrug RO5024048 in combination with Boceprevir and Pegasys®/Copegus® in Patients with Chronic Hepatitis C Genotype 1 Virus Infection who were prior null responders to Treatment with Pegylated Interferon/Ribavirin	Site-investigator	2012
	\$13,645.16	A Randomized, Double-Blind, Controlled Evaluation of Tenofovir DF versus Adefovir Dipivoxil for the Treatment of HBeAg Positive Chronic Hepatitis B	Site-investigator	2012
	\$13,928.18	A Long-Term Follow-up Study of Subjects Who Participated in a Clinical Trial in which Asunaprevir BMS-650032 and/or Daclatasvir BMS-790052 was Administered for the Treatment of Chronic Hepatitis C	Site-investigator	2012
	\$13,962.50	A Phase III randomized, double-blind, placebo-controlled study of sorafenib as adjuvant treatment for hepatocellular carcinoma after surgical resection or local ablation.	Site-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$14,609.91	A Randomized, Open-Label, Multicentre Study to Evaluate the Antiviral Activity, Safety and Pharmacokinetics of ABT-450 with Ritonavir in Combination with ABT-267 and/or ABT-333 With and Without Ribavirin for 8, 12, or 24 Weeks in Treatment-Naïve and Null Responder Subjects with Genotype 1 Hepatitis C Virus Infection	Site/Local PI	2012
	\$15,993.00	A Phase 2 Randomized, Double-Blind, Placebo-Controlled Study of GS-5885, GS-9451, Tego buvir and Ribavirin; GS-5885, GS-9451 and Tego buvir; GS-5885, GS-9451 and Ribavirin in	Site-investigator	2012
	\$17,092.50	A Phase III, randomized, double-blind trial to evaluate the efficacy, safety and tolerability of TMC435 vs. telaprevir, both in combination with PegIFN α -2a and ribavirin, in chronic hepatitis C genotype-1 infected subjects who were null or partial responders to prior PegIFN α and ribavirin therapy.	Site-investigator	2012
	\$18,965.33	A Phase 2b, Randomized, Double-Blind, Placebo-Controlled Trial Evaluating 16 and 24 Weeks of Response Guided Therapy with GS-9190, GS-9256, Ribavirin (Copegus®) and Peginterferon Alfa 2a (Pegasys®) in Treatment Naïve Subjects with Chronic Genotype 1 Hepatitis C Virus Infection	Site-investigator	2012
	\$19,585.09	A Randomized, Open-label, Multicenter Study to Evaluate the Sustained Virologic Response of the HCV Protease Inhibitor Danoprevir Boosted with Low Dose Ritonavir (Danoprevir/r) and Copegus®, in Combination with the HCV Polymerase Inhibitor Prodrug RO5024048 and/or Pegasys® in Chronic Hepatitis C Genotype 1 Patients Who Failed with a Previous Course of Peginterferon alfa plus Ribavirin Combination Therapy	Site-investigator	2012
	\$23,400.00	A Phase III, randomized, double-blind, placebo-controlled study to investigate the efficacy, safety and tolerability of TMC435 versus placebo as part of a treatment regimen including peginterferon alfa-2a and ribavirin in treatment-naïve, genotype 1 hepatitis C-infected subjects.	Site-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$25,029.09	A phase III, randomised, double-blind and placebo-controlled study of once daily BI 201335 120 mg for 24 weeks or BI 201335 240 mg for 12 weeks in combination with pegylated interferon- α and ribavirin in treatment-naïve patients with genotype 1 chronic hepatitis C infection	Site-investigator	2012
	\$26,285.63	A Phase 4, Randomized, Open-label, Active-Controlled, Superiority Study to Evaluate the Efficacy and Safety of Tenofovir Disoproxil Fumarate (TDF) in Combination with Peginterferon α 2a (Pegasys α) versus Standard of Care Tenofovir Disoproxil Fumarate Monotherapy or Peginterferon α 2a Monotherapy for 48 Weeks in, Non-Cirrhotic Subjects with HBeAg-Positive or HBeAg-Negative Chronic Hepatitis B (CHB)	Site-investigator	2012
	\$27,687.58	A Phase 3, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Investigate the Efficacy and Safety of GS-7977 + Ribavirin for 12 Weeks in Subjects with Chronic Genotype 2 or 3 HCV Infection who are Interferon Intolerant, Interferon Ineligible or Unwilling to Take Interferon	Site-investigator	2012
	\$28,998.00	A Phase 3b Study of 2 Treatment Durations of Telaprevir, Peg-IFN (Pegasys α), and Ribavirin (Copegus α) in Treatment-Naïve and Prior Relapser Subjects With Genotype 1 Chronic Hepatitis C and IL28B CC Genotype	Site-investigator	2012
	\$29,109.52	A phase III, randomised, double-blind and placebo-controlled study of once daily BI 201335, 240 mg for 12 or 24 weeks in combination with pegylated interferon- α and ribavirin in patients with genotype 1 chronic hepatitis C infection who failed a prior PegIFN/RBV treatment	Site-investigator	2012
	\$32,536.36	A 2-Part, Open Label Study of Telaprevir in Combination With Peginterferon Alfa-2a (Pegasys α) and Ribavirin (Copegus α) in Subjects Chronically Infected with Genotype 1 Hepatitis C Virus Following Liver Transplantation	Site-investigator	2012
	\$35,464.55	A Phase 3, Safety and Efficacy Study of Boceprevir/Peginterferon Alfa-2a/ribavirin in Chronic HCV Genotype 1 IL28B CC Subjects	Site-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$38,448.00	A Phase 2 Randomized, Open-Label, Exploratory Trial of GS-5885, GS-9451 with Peginterferon Alfa 2a (PEG) and Ribavirin (RBV) in Treatment-Naïve Subjects with Chronic Genotype 1 Hepatitis C Virus Infection and IL28B CC Genotype	Site-investigator	2012
	\$39,654.33	Dose-Ranging Study to Evaluate the Safety, Efficacy and Pharmacokinetics of Pegylated Interferon Lambda (BMS-914143) Monotherapy in Interferon-Naïve Patients with Chronic Hepatitis B Virus Infection who are HBeAg-positive	Site-investigator	2012
	\$42,157.14	Randomized, Observational Study of Entecavir to Assess Long-term Outcomes Associated with Nucleoside/Nucleotide Monotherapy for Patients with Chronic HBV Infection: The REALM Study	Site-investigator	2012
	\$50,370.00	A randomized, double-blind, placebo-controlled trial of the efficacy and safety of DEB025/Alisporivir in combination with peg-IFNα2a and ribavirin in hepatitis C genotype 1 treatment-naïve patients.	Site-investigator	2012
	\$53,280.65	A Phase 3 Evaluation of BMS-790052 (Daclatasvir) Compared with Telaprevir in Combination with Peg-Interferon Alfa-2a and Ribavirin in Treatment-Naïve Patients with Chronic Hepatitis-C	Site-investigator	2012
Sum	\$656,440.17			
Jenkins,Deirdre				
	\$1,050.00	Improving Resident Evaluation: A Multi Source Feedback Tool to Assess CanMEDS Competancies	Principal/Senior investigator	2012
Sum	\$1,050.00			
Jijon,Humberto				
