ANNUAL REPORT

April 1, 2013 - March 31, 2014

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 for the benefit of society"

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The Department of Medicine has 310 members out of which 198 are Academic Alternative Relationship Plan (AARP) members. 63% of the members are men and 37% of the members are women. During the fiscal year 2013-2014 the Department of Medicine (DOM) has embarked on a number of changes. The leadership team has been revamped and aligned with DoM vision and Dr Richard Leigh has been appointed the Deputy Head, Academic, Dr Ann Clarke the Vice Chair of research, Dr Kelly Zarnke as the clinical lead for ISA harmonization, Dr Ron Read as the vice chair, strategic affairs, Dr Leanne Reimcke has been appointed as the DoM site chief for South Health Campus. Dr. Sylvain Coderre has commenced work as associate dean of UME but he continues as Vice Chair of Education. The Section of Rheumatology has successfully moved its clinics to the Richmond Road Diagnostic and Treatment Centre (RRDTC) and further work on the relocation and a coherent clinical and academic plan continues.. Strategic Clinical Networks (SCN) have a number of leaders from the Department of Medicine, notably Dr. Alun Edwards as 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) and continues to work in a transitional phase. It was engaged in an external audit of the AARP plan over summer and a number of its recommendations have been implemented. The financial oversight of the DoM has been strengthened by new recruitment.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 external grants including AIHS CRIO grants and CIHR grants.

Recruitment and retention

Over this fiscal year 13 new members including AARP and Fee for Service were recruited to the Department of Medicine. Over this period there were 3 resignations and retirements. There were several high profile recruits including Dr. Ann Clarke from McGill University. 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 Deputy Head DoM Academic Affairs. 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 which are due to be concluded in the second half of 2014. South Health Campus Site Chiefs have been appointed and these include Dr Leanne Reimche as DoM site chief, 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. Ms Lanza D'Silva was promoted to Administrative Assistant of the Department Head and Department Manager.

Overall, for Department of Medicine 10539 inpatients were discharged by DOM physicians during fiscal year 2013-14, an increase of 5.7% over previous year. The average length of stay has increased slightly from 9.8 days and is currently 10.4 days overall. Over this period, the DOM members provided over 16,397 inpatient consults while the Central Access and Triage handled approximately 40,000 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, Respirology, 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. 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
- 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 Millenium 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. 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 98 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 178 students in 2014. 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 2013-14 fiscal year nearly 60 million dollars of external funding was obtained by DOM members.

Recognition and Awards

Dr. Norman Campbell	Confederation of Alberta Faculty Associations Distinguished Academic Award
Dr. Norman Campbell	Guenter Award for International Health from Faculty of Medicine
Dr. Cheryl Barnabe	Epidemiology Health Services Research Award – CRA/ARF

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. John Cowell, Dr Tom Noseworthy 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 2013 to formalize its strategic and operational plans for clinical research. 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, 2013 to March 31, 2014

Department Head	Dr. Subrata Ghosh

Site Chiefs

Foothills Medical Centre	Dr. C. Maria Bacchus
Peter Lougheed Centre	Dr. Ian Scott
Rockyview General Hospital	Dr. Stefan Mustata
South Health Campus	Dr. Leanne Reimche

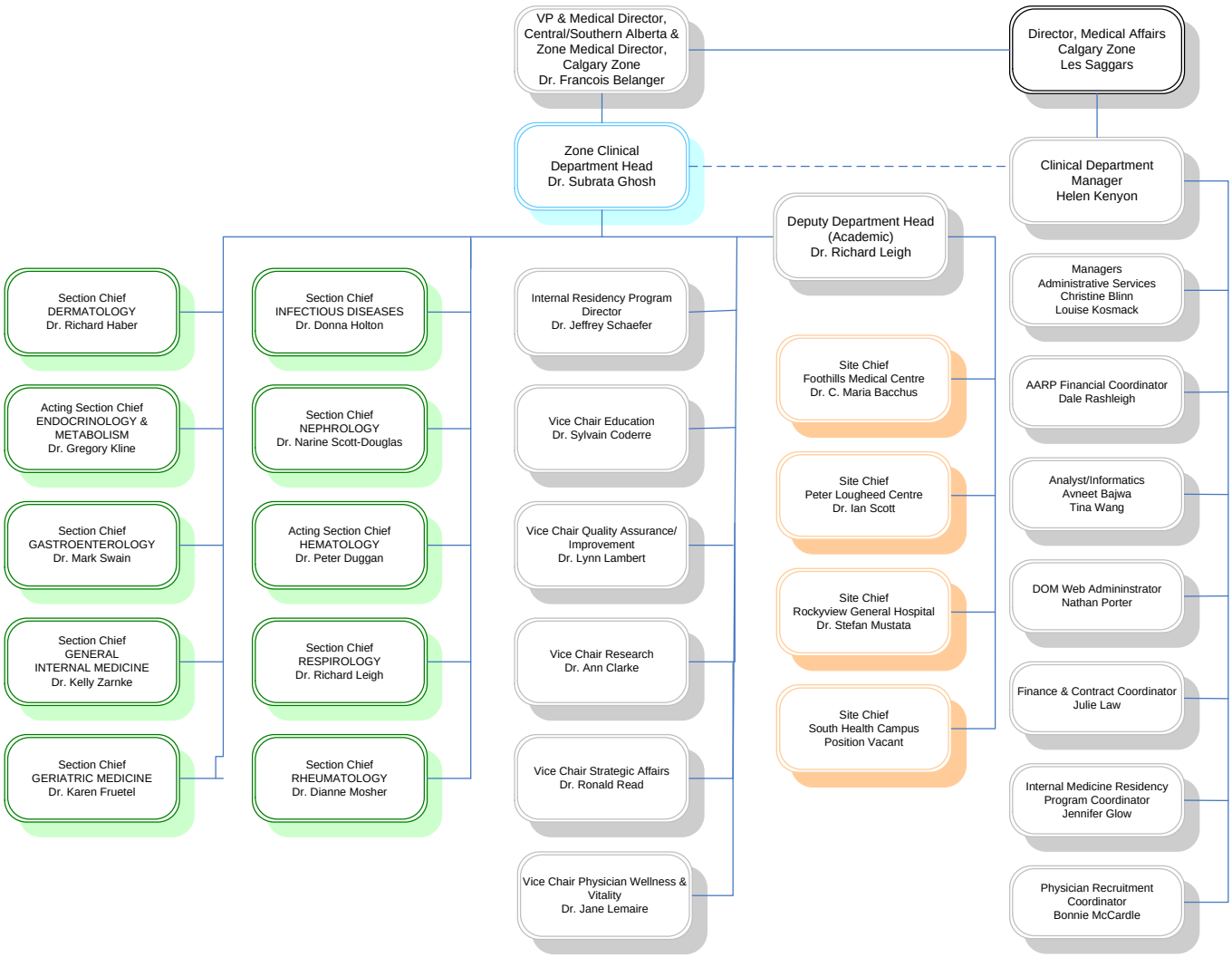
Section Chiefs

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

Education Directors

PGME Director	Dr. Jeffrey Schaefer
Clerkship Director	Dr. Fiona Dunne
CME Director	Dr. Adam Bass

DEPARTMENT OF MEDICINE – ORGANIZATION CHART
April 1, 2013 to March 31, 2014



Internal Medicine Residency Training Program
April 1, 2013 to March 30, 2014

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 2013-2014 academic year there were 98 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 7 entrants per year. AIMG applicants come from all corners of the world. In the years ahead, we anticipate a larger applicant pool from Canadians that have undertaken medical school outside of the country. And finally, we continue to enrol one physician per year among those already practicing in Alberta that wishes to become an Internist. 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 a 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 Senior Medical Residents at the Rockyview General Hospital and South Health Campus 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.

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 Section 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. Evaluations have been excellent.

Research activity remains strong within the residency program. The 26th Annual Internal Medicine Resident Research Day was held in April 11, 2014. 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 and Clinical Care was acknowledged at our annual fall award dinner held on November 28, 2013.

Clerkship Awards presented by Dr. Fiona Dunne
Faculty: Drs. Troy Pederson, Kevin McLaughlin, Martin Atkinson
Residents: Drs. Bikaramjit Mann, Rahim Kachra, Cameron Griffiths

Internal Medicine Residency Program Leadership and Citizenship Award
Dr. Rahul Mehta

Clinical Excellence Awards
Dr. Howard McEwan Award for Clinical Excellence: Dr. Ted Thaell
Dr. Terry Groves Award for Clinical Excellence: Dr. Ram 'Paul' Singh (posthumous)
Dr. John Dawson Award for Clinical Excellence: Dr. Robert Herman

Dr. Tom Enta Award for Clinical Excellence: Dr. Eugene Adamiak

Excellence in Resident Education Awards
Golden Bull Award: Dr. Marcy Mintz
Silver Finger Award: Dr. J Paul Davis
Silver Tongue Award: Dr. Louie Girard
Repeat Offenders Award: Dr. Irene Ma
Ectopic Award: Dr. Jason Lord
Rookie of the Year Award: Dr. Steve Vaughan
Research Preceptor: Dr. Matt James
Work Life Balance: Dr. Anna Purdy
Allied Health Award: Ms. Mary Widas, RN
Excellence in Medical Education at a Distributed Learning Site: Dr. Stan Benke, Lethbridge

Professionalism, Innovation, and Quality Awards
Professionalism Award: Dr. Lorne Price
Quality Improvement & Patient Safety Award: Dr. Jayna Holroyd-Leduc
Dr. John M. Conly Innovation Award: Medical Disorders in Pregnancy Group
- Drs. Paul Gibson, David Sam, Lee-Ann Hawkins, Eliana Castillo, and Ms. Bonnie Kraft
Team Builder of the Year Award: Dr. Brenda Hemmelgarn

Rockyview General Hospital Room Dedication
Dr. Ram 'Paul' Singh (posthumous)

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. Marcy J. Mintz MD FRCPC is Vice Program Director. Drs. Ghazwan Altabbaa, Jennifer Landry, and Marcy Mintz are the incumbent Associate Program Directors. Dr. Robert Quinn and Dr. Sophia Ahmed (sabbatical year) 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, Ms. Megan Stauth, Ms. Sherry Schulz administer the IMRP in cooperation with other programs and sites.

Elective Rotation: Health of Vulnerable Populations (HVP)
April 1, 2013 to March 31, 2014

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 predominately 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 (predominately 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 Centre (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 Centre
- Southern Alberta Clinic for patients with HIV (Drs. Parkins, Janvier, Meatheral and Gilmour).

The academic year July 2013 to June 2014 was the fourth year the HVP rotation was offered. During year four, nine 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 fourth year of the rotation (July 2013- June 2014) are:

- Kaleb Marr: "Non-alcoholic fatty liver disease in indigenous North American populations."
- Alexandra Bell: "Cardiovascular disease in aboriginal Canadians: Factors affecting incidence and outcome."
- Mark Ballard: "Patient centered care: Considerations for the approach to homeless patients".
- Michael Baranga: "The effects of cultural differences in health care delivery to Canada's native population".

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) Report
April 1, 2013 to March 31, 2014

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

	# clinic days	# patient visits	2013/14 Avg #visits/day	2012/13 Avg #visits/day	# no-shows	No-show rate (%)
Internal Medicine	**7**	**14**	**2**	**1.4**	**7**	**33**
Rheumatology	**4**	**15**	**3.8**	**3.25**	**7**	**32**
Internal Med/OB	**7**	**33**	**4.7**	**3**	**11**	**25**
Cardiology	**4**	**12**	**3**	**n/a**	**10**	**45**
Gastroenterology	**5**	**22**	**4.4**	**n/a**	**15**	**41**
Dermatology	**3**	**20**	**6.7**	**n/a**	**8**	**29**

CUPS Visiting Specialists include the following Physicians:

Internal Medicine: Dr. Janet Gilmour one half day monthly
Rheumatology: Dr. Liam Martin one half day quarterly
Internal Medicine in Obstetrics: Dr. Eliana Castillo one half day monthly
Cardiology: Dr. Ed O'Brien one half day monthly. A new addition will start in November 2013.
Gastroenterology: Dr. Kerri Novak and Dr. Michelle Buresi sharing one half day monthly. A new addition will start in October 2013.
Dermatology: Dr. Patricia Ting one half day monthly, NEW addition starting October 2013, now on maternity leave as of March 2014.

DISCUSSION

The addition of these various specialists to CUPS Health and Education Centre has been extremely valuable.
CUPS patients highly benefit from **timely** access to Specialist care due to significant challenges in contacting these patients. Many of our patients are homeless and living "rough" in camps or on the streets, or use the homeless shelters, and therefore have little in the way of reliable contact information. Most do not have cell phones or addresses and contacting these patients to leave a message at the shelters or with their relatives/friends is usually unsuccessful. When appointments for Specialists are many months or years away, these patients often turn out to be 'no-show' because we cannot inform them or remind them of the appointments. As the specialists at CUPS are mostly here monthly, it is easier for patients to remember the appointments and although our no-show rates are still high, they are likely improved over appointments made at outpatient clinics.

CUPS Health Centre is well-known to the downtown homeless and poor and this year, we are celebrating our 25th anniversary. We see about 130 new patients every month and about one third of these patients engage and require some sort of referral for their complex health needs. Our Centre is a **comfortable, non threatening place** to come to and we feel that patients keep appointments here because of the familiarity of the building and the care team. Having specialists come to CUPS allows our patients to come to our site, which improves the no show rate compared to an external outpatient site where most have to take public transportation and navigate confusing buildings and systems. Despite improved access, we do recognize that there is still a fairly high no show rate (25-45%) , which is consistent with other care providers in the clinic (Family Physicians, Nurse Practitioners), and reflects the social challenges of our patients.

In January 2014, the clinic has been a participant in a year-long quality improvement initiative called Alberta AIM (Access Improvement Measures), with the goals of improving access, efficiency and clinical care for our patients. Since starting this project, we have been able to accurately collect no-show rates for the clinic, and these rates are, as we predicted, very high, averaging about 30-40%. Alberta AIM has so far provided us with valuable tools and ideas to improve our clinic's access and

efficiency for our patients. Several key changes we have made include phoning/emailing/text messaging patients to remind them of appointments, refining patient panels and attachment for each Physician and Nurse Practitioner, posting no-show rates in the waiting rooms, and educating our patients as to the importance of their appointments. All of these measures will hopefully contribute to reduced no-show rates and improved continuity of care with primary providers in the future. As a direct result, we hope that patients will better engage with the care team and realize the importance of Specialist appointments as well.

Finally, CUPS patients are very **complex** and most have a number of concurrent diagnosis' that include mental health and addiction issues. These diagnoses add an additional barrier for patients to attend appointments, and also complexity to any management plan suggested by the specialists. 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 specialist visit, rather than waiting for the consultation report to take action. Some visiting specialists have taken time to call referring clinicians which establishes a collegiality that allows for easier access for new problems that need solving and improved collaborative team care.

We are extremely pleased with how the visiting specialist program is going. This past year, we have added Cardiology, Gastroenterology and Dermatology, all one half day per month. These additions have been extremely helpful for our patients, particularly Gastroenterology, where the wait times for a routine referral are often 18 months long through GI Central Triage. Most of our patients never make it to these appointments.

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

Internal Medicine Clerkship Report
April 1, 2013 to March 31, 2014

Class Size Summary:

CLERKSHIP SUMMARY	Class of 2014	Class of 2015 (in progress)	Class of 2016
Total # students with Calgary Clerkship	**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	164 Block 1: 36 Block 2: 36 Block 3: 34 + UCLIC (42) Block 4: 35 + UCLIC (50)
Students completing Longitudinal Integrated Clerkship (UCLIC)	**18** (rolled into Block 4)	**18** (rolled into Block 4)	23 (rolled into Block 3 & 4)
Total graduated May/Nov**	167 (May)/6 (planned)	179 (planned)	165 (planned)
Time away for National Interview period (CaRMS)	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	Jan 18 – 31, 2016 ***there will be NO clerks available during this time
Xmas Holiday	Dec 23, 2013 – Jan 5, 2014	Dec 22, 2014 –Jan 4, 2015	Dec 21, 2015 –Jan 3 2016
Additional information	Clerkship April 2013-2014	Mandatory clerkship starts April 14, 2014	Mandatory clerkship starts April 13, 2015

**UCLIC students complete the majority of their clerkship in the rural setting but return in Block 3 or 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 by members of the Division of General Internal Medicine. The MTU's at all four sites 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 do selectives in some of the subspecialties of the Department of Medicine, and/or Departments of Critical Care, Cardiology, or Neurology. Most of these are two weeks, to increase the exposure to different areas, with the exception of the ICU rotation which is a four week block.

The Internal Medicine Clerkship Director is Dr. Fiona Dunne, Evaluations Coordinator Dr. Mike Slawnych, and four educational assistants: Drs. Paul MacEachern, Michaela Jordan, Jennifer Williams, and Susan Huan. These six members sit on our larger committee, which also includes members from all sites, and which meets quarterly. In addition to these six members, we have a dedicated group of 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 Report
April 1, 2013 to March 31, 2014

Summary of activities:

There were two major initiatives in 2014 relating to IM Department Education.

1) Grand rounds:
    - A proposal to revamp grand rounds, created by Dr. Sylvain Coderre, Dr. Adam Bass and Dr. Jeff Schaefer, was put in place. This included:
        - Creating a list of "ten commandments" for presenting grand rounds
        - Personally contacting every speaker with the above list as well as creating opportunity of interaction with every speaker
        - Attempting to make grand rounds more interactive by using:
            1. Iclicker questions
            2. Questions directed to faculty/residents in attendance
            3. Ending the sessions at 8:45 to allow more time for questions/discussion
    - This may be modified further next year, by moving the rounds to Thursdays but still using the same principles

2) Master Clinician program:
    - 11 faculty members were our first graduates of the "master clinician program"
    - This program aimed to provide expert clinicians with a structured, evaluable program that took these experts from the level of "great" clinician to "master" clinician.
    - The program aimed 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.

Section of Dermatology – Annual Report
April 1, 2013 to March 31, 2014

The Section of Dermatology consisted of five full-time ARP members and twenty community-based dermatologists during the reporting period. Twenty-one 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 in her role as Medical Director of the University of Calgary Wound Care Clinic 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.
   In Jan 2014, Dr. Haber went on sabbatical to Sydney, Australia to work with Dr. Dedee Murrell, a dermatologist and world expert in a genetic skin disease, epidermolysis bullosa. The sabbatical will run until June 30, 2014.
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 Alex once a month.

RESEARCH

1. Dr. Mydlarski continued 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. In June 2013, Dr. Mydlarski received new funding from the Canadian Dermatology Foundation in the amount of $60,000.
2. During this reporting period the Section published 10 peer-reviewed publications, 16 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 continued 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 8th Annual Day in Dermatology CME on October 26, 2013 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) which ran from Nov 26, 2013 to Dec 17, 2013.
d. Dr. Haber was an invited speaker/presenter as follows:
   1) May 10, 2013. ACH Pediatric Update Conference. Topic: What is new in Eczema and Acne.
   2) June 2013. Co-presenter oral presentation. Canadian Dermatology 8th Annual Meeting, Quebec City.

3) June 2013. Co-presenter poster presentation. Canadian Dermatology 88th Annual Meeting, Quebec City. Topic: Mosaic generalized neurofibromatosis 1.
4) Sept 2013. Co-presenter oral presentation. 12th World Congress of Pediatric Dermatology, Madrid, Spain. Focal dermal hypoplasia: report of a case with myelomenigocele, Arnold-Chiari malformation and hydrocephalus with a review of neurologic manifestations of Goltz syndrome.
5) Sept 24, 2013. Neonatal Grand Rounds, University of Calgary. Topic: Common neonatal dermatologic conditions and their management.
6) Oct 26, 2013. 8th Annual University of Calgary Dermatology Day for Family Physicians. Topics: Hair and Nail Pearls and Scabies and Lice.
7) Nov 22, 2013. Calgary Hospital Medicine Conference. Topic: What's that rash? Dermatology in hospital medicine.
8) March 14, 2014. Remote Vocational Training Schedule Conference (rural family physicians from all over Australia). Topic: Dermatologic Diagnosis.
9) March 31, 2014. Presentation to pediatric dermatologists and pediatricians, Royal Children's Hospital, Melbourne, Victoria, Australia. Topic: Epidermolysis bullosa, a historical and clinical perspective.

e. Dr. Robertson was an invited speaker/presenter as follows:
1) May 10, 2013. ACH Paediatric Update Conference. Topic: Molluscum contagiosum, fungal, lice and scabies.
2) Nov 2013. 38th Annual Family Practice Review and Update, University of Calgary. Topic: Update on Acne.

f. Dr. Parsons was an invited speaker/presenter as follows:
1) 59 rural sites in Alberta, British Columbia and Northern Territory. Topic: Approach to the diabetic foot and diabetic foot exam and risk stratification.
2) Oct 26, 2013. 8th Annual University of Calgary Dermatology Day for Family Physicians. Topic: Topical Corticosteroids, use and complications.

g. Dr. Mydlarski was an invited speaker/presenter as follows:
1) June 27, 2013. Canadian Dermatology 88th Annual Meeting, Quebec City. Topic: Basement membrane zone and adhesion molecules.
2) June 29, 2013. Co-presenter oral presentation. Canadian Dermatology 88th Annual Meeting, Quebec City. Topic: MiR-125b: unraveling the mechanisms of squamous cell carcinoma.
3) Sept 24, 2013. University of Calgary Immune Mediated Inflammatory Disease Working Group. Topic: Bullous disease: from bench to bedside.
4) Nov 5, 2013. Calgary Pemphigus & Pemphigoid Society. Topic: Pemphigus; new and emerging therapies.
5) Nov 15, 2013. Southern Alberta Transplant Program. Calgary, Alberta. Topic: Skin disease in solid organ transplantation.

h. Dr. Kurwa was an invited speaker/presenter as follows:
1) May 2013. American College of Mohs Surgery, 45th Annual Meeting, Washington, DC. Co-presenter. Topic: Preparation of Mohs micrographic surgery frozen sections: Three new pearls leading to a simplified and more effective process.

j. Dr. Metilitsa was an invited speaker/presenter as follows:
1) April 27, 2013. The Aesthetic Revolution, Contours training and education program, Toronto, Ontario. Topic: The ideal neuromodulator.
2) Oct 4, 2013. American Society of Dermatologic Surgery Annual Meeting, Chicago, IL. Topic: Lasers for boards.
3) Oct. 6, 2013. American Society of Dermatologic Surgery Annual Meeting, Chicago, IL. Topic: Cosmetic quick tips.
4) March 21, 2014. American Academy of Dermatology Annual Meeting, Denver, CO. Topic: Prevention and management of side effects and complications.

k. Dr. Woolner was an invited speaker/presenter as follows:
1) Oct 26, 2013. 8th Annual University of Calgary Dermatology Day for Family Physicians. Topic: Acne vulgaris including treatment with isotretinoin.

l. Dr. Remington was an invited speaker/presenter as follows:
1) Oct 26, 2013. 8th Annual University of Calgary Dermatology Day for Family Physicians. Topic: Warts and molluscum.

m. Dr. Zip was an invited speaker/presenter as follows:
1) Oct 26, 2013. 8th Annual University of Calgary Dermatology Day for Family Physicians. Topic: Atopic eczema and other eczemas.

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, and Poelman participated in a public skin cancer screening clinic at the Eau Claire Centre in Calgary as part of the Canadian Dermatology Association 25rd National Sun Awareness Week in June 2013. Walk-in patients were screened for skin cancer.

4. **Awards and other Achievements:**
   a. Dr. Robertson's poster entitled: Granuloma annulare as an isotopic response to herpes zoster was awarded best poster presentation at the Canadian Dermatology 8^{8th} Annual Meeting, Quebec City.
   b. Dr. Parsons received the Certificate of Completion of the DOM Master Clinician Program on Feb 21, 2014.

ADMINISTRATION

1. Dr. Haber continued as the Chair of the Dermatology Specialty Committee of the Royal College of Physicians and Surgeons. Dr. Haber was also the Prairie Representative on the Canadian Dermatology Association Executive Committee. He continued as the Medical Telehealth Advisor for the DOM. 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 Director – 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.
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

OTHER ACCOMPLISHMENTS

With the acceptance of 3 more dermatology residents into the University of Calgary Royal College accredited dermatology residency program in March 2014, this will mean that the program will have 15 residents in total (PGY1-5) as of July 1, 2014.

This academic year saw the establishment of a Senior Dermatology Residency Clinic to give our PGY5 dermatology residents more autonomy in assessing and managing dermatology outpatients.

The Section received donated funds to purchase a Fotofinder device. This machine will enable us to map nevi (moles) in high risk patients with multiple moles and in melanoma patients. This will be very beneficial for patients in Calgary and Southern Alberta and hopefully will lead to the establishment of a high risk mole and melanoma clinic at RRDTC in the near future.

The Mohs clinic under the direction of Dr. Habib Kurwa has increased the number of patients seen and receiving Mohs surgery for skin cancer and this has benefited patients with skin cancers in Calgary and Southern Alberta.

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 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.
3. 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 Jan 2012. A Search & Selection committee was struck in Sept 2012. A very experienced pediatric dermatologist was interviewed in Nov 2012. However, recruitment proceedings were stopped because of a Zone directive of no new ARP hires in Jan 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.
4. With the expansion of our dermatology residency program, the Section needs to recruit another full time ARP dermatologist to assist with seeing patients at RRDTC and teaching dermatology and other rotating residents. This year saw the attempted recruitment of Dr. Yuka Asai, a young dermatologist and researcher to our Section. Unfortunately, a consensus could not be reached regarding recruitment of Dr. Asai and therefore the recruitment did not go through. In future, another full time dermatologist that meets the needs of our Section needs to be recruited.
5. The Section needs the ability to recruit non ARP, fee for service dermatologists to work at RRDTC to assist with seeing patients, teaching residents and establishing specialized clinics such as the high risk mole and melanoma clinic. We hope that a mechanism to recruit these dermatologists will be developed in the near future.

Section of Endocrinology and Metabolism - Annual Report
April 1, 2013 to March 31, 2014

The Section of Endocrinology presently consists of 21 faculty members who maintain offices in Richmond Road Diagnostic and Treatment Centre, Health Sciences Centre FMC, PLC, South Health Campus 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, 10 Clinical/Assistant Professors and 1 Clinical Scholar.

CLINICAL

a) **As a whole, clinical care comprised 54% of the contracted sectional activity** which translates to 9.0 FTE clinicians**.** This represents an 8% increase over the prior year, reflecting the arrival of Drs. Helmle and Kallas-Koeman in major clinical roles. Net actual clinical activity however, remains largely unchanged with one section member on maternity leave and one on sabbatical in the past 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 (CAT) received 7284 outpatient referrals for MD appointments, (not including Diabetes in Pregnancy) of which 75% were accepted and booked into a clinic appointment. This represents a 14% increase in total volume over last year and a 34% increase over 2010-2011. Of all urgent referrals, 90% were seen in less than three weeks whereas the 90% last year were seen in two weeks. The median wait time for a non-urgent consultation in general endocrinology is approximately 7.0 weeks but for osteoporosis and diabetes referrals, the wait time now exceeds 10 months. 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 with a diabetes or osteoporosis focus, especially since the stated figures do not include other DHCC or DIP program referrals or the almost 700 patient referrals which are currently waiting to be scheduled (largely diabetes and osteoporosis).

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 350 specialized endocrine test protocols (which typically take one half to one full day) and provided 416 additional patients with specialized parenteral outpatient endocrine therapies and education not otherwise available in Day Medicine. In terms of total patient visits to the unit, there was a 14% increase this year compared to last year.

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 5000 new patient referrals (all separate from Central Access and Triage) and conducted over 11,000 one-on-one patient care visits through the MDs and allied health workers. In addition, there were over 1200 new referrals and 12,000 other patient visits with MD/RN to care for Diabetes in Pregnancy, under the direction of Dr. Lois Donovan. The DHCC has pioneered and delivered a large number of community diabetes education and support training modules to help the various PCNs maximize up-to-date diabetes management in the community setting.

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 at all 4 acute care sites, General Endocrinology, Osteoporosis and Metabolic Bone Disease, Thyroid Cancer (TBCC), Neuroendocrine Tumour (TBCC), Solid Organ Transplant and an Outreach Clinic on the Stoney Reserve run by Dr. Otto Rorstad. Section members continue to operate 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 well received in the community and is felt to have streamlined the ability of community physicians to get immediate access to endocrinology services. The 25% of CAT referrals that are not booked into a clinic appointment are dealt with by the Community Access Physician who still offers phone consultation or a letter to assist the referring physician in such cases. This means that over 1800 referrals were handled by an endocrinologist without a clinic visit, a very important tool for waitlist management made possible through the AARP program.

EDUCATION

a) **As a whole, educational pursuits comprise 12% of the contracted time of Section members** with an FTE equivalent of 2.1 full time teachers, a 20% increase over the prior year.
b) **The Section has trained 3 new endocrinologists in the past year**: Dr. Leanne Gutierrez will be starting a community endocrinology practice in Comox, British Columbia in summer 2014. Dr. Erik Venos will commence a two year Master's in Health Economics in July 2014 and Dr. Emma Billington will depart for a one year research training program in Metabolic bone disease with Dr. Ian Reid in Auckland, New Zealand. Applications to the Section of endocrinology training program hit an all time high this year, reflecting a continuing tradition of excellence under Dr. Vicky Parkins who has just taken over as program director from Dr. Chris Symonds after ten years of nationally recognized service.
c) **Undergraduate medical education continues to be a major focus of the endocrine section.** As a whole, the section provided 250 hours of direct, didactic teaching to the medical school with a mean teaching score of 4.4/5 in student evaluations. Additionally, over 400 hours were provided for other direct, planned 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 11 different teaching awards in the past year.
d) **Bedside teaching in the outpatient clinics** was provided with 969 clinics in which a clerk, resident or fellow worked alongside a faculty member, in addition to the regular inpatient service. This represents a 3.5% increase over last year and a 9.5% increase in faculty availability for bedside training in the past two years.
e) **38% of section members directly supervised at least one student project** in the past year, ranging from medical student projects to PhD thesis with several members supervising multiple students.
f) Dr. Shelly Bhayana 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.
g) Dr. Chris Symonds has taken a new position as Medical Director of the Physician Learning Program, an AMA/University of Calgary/University of Alberta project that helps physician groups perform quantitative analysis of their practice patterns with subsequent educational programs to improve care.

RESEARCH

a) **As a whole, the Section spends 19% of its time in research pursuits**, with protected research time equivalent to 3.4 FTE researchers. This 17% relative decrease versus last year reflects the fact that all new recruits have been clinical recruits with no new research recruitments in the past 5 years.
b) **The section produced 59 peer reviewed publications (a 60% increase over the prior year)** in journals with mean impact factor 3.93 (7% increase), 16 non-peer reviewed publications, 24 peer-reviewed abstracts and 1 book chapter. Work published by section members since 2011 has been cited 2748 times. 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 third year in a row.
c) Section members delivered 24 invited local academic presentations, 13 academic presentations at a national level and 6 invited addresses at international meetings.
d) A total of 8 new, peer-reviewed grant applications were awarded research funding, joining the 26 other funded studies that were ongoing during the year.

ADMINISTRATION

a) **As a whole, the Section members spend 16% of their time in various administration activities**, roughly approximating the work of 2.7 FTE administrators, a 17% increase over the prior year.
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 hired (Dr. Ralf Paschke) and his arrival is expected in late 2014.
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 in all aspects of the re-negotiation and administration of this most important salary program.
e) Dr. Julie McKeen is the Medical Director of the Diabetes, Hypertension and Cholesterol Centre

f) Dr. David Hanley is the Medical Director of the Calgary Osteoporosis and Metabolic Bone Centre
g) Multiple members sit on national and international committees in metabolic bone disease, diabetes care and obesity.

FUTURE CHALLENGES

a) **Clinical care in endocrinology, osteoporosis and diabetes.** The Section received over 7000 requests for new outpatient consultations in the past year which continues to increase on an annual basis. Clinical outpatient service represents 54% of the whole sectional activity which in turn approximates the output of nine full time clinicians. Outside the Section, there are five additional community-based endocrinologists with purely clinical responsibilities. Although the mean wait time for all endocrinology consults is still less than 3 months, diabetes and osteoporosis (chronic disease programs) now have wait times that are approaching 12+ months. The chronic disease nature of these programs cannot be over-emphasized: a conservative estimate would be that 75% of all consultations to the Section include entry to ongoing chronic disease management programs that can require long term physician visits on an annual and often more frequent basis. With an ever-expanding stable of chronic patients, several endocrinologists have had to close their practices to new referrals for diabetes in particular.
The section has tried to respond to the increased demand through the Community Access Physician program, the medical triage program (to ensure simple or unnecessary consultations are not added to the wait list) and through the hiring of 2.4 new clinicians. Due to population growth, population aging and increasingly complex chronic disease care demands, there is an urgent need to recruit at least 2 or 3 additional clinicians. Any such recruitment will require dedicated clinic space and administrative support. Such space is in very short supply at RRDTC since the arrival of other medical programs after the flood damage to the Holy Cross facility.
b) **Access to parenteral therapies and specialized testing.** Over the past 5 years, the practice of endocrinology has changed dramatically with the advent of novel (and often high-cost) parenteral therapies such as zoledronic acid, teriparatide, denosumab, pegvisomant, octreotide, lanreotide, rhTSH etc. Many of these drugs are now in very common use. The time – work burden of administering these therapies includes extensive reimbursement paperwork, often repeated applications for special coverage programs and a requirement for space and staff to administer the drugs. These processes/drugs currently cannot be off-loaded to primary care and demand is ever increasing. There will likely be a need for more support staff and space to facilitate all aspects of these therapies.
This comes in addition to an increasing demand for specialized testing in the Endocrine testing unit. With a 14% increase in patient visits in a single year, the clinic is now approaching maximum capacity. Demands for service are also coming from the growing community specialist sector which sends patients for tests and treatments but contributes nothing to overhead and staff salaries. Direction has been sought from AHS administration regarding appropriate access parameters for non-sectional physicians. If full access is continued and community specialty groups continue to expand, AHS will need to invest in a significant expansion of the testing unit space and staff.
c) **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 for nights, weekends and stat days. The Section operates a work-day "voluntary" call schedule for SHC alone through minor adjustments to the Individual Service Agreement of each AARP member. This is a highly unsatisfactory arrangement since it excludes (by virtue of zero incentive) the participation of the fee-for-service section members and is thus untenable if future recruitment continues without AARP support. A round trip from the RRDTC home base to each city hospital is almost 100km which makes in-person, daily, hospital consultations impossible for a single on-call physician. This has been repeatedly brought to the attention of regional administration but without any solution. The Section remains adamant that it is impossible for one person to offer medically adequate coverage to 4 city hospitals all at once and such insufficient coverage may pose a serious risk for patient safety. It is the Section's position that the solution must come in the form of multiple additional SHC (or other site) physician recruitment in order to create a funded, split-call schedule that truly offers coverage to every acute care site.
d) **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/or recruitment to this post should be a major sectional priority. Dr. Kallas-Koeman's recruitment to PLC is a first step in this direction.
e) **Projected retirements/leaves/departures:** 30% of the sectional membership is approaching a time of potential retirement in the next 2 to 5 years. One Section member has been on maternity leave in the past year with two more members expected to take leave of absences in the coming year. There is an urgent need to recruit new physicians to continue their work, especially in the research and clinical fields. 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 multiple additional physicians to AARP 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, 2013 to March 31, 2014

CLINICAL

GI Site Chiefs have changed for all Calgary Zone hospitals. Thank you to all of the outgoing Site Chiefs for their hard work and significant commitment to their sites and to the success of the Section as a whole.

FMC – Foothills Medical Centre (Site Chief Dr. Christopher Andrews, replacing Dr. Jon Love): The newly renovated UCMC Area 2 GI (Gastroenterology) Clinic space at the University of Calgary, Health Sciences Centre has significantly improved patient flow and end-user experience. Switching to a Calgary Zone EMR is anticipated toward the end of 2015, which will likely take pressure off of the paper chart room. 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 ~240 referrals per month. Review and implementation of triage pathways has kept wait times for urgent cases within reasonable timeframes. The successful flexible sigmoidoscopy and thin-scope endoscopy clinics continue in the UCMC area - further improving patient access to investigations. For routine cases of irritable bowel syndrome (IBS) and functional dyspepsia - which make up the majority of routine referrals in GI - the FMC Nurse Navigator clinic has been instituted to provide a comprehensive educational experience which includes physician interaction. This clinic allows much higher patient throughput for IBS than a typical physician consultation, with the added advantage of coherent, evidence-based messaging and counseling for these patients.

RGH – Rockyview General Hospital (Site Chief, Dr. Mani Kareemi, replacing Dr. Tara Chalmers-Nixon): The Gastroenterology team at the RGH is comprised of 10 gastroenterologists with the recent addition of Dr. Laura Stinton primarily as hepatology, providing strong clinical service supporting both outpatient and inpatient GI care, and averaging over 10,000 endoscopic procedures per year. The volume of inpatient and emergency room consultations remains high in spite of opening of South Health Campus. There have been negotiations to open a fourth endoscopy room to facilitate inpatient procedures and improve patient flow through the inpatient wards and emergency rooms. We are awaiting funding confirmation. There are also potential plans of redesigning the combined urology / gastroenterology space with possibility of some expansion. The group continues to be a major contributor to services at the Colon Cancer Screening Centre. Educational activities include undergraduate teaching for the first-year medical school courses, rotation of medicine residents first year through third year and GI Fellows rotating through the Rockyview Hospital. We have had excellent feed-back from the medicine residents. Quality of teaching has been acknowledged by members being put on the undergraduate teaching honor roll and clinical teaching awards from GI Fellows. Members of the Section also play a significant administrative role through the Alberta Society of Gastroenterology (ASG) with Dr. Chalmers-Nixon currently serving as president of the society, Dr. Cynthia Cleary as fees representative to the AMA and Dr. Khaliq-Kareemi as representative to the AMA Rep Forum.

PLC – Peter Lougheed Centre (Site Chief, Dr. Rachid Mohamed, replacing Dr. Tarun Misra): The Gastroenterology group at the PLC, which comprises 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). Successful purchase of an endoscopic ultrasound for the site has enhanced the biliary service at the PLC and complements the already well-established ERCP service. Patients presenting with a low risk for common bile duct stone can now have an endoscopic ultrasound, a safer and quicker alternative to ERCP. The double balloon enteroscopy program has been phased out of the site as previously planned. An 11th gastroenterologist, Dr. Edwin Cheng, has been successfully recruited and is expected to fully start soon. His addition will help foster the education mandate of the Section at the site. Challenges at the PLC continue with the ever growing demand of both general GI and ERCP services. Site members have expressed a strong desire to find solutions for the small space available to provide endoscopy services. Future plans include possibly renovating or relocating the unit. Other plans include the possible recruitment of a gastroenterologist with strong hepatology skills, especially given the diverse population surrounding the site and the increased prevalence of viral hepatitis amongst this group.

SHC - South Health Campus (Site Chief, Dr. Michael Curley, replacing Dr. Alex Aspinall): The Section of Gastroenterology and Hepatology were established at the new South Health Campus (SHC) in 2012. Michael Curley has taken

over as GI site chief with Alex Aspinall stepping down at the end of March 2014. Drs. Meena Mathivanan and Michael Stewart are two new permanent Gastroenterologists coming to the SHC mid-summer 2014 to bring the total number of attending staff to seven. These new recruits add IBD expertise to the current group (three with expertise in GI motility and upper GI disorders and two Hepatologists). The SHC has also hired a nurse practitioner (Karen Andres) who will run an independent IBD clinic. This group will maintain close links to the IBD experts already present at the other sites within Calgary and will be a great asset to IBD care at the SHC. The Calgary Gut Motility Centre (established late 2012) continues to be very busy with nearly 1400 procedures in 2013. Wait times for motility studies are still less than two weeks in the Calgary Zone (compared to a wait of several months prior to establishing this Centre). The anorectal manometry program opened in spring 2013 and will aid in the evaluation and management of patients with lower GI tract motility disorders. The opening of the Endoscopy unit at the SHC in February 2013 has contributed much needed endoscopy resources to the Calgary Zone. This impact has been most pronounced on the direct-to-procedure (DTP) wait list. The creation of a SHC Hepatology service (which is part of the University of Calgary Liver Unit) continues to facilitate patient access and reduce wait times, and accommodates an increasing volume of Hepatology consults within the Calgary Zone. 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 Hepatology nurse clinician supports the clinics. The clinic provides a full spectrum of multi-disciplinary support for patients with liver disease, including Fibroscan. Innovative models to deliver care to patients with motility and functional bowel disorders through the Nurse Navigator pathways at the South Calgary Primary Care Network have continued and are planning to expand to include irritable bowel syndrome in early Fall 2014.

Innovations in Clinical Care:

1. Dyspepsia/GERD Nurse Navigator program (NN): This novel multi-disciplinary clinic involving the Section of Gastroenterology and the Calgary NW PCN continues to grow with a total of 350 patients seen, with expansion to additional functional bowel disorders (e.g. IBS). Close collaboration has led to the development of a well-trained extended-team, with a primary care physician collaborator and internal referral within the NW PCN, with an aim to enhance the capacity to care for routine GI conditions within the medical home. The NN program at the South Health Campus has continued to grow with over 170 patients seen, with an aim to expand etiologies (IBS) in September 2014. FMC NN program was started in January 2014, with 100 patients with IBS assessed to date with close collaboration with Living Well and nutrition support.

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/need, 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 by more than 50% in the past year.

3. Urgent Referral Pathway: Priority for this pathway 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 times have been further enhanced with the addition of more physicians to allow for 1-2 dedicated clinics and endoscopy slates per week. In addition, our direct-to-procedure (DTP) stream for extremely urgent patients has continued to allow for 1-2 such patients a day to be seen by the GI physician on call. Furthermore, clinic and endoscopy templates have been altered to allow more flexibility for scheduling urgent patients. As always, 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, urgent wait times have significantly dropped from previous years and despite the increase in urgent referrals, have been maintained to a mean of less than 4 weeks to be seen in clinic; and less than 2 weeks for those triaged as extremely urgent.

4. Telephone Consult Service: A phone consultation service has added an additional pathway for primary care physicians to access GI specialist advice in the Calgary Zone. A total of 215 phone consults have been completed since Jan 2012, with resolution of the concern occurring in 65% of cases. This service provides education and feedback to referring physicians and patients alike.

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 of colon cancer 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 is being 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 patient wait times for urgent triage priorities. A nurse navigator-led follow up clinic for patients seen through the DTP pathway is being 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 removed 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. These clinics are also being held at SHC four half days per month (Drs. Chris Andrews, Michael Curley and Milli Gupta). 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 continues to be managed by our Physician Booking Optimization clerk within UCMC, and as such utilization of these resources has been positively impacted. We have recruited a new full-time fee-for-service gastroenterologist in addition to our fee-for-service locum physician. These two successful additions to the AARP group at the FMC have further allowed us to optimize resource utilization. At the PLC and RGH, endoscopy slot allotment is managed by the site chiefs and has been successful for the optimization and utilization of endoscopy resources at these sites.

9. Calgary GI Motility Centre at SHC. The Calgary Gut Motility Centre 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 centre. A fourth physician (Dr. Andrews) began having motility clinics at the CGMC in July, 2013. 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 centres 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, complementing CGMC capabilities. 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 with plans to include irritable bowel syndrome soon) 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 is designed to provide multi-disciplinary nutritional care to pre-liver transplant patients. All pre-liver transplant patients are assessed in this clinic as part of their pre-transplant care. Malnourished IBD patients receive nutritional care through this clinic as well. Over 45 patients have been assessed through the clinic to date, of which 30 patients are pre-liver transplant assessments. A research database has been created and is fully operational to capture nutritional and clinical data to assess efficacy of this clinic. Novel strategies to capture energy requirements and optimize nutritional strategies using a hand-held indirect calorimeter are being rolled out, with a plan to validate clinic tools to the gold standard indirect calorimeter. This clinic works closely with the Home Enteral Clinic, as some patients require home enteral nutrition therapy to

optimize nutritional care.

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 to three 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. 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 liver biopsy are also asked to consent for research inclusion, and have storage of both serum and liver tissue in the Liver Unit Biobank and database. As of September 2013, a multi-disciplinary clinic was organized, wherein patients who are deemed to be high risk for vascular complications are seen by one of three dedicated general internists (Dr. A. Boscan, Dr. P. Davis, and Dr. R. Hawkins), who manage these patients with a goal of modifying their vascular risk factors, such as poorly controlled diabetes, uncontrolled hyperlipidemia, and the vascular disease itself (either coronary artery disease, cerebrovascular disease, or peripheral vascular disease). This multidisciplinary approach allows 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).
In addition to the above mentioned high risk NAFLD multidisciplinary clinic, as of September 2014, the South Health Campus will also launch a new, low risk NAFLD clinic. Currently, the wait list for patients with NAFLD to be seen by a hepatologist is in excess of 2 years, and patients often do not have clinically significant disease. Patients who are referred to a hepatologist for the reason of possible NAFLD will undergo non-invasive testing of their liver stiffness, a surrogate marker of liver fibrosis. Patients who do not have evidence of fibrosis, and who are at low risk for developing fibrosis in the future, will be triaged to the Initial Fatty Liver Education Workshop (IFLEW) clinic. These patients will then be booked into a class consisting of 8-12 patients, where they will be educated about their disease and lifestyle modifications they need to undertake in order to treat this disease. This will be done by the fatty liver nurse clinician, the GI dietician, a social worker, and an exercise trainer from the YMCA affiliated with the SHC Hospital. Each session will last for a half day, and patients will have pamphlets outlining the material covered in the class, and the referring physician will also receive a form letter detailing the lifestyle changes the patient needs to implement, and also when to re-refer if there are concerns.

12. Esophageal Diseases Clinic at SHC: Since 2013, specialized "esophageal diseases" clinics have been held at SHC, dedicated to general esophageal conditions such as gastroesophageal reflux disease (GERD), eosinophilic esophagitis, motility disorders (achalasia), and functional esophageal diseases (functional heartburn; dyspepsia). This clinic runs in conjunction with the Calgary GI Motility Centre, where esophageal manometry, 24h pH and impedance studies are performed. Availability of thin scope endoscopy (TSE) has given physicians immediate access to endoscopy when indicated. Having a multitude of tests available at one Centre allows for a truly integrated provision of care. In the upcoming year, we are incorporating further cutting edge technology such as EndoFLIP to assist with management of difficult cases and reduce surgical intervention in achalasia. Due to the predominant young population afflicted with eosinophilic esophagitis, we are creating a "Transition of care" clinic model by liaising closely with the Alberta Children's Hospital physicians. A minimum of two such clinics run weekly and are staffed by gastroenterologists with an interest in the esophagus (Drs. Michael Curley and Milli Gupta).
In addition to the general esophageal diseases clinic, the Barrett's Endoscopic Therapy Program of Calgary and Southern Alberta has been established at SHC. Endoscopic Mucosal Resection (EMR) and Radio Frequency Ablation (RFA) are established treatments for Barrett's Esophagus (BE). These techniques were established at the SHC in 2013 for integration and consolidation with other esophageal programs. These minimally invasive, endoscopic techniques offer a safe method of managing early esophageal cancer/dysplastic BE, and are now standard of care. Two specialized gastroenterologists (Drs. Paul Belletrutti and Milli Gupta) perform these procedures with dedicated nursing personnel and anesthesia support. Patient outcomes, satisfaction, and cost effectiveness are being captured prospectively in a database for research purposes. Current wait times for this treatment are approximately 4-6 weeks. To further enhance the profile of this program, a presentation of our program will be given at the 2nd Annual Motility Day Conference to primary care doctors (Oct 2014). In conjunction with the Thoracic Surgery department, a Barrett's Symposium for Southern Alberta is being organized for general internists and surgeons in the Zone.

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 to offer IV hydration therapy either with or without electrolytes to patients at home when indicated. Previously, patients requiring IV Magnesium therapy due to high losses were dependent on Day Medicine or urgent/emergency based strategies to receive this care. Following a successful pilot project demonstrating feasibility and safety, IV magnesium therapy is now available at home. Referral process is through the Home Nutrition Support Program.

14. GI Section Website: A sectional website has been developed and was launched on Sept 2, 2013 (www.calgarygi.com). The website integrates clinical, research and educational information and updates. The plan is that it will be an access point and resource for GI Section members, non-GI Section clinicians and patients. It will also be a patient centered resource regarding wait times, access and disease specific education.

15. Small Bowel Capsule Program at SHC: Small Bowel Capsule Program at SHC: The Small Bowel Capsule Program is led by Dr. Buresi, and Tara Green has taken over the capsule nurse role. In the last year, a new provider (Given) was chosen which allowed for easier installation and distribution of software, as well as more efficient reading of studies. The referral and triage processes have been standardized, and studies are now stored on a central database, on a drive accessible to all those reading capsules from any AHS computer. This has improved efficiency and consistency in reading and reporting. The use of patency capsules was introduced, which allows for prediction of patients at high risk for capsule retention. We are currently funded for 100 capsules per year, including patency capsules. We receive an average of 4 referrals per week, and complete 2-4 capsules per week. Tara Green is at a 0.6 FTE. Physicians currently reading capsules include Shane Devlin, Fatin Adams, Michael Ma, Michelle Buresi and most recently Ali Rezaie. Wait times (time to report) are currently less than 2 weeks for urgent referrals, 4-6 weeks for moderate referrals, and 6-12 weeks for routine referrals. The capsule program continues to face several challenges. We would like to enhance accessibility to reports farther, and work is being done to have reports uploaded to Netcare. Given the volume and urgency of referrals, we will need to increase the number of capsules funded per year. We would also like to increase the FTE of the capsule nurse in order to make urgent and especially inpatient studies more feasible. To help justify this request for funding, a database has been created to assess the yield and impact of capsule studies in Calgary.

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 > 30 procedures have been performed, with physician oversight and expertise for this program being provided by Drs. Mohamed and Love. The Spyglass procedure better facilitates management of patients with biliary tract disease and also provides future research opportunities.

17. Inflammatory bowel disease and pregnancy clinic: This clinic was established in September 2012. To date, Drs. Yvette Leung and Cynthia Seow have seen 123 referrals, with 103 patients enrolled in the pregnancy registry. To our knowledge this is the only specialized IBD and pregnancy clinic that follows an MD driven clinical care pathway; with scheduled visits each trimester and in the postpartum period. Patients are also seen at preconception to optimize disease control prior to pregnancy and to educate patients on the safety of IBD medications both for pregnancy and lactation. Patients who have active disease are triaged as urgent consults and seen within 1-2 weeks; with immediate advice given to referring gastroenterologist by phone when warranted. Scheduled visits ensure that patient's disease and nutrition status is optimal with monitoring for subclinical inflammation in the form of biomarkers (CRP); and ultrasound (Dr. Stephanie Wilson). The clinic communicates closely with the referring gastroenterologist, family physician and obstetrician. Furthermore, due to our Section being citywide with central triage; referrals are sent to this clinic from all parts of the city and from non-tertiary care sites in Southern Alberta. The clinic has clinical collaboration with Materno-Fetal Medicine (Internal Medicine), the High Risk Obstetric Group at Foothills Hospital, and the regional infertility Centre. From a research perspective this is the only IBD and pregnancy registry in North America that has biobanked patients: seen preconception, peri-partum and postpartum, with full phenotyping, prospective follow-up of disease activity, and the ability to link to the Alberta Perinatal Database. The IBD and pregnancy clinic has now established contacts with 11 other referral centres in Canada; with all sites interested in following the model developed at the University of Calgary; that is, linking excellence in clinical care to a research registry.

18. Point-of-care Ultrasound in the Clinic for IBD Patients: Clinical use of bedside, trans-abdominal ultrasound (US) continues to expand as an effective, safe and inexpensive decision support tool to direct further management/ investigation of patients with IBD. To date, over 150 patients have been recruited for evaluation of either IBD or symptoms concerning IBD. Based on current data collected, the examinations are accurate and patient satisfaction (based on patient surveys) is high, suggesting enhanced patient engagement and improved understanding of the disease. To date Dr. Novak has mentored two residents in the use of this modality. Dr. Deepti Jacob who is now a GI fellow, presented data to support the use of US in evaluation of patients with symptoms suggestive of IBD at the Internal Medicine Research Day and won best clinical research presentation. Dr. Cathy Lu is training in GI at the University of Alberta, has also been mentored by Dr. Novak, winning best clinical research presentation at the Shaffer Awards at the Alberta Digestive Disease Week Meeting in June 2014. Dr. Lu has recently received CIHR funding to pursue a fellowship co-supervised by Dr. Novak to train in trans-abdominal US for monitoring IBD, with an aim to expand the service in Edmonton. Ongoing collaboration with Internal Medicine (Dr. Irene Ma) and general surgery (Dr. Andrew Kirkpatrick, both experts in bedside US) will expand and enhance both the clinical service and

ongoing evaluation of bedside US. Dr. Novak continues to collaborate closely with radiology (Dr. Stephanie Wilson). This is the only site in Canada with access to US for IBD, available in clinic with close collaboration with Diagnostic Imaging.

19. 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. Dr. Burak continues as the Chair of the Organizing Committee for the Canadian Liver Transplant Forum, with a successful CLTF8 being held in Montreal.

20. Hepatocellular Cancer (HCC) Clinics: These clinics were originally held only at the FMC, but are now also established 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.

21. 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.

22. IBD Research and Wellness Centre: Planning for the IBD Research and Wellness Centre continues. The University of Calgary has entered into an agreement with Crohn's and Colitis Canada to co-fundraise for the initiative. A gala was held in the spring of 2014 and raised over $190,000 towards the initiative. Fundraising efforts will continue as will negotiations with AHS to secure space for the Centre. As part of the pre-planning two IBD nurse clinicians will be hired and trained. A three year commitment for support for these positions has been secured through industry partnership.

23. Infliximab Blood Level Monitoring: Together with the University of Alberta infliximab antibody and trough blood levels has been established through AHS. Alberta is the only province with publicly accessible funding for this test, which will greatly improve patient care.

24. Outreach Clinics: As of early Jan 2014, the Section of Gastroenterology has been participating in on-site GI specialty clinics at CUPS. CUPS is a well-established Calgary-based non-profit organization that aims to improve the health of patients with financial insecurity that may have particular challenges accessing care. The GI clinic provides patient education and resources, access to endoscopy preparation kits and transportation post-endoscopy.
In the spring of 2014 the Calgary Liver Unit opened the East Calgary Viral Hepatitis Outreach Clinic. Northeast Calgary has a high prevalence of chronic viral hepatitis, but many patients from this area are unable or unwilling to travel to FMC or SHC to see a Hepatologist. Currently, Drs. Myers and Swain perform this clinic at East Calgary Health Centre on a monthly basis, and have established potable fibroscan capability at the clinic for the non-invasive assessment of liver fibrosis. This outreach clinic will expand over the years to come, and there are plans to perform point-of-care testing for viral hepatitis in the community, so that we can identify and treat more patients with chronic viral hepatitis.
Regular ongoing outreach clinics are also operational at the Southern Alberta Clinic (HBV-HIV and HCV-HIV co-infected patients seen by Dr. Coffin) and the Calgary Refugee Clinic (viral hepatitis patients seen by Dr. Lee).

