

DEPARTMENT OF MEDICINE

ANNUAL REPORT

April 1, 2009 - March 31, 2010

OUR VISION

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

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EXECUTIVE SUMMARY

The Department of Medicine has 270 members of whom 174 are in the Alternate Relationship Plan (ARP). There are 10 Divisions within the Department and each Division is led by a Zone Clinical Division Chief. Divisions with In-Patient beds also have Site Division Chiefs. Each acute care site is represented by a Department of Medicine Site Chief. There are 105 residents in the 11 residency programs (1 Core Internal Medicine and 10 subspecialty programs).

During the fiscal 2009-2010 year, The Department of Medicine has continued to focus on its vision and mission through recruitment and retention, increasing its training programs, optimizing the quality of care, providing leadership in evolving systems of healthcare, enhancing chronic disease management, further embracing medical outreach services for rural Albertans and vulnerable populations and building the research infrastructure of the Department.

Recruitment and Retention

- Seventeen (17) new members were recruited to the Department (9 Major Clinical, 5 GFT, 3 Clinical Scholars).
- Recognition event to honour mentors was developed
- Physician Wellness and Vitality portfolio built on its success by developing WellDoc? Module 2 to evaluate the impact of biofeedback on physician stress

Leadership

- New Division Chiefs were recruited for Rheumatology (Dr. Dianne Mosher, Halifax, NS) and Infectious Diseases (Dr. Donna Holton, Calgary).

Clinical

- 8,449 inpatients were admitted to Department of Medicine services, an increase of 4% from fiscal year 2008-2009
- Consults from the Emergency Department (ED) to admission time remained stable at 3-4 hours across all 3 acute care sites
- The Medicine Psychiatry Unit opened at the Peter Lougheed Hospital in May 2009 with >90% occupancy and improvements in length of stay (LOS) and readmission rates.
- Continued improvement in patient outcomes in selected populations, including improved access and improved clinical outcomes, through the Department's innovation initiatives.
- Medical Access to Service (MAS) expanded to 51 clinics/programs extending to the Departments of Neurosciences and Cardiac Sciences. A Priority Referral Score (PRS) was developed and evaluated for 4 medical subspecialties.
- Expansion of Telehealth clinics in Dermatology to Northern Alberta, High Level and surrounding catchment area.
- Developed collaborative models of care with Family Medicine including Satellite Hypertension Clinics.
- Developed outreach programs to First Nations communities and inner city populations

Education

- The number of positions in the Core Internal Medicine Residency Program increased to 63 (fiscal 08-09 was 59) including IMG positions.
- The number of positions within the Subspecialty Residency Programs within the Department of Medicine increased to 42 residents and fellows (fiscal 08-09 was 37).
- New Dermatology residency program was approved for July 2010
- Active engagement in AIMG Program has continued, including 16 Alberta International Graduates entering the core program.
- Simulation is an educational priority for the Department.
- New Health of Special Populations rotation to First Nations and CUPS implemented

Research

- 1033 articles, editorials and invited reviews published in peer reviewed journals
- 305 articles published in non-peer reviewed journals
- 907 invited presentations
- \$71.1 million in research grants

Challenges and Opportunities

- Meeting workforce planning targets
- Space availability – clinical and office(low/no new cost move into RRDTC)
- South Health Campus
- Lack of coordinated single database for Alberta for quality and clinical activity data
- Renewal of ARP and/or new provincial AARP
- Ensuring clinical and clerical AHS staffing keep pace with physician recruitment and population/patient growth

Departmental Priorities

- Expand our collaboration with PCNs to develop models of care for patients with chronic diseases.
- Enhance Outreach Services to First Nations, inner city populations and rural Albertans.
- Determine optimal service delivery across the continuum of care, focusing on improving access and decreasing wait times.
- Recruitment to meet clinical service requirements for population growth and the new South Health Campus.
- Developing innovative short term space solutions such as shared office space and the virtual office.
- Support simulation planning, implementation and evaluation.
- Support the development of an electronic scheduling system in outpatient clinic

DEPARTMENT OF MEDICINE – STRUCTURE AND ORGANIZATION

Fiscal Year: April 1, 2009 – March 31, 2010

Department Head	Dr. John Conly
Deputy Head	Dr. C. Maria Bacchus

Site Chiefs

Foothills Medical Centre	Dr. C. Maria Bacchus
Peter Lougheed Centre	Dr. Elizabeth MacKay
Rockyview General Hospital (Interim)	Dr. John Conly

Division Chiefs

Endocrinology & Metabolism	Dr. Alun Edwards
Geriatric Medicine	Dr. Karen Fruetel
Gastroenterology	Dr. Subrata Ghosh
Dermatology	Dr. Richard Haber
Infectious Diseases	Dr. Donna Holton
Respiratory Medicine	Dr. Christopher Mody
Rheumatology	Dr. Dianne Mosher
Nephrology	Dr. Nairne Scott-Douglas
Hematology & Hematological Malignancies	Dr. Douglas Stewart
General Internal Medicine	Dr. Robert Herman

Education Directors

PGME Director	Dr. Otto Rorstad Dr. Jeffrey Schaefer
Clerkship Director	Dr. Marcy Mintz
CME Directors	Dr. Bernie Corenblum Dr. David Lau

Quality

QI Lead	Dr. Elizabeth MacKay
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WORKFORCE PLANNING FOR 2009-2010

Internal Medicine Workforce Plan

Internal Medicine has continued to recruit new members to meet its clinical, education and research needs with the support of its Academic Alternate Relationship Plan (AARP). As at March 2009, the AARP approved workforce plan was 204.95 FTE. This includes 25.8 members of the AARP that are Cardiologists in the Department of Cardiac Sciences. The actual AARP members at March 2009 were 197 members working 177.3 FTE.

The following were Internal Medicine recruits and departures in this year:

RECRUITMENT FOR 2009-2010								
Division	Surname	First Name	Start Date dd/mm/yyyy	ARP	University Appointment	Gender	FTE	Arrived From
Dermatology	Robertson	Lynne	01/09/2009	Yes	Clinical Assistant Professor	Female	1.0	Halifax
Endocrinology	Butalia	Sonia	01/07/2009	Yes	Clinical Scholar	Female	0.3	Toronto
Gastroenterology	Leung	Yvette	01/04/2009	Yes	Clinical Assistant Professor	Female	0.6	Calgary
	Meddings	Jon	01/07/2009	Yes	Professor	Male	1.0	Edmonton
	Novak	Kerri	01/05/2009	Yes	Clinical Assistant Professor	Female	0.8	Vancouver
General Internal Medicine	Ma	Irene	01/08/2009	Yes	Assistant Professor	Female	1.0	Vancouver
	Jordon	Michaela	01/08/2009	Yes	Clinical Assistant Professor	Female	1.0	Calgary
Hematology	Owen	Carolyn	01/04/2009	Yes	Assistant Professor	Female	1.0	Toronto
Infectious Diseases	Kim	Joseph	01/07/2009	Yes	Clinical Assistant Professor	Male	0.8	Calgary
	Janvier	Jack Jr	01/11/2009	Yes	Clinical Assistant Professor	Male	0.75	Saskatoon
Nephrology	James	Matthew	01/07/2009	Yes	Assistant Professor	Male	1.0	Calgary
	Quinn	Robert	01/08/2009	Yes	Assistant Professor	Male	1.0	London, Ont.
	Tai	Davina	01/08/2009	Yes	Clinical Scholar	Female	0.65	Saskatoon
Respirology	Loewen	Andrea	01/01/2010	Yes	Clinical Assistant Professor	Female	0.8	Vancouver
	Roman	Michael	01/08/2009	Yes	Clinical Assistant Professor	Male	1.0	Calgary
Rheumatology	Fifi-Mah	Aurore	02/11/2009	Yes	Clinical Scholar	Female	0.3	Paris, France
	Mosher	Diane	15/08/2009	Yes	Clinical Professor	Female	1.0	Halifax
Count	17						14	

DEPARTURES FOR 2009-2010

Division	Surname	First Name	Departure Date dd/mm/yyyy	ARP	University Appointment	Gender	FTE	Moved to
General Internal Medicine	Datta	Partha	31/07/2009	YES	Clinical Assistant Professor	Male	1.0	Markham ON
	Forzley	Brian	30/10/2009	YES	Clinical Scholar	Male	0.4	Penticton BC
Hematology	Jackson	Shannon	15/06/2009	YES	Clinical Scholar	Female	0.3	Vancouver BC
	Jones	Allan	31/08/2009	YES	Professor	Male	1.0	Kelowna BC
Respirology	Ainslie	Martha	31/12/2009	YES	Clinical Assistant Professor	Female	0.8	Winnipeg MB
Rheumatology	Fahlman	Nicole	31/07/2009	YES	Clinical Lecturer	Female	1.0	Regina SK
Count	6						4.5	

The Department of Internal Medicine workforce plan initially created in 2004 at the start of the AARP and renewed in 2007 has now become outdated. The Department is starting the project of creating a new workforce plan that will include the TIPS goals and the new South Campus.