	\$16,800.00	Alberta Innovates - Health Solutions Clinical Fellowship	* Clinical Research Fellow/Clinical	2012
	\$66,666.67	Establishment of a high-throuput screening strategies for the identification of IBD patients and customization of therapies	Co-investigator	2012
Sum	\$83,466.67			
Jones,Charlotte				
	\$9,333.33	A Primary Care Network intervention to enhance Indo-Asian risk factor management \$28,000	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$67,675.00	Community Action Teams for Cardiovascular Health (CATCH): Targeting diabetes and hypertension in low income community-dwelling seniors in Calgary: an Alberta CHAMP initiative.	Principal/Senior investigator	2012
	\$101,337.50	"Know your numbers. Track your heart". An Indo-Asian National Cardiovascular Screening Initiative	Principal/Senior investigator	2012
	\$202,675			
Sum	\$178,345.83			
Kaplan, Gilaad	\$1,250.00	Pregnancy Outcomes in IBD	Co-investigator	2012
	\$2,104.25	An Open-label Multicenter Study to Evaluate the Impact of Adalimumab on Quality of Life, Health Care Utilization and Costs of Ulcerative Colitis Subjects in the Usual Clinical Practice Setting (IMPACT)	Co-investigator	2012
	\$4,228.00	A Phase 3, Randomized, Double-blind, Placebo-controlled, Parallel-group, Multicenter Study to Evaluate the Safety and Efficacy of Ustekinumab Induction Therapy in Subjects with Moderately to severely Active Crohn's Diseases Who Have Failed or Are Intolerant to TNF Antagonist Therapy (UNITI-1)	Co-investigator	2012
	\$4,228.00	A Phase 3, Randomized, Double-blind, Placebo-controlled, Parallel-group, Multicenter Study to Evaluate the Safety and Efficacy of Ustekinumab Induction Therapy in Subjects with Moderately to severely Active Crohn's Diseases (UNITI-2)	Co-investigator	2012
	\$4,235.50	A Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety of Oral Budesonide MMX 9mg Extended-release tablets as Add-on Therapy in Patients with Active Mild or Moderate Ulcerative not Adequately Controlled on a Background Oral 5-ASA Regimen, (CONTRIBUTE)	Co-investigator	2012
	\$4,672.20	A Multicenter, Randomized, Double-blind, Placebo-Controlled, Parallel-Group Study of Oral CP-690,550 as an Induction Therapy in Subjects with Moderate to Severe Ulcerative Colitis	Co-investigator	2012
	\$6,572.50	A Phase 3, Randomized, Double-blind, Placebo-controlled, Parallel-group, Multicenter Study to Evaluate the Safety and Efficacy of Ustekinumab Maintenance Therapy in Subjects with Moderately to Severely Active Crohn's Diseases (UMUNITI)	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$10,000.00	Genetic Markers of Outcomes in Crohn's Disease	Co-investigator	2012
	\$20,000.00	Etiology of Inflammatory Bowel Disease: Gene, Microbe, & Environment Interactions	Co-investigator	2012
	\$27,083.33	A translational approach to understanding and managing primary sclerosing cholangitis	* Co-leader	2012
	\$29,855.67	The effect of acute air pollution exposure on the incidence of appendicitis: a multi-city study	Principal/Senior investigator	2012
	\$38,116.00	Long-term Outcomes Following colectomy for Ulcerative Colitis	Principal/Senior investigator	2012
	\$59,016.39	CIHR New Investigator Award	Principal/Senior investigator	2012
	\$59,726.67	The Incidence, Morbidity and Morality of Diverticulitis	Principal/Senior investigator	2012
	\$108,705.88	Alberta Heritage Foundation for Medical Research (AHFMR) Population Health Investigator	Principal/Senior investigator	2012
	\$116,927.33	Translational Health Research Collaboratorium	Co-PI	2012
	\$116,927.33	Translational Health Research Collaboratorium	Co-PI	2012
Sum	\$613,649.05			
Kline, Gregory				
	\$2,448.98	Prevalence of Growth Hormone Deficiency (GHD) in Patients with Unexplained Chronic Fatigue after Undergoing Bone Marrow Transplantation (BMT) in Adulthood	Principal/Senior investigator	2012
	\$6,666.67	In Vivo Assessment of Bone Microarchitecture using HR-pQCT in Hemophilia Patients.	Co-investigator	2012
Sum	\$9,115.65			
Kurwa, Habib				
	\$27,000.00	The role of microRNAs in cutaneous squamous cell carcinomas	Co-investigator	2012
Sum	\$27,000.00			
Lau, David				
	\$3,870.97	Physical Activity, Mobility and Health. Co-PIs: KS Courneya, SN Culos-Reed, CM Friedenreich, ML McNeely, JKH Vallance. Co-investigators: G Bell, D Lau, J Mackey, Y Yasui, Y Yuan	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$13,714.29	Saxagliptin Assessment of Vascular Outcomes Recorded in Patients with Diabetes Mellitus	Principal/Senior investigator	2012
	\$17,205.88	Development of educational slide program on "Modest weight loss in the management of type 2 diabetes"	Principal/Senior investigator	2012
	\$22,983.80	Effect of Exenatide on abdominal fat distribution in patients with type 2 diabetes pretreated with metformin	Principal/Senior investigator	2012
	\$26,634.40	Phase III double-blind, extension, placebo controlled parallel group safety and efficacy trial of BI10773 (10 and 25 mg once daily) and sitagliptin (100 mg od) given for a minimum of 76 weeks (including 24 weeks of preceding trial – 1245.23) as monotherapy or with different background therapies in patients with type 2 DM.	Principal/Senior investigator	2012
	\$31,666.67	A 24-week, international, randomized, parallel-group, double-blind, placebo-controlled phase III study with a 24-week extension period to evaluate the efficacy and safety of dapagliflozin therapy when added the therapy of patients with type 2 diabetes with inadequate glycaemic control on insulin.	Principal/Senior investigator	2012
	\$51,009.45	Effect of liraglutide on body weight in non-diabetic subjects or overweight subjects with co-morbidities. A randomized, double-blind, placebo controlled, parallel group. Multicentre, multi-national trial with stratification of subjects to either 56 or 160 weeks of treatment based on pre-diabetes status at randomization	Principal/Senior investigator	2012
Sum LeClercq, Sharon	\$167,085.46			
	\$5,311.80	A Randomized Open-Label Phase II/III Multicenter Study of High Dose Immunosuppressive Therapy Using Total Body Irradiation, Cyclophosphamide, ATGAM, and Autologous Transplantation with Auto-CD43+HPC versus Intravenous Pulse Cyclophosphamide for the Treatment of Severe Systemic Sclerosis	Co-investigator	2012
	\$10,241.38	Canadian Scleroderma Research Group: Site/Local PI National Registry and Data Base		2012
Sum Lee, Adrienne	\$15,553.18			