25. Primary Sclerosing Cholangitis (PSC) Clinic: The PSC clinic run by Dr. Eksteen now follows 285 patients. He performs a multidisciplinary clinic with a Nurse Practitioner with expertise in Inflammatory Bowel Disease, and has established PSC clinics in the pre and post Liver Transplant setting.

26. Liver Fibroscan Service: More than 4000 fibroscans are performed annually at FMC alone (with further capacity established with the recent addition of SHC fibroscan capabilities and portable fibroscaning capacity at Outreach clinics) to assist in the non-invasive prognostication and management of patients with chronic liver disease. Fibroscaning often allows for patients to avoid undergoing invasive liver biopsies.

27. GI Wait-times Retreat: On February 14, 2014 the inaugural GI wait times retreat was organized by the Section of Gastroenterology and Hepatology in the Calgary Zone. The afternoon retreat was facilitated by Alison Bichel, lead AHS Access. Attendees included representation from the Sections, AHS Medical and Operational leadership, the CPSA, the CMPA, Alberta

Health, AHS legal services, the Haskayne School of Business, and Leadership from the Section of GI for the Edmonton Zone, Head of the Alberta Society of Gastroenterology, the Canadian Association of Gastroenterology, and Primary Care/PCN leadership. The retreat was a huge success and will be replicated and updated in 2015.

RESEARCH

Research within the Section of Gastroenterology and Hepatology 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.
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 Hepatology group is the single largest user of the HMRC, accounting for 1087 of 4583 total research visits last year.

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 originally in part by a successful Faculty of Medicine (FoM) Emerging Team grant. The IBD group continues to lead IBD research efforts regionally, nationally and internationally with ties to the University of Alberta, University of Manitoba, and University of Toronto, several European Centres 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 IBD.

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 GI Section was again very successful in securing both external peer-reviewed (especially Tricouncil funding) and industry sponsored funds. 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

Two members of the Liver Unit were awarded in 2014 as PI's in (Drs. Eksteen and Swain) CIHR Team grants each valued at $2.5 million over 5 years. These 2 team grants were part of the CIHR Initiative in Chronic Inflammation which comprised of a total of 9 grants being awarded across all of Canada.

Faculty Awards

• Dr. Christopher Andrews, Canadian Association of Gastroenterology (CAG) Visiting Clinical Professor
• Dr. Gil Kaplan, the Killam Emerging Research Leader Award. This was awarded to Gil in recognition of outstanding contributions he has made to research early in his career
• Dr. Gil Kaplan was successful in his application for a CIHR Operating grant

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. This research space will directly enhance clinical research components of the 2 CIHR Team Grants awarded to the Section.

- *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* currently houses research staff, data analysts, and trainees who are supervised by several members of the Section. 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. Expansion of the University of Calgary IBD and Liver Unit Biobank. Through support from the Metcalfe Foundation, the Cal Wenzel Family Foundation Chair in Hepatology, the CCC IBD Chair, the GI and Hepatology 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 is established in UCMC (the first in Canada; PSC Lead, Dr. B. Eksteen; IBD Lead, Dr. G. Kaplan). Funds obtained through a successful Faculty of Medicine 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 continues to be 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 by the CCC IBD Chair and by the 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 performed by Section members.

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 was appointed as Associate Dean UME.
• Dr. Sylvain Coderre won the ASG Education "cow out of the pasture" award (for teaching excellence in a field outside of the usual clinical field)
• Dr. Sylvain Coderre, as Vice Chair, Education with the DOM, organized the first "master clinician program" aimed as a "non-medical expert" CANMEDS roles review for the best clinicians in DOM. Two GI members were selected to attend this course: Dr. Melanie Stapleton and Dr. Mani Kareemi
• Dr. Maitreyi Raman, Canadian Association of Gastroenterology (CAG) Young Educator Award
• Dr. Kelly Burak was awarded the Gold Star for UME Course I, and was also awarded a "Ceremonial Jersey" by the Class of 2015 (Cows)
• Dr. Maitreyi Raman, Canadian Association of Gastroenterology (CAG) Education Research Grant
• Dr. Burak has taken on a new role as the Director of Teaching Innovation in the UME office. He will be overseeing the "Flipped Classroom Initiative", which will be piloted in the Liver Unit part of Course 1 in 2014.
• Dr. Burak continues as the Chair of the Organizing Committee for the Canadian Liver Transplant Forum, with a successful CLTF8 being held in Montreal.

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 2014 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. These rounds have been very successful in the past year. One to two evening rounds are organized per month. The topics chosen are based on a sectional needs assessment that was undertaken in 2012, and included issues in IBD, viral hepatitis, GI oncology, functional bowel disorders, esophageal motility and advanced endoscopy. A diverse range of invited and internal speakers have participated. Attendance has increased by about 30% over previous years. Feedback from attendees has been very positive with high ratings for speaker quality and topic relevance. We hope to continue to improve the quality and attendance for these rounds in the coming year.

iv. Postgraduate:

The GI Residency program in Calgary, led by Dr. Melanie Stapleton (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. Erin Ross and Matthew Sadler, Co-Chief GI Residents, Travis Murdoch and Rajveer Hundal.

Our graduating residents and fellows have distinguished themselves in the following ways:
Dr. Travis Murdoch - accepted to a 6 month subspecialty training program in Inflammatory Bowel Disease at the University of Calgary, after which he will divide his time between clinical gastroenterology and consulting work in biotechnology.
Dr Erin Ross – accepted a job in gastroenterology in Regina, SK and will be locum in Calgary until she begins her practice in Regina in November 2014
Dr. Rajveer Hundal – accepted a 1 year fellowship in therapeutic endoscopy at the University of Alberta. After completion of his therapeutics training, he will be returning to southern Alberta to practice in Lethbridge, AB
Dr. Matthew Sadler – awarded a 1 year fellowship in hepatology at King's College Hospital (National Health Services, UK), funded by the Canadian Association for the Study of the Liver/Vertex Clinical Hepatology Fellowship

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

Overall Excellence in Teaching:	**Dr. Melanie Stapleton**
Research Mentorship Excellence:	**Dr. Rob Myers**
Formal Teaching Excellence:	**Dr. Kelly Burak**
Clinical Teaching Excellence:	**Dr. Michael Ma**
Endoscopy Teaching Excellence:	**Dr. Rachid Mohammed**
Excellence in Providing Feedback:	**Dr. Maitreyi Raman**

The incoming new GI residents are Dr. Abdel Aziz Shaheen, Dr. Deepti Jacob and Dr. Kaylee Milne, all from the University of Calgary.

Calgary Fellowship training positions for 2014-2015 have been awarded to the following:

IBD: Travis Murdoch (July 2014); Cathy Lu (January 2015); Heba Al-Farhan (January 2015). A joint IBD fellowship between the University of Calgary and the University of Albert has been established. The first fellow Catherine Lu will begin in October of 2014.
Hepatology: Shuet Neong Fong (August 2014), Abdullah Khathlan (September 2014)
Therapeutic Endoscopy: Takuya Ishikawa (July 2014)
Motility: Abdullah Alqaraawi (January 2015)

v. Undergraduate:

Course 1 (Gastroenterology and Hematology) flourished during 2013-2014 with Dr. Coderre and Dr. Burak leading the course. Course ratings were high. Innovations to Course 1 this past year included major revisions of the core document to streamline objectives, expectations and content. For the upcoming year, the flip classroom model will be applied to Hepatology week. The flip classroom initiative is meant to utilize adult education strategies to improve knowledge, retention and application. The flip

classroom model will be evaluated with a view to larger incorporation into the pre-clerkship years following proof of concept feasibility in course 1. This year Dr. Raman will be the course co-chair, and Dr. Edwin Cheng will be the course evaluation chair.

vi. International Collaborations and Educational Initiatives:

1. The joint University of Calgary/Chinese Medical University (CMU Beijing, Youan Hospital) Liver Unit has been established and ongoing collaborations continue.

2. 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, and in further exchange visits and clinical preceptorships.

3. The IBD group continues to take a leadership position nationally in IBD education. Dr. Panaccione remains the co-chair of the Crohn's and Colitis Canada Future Directions in IBD program. He also sits on the steering committee of the Mentoring in IBD program. These are the two premier national educational programs in IBD.

4. The TAILOR Liver meeting is being organized and will be held in Banff from September 19-21, 2014. This meeting will include a large international faculty of liver immunologists, clinicians and translational scientists and will serve to highlight the University of Calgary Liver Unit and its' members to a wide audience of leaders in hepatology.

Innovations in Education

1. The Section will continue 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 (www.calgarygi.com).

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.

4. HepAPPtology is being constructed and is an iPad application for education in Liver Disease (Drs. Kelly Burak and Chad Saunders [Haskayne School of Business]). It will be used as a resource for the UME course as well as PGME and CME.

CHANGES IN LEADERSHIP POSITIONS FOR SECTION MEMBERS

• Dr. Paul Belletrutti continues in his role as Medical Lead GI Clinic, UCMC.
• Dr. Kerri Novak continues in her role as QA Medical Lead for the Section.
• Dr. Kevin Rioux was appointed 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 assumed the role of Director, Forzani and MacPhail Colon Cancer Screening Centre and the Southern Alberta Colon Cancer Screening program.
• Dr. Rachid Mohamed was appointed as Lead of Therapeutic Endoscopy, taking over form Dr. Jon Love who has filled this role so capably for many years.

SECTIONAL QA/QI INITIATIVES

1. Innovations to Improve Access:
Wait times for the sickest patients continue to be a priority, with wait times maintained below 6 weeks with urgent clinics template, both direct to procedure and to clinic. However, waits for routine requests continue to be challenging with an average wait time of 24 months.

Activities aimed at enhancing access for routine referrals include:
• ***Telephone consultation service*** expansion – currently, approximately 8 per month are completed with an aim to expand the service to support referring physicians with patients in the queue. Written materials (for patients) as well as clinical care pathways (dyspepsia, GERD and IBS) have been developed to support the care of patients provided by referring physicians.
• ***Nurse Navigator*** expansion – Multidisciplinary group IBS clinics were initiated at the FMC with more than 100 consultations completed since January, 2014. Ongoing collaboration with Living Well has led to on-site nutritionist/ dietitian support and expertise as well as development of written resources. Expansion to include IBS at both the Calgary NW and South PCN sites is ongoing.
• ***Direct to Procedure (DTP)*** continuing optimization – for all triage priorities, wait times are shorter. Scheduled nurse-led follow-up for patients who have undergone DTP will aim to improve follow up care. With physician supervision, this will be led by nurse clinicians and will begin in the fall of 2014.
- ***Colorectal cancer screening*** - FIT positive, CCSC ineligible patients for screening, target wait time 6 weeks, through nurse-based clinic with physician supervision
- ***Nurse-navigator clinic expansion*** – parallel clinics with nurse-clinician assessment and physician supervision are undergoing expansion. Here, improved follow-up (e.g. Direct to Procedure follow-up) led by nurses will improve clinic through put and efficiency
- ***CUPS clinic*** – many patients who receive care from CUPS, a non-profit organization based in the downtown core with an aim to enhance healthcare for economically disadvantaged individuals exhibit challenges in accessing GI care both in clinic and in endoscopy. An on-site clinic (once monthly) has been initiated to improve access and to support the education of patients and physicians in this clinic since January 2014, with provision of teaching materials, free-endoscopy preparation kits and transport post-procedure patients.

2. Endoscopy Utilization, Quality and Reporting: Endoscopy utilization has been optimized at the FMC endoscopy unit using the Physician Booking Optimization clerk. Across the Zone a validated process (every 6 months) 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) is ongoing. The most recent assessment achieved improvement on a number of variables, including patient instruction regarding preparation. Confidential reports were given to each endoscopist within the GI Section in 2013 (total procedures completed in the year 2012 - 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 in 2014. All patients both in hospital and outpatients receive endoscopic reports, as well as documentations regarding what to watch for and how to access care in the case of emergency. This was achieved with direct liaison with HealthLink. Follow-up instructions have been identified as in need of improvement, and this remains an ongoing focus for optimization of patient communication.

3. Patient Satisfaction: Surveys were administered to patients in February 2014, both for the endoscopic unit and clinic. Responders in endoscopy exhibited high satisfaction, reporting respectful interactions with high overall satisfaction. More than 92% reported receiving a written endoscopic report and 95% were satisfied with the way their results were communicated to them. 100% of patients reported clarity of instructions to prepare for their procedure and most patients were comfortable during their test (85%) with no reports of severe discomfort. Patients from clinic reported high overall satisfaction (90% >8/10) with 82% describing the clinic as well organized.

4. Endoscopy and Clinic Staff Satisfaction: 33 employees in clinic responded to this survey, with the majority (87%) feeling they make a significant difference to patient care. Many felt patient care is a top priority and most felt they had the necessary skills to perform their tasks. More than 50% reported enthusiasm about their work, however better recognition for a job well done was identified as a source needing improvement.

5. Clinic Patient Teaching Documents: Complete revision of endoscopy preparation and teaching sheets have been completed, with standardization across the Zone for both academic and private physician's offices, if desired. Three components include preparation, procedure information (risks, expectations) and frequently asked questions. 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). All materials will be made available on the GI Sectional website. Direct collaboration with HealthLink has ensured consistent messaging around after hours care for patients, particularly post-procedure.

6. Standardization of Admission Orders: In an attempt to improve access to decision support tools for complex medical conditions, two order sets have been developed: the gastrointestinal bleed order set was developed by a multi-disciplinary team and implemented in January, 2014. A second order set for inflammatory bowel disease (IBD) is aimed at implementation by August 1st, 2014. Evaluation of the use of both order sets will be undertaken for late 2014.

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 Processes: Dr. K. Novak with Dr. S. van Zanten (Head GI, Edmonton) co-led a multidisciplinary team entrusted with the development of an electronic province-wide referral guideline 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 aim is to establish e-referral in 2014/15 for the province of Alberta.

9. Gastrointestinal Bleed Working Group: In response to the complex issues around disposition, management and in-patient care for patients presenting with acute upper gastrointestinal bleeding, a multidisciplinary working group was established, including all GI site leads, site hospitalist leads, emergency department physician, and Quality Assurance GI lead, chaired by the FMC hospitalist site lead (Dr. Mike Libin). This working group has participated in the development of the GI bleed admission order set, as well as working towards improved work flow in the emergency department, with focus towards increasing use of a risk stratification score (Glasgow-Blatchford score) to facilitate appropriate admission disposition including discharge and timing of endoscopy for these patients.

10. QA Trainee Projects, City Wide Rounds: Implementation of mandatory QA training for GI trainees began in 2013/14 with inclusion of QA within the core curriculum. In addition, requisite QA projects will be completed during their 2-year training program. Residents will also be expected to participate in QA city-wide rounds, where complex clinical cases will be reviewed and core content regarding QA will be presented.

11. Development of Gastroenterology Acute Care Consultation Communication Guideline: Care of inpatients at the FMC is increasingly complex, given multiple comorbidities and medical acuity. With an aim to optimize in-patient consultative care for GI, a communication guideline was developed, to outline goals of communication for endoscopic results and management, follow up/ outpatient care to the most responsible physician. This may become a tool applicable to the Department of Medicine for other consultative services.

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 and at various Primary Care Network (PCN) sites will aim to optimize access. In addition, multi-disciplinary education sessions for large groups (lecture format) will be initiated for patients with functional disorders in the fall of 2014. This program will be nurse-led and multidisciplinary, with an aim to improve patient self-efficacy for the management of their functional bowel disorders. In addition, the Section was awarded a CMO grant ($25,000) and funds will be directed towards improved understanding and support of primary care in the care of patients within the medical home. Expansion of current clinics will be our goal, with targets including the Calgary NE (Mosaic) and South Central PCN.

2. Patient Education: The development of a Section of GI website is ongoing and will provide a key resource for patients and referring physicians, including wait times, preparation and teaching sheets, as well as nutrition and disease-based education resources.

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 not meet required expectations.

6. Evaluation of Clinical Decision Support Tools: Targeted for the fall of 2014, use of the GI bleed order set will be undertaken, with subsequent potential revision and update for optimization. Review of the IBD order set will occur 6 months after initiation (Spring 2015).

ADMINISTRATION

FMC
- Dr. Christian Turbide was hired as a FFS gastroenterologist to help support clinic and endoscopy utilization optimization initiatives within the Section.

PLC
- Dr. Edwin Cheng was hired as a FFS gastroenterologist and will continue to complete his 2 year course in Education through John Hopkins University.

RGH
- Dr. Laura Stinton was recruited to the RGH and started in July 2014 after completing her Hepatology fellowship at UCSD. She is a strong addition to the clinical team at the RGH in the area of hepatology.

SHC
- Dr. Michael Stewart will be joining the SHC group after completing his IBD fellowship at Cedars-Sinai in California (as of August 2014).
- Dr. Meena Mathivanan has joined the SHC group (as of July 1, 2014) after completion of her IBD fellowship in Calgary.

Career Transitions:

• Dr.'s Catherine Dube and Alaa Rostom left Calgary August 1st, 2013 to return to Ottawa where they both took up positions 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 returned from a one year motility sabbatical in Belgium as of July 1st, 2013.
• Dr. Alex Aspinall left the AARP to take on a FFS role as a hepatologist at the SHC.

UPDATE ON GI SECTION LINKED ENDOWED CHAIRS

(i) 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 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. Thomas Tedder, Duke University)

(ii) 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.

(iii) 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. Simon Hirota (PhD member of the GIRG) was selected as the recipient of this Investigator award and will hold this award for 3 years.

Section of General Internal Medicine - Annual Report
April 1, 2013 to March 31, 2014

CLINICAL

In 2013-14, the Section of General Internal Medicine (GIM) provided the following clinical services to the AHS Calgary Zone:

1. Nine Medical Teaching Units (MTU) and two General Medical Units (GMU) at four acute care hospital sites. The new ninth GIM inpatient service and the new second GMU started at the South Health Campus. These services are all 24/7, 365 days per year. Based on AHS Inpatient Discharge data, the clinical volume on these services continues to increase over and above the previous year (2012/13) as it has done each and every year over the past five years. At the time of writing, the Section has crude data for the 2013-14 fiscal year. Of note, 10 of the 12 months observed the highest number of discharges ever during the reporting fiscal year (and the remaining two posted a narrow second) overall reflecting a further 15% increase over and above 2012-2013. This also represents 21% and 10% annual increases over the previous two years and an overall increase of 52% over the past four year period (see Table below).

	A	B	C	D	E	F	G	H
1	**GIM discharge by site**						**% increase/yr**	**% change/4 yrs**
2	Year of Discharge	FMC	PLC	RGH	SHC	Grand Total		
3	FY 2010	1297	1553	1308		4158	baseline	
4	FY 2011	1305	1457	1363		4125	-0.793650794	
5	FY 2012	1703	1754	1556		5013	21.52727273	
6	FY 2013	1871	1869	1715	41	5496	9.634949132	
7	FY 2014	1805	1846	1704	964	6319	14.97452693	51.97210197
8								

   These increases in clinical volumes in part have been managed by tolerance of higher average censi and continued gradual reductions in the ALOS by 2.3 days over the past five years, with ~0.3 days of further reduction occurring in the past year. Another contributing factor to the Section being able to address the higher volume has been the addition of 20 GIM beds at the SHC. Of note, the intended design of a single 20 bed MTU immediately proved insufficient (confounded by the 2013 Calgary Flood) and has led to the creation of the second GMU. In aggregate, these two new services have continued to run at 50-75% over-capacity since their inception in 2013.
2. Six inpatient GIM consultation services (most run 24/7/365d/yr), including an Obstetrical Medicine service – to Surgical, Hospitalist, Neuroscience and Psychiatry colleagues. The new sixth inpatient consultation service has been initiated at the SHC and continues to include GIM back up to the Hospitalist-run Rapid Assessment Unit and GIM consultation services in the SHC Emergency Department.
3. Six daily streams of pre-operative surgical assessment clinics (mostly Monday-Friday) at four 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). The requests for, and volumes of, peri-operative GIM consultation continue to grow at all sites. Of note, SHC is expected to open more ORs in the fall of 2014 and as such, a great demand for GIM consultations is anticipated. Off-site pre-operative consultation also occurs in the community (e.g., Gulf Canada clinic).
4. Outpatient clinics:
    a. It remains difficult to accurately tabulate the total activity given a sizeable private clinic activity, much of it based in the community, among the Section's membership.
    b. As an example, the IMA associates involving GIM members at the Peter Lougheed Centre (PLC) run an Internal Medicine (IM) referral and follow up outpatient practice.
    c. The membership leads and/or participates in the Chronic Complex Disease Management (CCDM) 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 had been successfully reduced in previous years but this reporting year have begun to increase again. Among these is the newly introduced and expanded GIM subspecialty residents' longitudinal clinic, a clinic that has been able to offer GIM consultative services to a high proportion of new patients.

e. At the RGH site, approximately 125 GIM clinics were offered in the UCMG area, a number that can grow (MD HR capacity met, but physical clinic capacity not met). During the current fiscal year, two MTU follow up clinics per week have been in operation as has an additional "cost-neutral" Chronic Complex Disease Management (CCDM) clinic. The former has proved to be very useful for short-term follow up of those being discharged from hospital, possibly contributing to a shorter length of stay. Note that the RGH site has been able to make the greatest reduction in LOS and now has the lowest LOS among our four sites. Regarding the RGH CCDM clinic, although all indicators would suggest a valuable health service delivery and health resource-sparing role, this has yet to reach its full potential given the paucity of dedicated RN and allied health support that successful clinics such as the PLC CCDM possess.

f. WRT (d & e), Central Access and Triage show an aggregate 59% increase in the number of consultations requested and provided over the past five year. Despite this steady growth, GIM has maintained a short time to urgent OP consultation of around one week – specifically through our Urgent Assessment Clinics. However in this past year, the wait times for routine and now semi-urgent consultation requests have continued to increase as noted last year, such that approximately 350 patients were currently wait-listed without appointments as of March 2014, with approximately 50% being deemed "semi-urgent" by our triaging physicians. In an analysis of potential contributing factors, these are multiple. They include more hospital-based follow ups and possibly more referrals that arise because of long waits in some sub-specialty areas. Another contributing factor to the wait times is our increased practice pattern of providing more extended follow up to patients with complex and/or diagnostic issues. The addition of our longitudinal GIM subspecialty residents' clinics has buffered some of the increase by providing additional capacity to see a higher percentage of new patients. Overall, net OP clinic access time has remained constant, despite increased demands. These increases in OP consultation requests and wait list duration is likely to continue, given that increased in-patient 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, with Obstetrical Medicine clinic support about to begin at the SHC in the fall of 2014. Continued growth of Alberta population, particularly among young adults in child-bearing years and the trend among women to have children at a later age in life forecasts further growth for demands of Obstetrical Medicine services.

h. At the PLC site, the GIM Section has been extensively collaborating with the vascular surgery group to develop a model that enhances the medical and surgical co-management of peripheral vascular disease. This will involve risk factor modification, peri-operative care, and management of complications of PVD. The proposed model will involve a multidisciplinary team including physicians, nurses, podiatrists, orthotics, dieticians and other allied health care professionals.

i. Outreach clinics occur regularly (with expanding numbers due to an increased sectional 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. The latter will see an increased GIM presence this coming fiscal year (2014-15) with Dr. Gabriel Fabreau coming on Faculty. As well, GIM will begin providing regular and dedicated GIM First Nations clinics at the Elbow River Healing Lodge starting in September 2014.
    - Outside of the immediate urban setting: GIM provides clinic and consultative services in Brooks, Canmore, Claresholm, Didsbury, Drumheller, Fort McMurray, Morley, Red Deer, Strathmore and now Tsuu T'ina (all GIM consultations and optimization of CV risk). Two of our internists have begun a dialogue with the Primary Care physicians at Siksika Health Unit, both for clinical consultation and educational rounds.

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 detailed AHS separation data: the greatest growth within the increases in inpatient numbers cited above has occurred in those 50 years of age and older (e.g., 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. GIM inpatient services have seen incessant and remarkable growth in demands for the past five years. With an aging and growing population, it would be reasonable to assume that this trend will continue. During the past few years, this growth has been addressed by running higher censi on our inpatient units, shortening length of stay and the recent addition of 20 GIM inpatient beds at the SHC. A safe census limit has always been the topic of much debate. Recently published American data suggests that our MTU censi now consistently exceed a threshold above which there are associations with longer LOS and higher health care costs. Given the complexity of MTU patients, we expect that we may be hitting "hard rock" regarding further reductions in LOS beyond the 2.3 day reduction that we have achieved in the past four years. Although our SHC GIM census is continuously at more than 50% above capacity, we would welcome any discussions regarding increasing GIM bed capacity in the Calgary Zone that might help facilitate organized service and GIM HR planning. We do not expect further increases in resident or trainee numbers. Thus anticipation of IP service growth requires deliberate consideration of and planning for (i) non-teaching GIM inpatient services; this in our opinion should be based on increased formal bed assignments; and (ii) expanded outpatient capacity for complex patients such as CCDM, MTU follow up clinics and a "virtual ward" concept that has been tried in other Canadian Centers to both prevent admissions and to shorten LOS for complex MTU patients.
   b. Outpatient models of care that facilitate continuity of care following hospital discharge, management of complex patients and potential avoidance of admission or re-admission. In addition to the PLC CCDM clinic that is running at full capacity, this past year, the Section has added the "cost-neutral" CCDM clinic to the RGH site. The Foothills Medical Centre site is increasingly using RRDTC clinic capacity to arrange timely follow up of MTU and IP consultation patients with residual issues for the same purpose;
   c. 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 Section – intuitively, these have appeal, but any or all require investment in operational support, space and HR to allow any such innovation to function. In order to be successful, such units would need to be developed with extensive input from and shared ownership by AHS and clinical departments and sections such as ED, hospitalists, GIM, and other DoM subspecialty services.
   d. The GIM clinical needs for the South Health Campus have grown quickly and will need further HR 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. Further, it has been sustained to date by the engagement of a number of long term locums. Over the next few years we expect to stabilize this site's GIM workforce with the recruitment of selected individuals with advanced training and skill sets that match the GIM Section's, Department's, AHS' and the University's long term vision for the site. Fundamental to this vision is the extent to which UofC and AHS sees the facility as a Centre for more than solely clinical (albeit important) activity.
   e. Discussion with leaders in Aboriginal Health Services reveals an opportunity to provide necessary consultative services, especially within the urban setting. A subgroup of the Section has been formed and continues to develop to create strategies for high yield clinical work with vulnerable populations with health disparities.
   f. 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 Section 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 will soon be in need of augmentation at all four existing sites within the next few years, given retirements and career transitions. More than one third of the Section 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, but continued outpatient activities. This will prove to be a challenge when such acute care needs are increasing while the available on-call 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 compromised our ability to recruit necessary GIM members. Expansion under FFS models and engagement of locums tenens physicians have been our primary methods of meeting these HR needs in the short-term. There are important challenges associated with an exclusive FFS model of HR expansion. First is the current absence of a reasonable business model for FFS members to fully use AHS outpatient facilities. While there has been a welcomed proposal under consideration (B. Kathol et al), further discussion with physicians, completion of an acceptable model and successful offerings would be helpful. Second, there is, on average, a lower contribution by FFS members to AHS systems engagement and non-clinical academic activities. While there are many notable exceptions, realistically valued stipends for important non-clinical roles will improve engagement of our valued, committed and capable FFS GIM physicians.

c. The most sustainable model for the necessary expansion of our physician staffing the SHC remains unclear. If SHC is to have any meaningful academic presence, liberalization of at least some of the previously committed eight GIM ARP FTE would be necessary to support a critical mass of non-clinical time protection. This author suspects this is true not only for GIM but also other DoM sections and likely for other clinical departments as well. In the absence of such an investment by AHS and the University, it would appear likely that the SHC will establish itself as an almost purely clinical facility.

RESEARCH

All GFT members produced multiple publications and carried grant funding – noted in the table below. In addition, Section members have extensively contributed to integrative roles including serving on grant panels, conducting grant and manuscript reviews, and serving in a number of Journal Editorial roles.

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

Peer-Reviewed Manuscripts	53 (plus 7 in press and 9 submitted)
Non Peer-Reviewed Manuscripts	6
Book Chapters	1
Scientific/Technical Reports, Abstracts, Presentations	58
Invited Presentations	50
Funded Research	$11,454,320

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 sectional focus.

Sectional Research progress and opportunities:

- Research productivity within some of the growing areas of sectional strengths: e.g.:
    - Health services research (ongoing work of Ghali, Campbell, Fabreau, Tang, Leung and others): specific examples include work in the areas of health systems research, health disparities, and public policy as it relates to vascular health and the relationships between government and the food industry.
    - Obstetrical medicine (a database to capture baseline demographics for one of the largest and most cohesive ObMed program – Hawkins, Castillo, Sam, and Gibson): specific examples include the management of vascular risk factors, hypertension, eclampsia and cardiac diseases in pregnancy. Parenthetically, the Obstetrical Medicine group is thrilled by the Department's, AHS' and the University's support in recruiting a fifth academic member to this group in the forthcoming year;
    - Physician wellness and workloads (Lemaire, CIHR grant recipient): the MTU preceptor role project has moved from study completion to data analysis. This is likely to be a transformative project with much national interest;

- Medical education research (Ma, Bacchus, Altabbaa and colleagues): specific examples include assessments of learning and assessments of bedside invasive procedures; simulation-based curriculum; and the role of bedside ultrasound for IM physicians.
- Cardiovascular clinical research (Herman, Pollak, Hamilton, Campbell, Zarnke and others): among other themes, a highlight includes Dr. Herman's very innovative work in studying the retina with new imaging technology as a window to assessing vascular function in his studies using OCT-SD to assess the relationship between retinal findings and clinical outcomes among patients at risk of hypertensive urgencies and emergencies.

- Working with and engaging the research resources associated with W21C
- Using recruitment to foster the research profile of the Section (Evan Minty, Gabriel Fabreau, Karen Tang and foreseeably, the Buchanan Chair position in 2013-14, Clinical Scholars)

EDUCATION

Estimated Teaching Hours*

Outside of clinical settings:	Hours	Comments/Sources/Assumptions
UME, PGME, CME combined	3249	Based only on STAR report for ARP members (thus, markedly underestimates participation of non-ARP members)
Supervision of Trainees of mixed levels in clinical settings:		
UME, PGME combined	~15,000	Crude estimate: Assumes ~20% teaching time in teaching services
Supervision/mentoring	3,846	More easily estimated for ARP members based on reporting system

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

The Internal Medicine Core 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 four Associate PDs, all five being GIM Section 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 has increased from five to six. In addition, Family Medicine especially, and 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 sectional publications and presentations), a junior night float model was piloted successfully and implemented during the past reporting year. Additionally, the formal study of the role of the preceptor is the focus 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. Examples of this include the CIHR-funded RCT of an SCM-based seamless discharge tool (project completed, data under analysis), implementation of bedside ultrasound (see below) and an online "quality job jar" project under development.

The Section 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 is particularly notable at the RGH and the FMC sites and now at

the SHC, with its new SIM facility. Another application of innovation in the educational setting during this year has been the ongoing launching of a teaching curriculum and now more widespread use of bedside ultrasound for enhanced safety of procedures (e.g., central line insertion) and for enhancement of, and immediate validation of physical exam findings. Parenthetically, three members of the Section (Ma, Schaefer and Zarnke) have formed, hosted and consolidated a group of like-minded Internal Medicine ultrasound enthusiasts. This group has successfully developed the first Canadian curriculum for Internal Medicine ultrasound (publication in press) and is formally studying its development and implementation at post-graduate and faculty development levels, with the support of the Department of Medicine, W21C, and the Canadian Society of Internal Medicine.

GIM R4/5 RESIDENCY PROGRAM AND CLINICAL SCHOLARS PROGRAMS:

In the fiscal 2013-14 year, the Section of GIM applied for and successfully received first, University of Calgary PGME, then Royal College endorsement of a GIM Subspecialty training program. The University of Calgary GIM residency program has historically been a highly sought-after post-graduate program within Canada, with the number of local and national strong applicants far exceeding our ability to enlist. This new milestone permits the Section to offer a more fulsome two year program that provides greater training opportunities for prospective General Internists to develop more in-depth clinical skills for practice and academic training for clinicians that aspire to have an educational and/or research focus as a major part of their career. The immediate consequences include "carrying" up to six new GIM residents per year – i.e. for a combined (R4 +R5) cohort of up to twelve residents at any one time. Significant challenges related to this are (i) a notable shortfall in the adequacy of support for the Program Director: both in terms of protected time and administrative support; and (ii) a lack of any dedicated space for our GIM residents to use as an office or desk space for downtime study or academic purposes.

Clinical Assistant (CA) Program

The UofC Department of Medicine CA program, while serving as a departmental resource, is managed almost exclusively by the Section 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 sections within DOM but also outside of DOM (e.g., Neurology); This reporting fiscal year, this mandate has taken on an increased importance as recruitment of five additional clinical assistants has aided 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 underserviced 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, but noting that it comes at the cost, that is at times high, of instability of the CA workforce.

An implicit assumption in the way the current CA program functions is that the continued exodus of IMG to residency training streams (second mandate referred to above) is viewed as desirable by those who have a stake in provincial physician workforce planning (e.g., AH, AHS, CPSA and AMA). Feedback to the program from such stakeholders would be welcomed. Last year, we had 3 CAs successfully transitioned to the AIMG Program.

LEADERSHIP and ADMINISTRATION

The Section 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 that many individuals report their roles but do not report their time commitment. Notably, this does not include quantification of the non-trivial participation of our non-ARP membership.

A partial list of leadership roles that members have taken on would include positions in the following spheres:
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)
National (e.g., Chair and Co-Chair, RCPSC IM Executive Committee, Integrated three national HT societies in single entity (HT Canada), CSIM Chair, Globalization Committee),
Provincial (e.g., AH&W Expert Committee on Drug Evaluation and Therapeutics, AHS medical lead on Chronic Disease Management)

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
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
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; leads on)
Departmental (e.g., Vice Chair, Physician Wellness; Vice Chair, Quality Improvement; IM RTP director; Lead on ISA Harmonization).

Recruitment during this period included:

Name	Area of Interest	Primary Site
Dr. Karen Tang (Fractional FTE, given ongoing research fellowship)	Community Health Sciences, Institute of Public Health	FMC/UofC
Dr. Gabriel Fabreau	Community Health Sciences, Institute of Public Health	FMC/PLC/UofC
Dr. Kara Nerenberg	Maternal Fetal Health and Obstetrical Medicine, Women's Cardiovascular Health (Libin), Institute of Public Health	FMC/UofC
Dr. Leanne Reimche (Part-Time to Full Time);	Drug Safety, Health Administration	SHC

Locums tenens providing significant Clinical Contributions, especially at the SHC, Dr. Nidhi Sood, Dr. Jennifer Ngo, Dr Jasjeet Rai, Dr. Magdalena Sarna, Dr. Matt Lauzon.

Honors and Awards

RECOGNITION AWARDS:
Dr. Douglas Hamilton – University of Calgary Clinical Research Award (significant contributions to clinical research, which placed him within the top 1% of his peers in the faculty (2014)
Guenter Distinguished Achievement Award for International Health – Dr. Norman Campbell (June 2014)
McLeod Distinguished Achievement Award for Excellence in Teaching – Dr. Irene Ma (June 2014)
Dr. Terry Groves Award for Clinical Excellence – RGH: Dr. Ram (Paul) Singh
Dr. John Dawson Award for Clinical Excellence – FMC: Dr. Robert Herman
Dr. Tom Enta Award for Clinical Excellence – Community: Dr Eugene Adamiak
Rockyview General Hospital Room Dedication Plaque Presentation – Dr. Ram (Paul) Singh
The Benevolent Heart Award – Dr. Lee-Ann Hawkins (Department of Medicine)

National & Provincial:
Canadian Association for Medical Education Certificate of Merit – Dr. Irene Ma
Order of Canada member - Norm Campbell
Fellowship in the Canadian Academy of Health Sciences - Norm Campbell (Recognizing an academic staff member, or group of staff members, who through their research and/or other scholarly, creative or professional activities have made an outstanding contribution to the wider community beyond the university.)
Canadian Cardiovascular Society Dr. Howard N. Segall Award (award is for disease prevention and health promotion), Award of Merit - Norm Campbell
Confederation of Alberta Faculty Associations Distinguished Academic Award - Norm Campbell
Guenter Award for International Health from the Faculty of Medicine, University of Calgary – Norm Campbell
Highly Cited Researchers; Global Most-cited List – Dr. William Ghali, "Making the biggest impact in science – representing the top one percent of the most numerous citations from 2002-2012" globally.
University of Alberta Alumni of the Year 2013 – Dr. Doug Hamilton

University:
Killam Annual Professorship – Dr. William Ghali (Department of medicine/Community Health Sciences)
ASTech Societal impact Award – Dr. William Ghali (Department of Medicine/Community Health Sciences)

2013 Work Life Balance – Dr. Anna Purdy

Departmental:
2013 Silver Finger Award – Dr. J. Paul Davis
2013 Repeat offenders Award – Dr. Irene Ma
2013 Golden Bull Award – Dr. Marcy Mintz
Dr. John M. Conly Innovation Award 2013 – Calgary Obstetrical Internal Medicine Group: Dr. Paul Gibson,, Dr. David Sam, Dr. Lee-Ann Hawkins, Dr. Eliana Castillo, Bonnie Kraft
2013 GIM Merit Award – Dr. Ghazwan Altabbaa, Dr. Fiona Dunne, Dr. Marcy Mintz
ARP Merit Award 2013 – Dr. Fiona Dunne

DOM Residency Training Program Awards:
2013 Star Educator Award RGH PGY1 Specialty residents – Dr. Horacio Groshaus
2013 Star Educator Award RGH PGY1 Specialty residents – Dr. Khan Ali
MSA Physician recognition Award RGH – Dr. Anna Purdy
2013 PGY 1 Educator Award RGH – Dr. Sandeep Deol

DOM Clerkship Awards:
Clerkship Faculty Award – Dr. Troy Pederson

Faculty Development:
Dr. Anna Purdy: "Master" Clinician, completed Master Clinician Program (Feb 2014)
Dr. Irene Ma: enrolled in a PhD in Medical Education at the UofC beginning September 2010.

CHALLENGES AND FUTURE DIRECTION

2013/2014 has been a year of relative HR stability in setting of increased clinical demands for the Section of GIM in Calgary. During the forthcoming year, the Section will need to continue to plan carefully for the expanding GIM clinical needs as well as the impact of the aging HR workforce. The continued expansion of clinical services at all sites is anticipated, given inevitable growth and aging of our population.
More specific to #1, within the next few years, the Section will need to meaningfully address the issue of non-teaching services. Since incessant growth has been a pattern at all acute care sites and because movement of patients among sites is difficult for many reasons, models of care for GIM/MTU appropriate patients at each site will likely be necessary.
Regarding physician remuneration models as tools to foster health systems goals and necessities, the continuing uncertainty regarding decision-making about, and control of the current DOM ARP, and the nature of any potential provincial AARP, has an ongoing negative impact. The planning for clinical changes as outlined above will necessarily continue despite continuing uncertainty around the ARP negotiations. However, hopefully this does not impede efforts to train, attract, recruit and retain generalist physicians with strong academic and non-clinical skills and aspirations. The future opportunities for academic prospects is one of the most constant questions expressed by more senior trainees: the existence of some greater clarity would provide important fence posts that those contemplating an academic career can incorporate into career decision-making;
The Section's contributions to the Faculty's education mission at all levels will continue with widespread enthusiasm and committed engagement. 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
The operationalization of the new two year RCPSC GIM Subspecialty Fellowship Program is providing a learning opportunity for all, from the residents themselves to our sectional members involved in the program, as well as the University's PGME and the Royal College.

Section of Geriatric Medicine – Annual Report
April 1, 2013 to March 31, 2014

The Section of Geriatric Medicine has 10 members following the recruitment of Emily Kwan in the fall of 2013. One member returned in spring from a prolonged leave.

7 members are full time in the ARP and 3 are part time members. 3 of our members have GFT appointments while the others have Major Clinical appointments with the University of Calgary.

Our total FTE is 8.15 and breaks down into:
5.28 FTE Clinical (61%)
1.57 FTE Administration (18%)
1.15 FTE Research (13%)
0.644 FTE Education (8%)

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 Zone. Clinical data is collected for a calendar year.

Clinical activities that are the responsibility of the Section of Geriatric Medicine include:
Consultation Services at all the Acute Care sites, including setting up new consultative services at South Health Campus
Consultative Seniors Health Clinic and the Falls Prevention Clinic.
Consultative support to the Geriatric Day Hospital
Consultative support to the Geriatric Assessment and Rehabilitation Program
We provide geriatrician support to other programs outside of the Seniors Health program including Primary Care Network.
There have been challenges in meeting demands due to the retirement of one member and another member being on prolonged leave. However, section members rallied and provided support above and beyond their ISA to assure core services were covered. This has resulted in longer wait times in Seniors Health Clinic.

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 function 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 **2100 visits in calendar year of 2013.**

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: Geriatricians provide consultative support to the West Central PCN Geriatrics team, the Alex Seniors clinic and the Foothills PCN navigation team.

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 **1,411 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.

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

RESEARCH

Reporting for this section is for the calendar year for 2013.

Scholarly Productivity: In 2013, the Section has produced:
16 peer reviewed publications and 6 peer reviewed abstracts with 3 in press.
3 non peer reviewed publications

Major Funding: Sum of Successful grants allocated to Members is $14,021,970

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.

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 PROJECTS:

An interdisciplinary initiative focusing on implementing Elder Friendly Care practices within Calgary acute care hospitals
A collaborative initiative with the Calgary-zone Hospitalist QI group focusing on reducing the use of anti-psychotics and sedatives among older hospitalized patients
Appropriate Use of Antipsychotics, project with Seniors SCN.
Seniors Health Clinic is working with AIW and Path to Care to improve clinic processes and wait times.

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 1,432 hours to teaching at various levels**.**

Undergraduate	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. 3 members are Master Teachers. 2 Members chair UME education committees Dr. Burback is co-chair of Course V UGE (Neurology, Aging and Special Senses) Dr. Pearce is the chair of the Integrative Course. Section members supervised 45 Clerkship rotations ranging from 2-4 weeks. This includes electives of out of town students.

	3 members supervised medical students in Course 440 Participation in OSCE Participation in CaRMs interviews Members participate in the faculty advisor program
Postgraduate	All members participate in teaching and supervision of residents on rotation in Geriatric Medicine. We had 3 PGY4 in Geriatric Medicine with residency starting in July 2013. We also provided teaching and supervision to 2 Care of Elderly PGY3. 72 Residents did a clinical rotation in Geriatric Medicine, from Internal Medicine (31), Family Medicine, PMR, Psychiatry, Pathology, and Neurology. Each had a 4 week rotation in Geriatrics Geriatrics participates in Noon Teaching Rounds and Academic Half day of various PGME programs. 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	16 graduate students were supervised by Section members
CME	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 2013. Dr Heidi Schmaltz is the CME lead for the Canadian Geriatrics Society. 14 invited presentations locally, provincially and nationally and 16 workshops or poster presentations
Other	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. Burback is the Chair of the Canadian Geriatrics Society Education Committee

ADMINISTRATION

Members of the Section 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
Vice President, Canadian Geriatrics Society
National Lead for Choosing Wisely Canada/Canadian Geriatrics Society recommendations (April 2014)
Member, RCPSC Internal Medicine Examination Board
Dr. Holroyd Leduc:
Scientific Director of Seniors SCN
Alberta Clinical Council
DOM QI Lead until July 2013
Chair , KT committee TVN Research (NCE)
Just Culture Advisory Committee
Co-Chair, Elder Friendly Advisory Group
Leader, Hospitalized Elder Life 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
Co-Chair, Appropriate Use of Antipsychotic Project, Seniors SCN
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
Program Director, Geriatric Medicine Program
Dr. Kwok:
Sectional Representative, ARP Management Committee
Zone and RGH Decision Capacity Committee
RGH Ethics Committee
RGH Elder Friendly Site Committee
Dr Schmaltz:
CME Lead for the Section of Geriatric Medicine
Chair, Canadian Geriatrics Society CME committee
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
W21C committee

AWARDS AND HONORS

4 Section members received a total of 16 Associate Dean's Letters for Teaching Excellence in the UGE curriculum.

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

J Holroyd Leduc received the DOM Quality Improvement and Patient Safety Award

CHALLENGES AND FUTURE DIRECTION

Challenges:
The ability of the Section to manage its current work load is precarious. With the absence of 1 member for a prolonged period of time, and the retirement of Dr. Powell, it was difficult to manage but thanks to the dedication of the section members, all services were maintained. Dr. Emily Kwan joined us in fall 2013 and brings with her additional expertise in Education and Wound Care.
In July 2014 we will welcome 3 PGY4 into our Geriatrics Medicine training program. Our plan is to recruit one of these individuals for July 2015 and the other for July 2016. This plan will require ARP support and also AHS support for resources to enable 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.

Opportunities: Areas for potential growth:
In September 2014 we hope to open 4-5 Seniors Health Clinics/week at SHC

Collaboration with Home Care, including their Dementia Care Team and Geriatric Consult Team
Consultation to RCTP units

Future Directions:

Recruitment to Geriatrics has to be a priority and will only be successful with support through an ARP. 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.
Fill vacancy at PLC left by geriatricians moving to support SHC.
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.
Consultation to RCTP.
Increased Academic productivity. Much of the last 3 years have been struggling to cover clinical services. With additional recruitment we could focus on increasing the scholarly activities of the Section.

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, 2013 to March 31, 2014

CLINICAL

1. New Clinics, Initiatives and Innovations

- Recruitment of Victor Zepeda (TBCC BMT) December 1 2013, Jiri Slaby (PLC) November 2014, Jennifer Grossman (FMC/Immune deficiencies, TBCC/Bone marrow failure syndromes) May 2014, Adrienne Lee (FMC/RBBD) July 1, 2014. Plan to recruit Deepa Suryanarayan (Thrombosis) July, 2015.
- Continued development of the Rare Blood and Bleeding Disorders Comprehensive Care Program, under the leadership of Dr. Man-Chiu Poon.
- Meetings held with FMC and PLC site leaders to discuss the amalgamation of Hematology at the FMC site.
- Development of an immune deficiencies program involving adult and pediatric Hematology, Transfusion Medicine, General Internal Medicine, Rheumatology, TBCC.
- Initial plans to develop a city-wide thrombosis program with the recruitment of at least two hematologists with subspecialty training in thrombosis, which may include thrombosis and other hematologic issues of pregnancy

2. Key Partnerships

- Provincial Hematology Tumor Group (TBCC, CCI, Associate Cancer Centres, Hematopathology in Calgary and Edmonton)
- World Federation of Hemophilia Country Program for China (Man-Chiu Poon)
- Monthly Hematology Clinics in Medicine Hat
- BMT Clinics every 2 weeks in Edmonton
- International Health Program Project, Laos (Chris Brown)
- Pediatric Hematology: Hematology Training Programs and Hemophilia Programs

RESEARCH

1. Scholarly Productivity

Peer Reviewed Publications/Articles – 38

2. Major Funding (PI only) –Total Approx. $2,772,350

New: $821,000
Sources: Canadian Institute of Health Research,

Ongoing: $1,951,350
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)

- 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:

- 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)
- Editorial Boards: Blood (N Bahlis), Oncology (D Stewart), Clinical and Applied Thrombosis and Hemostasis (Poon), International Monitor on Hemophilia (Poon)

EDUCATION

Teaching Hours (Approximate)

	Approximate. Number of Hours
Undergraduate	MDCN 350, 440, 540, 320: 259 hrs
Postgraduate	MDSC 731.02 MDSC 678, & Resident Seminars, Journal Club: 54hrs Hematology Educational Rounds: 40 hrs
CME	Local/National/International: 43 hrs
Thesis Supervision	1PhD, 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, Thaell, 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

Challenges

Development of a comprehensive New Cancer Centre and the role of hematology in this new centre

- 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 is 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.
- Can these issues wait until NCC is developed?

New ARP and Recruitment: no available funded positions, difficulty in finding office and clinic space, secretarial support.

- Continue to recruit and develop programs using FFS model?

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.

Future Directions - Goals for the coming year include

- Functional planning for the NCC is complete. When final plan is approved, move toward developing a master plan for hematology in Calgary, and the steps needed to implement this:
    - Consolidate high acuity tertiary Hematology Services from 2 sites (PLC and FMC) to one site (FMC).
    - Coverage plan for SHC, PLC, RGH before and after closure of PLC inpatient hematology
    - Recruitment planning to meet manpower requirements programmatically and geographicaly:
      -Benign Hematology/Rare Blood Bleeding Disorders Program, Thrombosis program
      -SHC, PLC site
      -Retirement replacements.
- 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-reviewed 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.
- Explore use of sabbatical for GFT and non-GFT members

Section of Infectious Diseases – Annual Report
April 1, 2013 to March 31, 2014

The Adult Infectious Diseases Section has 27 members (17 AARP members (16 FTEs) and 9 Fee for Service physicians (2.3 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 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 population at each site is different. The Section ran > 1,800 outpatient clinics (1,700 in prior year) and oversaw the outpatient treatment of almost 46,000 ambulatory patients.

Clinic	Access	Innovations	Case Load (previous year in parentheses)
Home Parental Therapy (HPTP)	-resolved crisis re product recall of antibiotic pumps	-initiation of computerized bookings	1,222 clinics 17,074 (15,999) physician visits 6,937 (6,877) new patient visits 9.6% increase
Southern Alberta (HIV) Clinic (SAC)	-increasing use of telehealth conference for stable patients who live outside of Calgary	-now do TB screening via IGRA/Quantiferon -start anal pap screening -new domestic violence study	291 (231) clinics 4652 (3101) patient visits 216 (162) new patients 1576 (1467) active SAC pt
Sexually Transmitted Infection (STI) Clinic	-established anal pap clinic -outreach collaboration with community program -participant in Nexopia.com allows connection with teens at risk	-out of clinic contact testing program -fast stream triage for high risk patients -development of new screening program for low risk patients	130 (174) MD general clinics; 302 nursing clinics 11 anal pap clinics 22,291 (30,629) patient visits 7158 (6,879) new patients
Cystic Fibrosis Clinic (CF Clinic)	-2 physicians + Nurse practitioner sees patients -increase in number of pts hospitalized (553 days)	-transition clinic for pediatric patient prior to age 18 -gaining access to new therapies	75 (132) clinics 848 (867) clinic visits 170 (170) total patients
Transplant Clinics	Consults done in the hematology clinics as urgent (same day) consult		48 (42) 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.	75 (123) clinics 443 (203) patients seen 206 (196) new patients
Tropical Diseases Clinic	-regular Friday afternoon clinics	-Became Geo-sentinel site -cofounded national Tropical Case Rounds	33 (28) clinics 127 (79) patients; 80 (46) new patients
Hepatitis C Treatment (CUPS and SAC)	-working with all parties to arrange for drug coverage when new HCV available	-collecting data showing effective therapy can be provided in a	75 pt screened (nurse) 88 new patients 350 visits

		disadvantaged population	

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

Infection Prevention and Control (IPC). Highlights of this program include:
Participation in province wide Hand Hygiene survey
Focus on controlling *C. difficile* infections by working with Alberta laboratories to standardize the testing for *C. difficile*, expansion of the surveillance system to include the community acquired cases, quarterly reports, standardized patient management algorithms
Presented abstracts at national and international meetings
Published several IPC papers in peer reviewed journals
Continued to participate in the Canadian Nosocomial Surveillance System

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.

Antimicrobial Utilization and Stewardship
The focus continues to work towards harmonization of a provincial antimicrobial formulary, revisions and updating clinical guidelines re the appropriate use of antimicrobial agents including developing a novel mobile device application. The Committee reviewed and disseminated new surgical prophylaxis guidelines. The Committee was involved in the validation of cost saving protocols for therapeutic exchanges for a number of antibiotics.

RESEARCH

The Section is active in research at several levels from bench to bedside. Section members spent 520 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):
39 Papers in peer-reviewed journals
21 Abstracts
2 book chapters
Presented papers or were invited speakers at a variety of scientific meetings: 25 local, 15 provincial/national and 8 international scientific meetings. Several members are involved in the organization of local, national and international meetings.

Major Funding

Section members currently hold over $2.6 million in research grants for the 2013 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. Section members have international recognition as leaders in HIV domestic violence research (Dr. Gill), CF microbiome research (Drs. Rabin and Parkins) and C. difficile treatment research (Dr. T Louie).

Research focus of members:

Dr. A Chu	Osteomyelitis, STIs, anal pap smears
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, HCV
Dr. M. Louie	Medical microbiology, *E. coli* O157, environmental antibiotic resistance
Dr. T. Louie	*C. difficile*, MRSA decolonization, infection control
Dr. G. Macphail	HCV, marginalized patient population

Dr. M. Mah	Social marketing, adult learning
Dr. B. Meatherall	Tropical and Travel medicine
Dr. B. Missaghi	IPC, Human Microbiome
Dr. M. Parkins	Cystic Fibrosis, biofilm infections
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 of training 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. The Section spent time with 181 supervising Nurse Practitioner Students (25% of the time spent with these students).

Type of Education	Number of hours for Section
Undergraduate (Faculty of Medicine)	134 hrs formal lectures (some preparation time) and 81 hrs teaching small group sessions for medical students MDCN 504/514.17 (bedside clerkship teaching) 398 days or 2056 hours 1480 clinical teaching hours (0.25% of service hours) 84 hours supervising student projects (13)
Postgraduate	357.5 hours of formal teaching (preparation time) plus clinical teaching GIM/Family Practice Residents 910 days or 7280 hours service 1820 teaching hours (0.25% of service hours) ID Residents 361 days or 2888 hours service 722 teaching hours (0.25% of service hours) 444 hours supervising resident projects (11)
Graduate	2 hours of formal teaching 138 hrs supervising Master (5) and PhD candidates (4)
CME not related to U of C	34 hours (local physician and healthcare provider CME

Teaching Activities:

ID Resident Teaching Program. The training program is fully accredited by the Royal College of Physicians and Surgeons of Canada (reviewed 2012). All members of the Section are actively involved in the ID training program. The adult infectious diseases training program has continued to revise the education content of the program. All trainees now participate in a 4 day orientation week which includes patient simulation situations.

Educational Leadership

Dr. Ron Read is an active member of the Undergraduate Medical Education Committee of UME. Dr. Read has also been involved in the creation of a Sexually Transmitted Infection module for Family Medicine Residents. Dr. Bonnie Meatherall (Course 1) and Dr. Michael Parkins (Course 3) are the Infectious Diseases leads for these undergraduate courses. Dr. Meatherall also organizes an "ID Survival" Course for the medical student in February prior the students starting on clinical service.