DEMOGRAPHICS OF THE DEPARTMENT OF MEDICINE

	Derm		Endo		GI		GIM		Geri		Hem		ID		Renal		Resp		Rheum		TOTAL	
Gender	M	15	M	11	M	35	M	39	M	7	M	14	M	13	M	19	M	23	M	8	M	184
	F	7	F	11	F	11	F	19	F	4	F	7	F	3	F	8	F	6	F	10	F	86
FTE	22.0		19.3		44.0		55.8		8.2		18.5		13.5		25.7		27.5		15.4		249.9	
Average Age	54.8		46.8		46.6		48.3		51.5		49.3		50.2		48.1		49.4		55.8		49.4	
Recruits	1		1		3		2		0		1		2		3		2		2		17	
Resignees	0		0		0		2		0		2		0		0		1		1		6	
No University Appointment	2		1		3		0		1		0		1		0		0		0		8	
Clinical Scholar	0		3		0		4		0		1		1		3		1		2		15	
Clinical Lecturer	3		0		1		6		0		0		0		1		0		0		11	
Clinical Assistant Professor	6		6		11		23		5		6		3		5		12		2		79	
Clinical Associate Professor	6		1		6		11		0		2		2		4		5		3		40	
Clinical Professor	0		0		2		3		1		2		0		0		1		2		11	
Research Assistant Professor	0		0		1		0		0		0		0		1		0		0		2	
Assistant Professor	2		3		9		4		1		5		0		7		3		1		35	
Associate Professor	3		2		6		3		2		1		5		4		1		2		29	
Professor Incl. Tenure	0		6		6		4		1		4		4		2		6		5		38	
Adjunct/ Emeritus Professor	0		0		1		0		0		0		0		0		0		1		2	
TOTAL	22		22		46		58		11		21		16		27		29		18		270	
ARP Member	5		18		30		29		10		17		13		16		21		15		174	

Please note these tables do not include data from the Department of Oncology

Medical Access to Service - Annual Report

Fiscal Year: April 1, 2009 – March 31, 2010

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

- Revision of the Central Access and Triage guide to include a total of **51** clinics/programs/divisions. New additions include Division of Clinical Neurosciences, Women's Health, Chronic Pain Clinic, Diabetes, Hypertension and Cholesterol Centre, Vascular Risk Reduction, Cardiac Function Clinics, and Women's Health
- Revision of the Central Access and Triage Form so it is a writable pdf with a drop down menu for clinics and fax numbers
- Developing Standards of Practice for the Central Access and Triage
- Developing policies and procedures for clinics currently participating in Central Access and Triage and considering joining
- Working with the DOM on providing improved feedback on referral demand, appointment supply and clinic utilization
- Working with divisions and clinics to further clarify their referral requirements
- Working with different divisions to develop IT strategies to reduce the rework that is associated with Central Access and Triage. Nephrology has been successful with developing a paper free system which allows for offsite electronic triage and chart retrieval
- Supporting the team implementing scheduling systems to include referral and waitlist management capabilities
- Completed a dashboard of participating Central Access and Triage teams – looking at clinic's ability to meet the Standards for Central Access and Triage, current technologies being used, and referral/appointment volumes
- Participating in the Access to Primary and Specialty Care Steering Committee and Working Groups – currently working on possible models to improve access province wide
- Participating in the Access from Primary to GI Specialty Care Steering Committee to create uniform provincial criteria for referrals, with minimum data requirements for both triage and seeing the patient
- Creation of a standard IT platform for all working in GI (EMR / referral / intake via Netcare)
- Development of an Alberta GI and endoscopy resource plan integrated with the Provincial Colon Cancer Screening Program
- Continuing to advocate for operational funding for the Medical Access to Service Project

Priority Referral Scoring Tools

Good progress has been made on the development of Priority Referral Scores (PRS) for four medical sub-specialties: Rheumatology, Gastroenterology, Nephrology, and Geriatric Medicine. The Rheumatology PRS was pilot-tested from October 7 until December 7, 2009. Whenever a referral was sent to Central Triage, the family physician was asked to complete a PRS. There were 356 PRS forms completed. Higher PRS scores were correlated with higher triage category (assigned by the Triage nurse, who was blinded to the PRS score), higher urgency as assessed by the family physician, and shorter maximum acceptable wait times. Many physicians wrote positive comments about the PRS. The Gastroenterology PRS tool has undergone inter- and intra-rater reliability testing with a panel of gastroenterologists. Inter-rater reliability in using the PRS to score 14 paper cases was good, and the PRS compared well with the gastroenterologists' rank orders. One paper was published, on the literature review conducted for the Nephrology PRS, and another, focused on the formulation of the Rheumatology PRS, has been accepted for publication.

Access, Improvement, Measurement (AIM) Collaboratives

The 2nd Calgary AIM collaborative concluded in December 2009. Clinics that participated were able to decrease wait times, streamline processes and decrease patient time spent in clinic. The participating clinics have been encouraged to continue AIM activities following the completion of the collaborative.

The 3rd Calgary AIM collaborative started in November 2009 and concluded in January 2010. The specialty focus for this collaborative has been Cardiac Function Clinics and Mental Health Clinics. Using the learnings from MAS, all of the Cardiac Function Clinics have worked together to develop consistent guidelines for referral, triage and discharge of patients. They are also working on improving their IT resources to better support their clinic processes. Mental Health has been working on developing better communication between the participating clinics and using IT solutions to better measure their demand and supply.

The AIM project is now being supported provincially by Alberta AIM. There are currently three collaboratives underway (Calgary, Medicine Hat, and Edmonton) with plans for four more collaboratives.

Standards for Central Access and Triage

Communication

- Participating clinic will provide faxed confirmation to referring physician that referral has been received within two working days
- 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
- All initial appointments will be booked through the CAT team
- Triage is to be done by the triage clinician, with assistance from the triage specialist
- Triage teams have relief staff trained

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
- No internal tests are conducted/all tests are requisitioned from Primary Care physician office

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
- Referrals awaiting further information should be less than 10% of all referrals

Department of Medicine - Telehealth/E-health - Annual Report

Fiscal Year: April 1st 2009-March 31, 2010

Telehealth is well received among many DOM participants, with statistics displaying a steady increase in total Telehealth sessions. However, Divisions such as Endocrinology, General Internal Medicine, Respiratory-Sleep centre and Hematology-thrombosis continue to show declining numbers in Telehealth clinical activities due to a host of factors:

1. **Staffing:** The constant turn-over of administrative assistants suggests that clinics are struggling continuously with hiring and training of net new staff, which delays the effectiveness and the consistency of services
2. **Fewer referrals from far site communities** due to general practitioner turnover in the rural sites. When these rural physicians leave their practice, their replacements are sometimes unaware of this Telehealth service. As a result, patients are not offered the option to follow-up with specialists in Calgary via Telehealth
3. **Type of consult:** Some patients and clinicians are reluctant to have their initial consult through Telehealth (due to required clinical hands-on examinations or preference for a face to face encounter). However, clinical follow-up appointments for ambulatory/outpatient patients are readily accepted and easily accommodated via Telehealth

Strategies to improve Telehealth in DOM

Physicians and clinical teams are actively involved in seeking out ways to increase referrals. The Division of Hematology has been working with the Residency Program Director to discuss ways to increase referral numbers. Respirology is working with the Director of the Sleep Centre to increase their referral numbers. In addition, Telehealth review and discussions at key Division meetings are scheduled for the Fall. Clinicians from various professional domains (social workers, dieticians, NPs, nursing, etc) are also looking to support the work they do within their clinical areas and are encouraged to think of ways to support clinical care to their patients over videoconferencing. Foothill Medical Centre (FMC) site based clinical Telehealth facilitators are also a key component to building relationships with Divisions for the steady introduction and adoption of Telehealth technology in practice areas.

Alberta Health Services (AHS) IT Telehealth continues to work with all clinical stakeholders and leads, within the zones and throughout Southern Alberta in order to find ways to help increase access to and support for patients to receive medical and specialty care through Telehealth. Educating frontline administrative assistants on ways to identify patients who are travelling significant distances for care has been a strategy for increased Telehealth awareness and offering of virtual appointments. In addition, marketing and promoting Telehealth for follow-up consults to patients in remote and rural communities is seen by most clinical divisions as a useful strategy. Provincial strategic development plans within portfolios are also considering the use of technology for care and will look to Telehealth as a tool to support their operational endeavors.

New Production

For this past fiscal year, the Division of Dermatology under the leadership of Dr. Richard Haber, is now providing services to Northern Alberta, High Level, and the surrounding catchment area. This is an addition to existing Telehealth monthly clinics to areas in Southern Alberta, specifically to Clareshom, and to the community of Siksika First Nation. Including this new northern Alberta site, dermatology consults by Telehealth will be provided three times a month.

Cardiac sciences have sought out Telehealth as a tool to reach south zone, central zone, and BC patients in Lethbridge, Red Deer, Creston, and Cranbrook. The Arrhythmia clinic physician lead and nurse educator identified two models of potential service to support their cardiac atrial fibrillation patients. These models include: AFib/SVT and ablation education classes and direct patient consult and follow-up clinics via Telehealth. Clinical process / algorithms are drafted for each model and there is the anticipation of a first direct patient follow up consult via Telehealth for early October 2010.

Transplant medicine is now using Telehealth for direct patient care. AHS Telehealth has identified the multidisciplinary team including social workers, nurse clinicians, pharmacists, and physicians to support their patients in remote sites. The liver transplant group embraced the use of videoconferencing (Telehealth) for their weekly patient case reviews between Calgary and Edmonton. Their social work department also adopted Telehealth to consult with patients dialyzing in remote communities. ALTRA identified Telehealth as a useful tool to provide care to their clients. Michelle Gabriel, the nurse clinician will use Telehealth to reach out to patients on the waiting list for pancreas and kidney transplants.

Physician Wellness and Vitality – Annual Report

Fiscal Year: April 1, 2009 – March 31, 2010

Background

It has been 6 years since the portfolio of Vice Chair, Physician Wellness and Vitality has been created within the DOM. Upon reviewing the terms of reference for this position, the intention was to identify and improve work-life balance issues for members of the Department, to promote wellness, and to approach this task in a scholarly fashion. The following document summarizes the activities since April 2009 in collaboration with Professor Jean Wallace from the Department of Sociology, University of Calgary (U of C).

Research

The Well Doc? Initiative was created as a vehicle to research and promote physician wellness issues. Well Doc? Module 1 is a study exploring the association between nutrition and cognition. Twenty FMC staff physicians told us how poor workplace nutrition made them feel unwell and impacted their ability to perform well at work, and how a simple intervention like eating and drinking greatly improved both of these parameters. Objective testing confirmed that their brains worked better when well nourished! The results of this study have been shared with the participants, the Division and Department chairs, and leaders within AHS. The Alberta Medical Association's (AMA's) Physician and Family Support Program incorporated the results of this study into the promotion of healthy workplace nutrition at several of their provincial conferences. We presented the results of the study at the International Conference of the Society of General Internal Medicine in May 2010. The final manuscript was published in the journal BMC Health Services Research in August 2010. Well Doc? Module 2 is a randomized controlled trial of 40 physicians designed to assess the impact of a portable biofeedback on physician stress. The results of this study will be presented at the International Conference on Physician Health (Chicago Oct 2010).