Name	Prorated Amount	Title	Role	Reporting Year
	\$5,000.00	Calgary Health Trust Hematology Education and Research Fund	Co-investigator	2012
Sum	\$5,000.00			
Lee, Samuel				
	\$20,000.00	Operating grant: "Myosin heavy chain isoforms in cirrhotic cardiomyopathy", 2011-13, \$60,000/yr.	Site/Local PI	2012
Sum	\$20,000.00			
Leigh, Richard				
	\$5,000.00	Human Rhinovirus modulation of growth factors involved in airway remodeling	Principal/Senior investigator	2012
	\$7,000.00	Alberta Sepsis Network	Co-investigator	2012
	\$7,291.67	ED-directed interventions to improve outcomes after asthma exacerbations	Co-investigator	2012
	\$10,000.00	Difficult Asthma Program	Principal/Senior investigator	2012
	\$15,000.00	Allergy, Genes and Environment	Principal/Senior investigator	2012
	\$18,000.00	Do rhinovirus infections contribute to airway remodeling in asthma?	Principal/Senior investigator	2012
	\$25,000.00	Airway inflammation and airway remodeling	Co-PI	2012
	\$50,000.00	Rhinovirus induced exacerbations of asthma and COPD	Co-investigator	2012
	\$60,499.28	Randomized, Double-blind, Placebo-controlled, Parallel Design, Multiple Dose Study to Evaluate the Safety, Tolerability, Pharmacokinetics and Pharmacodynamics Study of AMG 157 in Subjects with Mild Atopic Asthma (Protocol No. 20101183)	Principal/Senior investigator	2012
	\$62,500.00	Are anti-inflammatory glucocorticoid-inducible genes in human taking ICS?	Co-PI	2012
	\$71,124.00	A Double-Blind, Placebo-controlled, Three-way Crossover Study to Compare the Safety and Efficacy of 8 Days of Therapy with ONO-6950 versus Placebo and Montelukast (Singulair) on Asthmatic Responses and Airway Hypersensitivity Following Allergen Challenge in Patients with Asthma	Principal/Senior investigator	2012
	\$100,000.00	Do rhinovirus infections contribute to airway remodeling in asthma?	Principal/Senior investigator	2012
	\$110,000.00	Human Rhinovirus modulation of growth factors involved in airway remodeling	Principal/Senior investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$112,892.00	A randomized, double-blind, placebo- and comparator- controlled study evaluating the effect of multiple doses of QGE031 compared to omalizumab in asthma induced by allergen bronchial provocation (Protocol No. CQGE031B2203)	Principal/Senior investigator	2012
Sum	\$654,306.95			
Lemaire, Jane				
	\$3,555.00	What does resilience mean to you? A qualitative study exploring physicians' perceptions of resilience. Co-investigators Dr Jean E. Wallace, Dr Mamta Gautam.	Principal/Senior investigator	2012
	\$4,366.88	The Experience of Professional Role Transition for Newly Licensed Independently Practicing Physicians	Co-investigator	2012
	\$6,400.00	Exploring the Dimensions of the Medical Teaching Unit Preceptor Role	Principal/Senior investigator	2012
	\$21,291.00	Exploring the Dimensions of the Medical Teaching Unit Preceptor Role	Principal/Senior investigator	2012
Sum	\$35,612.88			
Leung, Alexander				
	\$20,694.44	Evaluating the impact of computerized physician order entry in community hospitals	Co-investigator	2012
	\$30,000.00	Evaluating the impact of computerized physician order entry in community hospitals	* Research Fellow	2012
	\$42,559.29	Evaluating the impact of computerized physician order entry in community hospitals	Co-investigator	2012
Sum	\$93,253.73			
Leung, Yvette				
	\$12,500.00	Materno-fetal outcomes in inflammatory bowel disease	Co-investigator	2012
	\$37,500.00	Materno-fetal outcomes in inflammatory bowel disease	Co-investigator	2012
Sum	\$50,000.00			
Love, Jonathan				
	\$4,635.00	Use of fully-covered, self-expandable metallic stents for first-line treatment of benign bile duct strictures	Co-investigator	2012
Sum	\$4,635.00			

Name	Prorated Amount	Title	Role	Reporting Year
Ma,Irene Wai Yan				
	\$4,285.71	Comprehensive Assessment of Procedural Skills In Internal Medicine	Principal/Senior investigator	2012
	\$11,884.00	2012 Medical Education Research Grant: Development of Error-Based Checklists in Bedside Procedural Skills: An Exploration of their Role in the Assessment of Procedural Competency	Principal/Senior investigator	2012
	\$22,000.00	Real time ultrasound training	Principal/Senior investigator	2012
Sum	\$38,169.71			
MacEachern,Paul				
	\$0.02	Early Detection of Lung Cancer - A Pan-Canadian Study	Site-investigator	2012
Sum	\$0.02			
MacRae,Jennifer				
	\$10,000.00	Dialysis Outcomes and Practice Patterns Study (DOPPS)	Site/Local PI	2012
	\$17,391.30	EVOLVE (Evaluation of Cinacalcet HCL Therapy to Lower Cardiovascular Events)	Principal/Senior investigator	2012
	\$25,000.00	Complications of arteriovenous fistulas, arteriovenous grafts and tunneled cuffed catheters for hemodialysis: risk patterns, comparability and impact on patient outcomes	Co-investigator	2012
	\$30,000.00	Randomized Cross over trial of BioLogic RR and the reduction of intradialytic heparin: BP-RIDH trial	Principal/Senior investigator	2012
	\$41,538.46	Randomized Cross over trial of Citrasate dialysate and the reduction of heparin in conventional hemodialysis patients	Principal/Senior investigator	2012
	\$50,000.00	Hemocontrol's effectiveness in a randomized controlled trial on the reduction of cardiovascular long-term events: HERCULES Study	Principal/Senior investigator	2012
	\$52,500.00	Predicting adverse events in home hemodialysis.	Co-investigator	2012
Sum	\$226,429.77			
Manns,Braden				
	\$4,166.67	Determining the research priorities of Canadian dialysis patients, caregivers and clinicians.	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$11,536.15	Translating evidence to improvements in care and outcomes for people with diabetes.	Principal/Senior investigator	2012
	\$12,000.00	A Systematic Review of Drug Use Optimization and Cost-Containment Measures Adopted Within the OECD Nations	Co-investigator	2012
	\$16,216.22	Risk of adverse effects among elderly statin users.	Co-investigator	2012
	\$40,000.00	A cost-effectiveness study of exercise-based Cardiac Rehabilitation.	Co-investigator	2012
	\$50,000.00	Improving the Efficient and Equitable Care of Patients with Chronic Medical Conditions Interdisciplinary Chronic Disease Collaboration (ICDC)	Principal/Senior investigator	2012
	\$52,000.00	Complications of arteriovenous fistulas, arteriovenous grafts and tunneled cuffed catheters for hemodialysis: Risk patterns, comparability and impact on patient outcomes.	Co-investigator	2012