New Initiatives and Innovations:
Development of outreach programs to reach STI patients
Increased number of research projects involving trainees

Institution of an anal pap program
Provided the leadership to create national Tropical Disease monthly rounds

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 20.7% of the FTEs (3.1 FTEs). Section members participate in 74 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 Fibrous Clinic and e) Infection, Prevention and Control (IPC) program. Five section members are medical IPC site officers at 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
-Chief, Section of Dermatology
-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
- Program Director, Infection Prevention and Control Program
- 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: ASTech Societal Award Recipient; elected Fellow of the Infectious Disease Society of America

Dr. John Gill: Elected to Governing Body of the European AIDS Clinical Society

Dr. Donna Holton: Bronze teaching award U of C Medical School

Dr. Jack Janvier: Bronze Teaching award U of C Medical School

Dr. Manuel Mah: Star Educator Award PGY1 Program at RGH

Dr. Mike Parkins: Robbie Award for most promising new researcher in cystic fibrosis

Dr. Stephen Vaughan: Internal Medicine Rookie of the Year Clinical Award

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 with the largest site having two clinical ID services. The Section cares for patients in more than 1,800 half-day outpatient clinics (HPTP, SAC, STI, CF clinics, General ID, Tropical Diseases). The focus of these outpatient clinics is to prevent hospital admissions by providing timely outpatient care. Although the opening of South Health Campus has decreased the number of patients receiving treatment at the Rockyview General Hospital, the number of patients being referred for care at HPTP continues to increase in both numbers and complexity. Weekend coverage of HPTP is challenging as 4 clinics are compressed to two clinics without any change in number of patients seen. Access to some antimicrobial in the outpatient setting can be challenging as some drugs have very restricted access. Calgary is now a Geo-Sentinel Site in an international tropical diseases surveillance program. The high risk anal pap clinic has opened and developed a screening program within the HIV Program. The ID Section works with IPC and public health to try to prevent disease transmission in both outpatient and inpatient settings.

In 2012-2013, the ID Section had at least two staff physicians working in all the specialized outpatient clinics (see Clinical Section). In the future, GFT physicians will need to be recruited to maintain a strong academic presence. The Section is able to manage the workload and allow members to have a good life balance. The Section has a high percentage of attending physicians, who are baby boomers. The Section will need to hire several physicians over the next 2-10 years.

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 July 2013, 5 full time fellows and 2 fellows on maternity leave were registered in the training program.

The Section continues to develop algorithms that allow nursing staff (Nurse Practitioners (2) and nurses in specialized areas (HIV and STI) to independently 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 and STI patients who live outside of Calgary on alternate visits. We also use teleconferencing to share information with various 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, 2013 to March 31, 2014

CLINICAL

Dimensions of Quality	Clinic, Innovation, Initiative	Key Personnel / Leads	Outcome Measures (compared to pre-implementation.)
Access	Nephrology Central Referral Clinic	Louis Girard	Registered Nurse (RN) triaging 95% of referrals. Standardized letters to GP's on 15% of referrals. Significant volume challenges with referral per month doubling over last 12 months. Waiting list now exceeding goal of care. Nephrologists and NP's increasing clinics. Number of patients waiting decreased for 843 to 610 but still not acceptable. More clinics at UCMC and new clinic space at Sunridge Landing should help with backlog. Recruitment of nephrologists is needed.
Access and Effectiveness	1) Kidney Disease Prevention clinic – Outreach to aboriginal population. Nurse practitioner managed protocol driven evidence-based clinical practice guideline for management of diabetes, hypertension, dyslipidemia implementation – added second NP 2) Telehealth – Started in 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. 3) Peritoneal Dialysis (PD) Home assist program	B.Hemmelgarn Matt James Ellen Novak NP Sumeet Dhaliwal Sandy Anderson All Nephrologists – paramedical staff All nephrologists	Interdisciplinary Chronic Disease Collaboration (ICDC) published for effectiveness and cost-effectiveness. New clinic opened in Calgary at CUPS and Bow River Healing Lodge. SikSika clinic expanded to Blood Reserve near Cardston. Challenge is lack of NP funding. Can't meet the demand for clinics None except subjective improvement in patient satisfaction when care delivered by telehealth rather than patient coming to clinic Increase in PD patients that are borderline candidates due to fragility. LPN comes into the home daily to help set up automated PD system.

Effectiveness and Safety	1) 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 for 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. Stable patients are removed from CNS workload. New 0.4FTE NP assigned to clinic and in process of being trained.
	2) Hemodialysis Insertion Simulation	Dr. Kevin McLaughlin	Training and recertification on the ultrasound guided insertion of hemodialysis catheters with the guidance of Dr. Kevin McLaughlin

OTHER

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 been partnering with NARP and developed a Pain Assessment and Management Tool to be used province-wide. Patient satisfaction very high. Patients stopping dialysis are followed by clinical nurse specialist in palliative care.

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 ceased in 2013. SARP is still expanding the Hemodialysis 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 bicycles 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.

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.

CKD Clinical Pathway – Under the guidance of Dr. Brenda Hemmelgarn and evidence based clinical care pathway for Chronic Kidney Disease has been developed and is in the process of being housed on an AHS server.

Dialysis Management Analysis and Reporting (DMAR) – Dr. Rob Quinn has developed a web based tool for determining the barrier to hemodialysis therapies including Peritoneal dialysis and Home hemodialysis. Using DMAR we have understood the barrier and been able to increase our use of less expensive home therapies to the highest in Canada (32%). In addition these tool tracks the placement and use of vascular access for hemodialysis patients and very interesting data is emerging suggesting over use of Artero-venous Fistulas in certain populations.

Medication reconciliation – Dr. Chandra Thomas has led a very successful expansion of this program from the Medical Teaching Unit to Unit 37 FMC. Improved care with increased safety is demonstrated.

Key Partnerships – Provincial, National and International

1. Members of the Section of Nephrology including Drs. Manns, Hemmelgarn (Co-PI'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 was just renewed for a further 5 years! They have already set up partnerships with other researchers in chronic disease and with health service 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.

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 Health 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. Recruitment is ongoing during this reporting period

RESEARCH

i Scholarly Productivity

a) Peer Reviewed Publications / Articles

Section of Nephrology involved in the publication of over 90 different peer reviewed articles, over 70 as 1st, 2nd or senior authors. 30 more manuscripts in press and over 50 abstracts

b) Over 15 invited presentations

ii Major Funding: Source and dollar value

Members of the Section of Nephrology have active funding of just over $20 million dollars of which just over $2,750,000 is payable in the current year of this annual report. The main funding agencies are AI-HS 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.)

- Health Services – Drs. Manns, Hemmelgarn, Ravani and now Dr. Quinn working through the ICDC and the AKDN with grants totally well over $5 million

- Medical Education – Dr. McLaughlin, Dr. Chou and Dr. Adam Bass 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. McLaughlin is particularly prolific in these areas as well as in the area of Simulation teaching.

- Drs. MacRae, Ravani and Quinn investigate the areas of Hemodialysis adequacy and Vascular Access and cardiovascular disease

- Drs. Hemmelgarn, Manns and Muruve through the AKDN and ICDC are investigating genomic factors that influence chronic kidney disease

- Drs. Muruve, Wendy Wang and Tibbles continue to work on basic science areas that include gene therapies, immunologic responses especially inflammazomes, fibrosis and immune tolerance

- Dr. Ahmed continues strong translational research into the etiology of glomerular nephritis, sleep disorders, CKD in aboriginals, vascular access.

- 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.

- 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.)

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
- The Section has raised $1.6 million of a proposed $6.5 million for an endowed Chair in Renal Molecular Medicine and Apheresis

EDUCATION

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

Thesis Supervision	Over 500

Sofia Ahmed

Postgraduate:

2013/01/17 - 2014/01/17 Internal Medicine Residency Research Academic Half-Day
"Careers in Academic Medicine", Small Group Instruction, The University of Calgary

2011/10/19 - 2013/10/19 Nephrology Fellows Academic Half-Day
"Hypertension", Small Group Instruction, The University of Calgary

Brenda Hemmelgarn

Graduate

2010/01 - present Co-instructor for Graduate Course MDSC 755.84, Systematic Reviews, Co-instructor

2009/01 - present MDSC 645.18 Foundations in Health Services Research, Course coordinator

Postgraduate

2010/01 - present Canadian Society of Nephrology/ CIHR post graduate training program for kidney research, Lecture

2009/01 - present supervision of residents / fellows / clerks on the ward and in clinic settings, Wards

Continuing Medical Education

2012/01 - present Member of the program planning committee, Program committee member, American Society of Nephrology

2005/01 - present Lecturer – Renal Course for 1st year medical students
- hypertension – epidemiology and pathophysiology, Lecture

2002/01 - present Lecturer – Renal Course for 1st year medical students
- small group teaching, Lecture

Braden Manns

Undergraduate

2013/01 - present Preceptor for Renal course, 1st year medical students
approximately 20 hours contact time per year, Lecture

2013/01 - present Preceptor for final year medical student clinical skills teaching, Tutorial / Seminar / Small group

Graduate

2013/01 - present MDSC 643.01: Biostatistics I
• This course focused on classical statistical methods for the analysis of data in community health
• The Department of Community Sciences, Univ. of Calgary, Lecture, The University of Calgary, University of Calgary - Medical School

2013/01 - present MDCH 663.00, a graduate course in "Decision Analysis in Economic Evaluation"
Community Health Sciences, Lecture, University of Calgary - Medical School

2013/01 - present MDSC 643.02: Biostatistics I I
• This course focused on classical statistical methods for the analysis of data in community health
• The Department of Community Sciences, Univ. of Calgary, Lecture, The University of Calgary, University of Calgary - Medical School

ADMINISTRATION

Brenda Hemmelgarn:

2012 - 2015 Advisory Board, Institute of Infection and Immunity, CIHR Institute Advisory Board

2013 - 2014 Member, Planning committee member, American Society of Nephrology 2014 ASN Kidney Week Conference, University of Calgary

2012/01 - 2014 Member, Planning committee member, National Kidney Foundation Spring Clinical Meetings

2012 - 2014 Board of Directors, Hypertension Canada

2012 - 2014 Member, Knowledge Translation Canada - A national Research Network, CIHR/CFI

2011/01 - 2014 Member, CIHR- Drug Safety and Effectiveness Network Scientific Advisory Committee, University of Calgary

2011 - 2014 Grant Reviewer, Population Health Research, CIHR

2010/01 - 2014 Member, Kidney Disease Improving Global Outcomes (KDIGO) Implementation Task Force

2010/01 - 2014 Member, Kidney Disease Improving Global Outcomes (KDIGO) CKD Definitions, Classification and Stratification

2008 - 2014 Curriculum Committee, KRESCENT, KRESCENT

2012/01/01 - 2014/06/30 Associate Editor, Americal Journal of Kidney Disease, Second term

2010/01 - 2013 Board of Directors, Canadian Organ Replacement Register

2010/01 - 2013 Member, Chronic Kidney Disease - Prognosis Consortium

2008 - 2013 Chair, Canadian Society of Nephrology, Clinical Practice Guideline Committee (chair), Canadian Society of Nephrology

Braden Manns

2011/01 - present Chair, Mandate is to enhance and promote Nephrology Research in Canada, Canadian KidNey KNowledge TraNslation and GEneration NeTwork (CANN-NET)

2009/01 - present Member, Salary award member and internal reviewer, CIHR

2012/01 - 2013/12 Incoming President, Canadian Society of Nephrology Executive Committee, Canadian Society of Nephrology

2009/01 - 2013/12 Member, Commentary on K-DIGO Anemia guidelines, Canadian Society of Nephrology Anemia Guidelines Committee

Jennifer MacRae

2013/07 - present Chair, CSN Vascular Access Work Group Education Committee, Canadian Society of Nephrology

2013/07 - present Member, CSN Vascular Access Education Committee Chair

2012/12 - present Chair, Global Experts on Home Hemodialysis for Vascular Access Guidelines

2012/01 - present Member, International Quotidian Dialysis Reigstry

2011/10/25 - present Chair, CSN Vascular AccessWorking Group Committee, Canadian Society of Nephrology

2010/09 - present Member, CSN Workgroup on Nocturnal Hemodialysis, Canadian Society of Nephrology

2010/01 - present Member, Canadian Intensive Hemodialysis Committee (CSN)

Lee Anne Tibbles

2010 - present Member, Ethics Committee of The Transplantation Society, The Transplantation Society

Pietro Ravani

2007 - present Chair, ERA-EDTA, Scientific Committees, Section Chair, ERA-EDTA, European Renal Association

Robb Quinn

2011 - present Member, CORR Data Element Review Committee, Canadian Organ Replacement Register (CORR)

2011 - 2014/12 Chair - Central Review Committee, Canadian Hypertension Evaluation Program (CHEP) - Recommendations Task Force, Hypertension Canada

2009 - 2014/12 Central Review Committee Member, Canadian Hypertension Evaluation Program (CHEP) - Recommendations Task Force, Hypertension Canada

2011/10 - 2014/01/02 Member, CANN-NET Clinical Practice Guideline Committee on Timing of Dialysis Initiation - Member, Canadian Kidney Knowledge Translation and Generation Network (CANN-NET)

2013/10 - 2013/10/25 Chair, Canadian Hypertension Evaluation Program (CHEP) - Recommendations Task Force Consensus Conference, Hypertension Canada

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
   Recruitment of 2 new clinicians 2015-16
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 Respirology 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 Respirology has also established an Interstial Lung Disease Program. Dr. Charlene Fell is the leader of this program and along with Dr. Sharon LeClerq (Rheumatology) and Dr. Kerri Johannson, 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	University of Bologna
Dr. Charlene Fell	Interstitial lung disease	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 Colombia 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 Johannson	Epidemiology of Air Pollution	University of Southern California

Pending

Dr. Natasha Sabur	Mycobacterial Diseases	Johns Hopkins Medical School

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 Johannson, 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 – 2014 Annual Report
April 1, 2013 to March 31, 2014

This past year the Section of Rheumatology completed both a strategic plan and a five year business plan.

Our five-year plan focuses on three key goals:
Train health care professionals and students and become one of the top three Rheumatology residency training programs in the country. Education programs must emphasize developing both clinical and research skills for trainees in a multi-disciplinary training environment, fostering innovation and learning.
Assessing Patient and System Outcomes. Incorporating research and quality improvement into clinical care is an essential component of improving the health of patients and the sustainability of the health care system. Longitudinal data collection from patients referred to Rheumatology will provide knowledge to inform and improve patient care, inform innovative models of care and drive measureable improvements to the health care system.
Timely Access to Exemplary Care. In order to provide patients with timely access to exemplary care, it is critical to recruit, develop and retain high quality physicians and staff. It is necessary to develop and adapt care models allowing staff to work to their maximum scope and to evaluate our outcomes to change and adapt as necessary. This will help us cope with the demands facing our health care system today and in the future, and ensure patients receive timely care in a coordinated manner.

The four key priorities of the Section include:
Attract, recruit and retain physicians, nursing and Allied Health professionals. We are working with the Department of Medicine, Alberta Health Services, the Cumming School of Medicine, University of Calgary, and the Alberta Medical Association to maintain current funding models and to create new models to support team based care. We are facing a number of retirements within our membership over the next five years and it is essential that we grow the Section in order to meet the growing population needs. A detailed plan for recruitment and retention of physicians, nurses and Allied Health professionals is being prepared.
Provide the best-in-class training program targeting residents, students, nursing and Allied Health professionals. We will implement and deliver training programs that will foster an atmosphere of continuous learning and focus on core competencies. We will support our nursing and allied health care professionals to function at their maximal scope of practice with specific educational programs. We will continue to develop programs of learning and support for our primary care colleagues to increase their knowledge and skills in musculoskeletal (MSK) diseases.
Follow our patients longitudinally. We will create and implement an integrated longitudinal data collection system and required infrastructure to enable the Section of Rheumatology to inform changes to the health care system and patient care. This database will be used to answer cross-disciplinary research questions pertaining to topics in advanced diagnostics and biomarkers, Aboriginal health, clinical trials, models of care, health services delivery, patient outcomes research, and health economics. Integrated information technology solutions and infrastructure will be designed, built and implemented.
Improve clinical process. Our first three key priorities inform our clinical services and allow us to improve patient care; ensuring patients receive the best clinical care for their disease condition. We also need to improve our clinical processes to ensure patients receive treatment in a timely manner – effective service delivery requires that we focus on improving the efficiency of our clinics. We will reengineer our processes, build multidisciplinary teams and lever the use of electronic medical record for data collection. We will be working to align processes across the Section's catchment area to ensure our clinics are efficient, effective and coordinated to reduce patient wait times and increase the quality of patient care. We will focus on team-based collaborative care models for our patient population.

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, a population of over 1.6 million, 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 Outpatient Clinics at the Richmond Road Diagnostic Treatment Centre (RRDTC) and the South Health Campus (SHC). In addition, we have 3 community-based private office

practices. Outreach clinics are offered at the Calgary Urban Projects, the Siksika Nation, Stoney Health Centres, Elbow River Healing Lodge, Stand Off and the Southern Alberta Eye Centre. The Section also provides consultative services to all the hospitals in the Calgary zone on a 24 hour basis along with urgent telephone consultations from family physicians. In collaboration with the Primary Care Networks, we have an MSK Clinic at the Crowfoot Clinic and offer tele-rheumatology services to 4 PCNs in Calgary (Mosaic, Calgary Foothills, Calgary West Central, and South Calgary) as well as to the Highland, Bow Valley and Calgary Rural PCNs. Telemedicine is offered in Pincher Creek where an MSK clinic has been established.

The Section of Rheumatology has 18 clinically active members, led by Dr. Dianne Mosher as Section Chief. Members are divided into four categories: 6 GFTs, 8 full time clinical members, 2 part-time clinical members and 2 members completing their PhDs. In addition, we have a part-time nurse practitioner (NP) who provides clinical service at the RRDTC clinics two days a week. New members to our clinical service include Dr. Ann Clarke who joined us in September of 2013. Dr. Clarke arrived 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.

The RRDTC site acts as the hub of our Section's clinical activities where 12 of our physicians provide over 30 half day clinics per week with the support of our interdisciplinary Allied Health team. 13,592 patients were assessed of which 7,200 were unique visits. The RRDTC site also hosts a Biologics Clinic where patients with severe inflammatory arthritis are managed and treated with biological agents by our specialized physician-nurse teams. Last year 1,332 patients were assessed in this clinic.

At the SHC site, two full time rheumatologists provided 8.5 clinics per week with the support of 2.0 FTE nursing staff. In this past year, a stable Rheumatoid Arthritis Nurse Run Clinic was established allowing the Rheumatology staff to see an additional 45 new patients in the first 3 month pilot period. A Biologics Clinic run by nurses at SHC has also been established.

Our community-based physicians continue to be active members of the Section. They provide educational opportunities in their offices for residents as well providing care in the Young Adult Rheumatic Disease Clinic and the Spondyloarthropathy Clinic.

In 2013, we lost two long time community practitioners with large practices who retired from active practice. However, in the summer of 2014, we are awaiting the addition of Dr. Paul MacMullan from Ireland who will join the Rheumatology Clinic at RRDTC. He is a welcome addition to our membership and though his arrival will assist in reducing our referral waitlist, we are still in great need of more members to our Section in order to service the ever growing population of Calgary and Southern Alberta. Within the next 5 years there are an additional seven members who will be eligible to retire.

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 2013, we received approximately 6,125 new patient referrals to our Central Triage Program, this equates to around 500 per month. Central Triage is managed by our nurse clinician, with two part time nursing staff and two unit clerks assisting.

Dr. Deborah Marshall currently holds an AIHS (Alberta-Innovates Health Solutions) PRIUS (Partnership for Research and Innovation in the Health System) grant to evaluate and improve upon our current central triage. In addition we will be working with our colleagues in Edmonton and using the expertise of the e-referral team to create common pathways and criteria for referral.

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, the Ankylosing Spondylitis Clinic, the Nurse Practitioner Clinic, the Urgent Assessment Clinic, the Biologics Clinic, a Young Adults with Rheumatic Disease Clinic (YARD), a Vasculitis Clinic and a Systemic Lupus Erythematosus clinic.

The Nurse Practitioner Clinic, led by Dr. 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. In 2013, the Nurse Practitioner clinic successfully increased from 2 half day clinics per week to 4 half day clinics.

In partnership with our Pediatric Rheumatology colleagues at the Alberta Children's Hospital, the Section runs a joint YARD (Young Adults with Rheumatic Diseases) Clinic with the purpose of transitioning the care of adolescents and young adults to the adult health care system. This year three new pediatric rheumatologists have begun practice in Calgary: Dr. Susanne Benseler (Section Chief), Dr. Nadia Luca and Dr. Tommy Gerschman. They join Drs. Nicole Johnson, Heinrike Schmeling and Paivi Miettunen from Pediatric Rheumatology, along with Drs. Anne-Marie Crawford, Elzbieta Kaminska and Dianne Mosher from Adult Rheumatology who have been involved in the YARD program for a number of years. This clinic continues to be a model to other medical disciplines that promotes continuity of care by the systematic transfer of care to an adult system.

EDUCATIONAL

The undergraduate medical teaching program comprising of the Musculoskeletal and Skin course was once again led in the fall of 2013 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 Program. 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 bi-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. We held a successful CME event in the spring of 2013 on the treatment of OA. Our next event is scheduled for the spring of 2015.

The Post Graduate Medical Education Program is led by Dr. Susan Barr. We were again successful in the CaRMS residency matching system this year and will have another 2 new residents starting their specialty fellowship in July 2014, bringing our current number of subspecialty residents to 4

The Section PGME program hosted its second Residents' Weekend in May 2014. Thirteen PGY1 and PGY2 Internal Medicine residents attended the weekend program on MSK examination skills and exposure to the discipline of Rheumatology. This program was very successful and we hope to make this an annual event.

The Section received several teaching excellence awards from the University of Calgary in 2013/2014. These were awarded to Drs. Cheryl Barnabe, Susan Barr, Elzbieta Kaminska, Gary Morris and Christopher Penney.

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.

RESEARCH

The McCaig Institute is the home of our researchers in the Section of Rheumatology. Within the Institute, we are building a strong presence of clinical research. This includes expertise in clinical outcomes research, health economics and clinical trials.

We are fortunate to have two research chair positions in the Cumming School of Medicine at the University of Calgary.

Dr. Deborah Marshall, PhD was awarded the Arthur J. E. Child Chair in September 2012 and is providing leadership in our Section to develop translational research programs with an emphasis on health outcomes and economics research in rheumatology. Dr. Marshall promotes interdisciplinary and collaborative research and supports students, fellows, research associates and faculty to build the rheumatology program in Alberta. In addition to successfully renewing her Canada Research Chair in Health Systems and Services Research in 2013, she received the prestigious Faculty of Medicine Cochrane Distinguished Research Award for Excellence in Research and she has been recognized for her teaching and supervisory excellence through the Early Career Excellence in Graduate Education award from Graduate Science Education.

During the first years as the Child Chair, Dr. Marshall has established a team of 5 research associates, and 7 graduate students all focused on bone and joint outcomes research. In addition, she supports and mentors young investigators such as Dr. Cheryl

Barnabe. Her students have been extraordinarily successful and are all funded through competitive external provincial and national awards including Alberta Innovates-Health Solutions, CIHR Graduate Awards and Vanier Awards.

In 2013/14, her research team has been awarded 5 provincial and national Tri-council grants totaling $2.7 million, and published 15 scientific articles. Dr. Marshall and her team have presented their work at numerous local, national and international conferences and events over the past year, showcasing their contributions to the areas of health outcomes, rheumatology, bone and joint health related research. Dr. Marshall was honored to be invited to present on health system reform at the Economic Club of Canada in November 2013 by the Arthritis Alliance of Canada.

Dr. Marshall is also working to establish a critical piece of infrastructure in conjunction with the Section of Rheumatology as part of the Business and Research Plan. "The Rheumatology Central Data Repository for Best Practices", will collect clinical and administrative data longitudinally and will enable implementation of best clinical practices based on evidence.

Dr. Ann Clarke recently joined the Section in the fall of 2013 and took over the Arthritis Society Chair in Rheumatology Research from Dr. Marvin Fritzler. Upon taking on the Chair, Dr. Clarke's immediate focus has been to develop a clinical and research Lupus Cohort to monitor and enhance the health outcomes of Canadian lupus patients and to identify and modify potential risk factors associated with a poor prognosis. Dr. Clarke was successful in obtaining ethics approval for the initiation of the Lupus Research Cohort, termed STARLET: **S**ou**T**hern **A**lberta **R**egistry for **L**upus **E**ry**T**hematosus.

Patients for STARLET are recruited from Dr. Clarke's own clinical practice as well as from the clinical practices of the members of the Section. The Central Triage system within the Section of Rheumatology facilitates the referral of any potential new lupus patients to Dr. Clarke's clinic and hence, enables Dr. Clarke to focus her practice almost exclusively on lupus. Over the past 8 months, almost 100 patients have been enrolled in STARLET.

Due to the accrual of this cohort, Calgary has become a member in **S**ystemic **L**upus **I**nternational **C**ollaborating **C**linics (**SLICC**), a group of 37 lupologists representing 11 countries. Dr. Clarke is currently Vice-Chair of this organization, which has been responsible for developing standardized measures of lupus activity and damage, establishing lupus classification criteria, assembling an inception cohort of 2000 patients, and conducting some of the most definitive research on malignancy and cardiovascular and neuropsychiatric manifestations in SLE.

Dr. Clarke's other research focus is on the etiology, natural history, prevalence, and management of food allergy. Dr. Clarke has assembled national registries of children with peanut, sesame, and seafood allergy, and is leading the first genome-wide association study (GWAS) and whole genome study on peanut allergy. Since arriving in Calgary, Dr. Clarke has been organizing the transfer of these registries from McGill to the University of Calgary. Dr. Clarke has also initiated enrollment of peanut allergy cases for the GWAS at the office of a community allergist in Calgary (Dr. Stephen Cheuk) and will have accrued the desired 1000 cases by August 31 2014.

Dr. Clarke is the Program Co-Leader of one of three Legacy projects within the Allergy Genes and Environment Network of Centres of Excellence (AllerGen NCE) – the Canadian Food Allergy Strategic Team. She is leading a national longitudinal study on the prevalence of food allergy, focusing on Canadians most vulnerable populations, and co-leading the development of a national strategy for food allergy.

Dr. Marvin Fritzler was recently admitted to the Order of the University of Calgary for his on-going contributions to teaching and research in the area of autoimmune disease and novel diagnostic technologies. In addition to this prestigious honor, Dr. Fritzler was awarded the AESKU Award for Lifetime Contributions to Autoimmunity at the 2014 Autoimmunity Congress in Nice, France.

The young members of our Section received numerous accolades this year for their innovative research work. Dr. Cheryl Barnabe won numerous grant competitions of which three are CIHR (Canadian Institute of Health Research) grants. She also received prestigious awards including the Young Investigator Award from the Canadian Rheumatology Association (CRA), the CRA/The Arthritis Society Clinical Investigator Award and the CIHR Early Career Award. Dr. Glen Hazlewood won an award for the Best Abstract for Clinical or Epidemiology Research by a Trainee at the 2014 CRA Annual General Meeting, an AIHS fellowship and the Dr. Claire Bombardier Award for Clinical Outcomes and Epidemiology Research from the University of Toronto. Dr. Claire Barber was awarded a most prestigious Vanier Scholarship, as well as a CIHR fellowship and an AIHS fellowship. Our young members provide the Section of Rheumatology with an extremely promising future in MSK research.

CHALLENGES AND FUTURE DIRECTIONS

The Section and its members have continued to work hard on our key priority areas under the Five Year Business and Research Plan. Substantial progress has been made in the development of the Longitudinal Data Repository for Best Patient Outcomes. A successful fundraising event occurred on April 1, 2014 and an important meeting was held in conjunction with the Institute of Health Economics with the end result being ongoing support for the monitoring biologic medications within a longitudinal database.

Our business plan addresses issues with sustainability and long-term growth of the program. We have identified recruitment strategies for attracting new physicians and fellows to the Section, and our research plan links silos across the Section as well as identifies key organizations for partnership including the Bone and Joint Strategic Clinical Network, Alberta Health Services.

Delivering care to patients with complex chronic disease requires a team of dedicated heath 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 - Demographics April 1, 2013 to March 31, 2014

Primary Division	Total	Male		Female		Gender Not Specified	AGE Average	
		Count	%	Count	%	Count	Male	Female
Dermatology	23	15	65%	8	35%	N/A	51	53
Endrocrinology & Metabolism	23	12	52%	11	48%	N/A	50	48
Gastroenterology	60	40	67%	20	33%	N/A	53	49
General Internal Med.	63	38	60%	25	40%	N/A	53	50
Geriatric Medicine	10	4	40%	6	60%	N/A	50	49
Haematology	26	15	58%	11	42%	N/A	49	48
Infectious Diseases	21	17	81%	4	19%	N/A	53	48
Nephrology	27	19	70%	8	30%	N/A	47	49
Respirology	37	26	70%	11	30%	N/A	47	49
Rheumatology	20	8	42%	12	58%	N/A	53	49
Total	**310**	**194**	**63%**	**156**	**37%**	**N/A**	**46**	**49**

NOTE:
ARP & FFS Members

Department of Medicine Workforce Statistics – April 1, 2013 to March 31, 2014

Primary Division	Total Members	ARP Members	Secondary Division (supplementary appt)	Total FTE	ARP FTE	Recruits ARP & FFS	Resignees (ARP only)
Dermatology	23	5	0	18	5.00	0	0.00
Endocrinology & Metabolism	23	18	4	5	16.56	3	0.00
Gastroenterology	60	32	4	28	29.70	1	3.00
General Internal Medicine	63	35	20	28	32.20	3	0.00
Geriatric Medicine	10	10	1	0	8.61	1	0.00
Haematology	26	19	10	7	17.24	2	0.00
Infectious Diseases	21	16	13	5	15.00	0	0.00
Nephrology	27	20	8	7	19.40	0	1.00
Respirology	37	26	8	11	25.40	2	3.00
Rheumatology	19	17	1	3	16.50	1	0.00
Total	**310**	**198**	**69**	**112**	**185.61**	**13**	**7.00**

NOTES:
Some hematology members are primary to Oncology – BMT with supplementary to Hematology

Department of Medicine University Affiliation – April 1, 2013 to March 31, 2014

	Dermatology	Endocrinology & Metabolism	Gastroenterology	General Internal Medicine	Geriatric Medicine	Hematology	Infectious Diseases	Nephrology	Respirology	Rheumatology	Total
Assistant Professor	1	1	7	1	0	1	1	6	2	1	21
Associate Professor	0	1	7	4	2	2	5	6	4	1	32
Clinical Assistant Professor	3	8	16	34	6	9	7	7	17	4	111
Clinical Associate Professor	1	3	6	12	1	5	3	4	4	5	44
Clinical Lecturer	0	1	4	10	2	1		1	1	1	21
Clinical Professor		1	1	3	2	2			2	2	13
Clinical Scholar	0	1	3	3	0	1	0	0	1	2	11
Professor		5	13	6	1	5	6	4	5	5	50
Professor (Tenured)		1	1		1			1	1	1	6
Adjunct Assistant Prof		1				1					2
Adjunct Associate Prof			2								2
Adjunct Lecturer											0
Adjunct Prof						1				1	2
Research Assistant Prof											0
Research Prof									1		1
Total	**5**	**22**	**60**	**73**	**14**	**28**	**22**	**28**	**37**	**22**	**310**

Department of Medicine - Recruitment - April 1, 2013 to March 31, 2014

Primary Section	Last Name	First Name	Start Date	FFS	ARP Member	University Appointment
Clinical Immunology (Rheum)	Clark	Anne	1-Sep-2013	0	1	Professor
GIM	Cruikshank	Jack	1-Jul-2013	1		Clinical Lecturer
Endocrinology	Helmle	Karmon	1-Jul-2013	1		Clinical Assistant Professor
Hematology/Oncology	Jiminez-Zepeda	Victor	1-Aug-2013	1		Clinical Associate Professor
Endocrinology	Kallas-Koeman	Melissa	1-Feb-2014	1		Clinical Assistant Professor
Geriatrics	Kwan	Emily	1-Nov-2013		1	Clinical Assistant Professor
Respirology	Lohmann	Tara	1-Jan-2014		1	Clinical Assistant Professor
Respirology	Ma	Lingling	21-Feb-2014	1		Clinical Assistant Professor
GIM	Reimche	Leanne	1-Jul-2013	1		Clinical Assistant Professor
Endocrinology	Saad	Nathalie	1-Jul-2013	1		Clinical Assistant Professor
Hematology	Slaby	Jiri	1-Nov-2013	1		Clinical Lecturer
GI	Turbide	Christian	2-Jan-2014	1		Clinical Assistant Professor
GIM	Wilson	Ben	1-Jul-2013	1		Clinical Assistant Professor
TOTAL				**10**	**3**	

Department of Medicine - Departures - April 1, 2013 to March 31, 2014

LAST	FIRST	SECTION	FTE	DATE OF DEPARTURE	SITE	ARP	UNIVERSITY AFFILIATION
Dube	Catherine	GI	1	1-Aug-13	FMC	ARP	Clinical Associate Professor
Rostom	Alaa	GI	1	1-Aug-13	FMC	ARP	Associate Professor
Stather	Dave	Resp	1	1-Feb-14	FMC	ARP	Clinical Assistant Professor
Total			3				

Physician Awards – April 1, 2013 to March 31, 2014

Dr. Norman Campbell	Confederation of Alberta Faculty Associations Distinguished Academic Award
Dr. Norman Campbell	Guenter Award for International Health from Faculty of Medicine
Dr. Cheryl Barnabe	Epidemiology Health Services Research Award – CRA/ARF
Irene Ma, Jeff Shrum, Derek Chew, Evan Minty, Alysha Kaba, Jayna Holroyd-Leduc, Jeff Caird, Lynn Lambert	2013 Quality Improvement Fund - DOM
Dr. Brenda Hemmelgarn	Killam Research Leader Award
Dr. Gil Kaplan	Killam Emerging Research Leader Award
Dr. Ted Thaell	Dr. Howard McEwen Award for Clinical Excellence (PLC) - DOM
Dr. Ram (Paul) Singh	Dr. Terry Groves Award for Clinical Excellence (RGH) - DOM
Dr. Bob Herman	Dr. John Dawson Award for Clinical Excellence (FMC) - DOM
Dr. Eugene Adamiak	Dr. Tom Enta Award for Clinical Excellence (Community) - DOM
Dr. Brenda Hemmelgarn	Team Builder of the Year Award - DOM
Dr. Lorne Price	Professionalism Award – DOM
David Sam, Bonnie Kraft, Lee-Ann Hawkins, Eliana Castillo, Paul Gibson	Dr. John M. Conly Innovation Award – DOM
Dr. Jayna Holroyd-Leduc	Quality Improvement & Patient Safety Award - DOM
Dr. Jason Lord	Ectopic Award - DOM
Dr. Steve Vaughan	Rookie of the Year - DOM
Dr. Matthew James	Research Preceptor - DOM
Dr. Anna Purdy	Work Life Balance Award - DOM
Dr. Paul Davis	Silver Finger Award – DOM
Dr. Louis Girard	Silver Tongue Award – DOM
Dr. Irene Ma	Repeat Offender Award – DOM
Dr. Marcy Mintz	Golden Bull Award - DOM
Dr. Kevin McLaughlin	Teaching Awards (Clerkship) – DOM
Dr. Martin Atkinson	Teaching Awards (Clerkship) – DOM
Dr. Troy Pederson	Teaching Awards (Clerkship) – DOM
Dr. Bikaramjit Mann	Teaching Awards (Clerkship) – DOM
Dr. Cameron Griffiths	Teaching Awards (Clerkship) – DOM
Dr. Rahim Kachra	Teaching Awards (Clerkship) – DOM
Dr. Cheryl Barnabe	Health Services Research Award - CRA
Dr. Cheryl Barnabe	CRAYoung Investigator Award - CRA
Dr. Glen Hazlewood	Best Abstract for Clinical or Epidemiology Research by a Trainee - CRA

List of Promotions
April 1, 2013 – March 31, 2014

From Clinical Lecturer to Clinical Assistant Professor:

Olga Ziouzina	Rheumatology
Mike Kalisiak	Dermatology

From Clinical Assistant to Clinical Associate Professor:

Ghazwan Altabbaa	Nephrology
Sophia Chou	Nephrology
Andrew Daly	Hematology
Charlene Fell	Respiratory
Deirdre Jenkins	Hematology
Andrei Metelitsa	Dermatology
Gary Morris	Rheuamatology
Stefan Mustata	Nephrology

From Clinical Associate to Clinical Professor:

Jeffrey Schaefer	General Internal Medicine

From Assistant Professor to Associate Professor

Warren Davidson	Respiratory

From Associate Professor to Full Professor

Jan Storek	Hematology
Richard Leigh	Respiratory

Medical Access to Service - Annual Report
April 1, 2013– March 31, 2014

Medical Access to Service (MAS) has been steadily moving forward throughout the last year. This year there was a significant shift of work within the Medical Access to Service (MAS) profile. Since the Path to Care provincial initiative, the existing non Department of Medicine (DOM) teams have been handed off to this team with the focus of the MAS position here forth to focus on the existing DOM teams within Calgary.

Progress over the past year:

- Standards of practice, Policies and Procedures for the Central Access and Triage have been incorporated into existing Department of Medicine CAT teams
- 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 teams have implemented scheduling systems to include referral and waitlist management capabilities
- Assisting with existing DOM CAT teams with development of Cerner® Millennium as an Outpatient Database
- Ongoing extensive work with existing CAT teams and groups at the 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 Calgary Foothills PCN for Tele-Gastroenterology consults.
- In collaboration with many key stakeholders, representatives from the Calgary zone and provincial stakeholders assisted in the further 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 and focused on ongoing support to maintain this redesign.
- Focused on GI CAT team primarily this year looking at the processes:
    - wait list reduction strategies
    - development of tracking records for FIT + referrals
    - assisted in the development in the Calgary Foothills and South Calgary Primary Care Networks initiative for GERD/ Dyspepsia and IBS pathway

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

Standards for Central Access and Triage
Department of Medicine teams are all in 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 encouraged to be done by the triage clinician, with assistance from the triage specialist whenever possible utilizing the triage guideline (created within each CAT team by their physicians and physician lead).
    - Triage teams are encouraged to 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
- 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 Report
April 1, 2013 to March 31, 2014

SECTIONS	CLINICIANS	UTILIZATION
Dermatology	Dr. Richard Haber (General Dermatology)	The following number of patients were assessed: Claresholm, AB – 36 High Level, AB– 19 Siksika, AB – 26 Note: Dr. Haber was on sabbatical from Jan 2014-June 2014 and there were no telehealth clinics during the sabbatical.
	Dr. Laurie Parsons (Wound Care)	Telehealth assessments: 114 Telehealth to the following sites: Bow Island, AB Brooks, AB Canmore, AB Cranbrook, BC Drumheller, AB Elnora, AB Fernie, BC High River, AB Lethbridge, AB Stetler, AB South Health Centre Clinic Sunridge Wound Clinic Majority wound care 8-10 regular dermatology patients
Endocrinology	Dr. Peter Grundy	Monthly 90 minute telehealth diabetes case sessions with Bow Valley DEC team. 9-10 sessions over past reporting year
Geriatrics	Dr. David Hogan	Telehealth sessions to Bow Valley Corridor. 2 new consults/month and 0-2 follow-up patients per session
	Dr. Heidi Schamltz	Telehealth sessions to Didsbury and Strathmore AB. 2 half-days /month

	Dr. James Silvius	Telehealth clinic to Drumheller usually every 2 months 4-5 patients per clinic
Hematology	Dr. Carolyn Owen	Telehealth for followup of patients from Fernie and Cranbrook, BC
	Dr. Lynn Savoie	For pre bone marrow transplants
	Dr. Mona Shafey	For bone marrow transplant consultations
Infectious Diseases	Dr. John Gill Dr. Donna Holton Dr. Jack Janvier Dr. Bonnie Meatherall Dr. Vicky Parkins Dr. Stephen Vaughan	SAC (HIV clinic): 41 telehealth patient visits
Respiratory Medicine	Dr. Alex Chee	Occasional follow up of respiratory patients
	Dr. Charlene Fell	7 respiratory patient follow up assessments (15-20 minutes each) to Medicine Hat and other rural communities 197 telephone consults
	Dr. Doug Helmersen	Weekly Telehealth conference with lung transplant group in Edmonton 1 hour/session
	Dr. Naushad Hirani	Communicates with surgeons in Toronto or Ottawa when he refers patients with chronic thromboembolic pulmonary hypertension for PEA surgery
	Dr. Andrea Loewen	Follow-up of neuromuscular patients from outside of Calgary 4 times per month Telehealth for multidisciplinary rounds and conferencing 6 times per month
	Dr. Tara Lohman	Consulted with patients in rural Alberta and BC who were unable to come to Calgary. 1-2 patients

	Dr. Paul MacEachern	1 telehealth patient /clinic 2-4 telehealth appointments/month
	Dr. Karen Rimmer	Follow-up of clinic patients from out of town, mainly neuromuscular patients 1-5 patients/month
	Dr. Alain Tremblay	2-3 visits per month for new patients and follow-ups for lung cancer/thoracic oncology management
	Dr. Mitesh Thakrar	Weekly teleconferences with U of A Transplant program to discuss patient cases, 1 hour per session
	2 NPs (Nadine Strilchuk and Laura Hampton)	13 telehealth sessions to see Alberta Thoracic oncology patients
Rheumatology	Dr. Liam Martin	Rheumatology Assessment Clinic to Pincher Creek, AB.
	Dr. Sharon LeClercq	Approximately 10 clinics between the 2 clinicians assessing 6-10 patients per clinic
Additional Information: *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, 2013 to March 31, 2014

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 2013 to March 2014. Our research home is nestled within the W21C Research and Innovation Centre.

RESEARCH

Exploring the Dimensions of the MTU Preceptor Role: Our research efforts have been mostly directed at collecting and analyzing the data from this CIHR funded study with co-investigators J Wallace, W Ghali, P Sargious, collaborators M Bacchus, K Zarnke, and with expert help from the W21C Research Team J de Grood, J Dixit, K Desjarlais-DeKlerk, and Alicia Polacek. We have conducted over 100 hours of direct observations of MTU preceptors at the FMC and the PLC as they performed their work. The data was collected by two sets of observers: content-informed (MTU preceptors from other universities) and content-naïve (sociologists), so we could explore the roles from the two perspectives. In addition, we interviewed 73 MTU stakeholders including the preceptors, residents, medical students, patients/families, senior nurse managers, bedside nurses, and allied health care professionals to gain their perspective about this important and complex role. The next year will be spent analyzing this data with the goal of generating hypotheses based on this inductive qualitative research, ultimately developing tools to enhance role performance.

The Experience of Role Transition from Learner to Newly Licensed Independently Practicing Physician: In collaboration with Dr. Judy Boychuk-Duchscher (principal investigator) from the faculty of nursing, we are following a small cohort of physicians through this career transition, with interviews at 1, 4, 8 and 12 months post-transition. The one month interviews have been analyzed using a grounded-theory approach, revealing the change in persona experienced with this role transition. We will continue our analysis of this interesting data.

The W21C Wellness team members (J Lemaire and J Wallace) are collaborators on an AIHS team grant led by Dr William Ghali with Co-Leads, Dr Thomas Stelfox and Dr John Conly. W21C: Interdisciplinary Research and Innovation for Health System Quality and Safety. The wellness perspective was interwoven through the four major projects represented in this research.

We strive to share our work at appropriate academic conferences. This year, members of our research team, Kristen Desjarlais-deKlerk and Alicia Polacek, presented our research methodology for the MTU preceptor study at the Canadian Sociological Association Annual Conference in Victoria, British Columbia in a talk entitled "*Adventures in Ethnography: Novel Solutions to Practical Challenges"* and a poster presentation "*Innovations in Ethnography: Creating Common Ground"* at the W21C Innovation Forum. We also presented at the AIHS Knowledge Translation Network Conference in Banff, "*Well Doc? Knowledge Translation Initiative"*. We published several manuscripts and two chapters in a New Zealand book entitled "First Do no Self-Harm: Understanding and Promoting Physician Stress Resilience". One manuscript was a pre-post study generated by our previous chief residents (G Fabreau, E Minty, M Elliot, S Khanna) and GIM colleagues (J Gilmour and A Bharwani) looking at the residents' perceptions of the many impacts of introducing a rotation bundle that included the night float on call system. Another manuscript described the novel real-time location device tracking of MTU physicians as they try to complete ward rounds on the hectic academic half day (D Ward, Nephrology Fellow and W Ghali).

KNOWLEDGE TRANSLATION, EDUCATION AND INFORMATION EXCHANGE

Well Doc? The Well Doc? Initiative remains our main knowledge translation vehicle. The objective of the initiative is to enhance literacy around physician wellness where we promote wellness as key to functioning as professionals (much like airline pilots…). We also educate physicians that they are at increased risk of burnout, and thus should adopt a proactive approach to prevent or mitigate the adverse personal and professional outcomes associated with chronic stress for physicians. Through the Well Doc? Initiative, we target physicians at all career stages, and adapt our workshops/lectures accordingly. Between April 2013 and March 2014, we gave 18 sessions to physician groups such as new faculty members, medical students, residents, primary care network physicians, rural physicians, and specialist groups, at the local, provincial and national levels. New this year was a wellness talk as part of the curriculum for the Department of Medicine Master Clinician Program at the University of Calgary.

We have created several interactive modules as building blocks for lectures and workshops that are based on research evidence and on our research when possible. Examples include: How does workplace nutrition affect physicians? A biofeedback device is effective as a stress management tool for physicians. What physician coping strategies are most effective against burnout? A highlight for the Wellness portfolio is the collaboration with Alberta Health Services South Zone Director Dr. Vanessa Maclean who created the "Docs in Mind" program as a resource for wellness literacy and collegiality. During visits to Lethbridge, Medicine Hat, and Taber, physicians and their spouses have actively participated in our nutrition and stress reduction workshops.

Speaking Invitations: The Wellness Portfolio received (and accepted) speaking invitations from the Department of Anesthesia, University of Alberta, and the Bow Valley Primary Care Physicians' Network. Dr. Lemaire delivered the Keynote address to the Alberta Medical Students' Conference and Retreat in Banff, and the Canadian Medical Foundation Luncheon, Canadian Medical Association Annual General Meeting held in Calgary in August 2013. She was also an invited Workshop Facilitator for the Canadian Conference on Physician Health in November in Calgary, speaking on *"The Medical Profession - Caution: Entering a Hazardous (Yet Rewarding) Work Zone"*. The wellness talks extended beyond physicians this past year, where Dr. Lemaire spoke to the Canadian Association of Internal Medicine Program Administrators at their annual meeting in Calgary in April 2013, *"A Well Deserved Wellness Workshop for You!"* and provided a workshop for the University of Calgary's Wellness Walk Wholeheartedly Campaign Lunch and Learn Lecture Series, *"Work Stress: An Occupational Hazard with Modifiable Outcomes"*.

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 continues as 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 who is now the W21C Director, Alicia Polacek who represents the Operational Foundation of the team and we greatly appreciate her incredible organizational and academic skills and that of Kristen Desjarlais-de Klerk as well. Together, they have driven the data collection and analysis of the MTU preceptor study. 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 also welcomed Jaya Dixit this year, who transitions into Alicia's role as she continues on with her PhD. As always, we benefit from all the wonderful and wise mentors within the Department and Faculty of Medicine, with ongoing expert guidance 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 the Chair of the AMA Physician and Family Support Group Advisory Committee and a member of the AHS Physician Wellness Committee. She is also a member of the International Alliance for Physician Health. This past year, she has served as a CanMEDS 2015 ePanelist for the Professional-Physician Health Expert Working Group.

FINAL COMMENTS

Physician Wellness is part of our daily dialogue (maybe at times only internally…) for many. We share an enhanced awareness that it is important for us on a personal level, and that it is part of our professionalism to ensure that we are well. This enhanced literacy is now being followed by asks for concrete tools and strategies to be pro-active in our approach. Why wait until we burn out? Let us practice risk reduction in this realm as we do for many others. We care for our physical health, so we can work on our mental health as well. In doing so, we can help reduce the stigma of mental illness and exert a powerful public health influence by supporting wellness on all levels as an important health goal. There is openness to discussion and learning about how to thrive within the wonderfully rewarding yet challenging career path we have all chosen. As always, we are grateful to all who support the Wellness Portfolio and 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.

Patient Flow - DOM Inpatient Data
April 1, 2013 to March 31, 2014

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 Section instead of splitting into two Sections. Since physicians' medical service code affects sectional inpatient counts, sectional inpatient counts might be varied due to the changes of physicians' medical service.

There were 10530 inpatients discharged by DOM physicians during fiscal year 2013-14. Compared to the previous year of 2012-13, the total inpatient discharge of 2013-14 increased around 5.7%.

Inpatient Discharge Summary		
Division	**2012-13**	**2013-14**
Dermatology	–	–
Endocrinology	45	45
Gastroenterology	1048	991
Geriatric Medicine	–	–
General Internal Medicine	5446	6319
Hematology	978	851
Infectious Diseases*	64	39
Nephrology	1037	1004
Respirology	1342	1281
Rheumatology	–	–
Total	**9960**	**10530**
Yearly Changes (+/-)	**8.7%**	**5.7%**

* 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 16,397 consults for the inpatients discharged during fiscal year 2013-14. Compared to previous fiscal year 2012-13, the total consults of 2013-14 increased around 4.4%

Inpatient Consults Provided by DOM		
Division	**2012-13**	**2013-14**
Dermatology	200	170
Endocrinology	593	580
Gastroenterology	3576	3745
Geriatric Medicine	904	932
General Internal Medicine	3787	3965
Hematology	705	744
Infectious Diseases	2769	2910
Nephrology	899	870
Respirology	1867	2005
Rheumatology	409	476
Total	**15709**	**16397**

The calculation of average Acute Length of Stay of patients discharged by DOM physicians were based on the following five sections as shown in the table. Compared to previous fiscal year 2012-13, the average Acute Length of Stay of DOM increased around 6.1% in fiscal year of 2013-14.

Average Acute Length of Stay (Days)		
Division	**2012-13**	**2013-14**
Dermatology	–	–
Endocrinology	–	–
Gastroenterology	5.2	5.3
Geriatric Medicine	–	–
General Internal Medicine	8.1	8
Hematology	15.7	17.8
Infectious Diseases*	–	–
Nephrology	11.7	12.4
Respirology	8.3	8.5
Rheumatology	–	–
Average	**9.8**	**10.4**

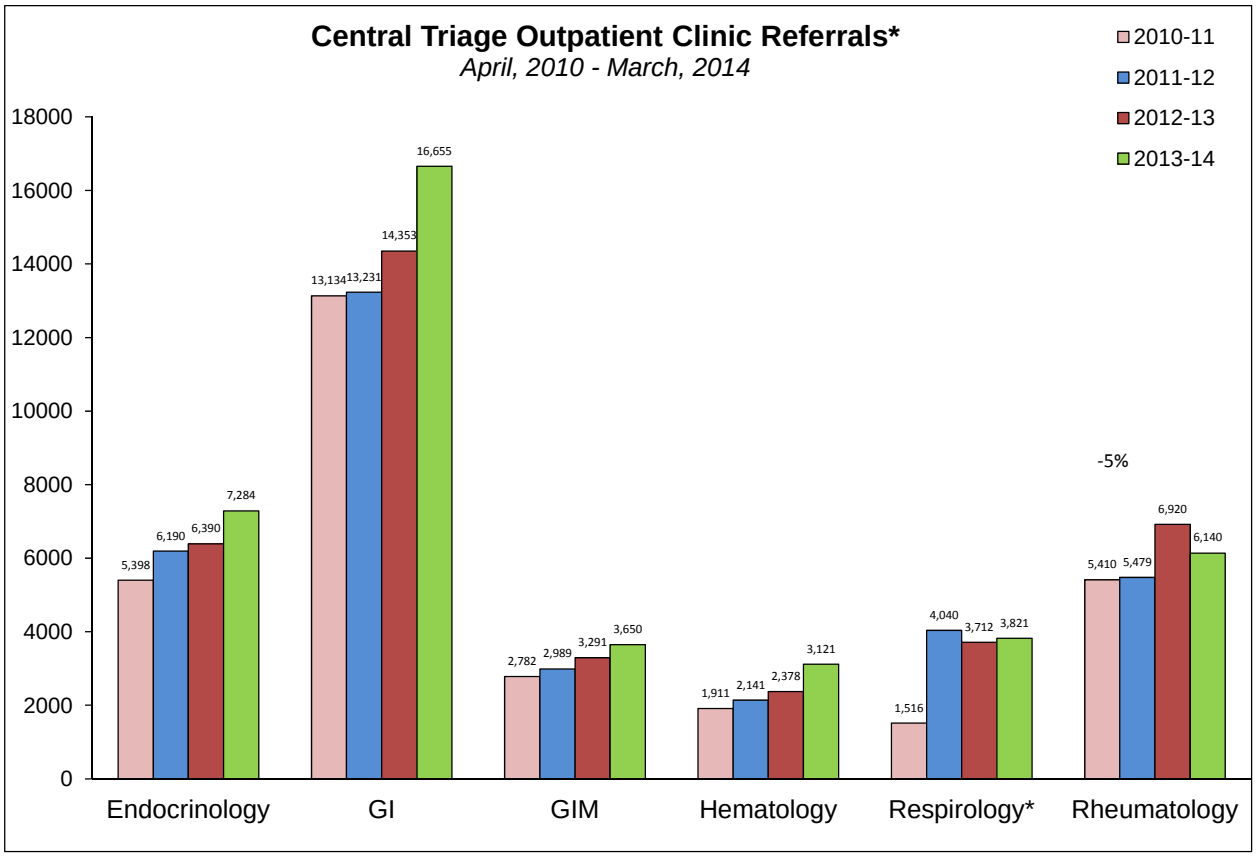
CMG (Case Mix Groups) is a methodology designed to aggregate acute care information for inpatients with similar clinical and resource-utilization characteristics. The following table listed top two CMGs of fiscal year 2012-13 and 2013-14 for the five sections of the Department of Medicine.