In 2005, we conducted interviews with 54 Internal Medicine physicians from the DOM. Based on these qualitative interview data, we recently published a four part series in the Canadian Journal of General Internal Medicine entitled "Reflections from internal medicine physicians". (Well Doc? What constitutes quality of life for physicians?; Well Doc? What are sources of work stress for physicians?; Well Doc? How do physicians cope with workplace stress?; Well Doc? What are the most satisfying aspects of work for physicians?). This series of articles disseminated the internists' wisdom and insight regarding their work/life balance. Similarly, we recently published a manuscript in BMC Health Services Research describing how physicians cope and how those coping strategies are associated with burnout. Again, this research is from a local study of almost 1200 colleagues from various disciplines.

We have also expanded our study of wellness to include other health care providers. We assessed the impact of the introduction of the SCM computer based patient care system on the health care providers on the Ward of the 21st Century (W21C), Unit 36 at the FMC. Through job observations, interviews, and surveys, we were able to understand how the providers viewed the introduction of the new system in terms of patient care issues, and their personal stress and wellness. The study also provided insight about the effectiveness of the training the health care providers received leading to the implementation of Sunrise Clinical Manager (SCM). A manuscript detailing the results of the study is currently in press in the International Journal of Health Information Systems and Informatics. We conducted a similar study assessing the introduction of Vocera, a hands free communication device implemented on Unit 36, the results of which are currently being analyzed.

More and more research is being published that supports a link between physician wellness and quality of patient care. We interviewed 42 physicians from different specialties across the former Calgary Health Region and asked them about their perceptions of this link. It was interesting to note that although intuitively physicians recognize there must be a link between their wellness and their ability to perform their very difficult work tasks, most often disregard their personal wellness because of their work overload, sense of professionalism, and work ethic. We published a paper related to this interesting dichotomy, where physicians know they must be well to work, but work too hard and too earnestly to take the time to care for themselves. (Psychology, Health and Medicine November 2009). Stemming from these concepts, Drs. Wallace, Ghali, and I co-authored a review article that was published in the Lancet (November 2009) proposing that physician wellness may be a missing quality indicator in that unwell physicians pose harm not only to themselves but also to the systems in which they work.

Education

We were invited to contribute two chapters to the Royal College of Physicians and Surgeons of Canada CanMEDS Physician Health Guide, one on stress and coping, and one focused on workplace nutrition. This handbook is being widely distributed as a resource for teaching wellness within the training programs and offering practical suggestions to dealing with the challenges of our profession. In addition, we have had the privilege of speaking at over 20 venues, with the audience ranging from post graduate medical trainees (e.g. emergency medicine, general internal medicine, anaesthesia), staff physicians (e.g. radiation oncology), research forums (e.g. W21C),

annual retreats (e.g. Academic Department of Family Medicine, Obstetrics and Gynecology), and Continuing Medical Education (CME) events and Symposia for the Faculty of Medicine.

Administration

I have had the opportunity to represent physician wellness and vitality through many different avenues. Wellness is now officially a portfolio within the W21C Research and Innovation Centre and Dr. Wallace and I are Co-Leads. I am the U of C representative for the Association of Faculties of Medicine of Canada Resource Group on Physician Health and Well-Being, and an ongoing member of the AMA Physician and Family Support Group Advisory Committee. I am also now a member of the International Alliance for Physician Health.

Final Comments

I am hopeful that all of this makes a difference. I continue to be impressed by how many physicians, other health care providers and leaders in the health care systems take the time to participate in our research endeavors, and how much dialogue around physician wellness surfaces in the hallways, doctors' lounge, in the wards, and in the clinics. Our great challenge remains the achievement of an appropriate balance between advocating for physician wellness, and ensuring the provision of essential clinical and academic (research and education) services. Through our program of research, we have furthered our understanding of the issues. In conjunction, we must support physicians and health systems in implementing meaningful change so that health care providers can be well and perform at their best to deliver quality care.

Internal Medicine Residency Training Program – Annual Report

Fiscal Year: April 1, 2009 to March 30, 2010

The Internal Medicine Residency Program has been very active in educating Specialists and Clinical Teachers to meet the present and future health care needs of society. As of July 1, 2010 our Internal Medicine Residency Program has 70 residents in the “core” PGY 1 to three years with three in the General Internal Medicine PGY 4 year. The Subspecialty Residency Programs within the DOM contribute an additional 65 residents soon to join the medical workforce as independent specialists. In total, the DOM educates 138 residents in its own programs. The Department also provides clinical education to residents from nearly all other residency training programs and our undergraduate medical training program.

In 2010, the Department’s Residency Programs include 18 Alberta International Medical Graduates (AIMG) whose residency level ranges from their first to fifth year of residency. All but one of the AIMG residents had been previously employed by the Calgary Health Region Clinical Assistant Program. The model of International Medical Graduates entering the Clinical Assistant Program and then subsequently Residency education funded by the Provincial Government AIMG Program has been very successful. These AIMG residents represent a substantial incorporation of International Medical Graduates into our health care system. Nine of the AIMG residents will likely be entering specialty practice in the next one to three years.

Parallel to the increasing number of graduating medical students, the number of Government-funded Internal Medicine Residency positions will increase substantially over the next few years. For July 2010 we will be able to offer 23 regular ministry funded PGY 1 positions. Infrastructure support for the increase in number of medical students and residents will include recruitment of new faculty through the very successful Departmental Alternative Relationship Plan, additional clinical space at the Richmond Road Diagnostic and Treatment Centre, additions to the three Calgary Adult Hospitals of about 450 beds, and the new Calgary South Health Campus (SHC) in 2011/2012.

The 23rd Annual Resident Research Days were held on May 10 and 11, 2010 with Dr. Finlay McAlister, Department of Medicine, University of Alberta (U of A), being the guest speaker and judge. He presented Medical Grand Rounds on “Knowledge Translation and the Tipping Point.”

Drs. Olga Tourin, PGY 3 resident in Internal Medicine, and Vicky Parkins, PGY 5 resident in Endocrinology, were co-recipients of the 2009 FMC Medical Staff Resident Leadership Awards. Additionally, our residents have been recipients of awards in medical education, research, and have presented their academic accomplishments at the national and international level.

Among the major initiatives for 2010 onward include the launch of a Health of Special Populations rotation which is intended to improve access to underserved citizens and the development of simulation based training and evaluation.

Dr. Otto Rorstad completed his five-year term as Program Director as of October 1, 2009 Dr. Jeffrey Schaefer (Division of General Internal Medicine) has assumed this role. Dr. Schaefer brings a record of excellence in teaching and medical administration to the program.

Internal Medicine Clerkship Summary – Annual Report

Fiscal Year: April 1, 2009 to March 30, 2010

Class Size Summary:

CLERKSHIP SUMMARY	Class of 2010 (completed clerkship)	Class of 2011 (in progress presently)	Class of 2012 (see dates below)
Total # students with Calgary Clerkship	127 Block 1: 36 Block 2: 34 Block 3: 36 Block 4: 31	147 Block 1: 39 Block 2: 36 Block 3: 38 Block 4: 34	161 details to follow
Students completing rural clerkship (RICC)*	12 (rolled into Blocks 3 and 4)	13 (rolled into Blocks 3 and 4)	17
Total graduated in April 2010 **	137	160	178
Time away for National Interview period (CaRMS)		January 31, 2011-Feb 13, 2011***there will be NO clerks available during this period	
Xmas Holiday		Dec 20, 2010 to Jan 2, 2011	
Additional information		Clerkship ENDS April 10, 2011	Clerkship Begins April 11, 2011

**RICC students complete the majority of their clerkship in the rural setting but return in blocks 3 and 4 to be slotted in to MTU and selective rotations*

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

The increased numbers of clerks for Class of 2011 has been made “easier” by the change in the Internal Medicine Clerkship from 12 weeks to 10 weeks (Class of 2011); two of the 12-week rotation is now taken up by the mandatory 2-week Emergency Medicine Clerkship. The Medical Teaching Units (MTU) at all three sites have consistently taken students for their mandatory four-week rotations. Four to six students are allocated to the MTUs per rotation and are distributed across two to three teams.

The Internal Clerkship functions well due to the dedicated work of the Clerkship Director, Dr. Marcy Mintz, Evaluations Coordinator, Dr Fiona Dunne as well as the six educational assistants Drs. Alex Aspinall, Paul MacEachern, Christine Banage, Michaela Jordan, Jennifer Williams, and Susan Huan. We are also fortunate to have Dr. Hanan Bassyouni create our bedside teaching schedule, recruiting 40 bedside teachers for each Block.