	\$61,678.57	Access to and quality of cardiac care for First Nations	Co-investigator	2012
	\$79,895.04	Improving risk prediction in older adults using eGFR and proteinuria.	Co-investigator	2012
	\$97,297.30	Seeing the forests and the trees - Innovative approaches to exploring heterogeneity in systematic reviews of complex knowledge translation interventions to enhance policy decision making.	Co-investigator	2012
	\$102,490.40	The impact of primary care networks on the care and outcomes of patients with diabetes	Principal/Senior investigator	2012
	\$114,295.08	Influence of deficiency and excess of trace elements on outcomes in HD patients.	Co-investigator	2012
	\$128,337.05	Role of residence location in the care of elderly Canadians with kidney failure.	Co-investigator	2012
	\$180,511.09	Trace element status in chronic hemodialysis patients.	Co-investigator	2012
	\$205,714.29	CANadian KidNEY KNowledge Translation and Generation NETwork (CANN-NET)	Principal/Senior investigator	2012
	\$812,984.33	The BK: KIDNI Trial (BK:Kinase inhibition to decrease nephropathy intervention trial)	Co-investigator	2012
Sum	\$1,969,122.18			
Martin,Liam				

Name	Prorated Amount	Title	Role	Reporting Year
	\$10,000.00	Radiographic, Clinical and Patient outcomes in a multicenter, open-label phase IV randomized trial of earlier Adalimumab introduction therapy versus later introduction as per standard of care after initial methotrexate failure in Early Rheumatoid Arthritis patients. EID: 24011 / RT: 10000267	Site/Local PI	2012
	\$12,500.00	BMS VERA = IM101-226 A Phase 3b, Randomized, Active Controlled Trial to Evaluate the Efficacy and Safety of Abatacept SC in Combination with Methotrexate in Inducing Clinical Remission Compared to Methotrexate Monotherapy in Adults with Very Early Rheumatoid Arthritis RA. EID: 23484 / RT: 630139	Site/Local PI	2012
	\$12,500.00	BMS SEVEN = IM133-001 Protocol IM133001: Phase IIB, Randomized, Multi-Center, Double-Blind, Dose-Ranging, Placebo/Active Controlled Study to Evaluate the Efficacy and Safety of BMS-945429 Subcutaneous Injection With or Without Methotrexate in Subjects with Moderate to Severe Rheumatoid Arthritis With Inadequate Response to Methotrexate. EID: 24177 / RT: 10000512	Site/Local PI	2012
	\$13,574.47	EARLY INFLAMMATORY ARTHRITIS CLINIC ASSESSMENT	Principal/Senior investigator	2012
	\$16,666.67	MERCK (Formerly SPRI) GOMORE = P06129 An open-label study assessing the addition of subcutaneous golimumab (GLM) to conventional disease-modifying antirheumatic drug (DMARD) therapy in biologic-naïve subjects with rheumatoid arthritis (Part 1), followed by a randomized study assessing the value of combined intravenous and subcutaneous GLM administration aimed at inducing and maintaining remission (Part 2). EID: 21043 / RT: 630052	Site/Local PI	2012
	\$22,484.31	‘The Window of Opportunity’: Seizing the Opportunity for Positive Lifestyle Modifications in Early Inflammatory Arthritis.	Co-PI	2012
	\$31,250.00	Protocol for Monitoring the Safety and Efficacy of Biologic Therapies in the Treatment of Systemic Rheumatic Diseases	Principal/Senior investigator	2012
Sum	\$118,975.44			
McLaughlin, Kevin				

Name	Prorated Amount	Title	Role	Reporting Year
	\$1,151,787.54	Improving the efficient and equitable care of patients with chronic medical conditions interdisciplinary chronic disease collaboration	Co-investigator	2012
Sum	\$1,151,787.54			
Meatherall, Bonnie				
	\$9,391.30	Discretionary Funds - Division of Infection coding, hosting, curriculum design and production.	Principal/Senior investigator	2012
Sum	\$9,391.30			
Mody, Christopher				
	\$13,846.15	Host Defense to <i>Cryptococcus gattii</i> from Vancouver Island	Principal/Senior investigator	2012
	\$16,153.85	Host Defense to <i>Cryptococcus gattii</i> from Vancouver Island	Principal/Senior investigator	2012
	\$91,200.00	T lymphocyte and macrophage mediated inflammation and immunosuppression in Cystic Fibrosis	Principal/Senior investigator	2012
	\$126,991.48	Direct Lymphocyte mediated antimicrobial mechanisms	Principal/Senior investigator	2012
Sum	\$248,191.48			
Mosher, Dianne				
	\$5,000.00	YHES! Young Adults Living with JA and Employment Study	Co-investigator	2012
	\$19,985.50	Supporting 'effective consumers': Using a decision aid to improve patients' decisions about methotrexate use for rheumatoid arthritis (ANSWER)	Site/Local PI	2012
	\$25,000.00	A multi-disciplinary approach to improve understanding of immune mediation, personalized care and outcomes of children with autoimmune disease	Co-investigator	2012
	\$26,421.54	A post-policy implementation review of the Winnipeg Central Intake Service (WCIS): a single-entry model to manage referrals and waiting times for hip and knee	Co-investigator	2012
	\$36,428.57	Screening for High Risk Axial Spondyloarthritis in Patients with Psoriasis, Iritis and Colitis (SASPIC) Study	Site/Local PI	2012
	\$90,000.00	A Decision Support (SD) Tool for Planning Integrated Sustainable Health Services for Patient with Osteoarthritis of the Hip and Knee	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
Sum	\$202,835.61			
Muruve, Daniel				
	\$2,000.00	The Alberta Sepsis Network	Co-investigator	2012
	\$6,250.00	The Role of the Inflammasome in Renal Injury	Principal/Senior investigator	2012
	\$42,000.00	Calcineurin-Induced Heart Failure and the Inflammasome	Co-investigator	2012
	\$83,333.33	Inflammation and Kidney Disease	Principal/Senior investigator	2012
	\$85,500.00	The NLRP-3 inflammasome is a key regulator of intestinal homeostasis	Co-investigator	2012
	\$112,000.00	The role of the inflammasome in renal injury	Principal/Senior investigator	2012
Sum	\$331,083.33			
Mustata, Stefan				
	\$4,705.88	KEEP is a long-term exercise and education program offered to any individual living with kidney disease in Calgary. The first of this kind in Canada, the project is a collaboration between the Division of Nephrology, Faculty of Medicine, Faculty of Kinesiology, Southern Alberta branch of the Kidney Foundation of Canada and Y.M.C.A. The program has the potential to be a fertile field for advances in clinical care, education and research on the topic of renal rehabilitation.	Principal/Senior investigator	2012
Sum	\$4,705.88			
Mydlarski, Paule				
	\$5,000.00	MiR-125b: a novel oncomir in cutaneous squamous cell carcinoma	Principal/Senior investigator	2012