Division	Top 1 CMG		TOP 2 CMG	
	2012-13	2013-14	2012-13	2013-14
GI	Inflammatory Bowel Disease		GI Hemorrhage	Hepatobiliary/Pancreatic Malignacy
	18.51%	22.50%	8.02%	6.96%
GIM	Diabetes		Other/Unspecified Septicemia	
	5.22%	5.29%	5.11%	5.19%
Nephrology	Renal Failure		Kidney Disease	
	6.56%	8.47%	5.40%	4.78%
Hematology	Chemotherapy Neoplasm	BMT	BMT	Chemotherapy Neoplasm
	27.10%	13.75%	12.37%	10.34%
Respirology	COPD		Other Lung Disease	Pulmonary Embolism
	20.03%	20.14%	7.59%	7.34%

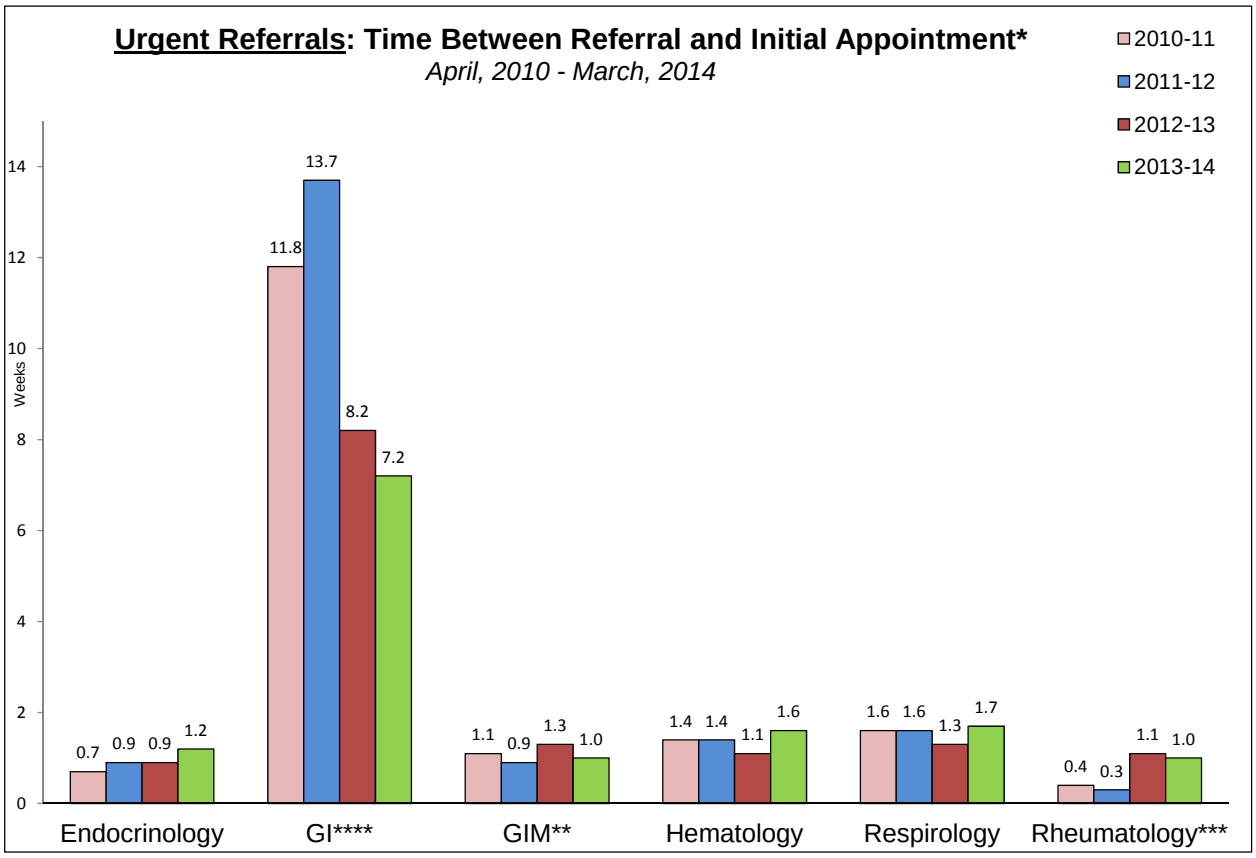
* Each discharged inpatient was assigned a CMG. An occurrence rate of CMG was calculated by using a number of discharged inpatients grouped by the same type of CMG divided by total discharged inpatients within a fiscal year. Sectional assignment of CMG was also affected by if its physicians were the 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 Sections or for physicians who do not participate in the Central Triage process. Respiratory Medicine 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.

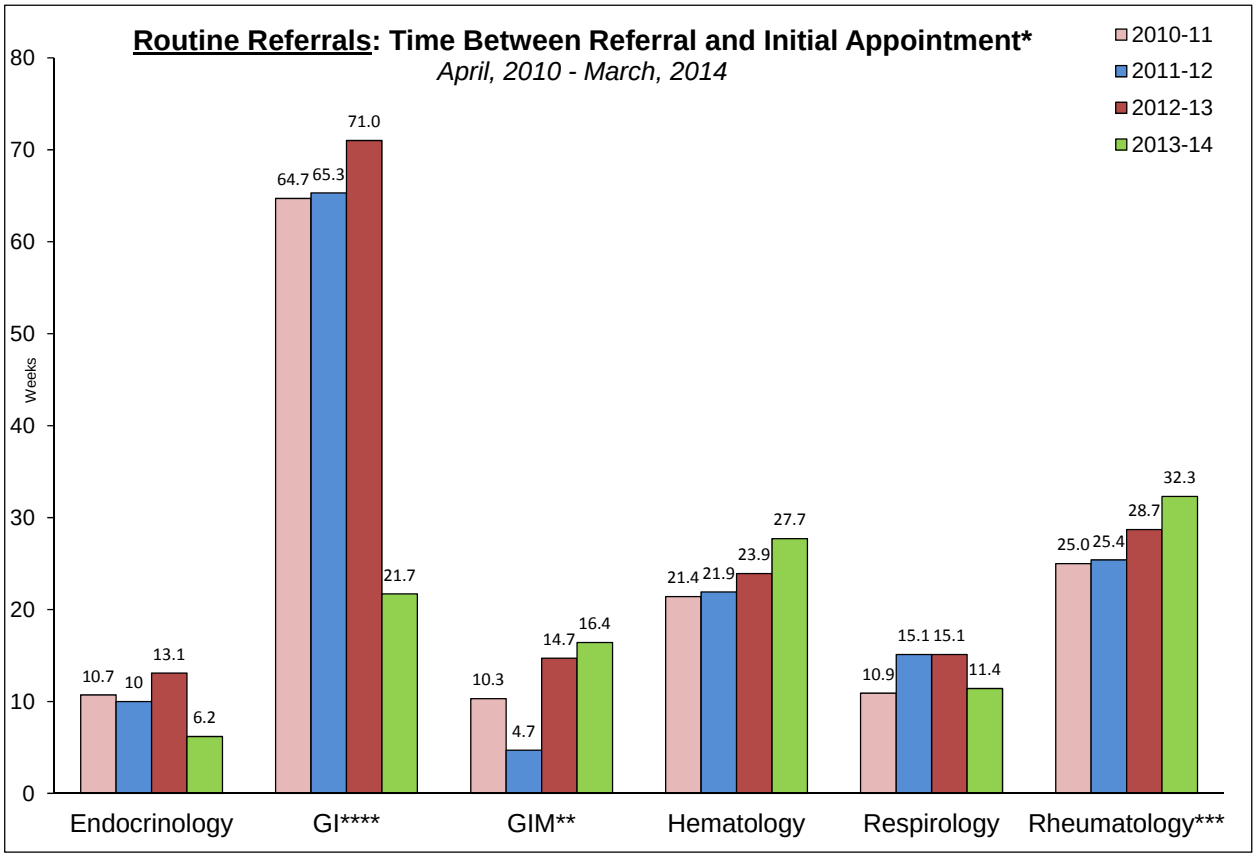


Median wait times of GI for urgent referrals in 2013-14 decreased 12% compared to what was reported in 2012-13. Median wait time of GIM for urgent referrals in 2013-14 decreased 23%, and Rheumatology's median wait time for urgent referrals decreased 9% compared to the results of 2012-13. Median wait times of Endocrinology, Hematology, and Respiratory Medicine for urgent referrals in 2013-14 increased 33%, 45%, and 31% separately compared to the previous year 2012-13.



* 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.

GI's median wait time for routine referrals decreased 69% dramatically in 2013-14 compared to the result of previous fiscal year of 2012-13. Similarly, the median wait time for routine referrals of Endocrinology and Respiratory Medicine decreased 53% and 24% separately in 2013-14 compared to previous fiscal year of 2012-13. The median wait time for routine referrals of GIM, Hematology, and Rheumatology increased 12%, 16%, and 13% separately compared to fiscal year of 2012-13.