Department of Medicine Quality and Safety - Annual Report

Fiscal Year: April 1, 2009 – March 31, 2010

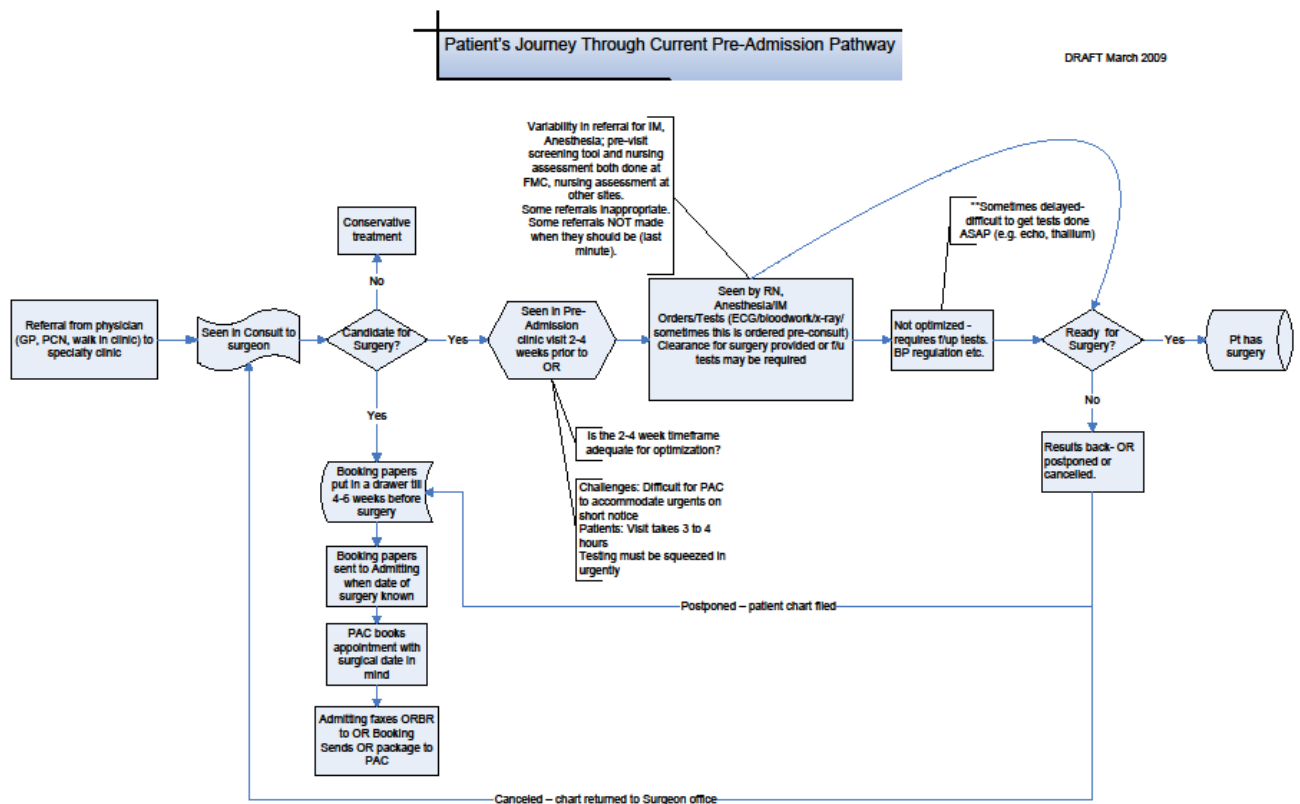
Executive Summary

Quality Improvement (QI) and Patient Safety activities in the Department of Medicine and Medical Services were significantly reduced in the 2009-2010 fiscal year secondary to organizational changes which effectively reduced the team and resources. The QI consultant roles were terminated and the clinical safety leaders, safety learning report reading groups were reallocated. There was continued work in the areas of performance measurement, electronic health record clinical decision support, guideline development, QI education, program evaluation, and clinical safety committees.

1. Preoperative assessment clinic redesign:

- Using flow-mapping, root cause analysis, ideal state mapping and outcome measurement to look at current processes and needs of preoperative assessment to assist in the development of a new clinic at SHC. QI methods used to do flow-mapping and root cause analysis

Figure 1: Flow mapping of current Preoperative Assessment process.



2. Clinical Decision Support:

- Ongoing involvement with SCM orderset development, alerts, reporting through CCDT and CDS committees
- Involvement with SCM Discharge Summary Initiative and Medicine hand-over report
- Heparin Orderset Revision: IV heparin ordersets revision to incorporate weight based dosing for bolus and start up rate for IV heparin. This aligns with IV heparin changes made to cardiology and neurology protocols to improve ability to get to therapeutic anticoagulation as soon as possible

3. Performance Measures:

- Continued work on Departmental Performance Measures including LOS for top CMG's, mortality review, VTE prophylaxis, ED Consultation and admission times, HCAPHS Patient Satisfaction surveys, Readmission rates
- Current measures only available to Departmental Executive and working on making them available on Departmental Website.

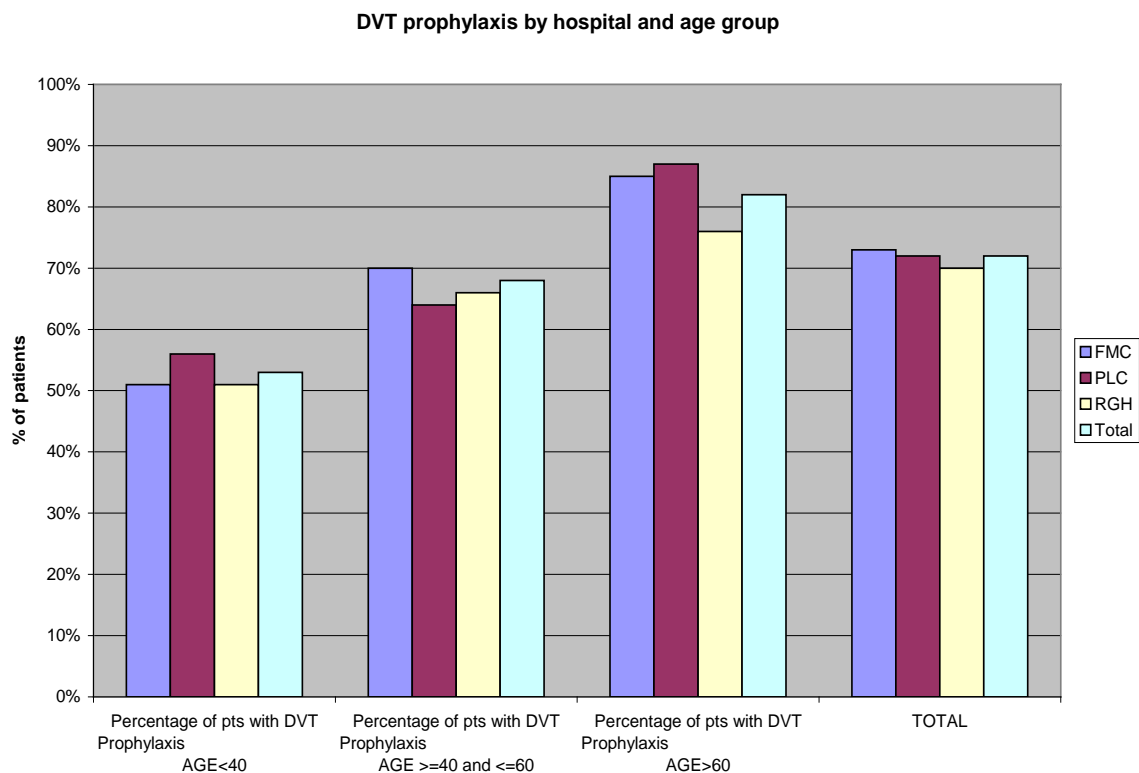
4. QI Inventory:

- Working with divisions to identify current QI/QA initiatives and ongoing needs assessment
- Identified need to collect and communicate learnings from different areas and Divisions
- Looking at different communication methods while still adhering to privacy and confidentiality rules and new organizational changes

5. VTE prophylaxis project:

- Measuring orderset utilization by site, unit and program to provide feedback on use of VTE prophylaxis and provide suggestions for improvement
- Measurement of total and presumed health care associated VTE rates suggests utilization of about 75% for some form of VTE prophylaxis

Figure 2: Calgary Hospital VTE Prophylaxis Use by Site and by Age



6. Internal Medicine Residency QI and Patient Safety Projects:

- A number of residents took part in QI/QA and Patient Safety projects as part of their academic program requirement
- Specific projects include use of basal bolus insulin to improve inpatient glucose control and incidence of hypo/hyperglycemia, developing guidelines around use of thrombophilia testing, guidelines for use of diabetic bloodwork and assessment of documentation of goals of care in acutely ill patients
- Additional projects included development of a care team and clinic for sickle cell disease patients, utilization of testing for celiac disease and evaluation of a chronic kidney disease prevention clinic in the Siksika Nation

7. Clinical Safety Committee:

- Review of safety incidents and safety learning reports (SLRs) for Medical Services
- Identified issues surrounding: Sepsis management, vital signs monitoring and patient transitions, pass and privilege process for formal patients, follow-up of results after patients discharged from hospital
- Looking at most common SLR's from medical units and outpatient clinics to identify important themes/priority areas for further work and improvement

Table 1: Safety Learning Report Trending: Top 20 Categories of Reports for Medical Inpatients 2009

Count of Safety Learning Reports by Problem Category and Facility/Team for
MEDICAL SERVICES from Jan 1, 2009 to Mar 2, 2010

	Foothills Medical Centre	Peter Lougheed Hospital	Rockyview General Hospital	Total
Slips, trips, falls and collisions	439	234	493	1166
Medication Administration or supply from a clinical area	539	194	268	1001
Laboratory investigations	609	186	161	956
Medical device/equipment	78	26	31	135
Connected with the management of operations / treatment	75	10	28	113
Medication preparation/ dispensing in pharmacy	44	39	27	110
Patient's case notes or records	42	29	14	85
Infection control	44	16	15	75
All conditions - medically managed	33	15	23	71
Transfusion and Blood products	36	19	10	65
Communication between staff, teams or departments	41	12	11	64
Respiratory Factor	37	10	11	58
Abuse etc. of Staff by patients	19	2	24	45
Environmental matters	15	16	7	38
Discharge	16	4	16	36
Images for diagnosis (scan/x-ray/other)	17	6	5	28
Medication error during the prescription process	16	2	9	27

Medical-Psychiatry Unit Evaluation Report:

Executive Summary

Overall the Med-Psych Unit Pilot has successfully admitted 220 patients as of October, 2010 since the opening of the unit in May of 2009. The occupancy is now consistently greater than 90% and we are seeing improvements in length of stay and readmission rates when compared to the baseline population generated from prior year admissions to medicine with acute psychiatric issues. We have also demonstrated improved activity on the mental health HONOS measures as well as overall satisfaction with care and good use of outpatient community mental health programs at discharge for those who were admitted to the med-psych unit. We are still developing the measures around complication rates, use of security as well as safety events. We are also still completing the staff satisfaction measures.