	\$5,400.00	Polyomavirus in non-melanoma skin cancer	Co-PI	2012
	\$9,000.00	A randomized, double-blind, placebo-controlled trial to assess the safety and efficacy of intravenous immunoglobulin in the treatment of pemphigus vulgaris.	Principal/Senior investigator	2012
	\$12,500.00	Skin cancer in solid organ transplantation.	Principal/Senior investigator	2012
	\$27,000.00	The role of microRNAs in cutaneous squamous cell carcinomas	Principal/Senior investigator	2012
	\$28,800.00	MiRNA:mRNA regulatory networks in squamous cell carcinomas.	Principal/Senior investigator	2012
	\$133,333.33	Biomarkers of viral pathogenesis.	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
Sum	\$221,033.33			
Myers,Robert				
	\$11,458.33	FibroScan for the prediction of fibrosis in patients with chronic hepatitis B and C and nonalcoholic fatty liver disease. National principal investigator of 10 centre Canadian study (the Canadian Liver Fibrosis Study Group). Application to Health Canada for Clinical Trial Agreement submitted in July 2007	Site/Local PI	2012
	\$15,844.27	Noninvasive prediction of hepatic fibrosis using serum markers in patients with chronic hepatitis B.	Principal/Senior investigator	2012
	\$42,157.14	Randomized, Observational Study of Entecavir to Assess Long-term Outcomes Associated with Nucleoside/Nucleotide Monotherapy for Patients with Chronic HBV Infection: The REALM Study	Site/Local PI	2012
	\$42,400.00	Optimizing the management of patients with chronic liver disease.	Principal/Senior investigator	2012
	\$60,000.00	Noninvasive prediction of hepatic fibrosis using serum markers in patients with nonalcoholic fatty liver disease	Principal/Senior investigator	2012
Sum	\$171,859.74			
Novak,Kerri				
	\$95,000.00	Use of Transabdominal Ultrasound in The Prospective Monitoring of Disease Activity in Crohn's Disease Treated with Adalimumab: Correlation of Inflammatory Activity on Sonography with Ileocolonoscopy.	Principal/Senior investigator	2012
Sum	\$95,000.00			
Owen,Carolyn				
	\$2,283.33	Molecular basis of familial hematological malignancies	Principal/Senior investigator	2012
	\$16,666.67	Examining the clinical relevance of micro RNAs (miRNA) in diffuse large B cell lymphoma	Principal/Senior investigator	2012
Sum	\$18,950.00			
Panaccione,Remo				
	\$800.00	A 5-Year Registry Study of Humira (Adalimumab) in Subjects with Moderately to Severely Active Crohn's Disease (CD)	Principal/Senior investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$1,310.14	A Randomized, Double-blind, Placebo-controlled Study to Evaluate the Safety, Tolerability, and Efficacy of AMG 827 in Subjects with Moderate to Severe Crohn's Disease	Principal/Senior investigator	2012
	\$1,339.40	A Phase 3, Randomized, Placebo-controlled, Blinded, Multicenter Study of the Induction of Clinical Response and Remission by Vedolizumab in Patients with Moderate to Severe Crohn's Disease	Principal/Senior investigator	2012
	\$1,534.00	A Randomized, Double-blind, Placebo-controlled Study to Investigate the Efficacy and Safety of GSK1605786A in the Treatment of Subjects with Moderately to Severely Active Crohn's Disease - SHIELD 1	Principal/Senior investigator	2012
	\$1,701.50	A Phase 2A Randomized, Double-blind, Sponso Unblinded, Placebo-Controlled, Multiple Dose Study to Evaluate the Pharmacodynamics, Pharmacokinetics and Safety of Anrukizumab in Patients with Active Ulcerative Colitis	Principal/Senior investigator	2012
	\$1,995.50	A 52-week, Randomized, Double-blind, Placebo-controlled Study to Investigate the Efficacy and Safety of GSK1605786A in the Maintenance of Remission in Subjects with Crohn's Disease - SHIELD 2	Principal/Senior investigator	2012
	\$2,139.30	A Multicenter Open-label Extension Study for Subjects who Participated in Study B0151003 (ANDANTE II)	Principal/Senior investigator	2012
	\$2,175.00	A Multicenter, Randomized, Double-blind, Placebo-Controlled Study To Evaluate the Safety, Tolerability, and Efficacy of Avonex (Reg.Trademark) in Subjects with Moderate to Severe Ulcerative Colitis	Principal/Senior investigator	2012
	\$2,540.20	An Open-Label Extension Study to Assess the Safety of GSK1605786A in Subjects with Crohn's Disease - SHIELD 3	Principal/Senior investigator	2012
	\$2,554.80	A Phase 2b Multicenter, Randomized, Double-blind, Placebo-controlled, Parallel-group Study to Evaluate the Efficacy and Safety of Ustekinumab Therapy in Subjects with Moderately to Severely Active Crohn's Disease Previously Treated with TNF Antagonist Therapy	Principal/Senior investigator	2012
	\$2,604.17	Population Health Studies in IBD Alberta IBD Consortium	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$2,803.06	A phase IIb, multinational, open-label, follow-on trial to C87085 designed to assess the long-term safety of certolizumab pegol, a pegylated Fab' fragment of a humanized anti-TNF-alpha monoclonal antibody, administered at weeks 0, 2 and 4, and then every 4 weeks thereafter, in subjects with moderately to severely active Crohn's disease who have participated in study C87085	Principal/Senior investigator	2012
	\$2,823.86	A Phase I Multicenter, Randomized, Placebo-Controlled, Double-Blind Study to Assess the Safety, Pharmacokinetics, Pharmacodynamics, and Immunogenicity of Intravenous and Subcutaneous rhuMAb Beta7 Administered in a Single-Dose, Dose-Escalation Stage Followed by a Multidose, Parallel-Treatment Stage in Patients with Ulcerative Colitis	Principal/Senior investigator	2012
	\$2,839.46	A Double-blind, Randomized, Placebo-controlled, Dose-ranging Study to Evaluate the Efficacy and Safety of PF-04236921 in Subjects with Crohn's Disease who are anti-TNF Inadequate Responders (ANDANTE)	Principal/Senior investigator	2012
	\$3,684.20	A Multicenter, Open-Label Study of the Human Anti-TNF Monoclonal Antibody Adalimumab to Evaluate the Long Term Safety and Tolerability of Repeated Administration of Adalimumab in Subjects with Ulcerative Colitis	Principal/Senior investigator	2012
	\$4,578.80	A Phase 3, Open Label Study to Determine the Long-term Safety and Efficacy of MLN0002 in Patients with Ulcerative Colitis and Crohn's Disease	Principal/Senior investigator	2012
	\$5,187.60	A Phase IIb Multi-Center, Randomized, Double-blind, Parallel-Group, Placebo-Controlled, Dose Ranging Study Comparing the Efficacy, Safety, and Pharmacokinetics of Intravenous Infusions of ABT-874 vs Placebo in Subjects with Moderately to Severely Active Crohn's Disease	Principal/Senior investigator	2012