* 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 2013-14

Name	Title	Authorship	Publish Year	Type
Ahmed,Sofia				
	Vitamin D levels are associated with cardiac autonomic activity in healthy humans	Mann MC, Exner DV, Hemmelgarn BR, Sola DY, Turin TC, Ellis L, Ahmed SB	2013	Journal Article
	The Prevalence of Restless Legs Syndrome in Patients with Chronic Kidney Disease.	Lee J, Nicholl DDM, Ahmed SB, Loewen AHS, Hemmelgarn BR, Beecroft JM, Turin TC, Hanly PJ.	2013	Journal Article
	Pneumatic Compression Devices During Hemodialysis: A Randomized Crossover Trial.	Tai DJ, Ahmed SB, Hemmelgarn BR, Palacios-Derflingher L, MacRae JM.	2013	Journal Article
	Association between First Nations ethnicity and progression to kidney failure by presence and severity of albuminuria.	Samuel SM, Palacios-Derflingher L, Tonelli M, Manns B, Crowshoe L, Ahmed SB, Jun M, Saad N, Hemmelgarn BR.	2013	Journal Article
	Sex influences the effect of body mass index on the vascular response to angiotensin II in humans.	Zalucky AA, Nicholl DD, Mann MC, Hemmelgarn BR, Turin TC, Macrae JM, Sola DY, Ahmed SB.	2013	Journal Article
	25-hydroxyvitamin D status, arterial stiffness, and the renin angiotensin system in healthy humans.	Abdi-Ali A, Nicholl DDM, Hemmelgarn BR, MacRae JM, Sola DY, Ahmed SB.	2013	Journal Article
	Proteinuria and Life Expectancy.	Turin TC, Tonelli M, Manns BJ, Ahmed SB, Ravani P, James M, Hemmelgarn BR.	2013	Journal Article
Andrews,Christop				
	Suture marker lesion detection in the coon by self-stabilizing and unmodified capsule endoscopes: pilot study in acute canine models.	Filip D, Yadid-Pecht O, Muench G, Mintchev MP, Andrews CN.	2013	Journal Article
	Lichen Planus is an uncommon cause of nonspecific proximal esophageal inflammation.	Linton MS, Zhao L, Gui X, Storr M, Andrews CN	2013	Journal Article
	Diabetic gastroparesis.	Vanormelingen C, Tack J, Andrews CN.	2013	Journal Article
Aspinall,Alexande				
	Revision of MELD to Include Serum Albumin Improves Prediction of Mortality on the Liver Transplant Waiting List	Myers RP, Shaheen AA, Faris P, Aspinall AI, Burak KW	2013	Journal Article
	Revision of MELD to include serum albumin improves prediction of mortality on the liver transplant waiting list	Myers RP, Shaheen AA, Faris P, Aspinall Al, Burak KW	2013	Journal Article
Bahlis,Nizar				
	Pinning down myeloma with Pim2 inhibitors!	Neri P, Bahlis NJ.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	A randomized phase 3 trial of thalidomide and prednisone as maintenance therapy after ASCT in patients with MM with a quality-of-life assessment: the National Cancer Institute of Canada Clinicals Trials Group Myeloma 10 Trial.	Stewart AK, Trudel S, Bahlis NJ, White D, Sabry W, Belch A, Reiman T, Roy J, Shustik C, Kovacs MJ, Rubinger M, Cantin G, Song K, Tompkins KA, Marcellus DC, Lacy MQ, Sussman J, Reece D, Brundage M, Harnett EL, Shepherd L, Chapman JA, Meyer RM.	2013	Journal Article
	White DJ, Bahlis NJ, Marcellus DC, Belch A, Stewart AK, Chen C, Kovacs MJ, Macdonald DA, Reece DE, Reiman T, Harnett E, Meyer RM, Chapman JA, Couban S.	Lenalidomide plus melphalan without prednisone for previously untreated older patients with multiple myeloma: a phase II trial.	2013	Journal Article
	Establishing a target exposure for once-daily intravenous busulfan given with fludarabine and thymoglobulin before allogeneic transplantation.	Russell JA, Kangarloo SB, Williamson T, Chaudhry MA, Savoie ML, Turner AR, Larratt L, Storek J, Bahlis NJ, Shafey M, Brown CB, Yang M, Geddes M, Zacarias N, Yue P, Duggan P, Stewart DA, Daly A.	2013	Journal Article
	Vijay A, Duan Q, Henning JW, Duggan P, Daly A, Shafey M, Bahlis NJ, Stewart DA.	High Dose Salvage Therapy with Dose Intensive Cyclophosphamide, Etoposide and Cisplatin (DICEP) May Increase Transplantation Rates for Relapsed/Refractory Aggressive Non-Hodgkin Lymphoma.	2013	Journal Article
	Genomic instability in multiple myeloma: mechanisms and therapeutic implications.	Neri P, Bahlis NJ.	2013	Journal Article
	Thirukkumaran CM, Shi ZQ, Luider J, Kopciuk K, Gao H, Bahlis N, Neri P, Pho M, Stewart D, Mansoor A, Morris DG.	Reovirus modulates autophagy during oncolysis of multiple myeloma.	2013	Journal Article
	Treatment outcomes in patients with relapsed and refractory multiple myeloma and high-risk cytogenetics receiving single-agent carfilzomib in the PX-171-003-A1 study.	Jakubowiak AJ, Siegel DS, Martin T, Wang M, Vij R, 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, Harrison BL, Wong AF, Orlowski RZ, Jagannath S.	2013	Journal Article
Barnabe,Cheryl				
	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, LeClercq S, Mosher D, Thorne C,Bykerk V.	2013	Journal Article
	Reproducible Metacarpal Joint Space Width Measurements Using 3D Analysis of Images Acquired with High-Resolution peripheral Quantitative Computed Tomoghraphy (HR-pQCT)	Barnabe C, Buie H, Kan M, Szabo E, Barr SG, Martin L, Boyd SK.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Quantification of Small Joint Space Width, Periarticular Microstructure and Erosions Using High-Resolution Peripheral Quantitative Computed Tomography in Rheumatoid Arthritis.	Barnabe C, Martin L, Boyd SK, Barr SG.	2013	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.	2013	Journal Article
	Quality of care for First Nations and non-First Nations with Diabetes	Deved V, Jette N, Quan H, Tonelli M, Manns BJ, Soo A, Barnabe C, Hemmelgarn BR	2013	Journal Article
Barr,Susan				
	Breast cancer in systemic lupus erythematosus.	Tessier Cloutier B, Clarke AE, Ramsey-Goldman R, Wang Y, Foulkes W, Gordon C, Hansen JE, Yelin E, Urowitz MB, Gladman D, Fortin PR, Wallace DJ, Petri M, Manzi S, Ginzler EM, Labrecque J, Edworthy S, Dooley MA, Senécal JL, Peschken CA, Bae SC, Isenberg D, Rahman A, Ruiz-Irastorza G, Hanly JG, Jacobsen S, Nived O, Witte T, Criswell LA, Barr SG, Dreyer L, Sturfelt G, Bernatsky S.	2013	Journal Article
	Quantification of Small Joint Space Width, Periarticular Bone Microstructure and Erosions Using High-Resolution Peripheral Quantitative Computed Tomography in Rheumatoid Arthritis.	Barnabe C, Martin L, Boyd SK, Barr SG.	2013	Journal Article
	Healthcare service utilisation costs are reduced when rheumatoid arthritis patients achieve sustained remission.	Barnabe C, Thanh NX, Ohinmaa A, Homik J, Barr SG, Martin L, Maksymowych WP.	2013	Journal Article
	Reproducible Metacarpal Joint Space Width Measurements Using 3D Analysis of Images Acquired with High-Resolution peripheral Quantitative Computed Tomography (HR-pQCT).	Barnabe C, Buie H, Kan M, Szabo E, Barr SG, Martin L, Boyd SK.	2013	Journal Article
	Cancer risk in systemic lupus: An updated international multi-centre cohort study.	Bernatsky S, Ramsey-Goldman R, Labrecque J, Joseph L, Boivin JF, Petri M, Zoma A, Manzi S, Urowitz MB, Gladman D, Fortin PR, Ginzler E, Yelin E, Bae SC, Wallace DJ, Edworthy S, Jacobsen S, Gordon C, Dooley MA, Peschken CA, Hanly JG, Alarcón GS, Nived O, Ruiz-Irastorza G, Isenberg D, Rahman A, Witte T, Aranow C, Kamen DL, Steinsson K, Askanase A, Barr S, Criswell LA, Sturfelt G, Patel NM, Senécal JL, Zummer M, Pope JE, Ensworth S, El-Gabalawy H, McCarthy T, Dreyer L, Sibley J, St Pierre Y, Clarke AE.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Bass,Adam				
	Experienced physicians benefit from analyzing initial diagnostic hypotheses	Adam Bass, Colin Geddes, Bruce Wright, Sylvain Coderre, Remy Rikers, Kevin McLaughlin	2013	Journal Article
	In-group Bias in Residency Selection	Adam Bass, Caren Wu, Jeffrey P Schaefer, Bruce Wright, Kevin McLaughlin.	2013	Journal Article
Beck,Paul				
	Effects of Nitric Oxide and REactive Oxygen Species on HIF-1alpha Stabilization Following Clostridium Difficile Toxin Exposure of the Caco-2 Epithelial Cell Line.	Lee JY, Hirota SA, Glover LE, Armstrong GD, Beck PL, MacDonald JA..	2013	Journal Article
	A Potential New Tool for Managing Clostridium difficile Infection	Armstrong GD, Pillai DR, Louie TJ, Macdonald JA, Beck PL.	2013	Journal Article
	Polyunsaturated Fatty Acids in Inflammatory Bowel Diseases: A Re-appraisal of Effects and Therapeutic Approaches	Marion-Letellier R, Savoye G, Beck PL, Panaccione R, Ghosh S.	2013	Journal Article
	Inflammasome-independent NLRP3 augments TGF-beta signaling in kidney epithelium	Wang W, Wang X, Chun J, Vilaysane A, Clark S, French G, Bracey NA, Trpkov K, Bonni S, Duff HJ, Beck PL, Muruve DA.	2013	Journal Article
	Drug-induced Inflammatory Bowel Disease and IBD-Like Conditions	Dubeau MF, Iacucci M, Beck PL, Moran GW, Kaplan GG, Ghosh S, Panaccione R.	2013	Journal Article
	Lymphocytic colitis is associated with increased pro-inflammatory cytokine profile and up regulation of prostaglandin receptor EP4	Dey I, Beck PL, Chadee K	2013	Journal Article
	The P2Y6 Receptor Mediates Clostridium Difficile Toxin-Induced CXCL8/IL-8 Production and Intestinal Epithelial Barrier Dysfunction.	Hansen A, Alston L, Tulk SE, Schenck LP, Grassie ME, Alhassan BF, Veermalla AT, Al-Bashir S, Gendron FP, Altier C, Macdonald JA, Beck PL, Hirota SA.	2013	Journal Article
	The association between celiac disease and eosinophilic esophagitis in children and adults.	Stewart MJ, Shaffer E, Urbanski SJ, Beck PL, Storr MA.	2013	Journal Article
	Attenuation of Clostridium difficile toxin-induced damage to epithelial barrier by ecto-5'-nucleotidase (CD73) and adenosine receptor signaling.	Schenck PL, Hirota SA, Hirota CL, Boasquevisque P, Tulk SE, Li Y, Wadhwani A, Doktorchik CT, Macnaughton WK, Beck PL, Macdonald JA.	2013	Journal Article
	TRPM8 activation attentuates inflammatory responses in mouse models of colitis.	Ramachandran R, Hyun E, Zhao L, Lapointe TK, Chapman K, Hirota CL, Ghosh S, McKemy DD, Vergnolle N, Beck PL, Altier C, Hollenberg MD	2013	Journal Article
	Increased prevalence of circulating novel IL-17 secreting Foxp3 expressing CD4+ T-cells and defective suppressive function of circulating Foxp3+ regulatory cells support plasticity between	Ueno A, Jijon H, Chan R, Ford K, Hirota C, Kaplan GG, Beck PL, Iacucci M, Gasia MF, Barkema HW, Panaccione R, Ghosh S.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Th17 and regulatory T-cells in Inflammatory Bowel Disease patients.			
	The Nlrp3 inflammasome promotes myocardial dysfunction in structural cardiomyopathy through IL-1beta	Bracey NA, Beck PL, Muruve DA, Hirota SA, Guo J, Jabagi H, Wright JR Jr, Macdonald JA, Lees-Miller JP, Roach D, Semeniuk LM, Duff HJ.	2013	Journal Article
Bhayana,Shelly				
	Occult Multifocal Papillary Thyroid Microcarcinoma presenting as a supraclavicular mass containing Anaplastic Thyroid Carcinoma	Deutschmann M, Khalil M, Bhayana S, Chandarana S. 2013. JAMA Otolaryngology-Head & Neck Surgery [In Press]	2013	Journal Article
Bridges,Ronald				
	The 2012 SAGE wait times program. Survey of access to GastroEnterology in Canada.	Leddin D., Armstrong., Borgaonkar M., Bridges RJ., Fallone CA., Telford JJ., Chen Y., Colacino P., Sinclair P.	2013	Journal Article
	Development and validation of a nurse assessed patient comfort score (NAPSCOM) for colonoscopy.	Rostom A., Ross ED., Dube C., Rutter MD., Lee T., Valori R., Bridges, RJ., Pontifex D., Webbink V., Rees C., Brown C., Whetter RGN., Kelsey SG., Hilsden RJ.	2013	Journal Article
Brown,Christopher				
	Establishing a Target Exposure for Once-Daily Intravenous Busulfan Given with Fludarabine and Thymoglobulin before Allogeneic Transplantation. Biol Blood Marrow Transplant.	Russell JA, Kangarloo SB, Williamson T, Chaudhry MA, Savoie, ML, Turner AR, Larratt L, Storek J, Bahlis NJ, Shafey M, Brown CB, Yang M, Geddes M, Zacarias N, Yue P, Duggan P, Stewart DA, Daly A.	2013	Journal Article
	Isn't All of Oncology Hermeneutic.	Moules NJ, Jardine DW, McCaffrey GP, Brown CB.	2013	Journal Article
Burak,Kelly				
Revision of MELD to Include	Serum Albumin Improves Prediction of Mortality on the Liver Transplant Waiting List.	Myers RP, Shaheen AAM, Faris P, Aspinall AI, Burak KW.	2013	Journal Article
	Rituximab for the Treatment of Patients with Autoimmune Hepatitis who are Refractory to or Intolerant of Standard Therapy.	Burak KW, Swain MG, Santodomino-Garzon T, Lee SS, Urbanski SJ, Aspinall AI, Coffin CS, Myers RP.	2013	Journal Article
	Validation of the five-variable Model for End-stage Liver Disease (5vMELD) for prediction of mortality on the liver transplant waiting list.	Myers RP, Tandon P, Ney M, Meeberg G, Faris P, Shaheen AA, Aspinall AI, Burak KW.	2013	Journal Article
	Prediction of hepatocellular carcinoma recurrence by molecular biomarkers.	Burak KW	2013	Journal Article
	B-cell Depletion with Rituximab in Patients with Primary Biliary Cirrhosis Refractory to Ursodeoxycholic Acid.	Myers RP, Swain MG, Lee SS, Shaheen AA, Burak KW.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Butalia,Sonia				
	Clinical and sociodemographic factors associated with diabetic ketoacidosis hospitalization in adults with type 1 diabetes.	Butalia S, Johnson JA, Ghali WA, and Rabi DM.	2013	Journal Article
Castillo,Eliana				
	Prevention of Early-Onset Neonatal Group B Streptococcal Disease	Money D, Paquet C, Yudin M, Bouchard S, Boucher M, Caddy S, Castillo E, Murphy K, Ogilvie G, Paquet C, van Schalkwyk J	2013	Journal Article
	Toxoplasmosis in pregnancy: prevention, screening, and treatment.	Paquet C, Yudin M, Bouchard S, Boucher M, Caddy S, Castillo E, Money D, Murphy K, Ogilvie G, Paquet C, van Schalkwyk J	2013	Journal Article
Chee,Alex				
	Flock Worker's Lung: Natural history of cases and exposed workers in Kingston,Ontario	S Turcotte, A Chee, R Walsh, F Curry, G Liss, A Boag, L Forkert, P Munt, D Lougheed	2013	Journal Article
	Diagnostic utility of peripheral endobronchial ultrasound with electromagnetic navigation bronchoscopy in peripheral lung nodules	A Chee, DR Stather, P MacEachern, S Martel, A Delage, M Simon, E Dumoulin, A Tremblay	2013	Journal Article
	Impact of Tunneled Pleural Catheters on the Quality of Life of Patients with Malignant Pleural Effusions	N Sabur, A Chee, DR Stather, P MacEachern, C Hergott, E Dumoulin, A Gonzalez, K Amjadi, A Tremblay	2013	Journal Article
	Trainee Impact on Advanced Diagnostic Bronchoscopy: An Analysis of 607 Consecutive Procedures in an Interventional Pulmonary Practice	Dr Stather, P MacEachern, A Chee, E Dumoulin, A Tremblay	2013	Journal Article
	Towards the guidance of transbronchial biopsy: Identifying pulmonary nodules with optical coherence tomography	Lida P Hariri, Mari Mino-Kenudson, Matthew B Applegate, Eugene J Mark, Guillermo J Tearney, Michael Lanuti, Colleen L Channick, Alex Chee, Melissa J Suter	2013	Journal Article
	Evaluation of a novel method of teaching endobronchial ultrasound: Physician- versus respiratory therapist-proctored simulation training.	Stather DR, Chee A, Maceachern P, Dumoulin E, Hergott CA, Gelberg J, Scott SD, De Guzman S, Tremblay A	2013	Journal Article
	Bronchoscopic Removal of a Large Intracavitary Pulmonary AspergillomaBronchoscopic Intracavitary Aspergilloma Removal	David R Stather, Alain Tremblay, Paul MacEachern, Alex Chee, Elaine Dumoulin, Olga Tourin, Gary A Gelfand, Christopher H Mody	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Clarke,Ann				
	25-Hydroxyvitamin D and cardiovascular disease in patients with systemic lupus erythematosus: data from a large international inception cohort.	Lertratanakul A, Wu P, Dyer A, Urowitz M, Gladman D, Fortin P, Ibañez D, Bae SC, Gordon C, Clarke AE, Bernatsky S, Hanly J, Isenberg D, Rahman A, Merrill J, Wallace D, Ginzler E, Khamashta M, Bruce I, Nived O, Sturfelt G, Steinsson K, Manzi S, Dooley MA, Kalunian K, Petri M, Aranow C, Font J, von Vollenhoven R, Stoll T, Ramsey-Goldman R.	2013	Journal Article
	Association of smoking with cutaneous manifestations in systemic lupus erythematosus.	Bourré-Tessier J, Peschken CA, Bernatsky S, Joseph L, Clarke AE, Fortin PR, Hitchon C, Mittoo S, Smith CD, Zummer M, Pope J, Tucker L, Hudson M, Arbillaga H, Esdaile J, Silverman E, Chédeville G, Huber AM, Belisle P; CaNIOS 1000 Canadian Faces of Lupus investigators, Pineau CA.	2013	Journal Article
	Resource utilization and direct medical costs in systemic lupus erythematosus (SLE) patients from a commercially insured population.	Furst DE, Clarke AE, Fernandes AW, Bancroft T, Greth W, Iorga SR.	2013	Journal Article
	Medical costs and health care resource use in patients with systemic lupus nephritis and neuropsychiatric lupus in an insured population.	Furst DE, Clarke AE, Fernandes AW, Bancroft T, Greth W, Iorga SR.	2013	Journal Article
	Diagnosis and Treatment of Food Allergies in Off-Reserve Aboriginal Children in Canada.	Harrington DW, Wilson K, Clarke AE, Elliott SJ.	2013	Journal Article
	Incidence and Prevalence of Systemic Lupus Erythematosus in a Large US Managed Care Population.	Furst DE, Clarke AE, Fernandes AW, Bancroft T, Greth W, Iorga SR.	2013	Journal Article
	Cancer risk in systemic lupus: An updated international multi-centre cohort study.	Bernatsky S, Ramsey-Goldman R, Labrecque J, Joseph L, Petri M, Zoma A, Manzi S, Urowitz M, Gladman D, Fortin PR, Ginzler E, Yelin E, Bae SC, Wallace D, Edworthy S, Barr S, Jacobsen S, Gordon C, Dooley MA, Peschken C, Hanly J, Alarcón G, Nived O, Ruiz-Irastorza G, Isenberg D, Rahman A, Witte T, Aranow C, Steinsson K, Sturfelt G, Senécal JL, Zummer M, Pope J, Ensworth S, El-Gabalawy H, McCarthy T, Dreyer L, Sibley J, St. Pierre Y, Clarke AE.	2013	Journal Article
	Canadian Allergists and Non-Allergists' Perception of Epinephrine Use and Vaccination of individuals with Egg Allergy. Journal of Allergy and Clinical Immunology: In Practice	Desjardins M, Clarke A, Alizadehfar R, Grenier D, Eisman H, Carr S, Vander Leek T, Teperman L, Higgins N, Joseph L, Shand G, Ben-Shoshan M.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Clinical Associations of the Metabolic Syndrome in Systemic Lupus Erythematosus: Data from an International Inception Cohort.	Parker B, Urowitz MB, Gladman DD, Lunt M, Ibañez D, Hanly JG, Gordon C, Bae SC, Sanchez-Guerrero J, Romero-Diaz J, Wallace DJ, Clarke AE, Ginzler EM, Merrill JT, Isenberg DA, Rahman A, Petri M, Fortin PR, Steinsson K, Dooley MA, Khamashta MA, Alarcón GS, Fessler BJ, Ramsey-Goldman R, Manzi S, Zoma AA, Sturfelt GK, Nived O, Aranow C, Mackay M, Ramos-Casals M, van Vollenhoven RF, Kalunian KC, Ruiz-Irastorza G, LimS, Kamen DL, Peschken CA, Inanc M, Farewell V, Bruce IN.	2013	Journal Article
	A majority of parents of children with Peanut allergy fear using the Epinephrine Auto-Injector.	Chad L, Ben-Shoshan M, Alizadehfar R, Asai Y, St-Pierre Y, Harada L, Allen M, Clarke AE.	2013	Journal Article
	Validation of the Cork-Southampton Food Challenge Outcome Calculator in a Canadian sample. Journal of Allergy and Clinical Immunology 2013;131(1):230-2.	DunnGalvin A, Segal LM, Clarke A, Alizadehfar R, Hourihane JO.	2013	Journal Article
	Genome-Wide Association Study of Antiphospholipid Antibodies.	Kamboh MI, Wang X, Kao AH, Barmada MM, Clarke AE, Ramsey-Goldman R, Manzi S, Demirci FY.	2013	Journal Article
	Filaggrin gene mutation associations with peanut allergy persist despite variations in peanut allergy diagnostic criteria or asthma status.	Asai Y, Greenwood C, Hull PR, Alizadehfar R, Ben-Shoshan M, Brown SJ, Campbell L, Michel DL, Bussières J, Rousseau F, Fujiwara TM, Morgan K, Irvine AD, McLean WH, Clarke AE.	2013	Journal Article
	Systemic Lupus International Collaborating Clinics, SLICC. Breast Cancer in Systemic Lupus Erythematosus (SLE).	Tessier Cloutier B, Clarke AE, Ramsey-Goldman R, Wang Y, Foulkes W, Gordon C, Hansen J, Yelin E, Urowitz MB, Gladman D, Fortin PR, Wallace DJ, Petri M, Manzi S, Ginzler EM, Labrecque J, Edworthy S, Dooley MD, Senécal Jl, Peschken CA, Bae SC, Isenberg D, Rahman A, Ruiz-Irastorza G, Hanly JG, Jacobsen S, Nived O, Witte T, Criswell LA, Barr SG, Dreyer L, Sturfelt G, Bernatsky S,	2013	Journal Article
	Induced abortions in women with rheumatoid arthritis on methotrexate.	Vinet E, Pineau CA, Clarke AE, Bernatsky S.	2013	Journal Article
	Malignancy in systemic lupus erythematosus.	Kale M, Ramsey-Goldman R, Gordon C, Clarke AE, Bernatsky S.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Headache in Systemic Lupus Erythematosus: Results from a Prospective, International Inception Cohort Study.	Hanly JG, Urowitz MB, O'Keeffe AG, Gordon C, Bae SC, Sanchez-Guerrero J, Romero-Diaz J, Clarke AE, Bernatsky S, Wallace D, Ginzler EM, Isenberg DA, Rahman A, Merrill JT, Petri M, Fortin PR, Gladman DD, Fessler BJ, Alarcon GS, Bruce IN, Dooley MA, Steinsson K, Khamashta MA, Ramsey-Goldman R, Manzi S, Sturfelt GK, Nived O, Zoma AA, van Vollenhoven RF, Ramos-Casals M, Aranow C, Mackay M, Ruiz-Irastorza G, Kalunian KC, Lim SS, Inanc M, Kamen DL, Peschken CA, Jacobsen S, Theriault C, Thompson K, Farewell	2013	Journal Article
	Altered Th17 Responses in Children with Food Allergy.	Dhuban KB, d'Hennezel E, Ben-Soshan M, McCusker C, Clarke AE, Fiset P, Mazer B, Piccirillo CA.	2013	Journal Article
	Anaphylaxis treated in a Canadian pediatric hospital: incidence, clinical characteristics, triggers and management.	Ben-Shoshan M, La Vieille S, Eisman H, Alizadehfar R, Mill C, Joseph L, Morris J, Clarke AE.	2013	Journal Article
	Cross cultural validation of a disease specific patient reported outcome measure for Lupus in Canada.	Bourré-Tessier J, Clarke AE, Mikolaitis-Preuss RA, Kosinski M, Block JA, Jolly M.	2013	Journal Article
	Non-Lymphoma Hematological Malignancies in Systemic Lupus Erythematosus.	Lu M, Bernatsky S, Ramsey-Goldman R, Petri M, Manzi S, Urowitz M, Gladman D, Fortin PR, Ginzler E, Yelin E, Bae SC, Wallace DJ, Jacobsen S, Dooley MA, Peschken CA, Alarcón GS, Nived O, Gottesman L, Criswell LA, Sturfelt G, Dreyer L, Lee JL, Clarke AE.	2013	Journal Article
	HLA-DQB1*02 and DQB1*06:03P are associated with peanut allergy.	Madore AM, Vaillancourt VT, Asai Y, Alizadehfar R, Ben-Shoshan M, Michel DL, Kozyrskyj AL, Becker A, Chan-Yeung M, Clarke AE, Hull P, Daley D, Sandford AJ, Laprise C.	2013	Journal Article
	Improvements in Health-Related Quality of Life with Belimumab, a B-Lymphocyte Stimulator-Specific Inhibitor, in Patients with Autoantibody-Positive Systemic Lupus Erythematosus.	Strand V, Levy RA, Cervera R, Petri MA, Rudge H, Pineda L, Freimuth W, Zhong J, Watson M, Clarke AE for the BLISS-76 and -52 Study Groups.	2013	Journal Article
	Lymphoma risk in systemic lupus: Effects of disease activity versus treatment.	Bernatsky S, Ramsey-Goldman R, Joseph L, Boivin JF, Costenbader KH, Urowitz MB, Gladman D, Fortin PR, Petri M, Manzi S, Isenberg D, Rahman A, Bae SC, Wallace DJ, Peschken CA, Dooley MA, Edworthy S, Aranow C, Nived O, Jacobsen S, Ruiz-Irastorza G, Yelin E, Barr S, Criswell L, Sturfelt GK, Blanco I, Feldman CH, Dreyer L, St. Pierre Y, Clarke AE	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Coffin,Carla				
	Virology and clinical sequelae of long-term antiviral therapy in a North American cohort of hepatitis B virus (HBV)/human immunodeficiency virus type 1 (HIV-1) co-infected patients.	Coffin CS, Osiowy C, Gilmour J, Myers RP, Gill MJ	2013	Journal Article
	Characterization of hepatitis B virus genotypes and quantitative hepatitis B surface antigen titres in North American tertiary referral liver centres	Congly SE, Wong P, Al-Busafi SA, Doucette K, Fung SK, Ghali P, Fonseca K, Myers RP, Osiowy C, Coffin CS	2013	Journal Article
	Rituximab for Treatment of Patients with Autoimmune Hepatitis who are Refractory to or Intolerant of Standard Therapy	Burak KW, Swain MG, Santodomino-Garzon T, Lee SS, Urbanski SJ, Aspinall AI, Coffin CS and Myers RP.	2013	Journal Article
	Treatment of Genotype 2 and Genotype 3 Hepatitis C virus (HCV) infection in human immunodeficiency virus positive patients	Brown K, LaBrie M, Coffin CS	2013	Journal Article
	Clinical associations and potential novel antigenic targets of autoantibodies directed against rods and rings in chronic hepatitis C infection	Stinton LM, Myers RP, Coffin CS, Fritzler MJ	2013	Journal Article
	Rituximab for the treatment of patients with autoimmune hepatitis who are refractory or intolerant to standard therapy.	Burak KW, Swain MG, Santodomino-Garzon T, Lee SS, Urbanski SJ, Aspinall AI, Coffin CS, Myers RP	2013	Journal Article
	Differences in Immune Cell Subpopulation Infection in Hepatitis B Virus (HBV) Monoinfected Versus Human Immunodeficiency Virus Type-1 (HIV-1) and HBV Coinfected Patient	Lee Z, Nishikawa S, Gill M, van Marle G, Coffin CS.	2013	Journal Article
Conly,John				
	Infection prevention and control measures for acute respiratory infections in healthcare settings: an update	Seto WH, Conly JM, Pessoa-Silva CL, Malik M, Eremin S	2013	Journal Article
	Multiplex PCR assay for typing of staphylococcal cassette chromosome mec types I to V in methicillin-resistant Staphylococcus aureus.	McClure-Warnier JA1, Conly JM, Zhang K.	2013	Journal Article
	Declines in outpatient antimicrobial use in Canada (1995-2010)	Finley R, Glass-Kaastra SK, Hutchinson J, Patrick DM, Weiss K, Conly J.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Complete sequences of a novel blaNDM-1-harbouring plasmid from Providencia rettgeri and an FII-type plasmid from Klebsiella pneumoniae identified in Canada	Mataseje LF, Boyd DA, Lefebvre B, Bryce E, Embree J, Gravel D, Katz K, Kibsey P, Kuhn M, Langley J, Mitchell R, Roscoe D, Simor A, Taylor G, Thomas E, Turgeon N, Mulvey MR; Canadian Nosocomial Infection Surveillance Program (Boyd D, Bryce E, Conly J, Deheer J, Embil J, Embree J, Evans G, Forgie S, Frenette C, Lemieux C, Golding G, Gravel D, Henderson E, Hutchinson J, John M, Johnston L, Katz K, Kibsey P, Kuhn M, Langley J, Lesaux N, Loeb M, Matlow A, McGeer A, Miller M, Mitchell R, Moore D, Mounchili A, Mulvey M, Pelude L, Roth V, Simor A, Suh K, Taylor G, Thomas E, Turgeon N, Vearncombe M, Vayalumkal J, Weiss K, Wong A)	2013	Journal Article
	Antimicrobial resistance: a global view from the 2013 world healthcare-associated infections forum.	Huttner A, Harbarth S, Carlet J et for the World Healthcare-associated Infections Forum Participants (J Conly member).	2013	Journal Article
	Characterization of a stable, metronidazole-resistant Clostridium difficile clinical isolate.	Lynch T1, Chong P, Zhang J, Hizon R, Du T, Graham MR, Beniac DR, Booth TF, Kibsey P, Miller M, Gravel D, Mulvey MR; Canadian Nosocomial Infection Surveillance Program (Boyd D, Bridger N, Bryce E, Conly J, Dascal A, de Heer J, Embil J, Embree J, Evans G, Forgie S, Frenette C, Haldane D, German G, Golding G, Gravel D, Hembroff D, Henderson E, John M, Johnston L, Katz K, Kibsey P, Kuhn M, Langley J, Lemieux C, Le Saux N, Loeb M, Richardson S, McGeer A, Mertz D, Miller M, Mitchell R, Moore D, Mounchili A, Mulvey M, Pelletier S, Pelude L, Quach C, Roth V)	2013	Journal Article
	Molecular epidemiology of vancomycin-resistant enterococcal bacteraemia: results from the Canadian Nosocomial Infection Surveillance Program, 1999-2009	McCracken M, Wong A, Mitchell R, Gravel D, Conly J, Embil J, Johnston L, Matlow A, Ormiston D, Simor AE, Smith S, Du T, Hizon R, Mulvey MR; on behalf of the members of the Canadian Nosocomial Infection Surveillance Program.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Cowie,Robert				
	Bronchodilator Responsiveness and Reported Respiratory Symptoms in an Adult Population.	Tan WC, Bourbeau J, Hernandez P, Chapman KR, Cowie R, FitzGerald JM, Aaron S, Marciniuk DD, Maltais F, Buist AS, O'Donnell DE, Sin DD, for the CanCOLD Collaborative Research Group	2013	Journal Article
	More than just great quotes: an introduction to the Canadian Tri-Council's qualitative requirements.	Boffa J, Moules N, Mayan M, Cowie RL.	2013	Journal Article
Daly,Andrew				
	High Dose Salvage Therapy with Dose-Intensive Cyclophosphamide, Etoposide and Cisplatin (DICEP) May Increase Transplantation Rates for Relapsed/Refractory Aggressive Non-Hodgkin Lymphoma.	Vijay A, Duan Q, Henning JW, Duggan P, Daly A, Shafey M, Bahlis NH, Stewart DA	2013	Journal Article
	Establishing a Target Exposure for Once-Daily Intravenous Busulfan Given with Fludarabine and Thymoglobulin before Allogeneic Transplantation.	Russell JA, Kangarloo SB, Williamson T, Chaudhry MA, Savoie ML, Turner AR, Larratt L, Storek J, Bahlis NJ, Shafey M, Brown CB, Yang M, Geddes M, Zacarias N, Yue P, Duggan P, Stewart DA, Daly A	2013	Journal Article
	IL 15 levels on day 7 after hematopoietic cell transportation predict chronic GVHD.	Pratt LM, Liu Y, Ugarte-Torres A. Hoegh-Petersen M. Podgorny PJ, Lyon AW, Williamson TS, Chaudhry MA. Daly A, Stewart DA, Russell JA. Grigg A, Ritchie D, Storek J.	2013	Journal Article
Davidson,Warren				
	Managing body distress in the control of severe asthma	Bakal D, Davidson WJ	2013	Journal Article
Donovan,Lois				
	Screening Tests for Gestational Diabetes: A Systematic Review for the United States Preventive Services Task Force	Lois Donovan, Lisa Hartling, Melanie Muise,Alyssa Guthrie, Ben Vandermeer, Donna M. Dryden,	2013	Journal Article
	Benefits and harms of treating gestational diabetes mellitus: A systematic review and meta-analysis for the United States Preventive Services Task Force	Lisa Hartling, Donna M. Dryden, Alyssa Guthrie, Melanie Muise, Ben Vandermeer, Lois Donovan,	2013	Journal Article
Dube,Catherine				
	Development and validation of a nurse-assessed patient comfort score for colonoscopy.	Rostom A, Ross ED, Dubé C, Rutter MD, Lee T, Valori R, Bridges RJ, Pontifex D, Webbink V, Rees C, Brown C, Whetter DH, Kelsey SG, Hilsden RJ.	2013	Journal Article
	Patient-identified quality indicators for colonoscopy services.	Sewitch MJ, Dubé C, Brien S, Jiang M, Hilsden RJ, Barkun AN, Armstrong D.	2013	Journal Article
	The endoscopy Global Rating Scale - Canada: Development and implementation of a quality improvement tool.	Macintosh D, Dubé C, Hollingworth R, Veldhuyzen van Zanten S, Daniels S, Ghattas G.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Duggan,Peter				
	Establishing a target exposure for once-daily intravenous busulfan given with fludarabine and thymoglobulin before allogeneic transplantation.	Russell JA, Kangarloo SB, Williamson T, Chaudhry MA, Savoie ML, Turner AR, Larratt L, Storek J, Bahlis NJ, Shafey M, Brown CB, Yang M, Geddes M, Zacarias N, Yue P, Duggan P, Stewart DA, Daly A.	2013	Journal Article
	High dose salvage therapy with dose intensive cyclophosphamide, etoposide and cisplatin may increase transplant rates for relapsed/refractory aggressive non-Hodgkin lymphoma.	Vijay A, Duan Q, Henning JW, Duggan P, Daly A, Shafey M, Bahlis NJ, Stewart DA.	2013	Journal Article
	Assessment of the early regenerative therapeutic response in graft versus host disease using high definition technology with virtual i-Scan chromoendoscopy.	Iacucci M, Daly A, Chaudhry A, Duggan P, Gui X, Love J, Ghosh S	2013	Journal Article
	Prognosis of grade 3-4 acute GVHD continues to be dismal.	Jamani K, Russell JA, Daly A, Stewart D, Savoie L, Duggan P, Storek J.	2013	Journal Article
	Results of a prospective phase II trial evaluating interim positron emission tomography-guided high dose therapy for poor prognosis diffuse large B-cell lymphoma.	Stewart DA, Kloiber R, Owen C, Bahlis NJ, Duggan P, Mansoor A, Bence-Bruckler I.	2013	Journal Article
Edwards,Alun				
	Identifying strategies to improve diabetes care using the knowledge-to-action cycle in Alberta, Canada	Manns B, Braun T, Edwards A, Grimshaw J, Hemmelgarn B et al.	2013	Journal Article
	The evaluating self-management and educational support in severely obese patients awaiting multidisciplinary bariatric care (EVOLUTION) trial: rationale and design.	Raj S Padwal, Arya M Sharma, Miriam Fradette, Susan Jelinski, Scott Klarenbach, Alun Edwards and Sumit R Majumdar	2013	Journal Article
	Effect of a dairy and calcium-rich, energy restricted pattern on appetite and peptide YY secretion in overweight and obese adults.	Wagner Jones K, Eller LK, Parnell JA, Doyle-Baker PK, Edwards AL, Reimer, RA.	2013	Journal Article
Edworthy,Steven				
	Cancer risk in systemic lupus: An updated international multi-centre cohort study	Bernatsky S, Ramsey-Golman R, Labrecque J, Joseph L, Boivin JF, Petri M, Zoma A, Manzi S, Urowitz MB, Gladman D, Fortin PR, Ginzler E, Yelin E, Bae SC, Wallace DJ, Edworthy S, Jacobsen S, Gordon C, Dooley MA, Peschken CA, Hanly JG, Alarcon GS, Nived O, Ruiz-Irastorza G, Isenberg D, Rahman A, Witte T, Aranow C Kamen DL, Steinsson K, Askanase A, Barr S, Criswell LA< Sturfelt G, Patel NM, Senecal JL, Zummer M, Pope JE, Enworth S, El-Gabalawy H, McCarthy T, Dreyer L, Sibley J, St Pierre Y, Clarke AE	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Eksteen,J. Albertus				
	Role of IL-17A and neutrophils in fibrosis in experimental hypersensitivity pneumonitis.	Hasan SA, Eksteen B, Reid D, Paine HV, Alansary A, Johansson K, Gwozd C, Goring KA, Vo T, Proud D, Kelly MM	2013	Journal Article
	Monitoring hepatitis C infection in the liver allograft.	Eksteen B.	2013	Journal Article
	Dense genotyping of immune-related disease regions identifies nine new risk loci for primary sclerosing cholangitis.	Liu JZ, Hov JR, Folseraas T, Ellinghaus E, Rushbrook SM, Doncheva NT, Andreassen OA, Weersma RK, Weismüller TJ, Eksteen B, Invernizzi P, Hirschfield GM, Gotthardt DN, Pares A, Ellinghaus D, Shah T, Juran BD, Milkiewicz P, Rust C, Schramm C, Müller T, Srivastava B, Dalekos G, Nöthen MM, Herms S, Winkelmann J, Mitrovic M, Braun F, Ponsioen CY, Croucher PJ, Sterneck M, Teufel A, Mason AL, Saarela J, Leppa V, Dorfman R, Alvaro D, Floreani A, Onengut-Gumuscu S, Rich SS, Thompson WK, Schork AJ, Næss S, Thomsen I, Mayr G, König IR, Hveem K, Cleynen I, Gutierrez-Achury J, Ricaño-Ponce I, van Heel D, Björnsson E, Sandford RN, Durie PR, Melum E, Vatn MH, Silverberg MS, Duerr RH, Padyukov L, Brand S, Sans M, Annese V, Achkar JP, Boberg KM, Marschall HU, Chazouillères O, Bowlus CL, Wijmenga C, Schrumpf E, Vermeire S, Albrecht M; UK-PSCSC Consortium; International IBD Genetics Consortium, Rioux JD, Alexander G, Bergquist A, Cho J, Schreiber S, Manns MP, Färkkilä M, Dale AM, Chapman RW, Lazaridis	2013	Journal Article
Fabreau,Gabriel				
	Shifting perceptions: a pre-post study to assess the impact of a senior resident rotation bundle	Fabreau G, Elliott M, Khanna S, Minty E, Wallace J, de Grood J, Lewin A, Brown G, Bharwani A, Gilmour J, Lemaire JB.	2013	Journal Article
Ferraz,Jose				
	Pro-Resolution, Protective and Anti-Nociceptive Effects of a Cannabis Extract in the Rat Gastrointestinal Tract	Wallace JL, Flannigan KL, McKnight W, Wang L, Ferraz JGP, Tuitt D	2013	Journal Article
	Enhanced synthesis and diminished degradation of hydrogen sulfide in experimental colitis: a site-specific, pro-resolution mechanism	Flannigan KL, Ferraz JG, Wang R, Wallace JL	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Field,Stephen				
	Safety and efficacy of delamanid in the treatment of multidrug-resistant tuberculosis (MDR TB)	Field SK	2013	Journal Article
	TNF-alpha antagonists for acute exacerbations of COPD: a randomized, double-blind, controlled trial.	Aaron SD, Vandemheen KL, Maltais F, Field SK, Sin DD, Bourbeau J, Marciniuk DD, FitzGerald M, Nair P, Mallick R.	2013	Journal Article
Flemons,Ward				
	The Costs of Developing, Implementing, and Operating a Safety Learning System in Community Practice	O'Beirne M, Reid R, Zwicker K, Sterling P, Sokol E, Flemons W, Baker R, Clement F	2013	Journal Article
	Validity of AHRQ patient safety indicators derived from ICD-10 hospital discharge abstract data (chart review study).	Quan H, Eastwood C, Cunningham CT, Liu M, Flemons W, Coster CD, Ghali WA for the IMECCHI investigators	2013	Journal Article
	The seamless transfer of care: A pilot study accessing the usability of an electronic transfer of care communications tool.	Santana , J Holroyd-Leduc, WW Flemons, M O'Beirne, D White, N Clayden, AJ Forster, WA Ghali	2013	Journal Article
Fraser,Kristin				
	The emotional and cognitive impact of unexpected simulated patient death: a randomized controlled trial	Kristin Fraser, MD, James Huffman, MD, Irene Ma, MD, Matthew Sobczak, BSc, Joanne McIlwrick, MD, Bruce Wright, MD, and Kevin McLaughlin, PhD.	2013	Journal Article
	Feasibility of scenario-based simulation training versus traditional workshops in continuing medical education: a randomized controlled trial	Kerr B, Hawkins TL-A, Herman R, Barnes S, Kaufmann S, Fraser K, et al.	2013	Journal Article
Fritzler,Marvin				
	Prevalence of Anti-Peptidylarginine Deiminase Type 4 Antibodies in Rheumatoid Arthritis and Unaffected First-Degree Relatives in Indigenous North American Populations.	Ferucci ED, Darrah E, Smolik I, Choromanski TL, Robinson DB, Newkirk MN, Fritzler MJ, Rosen AS, El-Gabalawy HS.	2013	Journal Article
	Rpp25 is a major target of autoantibodies to the Th/To complex as measured by ELISA and a novel chemiluminescent assay.	Mahler M, Gascon C, Patel S, Ceribelli A, Fritzler MJ, Swart A, Chan EKL, Satoh M.	2013	Journal Article
	Systemic Sclerosis in Canada's North American Native Population: Assessment of Clinical and Serological Manifestations.	Bacher A, Mittoo S, Hudson M, Tatibouet S, Fritzler MJ, the Canadian Scleroderma Research Group, Baron M.	2013	Journal Article
	Association of gastroesophageal factors and worsening of forced vital capacity in systemic sclerosis.	Zhang XJ, Bonner A, Hudson M, Fritzler M; Canadian Scleroderma Research Group, Baron M, Pope J.	2013	Journal Article
	Autoantibodies Directed Against a Novel Cytoplasmic Compartment (Rods and Rings) in Hepatitis C Infection.	LM Stinton, RP Myers, CS Coffin, MJ Fritzler.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Intra-articular and systemic inflammatory profiles identify patients with osteoarthritis.	Heard BJ, Fritzler MJ, Wiley JP, McAllister J, Martin L, El-Gabalawy, Hart DA, Frank CB, Krawetz.	2013	Journal Article
	The 15% rule in scleroderma: the frequency of severe organ complications in systemic sclerosis. A systematic review.	Muangchan C; Fritzler MJ, Canadian Scleroderma Research Group, Baron M, Pope J.	2013	Journal Article
	Reflections on Lupus 2013: butterflies, wolves and prophecies.	Fritzler MJ	2013	Journal Article
	Is there an association between Ro52/TRIM21 antibodies and rheumatoid factor in systemic sclerosis?	Mehra S, Hudson M, Mahler M, Canadian Scleroderma Research Group, Baron M, Fritzler MJ.	2013	Journal Article
	PR3-ANCA: A promising biomarker for ulcerative colitis with extensive disease.	Mahler M, Bogdanos DP, Pavlidis P, Fritzler MJ, Csernok E, Damoiseaux J, Bentow C, Shums Z, Forbes A, Norman GL.	2013	Journal Article
	An anti-phospholipase A2 receptor quantitative immunoassay and epitope analysis in membranous nephropathy	Behnert A, Fritzler MJ, Teng B, Zhang M, Bollig F, Haller H, Skoberne A, Mahler M, Schiffer M. .	2013	Journal Article
Fruetel,Karen				
	Evaluation of Older Adults Hospitalized with a Diagnosis of Failure to Thrive	L Kumeliauskas, K Fruetel, J Holryod Leduc	2013	Journal Article
Geddes,Michelle				
	Establishing a target exposure for once-daily intravenous busulfan given with fludarabine and thymoglobulin before allogeneic transplantation	Russell JA, Kangarloo SB, Williamson T, Chaudhry MA, Savoie ML, Turner AR, Larratt L, Storek J, Bahlis NJ, Shafey M, Brown CB, Yang M, Geddes M, Zacarias N, Yue P, Duggan P, Stewart DA, Daly A.	2013	Journal Article
	Treatment of older patients with acute myeloid leukemia (AML): a Canadian consensus.	Brandwein JM, Geddes M, Kassis J, Kew AK, Leber B, Nevill T, Sabloff M, Sandhu I, Schuh AC, Storring JM, Ashkenas J.	2013	Journal Article
Ghali,William				
	Time dependency of outcomes for drug-eluting vs bare-metal stents.	Leung AA, Southern DA, Galbraith PD, Knudtson ML, Philpott AC, Ghali WA; APPROACH Investigators.	2013	Journal Article
	Review of computerized physician handoff tools for improving the quality of patient care.	Li P, Ali S, Tang C, Ghali WA, Stelfox HT.	2013	Journal Article
	Statistical methods for the meta-analysis of diagnostic tests must take into account the use of surrogate standards.	Kang J, Brant R, Ghali WA.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Clinical and socio-demographic factors associated with diabetic ketoacidosis hospitalization in adults with Type 1 diabetes.	Butalia S, Johnson JA, Ghali WA, Rabi DM.	2013	Journal Article
	Contrast-induced acute kidney injury and risk of adverse clinical outcomes after coronary angiography: a systematic review and meta-analysis.	James MT, Samuel SM, Manning MA, Tonelli M, Ghali WA, Faris P, Knudtson ML, Pannu N, Hemmelgarm BR.	2013	Journal Article
	Quality indicators for ductal carcinoma in situ (DCIS) of the breast: development using a multidisciplinary delphi process and its use in monitoring population-based treatment.	Chin-Lenn L, Craighead P, Bryant HE, Mack L, Temple W, Ghali W, Quan ML.	2013	Journal Article
	Readmission rates and determinants in a higher-risk inpatient GIM population.	Gilmour JG, Southern DA, Ghali WA.	2013	Journal Article
	Does integrated management of childhood illness (IMCI) training improve the skills of health workers? A systematic review and meta-analysis.	Nguyen DT, *Leung KK, McIntyre L, Ghali WA, Sauve R.	2013	Journal Article
	Renal outcomes associated with invasive versus conservative management of acute coronary syndrome: propensity matched cohort study.	James MT, Tonelli M, Ghali WA, Knudtson ML, Faris P, Manns BJ, Pannu N, Galbraith PD, Hemmelgarn BR; Alberta Provincial Project for Outcome Assessment in Coronary Heart Disease and Alberta Kidney Disease Network Investigators.	2013	Journal Article
	Hypertension Outcome and Surveillance Team. Hospitalization for uncomplicated hypertension: an ambulatory care sensitive condition.	Walker RL, Chen G, McAlister FA, Campbell NR, Hemmelgarn BR, Dixon E, Ghali W, Rabi D, Tu K, Jette N, Quan H;	2013	Journal Article
	Recent temporal trends and geographic distribution of cardiac procedures in Alberta.	McMurtry MS, Southern DA, Lewin AM, Galbraith PD, Kaul P, Ghali WA, Knudtson ML, Graham MM.	2013	Journal Article
	Determinants of percutaneous coronary intervention vs coronary artery bypass grafting: an interprovincial comparison.	Ouzounian M, Ghali W, Yip AM, Buth KJ, Humphries K, Stukel TA, Norris CM, Southern DA, Galbraith PD, Thompson CR, Abel J, Love MP, Hassan A, Hirsch GM.	2013	Journal Article
	FOR THE WORLD HEALTH ORGANIZATION QUALITY AND SAFETY TOPIC ADVISORY GROUP.	Drosler SE, Romano PS, Sundararajan V, Burnand B, Colin C, Pincus H, Ghali W;	2013	Journal Article
	Alcohol and drug use disorders among patients with myocardial infarction: associations with disparities in care and mortality.	Beck CA, Southern DA, Saitz R, Knudtson ML, Ghali WA.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Sex differences in acute coronary syndrome symptom presentation in young patients.	Khan NA, Daskalopoulou SS, Karp I, Eisenberg MJ, Pelletier R, Tsadok MA, Dasgupta K, Norris CM, Pilote L; for the GENESIS PRAXY Team.	2013	Journal Article
	Addressing cost-related barriers to prescription drug use in Canada.	Tang KL, Ghali WA, Manns BJ.	2013	Journal Article
	Validity of AHRQ patient safety indicators derived form ICD-10 hospital discharge abstract data (chart review study).	Quan H, Eastwood C, Cunningham CT, Liu M, Flemons W, De Coster C, Ghali WA; IMECCHI investigators.	2013	Journal Article
	ICD-11 for quality and safety: overview of the WHO quality and safety topic advisory group.	Ghali WA, Pincus HA, Southern DA, Brien SE, Romano PS, Burnand B, Drosler SE, Sundararajan V, Moskal L, Forster AJ, Gurevich Y, Quan H, Colin C, Munier WB, Harrison J, Spaeth-Rublee B, Kostanjsek N, Ustun TB.	2013	Journal Article
	Reference management software for systematic reviews and meta-analyses: an exploration of usage and usability.	Lorenzetti DL, Ghali WA.	2013	Journal Article
	Identifying intensive care unit discharge planning tools: protocol for a scoping review.	Stelfox HT, Perrier L, Straus SE, Ghali WA, Zygun D, Boiteau P, Zuege DJ.	2013	Journal Article
Ghosh,Subrata				
	The increasing weight of Crohn's disease subjects in clinical trials: a hypothesis-generating time trend analysis.	Moran GW, Dubeau MF, Kaplan GG, Panaccione R, Ghosh S	2013	Journal Article
	Ambient ozone concentrations and the risk of perforated and nonperforated appendicitis: a multicity case-crossover study	Kaplan GG, Tanyingoh D, Dixon E, Johnson M, Wheeler AJ, Myers RP, Bertazzon S, Saini V, Madsen K, Ghosh S, Villeneuve PJ	2013	Journal Article
	Risk of Surgery for Inflammatory Bowel Disease has decreased over time: a systematic review and meta-analysis of population bases studies	Frolkis AD, Dykeman J, Negron ME, Debruyn J, Jette N, Fiest KM, Frolkis T, Barkema HW, Rioux KP, Panaccione R, Ghosh S, Wiebe S, Kaplan GG	2013	Journal Article
	Nutrient modulation of autophagy: implications for inflammatory bowel disease	Marion-Letellier R, Raman M, Savoye G, Dechelotte P, Ghosh S	2013	Journal Article
	Drug induced inflammatory bowel disease and IBD like conditions	Dubeau MF, Iacucci M, Beck PL, Moran GW, Kaplan GG, Ghosh S, Panaccione R	2013	Journal Article
	Novel diagnostic endoscopic imaging in IBD	Iacucci M, Panaccione R, Ghosh S	2013	Journal Article
	Increased Prevalence of Circulating Novel IL-17 Secreting Foxp3 Expressing CD4+ T Cells and Defective Suppressive Function of Circulating Foxp3 + Regulatory Cells Support Plasticity between Th17 and Regulatory T Cells in Inflammatory Bowel Disease Patients	Ueno A, Jijon H, Chan R, Ford K, Hirota C, Kaplan GG, Beck PL, Iacucci M, FortGasia M, Barkema HW, Panaccione R, Ghosh S	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	A clinician's guide for therapeutic drug monitoring of infliximab in inflammatory bowel disease	Khanna R, Sattin BD, Afif W, Benchimol EI, Bernard EJ, Bitton A, Bressler B, Fedorak RN, Ghosh S, Greenberg GR, Marshall JK, Panaccione R, Seidman EG, Silverberg MS, Steinhart AH, Sy R, Van Assche G, Walters TD, Sandborn WJ, Feagan BG	2013	Journal Article
	Polyunsaturated fatty acids in inflammatory bowel disease - a reappraisal of effects and therapeutic approaches	Marion-Letellier R, Savoye G, Beck PL, Panaccione R, Ghosh S	2013	Journal Article
	Icilin attenuates inflammatory responses in mouse models of colitis: identification of TRPMS as a novel modulator of gastrointestinal inflammation	Ramachandran R, Hyun E, Zhao L, Chapman K, Hirota C, Ghosh S, Vergnolle N, Beck P, Altier C, Hollenberg MD	2013	Journal Article
	Dermatological complications of immunosuppressive or anti-TNF therapy in inflammatory bowel disease	Moran GW, Lim AW, Bailey JL, Dubeau MF, Leung Y, Devlin SM, Novak K, Kaplan GG, Iacucci M, Seow C, Martin L, Panaccione R, Ghosh S	2013	Journal Article
	The positioning of colectomy in the trreatmen of ulcerative colitis in the era of biologic therapy	Windsor A, Michetti P, Bemelman W, Ghosh S	2013	Journal Article
	Environment and the inflammatory bowel diseases	Frolkis A, Dieleman LA, Barkema H, Panaccione R, Ghosh S, Fedorak RN, Madsen K, Kaplan GG	2013	Journal Article
Gibson,Paul				
	Weight-adjusted dosing of tinzaparin in pregnancy☆	P.S. Gibson, K. Newell, D.X. Sam, A. Mansoor, X. Jiang, S. Tang, S. Ross	2013	Journal Article
Gill,John				
	Intimate partner violence and HIV: a review.	251.Siemieniuk RAC, Krentz HB, Gill MJ.	2013	Journal Article
	Variation between Canadian centres in the uptake of treatment for Hepatitis C by patients co-infected with HIV – a prospective cohort study.	250.Young J, Potter M, Cox J, Cooper C, Gill MJ, Hull M, Walmsley S, Klein MB.	2013	Journal Article
	The NK receptor NKp30 mediates direct fungal recognition and killing and is diminished in NK cells from HIV-infected patients.	254.LI SS, Kyei SK, Timm-McCann M, Ogbomo H, Jones GJ, Shi M, Xiang RF, Oykhman P, Huston SM, Islam A, Gill MJ, Robbins SM, Mody CH.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	The clinical implications of high rates of intimate partner violence against HIV-positive women	247. Siemieniuk RAC, Krentz HB, Miller P, Woodman K, KO k, Gill MJ	2013	Journal Article
	Evaluation of brief screening tools of neurocognitive impairment in HIV/AIDS: A systemic review of the literature.	249Zipursky AR, Gogolishvili D, Rueda S, Atkinson M, Brunetta J, Carvalhal A, Collins E, McCombe JA, Gill MJ, Rachlis A, Rosenes R, Arbess G, Marcotte T, Rourke SB.	2013	Journal 249Article
	The effect of churn on Community Viral Load" (CVL) in a well defined regional population	248. Krentz H, Gill MJ	2013	Journal Article
	Cohort profile: Antiretroviral Therapy Cohort Collaboration (ART-CC).	246. May MT, Ingle SM, Costagliola D, Justice AC, de Wolf F, Cavassini M, D'Arminio Monforte A, Casabona J, Hogg RS, Mocroft A, Lampe FC, Dabis F, Fatkenheuer G, Sterling TR, del Amo J, Gill MJ, Crane HM, Saag MS, Guest J, Brodt HR, Sterne JAC, and the Antiretroviral Cohort Collaboration.	2013	Journal Article
	Prevalence, clinical associations and impact of intimate partner violence among HIV-infected gay and bisexual men: a population based study.	237. Siemieniuk RAC, Miller P, Woodman K, Ko K, Krentz HB, Gill MJ	2013	Journal Article
	Gastrointestinal viral load and enteroendocrine cell number is associated with altered survival in HIV-1 infected individuals.	252.Van Marle G, Sharkey KA, Gill MJ, Church DL.	2013	Journal Article
	Hepatitis C viremia and the risk of chronic kidney disease in HIV-infected individuals.	257.Lucas GM, Jing Y, Sulkowski M, Abraham AG, Estrella MM, Atta MG, Fine DM, Klein MB, Silverberg MJ, Gill MJ, Moore RD, Gebo KA, Sterling TR, Butt AA; NA-ACCPORD of the IeDEA.	2013	Journal Article
	The cost of antiretroviral drug resistance in HIV-positive patients.	253.Krentz HB, Ko K, Beckthold B, Gill MJ.	2013	Journal Article
	Closing the Gap: Increases in Life Expectancy among Treated HIV-Positive Individuals in the United States and Canada	256.Samji H, Cescon A, Hogg RS, Modur S, Althoff KN, Buchacz K, Burchell AN, Cohen M, Gebo KA, Gill MJ, Justice A, Kirk G, Klein MB, Korthuis T, Martin J, Napravnik S, Rourke SB, Sterling TR, Silverberg MJ, Deeks S, Jacobson LP, Bosch RJ, Kitahata MM, Goedert JJ, Moore R , Gange SJ for The North American AIDS Cohort Collaboration on Research and Design (NA-ACCORD) of IeDEA	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Virology and clinical sequelae of long-term antiviral therapy in a North American cohort of Hepatitis B Virus (HBV)/Human immunodeficiency virus Type 1 (HIV-1 co-infected patients).	243.Coffin CS, Osiowy C, Myers R, Gill J.	2013	Journal Article
	Influence of geographical origin and ethnicity on mortality in patients on antiretroviral therapy in Canada, Europe and the United States.	240. Antiretroviral Cohort Collaboration (ART-CC) Dr. Gill is a member of steering and writing committee of the ART-CC Collaboration	2013	Journal Article
	Higher rates of AIDS during the first year of antiretroviral therapy among migrants: the importance of tuberculosis.	242. Antiretroviral Therapy Cohort Collaboration (ART-CC) Shepherd BS, Jenkins CA, Parrish DD, Glass TR, Cescon A, Masabeu A, Chene G, de Wolf F, Crane HM, Jarrin I, Gill MJ, del Amo J, Abgrall S, Khaykin P, Lehmann C, Ingle Sm, May MT, Sterne JA, Sterling TR.	2013	Journal Article
	Durability of first ART regimen and risk factors for modification, interruption or death in HIV-positive patients starting ART in Europe and North America 2002-2009.	241.Abgrall S, Ingle SM, May MT, Cornish R, Costagliola D, Mercie P, Cavassini M, Reekie J, Samji H, Gill MJ, Crane HM, Tate J, Sterling TR, Antinori A, Reiss P, Saag MS, Mugavero MJ, Phillips A, Manzardo C.	2013	Journal Article
	Predictors of symptomatic HIV-associated neurocognitive disorders in universal health care	239. McCombe JA, Vivithanaporn P, Gill MJ, Power C.	2013	Journal Article
	Increasing HIV subtype diversity and its clinical implications in a sentinel North American population.	238.Siemieniuk RAC, Beckthold B, Gill MJ.	2013	Journal Article
	Predictive accuracy of the veterans aging cohort study (VACS) index for mortality with HIV infection: a North American Cross Cohort Analysis	245. Justice AC, Modur 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, Rodriquez 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.	2013	Journal Article
	Trends and disparities in antiretroviral therapy initiation and virologic suppression among newly treatment-eligible HIV-infected individuals in North American 2001-2009.	244.Hanna DB, Buchacz K, Gebo KA, Hessol NA, Horberg MA, Jacobson LP, Kirk GD, Kitahata MM, Korthuis PT, Moore RD, Napravnik S, Patel P, Silverberg MJ, Sterling TR, Willig JH, Lau B, Althoff KN, Crane HM, Collier AC, Samji H, Thorne JE, Gill MJ, Klein MB, Martin JN, Rodriguez B, Rourke SB, Gange SJ for the North American Aids Cohort Collaboration on Research and Design (NA-Accord) of the International Epidemiologic Databases to evaluate AIDS (IeDEA).	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Gilmour,Janet				
	Suspected drug interaction between nevirapine and rivaroxaban resulting in venous thromboembolism	Bates D, Dalton B, Gilmour J, Kapler J	2013	Journal Article
	Shifting perceptions: A pre-post study to assess the impact of senior resident rotation bundle	Fabreau G,Elliott Meghan, Khanna Suneil, Minty Evan, Wallace E Jean, de Grood Jill, Lewin Adriane, Brown Garielle, Bharwani Aleem, Gilmour Janet, Lemaire B Jane.	2013	Journal Article
	Venous Thromboembolism Due to Suspected Interaction Between Rivaroxaban and Nevirapine	Bates Duane, Kapler J, Gilmour J, Dalton B	2013	Journal Article
	Readmission Rates and Determinants in a Higher Risk Inpatient General Internal Medicine Population	Janet G. Gilmour MD Daneille A. Southern MSc, William A. Ghali MD MPH	2013	Journal Article
Gupta,Milli				
	Recurrence of esophageal intestinal metaplasia after endoscopic mucosal resection and radiofrequency ablation of Barrett's esophagus: results from a US Multicentre Consortium.	Gupta M, Iyer PG, Lutzke L, Gorospe EC, Abrams JA, Falk GW, Ginsberg GG, Rustgi AK, Lightdale CJ, Wang TC, Fudman DI, Poneros JM, Wang KK.	2013	Journal Article
Haber,Richard				
	Exophytic nodule on the scalp. Cutaneous angiomyxoma.	Sibley CD, Brown HA, Harrop AR, Haber RM	2013	Journal Article
	Familial eruptive syringomas: a case report and review of the literature.	Lau J, Haber RM	2013	Journal Article
	Ulerythema ophryogenes:a rarely reported cutaneous manifestation of Noonan syndrome: case report and review of the literature	Li K, Thomas MA, Haber RM.	2013	Journal Article
	Agminated blue nevi in a patient with dermatomyositis	Chen T, Kurwa HA, Trotter MJ, Haber RM	2013	Journal Article
Hamilton,Douglas				
	Potential Use of Remote Telesonography as a Transformational Technology in Underresourced and/or Remote Settings.	Pian L, Gillman LM, McBeth PB, Xiao Z, Ball CG, Blaivas M, Hamilton DR, Kirkpatrick AW.	2013	Journal Article
	Enabling the mission through trans-atlantic remote mentored musculoskeletal ultrasound: case report of a portable hand-carried tele-ultrasound system for medical relief missions	Kirkpatrick AW, Blaivas M, Sargsyan AE, McBeth PB, Patel C, Xiao Z, Pian L, Panebianco N, Hamilton DR, Ball CG, Dulchavsky SA.	2013	Journal Article
	The feasibility of nurse practitioner-performed, telementored lung telesonography with remote physician guidance - 'a remote virtual mentor'	Biegler N, McBeth PB, Tiruta C, Hamilton DR, Xiao Z, Crawford I, Tevez-Molina M, Miletic N, Ball CG, Pian L, Kirkpatrick AW.	2013	Journal Article
	Emerg Med Int. 2013;2013:986160. doi: 10.1155/2013/986160. Epub 2013 Jan 28. PubMed PMID: 23431455; PubMed Central PMCID: PMC3568862.	Pian L, Gillman LM, McBeth PB, Xiao Z, Ball CG, Blaivas M, Hamilton DR, Kirkpatrick AW.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Hanley,David				
	Calcium and vitamin D intake and mortality: results from the Canadian Multicentre Osteoporosis Study (CaMos).	Langsetmo L, Berger C, Kreiger N, Kovacs CS, Hanley DA, Jamal SA, Whiting SJ, Genest J, Morin SN, Hodsman A, Prior JC, Lentle B, Patel MS, Brown JP, Anastasiades T, Towheed T, Josse RG, Papaioannou A, Adachi JD, Leslie WD, Davison KS, Goltzman D; CaMos Group.	2013	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.	2013	Journal Article
	Trends in hip fracture rates in Canada: an age-period-cohort analysis.	Jean S, O'Donnell S, Lagacé C, Walsh P, Bancej C, Brown JP, Morin S, Papaioannou A, Jaglal SB, Leslie WD; Osteoporosis Surveillance Expert Working Group.	2013	Journal Article
	In vivo bone architecture in pompe disease using high-resolution peripheral computed tomography.	Khan A, Weinstein Z, Hanley DA, Casey R, McNeil C, Ramage B, Boyd S.	2013	Journal Article
	Multisite quantitative ultrasound for the prediction of fractures over 5 years of follow-up: the Canadian Multicentre Osteoporosis Study.	Olszynski WP, Brown JP, Adachi JD, Hanley DA, Ioannidis G, Davison KS; CaMos Research Group.	2013	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.	2013	Journal Article
	Cost-effectiveness of osteoporosis interventions for 'incidental' vertebral fractures.	Majumdar SR, Lier DA, McAlister FA, Rowe BH, Siminoski K, Hanley DA, Russell AS, Johnson JA.	2013	Journal Article
	High-resolution peripheral quantitative computed tomography for the assessment of bone strength and structure: a review by the Canadian Bone Strength Working Group.	Cheung AM, Adachi JD, Hanley DA, Kendler DL, Davison KS, Josse R, Brown JP, Ste-Marie LG, Kremer R, Erlandson MC, Dian L, Burghardt AJ, Boyd SK.	2013	Journal Article
	Meta-analysis of genome-wide studies identifies MEF2C SNPs associated with bone mineral density at forearm.	Zheng HF, Duncan EL, Yerges-Armstrong LM, Eriksson J, Bergström U, Leo PJ, Leslie WD, Goltzman D, Blangero J, Hanley DA, Carless MA, Streeten EA, Lorentzon M, Brown MA, Spector TD, Pettersson-Kymmer U, Ohlsson C, Mitchell BD, Richards JB.	2013	Journal Article
	Does a high dietary acid content cause bone loss, and can bone loss be prevented with an alkaline diet?	Hanley DA, Whiting SJ.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	The generalized bone phenotype in children with neurofibromatosis 1: a sibling matched case-control study.	Armstrong L, Jett K, Birch P, Kendler DL, McKay H, Tsang E, Stevenson DA, Hanley DA, Egeli D, Burrows M, Friedman JM.	2013	Journal Article
	Longitudinal changes in calcium and vitamin D intakes and relationship to bone mineral density in a prospective population-based study: the Canadian Multicentre Osteoporosis Study (CaMos).	Zhou W, Langsetmo L, Berger C, Poliquin S, Kreiger N, Barr SI, Kaiser SM, Josse RG, Prior JC, Towheed TE, Anastassiades T, Davison KS, Kovacs CS, Hanley DA, Papadimitropoulos EA, Goltzman D; CaMos Research Group.	2013	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.	2013	Journal Article
	Fracture risk prediction: importance of age, BMD and spine fracture status.	Krege JH, Wan X, Lentle BC, Berger C, Langsetmo L, Adachi JD, Prior JC, Tenenhouse A, Brown JP, Kreiger N, Olszynski WP, Josse RG, Goltzman D; CaMos Research Group.	2013	Journal Article
	Understanding and Communicating the Benefits and Risks of Denosumab, Raloxifene, and Teriparatide for the Treatment of Osteoporosis.	Lewiecki EM, Miller PD, Harris ST, Bauer DC, Davison KS, Dian L, Hanley DA, McClung MR, Yuen CK, Kendler DL.	2013	Journal Article
	Canadian Association of Radiologists Technical Standards for Bone Mineral Densitometry Reporting.	Siminoski K, O'Keeffe M, Brown JP, Burrell S, Coupland D, Dumont M, Ganguli SN, Hanley DA, Law-Dillabough A, Lévesque J	2013	Journal Article
Hanly,Patrick				
	Diagnostic Value of Screening Instruments for Identifying Obstructive Sleep Apnea in Patients with Kidney Failure	Nicholl D, Ahmed S, Loewen A, Hemmelgarn B, Sola D, Beecroft J, Tourin T, Hanly P.	2013	Journal Article
	Relationship between arousal intensity and heart rate response to arousal.	Azarbarzin A, Ostrowski O, Hanly P, Younes M.	2013	Journal Article
	Prevalence of Restless Legs Syndrome in Patients with Chronic Kidney Disease	Lee J, Nicholl D, Ahmed S, Loewen A, Hemmelgarn B, Sola D, Beecroft J, Tourin T, Hanly P.	2013	Journal Article
	Contribution of arousal from sleep to post-event tachycardia in patients with obstructive sleep apnea.	Azarbarzin A, Ostrowski M, Moussavi Z, Hanly P, Younes M.	2013	Journal Article
	Effects of acute intermittent hypoxia on working memory in young healthy adults.	Champod AS, Eskes G, Foster G, Hanly P, Pialoux V, Beaudin A, Poulin M.	2013	Journal Article
	Obstructive sleep apnea and driving: A Canadian Thoracic Society and Candian Sleep Society position paper	Najib Ayas, Robert Skomro, Adam Blackman, Kristen Curren, Mike Fitzpatrick, John Fleetham, Charlie George, Patrick Hanly, Christopher Li, Debra Morrison, Frédéric Series	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Hawkins,Tarisha				
	Feasibility of Scenario-based Simulation Training versus Traditional Workshops in Continuing Medical Education: A Randomized Controlled Trial.	Brendan Kerr, T. Lee-Ann Hawkins, Robert Herman, Sue Barnes, Stephanie Kaufmann, Kristin Fraser, Irene Ma	2013	Journal Article
Hazlewood,Glen				
	Determining best practices in early rheumatoid arthritis by comparing differences in treatment at sites in the Canadian Early Arthritis Cohort	Harris JA, Bykerk VP, Hitchon CA, Keystone EC, Thorne JC, Boire G, Haraoui B, Hazlewood G, Bonner AJ, Pope JE; CATCH Investigators.	2013	Journal Article
	Methotrexate monotherapy and methotrexate combination therapy with traditional and biologic disease modifying anti-rheumatic drugs for rheumatoid arthritis: A network meta-analysis (Protocol)	Hazlewood GS, Barnabe C, Tomlinson G, Marshall D, Bombardier C	2013	Journal Article
Helmersen,Dougl				
	Riociguat for the Treatment of Pulmonary Arterial Hypertension	Ghofrani A, Galie N, Grimminger F et al	2013	Journal Article
	Riociguat for the Treatment of Chronic Thromboembolic Pulmonary Hypertension	Ghofrani A, D'Armini A, Grimminger F et al	2013	Journal Article
Hemmelgarn,Bren				
	An assessment of the Siksika Chronic Disease Nephropathy Prevention Clinic.	Ward D, Novak E, Brar S, White MT, Scott-Douglas N, Hemmelgarn BR.	2013	Journal Article
	Hospitalization for uncomplicated hypertension: an ambulatory care sensitive condition.	Walker RL, Chen G, McAlister FA, Campbell NRC, Hemmelgarn BR, Dixon E, Ghali W, Rabi D, Tu K, Jette N, Quan H.	2013	Journal Article
	Contrast-induced acute kidney injury and risk of adverse clinical outcomes after coronary angiography.	James MT, Samuel SM, Manning MA, Tonelli M, Ghali WA, Faris P, Knudtson ML, Pannu N, Hemmelgarn BR.	2013	Journal Article
	Young Aboriginals with ESRD are less likely to receive a renal transplant: A Canadian National study.	Promislow S, Hemmelgarn BR, Rigatto C, Tangri N, Yeates K, Mojica J, Komenda P, Sood MM.	2013	Journal Article
	Estimated glomerular filtration rate and fracture risks: a population-based study.	Elliott M, James MT, Quinn RR, Ravani P, Tonelli M, Palacios-Derflingher L, Tan Z, Manns B, Kline GA, Ronksley PE, Hemmelgarn BR.	2013	Journal Article
	Association of vitamin D status with socio-demographic factors in Calgary, Alberta: an ecological study using Census Canada data.	Naugler C, Zhang J, Henne D, Woods P, Hemmelgarn BR.	2013	Journal Article
	Change in estimated glomerular filtration rate over time and risk of death.	Turin TC, Coresh J, Tonelli M, Stevens PE, de Jong P, Farmer CKT, Matsushita K, Hemmelgarn BR.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Do the associations of eGFR and albuminuria with mortality and renal failure differ by gender? A meta-analysis from a global consortium.	Nitsch D, Grams M, Yingying S, Black C, Cirillo M, Djurdjev O, Iseki K, Jassal SK, Kimm H, Kronenberg F, Oien CM, Levey AS, Levin A, Woodward M, Hemmelgarn BR.	2013	Journal Article
	Quality of care indicators among remote-dwelling hemodialysis patients: A cohort study.	Thompson S, Bello A, Wiebe N, Manns B, Hemmelgarn BR, Klarenbach S, Pelletier R, Tonelli M.	2013	Journal Article
	Interventions to decrease the risk of adverse cardiac events for post-surgery or chemotherapy patients taking serotonin (5-HT3) receptor antagonists: Protocol for a systematic review and network meta-analysis.	Tricco AC, Soobiah C, Antony J, Hemmelgarn BR, Moher D, Hutton B, Straus SE.	2013	Journal Article
	Proteinuria and life expectancy.	Turin TC, Tonelli M, Manns BJ, Ahmed SB, Ravani P, James MT, Hemmelgarn BR.	2013	Journal Article
	Association between hemodialysis vascular access type and clinical outcomes: Meta-analysis of cohort studies.	Ravani P, Palmer SC, Oliver MJ, Quinn RR, MacRae JM, Tai DJ, Pannu NI, Thomas C, Hemmelgarn BR, Craig JC, Manns B, Tonelli M, Strippoli GFM, James MT.	2013	Journal Article
	Outcomes among 3.5 million newly diagnosed hypertensive Canadians.	Quan H, Chen C, Tu K, Bartlett G, Butt DA, Campbell NRC, Hemmelgarn BR, Hill MD, Johansen H, Khan N, Lix LM, Smith M, Svenson L, Walker RL, Wielgosz A, McAlister FA for Hypertension Outcome and Surveillance Team.	2013	Journal Article
	Proteinuria and rate of change in kidney function in a community based population.	Turin TC, James M, Ravani P, Tonelli M, Manns BJ, Quinn R, Jun M, Klarenbach S, Hemmelgarn BR.	2013	Journal Article
	Safety of serotonin (5-HT3) receptor antagonists in patients undergoing surgery and chemotherapy: Protocol for a systematic review and network meta-analysis.	Tricco AC, Antony J, Soobiah C, Hemmelgarn BR, Moher D, Hutton B, Straus SE.	2013	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.	2013	Journal Article
	KDIGO 2012 Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease.	Kidney Disease Improving Global Outcomes (KDIGO) CKD Work Group.	2013	Journal Article
	Chronic kidney disease amplifies cardiovascular risk: Impact, mechanisms and prevention.	Gansevoort RT, Correa-Rotter, Hemmelgarn BR, Matsushita K, Lambers Heerspink HJ, Jafar TH, Mann J, Wen CP.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Safety, effectiveness, and cost of dipeptidyl peptidase-4 inhibitors versus intermediate acting insulin for type 2 diabetes: Protocol for a systematic review and network meta-analysis.	Tricco AC, Antony J, Soobiah C, Hemmelgarn BR, Moher D, Hutton B, Yu CH, Majumdar SR, Straus SE.	2013	Journal Article
	Safety, effectiveness and cost of long-acting versus intermediate-acting insulin for type 1 diabetes: Protocol for a systematic review and network meta-analysis.	Tricco AC, Antony J, Soobiah C, Hemmelgarn BR, Moher D, Hutton B, Yu CH, Majumdar SR, Straus SE.	2013	Journal Article
	Incidence, cardiovascular complications and mortality of hypertension by sex and ethnicity.	Quan H, Chen G, Walker RL, Wielgosz A, Dai S, Tu K, Campbell NRC, Hemmelgarn BR, Hill MD, Johansen H, McAlister FA, Khan N.	2013	Journal Article
	25-hydroxyvitamin D status, arterial stiffness and the renin angiotensin system in healthy humans.	Ahmed AA, Nicholl D, Hemmelgarn BR, MacRae J, Sola D, Ahmed SB.	2013	Journal Article
	High Potency Statins and Acute Kidney Injury: A Multicenter Retrospective Observational Analysis of Administrative Databases.	Dormuth CR, Hemmelgarn BR, Paterson JM, James MT, Teare GF, Raymond CB, Levy AR, Garg AX, Ernst P, for the CNODES investigators.	2013	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.	2013	Journal Article
	Association between LDL-C and risk of myocardial infarction in CKD.	Tonelli M, Muntner P, Lloyd A, Manns B, Klarenbach S, Panny N, James M, Hemmelgarn BR.	2013	Journal Article
	Vitamin D levels are associated with cardiac autonomic activity in healthy humans.	Mann M, Exner D, Hemmelgarn BR, Sola D, Turin T, Ellis L Ahmed S.	2013	Journal Article
	A population-based study on care and clinical outcomes in remote dwellers with heavy proteinuria.	Bello A, Wiebe N, Hemmelgarn BR, Manns B, Klarenbach S, Thompson S, Pelletier R, Tonelli M.	2013	Journal Article
	Quality of care for First Nations and non-First Nations with diabetes.	Deved V, Jette N, Quan H, Tonelli M, Manns BJ, Soo A, Barnabe C, Hemmelgarn BR.	2013	Journal Article
	Use of chronic disease management programs for diabetes in Alberta's primary care networks.	Campbell DJT, Sargious P, Lewanczuk R, McBrien K, Tonelli M, Hemmelgarn BR, Manns.	2013	Journal Article
	Efficacy and safety of cognitive enhancers for mild cognitive impairment: a systematic review and meta-analysis.	Tricco A, Soobiah C, Berliner S, Ho JM, Ng CH, Ashoor HM, Chen MH, Hemmelgarn BR, Straus SE.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Association of a change in erythropoiesis-stimulating agent dose during hospitalization and subsequent haemoglobin levels and transfusions in hemodialysis patients.	Wong BC, Ravani P, Manns BJ, Lewin A, Zhang X, Chin R, Hemmelgarn BR, Tonelli M, Oliver MJ, Quinn RR.	2013	Journal Article
	Age and treatment of kidney failure.	Elliott M, Tam H, Hemmelgarn BR.	2013	Journal Article
	Dementia case management and risk of long-term care placement: a systematic review and meta-analysis.	Tam, H Cepoiu M, Ronksley P, Maxwell C, Hemmelgarn BR.	2013	Journal Article
	Hypoglycemia associated with hospitalization and adverse events in older people: population-based cohort study.	Majumdar SR, Hemmelgarn BR, Lin M, McBrien K, Manns BJ, Tonelli M.	2013	Journal Article
	Patterns of engagement with the health care system and risk of subsequent rehospitalization amongst patients with diabetes.	Ronksley PE, Ravani P, Sanmartin C, Quan H, Manns B, Tonelli M, Hemmelgarn BR.	2013	Journal Article
	Prevalence of restless legs syndrome in patients with chronic kidney disease.	Lee J, Nichol D, Ahmed S, Lowen A, Hemmelgarn BR, Chowdhury TC, Beecroft J, Hanly P.	2013	Journal Article
	Assessment of serum creatinine and kidney function among incident metformin users.	Schorr M, Hemmelgarn BR, Manns B, Tonelli M, Soo A, Bresee L.	2013	Journal Article
	Diagnostic value of screening instruments for identifying obstructive sleep apnea in kidney failure.	Nicholl DD, Ahmed SB, Loewen AH, Hemmelgarn BR, Sola DY, Beecroft JM, Turin TC, Hanly PJ.	2013	Journal Article
	Temporal risk profile for infectious and non-infectious complications of hemodialysis access.	Ravani P, Gillespie B, Quinn R, MacRae J, Mendelssohm D, Tonelli M, Hemmelgarn BR, James M, Pannu N, Robinson B, Zhang X, Pisoni R.	2013	Journal Article
	Factors associated with initiation of chronic renal replacement therapy for patients with kidney failure.	Faruque LI, Hemmelgarn BR, Wiebe N, Manns BJ, Ravani P, Klarenbach S, Pelletier R, Tonelli M.	2013	Journal Article
Herman,Robert				
	Feasibility of scenario-based simulation training versus traditional workshops in continuing medical education: a randomized controlled trial	Kerr B, Hawkins TL, Herman R, Barnes S, Kaufmann S, Fraser K, Ma IW	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	The 2013 Canadian Hypertension Education Program (CHEP) Recommendations for Blood Pressure Measurement, Diagnosis, Assessment of Risk, Prevention and Treatment of Hypertension	Daniel G. Hackam, MD, PhD, Robert R. Quinn, MD, PhD, Pietro Ravani, MD, PhD, Doreen M. Rabi, MD, MSc, Kaberi Dasgupta MD, MSc, Stella S. Daskalopoulou MD, PhD, Nadia A. Khan, MD, MSc, Robert J. Herman MD, Simon L. Bacon, PhD, Lyne Cloutier, RN, PhD, Martin Dawes, MB, BSc, MD(Lond), Simon W. Rabkin, MD, Richard E. Gilbert, MD, PhD, Marcel Ruzicka, MD, PhD, Donald W. McKay, PhD, Tavis S. Campbell, PhD, Steven Grover, MD, MPA, George Honos, MD, Ernesto L. Schiffrin, MD, PhD, Peter Bolli, MD, Thomas Wilson, MD, Ross D. Feldman, MD, Patrice Lindsay, RN, BScN, MEd, 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, NP, PhD, 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, Richard I. Ogilvie, MD, Vincent Woo, MD, Janusz Kaczorowski, PhD, Luc Trudeau, MD, et al.	2013	Journal Article
Hilsden,Robert				
	Novel oral anticoagulants: is the convenience worth the risk?	Heitman SJ, Mackay E, Hilsden RJ, Rostom A.	2013	Journal Article
	Endoscopist specialty is associated with colonoscopy quality.	Jiang M, Sewitch MJ, Barkun AN, Joseph L, Hilsden RJ.	2013	Journal Article
	Developing model-based algorithms to identify screening colonoscopies using administrative health databases.	Sewitch M, Jiang M, Joseph L, Hilsden RJ, Bitton A.	2013	Journal Article
	Directly observed pegylated interferon plus self-administered ribavirin for the treatment of hepatitis C virus infection in people actively using drugs: a randomized controlled trial.	Hilsden RJ, Macphail G, Grebely J, Conway B, Lee SS.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Colorectal cancer surveillance after index colonoscopy: guidance from the Canadian Association of Gastroenterology.	Leddin D, Enns R, Hilsden RJ, Fallone CA, Rabeneck L, Sadowski DC, Singh H.	2013	Journal Article
	Patient-Identified Quality Indicators for Colonoscopy Services	Sewitch MJ, Dube C, Brien S, Jiang M, Hilden RJ, Brkun A, Amstrong D.	2013	Journal Article
	Development and validation of a nurse-assessed patient comfort score for colonoscopy.	Rostom A, Ross ED, Dube C, Rutter MD, Lee T. Valori R, Bridges RJ, Pontifex D, Webbink V, Rees C, Brown C, Whetter DH, Kelsey SG, Hilsden RJ.	2013	Journal Article
	Canadian Association of General Surgeons, the American College of Surgeons, the Canadian Society of Colorectal Surgeons, and the American Society of Colorectal Surgeons Evidence Based Reviews in Surgery - Colorectal Surgery	Kirkpatrick, AW, Hilsden RJ, Sigurdson ER, Vinden CM for the Members of the Evidenced Based Reviews in Surgery Group	2013	Journal Article
Hirani,Naushad				
	Macitentan and Morbidity and Mortality in Pulmonary Arterial Hypertension	Pulido T, Adzerikho I, Channick RN, Delcroix M, Galiè N, Ghofrani HA, Jansa P, Jing ZC, Le Brun FO, Mehta S, Mittelholzer CM, Perchenet L, Sastry BK, Sitbon O, Souza R, Torbicki A, Zeng X, Rubin LJ, Simonneau G; SERAPHIN Investigators	2013	Journal Article
	Efficacy and safety of oral treprostinil monotherapy for the treatment of pulmonary arterial hypertension: a randomized, controlled trial.	Jing ZC, Parikh K, Pulido T, Jerjes-Sanchez C, White RJ, Allen R, Torbicki A, Xu KF, Yehle D, Laliberte K, Arneson C, Rubin LJ.	2013	Journal Article
	Delayed mobilization after microsurgical reconstruction: an independent risk factor for pneumonia.	Yeung JK, Harrop R, McCreary O, Leung LT, Hirani N, McKenzie D, de Haas V, Matthews TW, Nakoneshny S, Dort JC, Schrag C	2013	Journal Article
Hogan,David				
	Predictors of Nursing Home Placement from Assisted Living Settings: A First Look at Assisted Living in Canada	Maxwell CJ, Strain LA, Soo A, Gilbart E, Wanless D, Hogan DB, Wodchis W, Amuah JE, on behalf of the ACCES Research Group	2013	Journal Article
	Caregivers' willingness-to-pay for Alzheimer's disease medications in Canada.	Oremus M, Tarride JE, Pullenayegum E, Clayton N, Canadian Willingness-to-pay Study Group (includes DB Hogan), Raina P.	2013	Journal Article
	The value of patient narratives in the assessment of older patients presenting with falls.	Wong C, Hogan DB	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	The relevance of Marjory Warren's writings today.	St. John P, Hogan DB	2013	Journal Article
	Pharmacological recommendations for the symptomatic treatment of Dementia: The Canadian Consensus Conference on the diagnosis and treatment of dementia 2012.	Herrman N, Lanctot K, Hogan DB:	2013	Journal Article
	Validation and Interpretation of Neurological Registry Data	Pringsheim T, Lam D, Day L, Genge A, Hogan DB, et al	2013	Journal Article
	Ethical and Legal Considerations for Canadian Registries	Hogan DB, Warner J, Patten S, et al	2013	Journal Article
	Patients' willingness-to-pay for an Alzheimer's disease medication in Canada	Oremus M, Tarride JE, Pullenayegum E, Clayton N, Canadian Willingness-to-pay Study Group (includes DB Hogan), Raina P	2013	Journal Article
	Patterns and Determinants of Dementia Pharmacotherapy in a Population-Based Cohort of Home Care Clients	Maxwell CJ, Vu Mary, Hogan DB, et al	2013	Journal Article
	The Brain-in-Motion Study: Effect of a 6-month aerobic exercise intervention on cerebrovascular regulation and cognitive function in older adults.	Tyndall AV, Davenport MH, Wilson BJ, Burek GM, Arsenault-Lapierre G, Haley E, Eskes GA, Friedenreich CM, Hill MD, Hogan DB, Longman RS, Anderson TJ, Leigh R, Smith EE, Poulin MJ	2013	Journal Article
Holroyd-				
	Management of insomnia an dlong-term use sedative hypnotics in older patients.	McMillan J, Aitken E, Holroyd-Leduc JM.	2013	Journal Article
	Efficacy of falls prevention interventions: protocol for a systematic review and network meta-analysis.	Tricco JC, Cogo E, Holroyd-Leduc J, Sibley KM, Feldman F, Kerr G, Majumdar SR, Jaglal S, Straus SE.	2013	Journal Article
	Improving the quality of care for older adults using evidence-informed clinical care pathways	Holroyd-Leduc JM, Steinke V, Elliot D, Mullin K, Elder K, Callender S, Hildebrand KA.	2013	Journal Article
	Evaluation of older adults hospitalized with a diagnosis of failure to thrive.	Kumeliauskas L, Fruetel K, Holroyd-Leduc JM.	2013	Journal Article
Iacucci,Marietta				
	Advances in novel diagnostic imaging techniques in inflammatory bowel disease	Iacucci M, Panaccione R, Ghosh S	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
James,Matthew				
	High potency statins and acute kidney injury.	Dormuth CR, Hemmelgarn BR, Paterson M, James MT, Teare GR, Raymond C, Levy A, Ernst P, for the Canadian Network for Observational Drug Effect Studies (CNODES).	2013	Journal Article
	Associations between Hemodialysis Access Type and Clinical Outcomes: A Systematic Review.	Ravani P, Palmer SC, Oliver MJ, Quinn RR, MacRae JM, Tai DJ, Pannu NI, Thomas C, Hemmelgarn BR, Craig JC, Manns B, Tonelli M, Stripolli GM, James MT.	2013	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.	2013	Journal Article
	Chronic kidney disease after acute kidney injury – risk and outcome.	Leung KCW, Tonelli M, James MT.	2013	Journal Article
	Contrast-Induced Acute Kidney Injury and Risk of Adverse Clinical Outcomes following Coronary Angiography: A Systematic Review and Meta-analysis.	James MT, Samuel SM, Manning MA, Tonelli M, Ghali WA, Faris P, Knudtson ML, Pannu N, Hemmelgarn BR.	2013	Journal Article
	Canadian Society of Nephrology Commentary on the 2012 Kidney Disease Improving Global Outcomes Clinical Practice Guidelines for Acute Kidney Injury.	James MT, Bouchard J, Ho J, Klarenbach S, Lafrance JP, Rigatto C, Wald R, Zappitelli M, Pannu N.	2013	Journal Article
	Hyponatremia and polyuria in an elderly woman.	Afra K, James MT,	2013	Journal Article
	Estimated GFR and Fracture Risk: A Population-based Study.	Elliott MJ, James MT, Quinn RR, Ravani P, Tonelli M, Palacios-Derflingher L, Tan Z, Manns BJ, Kline GA, Ronksley PE, Hemmelgarn BR.	2013	Journal Article
	Association between LDL-C and Risk of Myocardial Infarction in CKD.	Tonelli M, Muntner P, Lloyd A, Manns B, Klarenbach S, Pannu N, James M, Hemmelgarn B.	2013	Journal Article
	Proteinuria and rate of change in kidney function in a community based population.	Turin TC, James M, Ravani P, Tonelli M, Manns BJ, Quinn RR, Klarenbach S, Jun M, Hemmelgarn BR.	2013	Journal Article
	Temporal Risk Profile for Infectious and Noninfectious Complications of Hemodialysis Access.	Ravani P, Gillespie BW, Quinn RR, Macrae J, Manns B, Mendelssohn D, Tonelli M, Hemmelgarn B, James M, Pannu N, Robinson BM, Zhang X, Pisoni R.	2013	Journal Article
	Renal outcomes following early invasive versus conservative management of acute coronary syndrome.	James MT, Tonelli M, Ghali WA, Knudtson ML, Faris P, Manns BJ, Pannu N, Hemmelgarn BR.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Acute kidney injury: Not just a short-term problem.	James MT, Wald R.	2013	Journal Article
	Diagnostic accuracy of intraocular pressure measurement for the detection of raised intracranial pressure: A systematic review and meta-analysis.	Yavin D, Lu J, James MT, DJ Roberts, Sutherland G, Jette N, Wiebe S.	2013	Journal Article
	Preventable hospitalization in patients with chronic kidney disease: A cohort study.	Wiebe N, Klarenbach SW, Allan M, Pelletier R, James MT, Bello A, Hemmelgarn BR, Tonelli M.	2013	Journal Article
	Validation of a Histopathologic Classification Scheme for ANCA-Associated Glomerulonephritis.	Nohr E, Girard L, James MT, Benediktsson H.	2013	Journal Article
	Chronic kidney disease following acute kidney injury-risk and outcomes.	Leung KC, Tonelli M, James MT.	2013	Journal Article
Jayakumar,Saumy				
	Fulminant Viral Hepatitis.	Jayakumar S, Karvellas CJ	2013	Journal Article
	Minimal hepatic encephalopathy.	Stinton, LM, Jayakumar S.	2013	Journal Article
	VSL#3 probiotic therapy does not reduce portal pressures in patients with decompensated cirrhosis	Jayakumar S, Carbonneau M. Hotte N, Befus AD, St Laurent C, Owen R, McCarthy M, Madsen K, Bailey R, Ma M, Bain V, Rioux K, Tandon P	2013	Journal Article
Johannson,Kerri				
	Acute exacerbation of idiopathic pulmonary fibrosis associated with air pollution exposure.	Johannson KA, Vittinghoff E, Lee K, Balmes JR, Ji W, Kaplan GG, Kim DS, Collard HR.	2013	Journal Article
	Role of IL-17A and neutrophils in fibrosis in experimental hypersensitivity pneumonitis	Hasan SA, Eksteen B, Reid D, Paine HV, Alansary A, Johannson K, Gwozd C, Goring KA, Vo T, Proud D, Kelly MM	2013	Journal Article
Kaplan,Gilaad				
	Environment and the Inflammatory Bowel Disease.	Frolkis A, Dieleman LA, Barkema HW, Panaccione R, Ghosh S, Fedorak R, Madsen K, and Kaplan GG.	2013	Journal Article
Klassen,John				
	Adamts-13 Does not predict disease or outcome in patients with thrombotic thromboyctopenic purpura	Rock G, Clark WF, Anderson D et al	2013	Journal Article
Kline,Gregory				
	Fracture Risk Is Not Increased in Patients with Chronic Kidney Disease.	Elliott MJ, Tonelli M, Manns BJ, Kline GA, James MT, Soo A, Hemmelgarn BR	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Catheterization during Adrenal Vein Sampling for Primary Aldosteronism: Failure to Use (1-24) ACTH May Increase Apparent Failure Rate.	Kline GA, So B, Dias VC, Harvey A, Pasieka JL	2013	Journal Article
	Medical or Surgical Therapy for Primary Aldosteronism: Post-Treatment Follow up as a Surrogate Measure of Comparative Outcomes.	Kline GA, Pasieka JL, Harvey A, So B, Dias VC	2013	Journal Article
	Defining Normal Adrenal Function via Salivary Cortisol Measurements during Gold Standard Insulin Hypoglycemia Tests: A Potential Tool for the Assessment of Adrenal Function Where Free Cortisol Measurements are Required.	Karpman M, Neculau M, Dias V and Kline GA	2013	Journal Article
	Predicting deficiency of vitamin D in renal transplant recipients in northern climates.	Beique LC, Kline GA, Dalton B, Duggan K, Yilmaz S.	2013	Journal Article
Kurwa,Habib				
	Preparation of Mohs' micrographic surgery frozen sections	Shoimer I, Warman L, Kurwa HA	2013	Journal Article
	Agminated blue nevi in a patient with dermatomyositis	Chen T, Kurwa HA, TrotterMJ, Haber RM	2013	Journal Article
Larios,Oscar				
	Prevalence of colonization and infection with methicillin-resistant Staphylococcus aureus and vancomycin-resistant Enterococcus and of Clostridium difficile infection in Canadian hospitals	Simor AE, Williams V, McGeer A, Raboud J, Larios O, Weiss K, Hirji Z, Laing F, Moore C, Gravel D; Community and Hospital Infection Control Association–Canada.	2013	Journal Article
Lau,David				
	Benefits of modest weight loss on the management of type 2 diabetes mellitus.	Lau DCW, Teoh H	2013	Journal Article
	2012 Update of the Canadian Cardiovascular Society Guidelines for the Diagnosis and Treatment of Dyslipidemia for the Prevention of Cardiovascular Disease in the Adult.	Anderson TJ, Grégoire J, Hegele RA, Couture P, Mancini GJB, McPherson R, Francis GA, Poirier P, Lau DC, Grover S, Genest J Jr, Capentier AC, Dufour R, Gupta M, Ward R, Leiter LA, Lonn E, Ng DS Pearson GJ, Yates GM, Stone JA, Ur E.	2013	Journal Article
	Identification and management of patients at elevated cardiometabolic risk in Canadian primary care: how well are we doing?	Teoh H, Després J-P; Dufour R; Fitchett D; Galluzzi A; Goldin L; Goodman S; Harris S; Langer A; Lau D; Lonn E; Mancini GBJ; McFarlane P; Poirier P; Rabasa-Lhoret R; Leiter LA	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	A comparison of the assessment and management of cardiometabolic risk in patients with and without type 2 diabetes mellitus in Canadian primary care.	Teoh H, Després J-P, Dufour R, Fitchett DH, Goldin L, Goodman SG, Harris SB, Langer A, Lau DCW, Lonn EM, Mancini GBJ, McFarlane PA, Poirier P, Rabasa-Lhoret R, Tan MK, Leiter LA:	2013	Journal Article
LeClercq,Sharon				
	Gastric Antral Vascular Ectasia and Its Clinical Correlates in Patients with Early Diffuse Systemic Sclerosis in the SCOT Trial	Emily W. Hung, Maureen D. Mayes, Roozbeh Sharif, Shervin Assassi, Victor I. Machicao, Chitra Hosing, E. William St. Clair, Daniel E. Furst, Dinesh Khanna, Stephen Forman, Shin Mineishi, Kristine Phillips, James R. Seibold, Christopher Bredeson, Mary Ellen Csuka, Richard A. Nash, Mark H. Wener, Robert Simms, Karen Ballen, Sharon LeClercq, Jan Storek, Ellen Goldmuntz, Beverly Welch, Lynette Keyes-Elstein, Sharon Castina, Leslie J. Crofford, Peter McSweeney and Keith M. Sullivan	2013	Journal Article
	Lack of sustained response of advanced dermatomyositis to autologous haematopoietic cell transplantation	Storek J, LeClercq SA, Aaron SL	2013	Journal Article
	Gastric antral vascular ectasia and its clinical correlates in patients with early diffuse systemic sclerosis in the SCOT trial	Emily W. Hung, Maureen D. Mayes, Roozbeh Sharif, Shervin Assassi, Victor I. Machicao, Chitra Hosing, E. William St. Clair, Daniel E. Furst, Dinesh Khanna, Stephen Forman, Shin Mineishi, Kristine Phillips, James R. Seibold, Christopher Bredeson, Mary Ellen Csuka, Richard A. Nash, Mark H. Wener, Robert Simms, Karen Ballen, Sharon Leclercq, Jan Storek, Ellen Goldmuntz, Beverly Welch, Lynette Keyes-Elstein, Sharon Castina, Leslie J. Crofford, Peter Mcsweeney and Keith M. Sullivan	2013	Journal Article
Lee,Samuel				
	Rituximab for the treatment of autoimmune hepatitis in patients who are refractory or intolerant to standard therapy	Burak KW, Swain MG, Santodomingo-Garzon T, Lee SS, Urbanski SJ, Aspinall AI, Coffin CS, Myers RP.	2013	Journal Article
	Directly observed pegylated interferon plus self-administered ribavirin for the treatment of hepatitis C virus infection in people actively using drugs: A randomized controlled trial.	Hilsden RJ, Macphail G, Grebely J, Conway B, Lee SS	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Entecavir for the treatment of patients with hepatitis B virus related decompensated cirrhosis.	Sadler MD, Coffin CS, Lee SS.	2013	Journal Article
	Optimising antiviral therapy in HCV genotype 1: managing side effects.	Chopra A, Klein PL, Drinnan T, Lee SS.	2013	Journal Article
	B-cell depletion with rituximab in patients with primary biliary cirrhosis refractory to ursodeoxycholic acid	Myers RP, Swain MG, Lee SS, Shaheen AA, Burak KW	2013	Journal Article
	Portal vein thrombosis: should anticoagulation be used?	Congly SE, Lee SS.	2013	Journal Article
Leigh,Richard				
	Effects of benralizumab on airway eosinophils in asthmatic patients with sputum eosinophilia.	Laviolette M, Gossage DL, Gauvreau G, Leigh R, Olivenstein R, Katial R, Busse WW, Wenzel S, Wu Y, Datta V, Kolbeck R, Molfino NA	2013	Journal Article
	Safety and efficacy of an oral CCR3 antagonist in patients with asthma and eosinophilic bronchitis: a randomized, placebo-controlled clinical trial.	Neighbour H, Boulet LP, Lemiere C, Sehmi R, Leigh R, Sousa AR, Martin J, Dallow N, Gilbert J, Allen A, Hall D, Nair P.	2013	Journal Article
	Disconnect between sputum neutrophils and other measures of airway inflammation in asthma.	Arron JR, Choy DF, Laviolette M, Kelsen SG, Hatab A, Leigh R, Thompson NC, Bleecker ER, Olivenstein R, Avila PC, Jarjour NN, Castro M, Gavreau GM, Good JT, Kline JN, Mansur A, Mayers I, Heaney LG, Hamid Q, Harris JM.	2013	Journal Article
	Induction of RGS2 expression by long-acting Beta2-adrenoceptor agonists and glucocorticoids in human airway epithelial cells.	Holden NS, George T, Rider CF, Chandrasekhar A, Shah S, Kaur M, Johnson M, Siderovski DP, Leigh R, Giembycz MA, Newton R.	2013	Journal Article
	The Brain-in-Motion Study: Effect of a 6-month aerobic exercise intervention on cerebrovascular regulation and cognitive function in older adults.	Tyndall Av, Davenport MH, Wilson BJ, Burek GM, Arsenault-Lapierre G, Haley E, Eskes GA, Friedenreich CM, Hill MD, Hogan DB, Longman RS, Anderson TJ, Leigh R, Smith EE, Poulin MJ.	2013	Journal Article
	A randomized, controlled trial to evaluate the effect of an anti-interleukin-9 monoclonal antibody in adults with uncontrolled asthma.	Oh CK, Leigh R, McLaurin KK, Kim K, Hultquist M, Mofino NA.	2013	Journal Article
	Identification and validation of nebulized aerosol devices for sputum induction.	Davidson WJ, Dennis J, The S, Litoski B, Leigh R.	2013	Journal Article
	The impact of diurnal variation on induced sputum cell counts in healthy adults.	Davidson WJ, Wong LE, The S, Leigh R.	2013	Journal Article
	Establishing a normal range for induced sputum cell counts in Western Canada.	Davidson WJ, The S, Leigh R.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Lemaire,Jane				
	A systematic review of evidence-informed practices for patient care rounds in the intensive care unit.	Lane D, Ferri M, Lemaire JB, McLaughlin K, Stelfox HT	2013	Journal Article
	Physician coping styles and emotional exhaustion	Wallace JE, Lemaire JB	2013	Journal Article
	Shifting perceptions: a pre-post study to assess the impact of a senior resident rotation bundle.	Fabreau G, Elliott M, Khanna S, Minty E, Wallace JE, de Grood J, Lewin A, Brown G, Bharwani A, Gilmour J, Lemaire JB	2013	Journal Article
Leung,Alexander				
	Return on investment for vendor computerized physician order entry in community hospitals.	Zimlichman E, Keohane C, Franz C, Everett W, Seger DL, Yoon C, Leung AA, Cadet B, Coffey M, Kaufman N, Bates DW.	2013	Journal Article
	Relationship between medication event rates and the Leapfrog computerized physician order entry evaluation tool.	Leung AA, Keohane C, Lipsitz S, Zimlichman E, Amato M, Simon SR, Coffey M, Kaufman N, Cadet B, Schiff G, Seger DL, Bates DW.	2013	Journal Article
	Preoperative hypernatremia predicts perioperative morbidity and mortality.	Leung AA, McAlister FA, Finlayson SR, Bates DW.	2013	Journal Article
	Impact of vendor computerized physician order entry on nephrotoxic and renally-excreted drugs in community hospitals.	Leung AA, Schiff G, Keohane C, Amato M, Simon SR, Coffey M, Kaufman N, Cadet B, Zimlichman E, Seger DL, Yoon C, Bates DW.	2013	Journal Article
	Long-term outcomes of patients receiving drug-eluting stents versus bare-metal stents: seven-year follow-up of a prospective cohort.	Leung AA, Southern DA, Galbraith PD, Knudtson ML, Ghali WA; for the APPROACH Investigators.	2013	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.	2013	Journal Article
Leung,Yvette				
	Dermatological complications of immunosuppressive and anti-TNF therapy in inflammatory bowel disease.	Moran GW, Lim AW, Bailey JL, Dubeau M, Leung Y, Devlin SM, Novak K, Kaplan GG, Iacucci M, Seow C, Martin L, Panaccione R, Ghosh, S	2013	Journal Article
Lewkonia,Raymo				
	Family physician practice visits arising from the Alberta Physician Achievement Review.	Lewkonia R, Flook N, Donoff M, Lockyer J.	2013	Journal Article
Loewen,Andrea				
	Diagnostic Value of Screening Instruments for Identifying Obstructive Sleep Apnea in Patients with Kidney Failure	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	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Ma,Irene Wai Yan				
	The emotional and cognitive impact of unexpected simulated patient death: a randomized controlled trial.	Fraser K, Huffman J, Ma I, Sobczak M, McIlwrick J, Wright B, McLaughlin K.	2013	Journal Article
	Medical educators' perspectives of teaching physical examinations using ultrasonography at the undergraduate level	Ma I, Wishart I, Kaminska M, McLaughlin K, Weeks S, Lautner D, Baxter H, Wright B	2013	Journal Article
	Feasibility of scenario-based simulation training versus traditional workshops in continuing medical education: a randomized controlled trial.	Kerr B, Hawkins TL, Herman R, Barnes S, Kaufmann S, Fraser K, Ma IW.	2013	Journal Article
MacEachern,Paul				
	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.	2013	Journal Article
	Severe airway injury due to alendronate aspiration.	Maceachern PR, Brazil A, Tremblay A, Stather DR, Chee AC, Chou J.	2013	Journal Article
	Evaluation of a novel method of teaching endobronchial ultrasound: physician- versus respiratory therapist-proctored simulation training.	Stather DR, Chee A, Maceachern P, Dumoulin E, Hergott CA, Gelberg J, Scott SD, De Guzman S, Tremblay A	2013	Journal Article
	Diagnostic utility of peripheral endobronchial ultrasound with electromagnetic navigation bronchoscopy in peripheral lung nodules.	Chee A, Stather DR, Maceachern P, Martel S, Delage A, Simon M, Dumoulin E, Tremblay A.	2013	Journal Article
	Trainee impact on procedural complications: an analysis of 967 consecutive flexible bronchoscopy procedures in an interventional pulmonology practice.	Stather DR, MacEachern P, Chee A, Dumoulin E, Tremblay A	2013	Journal Article
	Bronchoscopic removal of a large intracavitary pulmonary aspergilloma.	Stather DR, Tremblay A, MacEachern P, Chee A, Dumoulin E, Tourin O, Gelfand GA, Mody CH	2013	Journal Article
	Trainee impact on advanced diagnostic bronchoscopy: an analysis of 607 consecutive procedures in an interventional pulmonary practice.	Stather DR, Maceachern P, Chee A, Dumoulin E, Tremblay A.	2013	Journal Article
	Probability of cancer in pulmonary nodules detected on first screening CT.	McWilliams A, Tammemagi MC, Mayo JR, Roberts H, Liu G, Soghrati K, Yasufuku K, Martel S, Laberge F, Gingras M, Atkar-Khattra S, Berg CD, Evans K, Finley R, Yee J, English J, Nasute P, Goffin J, Puksa S, Stewart L, Tsai S, Johnston MR, Manos D, Nicholas G, Goss GD, Seely JM, Amjadi K, Tremblay A, Burrowes P, MacEachern P, Bhatia R, Tsao MS, Lam S	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Idiopathic subglottic stenosis: a familial predisposition.	Dumoulin E, Stather DR, Gelfand G, Maranda B, Maceachern P, Tremblay A.	2013	Journal Article
MacRae,Jennifer				
	Association between use of catheters and risk of infection.	Kelvin Leung, Rob Quinn, Jennifer MacRae, Pietro Ravani.	2013	Journal Article
	The buttonhole technique for fistula cannulation: pros and cons.	Atkar RK, MacRae JM. Curr Opin Nephrol Hypertens.	2013	Journal Article
	Sex influences the effect of body mass index on the vascular response to angiotensin II in humans	Zalucky AA, Nicholl DD, Mann MC, Hemmelgarn BR, Turin TC, Macrae JM, Sola DY, Ahmed SB	2013	Journal Article
	Temporal Risk Profile for Infectious and Noninfectious Complications of Hemodialysis Access.	Ravani P, Gillespie BW, Quinn RR, Macrae J, Manns B, Mendelssohn D, Tonelli M, Hemmelgarn B, James M, Pannu N, Robinson BM, Zhang X, Pisoni R.	2013	Journal Article
	Hemodialysis prescription education reduces intradialytic hypotension	Tai D, Conley J, Ravani P, Hemmelgarn B, MacRae J	2013	Journal Article
	Pneumatic Compression Stockings on Hemodialysis: Randomized Trial.	Tai D, Ahmed S, Hemmelgarn B and MacRae JM	2013	Journal Article
	Dialysate calcium concentration and mineral metabolism in long and long-frequent hemodialysis: a systematic review and meta-analysis for a Canadian Society of Nephrology clinical practice guideline.	Zimmerman DL, Nesrallah GE, Chan CT, Copland M, Komenda P, McFarlane PA, Gangji A, Lindsay R, MacRae J, Pauly RP, Perkins DN, Pierratos A, Rioux JP, Steele A, Suri RS, Mustafa RA.	2013	Journal Article
	Dialysate calcium concentration and mineral metabolism in long and long-frequent hemodialysis: a systematic review and meta-analysis for a Canadian Society of Nephrology clinical practice guideline.	Zimmerman DL, Nesrallah GE, Chan CT, Copland M, Komenda P, McFarlane PA, Gangji A, Lindsay R, MacRae J, Pauly RP, Perkins DN, Pierratos A, Rioux JP, Steele A, Suri RS, Mustafa RA.	2013	Journal Article
	Vascular access for intensive maintenance hemodialysis: a systematic review for a Canadian Society of Nephrology clinical practice guideline.	Mustafa RA, Zimmerman D, Rioux JP, Suri RS, Gangji A, Steele A, MacRae J, Pauly RP, Perkins DN, Chan CT, Copland M, Komenda P, McFarlane PA, Lindsay R, Pierratos A, Nesrallah GE.	2013	Journal Article
	Low serum magnesium is associated with altered cardiac autonomic tone in healthy humans.	Abdi-Ali A, Mann MC, Exner DV, Hemmelgarn BR, MacRae JM, Sola DY, Ahmed SB.	2013	Journal Article
	Mineral Metabolism in Long and Long Frequent Hemodialysis: A Systematic Review and Meta-Analysis for the Canadian Society of Nephrology Clinical Practice Guidelines" to AJKD 2013 in press	NesrallahGihadE*, Mustafa ReemA*, MacRae Jennifer, Pauly Robert P, Perkins David N, GangjiAzim, Rioux Jean-Philippe , Steele Andrew, Suri Rita S, Chan Christopher, Copland Michael, Komenda Paul, McFarlane Philip, Pierratos Andreas, Lindsay Robert, Zimmerman Deborah*	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Risk change over time for infectious and non-infectious complications of hemodialysis access.	Ravani P, MacRae JM et al. JASN February 2013	2013	Journal Article
	Canadian Society of Nephrology Guidelines for the Management of Patients With ESRD Treated With Intensive Hemodialysis.	Nesrallah GE, Mustafa RA, Macrae J, Pauly RP, Perkins DN, Gangji A, Rioux JP, Steele A, Suri RS, Chan CT, Copland M, Komenda P, McFarlane PA, Pierratos A, Lindsay R, Zimmerman DL.	2013	Journal Article
	Hemodialysis prescription education reduces intradialytic hypotension	Tai D, Conley J, Ravani P, Hemmelgarn B, MacRae J	2013	Journal Article
	Vascular Access for Intensive Maintenance Hemodialysis: a Systematic Review.	Reem A Mustafa MD, MPH1*, Deborah Zimmerman MD MSc2*, Jean-Philippe Rioux MD3, Rita S Suri MD, MSc4, Azim Gangji MD MSc5, Andrew Steele MD6, Jennifer MacRae MD7, Robert P Pauly MD8, David N Perkins MD9 Christopher T Chan MD10, Michael Copland MD11, Paul Komenda MD12, Philip A McFarlane MD PhD13, Robert Lindsay MD4, Andreas Pierratos MD14, Gihad E Nesrallah MD1,4,14*	2013	Journal Article
	Associations between hemodialysis acces type and clinical outcomes: a systematic review.	Ravani P, Palmer SC, Oliver MJ, Quinn RR, MacRae JM, Tai DJ, Pannu NI, Thomas C, Hemmelgarn BR, Craig JC, Manns B, Tonelli M, Strippoli GF, James MT	2013	Journal Article
Manns,Braden				
	The beliefs and expectations of patients and caregivers about home haemodialysis: an interview study.	Tong A, Palmer S, Manns B, Craig JC, Ruospo M, Gargano L, Johnson DW, Hegbrant J, Olsson M, Fishbane S, Strippoli GF.	2013	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.	2013	Journal Article
	Quality of Care for First Nations and Non-First Nations People with Diabetes.	Deved V, Jette N, Quan H, Tonelli M, Manns B, Soo A, Barnabe C, Hemmelgarn BR; for the Alberta Kidney Disease Network.	2013	Journal Article
	Perceived barriers to primary care among Western Canadians with chronic disease.	Ronksley PE, Sanmartin C, Campbell DJT, Weaver RG, Allan GM, McBrien K, Tonelli M, Manns B, Hennessy D, Hemmelgarn B.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Associations between Hemodialysis Access Type and Clinical Outcomes: A Systematic Review.	Ravani P, Palmer SC, Oliver MJ, Quinn RR, Macrae JM, Tai DJ, Pannu NI, Thomas C, Hemmelgarn BR, Craig JC, Manns B, Tonelli M, Strippoli GF, James MT.	2013	Journal Article
	Association of a Change in Erythropoiesis-Stimulating Agent Dose During Hospitalization and Subsequent Hemoglobin Levels and Transfusions in Hemodialysis Patients.	Wong BC, Ravani P, Manns BJ, Lewin A, Zhang X, Chin R, Hemmelgarn BR, Tonelli M, Oliver MJ, Quinn RR.	2013	Journal Article
	Multidisciplinary care and immortal time bias.	Hemmelgarn BR, Zhang J, Manns BJ, Tonelli M.	2013	Journal Article
	Patterns of engagement with the health care system and risk of subsequent hospitalization amongst patients with diabetes.	Ronksley PE, Ravani P, Sanmartin C, Quan H, Manns B, Tonelli M, Hemmelgarn BR.	2013	Journal Article
	Addressing cost-related barriers to prescription drug use in Canada.	Tang KL, Ghali WA, Manns BJ.	2013	Journal Article
	Assessment of Serum Creatinine and Kidney Function among Incident Metformin Users.	Schorr M, Hemmelgarn BR, Tonelli M, Soo A, Manns BJ, Bresee LC; Alberta Kidney Disease Network.	2013	Journal Article
	Renal outcomes associated with invasive versus conservative management of acute coronary syndrome: propensity matched cohort study.	James MT, Tonelli M, Ghali WA, Knudtson ML, Faris P, Manns BJ, Pannu N, Galbraith PD, Hemmelgarn BR; Alberta Provincial Project for Outcome Assessment in Coronary Heart Disease (APPROACH) and Alberta Kidney Disease Network Investigators.	2013	Journal Article
	Proteinuria and Rate of Change in Kidney Function in a Community-Based Population.	Turin TC, James M, Ravani P, Tonelli M, Manns BJ, Quinn R, Jun M, Klarenbach S, Hemmelgarn BR.	2013	Journal Article
	Quality-of-Care Indicators Among Remote-Dwelling Hemodialysis Patients: A Cohort Study.	Thompson S, Bello A, Wiebe N, Manns B, Hemmelgarn B, Klarenbach S, Pelletier R, Tonelli M; Alberta Kidney Disease Network.	2013	Journal Article
	Temporal Risk Profile for Infectious and Noninfectious Complications of Hemodialysis Access.	Ravani P, Gillespie BW, Quinn RR, Macrae J, Manns B, Mendelssohn D, Tonelli M, Hemmelgarn B, James M, Pannu N, Robinson BM, Zhang X, Pisoni R.	2013	Journal Article
	Hypoglycemia Associated With Hospitalization and Adverse Events in Older People: Population-based cohort study.	Majumdar SR, Hemmelgarn BR, Lin M, McBrien K, Manns BJ, Tonelli M.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Approach to economic evaluation in primary care: review of a useful tool for primary care reform.	McBrien KA, Manns B.	2013	Journal Article
	Estimated GFR and Fracture Risk: A Population-Based Study.	Elliott MJ, James MT, Quinn RR, Ravani P, Tonelli M, Palacios-Derflingher L, Tan Z, Manns BJ, Kline GA, Ronksley PE, Hemmelgarn BR.	2013	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.	2013	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.	2013	Journal Article
	Association between perceived unmet health care needs 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.	2013	Journal Article
	Association between LDL-C and Risk of Myocardial Infarction in CKD.	Tonelli M, Muntner P, Lloyd A, Manns B, Klarenbach S, Pannu N, James M, Hemmelgarn B; Alberta Kidney Disease Network.	2013	Journal Article
	Haemodiafiltration: not effective or cost-effective compared with haemodialysis.	McBrien KA, Manns BJ.	2013	Journal Article
	Factors associated with initiation of chronic renal replacement therapy for patients with kidney failure.	Faruque LI, Hemmelgarn BR, Wiebe N, Manns BJ, Ravani P, Klarenbach S, Pelletier R, Tonelli M; Alberta Kidney Disease Network.	2013	Journal Article
	Canadian Society of Nephrology Commentary on the 2012 KDIGO Clinical Practice Guideline for Anemia in CKD.	Moist LM, Troyanov S, White CT, Wazny LD, Wilson JA, McFarlane P, Harwood L, Sood MM, Soroka SD, Bass A, Manns BJ.	2013	Journal Article
	Substantial practice variation exists in the management of childhood nephrotic syndrome.	Samuel S, Morgan CJ, Bitzan M, Mammen C, Dart AB, Manns BJ, Alexander RT, Erickson RL, Grisaru S, Wade AW, Blydt-Hansen T, Feber J, Arora S, Licht C, Zappitelli M.	2013	Journal Article
	The Cost-Effectiveness of Using Payment to Increase Living Donor Kidneys for Transplantation.	Barnieh L, Gill JS, Klarenbach S, Manns BJ.	2013	Journal Article
	Economic Evaluation of Frequent Home Nocturnal Hemodialysis Based on a Randomized Controlled Trial.	Klarenbach S, Tonelli M, Pauly R, Walsh M, Culleton B, So H, Hemmelgarn B, Manns B.	2013	Journal Article
	Identifying strategies to improve diabetes care in Alberta, Canada using the knowledge-to-action cycle: Results of a collaborative workshop.	Manns B, Braun T, Edwards A, Grimshaw J, Hemmelgarn B, Husereau D, Ivers N, Johnson J, Long S, McBrien K, Naugler C, Sargious P, Straus S, Tonelli M, Tricco A, Yu C for the Alberta Innovates – Health Solutions Interdisciplinary Chronic Disease Collaboration.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Using linked administrative data to study periprocedural mortality in obesity and chronic kidney disease (CKD).	Bello A, Padwal R, Lloyd A, Hemmelgarn B, Klarenbach S, Manns B, Tonelli M; Alberta Kidney Disease Network.	2013	Journal Article
Martin,Liam				
	Quantification of Small Joint Space Width, Periarticular Microstructure and Erosions Using High-Resolution Peripheral Quantitative Computed Tomography in Rheumatoid Arthritis.	Barnabe C, Martin L, Boyd SK, Barr SG.	2013	Journal Article
	Reproducible Metacarpal Joint Space Width Measurements Using 3D Analysis of Images Acquired with High-Resolution peripheral Quantitative Computed Tomography (HR-pQCT).	Barnabe C, Buie H, Kan M, Szabo E, Barr SG, Martin L, Boyd SK.	2013	Journal Article
	Risk Factors for Infection Following Total Joint Arthroplasty in Rheumatoid Arthritis.	Somayaji R, Barnabe C, Martin L. Risk Factors for Infection Following Total Joint Arthroplasty in Rheumatoid Arthritis. The Open Rheumatology Journal 2013; 7:119-24.	2013	Journal Article
McLaughlin,Kevi				
	Rater Variables Associated with ITER Ratings.	Paget M, Wu C, McIlwrick J, Woloschuk W, Wright B, McLaughlin K.	2013	Journal Article
	Leading Successful Family Centered Bedside Ward Rounds: It's about management.	Sandhu AK, Amin HJ, McLaughlin K, Lockyer J.	2013	Journal Article
	Predicting performance on the Medical Council of Canada Qualifying Exam Part II.	Woloschuk W, McLaughlin K, Wright B.	2013	Journal Article
	In-group bias in residency selection.	Bass A, Wu C, Schaefer JP, Wright B, McLaughlin K.	2013	Journal Article
	A practical approach to mentoring students with repeated performance deficiencies.	McLaughlin K, Veale P, McIlwrick J, de Groot J, Wright B.	2013	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.	2013	Journal Article
	Bridging the gender gap in communication skills.	Wu C, McLaughlin K.	2013	Journal Article
	Diagnostic performance 1 h after simulation training predicts learning.	Consoli A, Fraser K, Ma I, Sobczak M, Wright B, McLaughlin K.	2013	Journal Article
	Perspectives of teaching physical examinations using ultrasonography at the medical undergraduate level: a survey of academic medical educators.	Ma I, Wishart I, Kaminska M, McLaughlin K, Weeks S, Lautner D, Baxter H, Wright B.	2013	Journal Article
	Experienced physicians may benefit from analyzing initial diagnostic hypotheses.	Bass A, Geddes C, Wright B, Coderre S, Rikers R, McLaughlin K.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Meddings,Jonatha				
	Exploratory, Randomized, Double-blind, Placebo-controlled Study on the Effects of Bifidobacterium infantis Natren Life Start Strain Super Strain in Active Celiac Disease.	Smecuol E, Hwang HJ, Sugai E, Corso L, Chernavsky AC, Bellavite FP, Gonzalez A, Vodanovich F, Moreno ML, Vazquez H, Lozano G, Niveloni S, Mazure R, Meddings J, Maurino E, Bai JC.	2013	Journal Article
	A pilot study examining the relationship among Crohn disease activity, glucagon-like peptide-2 signalling and intestinal function in pediatric patients	Sigalet DL, Kravarusic D, Butzner D, Hartmann B, Holst JJ, Meddings J	2013	Journal Article
Mody,Christopher				
	The NK receptor NKp30 mediates direct fungal recognition and killing, and is diminished in NK cells from in HIV-infected patients	Li,S.S., Kyei,S.K.,Timm-McCann,M., Ogbomo,H.,Jones,G.J., Shi,M., Xiang,R.F., Oykhman,P., Huston,S.M., Islam,A., Gill, M.J., Robbins, S.M., Mody,C.H.	2013	Journal Article
	An acidic microenvironment increases nk cell killing of Cryptococcus neoformans and Cryptococcus gattii by enhancing perforin degranulation	Islam,A., Li,S.S., Oykhman, P., Timm-McCann,M., Huston,S.M., Stack,D., Xiang,R.F., Kelly, M.M., Mody,C.H.	2013	Journal Article
	Requirement and redundancy of Src family kinases Fyn and Lyn in perforin-dependent killing of Cryptococcus neoformans by NK Cells	Oykhman P, Timm-McCann,M., Xiang,R.F., Islam, A., Li,S.S., Stack,D., Huston,S.M., Ma,L.L., Mody,C.H.	2013	Journal Article
	Myxoma virus infection promotes NK lysis of malignant gliomas in vitro and in vivo.	Ogbomo, H., Lun, X., Zhang, J., Zemp, F.J., Stack, D., Mcfadden, G., Mody,C.H., Forsyth, P. A.	2013	Journal Article
	Bronchoscopic removal of a large intracavitary pulmonary aspergilloma	Stather, D.R., Tremblay, A., MacEachern,P., Chee, A., Doumoulin, E., Tourin, O., Gelfand, G., Mody,C.H.	2013	Journal Article
	Cryptococcus gattii is killed by dendritic cells, but evades adaptive immunity by failing to induce dendritic cell maturation	Huston,S.M., Li,S.S., Stack,D., Timm-McCann,M., Jones,G.J., Islam,A., Berenger,B.M., Xiang,R.F., Colarusso,P.,Mody,C.H.	2013	Journal Article
Mosher,Dianne				
	Non-biologic disease-modifying antirheumatic drugs (DMARDs) improve pain in inflammatory arthritis (IA): a systematic literature review of randomized controlled trials.	Steiman AJ, Pope JE, Thiessen-Philbrook H, Li L, Barnabe C, Kalache F, Kung T, Bessette L, Flanagan C, Haraoui B, Hochman J, Leclercq S, Mosher D, Thorne C, Bykerk V.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Myers,Robert				
	Virology and clinical sequelae of long-term antiviral therapy in a North American cohort of hepatitis B virus (HBV)/human immunodeficiency virus type 1 (HIV-1) co-infected patients	Coffin CS, Osiowy C, Myers RP, Gill MJ	2013	Journal Article
	Characterization of hepatitis B virus genotypes and quantitative hepatitis B surface antigen titres in North American tertiary referral liver centres.	Congly SE, Wong P, Al-Busafi SA, Doucette K, Fung SK, Ghali P, Fonseca K, Myers RP, Osiowy C, Coffin CS	2013	Journal Article
	Clinical associations and potential novel antigenic targets of autoantibodies directed against rods and rings in chronic hepatitis C infection.	Stinton LM, Myers RP, Coffin CS, Fritzler MJ.	2013	Journal Article
	B-cell depletion with rituximab in patients with primary biliary cirrhosis refractory to ursodeoxycholic Acid.	Myers RP, Swain MG, Lee SS, Shaheen AA, Burak KW	2013	Journal Article
	Revision of MELD to include serum albumin improves prediction of mortality on the liver transplant waiting list.	Myers RP, Shaheen AA, Faris P, Aspinall AI, Burak KW.	2013	Journal Article
	A health technology assessment of transient elastography in adult liver disease.	Steadman R, Myers RP, Leggett L, Lorenzetti D, Noseworthy T, Rose S, Sutherland L, Clement F.	2013	Journal Article
	Accuracy of international guidelines for identifying significant fibrosis in hepatitis B e antigen-negative patients with chronic hepatitis	Sanai FM, Babatin MA, Bzeizi KI, Alsuhaibani F, Al-Hamoudi W, Alsaad KS, Almana H, Handoo FA, Al-Ashgar H, Alghamdi H, Ibrahim A, Aljumah A, Alalwan A, Altraif IH, Al-Hussaini H, Myers RP, Abdo AA	2013	Journal Article
	Rituximab for the treatment of patients with autoimmune hepatitis who are refractory or intolerant to standard therapy	Burak KW, Swain MG, Santodomino-Garzon T, Lee SS, Urbanski SJ, Aspinall AI, Coffin CS, Myers RP.	2013	Journal Article
	Feasibility and reliability of the FibroScan S2 (pediatric) probe compared with the M probe for liver stiffness measurement in small adults with chronic liver disease.	Pradhan F, Ladak F, Tracey J, Crotty P, Myers RP.	2013	Journal Article
	Validation of the five-variable Model for End-stage Liver Disease (5vMELD) for prediction of mortality on the liver transplant waiting list.	Myers RP, Tandon P, Ney M, Meeberg G, Faris P, Shaheen AA, Aspinall AI, Burak KW	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	The Second Canadian Symposium on hepatitis C virus: a call to action	Grebely J, Bilodeau M, Feld JJ, Bruneau J, Fischer B, Raven JF, Roberts E, Choucha N, Myers RP, Sagan SM, Wilson JA, Bialystok F, Tyrrell DL, Houghton M, Krajden M; National CIHR Research Training Program in Hepatitis C	2013	Journal Article
	Decreasing Mortality from Acute Biliary Diseases that Require Endoscopic Retrograde Cholangiopancreatography: A Nationwide Cohort Study.	James PD, Kaplan GG, Myers RP, Hubbard J, Shaheen AA, Tinmouth J, Yong E, Love J, Heitman SJ	2013	Journal Article
	Fecal microbiome and volatile organic compound metabolome in obese humans with nonalcoholic fatty liver disease	Raman M, Ahmed I, Gillevet PM, Probert CS, Ratcliffe NM, Smith S, Greenwood R, Sikaroodi M, Lam V, Crotty P, Bailey J, Myers RP, Rioux KP	2013	Journal Article
	Disparities in the surgical treatment of colorectal liver metastases.	Munene G, Parker RD, Shaheen AA, Myers RP, Quan ML, Ball CG, Dixon E.	2013	Journal Article
	Predictors of Significant Fibrosis in Chronic Hepatitis B Patients with Low Viremia	Abdo AA, Bzeizi KI, Babatin MA, Alsohaibani F, Almana H, Alsaad KO, Alghamdi H, Al-Hamoudi W, Alswat K, Alfaleh FZ, Myers RP, Sanai FM	2013	Journal Article
	Ambient ozone concentrations and the risk of perforated and nonperforated appendicitis: A multicity case-crossover study	Kaplan GG, Tanyingoh D, Dixon E, Johnson M, Wheeler AJ, Myers RP, Bertazzon S, Saini V, Madsen K, Ghosh S, Villeneuve PJ	2013	Journal Article
Novak,Kerri				
	Improving access in gastroenterology: the single point of entry model for referrals.	Novak K, Veldhuyzen Van Zanten S, Pendharkar SR.	2013	Journal Article
	Dermatological Complications of Immunosuppressive and Anti-TNF Therapy in Inflammatory Bowel Disease.	Moran GW, Lim AW, Bailey JL, Dubeau M, Leung Y, Devlin SM, Novak K, Kaplan GG, Iacucci M, Seow C, Martin L, Panaccione R, Ghosh S.	2013	Journal Article
Owen,Carolyn				
	A Proposal for the Clinical Detection and Management of Patients and their Family Members with Familial Myelodysplastic Syndrome/Acute Leukemia Predisposition Syndromes	Churpek JE, Lorenz R, Nedumgottil S, Onel K, Olopade O, Sorrell A, Owen CJ, Bertuch AA, Godley LA.	2013	Journal Article
	Results of a prospective phase II trial evaluating interim positron emission tomography-guided high dose therapy for poor prognosis diffuse large B-cell lymphoma.	Stewart DA, Kloiber R, Owen C, Bahlis NJ, Duggan P, Mansoor A, Bence-Bruckler I.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Panaccione,Remo				
	The role of centralized reading of endoscopy in a randomized controlled trial of mesalamine for ulcerative colitis.	Feagan BG, Sandborn WJ, D'Haens G, Pola S, McDonald JW, Rutgeerts P, Munkholm P, Mittmann U, King D, Wong CJ, Zou G, Donner A, Shackelton LM, Gilgen D, Nelson S, Vandervoort MK, Fahmy M, Loftus EV Jr, Panaccione R, Travis SP, Van Assche GA, Vermeire S, Levesque BG.	2013	Journal Article
	Adalimumab maintains remission of Crohn's disease after up to 4 years of treatment: data from CHARM and ADHERE.	Panaccione R, Colombel JF, Sandborn WJ, D'Haens G, Zhou Q, Pollack PF, Thakkar RB, Robinson AM.	2013	Journal Article
	Commentary: detection of infliximab levels and anti-infliximab antibodies.	Moran GW, Lim AW, Bailey JL, Dubeau MF, Leung Y, Devlin SM, Novak K, Kaplan GG, Iacucci M, Seow CH, Martin L, Panaccione R, Ghosh S.	2013	Journal Article
	Nationwide temporal trends in incidence of hospitalization and surgical intestinal resection in pediatric inflammatory bowel diseases in the United States from 1997 to 2009.	Debruyn JC, Soon IS, Hubbard J, Wrobel I, Panaccione R, Kaplan GG.	2013	Journal Article
	Increased prevalence of circulating novel IL-17 secreting Foxp3 expressing CD4+ T cells and defective suppressive function of circulating Foxp3+ regulatory cells support plasticity between Th17 and regulatory T cells in inflammatory bowel disease patients.	Ueno A, Jijon H, Chan R, Ford K, Hirota C, Kaplan GG, Beck PL, Iacucci M, Fort Gasia M, Barkema HW, Panaccione R, Ghosh S.	2013	Journal Article
	Phenotypic features of Crohn's disease associated with failure of medical treatment.	Moran GW, Dubeau MF, Kaplan GG, Yang H, Seow CH, Fedorak RN, Dieleman LA, Barkema HW, Ghosh S, Panaccione R; Alberta Inflammatory Bowel Disease Consortium.	2013	Journal Article
	Deep remission: a new concept?.	Colombel JF, Louis E, Peyrin-Biroulet L, Sandborn WJ, Panaccione R.	2013	Journal Article
	Risk of surgery for inflammatory bowel diseases has decreased over time: a systematic review and meta-analysis of population-based studies.	Frolkis AD, Dykeman J, Negrón ME, Debruyn J, Jette N, Fiest KM, Frolkis T, Barkema HW, Rioux KP, Panaccione R, Ghosh S, Wiebe S, Kaplan GG.	2013	Journal Article
	Review article: a clinician's guide for therapeutic drug monitoring of infliximab in inflammatory bowel disease.	Khanna R, Sattin BD, Afif W, Benchimol EI, Bernard EJ, Bitton A, Bressler B, Fedorak RN, Ghosh S, Greenberg GR, Marshall JK, Panaccione R, Seidman EG, Silverberg MS, Steinhart AH, Sy R, Van Assche G, Walters TD, Sandborn WJ, Feagan BG.	2013	Journal Article
	52-week efficacy of adalimumab in patients with moderately to severely active ulcerative colitis who failed corticosteroids and/or immunosuppressants.	Reinisch W, Sandborn WJ, Panaccione R, Huang B, Pollack PF, Lazar A, Thakkar RB.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Evolving definitions of remission in Crohn's disease.	Panaccione R, Colombel JF, Louis E, Peyrin-Biroulet L, Sandborn WJ.	2013	Journal Article
	Commentary: detection of infliximab levels and anti-infliximab antibodies.	Seow CH, Panaccione R.	2013	Journal Article
	Environment and the inflammatory bowel diseases.	Frolkis A, Dieleman LA, Barkema H, Panaccione R, Ghosh S, Fedorak RN, Madsen K, Kaplan GG.	2013	Journal Article
	Advances in novel diagnostic endoscopic imaging techniques in inflammatory bowel disease.	Iacucci M, Panaccione R, Ghosh S.	2013	Journal Article
	Review article: dermatological complications of immunosuppressive and anti-TNF therapy in inflammatory bowel disease.	Moran GW, Lim AW, Bailey JL, Dubeau MF, Leung Y, Devlin SM, Novak K, Kaplan GG, Iacucci M, Seow C, Martin L, Panaccione R, Ghosh S.	2013	Journal Article
	Drug-Induced Inflammatory Bowel Disease and IBD-Like Conditions.	Dubeau MF, Iacucci M, Beck PL, Moran GW, Kaplan GG, Ghosh S, Panaccione R.	2013	Journal Article
	Optimising monitoring in the management of Crohn's disease: a physician's perspective.	Papay P, Ignjatovic A, Karmiris K, Amarante H, Milheller P, Feagan B, D'Haens G, Marteau P, Reinisch W, Sturm A, Steinwurz F, Egan L, Panés J, Louis E, Colombel JF, Panaccione R.	2013	Journal Article
	Polyunsaturated fatty acids in inflammatory bowel diseases: a reappraisal of effects and therapeutic approaches.	Marion-Letellier R, Savoye G, Beck PL, Panaccione R, Ghosh S.	2013	Journal Article
	Advances in novel diagnostic endoscopic imaging techniques in inflammatory bowel disease.	Iacucci M, Panaccione R, Ghosh S.	2013	Journal Article
	Adalimumab: long-term safety in 23 458 patients from global clinical trials in rheumatoid arthritis, juvenile idiopathic arthritis, ankylosing spondylitis, psoriatic arthritis, psoriasis and Crohn's disease.	Burmester GR, Panaccione R, Gordon KB, McIlraith MJ, Lacerda AP.	2013	Journal Article
Parkins,Mike				
	Population-based assessment of the incidence, risk factors, and outcomes of anaerobic bloodstream infections.	Ngo JT, Parkins MD, Gregson DB, Pitout JD, Ross T, Church DL, Laupland KB.	2013	Journal Article
	Phenotypic heterogeneity of Pseudomonas aeruginosa populations in a cystic fibrosis patient.	Workentine, ML, Sibley, CD, Glezerson, B, Purighalla, S, Norgaard-Gron JC, Parkins, MD, Rabin, HR and MG Surette	2013	Journal Article
	Metastatic Bladder Cancer Presenting with Persistent Hematuria in Young Man with Cystic Fibrosis.	Patel, P, Rabin, HR, Vickers, M and MD Parkins.	2013	Journal Article
	Tobramycin Inhalation Powder (TIP): An Efficient Treatment Strategy for the Management of Chronic Pseudomonas Aeruginosa Infection in Cystic Fibrosis.	Lam, J. Vaughm, S. and MD Parkins.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Pendharkar,Sachin				
	Improving Access in Gastroenterology: the Single Point of Entry Model for Referrals.	Novak KL, Veldhuyzen Van Zanten S, Pendharkar SR	2013	Journal Article
	Insomnia in a Sleep Centre Population Using Electronic Health Data Sources and the Insomnia Severity Index	Severson CA, Pendharkar SR, Ronksley PE, Tsai WH	2013	Journal Article
Pollak,P. Timothy				
	Non-Daily Statin Dosing: Mechanisms of a Potentially Important Approach to Deal with Statin Intolerance	Pollak PT	2013	Journal Article
Poon,Man-Chiu				
	Stroke pre-notification is asociated with shorter treatment times for warfarin-associated intracerebral hemorrhage.	Dowlatshahi D, Wasserman JK, Butcher KS, - Bernbaum ML, Cwinn AA, Giulivi A, Lang E, Poon M-C, Pope T, Sharma M, Coutt SB,	2013	Journal Article
	Interpreting results from Factor V Leiden mutation analysis: a cautionary note.	Sinclair GD, Poon M-C.	2013	Journal Article
	Suspected collagen disorders in the bleeding disorder clinic: a case control study	Jackson SC, Odiaman L, Card RT, van der Born JG,Poon M-C	2013	Journal Article
	Musculoskeletal health of subjects with hemophilia A treated with tailored prophylaxis: Canadian Hemophilia Primary Prophylaxis (CHPS) Study.	Hilliard P, Zourikian N, Blanchette V, Chan A, Elliott B, Israels S, Laferriere N, Nilson J, Poon M-C, Van Neste C, Jarock C, Wu J, McLimont M, Feldman B.	2013	Journal Article
	Coagulation Factor Concentrate (Chapter 5)." Canadian Blood Services Clinical Guide to Transfusion."	Poon, M-C. Goodyear, M.D.	2013	Journal Article
	Train-the-Trainer": An effective and successful training model to accelerate training and improve physiotherapy services for persons with hemophilia in China. (to Haemophilia)	Chen L, Sun J, Hilliard P, Zourikian N, Hang M, Blanchette V, Poon M-C, Luke K.	2013	Journal Article
	Chinese Hemophilia Joint Health Score 2.1 Reliability Study. (to Haemophilia)	Sun J, Hilliard P, Feldman BM, Zourikian N, Chen L., Blanchette VS, Luke KH, Poon M-C.	2013	Journal Article
	Joint Disease status of serve and moderate hemophilia patients at the Beijing Children's Hospital: Early onset and rapid increasing severity of arthropathy in 90% of patients by 6 years of age.	Wu RH, Wu XY, Zhang NN, Zhao L, Zhang JS,; Luke KH, Poon M-C, Peng Y, Doria A.	2013	Journal Article
	Platelet dysfunction in von Willebranx disease type 2B with the Montreal platelet Syndrome mutation,	Rand M, Jackson S, Cloutier S, Poon M-C.	2013	Journal Article
	What do Canadian men living with hemophilia need to know? zperspectives of individuals with hemophilia.	Arnold E, Lane S, Weber KE, Chan A, Walker I, Tufts J. Rubin S, Poon M-C, Heddle NM.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Treatment Guidelines Working Group on behalf of the World Federation of Hemophilia. Guidelines for the Management of Hemophilia.	Srivastava A, Brewer AK, Mauser-Bunschoten EP, Key NS, Kitchen S, Llinas A, Ludlam CA, Mahlangu JN, Mulder K, Poon MC, Street A;	2013	Journal Article
	Short-term low-dose secondary prophylaxis for severe/moderate hemophilia A children with arthropathy is beneficial but there are obstacles in its execution: A multi-center pilot study in China.	Tang L, Wu RH, Sun J, Zhang XS, Feng XQ, Zhang XQ, Luke K-H, Poon M-C.	2013	Journal Article
	Canadian Blood Services Clincal Guide to Transfusion".	Poon, M-C, Goodyear, M.D. Hemostatic Disorder (chapter 17)	2013	Journal Article
Quinn,Robert				
	Renal denervation therapy for the treatment of resistant hypertension: a position statement by the Canadian Hypertension Education Program	Khan NA, Herman RJ, Quinn RR, Rabkin SW, Ravani P, Tobe SW, Feldman RD, Wijeysundera HC, Padwal RS; Canadian Hypertension Education Program	2013	Journal Article
	Detecting Chronic Kidney Disease in Population-Based Administrative Databases using an Algorithm of Hospital Encounter and Physician Claim codes	Fleet JL, Dixon SN, Shariff SZ, Quinn RR, Nash DM, Harel Z, Garg AX	2013	Journal Article
	Peritoneal Dialysis and the Process of Modality Selection	Blake PG, Oliver MJ, Quinn RR	2013	Journal Article
	Associations between Hemodialysis Access Type and Clinical Outcomes: A Systematic Review.	Ravani P, Palmer SC, Oliver MJ, Quinn RR, Macrae JM, Tai DJ, Pannu NI, Thomas C, Hemmelgarn BR, Craig JC, Manns B, Tonelli M, Strippoli GF, James MT.	2013	Journal Article
	Proteinuria and rate of change in kidney function in a community based population	Turin TC, James M, Ravani P, Tonelli M, Manns BJ, Quinn RR, Jun M, Klarenbach S, Hemmelgarn BR	2013	Journal Article
	The 2013 Canadian Hypertension Education Program recommendations for blood pressure measurement,diagnosis, assessment of risk,prevention and treatment of hypertension.	Hackam DG, Quinn RR, Ravani P, Rabi DM, Dasgupta K, Daskalopoulou SS, Khan NA, Herman RJ, Bacon SL, Cloutier L, Dawes M, Rabkin SW, Gilbert RE, Ruzicka M, McKay DW, Campbell TS, Grover S, Honos G, Schiffrin EL, Bolli P, Wilson TW, Feldman RD, Lindsay P, 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, Petrella RJ, Milot A, Stone JA, Drouin D, Lavoie KL,	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	BR.Estimated GFR and fracture risk: a population-based study	Elliott MJ, James MT, Quinn RR, Ravani P, Tonelli M, Palacios-Derflingher L, Tan Z, Manns BJ, Kline GA, Ronksley PE, Hemmelgarn	2013	Journal Article
	Nephrologist follow-up improves all-cause mortality of severe acute kidney injury survivors	Harel Z, Wald R, Bargman JM, Mamdani M, Etchells E, Garg AX, Ray JG, Luo J, Li P, Quinn RR, Forster A, Bell CM	2013	Journal Article
	Risks and benefits of intensive blood pressure lowering in patients with type 2 diabetes	Rabi DM, Padwal R, Tobe SW, Gilbert RE, Leiter LA, Quinn RR, Khan N	2013	Journal Article
	Fistula-first catheter last: fading certainties and growing doubts	Quinn RR, Ravani P.	2013	Journal Article
	Temporal risk profile for infectious and noninfectious complications of hemodialysis access	Ravani P, Gillespie BW, Quinn RR, MacRae JM, Manns B, Mendelssohn D, Tonelli M, Hemmelgarn B, James M, Pannu N, Robinson BM, Zhang X, Pisoni R.	2013	Journal Article
	Association of a Change in Erythropoiesis-Stimulating Agent Dose During Hospitalization and Subsequent Hemoglobin and Transfusions in Hemodialysis Patients	Wong B, Ravani P, Manns BJ, Zhang X, Chin R, Hemmelgarn BR, Tonelli M, Oliver MJ, Quinn RR	2013	Journal Article
	Pre-emptive correction for haemodialysis arteriovenous access stenosis	Ravani P, James MT, MacRae JM, Palmer SC, Quinn RR, Oliver MJ, Strippoli GFM	2013	Journal Article
	\Urine creatinine excretion and clinical outcomes in CKD	Di Micco L, Quin RR, Ronksley PE, Bellizzi V, Lewin AM, Cianciaruso B, Ravani P; Alberta Kidney Disease Network	2013	Journal Article
	Predictor of treatment with mastectomy, use of sentinel lymph node biopsy and upstaging to invasive cancer in patients diagnosed with breast ductal carcinoma in situ(DCIS) on core biopsy	Chin-Lenn L, Mack LA, Temple W, Cherniak W, Quinn RR, Ravani P, Lewin AM, Quan ML.	2013	Journal Article
	The relationship between socioeconomic status and barriers to peritoneal dialysis	Prakash S, Perzynski A, Austin P, Wu F, Lawless M, Quinn RR, Sehgal A, Oliver MJ	2013	Journal Article
	Homoarginine and mortality in pre-dialysis chronic kidney disease (CKD) patients	Ravani P, Maas R, Malberti F, Pecchini P,Mieth M, Quinn R, Tripepi G, Mallamaci F,Zoccali C	2013	Journal Article
	2013 Canadian Hypertension Education PRogram (CHEP) Recommendations: Scientific Summary	Quinn RR, Poirier L, Dasgupta K, Rabi DM, Hackam DG, Ravani P, Khan N, Herman RJ, Bacon S, Feldman RD, Tobe S, Padwal R	2013	Journal Article
	Neighborhood socioeconomic status and barriers to peritoneal dialysis: a mixed methods study	Prakash S, Perzynski AT, Austin PC, Wu CF, Lawless ME,Paterson JM, Quinn RR, Sehgal AR, Oliver MJ	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Rabi,Doreen				
	Association between maternal serum 25-hydroxyvitamin D level and pregnancy and neonatal outcomes: systematic review and meta-analysis of observational studies.	Aghajafari F, Nagulesapillai T, Ronksley PE, Tough SC, O'Beirne M, Rabi DM	2013	Journal Article
	Hospitalization for uncomplicated hypertension: an ambulatory care sensitive condition.	Walker RL, Chen G, McAlister FA, Campbell NR, Hemmelgarn BR, Dixon E, Ghali W, Rabi D, Tu K, Jette N, Quan H; Hypertension Outcome and Surveillance Team	2013	Journal Article
	Sex differences in acute coronary syndrome symptom presentation in young patients.	Khan NA, Daskalopoulou SS, Karp I, Eisenberg MJ, Pelletier R, Tsadok MA, Dasgupta K, Norris CM, Pilote L; GENESIS PRAXY Team.	2013	Journal Article
	Clinical and socio-demographic factors associated with diabetic ketoacidosis hospitalization in adults with Type 1 diabetes.	Butalia S, Johnson JA, Ghali WA, Rabi DM.	2013	Journal Article
	The 2013 Canadian Hypertension Education Program recommendations for blood pressure measurement, diagnosis, assessment of risk, prevention, and treatment of hypertension.	Hackam DG, Quinn RR, Ravani P, Rabi DM, Dasgupta K, Daskalopoulou SS, Khan NA, Herman RJ, Bacon SL, Cloutier L, Dawes M, Rabkin SW, Gilbert RE, Ruzicka M, McKay DW, Campbell TS, Grover S, Honos G, Schiffrin EL, Bolli P, Wilson TW, Feldman RD, Lindsay P, 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, Petrella RJ, Milot A, Stone JA, Drouin D, Lavoie KL, Lamarre-Cliche M, Godwin M, Tremblay G, Hamet P, Fodor G, Carruthers SG, Pylypchuk GB, Burgess E, Lewanczuk R, Dresser GK, Penner SB, Hegele RA, McFarlane PA, Sharma M, Reid DJ, Tobe SW, Poirier L, Padwal RS; Canadian Hypertension Education Program.	2013	Journal Article
	Utilization of health resources in South Asian, Chinese and White patients with diabetes mellitus.	Yang J, Nijjar A, Quan H, Shah BR, Rabi D, Ignaszewski A, Khan NA.	2013	Journal Article
Rabin,Harvey				
	Metastatic bladder cancer presenting with persistent hematuria in young man with cystic fibrosis.	Patel P, Rabin HR, Vickers MM, Parkins MD	2013	Journal Article
	Phenotypic heterogeneity of Pseudomonas aeruginosa populations in a cystic fibrosis patient.	Workentine ML, Sibley CD, Glezerson B, Purighalla S, Norgaard-Gron JC, Parkins MD, Rabin HR and Surette MG	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Raman,Maitreyi				
	Fecal Microbiome and Volatile Organic Compound Metabolome in Obese Humans with Nonalcoholic Fatty Liver Disease.	Raman M, Ahmed I, Gillevet PM, Probert CS, Ratcliffe NM, Smith S, Greenwood R, Sikaroodi M, Lam V, Crotty P, Bailey J, Myers RP, Rioux KP.	2013	Journal Article
Ravani,Pietro				
	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, Wieb N, Au F, Cleent F.	2013	Journal Article
	Patterns of engagement with the health care system and risk of subsequent hospitalization amongst patients with diabetes.	Ronksley PE, Ravani P, Sanmartin C, Quan H, Manns B, Tonelli M, Hemmelgarn BR	2013	Journal Article
	Estimated GFR and Fracture Risk: A Population-Based Study	Elliott MJ, James MT, Quinn RR, Ravani P, Tonelli M, Palacios-Derflingher L, Tan Z, Manns BJ, Kline GA, Ronksley PE, Hemmelgarn BR.	2013	Journal Article
	Urine Creatinine Excretion and Clinical Outcomes in CKD.	Di Micco L, Quinn RR, Ronksley PE, Bellizzi V, Lewin AM, Cianciaruso B, Ravani P, Alberta Kidney Disease Network (AKDN)	2013	Journal Article
	Renal Denervation Therapy for the Treatment of Resistant Hypertension: A Position Statement by the Canadian Hypertension Education Program.	Khan NA, Herman RJ, Quinn RR, Rabkin SW, Ravani P, Tobe SW, Feldman RD, Wijeysundera HC, Padwal RS, Canadian Hypertension Education Program	2013	Journal Article
	Quality-of-care indicators among remote-dwelling hemodialysis patients: a cohort study.	Thompson S, Bello A, Wiebe N, Manns B, Hemmelgarn B, Klarenbach S, Pelletier R, Tonelli M, Alberta Kidney Disease Network	2013	Journal Article
	Assocations between hemodialysis access type and clinical outcomes: a systematic review	Ravani P, Palmer SC, Oliver MJ, Quinn RR, MacRae JM, Tai DJ, Pannu NI, Thomas C, Hemmelgarn BR, Craig JC, Manns B, Tonelli M, Strippoli GF, James MY.	2013	Journal Article
	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	2013	Journal Article
	The 2013 canadian hypertension education program recommendations for blood pressure measurement, diagnosis, assessment of risk, prevention, and treatment of hypertension.	Hackam DG, Quinn RR, Ravani P, Rabi DM, Dasgupta K, Daskalopoulou SS, Khan NA, Herman RJ, Bacon SL, Cloutier L, Dawes M, Rabkin SW, Gilbert RE, Ruzicka M, Mckay DW, Campbell TS, Grover S, Honos G, Schiffrin EL, Bolli P, Wilson TW, Feldman RD, Lindsay P, Hill MD, Gelfer	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
		M, Burns KD, Vallee 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, Petrella RJ, Milot A, Stone JA, Drouin D, Lavoie KL, Lamarre-Cliche M, Godwin M, Tremblay G, Hamet P, Fodor G, Carruthers SG, Pylypchuk GB, Burgess E, Lewanczuk R, Dresser GK, Penner SB, Hegele RA, McFarlane PA, Sharma M, Reid DJ, Tobe SW, Poirier L, Padwal RS; Canadian Hypertension Education Program.		
	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	2013	Journal Article
	Proteinuria and life expectancy.	Turin TC,Tonelli M,Manns BJ,Ahmed SB, Ravani P,James M,Hemmelgarn BR	2013	Journal Article
	Associations between hemodialysis access type and clinical outcomes: a systematic review.	Ravani P, Palmer SC, Oliver MJ, Quinn RR, MacRae JM, Tai DJ, Pannu NI, Thomas C, Hemmelgarn BR, Craig JC, Manns B, Tonelli M, Strippoli GF, James MT	2013	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	2013	Journal Article
	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	2013	Journal Article
	Hemodialysis prescription education decreases intradialytic hypotension.	Tai DJ, Conley J, Ravani P, Hemmelgarn BR, Macrae JM	2013	Journal Article
	Temporal risk profile for infectious and noninfectious complications of hemodialysis access.	Ravani P, Gillespie BW, Quinn RR, MacRae J, Manns B, Mendelssohn D, Tonelli M, Hemmelgarn B, James M, Pannu N, Robinson BM, Zhang X, Pisoni R	2013	Journal Article
	Galectin-3 and new-onset CKD: marker or mediator?	Ravani P, Barrett BJ	2013	Journal Article
	Association between perceived unmet health care needs and erisk of adverse health outcomes among patients with chronic medical conditions.	Ronksley PE, Sanmartin C, Quan H, Ravani P, Tonelli M, Manns B, Hemmelgarn BR.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Survival in dialysis patients is different between patients with diabetes as primary renal disease and patients with diabetes as a co-morbid condition.	Schroijen MA, van de Luijtgaarden MW, Noordzij M, Ravani P, Jarraya F, Collart F, Prütz KG, Fogarty DG, Leivestad T, Prischl FC, Wanner C, Dekker FW, Jager KJ, Dekkers OM	2013	Journal Article
	Factors associated with initiation of chronic renal replacement therapy for patients with kidney failure	Faruque LI, Hemmelgarn BR, Wiebe N, Manns BJ, Ravani P, Klarenbach S, Pelletier R, Tonelli M, Alberta Kidney Disease Network	2013	Journal Article
	Proteinuria and rate of change in kidney function in a community-based population.	Turin TC, James M, Ravani P, Tonelli M, Manns BJ, Quinn R, Jun M, Klarenbach S, Hemmelgarn BR	2013	Journal Article
	Predictors of Treatment with Mastectomy, Use of Sentinel Lymph Node Biopsy and Upstaging to Invasive Cancer in Patients Diagnosed with Breast Ductal Carcinoma In situ (DCIS) on Core Biopsy	Chin-Lenn L, Mack LA, Temple W, Cherniak W, Quinn RR, Ravani P, Lewin AM, Quan ML	2013	Journal Article
	Proton pump inhibitors and the risk of hospitalisation for community-acquired pneumonia: replicated cohort studies with meta-analysis.	Filion KB, Chateau D, Targownik LE, Gershon A, Durand M, Tamim H, Teare GF, Ravani P, Ernst P, Dormuth CR, the CNODES Investigators	2013	Journal Article
	Rituximab is a safe and effective long-term treatment for children with steroid and calcineurin inhibitor-dependent idiopathic nephrotic syndrome.	Ravani P, Ponticelli A, Siciliano C, Fornoni A, Magnasco A, Sica F, Bodria M, Caridi G, Wei C, Belingheri M, Ghio L, Merscher-Gomez S, Edefonti A, Pasini A, Montini G, Murtas C, Wang X, Muruve D, Vaglio A, Martorana D, Pani A, Scolari F, Reiser J, Ghiggeri GM	2013	Journal Article
	Association of a change in erythropoiesis-stimulating agent dose during hospitalization and subsequent hemoglobin levels and transfusions in hemodialysis patients.	Wong BC, Ravani P, Manns BJ, Lewin A, Zhang X, Chin R, Hemmelgarn BR, Tonelli M, Oliver MJ, Quinn RR	2013	Journal Article
	Homoarginine and mortality in pre-dialysis chronic kidney disease (CKD) patients.	Ravani P, Maas R, Malberti F, Pecchini P, Mieth M, Quinn R, Tripepi G, Mallamaci F, Zoccali C	2013	Journal Article
	Fistula-first and catheter-last: fading certainties and growing doubts.	Quinn RR, Ravani P	2013	Journal Article
Read,Ronald				
	Retrospective Review of Pharyngeal Gonorrhea Treatment Failures in Alberta, Canada	J Gratrix, J Bergman, C Egan, SJ Drews, R Read, AE Singh	2013	Journal Article
	Neisseria gonorrhoeae Multiantigen Sequence Typing is Beneficial in Further Characterizing Gonococcal Populations in Alberta, Canada	AE Singh, J Gratrix, R Read, M Lovgren, SJ Drews, B Romanowski, K Sutherland, J Talbot, I Martin	2013	Journal Article
	Effect of Subtherapeutic vs Therapeutic Administration of	R Zaheer, S Cook, C Klima, K Stanford, T Aleaxander, E Topp, R	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Macrolides on Antimicrobial Resistance in Mannheimia haemolytica and Enterococci Isolated From Beef Cattle	Read, Tim McAllister		
Rioux,Kevin				
	VSL#3® probiotic therapy does not reduce portal pressures in patients with decompensated cirrhosis.	Jayakumar S, Carbonneau M, Hotte N, Befus AD, St. Laurent C, Owen R, McCarthy M, Madsen K, Bailey RJ, Ma M, Bain V, Rioux KP, Tandon P.	2013	Journal Article
	Colonic microbiome and volatile organic compound metabolome in obese humans with nonalcoholic fatty liver disease.	Raman M, Ahmed I, Gillevet PM, Probert CS, Ratcliffe N, Smith S, Greenwood R, Sikaroodi M, Lam V, Crotty P, Bailey J, Myers RP, and Rioux KP.	2013	Journal Article
	Environmental particulate matter induces murine intestinal inflammatory responses and alters the gut microbiome.	Kish L, Hotte N, Kaplan G, Vincent R, Tso R, Ganzle M; Rioux KP, Thiesen A, Barkema H, Wine E, Madsen K.	2013	Journal Article
Robertson,Lynne				
	Chronic Urticaria and Autoimmunity	Kathleen Fraser BHSc., Lynne Robertson MD FRCPC	2013	Journal Article
Rostom,Alaa				
	Larazotide acetate in patients with coeliac disease undergoing a gluten challenge: a randomised placebo-controlled study.	Kelly CP, Green PH, Murray JA, Dimarino A, Colatrella A, Leffler DA, Alexander T, Arsenescu R, Leon F, Jiang JG, Arterburn LA, Paterson BM, Fedorak RN; Larazotide Acetate Celiac Disease Study Group.	2013	Journal Article
	Novel Oral anticoagulants: Is the Convenience Worth the Risk?	Heitman S, MacKay E, Hislden R, Rostom A.	2013	Journal Article
Rydz,Natalia				
	The C-type lectin receptor CLED4M binds, internalizes and clears von Willebrand factor and contributes to the variation in plasma von Willebrand factor levels	Rydz N, Swystun LL, Notley C, Paterson AD, Riches JJ, Sponagle K, Boonyawat B, Montgomery RR, James PD, Lillicrap D.	2013	Journal Article
	Managing heavy mentrual bleeding in adolescents	Rydz N, Jamieson MA.	2013	Journal Article
	The Canadian "National Program for Hemophilia Mutation Testing" database: A ten-year review.	Rydz N, Leggo J, Tinlin S, James P, Lillicrap D.	2013	Journal Article
	Endogenous factor VIII synthesis from the intron22-inverted F8 locus may modulate the immunogenicity of replacement therapy for hemophilia A.	Pandey GS, Yanover C, Miller-Jenkins LM, Garfield S, Cole SA, Curran JE, Moses EK, Rydz N, Simhadri V, Kimchi-Sarfaty C, Lillicrap D, Viel KR, Przytycka TM, Pierce GF, Howard TE, Sauna ZE; The PATH (Personalized Alternative Therapies for Hemophilia) Study Investigators.	2013	Journal Article
	The clinical diagnosis of mild von Willebrand Disease.	Rydz N, Goodyear D, James P.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Sam,David				
	Weight-adjusted dosing of tinzaparin in pregnancy.	Gibson PS, Newell K, Sam DX, Mansoor A, Jiang X, Tang S, Ross S.	2013	Journal Article
Sargious,Peter				
	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.	2013	Journal Article
Savoie,Mary Lynn				
	Establishing a Target Exposure for Once Daily Intravenous Busulfan Given with Fludarbine and Thymoglobulin before Allogeniec Transplantation	RussellJA, Kangarloo SB, Williamson T, Chaudhry MA, Savoie ML, Turner AR, Larratt L, Storek J, Bahlis NJ, Shafey M, Brown CB, Yang M, Geddes M, Zacarias N, Yue P, Duggan P, Stewart DA, Daly A	2013	Journal Article
	Unrelated Donor Allogeneic Transplantation after Failure of Autologous Transplantation for Acute Myeloid Leukemia: a Study from the CIBMTR	Foran JM, Pavletic SZ, Logan BR, Agov-Johnson MA, Perez WS, Bolwell BJ, Bornhauser m, Bredeson CN, Cairo MS, Camitta BM, Copelan EA, Dehn J, Gale Rp, George B, Gupta V, Hale GA, lazarus HM, Litzow MR, Maharaj D, Marks DI, Martino R, Maziarz RT, Rowe JM, Rowlings PA, Savai BN, Savoie ML, Szer J, Waller Ek, Wiernik PH, Weisdorf DJ	2013	Journal Article
Seow,Cynthia				
	Review article: Dermatological complications of immunosuppressive and anti-TNF therapy in inflammatory bowel disease.	Moran GW, Lim AW, Bailey JL, Dubeau M, Leung Y, Devlin SM, Novak K, Kaplan GG, Iacucci M, Seow C, Martin L, Panaccione R, Ghosh S.	2013	Journal Article
	Commentary: detection of infliximab levels and anti-infliximab antibodies.	Seow CH, Panaccione R.	2013	Journal Article
	Phenotypic features of Crohn's disease associated with failure of medical treatment.	Moran GW, Dubeau M, Kaplan GG, Yang H, Seow C, Fedorak RN, Dieleman LA, Barkema HW, Ghosh S, Panaccione R.	2013	Journal Article
Shafey,Mona				
	High dose salvage therapy with dose intensive cyclophosphamide, etoposide and cisplatin (DICEP) may increase transplantation rates for relapsed/refractory aggressive non-Hodgkin lymphoma	Archana Vijay, Qiuli Duan, Jan-Willem Henning, Peter Duggan, Andrew Daly, Mona Shafey, Nizar J. Bahlis, Douglas Allan Stewart.	2013	Journal Article
	Establishing a target exposure for once daily intravenous busulfan given wtih fludarabine and thymoglobulin before allogeneic transplantation.	Russell JA, Kangarloo SB, Willilamson T, Chaudhry MA, Savoie ML, Turner AR, Larratt L, Storek J, Bahlis NJ, Shafey M, Brown CB, Yang M, Geddes M, Zacarias N, Yue P, Duggan P, Stewart DA, Daly A.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Shaffer,Eldon				
	The association between celiac disease and eosinophilic esophagitis in children and adults.	Stewart M, Shaffer EA, Urbanski SJ, Beck P, Storr M	2013	Journal Article
	Solitary lesions with fibrosis and increased IgG4+ plasma cells – part of the expanding spectrum of IgG4-related disease or a non-specific inflammatory response?	Lik HL, Shaffer EA, Falck VG, Kelly MM	2013	Journal Article
Sigal,Ron				
	A review of randomized controlled trials of aerobic exercise training on cardiometabolic risk factors in obese adolecents.	Alberga AS, Frappier A, Sigal RJ, Prud'homme D, Kenny GP.	2013	Journal Article
	Do older females store more heat than younger females during exercise in the heat?	Larose J, Wright HE, Sigal RJ, Boulay P, Hardcastle S and Kenny GP.	2013	Journal Article
	Whole body heat loss is reduced in older males during short bouts of intermittent exercise.	Larose J, Wright HE, Stapleton J, Sigal RJ, Boulay P, Hardcastle S, Kenny GP.	2013	Journal Article
	Age-related decrements in heat dissipation during physical activity occur as early as the age of 40. .	Larose J, Boulay P, Sigal RJ, Wright HE, Kenny G.	2013	Journal Article
	Resistance exercise in type 1 diabetes.	Yardley JE, Sigal RJ, Perkins BA, Riddell MC, Kenny GP.	2013	Journal Article
	Patients with diabetes in cardiac rehabilitation: attendance and exercise capacity.	Armstrong MJ, Martin BJ, Arena R, Hauer TL, Austford LD, Arena R, Stone JA, Aggarwal S, Sigal RJ.	2013	Journal Article
	Do heat events pose a greater health risk for individuals with type 2 diabetes?	Yardley JE, Stapleton JM, Sigal RJ, Kenny GP.	2013	Journal Article
	Older adults with type 2 diabetes store more heat during exercise.	Kenny GP, Stapleton JM, Yardley JE, Boulay P, Sigal RJ.	2013	Journal Article
	Exercise facilitators and barriers from the adoption to maintenance phase: A qualitative inquiry with type 2 diabetes patients involved in aerobic and resistance exercise.	Tulloch H, Sweet S, Fortier M, Capstick G, Kenny GP, Sigal RJ.	2013	Journal Article
	Physical activity clinical practice guidelines: What's new in 2013?	Armstrong MJ, Sigal RJ.	2013	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.	2013	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.	2013	Journal Article
	The Alberta Diabetes and Physical Activity Trial (ADAPT): A randomized trial evaluating theory-based interventions to increase physical activity in adults with type 2 diabetes.	Plotnikoff RC, Kaunamuni N., Courneya K, Sigal RJ, Johnson JA, Johnson ST.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Is whole-body thermoregulatory function impaired in type 1 diabetes mellitus? .	Yardley JE, Stapleton JM, Carter MR, Sigal RJ, Kenny GP.	2013	Journal Article
	Insulin pump therapy is associated with less post-exercise hyperglycemia than multiple daily insulin injections: an observational study of physically active type 1 diabetes patients.	Yardley JE, Iscoe KE, Sigal RJ, Kenny GP, Perkins BA, Riddell MC.	2013	Journal Article
	Does metformin modify the effect on glycaemic control of aerobic exercise, resistance exercise, or both?	Boulé NG, Kenny GP, Larose J, Khandwala F, Kuzik N, Sigal RJ.	2013	Journal Article
	Top 10 practical lessons learned from physical activity interventions with overweight and obese children and adolescents.	Alberga AS, Medd ER, Adamo KB, Goldfield GS, Prud'homme D, Kenny GP, Sigal RJ.	2013	Journal Article
	Screen viewing and diabetes risk factors in overweight and obese adolescents.	Goldfield GS, Saunders TJ, Kenny GP, Hadjiyannakis S, Phillips P, Alberga A, Tremblay MS, Sigal RJ.	2013	Journal Article
	Canadian Diabetes Association 2013 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada: Physical Activity and Diabetes.	Sigal RJ, Armstrong MJ, Colby P, Kenny GP, Plotnikoff RC, Reichert SM, Riddell MC.	2013	Journal Article
Silvius,James				
	Pathways to dementia Diagnosis Among South Asian Canadians	McCleary L, Kozak J, Persaud M, Hum S, Pimlott N, Cohen C, Koehn S, Leung K, Dalziel W, Emerson V, Silvius J, Drummond N	2013	Journal Article
Stather,David				
	Idiopathic subglottic stenosis: a familial predisposition.	Dumoulin E, Stather DR, Gelfand G, Maranda B, MacEachern P, Tremblay A.	2013	Journal Article
	Trainee Impact on Flexible Bronchoscopy Complications: An Analysis of 967 Consecutive Flexible Bronchoscopy Procedures in an Academic Interventional Pulmonology Practice.	DR Stather, P MacEachern, A Chee, E Dumoulin, A Tremblay.	2013	Journal Article
	Pulmonary manifestations of inflammatory bowel disease.	Gelberg J, Stather DR	2013	Journal Article
	The Impact of Tunneled Pleural Catheters on the Quality of Life of Patients with Malignant Pleural Effusions	Sabur N, Chee A, Stather DR, MacEachern P, Amjadi K, Hergott CA, Dumoulin E, Gonzalez AV, Tremblay A.	2013	Journal Article
	Diagnostic Gap Despite Successful Localization of Lung lesions with Peripheral Endobronchial Ultrasound and Electromagnetic Navigation Bronchoscopy	Chee A, Stather DR, MacEachern P, Martel S, Delage A, Simon M, Dumoulin E, Tremblay A.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Trainee Impact on Endobronchial Ultrasound Complications: An Analysis of 607 Consecutive Procedures in an Interventional Pulmonary Practice.	Stather DR, MacEachern P, Chee A, Dumoulin E, Tremblay A.	2013	Journal Article
	Bronchoscopic Removal Of A Large Intracavitary Pulmonary Aspergilloma	Stather DR, Tremblay A, MacEachern P, Chee A, Dumoulin E,Tourin O, Gelfand G, Mody C.	2013	Journal Article
	Evaluation Of A Novel Method Of Teaching Endobronchial Ultrasound: Interventional Pulmonologist versus Respiratory Therapist Proctored Simulation Training	Stather DR, MacEachern P, Chee A, Dumoulin E,Hergott CA, Gelberg J, Scott SD, De Guzman S, Tremblay A.	2013	Journal Article
	Severe Airway Injury Due To Alendronate Aspiration	MacEachern P, Chee A, Stather DR, Chou J, Tremblay A.	2013	Journal Article
Stinton,Laura				
	Clinical associations and potential novel antigenic targets of autoantibodies directed against rods and rings in chronic hepatitis C infection.	Stinton LM, Myers RP, Coffin CS, Fritzler MJ.	2013	Journal Article
	Minimal hepatic encephalopathy	Stinton LM, Jayakumar S.	2013	Journal Article
Storek,Jan				
	hematopoietic cell transplantation predict chronic graft-versus-host disease.	Interleukin-15 levels on day 7 after8.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:	2013	Journal Article
	Gastric antral vascular ectasia and its clinical correlates in patients with early diffuse systemic sclerosis in the SCOT trial.	9.Hung EW, Mayes MD, Sharif R, Assassi S, Machicao VI, Hosing C, StClair EW, Furst DE, Khanna D, Forman S, Mineishi S, Phillips K, Seibold JR, Bredeson C, Csuka ME, Nash RA, Wener MH, Simms R, Balllen K, LeClercq S, Storek J, Goldmuntz E, Welch B, Keyes-Elstein L, Castina S, Croffortd LJ, McSweeney P, Sullivan KM:	2013	Journal Article
	Establishing a Target Exposure for Once-Daily Intravenous Busulfan Given with Fludarabine and Thymoglobulin before Allogeneic Transplantation.	5.Russell JA, Kangarloo SB, Williamson T, Chaudhry MA, Savoie ML, Turner AR, Larratt L, Storek J, Bahlis NJ, Shafey M, Brown CB, Yang M, Geddes M, Zacarias N, Yue P, Duggan P, Stewart DA, Daly A:	2013	Journal Article
	Expression of MS4A and TMEM176 genes in human B lymphocytes.	6.Zuccolo J, Deng L, Unruh TL, Sanyal R, Bau JA, Storek J, Demetrick DJ, Luider JM, Auer-Grzesiak IA, Mansoor A, Deans JP:	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Fludarabine/2 Gy TBI is superior to 2 Gy TBI as conditioning for HLA-matched related HCT: a phase III randomized trial.	7.Kornblit B, Maloney DG, Storb R, Storek J, Hari P, Vucinic V, Maziarz RT, Chauncey TR, Pulsipher MA, Bruno B, Petersen FB, Bethge WA, Huebel K, Bouvier ME, Fukuda T, Storer BE, Sandmaier BM:	2013	Journal Article
	Interleukin-15 levels on day 7 after hematopoietic cell transplantation predict chronic graft-versus-host disease.	8.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:	2013	Journal Article
	Lack of sustained response of advanced dermatomyositis to autologous hematopoietic cell transplantation (letter).	3. Storek J, LeClercq SA, Aaron SL	2013	Journal Article
	Antithymocyte globulins capable of binding to T and B cells reduce graft-vs-host disease without increasing relapse.	10.Hoegh-Petersen M, Amin MA, Liu Y, Ugarte-Torres A, Williamson TS, Podgorny PJ, Russell JA, Grigg A, Ritchie D, Storek J:	2013	Journal Article
	Antithymocyte globulins capable of binding to T and B cells reduce graft-vs-host disease without increasing relapse.	1.Hoegh-Petersen M, Amin MA, Liu Y, Ugarte-Torres A, Williamson TS, Podgorny PJ, Russell JA, Grigg A, Ritchie D, Storek J:	2013	Journal Article
Swain,Mark				
	B cell depletion with rituximab in patients with primary biliary cirrhosis refractory to urosdeoxycholic acid	Myers RP, Swain MG, Lee SS, Shaheen AA, Burak KW.	2013	Journal Article
	Who to screen and how to manage hepatitis C: Are baby boomers a hidden population?	Borman MA, Swain MG.	2013	Journal Article
	Sofosbuvir for hepatitis C genotype 2 or 3 in patients without treatment options.	Jacobson IM, Gordon SC, Kowdley KV, Yoshida EM, Rodriguez-Torres M, Sulkowski MS, Shiffman ML, Lawitz E, Everson G, Bennett M, Schiff E, Al-Assi MT, Subramanian GM, An D, Lin M, McNally J, Brainard D, Symonds WT, McHutchison JG, Patel K, Feld J, Pianko S, Nelson DR; POSITRON Study; FUSION Study (including M. Swain as collaborator).	2013	Journal Article
	P-selectin-mediated monocyte-cerebral endothelium adhesive interactions link peripheral organ inflammation to sickness behaviors	D'Mello C, Riazi K, Le T, Stevens KM, Wang A, McKay DM, Pittman QJ, Swain MG.	2013	Journal Article
	Liver-brain interactions in inflammatory liver diseases: implications for fatigue and mood disorders.	D'Mello C, Swain, MG.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Rituximab for treatment of patients with autoimmune hepatitis who are refractory to or intolerant of standard therapy.	Burak K, Swain MG, Santodomingo-Garzon T, Lee SS, Urbanski S, Aspinall A, Coffin C, Myers R	2013	Journal Article
Tang,Karen				
	Addressing cost-related barriers to prescription drug use in Canada.	Tang KL, Manns BJ, Ghali WA.	2013	Journal Article
Thakrar,Mitesh				
	Long Term Outcome Of Lung Transplantation in Previous Intravenous Drug Users with Talc Lung Granulomatosis	J. Weinkauf, L. Puttagunta, R. Nador, K. Jackson, K. LaBranche, A. Kapasi, J. Mullen, D. Modry, S. Meyer, M. Thakrar, K. Doucette, D. Lien	2013	Journal Article
Tremblay,Alain				
	Trainee Impact on Advanced Diagnostic Bronchoscopy: An Analysis of 607 Consecutive Procedures in an Interventional Pulmonary Practice.	David R Stather, Paul MacEachern, Alex Chee, Elaine Dumoulin, Alain Tremblay	2013	Journal Article
	The Impact of Tunneled Pleural Catheters on the Quality of Life of Patients with Malignant Pleural Effusions	Natasha Sabur, Alex Chee, Elaine Dumoulin, David Stather, Paul MacEachern, Chris Hergott, Anne Gonzalez, Kayvan Amjadi, Alain Tremblay	2013	Journal Article
	Evaluation Of A Novel Method Of Teaching Endobronchial Ultrasound: Physician versus Respiratory Therapist Proctored Simulation Training	David R Stather, Alex Chee, Paul MacEachern, Elaine Dumoulin, Christopher Hergott, Jacob Gelberg, Sandra Scott, Sylvia De Guzman, Alain Tremblay	2013	Journal Article
	Clinical Outcomes of Indwelling Pleural Catheter Related Pleural Infections: an international multicenter study	Fysh, Edward; Tremblay, Alain; Feller-Kopman, David; Mishra, Eleanor; Slade, Mark; Garske, Luke; Clive, Amelia; Lamb, Carla; Boshuizen, Rogier; Ng, Benjamin; Rosenstengel, Andrew; Yarmus, Lonny; Rahman, Najib; Maskell, Nicholas; Lee, Y C Gary	2013	Journal Article
	Diagnostic Gap Despite Successful Localization of Lung lesions with Peripheral Endobronchial Ultrasound and Electromagnetic Navigation Bronchoscopy	Alex Chee, David R Stather, Paul MacEachern, Simon Martel, Antoine Delage, Mathieu Simon, Elaine Dumoulin, Alain Tremblay	2013	Journal Article
	Idiopathic subglottic stenosis : a familial predisposition	Dumoulin E, Stather DR, Gelfand G, Maranda B, Maceachern P, Tremblay A.	2013	Journal Article
	MacEachern P, Brazil A, Tremblay A, Stather DR, Chee AC, Chou J.	Severe Airway Injury due to Alendronate Aspiration	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
	Probability of Cancer in Pulmonary Nodules Detected on First Screening CT	Annette McWilliams, M.B., Martin C. Tammemagi, Ph.D., John R. Mayo, M.D., Heidi Roberts, M.D., Geoffrey Liu, M.D., Kam Soghrati, M.D., Kazuhiro Yasufuku, M.D., Ph.D., Simon Martel, M.D., Francis Laberge, M.D., Michel Gingras, M.D., Sukhinder Atkar-Khattra, B.Sc., Christine D. Berg, M.D., Ken Evans, M.D., Richard Finley, M.D., John Yee, M.D., John English, M.D., Paola Nasute, M.D., John Goffin, M.D., Serge Puksa, M.D., Lori Stewart, M.D., Scott Tsai, M.D., Michael R. Johnston, M.D., Daria Manos, M.D., Garth Nicholas, M.D., Glenwood D. Goss, M.D., Jean M. Seely, M.D., Kayvan Amjadi, M.D., Alain Tremblay, M.D.C.M., Paul Burrowes, M.D., Paul MacEachern, M.D., Rick Bhatia, M.D., Ming-Sound Tsao, M.D., and Stephen Lam, M.D.	2013	Journal Article
	Trainee Impact On Procedural Complications: An Analysis Of 967 Consecutive Flexible Bronchoscopy Procedures In An Interventional Pulmonology Practice.	David R. Stather MD FRCPC FCCP*, Paul MacEachern MD FRCPC FCCP*, Alex Chee MD FRCPC*, Elaine Dumoulin MDCM FRCPC**, Alain Tremblay MDCM FRCPC	2013	Journal Article
	Bronchoscopic Removal Of A Large Intracavitary Pulmonary Aspergilloma	Stather, David; Tremblay, Alain; MacEachern, Paul; Chee, Alex; Dumoulin, Elaine; Tourin, Olga; Gelfand, Gary; Mody, Christopher	2013	Journal Article
Valentine,Karen				
	Anticoagulation in acute pulmonary embolism. UpToDate in Pulmonary and Critical Care Medicine 2012.	Valentine KA and Hull RD	2013	Journal Article
	Therapeutic use of heparin and low molecular weight heparin, UpToDate in Pulmonary and Critical Care Medicine 2012	Valentine KA and Hull RD.	2013	Journal Article
	Therapeutic use of Warfarin. UpToDate in Pulmonary and Critical Care Medicine, 2012	Valentine KA and Hull RD	2013	Journal Article
	Outpatient management of oral anticoagulation. UpToDate in Pulmonary and Critical Care Medicine, 2012.	Valentine KA and Hull RD.	2013	Journal Article
	Correcting excess anticoagulation after warfarin. UpToDate in Pulmonary and Critical Care Medicine, 2012.	Valentine KA and Hull RD.	2013	Journal Article