Table 1: Main Evaluation Criteria

Evaluation Criteria	Med-Psych Baseline Population Med admission with Psych consultation 2008-2009 (n= 123)	Med-Psych Unit Patients January 2010 to June 2010 (n=75)
Average Length of Stay (days)	18.2	11.6
Median Length of Stay (days)	10	8.8
30 Day readmission Rate (%)	13	7.8
7 Day ED visit rate	7	2.7
Discharge home (%)	63.4	73.3
ICU admissions after admission (%)	6	4
Mortality (%)	5	6.7

Figure 1: Occupancy Rate for Med-Psych Unit October 2009 to August 2010

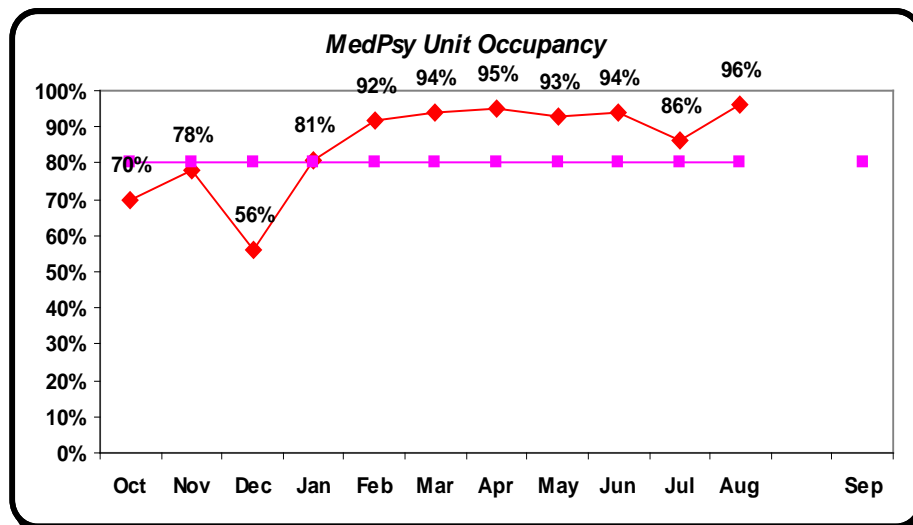


Figure 2: Numbers of Discharges from Med-Psych Unit by month

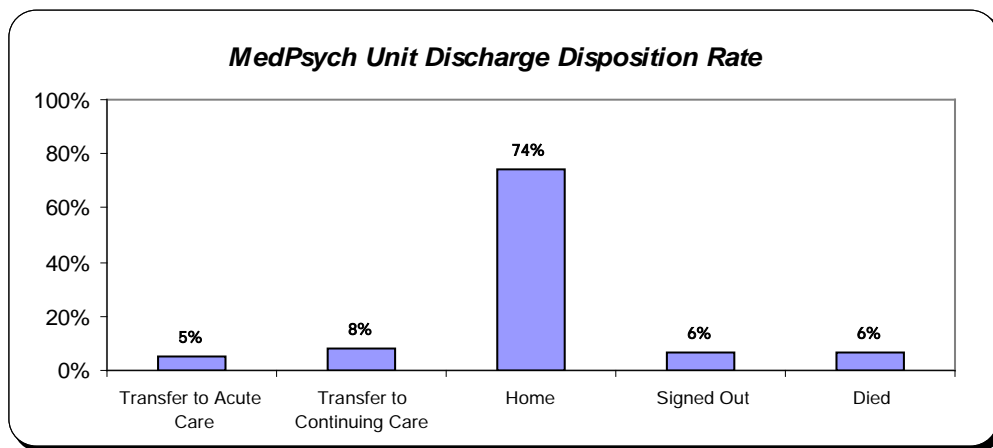
Figure 3: Median Length of Stay on Med-Psych Unit

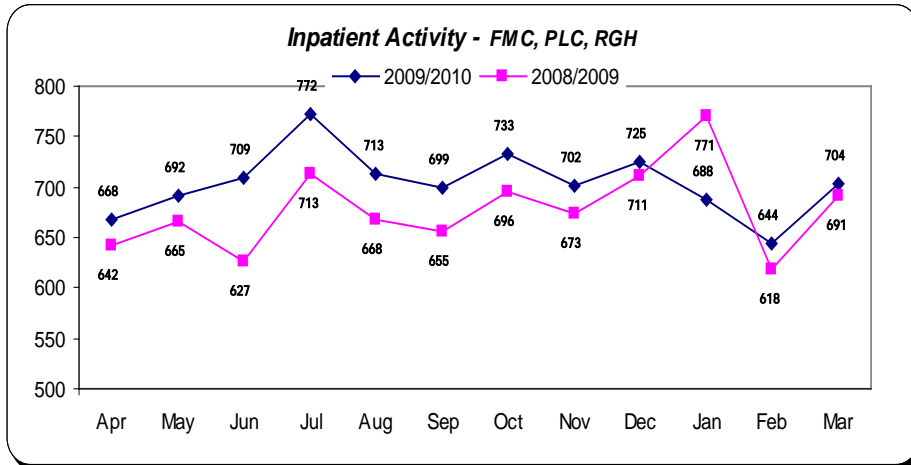
Figure 4: 30 Day Readmission Rate for Med-Psych Unit Patients

Figure 5: 7 Day Readmission Rate for Med-Psych Unit Patients

Figure 6: ICU usage by Med-Psych Unit Patients

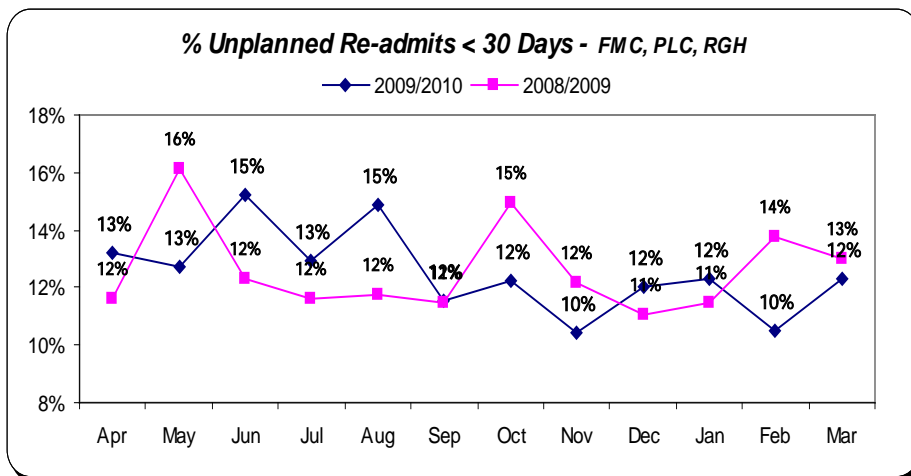
Figure 7: Discharge Disposition of Med-Psych Unit Patients



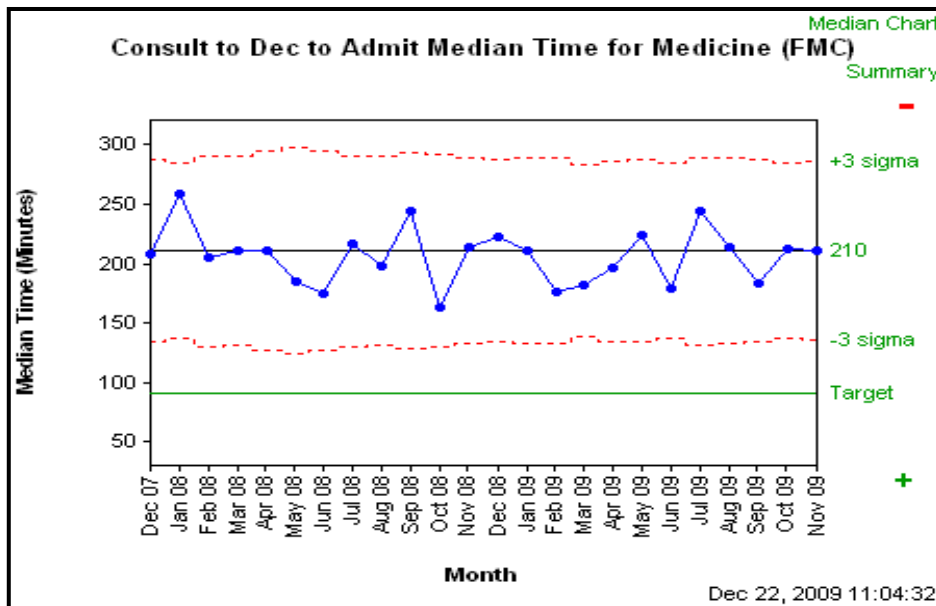


Medicine inpatient Activity has increased by 4% in the last year

Largest increase was by Gastroenterology with 11% increase.



Internal medicine readmissions remain stable at 13% overall but decreased by 2% in last 2 quarters.