	\$5,400.00	A Multicenter, Randomized, Double-Blind, Placebo- Controlled Study of the Human Anti-TNF Monoclonal Antibody Adalimumab for the Induction of Clinical Remission in Subjects with Moderately to Severely Active Ulcerative Colitis	Principal/Senior investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$6,106.54	An Open-Label, Multicenter, Efficacy and Safety Study to Evaluate Two Treatment Algorithms in Subjects with Moderate to Severe Crohn's Disease (CALM)	Principal/Senior investigator	2012
	\$6,215.70	Prospective, Multicenter, Randomized, Double-blind, Placebo-Controlled Trial Comparing REMICADE (Reg.Trademark) (infliximab) and Placebo in the Prevention of Recurrence in Crohn's Disease Patients Undergoing Surgical Resection Who Are at an Increased Risk of Recurrence - PREVENT	Principal/Senior investigator	2012
	\$7,725.00	A Phase 3, Randomized, Placebo-controlled, Blinded, Multicenter Study of the Induction and Maintenance of Clinical Response and Remission by MLN0002 in Patients with Moderate to Severe Crohn's Disease	Principal/Senior investigator	2012
	\$10,719.00	A Phase IIb Randomized, Placebo-Controlled Study to Evaluate the Clinical Efficacy and Safety of Induction and Maintenance Therapy with BMS-936557 in Subjects with Active Ulcerative Colitis (UC)	Principal/Senior investigator	2012
	\$27,083.33	A Translational Approach to Understanding and Managing Primary Sclerosing Cholangitis	Co-investigator	2012
	\$125,000.00	Genetic Markers of Outcomes in Crohn's Disease	Co-investigator	2012
Sum	\$230,860.56			
Parkins, Mike				
	\$975.61	Continuous infusion of beta-lactam antibiotics for the management of drug resistant Gram negative infections in individuals with cystic fibrosis and other nosocomial infections	Principal/Senior investigator	2012
	\$3,000.00	The influence of chronic renal failure on host normal microbial flora: A contributor to increased susceptibility to infection?	Co-PI	2012
	\$3,010.37	The Evolution of a Pulmonary Exacerbation: A preliminary analysis of bacterial population dynamics culminating in an acute respiratory perturbations	Principal/Senior investigator	2012
	\$3,969.07	Pseudomonas aeruginosa infection transmission among patients attends attending the Calgary Adult Cystic Fibrosis Clinic: Implications for Infection Control	Principal/Senior investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$4,918.03	Factors involved in the occurrence and evolution of an acute pulmonary exacerbation in patients with cystic fibrosis and chronic lung infection: A preliminary investigation	Principal/Senior investigator	2012
	\$46,907.60	A Retrospective Evaluation of a Twenty-Five Year Outbreak of Clonal Pseudomonas aeruginosa Infecting Patients with Cystic Fibrosis: Comprehensive Evaluation and Characterization of the Prairie Epidemic Strain (PES) – Confirmation pending	Principal/Senior investigator	2012
Sum	\$62,780.69			
Pendharkar, Sachin				
	\$600.00	Association Between Primary Insomnia and Healthcare Utilization	Co-PI	2012
	\$3,900.00	Association Between Primary Insomnia and Healthcare Utilization	Co-PI	2012
	\$12,500.00	The Clinical Response of Adults with Obstructive Sleep Apnea Who Are Treated with Continuous Positive Airway Pressure and Followed by Alternate Care Providers	Principal/Senior investigator	2012
	\$34,033.26	Improving Access to Pulmonary Consultation and Testing	Principal/Senior investigator	2012
Sum	\$51,033.26			
Pollak, P. Timothy				
	\$5,731.34	CTAF-2. A 7-to 13-month, prospective, randomised, double-blind placebo-controlled study to determine the efficacy of 8 mg/day oral perindopril to prevent the recurrence of atrial fibrillation in patients with systemic hypertension (the Canadian Trial Fibrillation-2)	Site/Local PI	2012
	\$7,836.73	AFFORD (Atrial Fibrillation Fish Oil Research Study) A multicentre, randomized trial of the effect of long-chain N-3 polyunsaturated (Omega-3) fatty acids on arrhythmia recurrence in atrial fibrillation.	Site/Local PI	2012
Sum	\$13,568.08			
Poon, Man-Chiu				
	\$1,250.00	Development of hemophilia Physiotherapy Manual in China	Co-investigator	2012
	\$2,503.85	Evaluating the risk of ischemic heart disease in hemophiliacs and carriers of hemophilia: a case study	Principal/Senior investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$3,000.00	History of Hemophilia Care in Canada	Co-PI	2012
	\$5,000.00	Age Related Cardiovascular Disease in Hemophilia Epidemiological Research – The ARCHER Study; The Prevalence and Management of Cardiovascular Disease in Older Patients with Hemophilia – a Multicentre Retrospective Cohort Study	Co-investigator	2012
	\$6,022.44	In vivo assessment of bone microarchitecture using HR-pQCT in hemophilia patients: Insight into etiology of decreased BMD in this patient population	Principal/Senior investigator	2012
	\$13,333.33	Multicentre Canadian Study of Prophylaxis in Older Adults with Severe Hemophilia	Co-investigator	2012
	\$15,000.00	A genome wide association study (GWAS) to determine factors that contribute to mucocutaneous bleeding	Co-investigator	2012
	\$22,655.11	Barriers to Health Care Delivery to Patients with Mild Hemophilia A	Principal/Senior investigator	2012
	\$37,500.00	In vivo assessment of bone microarchitecture using HR-pQCT in hemophilia patients: Insight into etiology of decreased BMD in this patient population - Hemostasis Fellowship funding for Dr. Adrienne Lee	Principal/Senior investigator	2012
	\$37,500.00	“In vivo assessment of bone microarchitecture using HR-pQCT in hemophilia patients: Insight into etiology of decreased BMD in this patient population” Canadian Hemophilia Society- Association of Hemophilia Clinic Directors of Canada – CSL-Behring Hemostasis Fellowship for Dr. Adrienne Lee (declined) (2012-13)	Principal/Senior investigator	2012
	\$67,500.00	Barriers to Health Care Delivery to Patients with Mild Hemophilia A (clinical scholarship and research operating funding for Dr. Dawn Goodyear - Hemostasis fellow)	Principal/Senior investigator	2012
Sum	\$211,264.73			
Quinn, Robert	\$1,903.37	Beta blockers, dialyzability, and outcomes	Co-investigator	2012
	\$7,987.04	Access to and outcomes of kidney transplantation in Ontario: Is there a socioeconomic gradient?	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$10,000.00	Improving the Quality and Efficiency of Dialysis Care: Maximizing the Use of Peritoneal Dialysis	Principal/Senior investigator	2012