Name	Title	Authorship	Publish Year	Type
Wang,Wenjie				
	Inflammasome-Independent NLRP3 Augments TGF-β Signaling in Kidney Epithelium	Wenjie Wang, Xiangyu Wang, Justin Chun, Akosua Vilaysane, Sharon Clark, Gabrielle French, Nathan A. Bracey, Kiril Trpkov, Shirin Bonni, Henry J. Duff, Paul L. Beck, and Daniel A. Muruve	2013	Journal Article
Wang,Xiangyu(W				
	Inflammasome-Independent NLRP3 Augments TGF-β Signaling in Kidney Epithelium.	Wang W, Wang X, Chun J, Vilaysane A, Clark S, French G, Bracey NA, Trpkov K, Bonni S, Duff HJ, Beck PL, Muruve DA	2013	Journal Article
	Rituximab is a safe and effective long-term treatment for children with steroid and calcineurin inhibitor-dependent idiopathic nephrotic syndrome.	Ravani P1, Ponticelli A, Siciliano C, Fornoni A, Magnasco A, Sica F, Bodria M, Caridi G, Wei C, Belingheri M, Ghio L, Merscher-Gomez S, Edefonti A, Pasini A, Montini G, Murtas C, Wang X, Muruve D, Vaglio A, Martorana D, Pani A, Scolari F, Reiser J, Ghiggeri GM	2013	Journal Article
Wu,Caren				
	In-group bias in residency selection.	Adam Bass, Caren Wu, Jeffrey P Schaefer, Bruce Wright, Kevin McLaughlin	2013	Journal Article