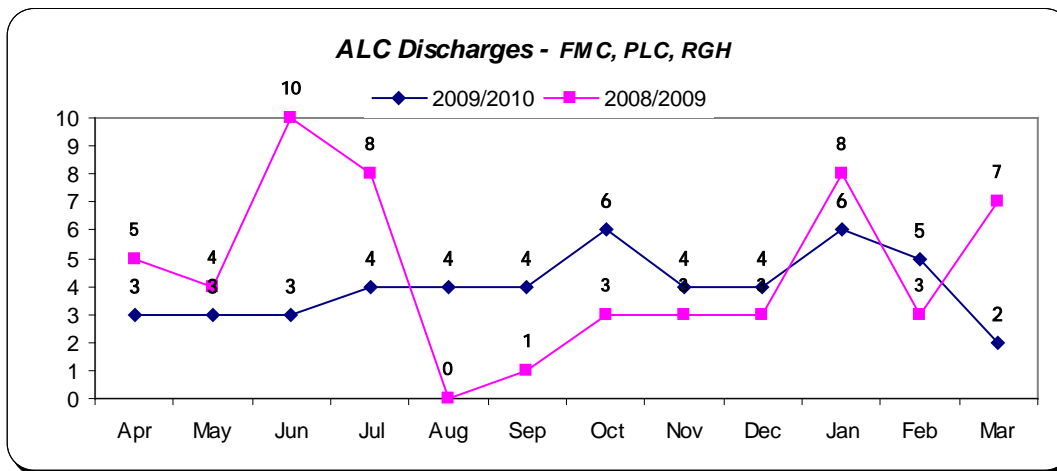
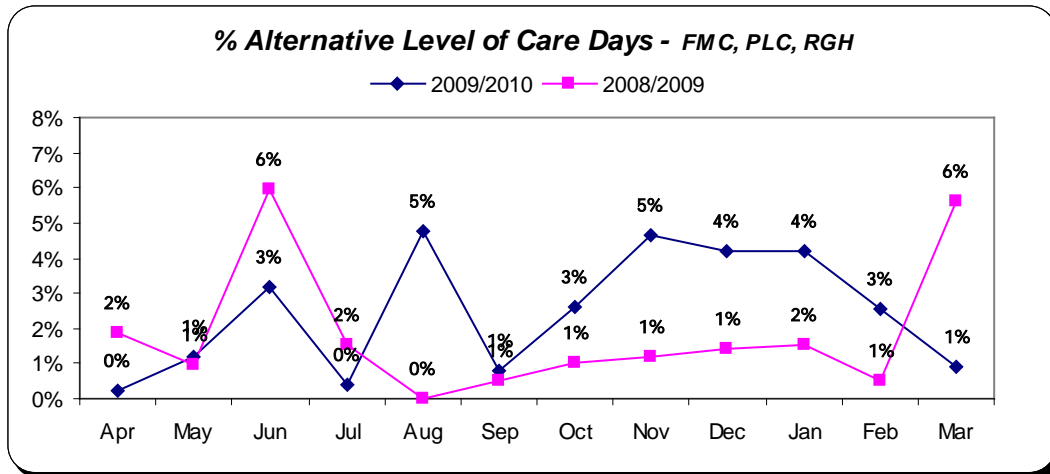
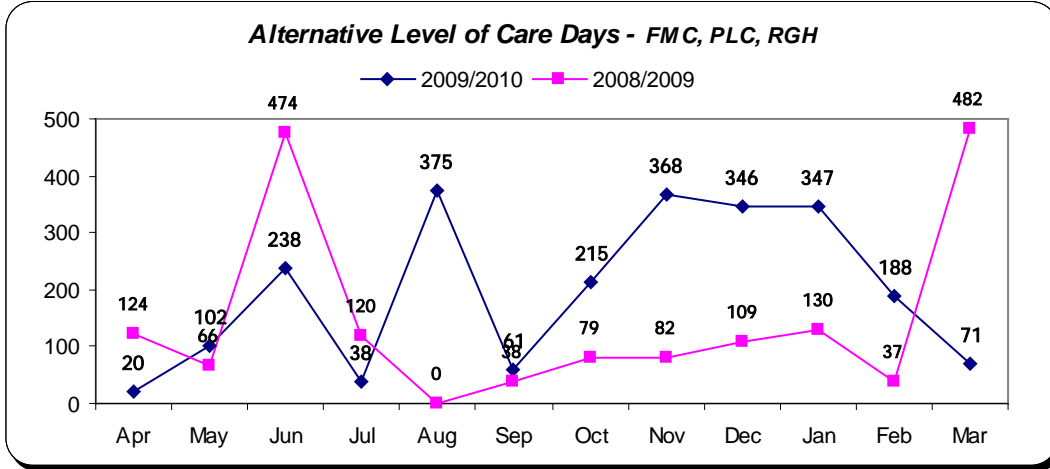
Consult to admission times have remained stable between 3-4 hours across the medicine services and across the 3 sites.

Inpatient activity by physician service

		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Dermatology	200809				1									0
	200910													1
Endocrinology and Metabolism	200809	4	10	9	9	3	8	10	8	6	8	4	8	87
	200910	4	3	5	5	4		4	6	5	3	7	7	53
Gastroenterology	200809	60	55	62	72	48	73	65	68	76	85	64	78	806
	200910	73	77	74	77	85	73	76	80	73	79	57	74	898
Geriatric Medicine	200809	11	5	6	9		16	10	4	4			3	68
	200910	16	5	20	3			17	20	1				82
Hematology	200809	54	62	44	64	65	68	76	61	63	53	48	59	717
	200910	67	62	74	67	62	63	83	59	65	53	40	55	750
Infectious Diseases	200809	1	3	7	3	4	6	8	6	5	9	3	4	59
	200910	4	6	2	2	14	11	3	9	5	1	2	7	66
Internal Medicine	200809	323	338	283	345	350	309	317	351	368	380	314	330	4008
	200910	315	356	357	379	345	349	328	325	378	352	336	336	4156
Medical Oncology	200809	48	57	44	40	43	39	54	41	48	53	61	55	583
	200910	49	32	43	64	59	53	49	47	54	46	47	56	599
Nephrology	200809	52	47	59	65	55	55	46	59	51	61	53	64	667
	200910	52	54	56	74	56	61	50	56	65	57	75	63	719
Respirology	200809	89	88	112	106	100	81	110	75	90	122	71	90	1134
	200910	88	97	78	100	88	89	123	100	79	96	80	106	1124
Rheumatology	200809			1										1
	200910										1			1
Total	200809	642	665	627	713	668	655	696	673	711	771	618	691	8130
	200910	668	692	709	772	713	699	733	702	725	688	644	704	8449

Alternative Level of Care Days Department of Medicine (FMC PLC RGH)

April 2009 – March 2010



Division of Dermatology – Annual Report

Fiscal Year: April 1, 2009 – March 31, 2010

The Division of Dermatology consists of five full-time ARP members and nineteen community-based dermatologists. Twenty members of the Division of Dermatology currently hold a U of C academic appointment.

CLINICAL

- Dr. Regine 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
- Dr. Parsons ran three subspecialty patch tests clinic per week with referrals from Dermatologists throughout Calgary. She also participated in three multi-disciplinary wound care clinics and one general dermatology clinic per week. She continued to be active in Telehealth, providing wound care Telehealth sessions
- Dr. Haber ran two general dermatology clinics per week. He also conducted a paediatric dermatology clinic at the Alberta Children's Hospital (ACH) once weekly and ran a Telehealth Dermatology consultation clinic to the Siksika first nation medical centre once monthly. In November 2009, a new Telehealth dermatology consultation clinic was established to Claresholm and this continues to run on a monthly basis
- 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. He also practices in the Cutaneous Tumour clinic in Tom Baker and participates in the Cutaneous Tumour Group meetings on a weekly basis
- Dr. Lynne Robertson joined the Division of Dermatology and the DOM ARP in September 2009 filling a major need for clinical dermatology services as well as teaching at the undergraduate and graduate levels. She runs six medical dermatology clinics per week and will be doing out-patient clinics at CUPS and the Alex in the near future

RESEARCH

- Dr. Mydlarski continued to conduct dermatologic basic science research. Her areas of expertise are autoimmune bullous diseases, connective tissue diseases and GW bodies in the skin. The total funding she received from all sources was \$115,000
- During the reporting period the Division published 10 peer-reviewed publications, 23 non-peer reviewed publications and six abstracts

EDUCATION

- The Division of Dermatology was very strong in medical education
- The Division 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 paediatrics)
- The Division sponsored the Fourth Annual Day in Dermatology CME in November 2009 and this event was attended by over 60 family physicians and approximately 20 final year family practice residents
- Drs. Gili, Haber, Mydlarski, Parsons, Remington, Robertson, Woolner, and Zip lectured to the Undergraduate Medical Students in MDCN-360 (Course II). Dr. Haber also lectured on Paediatric dermatology during Course VI at U of C
- Drs. Haber, Parsons, Mydlarski, Remington, Woolner and Zip facilitated small group dermatology teaching sessions for students in MDCN-360
- Dr. Robertson presented Medical Grand Rounds on April 14, 2009 on Dermatology Cases for the Internist.
- Dr. Haber presented Medical Grand Rounds on January 5, 2010 on Aquatic Dermatology

- Dr. Haber presented an Update on Psoriasis at the Therapeutics Course U of C in April 2009. At this same meeting, Dr. Parsons presented an Update on Common Dermatology Issues in the General Community and Dr. Mydlarski presented on Treatment of Actinic Keratoses and Basal Cell Carcinoma
- Drs. Haber, Parsons and Mydlarski presented oral and poster presentations at the 84th Canadian Dermatology Association Annual Meeting in Vancouver, BC in June 2009
- Dr. Mydlarski gave an invited presentation to the Southern Alberta Transplant Program in April 2009 entitled Skin Disease in Solid Organ Transplantation
- Dr. Parsons received a Teaching Excellence Award from U of C Medical School for lecturing during Course II

Graduate Education:

- Dr. Regine Mydlarski was the module co-ordinator for IMM-3, Autoimmunity and Immodeficiency (MDSC 639.03)
- Three graduate students were trained in the Transitional Dermatology Lab under the supervision of Dr. Regine Mydlarski during the reporting period

Public Service:

- Drs. Haber, Kurwa, Parsons and Robertson participated in a public skin cancer screening clinic at the Killarney Aquatic Centre in Calgary in June 2009 as part of the Canadian Dermatology Association 21st National Sun Awareness Week. Over 150 patients were screened for skin cancer

ADMINISTRATION

- During this reporting period, Dr. Richard Haber continued as the English Co-Chair of the Dermatology Examination Committee of the Royal College of Physicians and Surgeons and was a representative of the Dermatology Specialty Committee of the Royal College. He continued as the Medical Telehealth Advisor for the DOM as well as serving on the Medical Services Executive Council and ARP Management Committee. He organized the Division of Dermatology Patient Viewing Rounds and chaired the accompanying Divisional Business Meetings
- Dr. Laurie Parsons continued in her roles as the Medical Lead – Wound Care for Calgary, Coordinator of the Undergraduate Dermatology Teaching for MDCN-360, and Organizer of the Division 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. Regine Mydlarski 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 Division of Dermatology and was the Director of Transplant Dermatology for the Southern Alberta Transplant Program

CHALLENGES AND FUTURE DIRECTION

- The delay in relocating to new dermatology outpatient clinics at the Richmond Road Diagnostic and Treatment Centre is a major obstacle to expansion of dermatology out-patient clinics and further recruitment of new full-time ARP members to the Division
- The capabilities at the Richmond Road Diagnostic and Treatment Centre are also needed to facilitate the new dermatology residency training program with the U of C
- The recruitment of Dr. Lynne Robertson to a full-time ARP position has been a huge asset to the Division of Dermatology. Dr. Robertson has provided much needed clinical expertise in treating patients with medical dermatology problems. As well, she has been a great benefit in teaching the medical students and residents rotating through the Division of Dermatology
- The Royal College approval of a new Dermatology Residency Program at U of C was obtained in September 2009. Dr. Regine Mydlarski was named the inaugural Program Director. The Division participated in the CaRMS interviews in January 2010 and matched two residents to our Program to begin July 1, 2010. As well,

we have taken a third externally funded dermatology resident from Saudi Arabia giving the Division a total of three new residents beginning their training on July 1, 2010