	\$13,851.36	Improving risk prediction for mortality and progression to kidney failure in older adults using eGFR and proteinuria	Co-investigator	2012
	\$17,880.00	Complications of Arteriovenous Fistulas, Arteriovenous Grafts and Tunnelled Cuffed Catheters for Hemodialysis: Risk Patterns, Comparability and Impact on Patient Outcomes	Co-investigator	2012
	\$27,000.00	The Dialysis Measurement, Analysis, and Reporting System Pilot Project	Principal/Senior investigator	2012
	\$34,666.67	Reducing the risk of serious adverse events and improving quality of life for patients with kidney disease: the role of arteriovenous fistula creation in hemodialysis patients	Principal/Senior investigator	2012
	\$36,111.11	Reducing the risk of serious adverse events and improving quality of life for patients with kidney disease: the role of arteriovenous fistula creation in hemodialysis patients	Principal/Senior investigator	2012
	\$38,885.10	CIHR Team in Pharmacologic Management of Chronic Diseases in Older Adults II	Co-investigator	2012
	\$83,404.87	AHFMR Team Improving the Efficient and Equitable Delivery of Health Care for Chronic Medical Conditions	Co-investigator	2012
	\$131,479.18	ICES Kidney, Dialysis and Transplantation Research Program	Co-investigator	2012
	\$3,500,000.00	Canadian Network for Observational Drug Effect Studies (cNODES)	Co-investigator	2012
Sum	\$3,903,168.69			
Rabi,Doreen				
	\$28,500.00	Does academic reporting on sex disparities in care lead to gradual disappearance of disparities? An evaluation of knowledge dissemination and ensuing change in cardiovascular care.	Principal/Senior investigator	2012
	\$37,728.00	Gender and sex determinants of premature coronary artery syndrome (GENESIS PRAXY)	Co-PI	2012
	\$78,571.43	Population Health Investigator Award	* Recipient	2012
	\$200,000.00	GENESIS PRAXY (Gender and Sex determinants of Cardiovascular Disease: From Bench to Beyond premature acute coronary syndrome	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
	\$481,400.00	Team Funds: Alliance of Canadian Health Outcome Researchers in Diabetes	Co-investigator	2012
Sum	\$826,199.43			
Rabin,Harvey				
	\$2,470.00	TIP (Phase IV) A single arm, open-label, multicenter, Phase IV trial to assess long term safety of tobramycin inhalation powder (TIP) in patients with Cystic Fibrosis	Site/Local PI	2012
	\$4,025.00	Tiotropium Study (BI) - A Phase III randomized, double-blind, placebo-controlled parallel group study to investigate the safety and efficacy of two doses of tiotropium (2.5 ug and 5 ug) administered once daily via the Respimat device for 12 weeks in patients with CF	Site/Local PI	2012
	\$5,000.00	Development of a cystic fibrosis database program	Principal/Senior investigator	2012
	\$16,109.75	Cystic Fibrosis Clinic Incentive Grant	Principal/Senior investigator	2012
	\$30,519.43	Vertex (VX-11-661-101) A Phase 2, Multicenter, Double-Blinded, Placebo-Controlled, 3-Part Study to Evaluate Safety, Efficacy, Pharmacokinetics, and Pharmacodynamics of VX-661 Monotherapy and VX-661/VX-770 Co-therapy in Subjects with Cystic Fibrosis, Homozygous for the F508del-CFTR Mutation.	Site/Local PI	2012
	\$47,778.75	Cystic Fibrosis Clinic Incentive Grant	Principal/Senior investigator	2012
Sum	\$105,902.93			
Raman,Maitreyi				
	\$3,000.00	Dietary Supplementation with Prebiotic Fiber in Overweight and Obese Patients with Non-Alcoholic Steatohepatitis (NASH): A Pilot Clinical Trial.	Co-investigator	2012
	\$3,549.64	The Vitamin A Absorption Test and Fecal Volatile Organic Compounds: Clinical and Laboratory Methods to Assess Fat Malabsorption.	Principal/Senior investigator	2012
	\$3,975.60	The Vitamin A Absorption Test and Fecal Volatile Organic Compounds: Clinical and Laboratory Methods to Assess Malabsorption.	Principal/Senior investigator	2012
	\$15,276.25	Olimel and Custom Compounded Parenteral Nutriton Prescriptions May be Used Interchangeably in Hospitalized Patients Requiring Parenteral Nutrition.	Principal/Senior investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
Sum	\$25,801.49			
Ravani,Pietro				
	\$5,000.00	Immunosuppressive strategies and outcomes of patients transitioning from transplant to dialysis: systematic review	Principal/Senior investigator	2012
	\$10,000.00	Vascular Access Teams in Alberta	Principal/Senior investigator	2012
	\$32,000.00	Reducing the risk of serious adverse events and improving the quality of life for patients with kidney disease: the role of arteriovenous fistula creations in hemodialysis patients	Co-PI	2012
	\$33,333.33	Reducing the risk of serious adverse events and improving the quality of life for patients with kidney disease: the role of arteriovenous fistula creations in hemodialysis patients	Co-PI	2012
	\$49,666.00	Complications of Arteriovenous Fistulas, Arteriovenous Grafts and Tunnelled Cuffed Catheters for Hemodialysis: Risk Patterns, Comparability and Impact on Patient Outcomes	Principal/Senior investigator	2012
	\$55,000.00	Emerging Research Team Grant Program: "Biomarkers of Viral Pathogenesis"	Co-investigator	2012
	\$55,482.67	Improving risk prediction for mortality and progression to kidney failure in older adults using eGFR and proteinuria	Co-investigator	2012
	\$91,341.50	Promoting the arteriovenous fistula as hemodialysis access: expected benefits and unintended consequences	Principal/Senior investigator	2012
	\$486,111.17	Canadian Network for Observational Drug Effect Study (cNODES)	* Team Member	2012
	\$663,937.20	The BK:KIDNI Trial (BK:Kinase Inhibition to Decrease Nephropathy Intervention Trial)	Co-investigator	2012
	\$833,415.33	Improving the Efficient and Equitable Care of Patients with Chronic Medical Conditions: The Interdisciplinary Chronic disease Collaboration (ICDC)	Co-investigator	2012
Sum	\$2,315,287.20			
Read,Ronald				
	\$30,000.00	Development of a longitudinal antimicrobial resistance and antimicrobial use surveillance program for the feedlot sector in Canada	Principal/Senior investigator	2012
Sum	\$30,000.00			

Name	Prorated Amount	Title	Role	Reporting Year
Rioux, Kevin	\$1,488.00	Early Microbiological Events During Post-Operative Recurrence of Crohn's Disease	Co-PI	2012
	\$3,223.78	Glucocorticoid Responsiveness in IBD Colitis: Influences of Microbiota	Principal/Senior investigator	2012