Research Grants in 2013

Name	Prorated Amount	Title	Role	Year
Ahmed,Sofia				
	$1,447.00	Nutrition and Kidney Health	Principal/Senior	2013
Sum	**$1,447.00**			
Altabbaa,Ghazwan				
	$6,000.00	DOM Business Cost Program ARP Competition Fund for IM Program structure RGH MTU Smartboard	Principal/Senior	2013
	$6,666.67	DOM Business Cost Program ARP Competition Fund for IM Program structure RGH Internal Medicine Simulation Lab	Principal/Senior	2013
	$6,750.00	DOM Business Cost Program ARP Competition Fund for IM Program Structure RGH Sony PMW-100 XDCAM HD422	Principal/Senior	2013
Sum	**$19,416.67**			
Andrews,Christoph				
	$35,714.29	GI motility patient management and research	Principal/Senior	2013
	$25,000.00	A Randomized, Double-Blind, Placebo-Controlled Multicenter. Phase II Study to Evaluate the Safety and Efficacy and Dose Response of 28 Days of Once-Daily Dosing of the Oral Motilin Receptor Agonist GSK962040, in Type I and II Diabetic Male and Female Subjects with Gastroparesis.	Site/Local PI	2013
	$27,083.33	Inc. Prucalopride versus Placebo in Diabetic Gastroparesis: Randomized Placebo controlled Crossover Trial, investigator initiated.	Principal/Senior	2013
Sum	**$87,797.62**			

Name	Prorated Amount	Title	Role	Year
Bacchus,Maria				
	$9,565.22	Exploring the medical teaching unit preceptor role	Co-investigator	2013
	$69,402.95	Exploring the medical teaching unit - Precepton role	Co-investigator	2013
	$27,163.43	Error based checklists after all	Co-investigator	2013
	$24,000.00	Targeting Discharge Resources for Department of Medicine Inpatients	Co-investigator	2013
Sum	**$130,131.59**			
Bahlis,Nizar				
	$48,000.00	Combination of PARP and Proteasome inhibitors in multiple myeloma	Principal/Senior	2013
	$23,076.92	Bortezomib mediated BRCAness in Myeloma cells: novel therapeutic approach combining PARP1-2 and 26S Proteasome Inhibitors	Principal/Senior	2013
	$144,000.00	Bortezomib mediated BRCAness in Myeloma cells: novel therapeutic approach combining PARP1-2 and 26S proteasome inhibitors.	Principal/Senior	2013
Sum	**$215,076.92**			
Barber,Claire				
	$40,000.00	Development and Testing of Quality Indicators for Rheumatoid Arthritis	* Training grant	2013
	$53,333.33	Development and Testing of Quality Indicators for Rheumatoid Arthritis	* Training grant	2013
	$15,000.00	Development of Cardiovascular Quality Indicators for Rheumatoid Arthritis	Principal/Senior	2013
Sum	**$108,333.33**			

Name	Prorated Amount	Title	Role	Year
Barnabe,Cheryl	$37,200.00	Arthritis in First Nations People in Alberta: Prevalence and Health Care Utilization.	Principal/Senior	2013
	$17,714.91	"The Window of Opportunity": Seizing the Opportunity for Positive Lifestyle Modifications in Early Inflammatory Arthritis.	Principal/Senior	2013
	$21,277.45	Access and Utilization of Healthcare for Rheumatoid Arthritis in Aboriginal People in Alberta.	Co-PI	2013
	$47,000.00	Rheumatoid Arthritis Management in Alberta's Aboriginal Population	Principal/Senior	2013
	$30,000.00	To Pursue Academic Activities	Principal/Senior	2013
	$20,000.00	Canadian Rheumatology Association (Canadian Initiative for Outcomes in Rheumatology Care) and The Arthritis Society Clinician Investigator Award	Principal/Senior	2013
	$27,832.42	Erosion Healing and Restoration of Function in Rheumatoid Arthritis	Principal/Senior	2013
	$13,750.00	Urban Aboriginal Arthritis Detection and Management Strategy	Principal/Senior	2013
	$13,528.00	Creating an optimal model of care for the efficient delivery of appropriate and effective arthritis care	Co-investigator	2013
	$7,500.00	Cardiovascular Quality Indicators for Rheumatoid Arthritis	Co-investigator	2013
	$18,635.25	Administrative Data in Rheumatic Disease Research and Surveillance	Co-investigator	2013
	$85,942.60	Developing an innovative evidence-based support tool to improve osteoarthritis care planning and health service management for diverse patient populations in Alberta, Saskatchewan and Manitoba	Co-investigator	2013
	$214,933.33	Our Health Counts Toronto, Developing a Population based Urban Aboriginals Cohort to assess and enhance individual, family and community Health and Well being	* Collaborator	2013
Sum	**$555,313.96**			

Name	Prorated Amount	Title	Role	Year
Baylis,Barry				
	$862,068.97	W21C: Interdisciplinary Research and Innovation for Health System Quality and Safety	* Collaborator	2013
Sum	**$862,068.97**			
Beck,Paul				
	$149,035.16	Hypoxia-inducible factor-1 (HIF-1) plays an innate protective role in Clostridium difficile-induced colitis	Co-investigator	2013
	$8,333.33	Alberta Heritage Foundation for Medical Research, Interdisciplinary Team Grant. Etiology of Inflammatory Bowel Disease: Gene, Microbe & Environment Interactions.	Co-investigator	2013
	$687,500.00	A multicenter national group grant.	Co-investigator	2013
	$141,875.00	Innate Immune Responses in Clostridium Difficile Toxin-induced Intestinal Injury	* Clinical Senior	2013
	$75,000.00	Crohn's and Colitis Foundation of Canada, Operating Grant. The NLRP3-inflammasome is a key regulator of intestinal homeostasis.	Co-PI	2013
	$9,027.78	Operating Grant 'Aberrant dendritic cell and T-cell function driven by IBD-associated genetic mutations'.	Co-investigator	2013
Sum	**$1,070,771.27**			
Bharwani,Aleem				
	$17,750.00	Tablet Computer use in Hospitals	Principal/Senior	2013
	$5,000.00	Snap DX	Principal/Senior	2013
	$2,500.00	Leadership Needs Assessment	Principal/Senior	2013
	$6,000.00	Leadership Evaluation	Principal/Senior	2013
Sum	**$31,250.00**			

Name	Prorated Amount	Title	Role	Year
Bosch,Mark				
	$75,000.00	Predicting Benefit of Standard Treatment and Personalized Medicine for Relapse/Refractory Diffuse Large B-Cell Lymphoma Using Genetic and Proteomic Testing	Co-investigator	2013
	$27,533.33	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	2013
	$5,333.33	Predicting benefit of standard treatment and personalize medicine for relapse/refractory diffuse large B-cell lymphoma using genetic and proteomic testing	Co-investigator	2013
	$5,000.00	Predicting Benefit of Standard Treatment and Personalized Medicine for Relapse/Refractory Diffuse Large B-Cell Lymphoma Using Genetic and Proteomic Testing	Principal/Senior	2013
Sum	**$112,866.67**			
Bridges,Ronald				
	$75,000.00	Optimizing Colorectal Cancer Screening	Co-investigator	2013
Sum	**$75,000.00**			
Burak,Kelly				
	$11,200.00	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	2013
	$2,080.89	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	2013

Name	Prorated Amount	Title	Role	Year
	$29,740.75	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	2013
	$14,224.00	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	2013
	$17,425.53	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	2013
	$1,378.97	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	2013
	$1,340.67	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	2013
	$10,473.60	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	2013

Name	Prorated Amount	Title	Role	Year
	$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-investigator	2013
	$11,395.00	A Phase III, randomized, double-blind trial to evaluate the efficacy, safety and tolerability of TMC435 vs. telaprevir, both in combination with PegIFNα-2a and ribavirin, in chronic hepatitis C genotype-1 infected subjects who were null or partial responders to prior PegIFNα and ribavirin therapy.	Site-investigator	2013
	$38,196.00	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	2013
	$27,537.18	A Phase 3, Safety and Efficacy Study of Boceprevir/Peginterferon Alfa-2a/ribavirin in Chronic HCV Genotype 1 IL28B CC Subjects	Site-investigator	2013
	$47,464.42	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	2013
	$25,263.53	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	2013

Name	Prorated Amount	Title	Role	Year
	$10,814.82	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	2013
	$4,127.65	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	2013
	$4,201.06	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	2013
	$10,633.14	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	2013
	$12,249.33	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	2013
	$2,154.43	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	2013

Name	Prorated Amount	Title	Role	Year
	$2,880.00	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	2013
	$5,482.50	A Randomized, Open-label Study to Evaluate the Safety and Efficacy of ABT-450/Ritonavir/ABT-267 (ABT-450/r/ ABT 267) and ABT-333 Coadministered with Ribavirin (RBV) in Adults with Genotype 1 Chronic Hepatitis C Virus (HCV) Infection and Human Cirrhosis (TURQUOISE-II)	Site-investigator	2013
	$900.00	"A Prospective Observational Study Investigating the Management of G1 Chronic Hepatitis C Adult Patients Treated with VICTRELISTM (boceprevir) in Combination with Peginterferon Alpha / Ribavirin: A Real LifE Trial in Canada (S.I.M.P.L.E. – Canada)."	Site-investigator	2013
	$7,143.50	A phase III randomised, partially double-blind and placebo-controlled study of BI 207127 in combination with faldaprevir and ribavirin for chronic genotype 1 hepatitis C infection in an extended population of treatment naïve patients that includes those ineligible to receive peginterferon. BI Trial Number: 1241.36	Site-investigator	2013
	$10,362.96	A Phase 2b, Dose-Ranging, Randomized, Double-Blind, Placebo-Controlled Trial Evaluating the Safety and Efficacy of GS-6624, a Monoclonal Antibody Against Lysyl Oxidase Like 2 (LOXL2) in Subjects with Primary Sclerosing Cholangitis (PSC)	Site-investigator	2013
	$20,426.00	A Phase 2b, Dose-Ranging, Randomized, Double-Blind, Placebo-Controlled Trial Evaluating the Safety and Efficacy of GS-6624, a Monoclonal Antibody Against Lysyl Oxidase-Like 2 (LOXL2), in Subjects with Advanced Liver Fibrosis but not Cirrhosis Secondary to Non-Alcoholic Steatohepatitis (NASH)	Site-investigator	2013
Sum	**$348,427.93**			

Name	Prorated Amount	Title	Role	Year
Campbell,Norman				
	$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	2013
	$150,000.00	HSFC-CIHR Chair in Hypertension Prevention & Control	* Chair	2013
	$1,000,000.00	Improving the Efficient and Equitable Care of Patients with Chronic Medical Conditions Interdisciplinary Chronic Disease Collaboration (ICDC)	Co-investigator	2013
	$49,936.00	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	2013
	$360,820.20	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	2013
	$118,398.17	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	2013
Sum	**$1,744,452.87**			

Name	Prorated Amount	Title	Role	Year
Card,Robert				
	$100.00	Development of a Mentorship Program for Undergraduate Medical Students at the University of Calgary	Co-investigator	2013
Sum	**$100.00**			
Castillo,Eliana				
	$17,635.68	Real-Time Clinical Audit for the Medical Disorders in Pregnancy Program-Clinical Database	Principal/Senior	2013
Sum	**$17,635.68**			
Chee,Alex				
	$776.25	Quantifying procedural performance using electromagnetic tracking of procedural instruments: a pilot study evaluating expert-novice differences	Principal/Senior	2013
	$14,400.00	Does Does Bronchial Thermoplasty Result in Long-Term Structural Changes in the Airway?	Principal/Senior	2013
	$5,142.40	Improving bedside procedural competence using electromagnetic tracking as part of the training program	Principal/Senior	2013
	$1,428.57	Assessment of Airway Wall Structure in Asthmatic Patients with Cryobiopsy	Principal/Senior	2013
Sum	**$21,747.22**			
Chu,Angel				
	$30,000.00	Equipment to Setup Anal Dysplasia Clinic	Principal/Senior	2013
Sum	**$30,000.00**			
Clarke,Ann				
	$54,166.67	Cancer risk: advancing knowledge in systemic rheumatic disease.	Co-investigator	2013
	$3,333.33	Cancer risk after renal transplant in autoimmune disease	Co-investigator	2013

Name	Prorated Amount	Title	Role	Year
	$56,250.00	C-CARE: A Cross-Canada Anaphylaxis Registry	* Co-Principal	2013
	$200,000.00	Canadian Food Allergy Strategic Team (CanFAST)	* Co-Program Leader	2013
	$30,000.00	SPAACE to SPAACE: Trends in food allergy prevalence over time (Project of CanFAST)	Principal/Senior	2013
	$130,133.00	Causes and Prevention: Identifying the Genetic Basis of Peanut Allergy (Project of CanFAST)	Principal/Senior	2013
	$39,163.00	C-CARE: A Cross-Canada Anaphylaxis Registry (Project of CanFAST)	* Co-Principal	2013
	$33,225.83	Neurodevelopmental Disorders in Children Born to Women with Systemic Lupus Erythematosus	Co-investigator	2013
	$90,277.78	GET-FACTS: Genetics, Environment and Therapies: Food Allergy Clinical Tolerance Studies	* Co-Principal	2013
	$25,338.08	Cancer Risk: Advancing knowledge in systemic rheumatic disease	Co-investigator	2013
	$33,333.33	Cancer Risk in Pediatric-Onset Rheumatic Disease	Co-investigator	2013
	$106,290.00	The SPAACE study: Surveying prevalence of food allergies in all Canadian Environments	* Co-Principal	2013
	$80,000.00	Montreal General Hospital Lupus Clinic: infrastructure $80,000 yearly	* Co-Principal	2013
	$135,611.67	An international, multi-centre, inception cohort study of Neuropsychiatric SLE	Co-investigator	2013
	$77,500.00	Genetics of peanut allergy	Principal/Senior	2013
	$24,868.33	Obstetrical complications and long-term outcomes of children born to women with SLE	Co-investigator	2013
Sum	**$1,119,491.03**			

Name	Prorated Amount	Title	Role	Year
Coffin,Carla				
	$6,295.08	University of Calgary Liver Unit Hepatitis B Patient Databank	Principal/Senior	2013
	$4,965.52	Optimize clinical management of Hepatitis B Patient Registry	Principal/Senior	2013
	$16,842.11	Molecular Diagnostic Testing of Patients with Chronic Hepatitis B	Site/Local PI	2013
	$73,000.00	Leaders of Opportunity Fund and Alberta Advanced Education Technology: Translational Health Research Collobatorium	Co-PI	2013
	$29,166.67	Translational Health Research Collobatorium (Matching funds)	Co-PI	2013
	$30,000.00	Hepatitis C Virus (HCV) Quasispecies and Lymphotropism in Human Immunodeficiency Virus Type 1 (HIV-1) Coinfected Patients	Principal/Senior	2013
	$60,000.00	New Investigator Award	Principal/Senior	2013
	$724.00	A long term follow-up registry study of subjects who did not achieve loss of S Antigen (HBsAg) and sustained HBV Viral load reduction below the limit of Quantitation (BLQ) in Gilead-Sponsored Trials of GS-9620 in subjects with chronic Hepatitis B	Site/Local PI	2013
	$2,154.43	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	2013

Name	Prorated Amount	Title	Role	Year
	$4,127.65	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	2013
	$4,201.06	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	2013
	$3,717.50	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	2013
	$2,080.89	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	2013
	$8,567.09	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	2013
	$3,278.69	Development of a Vaccine Against the Hepatitis C Virus (HCV) and Demonstration of Efficacy in Intravenous Drug Users	Co-investigator	2013
Sum	**$249,120.67**			

Name	Prorated Amount	Title	Role	Year
Conly,John				
	$80,000.00	Alberta Sepsis Network Interdisciplinary Team Grant	Co-investigator	2013
	$721,340.80	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	2013
	$8,333.33	W21C: Interdisciplinary Research and Innovation for Health System Quality and Safety	Co-PI	2013
	$19,444.44	AIHS Strategic Initiative - Innovation Platforms - 2013/09/01 to 2016/08/31	Co-investigator	2013
	$701,940.30	W21C: Interdisciplinary Research and Innovation for Health System Quality and Safety	Co-PI	2013
	$35,500.00	Detection & Tracking of Hospital Outbreaks Using Whole Genome Sequencing	Principal/Senior	2013
	$25,385.00	Antimicrobial Stewardship iPhone App Development	Principal/Senior	2013
Sum	**$1,591,943.88**			
Cowie,Robert				
	$43,333.33	Canadian Chronic Obstructive Lung Disease Cohort Study	Site/Local PI	2013
	$10,000.00	Industry-sponsored drug trials	Site/Local PI	2013
Sum	**$53,333.33**			
Davidson,Warren				
	$1,250.00	Unrestricted Educational Grant	Principal/Senior	2013
	$6,250.00	Angela Jone Memorial Research Award	Principal/Senior	2013
	$2,708.33	Unrestricted Educational Grant	Principal/Senior	2013
Sum	**$10,208.33**			
Donovan,Lois				
	$20,565.70	Assessment of Consequences of Maternal Severe Hypoglycemia During Pregnancy in Women with Type 1 Diabetes on Offspring's Neuropsychological Functioning.	Co-investigator	2013
	$96,034.91	Families Defeating Diabetes: Canadian Intervention for Family-centered Diabetes Prevention following Gestational Diabetes (GDM)	Site/Local PI	2013

Name	Prorated Amount	Title	Role	Year
	$500.00	Use of Metformin in Pregnancy and Neonatal Outcomes; A Metanalysis	Principal/Senior	2013
	$189,393.94	Systematic Review on Behavioural Health Programs for the Diabetes Mellitus	Clinical Investigator	2013
Sum	**$306,494.55**			
Edwards,Alun				
	$91,666.67	2013 – 2015 $100,000 per year. PI R DeBruyn Co-investigtors C Elliott, J Ho, F McMaster, S Jelinksi, A Edwards	Co-investigator	2013
	$12,500.00	Planning grant for CRIO team application - ACHORD. AIHS	Co-investigator	2013
	$140,000.00	Access with Evidence Development (AED) for Alberta Policy on Insulin pump reimbursement	Co-investigator	2013
Sum	**$244,166.67**			
Eksteen,J. Albertus				
	$75,000.00	Start-up funds for Dr. Eksteen	Principal/Senior	2013
	$13,621.62	Inflammasone in Fatty Liver Disease	Principal/Senior	2013
	$48,648.65	A Translational Approach to Understanding and Managing Primary Sclerosing Cholangitis	Co-investigator	2013
	$19,672.13	Etiology of Inflammatory Bowel Disease: Gene, Microbe, and Environment Interactions	Co-investigator	2013
	$40,000.00	Genetics of PSC	Co-investigator	2013
	$10,800.00	Inflammasone in Fatty Liver Disease	Principal/Senior	2013
	$25,000.00	The role of Glypican-6 in PSC	Principal/Senior	2013
	$150,000.00	CIHR Human Immunology Network	Co-investigator	2013
	$27,083.33	CCFC/Vertex Operating Grant	Co-PI	2013
	$35,790.00	"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	2013

Name	Prorated Amount	Title	Role	Year
	$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	2013
	$58,684.17	"A Phase 2b, Dose-Ranging, Randomized, Double-Blind, Placebo-Controlled Trial Evaluating the Safety and Efficacy of GS-6624, a Monoclonal Antibody Against Lysyl Oxidase Like 2 (LOXL2) in Subjects with Primary Sclerosing Cholangitis (PSC)"	Site/Local PI	2013
	$13,000.00	LOI - CIHR Health Challenges in Chronic Inflammation Initiative	Principal/Senior	2013
Sum	**$536,631.90**			
Esdaile,John				
	$257,142.86	CIHR Skin Research Training Centre	Co-investigator	2013
	$415,060.33	CIHR team in Investigations of Mobility, Physical Activity, and Knowledge Translation in HIP pain (IMPAKT-HIP)	Principal/Senior	2013
	$115,090.43	A randomized controlled trial evaluating the effectiveness of the Making It Work program at preventing work loss	Co-investigator	2013
	$31,302.08	Arthritis in First Nations People in Alberta: Prevalence and HealthCare Utilization	Co-investigator	2013
Sum	**$818,595.70**			

Name	Prorated Amount	Title	Role	Year
Fell,Charlene				
	$6,048.00	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).	Principal/Senior	2013
Sum	**$6,048.00**			
Ferraz,Jose				
	$93,750.00	Integration of Anti-Inflammatory Pathways in IBD	Co-PI	2013
Sum	**$93,750.00**			
Field,Stephen				
	$25,714.29	A CRE-managed clinic for patients with COPD considered to be high risk for hospital admission	Principal/Senior	2013
	$13,550.00	STATCOPE Simvastatin in COPD	Site/Local PI	2013
	$50,750.00	Management of high risk COPD patients through a Certified Respiratory Educator-run clinic	Principal/Senior	2013
	$23,945.00	Asthma diagnosis study	Site/Local PI	2013
Sum	**$113,959.29**			
Fisher,Dina				
	$25,045.20	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	2013
	$1,268.83	Protocol: An Open Label Extension of UT 15CSR for subjects with Pulmonary Arterial Hypertension TDE-PH-304	Site-investigator	2013

Name	Prorated Amount	Title	Role	Year
	$7,336.00	Research Project Title: A Phase-3, Long-term, Open-Label, Multicenter Safety and Efficacy Study of Ambrisentan in Subjects with Pulmonary Hypertension	Site-investigator	2013
	$8,591.20	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) Principal Investigator: Helmersen Sub'I's: Fell, Fisher, Hirani, Jarand, Rimmer, Viner	Site-investigator	2013
	$3,345.83	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 Thromboemcbolic Pulmonary Hyptertension (CTEPH Sub'I's: Fell, Fisher, Hirani, Jarand, Rimmer, Viner	Site-investigator	2013
	$2,039.67	Protocol: 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: IMPRES Extension	Site-investigator	2013
	$8,682.60	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	2013
	$8,075.37	Social work services in the treatment of patients with Tuberculosis	Principal/Senior	2013
	$4,958.33	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 satety and tolerability of ACT-064992 in patients with symptomatic pulmonary arterial hypertension	Site-investigator	2013

Name	Prorated Amount	Title	Role	Year
	$6,048.00	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)	Site-investigator	2013
	$7,751.00	Improving the diagnosis of Extra-pulmonary Tuberculosis in Bangladesh	Principal/Senior	2013
	$10,223.33	Understanding of tuberculosis infection,disease,and treatment following TB proplylaxis implementation among people living with HIV in KwaZulu-Natal South Africa	Co-investigator	2013
	$14,400.00	Can certifeid respiratory educators improve the care of patients with COPD	Co-investigator	2013
	$2,378.00	A 24 week randomized, double-blind, multi-center, placebo-controlled efficacy, safety, tolerability and PK trial of Nilotinib (Tasigna, AMN107) in Pulmonary Hypertension	Site-investigator	2013
	$31,707.50	A phase 2, Placebo Controlled, Double-Blind, Randomized, Clinical Study to Determine Safety, Tolerability and Efficacy of Pulsed, Inhaled Nitric Oxide versus Placebo as Add-On therapy in Symptomatic subjects with Pulmonary arterial Hypertension	Site-investigator	2013
	$7,495.00	A 52-week, double-blind Randomized, placebo-controlled, parallel-group study to evaluate teh efffect of roflumilas 500 ug on Exacerbation rate in patients with COPD treated with fiexed-dose combination of long-acting beta agonist and inhaled corticosteroid.	Site-investigator	2013
Sum	**$149,345.87**			

Name	Prorated Amount	Title	Role	Year
Flemons,Ward				
	$162,500.00	Health Quality Council of Alberta contract with the Faculty of Medicine	* Grant Holder	2013
	$53,886.00	Improving Access to Pulmonary Consultation and Testing. Alberta Health Services	Co-investigator	2013
	$89,424.00	An Evaluation of the Organizational Process of Developing a Provincial Acute Care Discharge Model in Alberta Hospitals.	Co-investigator	2013
Sum	**$305,810.00**			
Fritzler,Marvin				
	$21,285.71	Relationship of GWB to Prions and Neurological Disease	Principal/Senior	2013
	$22,500.00	AHFMR CRIO TEAM Osteoarthritis Research: from Bench to Bedside	Co-investigator	2013
	$12,500.00	CIHR TEAM Sclerderma Research Group	Co-PI	2013
	$150,000.00	Phase V: Autoimmune System (GW Bodies) Research	Principal/Senior	2013
	$5,000.00	Autoantibodies in Inflammatory Bowel Disease	Principal/Senior	2013
	$9,900.00	Environment, Epigenetics and Rheumatic Diseases	Co-investigator	2013
	$8,400.00	SEROLOGICAL TECHNOLOGIES AND PROFILES TO DELIVER PRECISION DIAGNOSTICS FOR INFLAMMATORY BOWEL DISEASE PATIENTS	Co-PI	2013
Sum	**$229,585.71**			

Name	Prorated Amount	Title	Role	Year
Geddes,Michelle				
	$12,176.00	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	2013
	$21,000.00	Tissue Banking for Myelodysplastic Syndromes and Acute Myeloid Leukemia	Co-PI	2013
Sum	**$33,176.00**			
Ghali,William				
	$48,140.00	The Alliance for Canadian Heatlh Outcomes Research in Diabetes	Co-investigator	2013
	$116,985.33	Efficacy of a web-based seamless discharge communication tool: a randomized controlled trial	Principal/Senior	2013
	$460,500.75	POISE-2 Clinical Trial	Co-investigator	2013
	$705,000.00	W21C: Interdisciplinary Research and Innovation for Health System Quality and Safety. CRIO Team Grant.	Principal/Senior	2013
	$8,156.25	An Evaluation of the Organizational Process of Developing a Provincial Acute Care Discharge Model in Alberta Hospitals	Co-investigator	2013
	$37,869.23	Developing an Electronic Decision Support and Communication Tool for Intensive Care Unit Discharge	Co-PI	2013
	$54,295.50	Evaluating Therapeutic Decision-Making, Outcomes and Resource Utilization in Chronic Stable Angina: an interprovincial population-based study	Co-investigator	2013
	$15,968.25	Exploring the dimensions of the Medical Teaching Unit preceptor role	Co-investigator	2013
	$18,743.25	Identifying Intensive Care Unit Discharge Planning Tools	Co-investigator	2013
	$837,209.30	The Medical Ward of the 21st Century	Principal/Senior	2013
Sum	**$2,302,867.87**			

Name	Prorated Amount	Title	Role	Year
Ghosh,Subrata				
	$17,704.92	AHFMR Interdiciplinary Team Grant: Tier 1 and Tier 2 of Alberta IBD Consortium	Executive Committee	2013
	$11,111.11	Immune Function & Dendritic cell dysfunction in NLR3P KO mice	Co-PI	2013
	$26,666.67	Transabdominal Ultrasonography Contrast Enhanced –prospective study to evaluate therapeutic response ($368,000) for 2 years.	Co-PI	2013
	$23,333.33	Dendritic cell function in IBD with defined genetic mutations	Principal/Senior	2013
	$16,666.67	A translational approach to understanding and managing primary sclerosing cholangitis'	Co-investigator	2013
	$75,000.00	Fellowship - Ali Rezaie	* Supervisor	2013
	$50,000.00	Clinical Research Fellowship - Humberto Jijon	* Supervisor	2013
	$23,571.43	Tobacco Cessation for Crohn's Patients	Co-investigator	2013
	$4,800,000.00	Aberrant dendritic cell and T cell immune function driven by IBD associated genetic mutations	Principal/Senior	2013
Sum	**$5,044,054.12**			
Gibson,Paul				
	$2,186.27	Real-Time Clinical Audit for the Medical Disorders in Pregnancy Program: Clinical Database. Hardware and Software Requirements.	Co-investigator	2013
	$9,729.73	Real-Time Clinical Audit for the Medical Disorders in Pregnancy Program: Clinical Database	Co-investigator	2013
	$9,000.00	Utilization of LMWH for Prevention and Treatment of Venous Thrombosis During Pregnancy	Principal/Senior	2013
Sum	**$20,916.00**			

Name	Prorated Amount	Title	Role	Year
Gill,John				
	$6,896.55	The Canadian Cohort of HIV slow progressors: study of host and viral factors associated with disease progression long term HIV infected subjects HIV/HCV co infection	Co-investigator	2013
	$13,846.15	Canadian HIV Trials Network	Co-PI	2013
	$24,793.39	NA Accord Cohort Collaboration	Co-investigator	2013
	$90,000.00	Towards a transformative understanding of HIV Associated Neurocognitive Disorder	Co-investigator	2013
	$11,764.71	Inflammatory markers and aging in HIV patients	Site/Local PI	2013
	$20,000.00	HIV outcomes and cost of therapy	Site/Local PI	2013
	$24,827.59	Hepatitis C Cohort (CTN-222) If hepatitis C (HCV) is an opportunistic infection, why has HAART not led to dramatic improvements in live disease among HIV-HCV co-infected persons?	Co-investigator	2013
	$31,250.00	Southern Alberta Cohort ART Collaboration	Co-investigator	2013
	$2,500.00	ING 114467 A phsase 3 randomized, double-blind study of the safety and efficacy of GSWK 1349572	Co-investigator	2013
	$20,250.00	Maraviroc Switch Collaborative Study	Co-investigator	2013
	$16,438.36	Maintain (CTN 238) a randomized control clinical trial of micronutrient & Antioxidant supplementation in person with untreated HIV infection	Co-investigator	2013
Sum	**$262,566.74**			