- Dermatology Telehealth consultations continue to the Siksika Reservation Health and Wellness Centre. This has been of great benefit in diagnosing and treating members of the Siksika First Nations while allowing them to be seen in their own community, avoiding the time and expense of travelling to Calgary for dermatology consultation. The addition of Claresholm as a teledermatology site will benefit the town and surrounding community. Finally, plans are in place to add a third teledermatology consultation service to High Level, Alberta which has limited access to specialty services. It is anticipated this service will start in August 2010

Division of Endocrinology and Metabolism – Annual Report

Fiscal Year: April 1 2009 – March 31 2010

CLINICAL

- The consolidation of the Central Access and Triage program for Endocrinology was a noteworthy success for the reporting period. This complex process had several requirements: specialists' agreement on referred conditions and appropriate wait times, reorganization of booking processes for all endocrinologists' offices and training of a triage nurse and clerical staff to centralize the process
 - The process has been remarkably successful in terms of acceptance by referring physicians and by endocrinologists who have had to change their practice patterns. More than 300 referrals per month are received, of which about 10% are urgent. Of greatest importance has been the ability to meet all pre-determined targets for wait times according to urgency of referral
 - The average time to see an urgent consultation is 3 days (target < 1 week), 2.6 weeks for semi-urgent cases (target < 4 weeks) and routine referrals 16 weeks (target < 26 weeks)
 - Triage endocrinologists now communicate with physicians directly to address management issues or redirect referrals in an expeditious fashion. This permits about 20% of referrals to be dealt with without clinic visits
 - The success is greatly attributable to the patience and dedication of the nurse and clerical staff.
- Endocrinology continues to work innovatively with support of allied health professionals in diabetes, hypertension, lipids, osteoporosis and endocrine testing. Preliminary work is underway to attempt to document the number of patients assisted in this manner
- Division members remain active in providing Telehealth clinics to communities surrounding Calgary (Strathmore, Didsbury, High River and Canmore) as part of chronic disease care

RESEARCH

- The Division is proud to report that Dr. Ron Sigal (Senior Scholar) and Dr. Doreen Rabi (Population Health Investigator) commenced seven year AHFMR Career award terms. These two investigators provide a nucleus for a new focus of research excellence (Diabetes/Community Health Sciences) within the Division. They will be joined by Dr. Sonia Butalia as a Clinical Scholar whose training will be supported by a CIHR award
- Division members were authors of 39 peer-reviewed articles, 41 peer-reviewed abstracts and 10 non-peer-reviewed publications, book chapters, or abstracts
- Several Division members are participants in research studies or team grant projects (totaling \$4.5 million)

EDUCATION

- Undergraduate education (Course 4 U of C/UME) now covers about three calendar months and increased class size requires greater numbers of teachers to act as small group facilitators. Despite the increased demand, the Division provides most of the required teachers and has relied little on supplementation from the Master Teachers Program. There are regular annual commitments to Med 440 courses and to continuous clerkship teaching
- The Endocrinology Training Program underwent the RCPSC review in February 2009 and with a formal report delivered in May of 2009 impressed sufficiently to be declared as having no weaknesses and to be both innovative and successful. Three training residents were in place during the reporting period – all due to graduate in June 2009. One resident commenced training in July 2009
- Contributions to the Core IM Training program remain a commitment of the Division, for clinical exposure, didactic teaching sessions, and contributions to resident evaluations
- At the Graduate student level, members participated as supervisors or on supervisory and examination committees for 14 graduate students
- Contributions to CME are numerous and reflect the internal commitment to continuous professional learning within the Division. Drs. Corenblum and Lau represent the Department on the Faculty CME Committee

- Education of allied health professional is also innovative and extensive. Dr. McKeen's work with educational processes for diabetes educators is noteworthy

ADMINISTRATION

- Division members have a broad spectrum of administrative roles that range from Divisional to International in scope
- Of note, Dr. Rorstad has been Program Director for the Core Internal Medicine Training Program (until October 2009), Dr. Grundy is the Chair of the Departmental ARP Management Committee and Dr. Hanley was President of CSEM (until October 2009)
- Division members contribute significantly to educational administration – Dr. Symonds efforts as Program Director in Endocrinology and Drs. Kline, McKeen and Bassyouni are heavily involved in undergraduate educational administration
- Diabetes services demand significant administrative time from Drs. McKeen, Edwards and Donovan and new recruitment to assist in this area is vital
- Members contribute at provincial and national levels in scientific/clinical committees of national societies involving obesity, diabetes and osteoporosis. Drs. Hanley, Lau and Sigal contribute to international committees on Bone densitometry, obesity and exercise/diabetes respectively

CHALLENGES AND FUTURE DIRECTION

- Previous reports have outlined the role of increasing prevalence of chronic diseases (diabetes, osteoporosis, hypertension and lipids) in the workload of all physicians in the province. In the future, chronic disease delivery offered through PCNs offers hope that endocrinologists can take on truly specialist roles in patient care and physician education with better control of clinical workload
- Diabetes as a health problem in the Aboriginal community is well recognized: there have been efforts to address this in the past but progress has been slow and gains hard to sustain. It's hoped that dedicated effort in this area might be achieved with some new initiatives in 2009-2010. Dr. Rorstad has been actively involved in establishing services for the DOM since the latter part of 2009
- Central Triage has been a tremendous success in ensuring appropriate and efficient handling of referrals and markedly enhanced communication with primary care physicians
- The Division has embraced change and innovation, despite the need to alter longstanding practices and discomfort in doing so. Clinical targets have been met (wait times for conditions according to triage priorities) have been met
- Sept 2010 will see the translocation of all the Division's clinical services to Richmond Road Diagnostic and Test Centre together with its administrative and training program work

Division of Gastroenterology – Annual Report

Fiscal Year: April 1, 2009 – March 31, 2010

CLINICAL

This was a very successful year with improvement in patient access and in endoscopy utilization. A number of innovations were introduced including central triage directly to endoscopy procedures and a citywide approach to utilization of endoscopy slots. In addition, a flexible sigmoidoscopy clinic was organized in the UCMC area, further improving patient access to investigations. A number of streamlined guidelines for central triage of conditions such as iron deficiency anemia were introduced to further reduce wait times. Overall, wait times reduced on an average by about 3 month despite an increase in referrals by nearly 20%. However after departure of two division members the wait times have started to increase again. Endoscopy utilization is now over 90% at each of the three sites.

A significant achievement was finalization of an over \$ 4.5 million project for complete revamping of endoscopy equipment at all the three sites as well as ACH. This will provide high definition endoscopy with various post-processing options. New equipment such as elastography module of endoscopic ultrasonography and confocal endomicroscopy has also been secured and these are expected to put us in the cutting edge of endoscopic practice. Part of this funding was obtained from Calgary Health Trust. In addition, through the simulation program, an Olympus Scope Guide System was introduced at the Colon Cancer Screening Centre to aid training through real-time visualization of the scope in the abdomen. In addition, plans are afoot to obtain Endoflag (Endopix) to post-process endoscopy images to histology level resolution as well as a hydrogen breath test machine. New innovative procedures such as double balloon endoscopy and esophageal impedance have been introduced.

The Forzani and McPhail Colon Cancer Screening Centre (CCSC) has taken a lead role locally and nationally to improve the quality of colonoscopy and provide better detection of early cancers and polyps. A comprehensive quality assurance program has been launched based on the Global Rating Scale (GRS). Dr. Alaa Rostom, Dr. Bob Hilsden and Dr. Catherine Dube won the DoM Quality Assurance award for this initiative. The CCSC has also led in introducing immunochemical FOBT based screening and colonoscopy. Divisional members have taken on leadership roles in the Canadian Association of Gastroenterology Quality Assurance Initiative.

Endoscopy services at the FMC and at the Forzani and McPhail Colon Cancer Screening Centre were evaluated by patients via a validated feedback and showed very high patient satisfaction with the procedures. Several improvements were suggested and these are being incorporated. This initiative was led by Dr. Dube.

RESEARCH

Inflammatory Bowel Disease (IBD), intestinal inflammation, Colorectal Cancer Screening, hepatitis and liver damage, gastrointestinal motility, and physiology are the core research areas of excellence. A committee to coordinate and oversee Divisional research was created, chaired by Dr. Remo Panaccione and Dr. Paul Beck. Clinical research infrastructure improved with the opening of the dedicated Clinical Trials Unit on the 5th floor of the Teaching Research and Wellness (TRW) Building. Both the IBD and hepatology programs have a very strong international clinical trials involvement and one of the most active groups in the DOM.

A significant achievement was the research report of Crohn's and Colitis Foundation of Canada (CCFC) published in Spring 2010, which identified U of C as one of the five top Universities in research output in the area of IBD research. This is a remarkable achievement given that Harvard and Mayo Clinic occupied the two top spots. Dr. Panaccione was also cited as one of the top publishing authors in the area.