	\$10,000.00	Fecal Calprotectin for Quality of Care Improvement in IBD	Principal/Senior investigator	2012
	\$11,666.67	Etiology of the Inflammatory Bowel Disease: Genetic, Microbial and Environmental Interactions	* Team Member	2012
Sum	\$26,378.45			
Robertson, Lynne	\$1,024.62	" Sun and Skin Safety Awareness"	* Project Mentor	2012
Sum	\$1,024.62			
Rorstad, Otto	\$1.00	A randomized, double-blind, multicenter, Phase III study of everolimus (RAD001) plus best supportive care versus placebo plus best supportive care in the treatment of patients with advanced NET of GI or lung origin-RADIANT-4	Co-investigator	2012
Sum	\$1.00			
Sargious, Peter	\$6,153.85	Exploring the Medical Teaching Unit Preceptor Role.	Co-investigator	2012
	\$8,000.00	Development of Provincial Obesity Strategy	Principal/Senior investigator	2012
	\$33,811.69	Exploring the Medical Teaching Unit Preceptor Role.	Co-investigator	2012
	\$38,037.25	Seeing the Forest and the Trees - innovative approaches to exploring heterogeneity in systematic reviews of complex knowledge translation efforts to enhance policy decision making	* Decision maker	2012
	\$70,259.04	Improving the Efficient and Equitable Care of Patients with Chronic Medical Conditions Interdisciplinary Chronic Disease Collaboration	* Collaborator	2012
	\$108,135.57	ACCEPT	Co-investigator	2012
	\$116,470.59	Provincial AHS Obesity	Co-investigator	2012
	\$121,370.21	The Impact of Primary Care Networks on the Care and Outcome of Patients with Diabetes	Co-investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
Sum	\$502,238.19			
Sayani, Farzana	\$29,294.40	Detectino of F2-isoprostanes as markers of iron-associated oxidative damage and the resulting effects of metabolic systems in iron overloaded beta-thalassemia major patients.	Principal/Senior investigator	2012
Sum	\$29,294.40			
Schaefer, Jeffrey	\$2,352.94	Comprehensive Assessment of Procedural Skills in Internal Medicine. Ma I, Bacchus M, Schaefer J, Walzak A.	Co-investigator	2012
Sum	\$2,352.94			
Schmaltz, Heidi	\$1,161.17	Applied Chair in Health Services Policy & Research - "Healthcare Delivery Across the Continuum for Rural/Remote Seniors with Dementia"; Total \$425 000 to PI; 30 members of research team & 31 members of advisory committee.	* Member, Advisory Committee	2012
Sum	\$1,161.17			
Seow, Cynthia	\$12,500.00	Materno-Fetal Outcomes in Inflammatory Bowel Disease	Principal/Senior investigator	2012
	\$37,500.00	Materno-fetal Outcomes in Inflammatory Bowel Disease	Principal/Senior investigator	2012
Sum	\$50,000.00			
Sigal, Ron	\$12,500.00	Practical Behavioural Modifications for Type 2 Diabetes Treatment: Physical Activity and Nutrition for Diabetes in Alberta (PANDA)	Co-PI	2012
	\$21,423.73	EXSCEL trial - Calgary Clinical Site	Site/Local PI	2012
	\$75,000.00	Action to Control Cardiovascular Risk in Diabetes—International Ongoing Study (ACCORDION)	Site/Local PI	2012
	\$178,405.43	The Healthy Eating and Aerobic Resistance Training in Youth (HEARTY) Trial	Principal/Senior investigator	2012
	\$179,567.86	Resistance Exercise In Already-active Diabetic Individuals (READI)	Principal/Senior investigator	2012

Name	Prorated Amount	Title	Role	Reporting Year
Sum	\$466,897.02			
Storek,Jan				
	\$1,351.35	Biomarkers of Chronic Graft-vs-Host Disease	Site/Local PI	2012
	\$1,666.67	Team Grant on Biomarkers of viral pathogenesis in transplant recipients	Co-investigator	2012
	\$1,751.35	Pharmacokinetics and Pharmacodynamics of Thymoglobulin in Pediatric hematopoietic Stem Cell Transplant Recipients	Co-investigator	2012
	\$20,066.07	SCOT (Scleroderma-Cyclophosphamide or Transplantation?) trial	Site/Local PI	2012
	\$43,500.00	Dosing and Impact on Immunity of Thymoglobulin given to HCT Recipients	* Calgary P.I., and P.I. for laboratory	2012
Sum	\$68,335.44			
Storr,Martin				
	\$4,800.00	Metabolomic analysis, a potential tool to direct treatment with adalimumab in Croh's Disease	Principal/Senior investigator	2012
	\$833,333.33	AHFMR Team Grant	Co-investigator	2012
Sum	\$838,133.33			
Street,Lesley				
	\$769.23	"ISACAN/Confocal Endomicroscopy as Co-PI Novel Endoscopic Technique for Evaluating Gastric and Intestinal Lymphoma"		2012
Sum	\$769.23			
Swain,Mark				
	\$57,600.00	Regulatory role of liver recruited myeloid derived suppressor cells in response to hepatic NKT cell activation.	Principal/Senior investigator	2012
	\$94,736.84	A translational approach to understanding and managing primary sclerosing cholangitis.	Principal/Senior investigator	2012
	\$102,990.00	Regulatory role of NK cells in the hepatic innate immune response.	Principal/Senior investigator	2012
Sum	\$255,326.84			
Tibbles, Lee Anne				

Name	Prorated Amount	Title	Role	Reporting Year
	\$1.25	Novel Markers to Improve the Detection of Declining Kidney Function	Co-investigator	2012
	\$58,500.00	Proinflammatory and Profibrotic Mechanisms of BK Virus and Potential Therapeutics based on mTOR Inhibition	Principal/Senior investigator	2012
	\$65,780.00	Clinical Trial External Monitoring Support	Principal/Senior investigator	2012
	\$75,000.00	Biomarkers of Viral Pathogenesis	Principal/Senior investigator	2012
	\$192,772.80	Effect of Immunosuppressive Medication Use On Patient Outcomes Following Kidney Transplant Failure	Co-investigator	2012
	\$370,532.50	The Canadian ACE-inhibitor trial to improve renal outcomes and patient survival in kidney transplantation	Co-investigator	2012
	\$829,921.50	The BK: KIDNI Trial (BK Viremia: Kinase Inhibition to Decrease Nephropathy Intervention Trial)	Principal/Senior investigator	2012
Sum	\$1,592,508.05			
Tremblay, Alain				
	\$140,510.75	Early Detection of Lung Cancer - A Pan Canadian Study	Principal/Senior investigator	2012
Sum	\$140,510.75			
Wong, Norman				
	\$98,073.67	Endocrinology (Thyroid, D.M. & Lipids) - Enhancement Research	Principal/Senior investigator	2012
Sum	\$98,073.67			
Zarnke, Kelly				
	\$1,153.85	POISE 2: Peri-operative Ischemic Evaluation Study	Co-investigator	2012
	\$4,615.38	Creation of an Obstetrical Medicine database to capture demographic and outcome data.	* Grant fundraising for divisional	2012
	\$8,406.78	Ambulatory Blood Pressure Monitoring	Co-investigator	2012
	\$72,857.14	Optical Coherence Tomography (OCT) for measurement of the vasculature and retinal nerve fibre layer thickness at RRDTc	Co-investigator	2012
Sum	\$87,033.16			
Grand Total	\$49,209,004.75			