Name	Prorated Amount	Title	Role	Year
Goodyear,Dawn				
	$17,647.06	Barriers to Health Care Delivery in Mild Hemophilia	Co-PI	2013
Sum	**$17,647.06**			
Hamilton,Douglas				
	$9,729.73	Comparison of Continuous Noninvasive and Invasive Intracranial Pressure Measurement	Co-investigator	2013
Sum	**$9,729.73**			
Hanley,David				
	$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	2013
	$30,523.60	A biomedical engineering approach to investigating bone quality across the lifespan	Co-investigator	2013
	$60,000.00	Canadian Multicentre Osteoporosis Study (I am the local Principal Investigator,)	Co-investigator	2013
	$131,566.00	On the development of bone quality parameters for assessing osteoporosis using peripheral quantitative computed tomography	Co-investigator	2013
	$138,888.89	Randomized double-blind study investigating dose-dependent longitudinal effects of vitamin D supplementation on bone health	Co-PI	2013
Sum	**$402,645.16**			

Name	Prorated Amount	Title	Role	Year
Hanly,Patrick				
	$1,791.67	Regulation of Cerebral Blood Flow in Obstructive Sleep Apnea	Co-investigator	2013
	$129,123.33	Regulation of Cerebral Blood Flow in Obstructive Sleep Apnea	Co-investigator	2013
	$50,000.00	Eyes High Postdoctoral Award	Co-investigator	2013
	$66,860.13	Role of Intermittent hypoxia in the Pathogenesis of Obstructive Sleep Apnea	Co-investigator	2013
	$5,000.00	The effect of obstructive sleep apnea and nocturnal hypoxia on kidney function	Principal/Senior	2013
	$2,083.33	Effects of intermittent hypoxia on the regulation of cerebral blood flowin healthy humans and in patients with obstructive sleep apnea: role of oxidative stress	Co-investigator	2013
	$1,666.67	Ventilatory stability in obstructive sleep apnea	Co-investigator	2013
	$25,000.00	Planning meeting for Canadian Sleep and Circadian Network	* Co-Applicant	2013
	$6,000.00	Impact of nocturnal hypoxia on kidney function in chronic kidney disease	Principal/Senior	2013
Sum	**$287,525.13**			
Hawkins,Tarisha				
	$9,243.24	Utilization of LMWH for Prevention and Treatment of Venous Thrombosis During Pregnancy	Co-investigator	2013
	$9,473.68	Real-Time Clinical Audit for the Medical Disorders in Pregnancy Program Clinical Database.	Co-investigator	2013
	$2,128.74	Real-Time Clinical Audit for the Medical Disorders in Pregnancy Program: Clinical Database. Hardware and Software Requirements.	Co-investigator	2013
Sum	**$20,845.66**			
Heitman,Steven				
	$12,500.00	Optimizing population-based colorectal cancer screening	Co-investigator	2013
	$9,230.77	Department of Medicine Research Development Funds Award Fall 2012 Competition	Principal/Senior	2013
Sum	**$21,730.77**			

Name	Prorated Amount	Title	Role	Year
Helmersen,Douglas				
	$5,240.00	A Phase-3, Long-term, Open-Label, Multicenter Safety and Efficacy Study of Ambrisentan in Subjects with Pulmonary Hypertension	Site/Local PI	2013
	$500.00	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	2013
	$8,591.20	Long Term extension multicentre multinational study to evaluate the efficacy and safety of oral BAY 63-2521 in patients with PAH	Site/Local PI	2013
	$5,018.75	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	2013
	$3,059.50	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	2013
	$10,853.25	A Randomized, Multi-Center Study of First-Line Ambrisentan and Tadalafil Combination Therapy in Subjects with Pulmonary Arterial Hypertension.	Co-investigator	2013
	$7,495.00	A 52 week double blind randomized placebo controlled trial evaluating the effect of oral BIBF 1120, 150 mg twice daily on annual FVC decline in patients with IPF	Site-investigator	2013
	$4,958.33	Study with an ERA in Pulmonary Arterial Hypertension to Improve Clinical Outcome. Long Term Single Arm open label extension study of the SERAPHIN syudy to assess the safety and tolerability of ACT-064992 in patients with Symptomatic Pulmonary Arterial Hypertension	Site-investigator	2013

Name	Prorated Amount	Title	Role	Year
	$17,889.43	An Open Label Extension of UT 15CSR for subjects with Pulmonary Arterial Hypertension TDE-PH-304	Site-investigator	2013
	$3,567.00	A 24 week, randomized, double blind, multi-centre, placebo-controlled efficay, safety, tolerability and PK trial of Nilotinib (Tasinga, AMN107) in PAH	Site/Local PI	2013
	$63,415.00	A phase 2, placebo controlled, double blind, randomized, clinical study to determine safety, tolerability and efficacy of pulsed, inhaled nitric oxide (iNO) versus placebo as add-on therapy in symptomatic patients with pulmonary arterial hypertension	Site-investigator	2013
	$22,485.00	52 week, double blind, randomized, placebo controlled, parallel group study to evaluate the effect of Roflumilast 500 mcg on exacerbation rate in patients with COPD treated with fixed dose combination of LABA/ICS	Site/Local PI	2013
Sum	**$153,072.46**			
Hemmelgarn,Brenda				
	$108,730.00	Role of residence location in the care of elderly Canadians with kidney failure	Co-investigator	2013
	$255,714.00	Enhancing existing capacity in applied health services and policy research in Western Canada	* Team Member	2013
	$834,153.33	Improving the efficient and equitable care of patients with chronic medical conditions: the Interdisciplinary Chronic Disease Collaboration (ICDC)	* Team Leader	2013
	$663,937.20	The BK: KIDNI Trial (BK:Kinase inhibition to decrease nephropathy intervention trial)	Co-PI	2013
	$2,916,666.67	Canadian Network for Observational Drug Effect Studies (cNODES)	* Team Member	2013
	$6,657.92	Improving risk prediction for mortality and progression to kidney failure in older adults using eGFR and proteinuria.	Principal/Senior	2013
	$72,120.00	Arthritis in First Nations People in Alberta: Prevalence and Health Care Utilization.	Principal/Senior	2013

Name	Prorated Amount	Title	Role	Year
	$316,666.67	Innovative knowledge synthesis methods collaorative at teh Li Ka Shing Kowledge Institute.	Co-investigator	2013
	$150,000.00	The Canadian KidNey Knowledge Translation and Generation NETwork (CANN-NET)	Principal/Senior	2013
	$85,408.67	The impact of primary care networks on teh care and outcomes of patients with diabetes	Co-PI	2013
	$43,333.33	Complications of arteriovenous fistulas, arteriovenous grafts and tunneled cuffed catheters for hemodialysis: Risk patterns, comparability and impact on patient.	Co-PI	2013
	$20,833.33	Determining the research priorities of Canadian dialysis patients, caregivers and clinicians	Co-investigator	2013
	$59,467.00	Quality of cancer care in remote-dwelling Canadians	Co-investigator	2013
	$43,333.33	Predicting the need for community care for chronic kidney disease following hospitalization with acute kidney injury	Co-investigator	2013
	$50,000.00	Do EMRs in primary care improve care and outcomes (EPIC)	Co-investigator	2013
	$168,605.25	Implementation and evaluation of a clinical pathway for chronic kidney disease in primary care	Principal/Senior	2013
	$266,763.67	An innovative service model for AHS and community-based pharmacist collaborative care of adult rural patients with chronic kidney disease	Principal/Senior	2013
	$126,380.86	The therapeutic evaluation of Steroids in IgA Nephrlpathy Global (TESTING) study – Canadian Network	Co-investigator	2013
	$112,500.00	Effectiveness and cost of weekly rt-PA in hemodialysis patients at high risk for catheter complications: Quality assurance project of the implementation and evaluation of PreCLOT	Principal/Senior	2013
	$1,875,000.00	The Canadian National Transplant Research Program: Increasing donation and improving transplant outcomes	Co-investigator	2013

Name	Prorated Amount	Title	Role	Year
	$38,971.67	Identifying opportunities to improve care for patients after acute kidney injury	Co-investigator	2013
	$76,948.67	Reducing the risk of serious adverse events and improving quality of life for patients with kidney disease: the role of AVF creation in hemodialysis patients	Co-investigator	2013
	$25,000.00	Emerging research and clinical priorities in the detection and management of frailty in older patients across acute care settings	Co-investigator	2013
Sum	**$8,317,191.56**			
Herman,Robert				
	$700,000.00		Principal/Senior	2013
	$29,960.00	Observation of Blood Pressure Responses to Pharmacy Switches Between Formulary Approved Nifedipine Preparations	Co-investigator	2013
Sum	**$729,960.00**			
Hilsden,Robert				
	$135,000.00	A research program for the rapid evaluation of novel non-invasive colon cancer screening tests	* Investigator - Salary	2013
	$97,297.30	Faculty of Medicine Emerging Team Grant	Principal/Senior	2013
Sum	**$232,297.30**			
Hirani,Naushad				
	$15,653.25	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	2013
	$31,421.38	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	2013

Name	Prorated Amount	Title	Role	Year
	$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	2013
	$30,236.55	SCOT Study - A Randomized, Open-Label, Phase II/III Multi-Center Study of High-Dose Immunosuppressive Therapy Using Total Body Irradiation, Cyclophosphamide, ATGAM, and Autologous Transplantation with Auto-CD34+HPC versus Intravenous Pulse Cyclophosphamide for the Treatment of Severe Systemic Sclerosis	Co-investigator	2013
	$25,132.67	First-line Bosentan and Sildenafil Combination Therapy for Pulmonary Arterial Hypertension: A safety and efficacy pilot study	Principal/Senior	2013
	$28,258.83	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	2013
	$1,200.00	Pulmonary complications following head and neck reconstructive surgery	Co-investigator	2013
	$3,000.00	Potential applications of the Reservoir-Wave Model to hemodynamic analysis in patients being investigated for pulmonary hypertension	Co-investigator	2013
	$8,682.60	AMBITION: A Randomized, Multi-Center Study of First-Line Ambrisentan and Tadalafil Combination Therapy in Subjects with Pulmonary Arterial Hypertension.	Site/Local PI	2013

Name	Prorated Amount	Title	Role	Year
	$28,258.83	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	2013
	$1,200.00	Pulmonary complications following head and neck reconstructive surgery	Co-investigator	2013
	$3,000.00	Potential applications of the Reservoir-Wave Model to hemodynamic analysis in patients being investigated for pulmonary hypertension	Co-investigator	2013
	$8,682.60	AMBITION: A Randomized, Multi-Center Study of First-Line Ambrisentan and Tadalafil Combination Therapy in Subjects with Pulmonary Arterial Hypertension.	Site/Local PI	2013
	$14,427.00	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	2013
	$31,707.50	A Phase 2, Placebo Controlled, Double-Blind, Randomized, Clinical Study to Determine Safety, Tolerability and Efficacy of Pulsed, Inhaled Nitric Oxide (iNO) Versus Placebo as Add-On Therapy in Symptomatic subjects With Pulmonary Arterial Hypertension	Site/Local PI	2013
	$6,048.00	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	2013

Name	Prorated Amount	Title	Role	Year
	$7,495.00	RESPOND Trial: A 52-Week, Double-Blind, Randomized, Placebo-Controlled, Parallel-Group Study to Evaluate the Effect of Roflumilast 500 µg on Exacerbation Rate in Patients With Chronic Obstructive Pulmonary Disease (COPD) Treated With a Fixed-Dose Combination of Long-Acting Beta Agonist and Inhaled Corticosteroid (LABA/ICS)	Co-investigator	2013
Sum	**$210,823.92**			
Hogan,David				
	$288,932.87	Canadian Longitudinal Study on Aging (total national funding $23.5 million)	Site/Local PI	2013
	$131,840.00	Effects of Regular Exercise on Cerebrovascular Reserve in Older Adults: Role in the Prevention of Age-Related Cognitive Decline	Co-investigator	2013
	$255,833.33	InfoRehab: Enhancing MSK Rehabilitation through Better Use of Health Information	* Collaborator	2013
	$575,000.00	Research to Action Program in Dementia	* Collaborator	2013
	$76,604.20	Canadian Longitudinal Study on Aging	Site/Local PI	2013
	$76,604.20	Canadian Longitudinal Study on Aging	Site/Local PI	2013
	$369,335.50	Innovations in Data, Evidence and Applications for Persons with Neurological Conditions (ideas PNC)	Co-investigator	2013
	$134,000.00	National Population Health Study Of Neurological Conditions	Co-investigator	2013
	$833,333.33	W21C: Interdisciplinary Research and Innovation for Health System Quality and Safety.	* Co-Applicant	2013
	$45,567.45	Expression of Interest to the CIHR Canadian Consortium on Neurodegeneration in Aging (CCNA) Funding Opportunity.	* Co-Applicant	2013

Sum $2,787,050.89

Name	Prorated Amount	Title	Role	Year
Holroyd-Leduc,Jayna				
	$401,774.53	Knowledge Translation Canada: Strategic training initiative in health research	Site-investigator	2013
	$2,408,155.48	Knowledge Translation Canada: A national research network	Co-investigator	2013
	$35,470.59	Understanding the epidemiology of neurological conditions and building the methodological foundation for surveillance	Co-investigator	2013
	$4,090.91	Development and pilot testing of a self management web portal for older adults with chronic disease	Co-PI	2013
	$20,769.23	Improving appropriate care for those with epilepsy - Knowledge translation of the CASES (Canadian Appropriateness Study of Epilepsy Surgery) clinical decision support tool	Co-PI	2013
	$47,494.05	Efficacy of a web-based seamless discharge tool	Co-investigator	2013
	$1,950.00	A quality improvement initiative to reduce the use of physical restraints among older hospitalized patients	Co-investigator	2013
	$84,503.69	Fall prevention among seniors	Co-investigator	2013
	$375,000.00	Advance Care Planning and Goals of Care Alberta: a population based Knowledge Translation intervention study	Co-investigator	2013
	$3,333.33	Examining the Sustainability of a Screening for Distress Program in 2 Outpatient Oncology Clinics	* Supervisor	2013
	$19,384.62	Resident-driven QI project targeted at decreasing ED-LOS for DOM patients	Principal/Senior	2013
	$183,529.41	Targeting discharge resources for DOM inpatients (SISDoM project)	Principal/Senior	2013
	$64,402.50	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 replacement	Co-investigator	2013
Sum	**$3,649,858.34**			

Name	Prorated Amount	Title	Role	Year
Iacucci,Marietta				
	$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	2013
	$14,545.45	Department of Medicine -Division of Gastroenterology start-up funds	Principal/Senior	2013
	$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	2013
	$8,333.33	Department of Medicine Research Development Fund Award Winners - Fall 2012 Competition $10000. iSCAN /Confocal Endomicrosocpy as novel Endoscopic Technique for evaluating Gastric and Intestinal Lymphoma	Principal/Senior	2013
	$20,000.00	Educational grant 20000$ Abbvie 2013	Principal/Senior	2013
Sum	**$147,676.09**			
James,Matthew				
	$25,250.00	Improving risk prediction for mortality and progression to kidney failure in older adults using eGFR and proteinuria	Co-investigator	2013
	$18,624.75	Complications of arteriovenous fistulae, grafts, and catheters for hemodialysis; risk patterns, comparability and impact on patient outcomes	Co-investigator	2013
	$130,428.00	Curcumin to prevent peri-operative complications after abdominal aortic aneurysm repair	Co-investigator	2013
	$23,500.00	Coronary revascularization and quality of life for patients with chronic kidney disease in Alberta	Principal/Senior	2013
	$3,571.43	Predictors of acute kidney injury after major surgery	Co-investigator	2013
	$8,333.33	Processes of Care and Clinical Outcomes of Acute Kidney Injury: A Multidisciplinary Research Program	Principal/Senior	2013

Name	Prorated Amount	Title	Role	Year
	$11,307.69	Identification and evaluation of quality of care indicators for acute kidney injury	Principal/Senior	2013
	$34,126.00	Predicting the need for community care for chronic kidney disease following hospitalization with acute kidney injury	Principal/Senior	2013
	$20,298.33	Identifying Opportunities to Improve Care for Patients after Acute Kidney Injury	Co-PI	2013
	$12,500.00	Improving Early Identification of Acute Kidney Injury after Major Surgery Through Use of the Knowledge to Action Cycle	Principal/Senior	2013
Sum	**$287,939.54**			
Janvier,Jack				
	$8,080.00	Examining the Use of Traditional/Herbal/Alternative Medications by Aboriginals Living with HIV/AIDS	Principal/Senior	2013
	$21,153.85	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	2013
	$21,153.85	Rural Engagement and Retention in HIV Care Working Group	Co-investigator	2013
Sum	**$50,387.69**			
Jayakumar,Saumya				
	$10,473.60	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-Naiive and Null Responder Subjects with Genotype 1 Hepatitis C Virus Infection	Site/Local PI	2013
	$6,512.50	A Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety of ABT-450.Ritonavir.ABT-267 and ABT-333 Co-Administered with Ribavirin in Treatment-Experienced Adults with Genotype 1 Chronic Hepatitis C Infection (SAPPHIRE – II)	Site/Local PI	2013

Name	Prorated Amount	Title	Role	Year
	$10,213.00	A Phase 2b, Dose-Ranging, Randomized, Double-Blind, Placebo-Controlled Trial Evaluating the Safety and Efficacy of GS-6624, a Monoclonal Antibody Against Lysyl-Oxidase-Like 2 (LOXL-2) in Subjects with Advanced Liver Fibrosis but not Cirrhosis Secondary to Non-Alcoholic Steatohepatitis (NASH	Site/Local PI	2013
	$2,080.89	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	2013
	$29,740.75	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	2013
	$14,224.00	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	2013
	$17,425.53	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	2013
	$18,354.67	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	2013

Name	Prorated Amount	Title	Role	Year
	$14,362.40	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	2013
	$8,567.09	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	2013
	$11,432.43	A Randomized, Double-Blind, Controlled Evaluation of Tenofovir DF versus Adefovir Dipivoxil for the Treatment of HBeAg Positive Chronic Hepatitis B	Site-investigator	2013
	$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	2013
	$2,478.64	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	2013
	$20,589.66	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	2013

Name	Prorated Amount	Title	Role	Year
	$8,178.33	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	2013
	$35,259.00	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	2013
	$19,116.82	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 □-2a (Pegasys□) versus Standard of Care Tenofovir Disoproxil Fumarate Monotherapy or Peginterferon □-2a Monotherapy for 48 Weeks in, Non-Cirrhotic Subjects with HBeAg-Positive or HBeAg-Negative Chronic Hepatitis B (CHB)	Site-investigator	2013
	$26,913.60	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	2013
	$11,195.10	A Phase 2 Randomized, Double-Blind, Placebo-Controlled Study of GS-5885, GS-9451, Tegobuvir and Ribavirin; GS-5885, GS-9451 and Tegobuvir; GS-5885, GS-9451 and Ribavirin in	Site-investigator	2013
	$3,843.84	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	2013

Name	Prorated Amount	Title	Role	Year
	$6,160.36	A Phase II trial of Axitinib (AG-013736) after prior Antiangiogenic Therapy in advanced Hepatocellular Carcinoma	Site-investigator	2013
	$1,378.97	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	2013
	$1,340.67	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	2013
	$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-investigator	2013
	$11,395.00	A Phase III, randomized, double-blind trial to evaluate the efficacy, safety and tolerability of TMC435 vs. telaprevir, both in combination with PegIFNα-2a and ribavirin, in chronic hepatitis C genotype-1 infected subjects who were null or partial responders to prior PegIFNα and ribavirin therapy.	Site-investigator	2013
	$38,196.00	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	2013
	$27,537.18	A Phase 3, Safety and Efficacy Study of Boceprevir/Peginterferon Alfa-2a/ribavirin in Chronic HCV Genotype 1 IL28B CC Subjects	Site-investigator	2013
	$29,091.10	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	2013

Name	Prorated Amount	Title	Role	Year
	$25,263.53	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	2013
	$10,814.82	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	2013
	$4,127.65	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	2013
	$4,201.06	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	2013
	$6,766.55	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	2013

Name	Prorated Amount	Title	Role	Year
	$2,154.43	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	2013
	$12,249.33	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	2013
	$2,880.00	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	2013
	$4,377.60	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	2013
	$21,930.00	A Randomized, Open-label Study to Evaluate the Safety and Efficacy of ABT-450/Ritonavir/ABT-267 (ABT-450/r/ ABT 267) and ABT-333 Coadministered with Ribavirin (RBV) in Adults with Genotype 1 Chronic Hepatitis C Virus (HCV) Infection and Human Cirrhosis (TURQUOISE-II)	Site/Local PI	2013
	$10,362.96	A Phase 2b, Dose-Ranging, Randomized, Double-Blind, Placebo-Controlled Trial Evaluating the Safety and Efficacy of GS-6624, a Monoclonal Antibody Against Lysyl Oxidase Like 2 (LOXL2) in Subjects with Primary Sclerosing Cholangitis (PSC)	Site-investigator	2013

Name	Prorated Amount	Title	Role	Year
	$14,287.60	A phase III randomised, partially double-blind and placebo-controlled study of BI 207127 in combination with faldaprevir and ribavirin for chronic genotype 1 hepatitis C infection in an extended population of treatment naïve patients that includes those ineligible to receive peginterferon. BI Trial Number: 1241.36	Site-investigator	2013
Sum	**$538,771.15**			
Jijon,Humberto				
	$66,666.67	Establishment of a high-throuput screening strategies for the identification of IBD patients and customization of therapies	Co-investigator	2013
	$100,800.00	Alberta Innovates - Health Solutions Clinical Fellowship	* Clinical Research	2013
Sum	**$167,466.67**			
Jones,Charlotte				
	$16,918.75	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	2013
	$25,334.38	“Know your numbers. Track your heart”. An Indo-Asian National Cardiovascular Screening Initiative	Principal/Senior	2013
		$202,675		
Sum	**$42,253.13**			

Name	Prorated Amount	Title	Role	Year
Kaplan,Gilaad				
	$20,000.00	Etiology of Inflammatory Bowel Disease: Gene, Microbe, & Environment Interactions	Co-investigator	2013
	$59,016.39	CIHR New Investigator Award	Principal/Senior	2013
	$108,705.88	Alberta Heritage Foundation for Medical Research (AHFMR) Population Health Investigator	Principal/Senior	2013
	$66,666.67	The effect of acute air pollution exposure on the incidence of appendicitis: a multi-city study	Principal/Senior	2013
	$59,726.67	The Incidence, Morbidity and Morality of Diverticullitis	Principal/Senior	2013
	$7,500.00	A translational approach to understanding and managing primary sclerosing cholangitis	* Co-leader	2013
	$37,500.00	Aberrant dendritic cell and T cell immune function driven by IBD associated genetic mutations.	Co-investigator	2013
	$5,000.00	An enhanced method to measure chronic disease burdens using health administrative data	Co-investigator	2013
	$2,818.67	A Phase 3, Randomized, Double-blind, Placebo-controlled, Parallel-group, Multicinter 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	2013
	$2,818.67	A Phase 3, Randomized, Double-blind, Placebo-controlled, Parallel-group, Multicinter 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	2013
	$4,381.67	A Phase 3, Randomized, Double-blind, Placebo-controlled, Parallel-group, Multicinter Study to Evaluate the Safety and Efficacy of Ustekinumab Maintenance Therapy in Subjects with Moderately to Severely Active Crohn's Diseases (UMUNITI)	Co-investigator	2013

Name	Prorated Amount	Title	Role	Year
	$1,402.83	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	2013
	$2,823.67	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	2013
	$3,114.80	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	2013
	$18,958.33	Clinical Research Award from the American College of Gastroenterology for "Serological technologies and profiles to deliver precision diagnostics for inflammatory bowel disease patients".	Co-investigator	2013
	$902,777.78	Canadian Children Inflammatory Bowel Disease Network	Co-PI	2013
Sum	**$1,303,212.02**			
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	2013
	$6,666.67	In Vivo Assessment of Bone Microarchitecture using HR-pQCT in Hemophilia Patients.	Co-investigator	2013
Sum	**$9,115.65**			

Name	Prorated Amount	Title	Role	Year
Larios,Oscar				
	$2,500.00	Bionumerics: Enhanced Bacterial Strain Typing to Improve Patient Care in Infectious Diseases and Respiratory Medicine	Co-investigator	2013
Sum	**$2,500.00**			
Lau,David				
	$967.74	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	2013
	$13,714.29	Saxagliptin Assessment of Vascular Outcomes Recorded in Patients with Diabetes Mellitus - A 24-week, multicentre, randomized, double-blin, placebo controlled phase 3 study with a 28-week extension period to evaluate the efficacy of Dapaglifozin 10mg once daily compared with placebo on control, blood pressure, body weight, and safety, in patients with type 2 diabetes, cardiovascular disease and hypertension who exhibit inadequate glycaemic control on usual care. Protocol No: D1690C00018	Principal/Senior	2013
	$16,646.50	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 back-ground therapies in patients with type 2 DM.	Principal/Senior	2013
	$56,110.40	Effect of liraglutide on body weight in non-diabetic subjects or overweight subjects with co-morbidities. A randomized, double-blind, placebo controlled, parallel group. Mulit-centre, multi-national trial with stratification of subjects to either 56 or 160 weeks of treatment based on pre-diabetes status at randomization	Principal/Senior	2013

Name	Prorated Amount	Title	Role	Year
$16,875.00	Development of educational slide program on "Modest weight loss in the management of type 2 diabetes"		Principal/Senior	2013
	$59,583.33	Dapagliflozin Evaluation of Cardiovascular Events (DECLARE – TIMI 58); A Multicenter, Randomized, Double-Blind, Placebo-Controlled Phase 3b Trial to Evaluate the Effect of Dapagliflozin 10 mg Once Daily on the Incidence of Cardiovascular Death, Myocardial Infarction or Ischemic Stroke in Patients with Type 2 Diabetes.	Principal/Senior	2013
Sum	**$163,897.26**			
LeClercq,Sharon				
	$9,281.25	Canadian Scleroderma Research Group: National Registry and Data Base	Site/Local PI	2013
	$7,869.33	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	2013
Sum	**$17,150.58**			
Lee,Adrienne				
	$5,000.00	Calgary Health Trust Hematology Education and Research Fund	Co-investigator	2013
	$800.00	Calgary Laboratory Services Research Program Competition	Co-PI	2013
Sum	**$5,800.00**			
Lee,Samuel				
	$20,000.00	Operating grant: "Myosin heavy chain isoforms in cirrhotic cardiomyopathy", 2011-13, $60,000/yr.	Site/Local PI	2013
	$20,160.00	King Saud University collaborative research grant	Principal/Senior	2013

Name	Prorated Amount	Title	Role	Year
Sum	**$40,160.00**			
Leigh,Richard				
	$55,000.00	Human Rhinovirus modulation of growth factors involved in airway remodeling	Principal/Senior	2013
	$7,000.00	Alberta Sepsis Network	Co-investigator	2013
	$50,000.00	Rhinovirus induced exacerbations of asthma and COPD	Co-investigator	2013
	$100,000.00	Do rhinovirus infections contribute to airway remodeling in asthma?	Principal/Senior	2013
	$3,923.68	A phase II, multi-centre, randomized, double-blind, placebo-controlled, parallel-group study to evaluate the efficacy, safety and tolerability of intravenous MEMP1972A in the prevention of allergen-induced airway obstruction in patients with mild asthma.	Co-PI	2013
	$25,000.00	Airway inflammation and airway remodeling	Co-PI	2013
	$31,250.00	How does management of Chronic Obstructive Pulmonary Disease hospitalizations affect patient-centred health outcomes and cerebrovascular risk?	Co-investigator	2013
	$108,000.00	Development and validation of a novel rescue therapy for severe asthma	Co-PI	2013
	$12,500.00	ED-directed interventions to improve outcomes after asthma exacerbations	Co-investigator	2013
	$31,250.00	Are anti-inflammatory glucocorticoid-inducible genes in human taking ICS?	Co-PI	2013
	$10,000.00	Difficult Asthma Program	Principal/Senior	2013
	$60,000.00	Allergy, Genes and Environment	Principal/Senior	2013
	$135,470.40	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	2013

Name	Prorated Amount	Title	Role	Year
	$66,678.75	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	2013
	$44,716.86	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	2013
Sum	**$740,789.69**			
Lemaire,Jane				
	$7,486.08	The Experience of Professional Role Transition for Newly Licensed Independently Practicing Physicians	Co-investigator	2013
	$9,600.00	Exploring the Dimensions of the Medical Teaching Unit Preceptor Role	Principal/Senior	2013
	$63,873.00	Exploring the Dimensions of the Medical Teaching Unit Preceptor Role	Principal/Senior	2013
Sum	**$80,959.08**			
Leung,Alexander				
	$10,347.22	Evaluating the impact of computerized physician order entry in community hospitals	Co-investigator	2013
	$15,000.00	Evaluating the impact of computerized physician order entry in community hospitals	* Research Fellow	2013
	$701,940.15	W21C: Interdisciplinary Research and Innovation for Health System Quality and Safety	* Collaborative Member	2013
Sum	**$727,287.37**			
Leung,Yvette				
	$8,307.69	Basal cortisol as a measure of psychological distress in pregnant women with inflammatory bowel disease	Co-investigator	2013
Sum	**$8,307.69**			

Name	Prorated Amount	Title	Role	Year
Ma,Irene Wai Yan				
	$35,652.00	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	2013
	$11,125.38	Improving bedside procedural competence using electromagnetic tracking as part of the training program	Co-investigator	2013
	$20,769.23	Four hand-held ultrasound devices	Co-investigator	2013
	$4,375.00	2013 DOM Quality Improvement Spring Competition: Evaluating the Implementation of a Procedure Cart for Internal Medicine Postgraduate Training	Principal/Senior	2013
Sum	**$71,921.62**			
MacEachern,Paul				
	$0.02	Early Detection of Lung Cancer - A Pan-Canadian Study	Site-investigator	2013
Sum	**$0.02**			
MacRae,Jennifer				
	$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	2013
	$52,500.00	Predicting adverse events in home hemodialysis.	Co-investigator	2013
	$28,421.05	Randomized Cross over trial of Citrasate dialysate and the reduction of heparin in conventional hemodialysis patients	Principal/Senior	2013
	$20,000.00	Randomized Cross over trial of BioLogic RR and the reduction of intradialtyic heparin: BP-RIDH trial	Principal/Senior	2013
	$33,333.33	Hemocontrol's effectiveness in a randomized controlled trial on the reduction of cardiovascular long-term events: HERCULES Study	Principal/Senior	2013
	$5,000.00	The effect of intradialytic exercise on physical function in chronic HD patients	Principal/Senior	2013
Sum	**$164,254.39**			

Name	Prorated Amount	Title	Role	Year
Manns,Braden				
	$50,000.00	Improving the Efficient and Equitable Care of Patients with Chronic Medical Conditions Interdisciplinary Chronic Disease Collaboration (ICDC)	Principal/Senior	2013
	$102,490.40	The impact of primary care networks on the care and outcomes of patients with diabetes	Principal/Senior	2013
	$205,714.29	CAnadian KidNey KNowledge Translation and Generation NETwork (CANN-NET)	Principal/Senior	2013
	$40,000.00	A cost-effectiveness study of exercise-based Cardiac Rehabilitation.	Co-investigator	2013
	$46,605.44	Improving risk prediction in older adults using eGFR and proteinuria.	Co-investigator	2013
	$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	2013
	$474,240.86	The BK: KIDNI Trial (BK:Kinase inhibition to decrease nephropathy intervention trial)	Co-investigator	2013
	$74,863.28	Role of residence location in the care of elderly Canadians with kidney failure.	Co-investigator	2013
	$32,432.43	Risk of adverse effects among elderly statin users.	Co-investigator	2013
	$194,594.59	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	2013
	$20,833.33	Determining the research priorities of Canadian dialysis patients, caregivers and clinicians.	Co-investigator	2013
	$13,458.85	Translating evidence to improvements in care and outcomes for people with diabetes.	Principal/Senior	2013
	$96,344.57	Implementation and evaluation of a clinical pathway for chronic kidney disease in primary care	Co-investigator	2013
	$10,000.00	Assessing the acceptability of financial incentives to kidney donation	Principal/Senior	2013

Name	Prorated Amount	Title	Role	Year
	$5,000.00	Patient navigators and living kidney donor transplantation	Principal/Senior	2013
Sum	**$1,418,578.04**			
Martin,Liam				
	$13,574.47	EARLY INFLAMMATORY ARTHRITIS CLINIC ASSESSMENT	Principal/Senior	2013
	$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	2013
	$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	2013
	$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	2013
	$22,484.31	'The Window of Opportunity': Seizing the Opportunity for Positive Lifestyle Modifications in Early Inflammatory Arthritis.	Co-PI	2013
Sum	**$71,058.78**			

Name	Prorated Amount	Title	Role	Year
McLaughlin,Kevin				
	$1,055,805.25	Improving the efficient and equitable care of patients with chronic medical conditions interdisciplinary chronic disease collaboration	Co-investigator	2013
Sum	**$1,055,805.25**			
Mintz,Marcy				
	$2,218.75	Written Communication Between Internal Medicine Residents and Family Physicians: The impact of a Letter-Writing Workshop on the Quality of Consultation Letters Dictated by Residents	Principal/Senior	2013
Sum	**$2,218.75**			
Missaghi,Bayan				
	$6,000.00	Alberta Sepsis Network Abstract for SpectrumCalgary ICU Antimicrobial Stewardship Smartphone Application	Co-investigator	2013
	$1,850.00	A Randomized Control Clinical Trial of Micronutrient & Antioxidant Supplementation in Persons with Untreated HIV Infection. The MAINTAIN Study.	* Sub-Investigator	2013
Sum	**$7,850.00**			
Mody,Christopher				
	$30,400.00	T lymphocyte and macrophage mediated inflammation and immunosuppression in Cystic Fibrosis	Principal/Senior	2013
	$126,991.48	Direct Lymphocyte mediated antimicrobial mechanisms	Principal/Senior	2013
	$16,153.85	Host Defense to Cryptococcus gattii from Vancouver Island	Principal/Senior	2013
	$28,800.00	Host Defense to Cryptococcus gattii from Vancouver Island	Principal/Senior	2013
	$75,891.89	Lymphocyte–mediated host defense to Burkholderia cepacia complex	Principal/Senior	2013
Sum	**$278,237.21**			

Name	Prorated Amount	Title	Role	Year
Mosher,Dianne				
	$59,448.46	A post-policy implementation review of the Winnipeg Central Intake Service (WCIS): a single-entry model to manage referrals and waiting times for hiop and knee	Co-investigator	2013
	$191,250.00	Screening for High Risk Axial Spondyloarthritis in Patients with Psoriasis, Iritis and Colitis (SASPIC) Study	Site/Local PI	2013
	$63,450.54	Training the Rheumatologists of Tomorrow: A Qualitative Case Study	Site/Local PI	2013
	$10,636.36	A multidisciplinary approach to target chronic inflammation of the gut, liver and joint	* Collaborator	2013
	$107,293.50	Developing an innovative evidence-based decision support tool to improve osteoarthritis care planning and health service management for diverse patients populations in Alberta, Saskatchewan and Manitoba	Co-investigator	2013
	$16,250.00	Fit for Work: Arthritis in the Workplace & Early Intervention Clinics	Co-PI	2013
	$6,250.00	Dissemination of the Pan-Canadian Standardized Inflammatory Arthritis Model of Care	* Leader	2013
	$122,175.00	A multidisciplinary approach to target chronic inflammation of the gut, liver and joint	* Collaborator	2013
Sum	**$576,753.86**			
Muruve,Daniel				
	$112,000.00	The role of the inflammasome in renal injury	Principal/Senior	2013
	$2,000.00	The Alberta Sepsis Network	Co-investigator	2013
	$83,333.33	Inflammation and Kidney Disease	Principal/Senior	2013
	$6,250.00	The Role of the Inflammasome in Renal Injury	Principal/Senior	2013
	$85,500.00	The NLRP-3 inflammasome is a key regulator of intestinal homeostasis	Co-investigator	2013
	$42,000.00	Calcineurin-Induced Heart Failure and the Inflammasome	Co-investigator	2013
Sum	**$331,083.33**			

Name	Prorated Amount	Title	Role	Year
Mustata,Stefan				
	$6,620.69	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	2013
Sum	**$6,620.69**			
Mydlarski,Paule				
	$21,600.00	MiRNA:mRNA regulatory networks in squamous cell carcinomas.	Principal/Senior	2013
	$12,500.00	Skin cancer in solid organ transplantation.	Principal/Senior	2013
	$112,500.00	Biomarkers of viral pathogenesis.	Co-investigator	2013
	$15,000.00	MiR-125b: a novel oncomir in cutaneous squamous cell carcinoma	Principal/Senior	2013
	$10,000.00	MiRNAs: unraveling the mechanisms of squamous cell carcinoma	Principal/Senior	2013
	$833.33	Sun protection knowledge and educational practices of health care professionals involved in the care of organ transplant recipients	Principal/Senior	2013
	$833.33	Burnout among Canadian dermatology residents	Principal/Senior	2013
Sum	**$173,266.67**			

Name	Prorated Amount	Title	Role	Year
Myers,Robert				
	$30,000.00	Noninvasive prediction of hepatic fibrosis using serum markers in patients with nonalcoholic fatty liver disease	Principal/Senior	2013
	$36,887.50	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	2013
	$17,500.00	Feasibility and yield of birth cohort screening for hepatitis C in a colorectal cancer screening population	Principal/Senior	2013
Sum	**$84,387.50**			
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	2013
Sum	**$95,000.00**			
Owen,Carolyn				
	$2,283.33	Molecular basis of familial hematological malignancies	Principal/Senior	2013
Sum	**$2,283.33**			
Panaccione,Remo				
	$2,604.17	Population Health Studies in IBD Alberta IBD Consortium	Co-investigator	2013
	$2,803.06	A phase IIIb, 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	2013

Name	Prorated Amount	Title	Role	Year
	$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	2013
	$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	2013
	$800.00	A 5-Year Registry Study of Humira (Adalimumab) in Subjects with Moderately to Severely Active Crohn's Disease (CD)	Principal/Senior	2013
	$5,187.60	A Phase IIIb 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	2013
	$25,000.00	A Translational Approach to Understanding and Managing Primary Sclerosing Cholangitis	Co-investigator	2013
	$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	2013
	$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	2013

Name	Prorated Amount	Title	Role	Year
	$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	2013
	$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	2013
	$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	2013
	$2,540.20	An Open-Label Extension Study to Assess the Safety of GSK1605786A in Subjects with Crohn's Disease - SHIELD 3	Principal/Senior	2013
	$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 Indadequate Responders (ANDANTE)	Principal/Senior	2013
	$2,139.30	A Multicenter Open-label Extension Study for Subjects who Participated in Study B0151003 (ANDANTE II)	Principal/Senior	2013
	$1,701.50	A Phase 2A Randomized, Double-blind, Sponso Unblinded, Placebo-Controlled, Multiple Dose Study to Evaluate the Pharmacodynamics, Pharmacokinetics and Safety of Anrukinzumab in Patients with Active Ulcerative Colitis	Principal/Senior	2013

Name	Prorated Amount	Title	Role	Year
	$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	2013
	$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	2013
	$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	2013
	$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	2013
	$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	2013
	$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	2013
Sum	**$96,052.23**			

Name	Prorated Amount	Title	Role	Year
Parkins,Mike				
	$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	2013
	$3,010.37	The Evolution of a Pulmonary Exacerbation: A preliminary analysis of bacterial population dynamics culminating in an acute respiratory perturbations	Principal/Senior	2013
	$3,969.07	Pseudomonas aeruginosa infection transmission among patients attends attending the Calgary Adult Cystic Fibrosis Clinic: Implications for Infection Control	Principal/Senior	2013
	$62,543.47	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	2013
	$3,000.00	The influence of chronic renal failure on host normal microbial flora: A contributor to increased susceptibility to infection?	Co-PI	2013
	$2,500.00	Improving the microbiologic diagnosis of orthopedic device associated infections: Assessing the use of culture independent molecular approaches	Principal/Senior	2013
	$2,926.83	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	2013
	$4,071.00	Enhanced Bacterial Strain Typing to Improve Patient Care in Infectious Diseases and Respiratory Medicine	Principal/Senior	2013
Sum	**$86,938.77**			

Name	Prorated Amount	Title	Role	Year
Pendharkar,Sachin				
	$102,099.79	Improving Access to Pulmonary Consultation and Testing	Principal/Senior	2013
	$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	2013
	$33,534.00	An Evaluation of the Organizational Process of Developing a Provincial Acute Care Discharge Model in Alberta Hospitals	Principal/Senior	2013
Sum	**$148,133.79**			
Pollak,P. Timothy				
	$2,742.86	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	2013
	$3,692.31	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	2013
	$11,506.77	A Randomized Cross Over Trial to Observe Differences in Blood Pressure Responses to Switching Between the Extended Release Nifedipine Preparations Adalat XL and Mylan-Nifedipine XR	Site/Local PI	2013
Sum	**$17,941.93**			
Poon,Man-Chiu				
	$15,000.00	A genome wide association study (GWAS) to determine factors that contribute to mcocutaneous bleeding	Co-investigator	2013
	$15,684.31	Barriers to Health Care Delivery to Patients with Mild Hemophilia A	Co-PI	2013
	$10,000.00	Multicentre Canadian Study of Prophylaxis in Older Adults with Severe Hemophilia	Co-investigator	2013

Name	Prorated Amount	Title	Role	Year
	$85,000.00	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	Co-PI	2013
	$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	2013
	$2,000.00	History of Hemophilia Care in Canada	Co-PI	2013
	$25,000.00	"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) $75,000 (2012-13)	Co-PI	2013
	$3,173.33	Potential role of thromboelastography (TEG) in DDAVP response monitoring for von Willebrand disease and mild hemophilia A	Co-PI	2013
Sum	**$160,857.64**			
Quinn,Robert				
	$25,923.40	CIHR Team in Pharmacologic Management of Chronic Diseases in Older Adults II	Co-investigator	2013
	$83,404.87	AHFMR Team Improving the Efficient and Equitable Delivery of Health Care for Chronic Medical Conditions	Co-investigator	2013
	$3,993.52	Access to and outcomes of kidney transplantation in Ontario: Is there a socioeconomic gradient?	Co-investigator	2013

Name	Prorated Amount	Title	Role	Year
	$8,940.00	Complications of Arteriovenous Fistulas, Arteriovenous Grafts and Tunnelled Cuffed Catheters for Hemodialysis: Risk Patterns, Comparability and Impact on Patient Outcomes	Co-investigator	2013
	$6,925.68	Improving risk prediction for mortality and progression to kidney failure in older adults using eGFR and proteinuria	Co-investigator	2013
	$3,500,000.00	Canadian Network for Observational Drug Effect Studies (cNODES)	Co-investigator	2013
	$157,775.02	ICES Kidney, Dialysis and Transplantation Research Program	Co-investigator	2013
	$33,333.33	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	2013
	$32,000.00	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	2013
	$387,244.50	The New Ontario Health systems research program and kidney, Dialysis and transplantation: Knowlege user decision support.	Co-investigator	2013
	$6,485.92	Predicting the need for community care for chronic kidney disease following hospitalization with acute kidney injury	Co-investigator	2013
Sum	**$4,246,026.23**			
Rabi,Doreen				
	$22,008.00	Gender and sex determinants of premature coronary artery syndrome (GENESIS PRAXY)	Co-PI	2013
	$78,571.43	Population Health Investigator Award	* Recipient	2013
	$240,700.00	Team Funds: Alliance of Canadian Health Outcome Researchers in Diabetes	Co-investigator	2013
	$83,333.33	Economic evaluation of intense blood pressure targets in type 2 diabetes	Co-investigator	2013

Name	Prorated Amount	Title	Role	Year
	$200,000.00	GENESIS PRAXY (Genderand Sex determinants of Cardiovascular Disease: From Bench to Beyong premature acute coronary syndrome	Co-investigator	2013
	$6,221.14	Improving efficiency and access in diabetes care through e-communications: Developing a framework for clinical and technology policy.	Principal/Senior	2013
	$5,000.00	Optimizing physician training in movitational interviewing (MI) to improve MI competency, patient health behaviours and morbidity among patients with cardiovascular and chronic lung disease	Co-investigator	2013
Sum	**$635,833.90**			
Rabin,Harvey				
	$31,644.44	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	2013
	$209.00	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	2013
	$15,926.25	Cystic Fibrosis Clinic Incentive Grant	Principal/Senior	2013
	$47,585.25	Cystic Fibrosis Clinic Incentive Grant	Principal/Senior	2013
Sum	**$95,364.94**			

Name	Prorated Amount	Title	Role	Year
Raman,Maitreyi				
	$10,951.29	Olimel and Custom Compounded Parenteral Nutriton Prescriptions May be Used Interchangeably in Hospitalized Patients Requiring Parenteral Nutrition.	Principal/Senior	2013
	$3,586.96	A Randomized Clinical Trial of Home Enteral Nutrition Supplementation in Advanced Cirrhotic Patients Awaiting Liver Transplant (Malnutrition Clinic Study)	Principal/Senior	2013
	$2,708.33	High Risk Malnutrition Clinic	Principal/Senior	2013
	$1,354.17	High Risk Malnutrition Clinic	Principal/Senior	2013
	$2,708.33	High Risk Malnutrition Clinic	Principal/Senior	2013
	$2,500.00	High Risk Malnutrition Clinic	Principal/Senior	2013
Sum	**$23,809.08**			
Ravani,Pietro				
	$663,937.20	The BK:KIDNI Trial (BK:Kinase Inhibition to Decrease Nephropathy Intervention Trial)	Co-investigator	2013
	$486,111.17	Canadian Network for Observational Drug Effect Study (cNODES)	* Team Member	2013
	$833,415.33	Improving the Efficient and Equitable Care of Patients with Chronic Medical Conditions: The Interdisciplinary Chronic disease Collaboration (ICDC)	Co-investigator	2013
	$55,000.00	Emerging Research Team Grant Program: "Biomarkers of Viral Pathogenesis"	Co-investigator	2013
	$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	2013
	$18,494.33	Improving Risk Prediction for Mortality and Progression to Kidney Failure in Older Adults Using eGFR and Proteinuria. Co-applicant with Brenda Hemmelgarn.	Co-investigator	2013
	$15,999.84	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	2013

Name	Prorated Amount	Title	Role	Year
	$18,000.00	Outcomes of patients transitioning from transplant to dialysis	Principal/Senior	2013
	$9,000.00	Risk of cancer in patients transitioning from transplant to dialysis	Principal/Senior	2013
Sum	**$2,131,957.87**			
Rioux,Kevin				
	$11,666.67	Etiology of the Inflammatory Bowel Disease: Genetic, Microbial and Environmental Interactions	* Team Member	2013
	$6,666.67	Fecal Calprotectin for Quality of Care Improvement in IBD	Principal/Senior	2013
Sum	**$18,333.33**			
Robertson,Lynne				
	$85.38	" Sun and Skin Safety Awareness"	* Project Mentor	2013
	$971.22	"Sun and Skin Safety Awareness"	* Project Mentor	2013
Sum	**$1,056.60**			
Sam,David				
	$2,186.27	Real-Time Clinical Audit for the Medical Disorders in Pregnancy Program: Clinical Database. Hardware and Software Requirements.	Co-investigator	2013
	$9,729.73	Real-Time Clinical Audit for the Medical Disorders in Pregnancy Program: Clinical Database. Hardware and Software Requirements.	Co-investigator	2013
	$9,000.00	Utilization of LMWH for Prevention and Treatment of Venous Thrombosis During Pregnancy.	Co-investigator	2013
Sum	**$20,916.00**			

Name	Prorated Amount	Title	Role	Year
Sargious,Peter				
	$152,149.00	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	2013
	$76,076.31	Exploring the Medical Teaching Unit Preceptor Role.	Co-investigator	2013
	$13,846.15	Exploring the Medical Teaching Unit Preceptor Role.	Co-investigator	2013
	$108,135.57	ACCEPT	Co-investigator	2013
	$454,545.45	W21C AIHS Team Grant	Co-investigator	2013
Sum	**$804,752.48**			
Sayani,Farzana				
	$2,441.20	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	2013
Sum	**$2,441.20**			
Schaefer,Jeffrey				
	$2,352.94	Comprehensive Assessment of Procedural Skills in Internal Medicine. Ma I, Bacchus M, Schaefer J, Walzak A.	Co-investigator	2013
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	2013
Sum	**$1,161.17**			
Seow,Cynthia				
	$9,000.00	Psychological Distress and Cortisol Among Pregnant Women with Inflammatory Bowel Disease	Co-investigator	2013
Sum	**$9,000.00**			

Name	Prorated Amount	Title	Role	Year
Sigal,Ron				
	$75,000.00	Action to Control Cardiovascular Risk in Diabetes—International Ongoing Study (ACCORDION)	Site/Local PI	2013
	$64,271.19	EXSCEL trial - Calgary Clinical Site	Site/Local PI	2013
	$48,345.19	Resistance Exercise In Already-active Diabetic Individuals (READI)	Principal/Senior	2013
	$47,662.24	The Healthy Eating and Aerobic Resistance Training in Youth (HEARTY) Trial	Principal/Senior	2013
	$7,142.86	Exercise Interventions in Individuals With or At Risk of Diabetes-Research allowance	Principal/Senior	2013
	$14.29	Exercise Interventions in Individuals With or At Risk of Diabetes-Health Senior Scholar Award	Principal/Senior	2013
Sum	**$242,435.76**			
Stinton,Laura				
	$17,500.00	American College of Gastroenterology (ACG) Clinical Research Award	Principal/Senior	2013
Sum	**$17,500.00**			
Storek,Jan				
	$18,125.00	Dosing and Impact on Immunity of Thymoglobulin given to HCT Recipients	Calgary P.I., and P.I.	2013
	$20,066.07	SCOT (Scleroderma-Cyclophosphamide or Transplantation?) trial	Site/Local PI	2013
	$1,666.67	Team Grant on Biomarkers of viral pathogenesis in transplant recipients	Co-investigator	2013
	$16,216.22	Biomarkers of Chronic Graft-vs-Host Disease	Site/Local PI	2013
	$125,000.00	Toward Improved Outcomes of ATG-Conditioned Hematopoietic Cell Transplantation	Principal/Senior	2013
	$125.00	IL-10 gene profile of allogeneic HCT donors as a biomarker of GVHD", P.I.: F.Khan, J.Storek is a co-investigator, 2013-2015, C$9,825	Co-investigator	2013

Name	Prorated Amount	Title	Role	Year
	$500.00	CIHR Team Grant on Solid Organ and Hematopoietic Cell Transplantation (Canadian National Transplant Research Program), section on Viral Pathogenesis in Transplantation, Overall PI: L.West, J.Storek is a co-applicant, 2013-2018, Overall budget C$14,000,000	Co-investigator	2013
Sum	**$181,698.96**			
Storr,Martin				
	$833,333.33	AHFMR Team Grant	Co-investigator	2013
Sum	**$833,333.33**			
Street,Lesley				
	$4,800.00	"ISACAN/Confocal Endomicroscopy as Novel Endoscopic Technique for Evaluating Gastric and Intestinal Lymphoma"	Co-PI	2013
Sum	**$4,800.00**			
Swain,Mark				
	$58,650.00	The role of CXCR3 and CCR1/CCR5 chemokine receptor ligands in experimental T cell mediated hepatitis.	Principal/Senior	2013
	$102,990.00	Regulatory role of NK cells in the hepatic innate immune response.	Principal/Senior	2013
	$43,200.00	Regulatory role of liver recruited myeloid derived suppressor cells in response to hepatic NKT cell activation.	Principal/Senior	2013
	$94,736.84	A translational approach to understanding and managing primary sclerosing cholangitis.	Principal/Senior	2013
Sum	**$299,576.84**			
Thakrar,Mitesh				
	$13,785.60	Is epidemic Pseudomonas aeruginosa infection in patients with cystic fibrosis a risk factor for poor clinical outcome following lung transplantation?	Co-investigator	2013
	$6,250.00	The Effects of Iyengar Yoga in Patients with Pulmonary Arterial Hypertension	Co-PI	2013
Sum	**$20,035.60**			

Name	Prorated Amount	Title	Role	Year
Tibbles,Lee Anne				
	$622,441.13	The BK: KIDNI Trial (BK Viremia: Kinase Inhibition to Decrease Nephropathy Intervention Trial)	Principal/Senior	2013
	$29,250.00	Proinflammatory and Profibrotic Mechansims of BK Virus and Potential Therapeutics based on mTOR Inhibition	Principal/Senior	2013
	$65,780.00	Clinical Trial External Monitoring Support	Principal/Senior	2013
	$192,772.80	Effect of Immunosuppressive Medication Use On Patient Outcomes Following Kidney Transplant Failure	Co-investigator	2013
	$1.25	Novel Markers to Improve the Detection of Declining Kidney Function	Co-investigator	2013
	$370,532.50	The Canadian ACE-inhibitor trial to improve renal outcomes and patient survival in kidney transplantation	Co-investigator	2013
	$75,000.00	Biomarkers of Viral Pathogenesis	Principal/Senior	2013
	$75,000.00	The Canadian National Transplant Research Program: Increasing Donation and Improving Transplantation Outcomes	Co-investigator	2013
	$125.00	Collaborative Team - Letter of Intent AIHS CRIO Team Letter of Intent Competition	Co-investigator	2013
Sum	**$1,430,902.68**			
Tremblay,Alain				
	$120,995.53	Early Detection of Lung Cancer - A Pan Canadian Study	Principal/Senior	2013
	$9,230.77	“Does Bronchial Thermoplasty result is long-term structural changes in the airway?”	Co-investigator	2013
	$12,165.11	Evaluation of endobronchial ultrasound sampling devices.	Principal/Senior	2013
Sum	**$142,391.41**			
Vaughan,Stephen				
	$9,375.00	Spectrum Calgary	Co-investigator	2013
	$10,000.00	Geosentinel	Co-investigator	2013
Sum	**$19,375.00**			

Name	Prorated Amount	Title	Role	Year
Walker,Brandie				
	$30,000.00	A CRE managed clinic for patients with COPD considered to be high risk for hospital admission.	Co-PI	2013
Sum	**$30,000.00**			
Wong,Norman				
	$98,073.67	Endocrinology (Thyroid, D.M. & Lipids) - Enhancement Research	Principal/Senior	2013
	$84,063.14	Endocrinology (Thyroid, D.M. & Lipids) - Enhancement Research	Principal/Senior	2013
	$84,063.14	Endocrinology (Thyroid, D.M. & Lipids) - Enhancement Research	Principal/Senior	2013
Sum	**$266,199.95**			
Zarnke,Kelly				
	$1,153.85	POISE 2: Peri-operative Ischemic Evaluation Study	Co-investigator	2013
	$12,000.00	2012 May - 2014 May. Dr Jane Lemaire. Exploring the Dimensions of the Medical Teaching Unit Preceptor Role. University of Calgary Faculty of Medicine Bridge Funding Committee.	Co-investigator	2013
Sum	**$13,153.85**			
Grand Total		**$56,441,607.86**		