Research highlights include:

- A significant achievement was the Alberta IBD Consortium \$5 million AHFMR Team Grant. Dr. Subrata Ghosh is an executive committee member, Dr. Gil Kaplan one of the tier 1 leaders, and the investigators include Drs. Remo Panaccione, Paul Beck, Kevin Rioux, Cynthia Seow and Martin Storr. The team grant will explore gene-environment-microbe interactions in the pathogenesis of IBD and permit significant strengthening of basic science and translational/epidemiological studies of IBD
- Dr. Gil Kaplan was awarded the Alberta Innovates Health Solutions (AHFMR) Research Award

- Dr. Bob Hilsden and Dr. Paul Beck renewed their AHFMR/Alberta Innovates Health Solutions Award
- Dr. Gil Kaplan obtained the prestigious CIHR New Investigator Award
- Drs. Paul Beck, Carla Coffin and Kevin Rioux obtained CIHR and CFI Grants
- Dr. Beck and Dr. Ghosh obtained Crohn's and Colitis Research in Aid Grant
- Dr. Kevin Rioux and Dr. Maitreyi Raman won the CIHR Human Microbiome Catalyst Grant to study links between intestinal bacteria and NAFLD in obesity
- Dr. Kevin Rioux was awarded a Leaders Opportunity Fund CFI grant for purchase of major equipment
- Dr. Carla Coffin was awarded the extremely prestigious American Association for Study of Liver Disease (AASLD) Jan Albrecht Clinical and Translational Research Award
- Dr. Carla Coffin was rated the top publishing author in hepatology in the world by HepaTop in the junior category
- Dr. Martin Storr obtained a University Research Grant - Committee Research Grant Award and the Young Investigator Basic Sciences Award from International Foundation of Functional Gastrointestinal Disease
- GI Fellows Dr. Hughie Fraser won the Shaffer Award and Dr. Chad Williams and Dr. Atyab Syed won the Gastrointestinal Research Group Research Award for best research presentation by clinical trainee
- Dr. Sam Asfaha won the prestigious CIHR Clinician Scientist Phase I Award
- Dr. Laura Stinton was awarded the Canadian Medical Association Young Leader Award
- Dr. Kevin Rioux, Dr. Maitreyi Raman, Dr. Steven Heitman, Dr. Subrata Ghosh received DOM Research Awards for original research or for education

The new introductions included two divisional research awards of \$5000 each awarded to Dr. Kelly Burak and to Dr. Kerri Novak. In addition, Dr. Martin Storr had his research career review by Dr. Jon Meddings, Dr. Remo Panaccione, Dr. Keith Sharkey, and Dr. Subrata Ghosh, and a recommendation was made to support his laboratory research to increase his likelihood of external funding. The Division supported his research with \$25,000 and the plan is to conduct one or two research career reviews each year.

Senior members of the Division continue to be recognized. Dr. Eldon Shaffer was awarded the medal for service by Canadian Association for Study of Liver (CASL) and Dr. Noel Hershfield's pioneering contribution to endoscopy was recognized by an endowed professorship in therapeutic endoscopy bearing his name.

Leadership Positions: Dr. Ron Bridges is the President of the Canadian Association of Gastroenterology (CAG). Dr. Subrata Ghosh was appointed Editor-in-Chief of the Canadian Journal of Gastroenterology by CAG/CASL. Dr. Alaa Rostom is the Chair of the CAG Education Committee. Dr. Alex Aspinall sits on the CAG Research Committee, Dr. Remo Panaccione on the Education Committee and Dr. Carla Coffin on the Membership committee. Dr. Mani Kareemi is the president of Alberta Society of Gastroenterology. Dr. Jon Meddings returned to Calgary to take up the position of the Vice Dean of the Faculty of Medicine.

Innovations: In a newly introduced educational program coordinated with the Primary Care Network (PCN), six family physicians attended a half-day educational program to understand colon cancer screening, central triage, and care pathways. This will be a rolling event throughout the year with additional half day educational programs focused on management of common GI diseases in early 2010. Three such events have already been held. It is expected that this initiative will result in more appropriate referral patterns and shared management of common GI disorders.

A major initiative has been launched to acquire and launch novel imaging at the FMC endoscopy unit including i-SCAN and Confocal Endomicroscopy. In addition, unsedated transnasal endoscopy will be introduced at UCMC area which will allow screening for esophageal varices and Barrett's esophagus at the same time as they visit the clinic in a one-stop manner.

Endoscopy Quality Assurance is now well established thanks to Dr. Bob Hilsden, Dr. Alaa Rostom, and Dr. Catherine Dube. This process of continual quality assurance is already improving standards of colonoscopy and has established us as national leaders in this area.

EDUCATION

This has been a very successful year with a wide range of educational programs hosted by the Division. A significant achievement was securing the full approval for recommendation of the gastrointestinal program by the internal reviewers. This was made possible through the able leadership of Dr. Shane Devlin, GI Program Director.

Awards: Dr. Kelly Burak was awarded the Canadian Association of Gastroenterology Young Educator Award. He also continues to provide strong leadership in undergraduate education and deservedly won the Gold Star for course 1 teaching. Dr. Paul Beck won the DOM award for outstanding research training and teaching to residents.

CME: The educational programs hosted included Live Endoscopy Program for Canadian Digestive Diseases Week 2009 organized by Dr. Brian Yan and Dr. Jon Love, IBD Symposium hosted by Dr. Remo Panaccione, Introductory Endoscopic Ultrasonography Course organized by Drs. Brian Yan, Christian Turbide and Carla Nash, and Pancreas Update organized by Drs. Christian Turbide and Jon Love, each with international and national faculty. A unique workshop attracting both radiologists and gastroenterologists was hosted in Calgary focusing on Transabdominal Ultrasonography in IBD. Dr. Stephanie Wilson played a major role as an international leader in this area and the workshop was organized by Dr. Ghosh and Dr. Panaccione. A Western Canada combined IBD and Liver CME program is planned for the Fall. A notable innovation was the hosting of Colonoscopy Train the Trainers Course with international faculty. This is expected to improve the colonoscopy training standards in the city and in the province and is now a regular event. Calgary has been a pioneering centre in this initiative. Dr. Rostom, Dr. Love, Dr. Hilsden and Dr. Coderre have played a major part in the increasingly popular Train the Trainers Program. The citywide CME program has been revamped and now provides at least 16 citywide CME events a year. This attracted a high quality of international faculty. An innovation has been the introduction of the citywide Clinical Pathological Conference (CPC) in a multidisciplinary format. CME programs were organized for family physicians in association with the Primary Care Network and these included two half day programs at the FMC site, a FAMS-Gastroenterology course and a Saturday morning program. In addition, there are IBD rounds and a hepatology educational program. The Division members are integral in providing the weekly Gastrointestinal Research Group educational meeting. The Wednesday Fellows' half-day and Friday State-of-the Art lectures also provide a strong program of continuing education. A wide variety of topics were covered including financial advice, billing workshop, medico-legal topics and medical ethics.

Postgraduate: The GI training program has undergone a number of modifications including better formal feedback and career counselling. The IBD Program, Hepatology Program and Therapeutic Endoscopy Program continue to provide advanced training fellowships which are very popular. The Gastrointestinal Research Group Annual Conference at Kananaskis was very successful and several posters were presented by GI trainees and several talks were delivered by the members of the Division.

ADMINISTRATION

The Gastroenterology Division had an outstanding year in innovation, research, and education. At the Divisional Retreat held in May 2009 a significant commitment to excellence in research, innovation in clinical service delivery and education and training was made by the Division. The administrative structure was revamped and specific new roles created as a result of discussions at the Divisional Retreat. The Administrative Assistants as well as the Gastroenterology Fellows had their own Retreats with recommendations to further strengthen communication.

Dr. Subrata Ghosh
Dr. Alaa Rostom
Dr. Jonathan Love
Dr. Tarun Misra
Dr. Tara Chalmers-Nixon
Dr. Shane Devlin
Dr. Remo Panaccione
Dr. Paul Beck
Dr. Eldon Shaffer
Dr. Kelly Burak
Dr. Catherine Dube
Dr. Michael Ma

Head of Division
Deputy Head of Division and Director, CCSC
Site Chief FMC and Director of Endoscopy
Site Chief PLC
Site Chief RGH
Program Director
Director of Research
Co-Director of Research (Basic Science)
External Liaison and Mentoring
Director of Hepatology and Education
Central Triage/OP clinics
City Wide Clinical Services

Recruitment: The new recruits to gastroenterology include Dr. Kerri Novak and Dr. Paul Belletrutti. Dr. Novak, a Clinical Assistant Professor of Medicine, is a U of C graduate and has special interest in imaging of the gastrointestinal tract in IBD. Dr. Paul Belletrutti has finished his advanced fellowship at Memorial Sloan-Kettering at New York City and will commence on October 1, 2010. His special interest will include endoscopic ultrasonography.

The N.B. Hershfield Professorship in Therapeutic Endoscopy was advertised and attracted high quality interest. The Cal Wenzel Chair in Hepatology was advertised and recruitment is likely to be finalized in the Fall of 2010.

During this year, Dr. Brian Yan left the Division due to family reasons, to take up a leadership position in endoscopic ultrasonography, at London, Ontario. Dr. Carla Nash plans to move to Kelowna although she will maintain a part-time involvement with AHS - Calgary Zone.

Division of General Internal Medicine - Annual Report April 1, 2009 – March 31, 2010

CLINICAL

Clinical Services and New Models of Health Care

In 2009, General Internal Medicine (GIM) added and expanded in the following clinical areas:

- Established a Medical Disorders of Pregnancy In-Patient Consultation Service at FMC
- Satellite Hypertension Clinic with the Crowfoot Family Medicine Group
- Outreach Clinics – Stoney Reserve, Refugee Clinic, Alex Family Medicine Clinic
- Opening of a Medical Assessment Unit at Rockyview General Hospital (RGH)
- Opening of new GIM Clinics at RRDTTC – 50% expansion in clinic opportunities
- Expansion of Medical Disorders of Pregnancy (MDP) Clinics – doubling of total capacity, addition of pre-pregnancy clinics for patients with serious medical disorders, expansion of MDP clinics to Peter Lougheed Centre (PLC), and beginning in summer 2010, to RGH

RESEARCH

Abstracts	31
Peer-Reviewed Manuscripts	73
Non Peer-Reviewed Manuscripts	6
Scientific and Technical Reports	8
Invited Presentations	95
Funded Research	\$10,597,977
Unfunded Research	27 projects
Secured University Endowments	\$90,000
Conference Support	\$180,000

EDUCATION

Teaching Hours

	Number of Hours
Undergraduate	1672
Postgraduate	6520
Graduate	55
CME	436
Supervision	1565

Finally, members of our Division organize and Chair the Rocky Mountain/ACP Internal Medicine Conference, one of the largest and longest running annual internal medicine conferences in Canada and sit on the Annual Meeting Committee of the CSIM.

The Internal Medicine Residency Training Program

With the expansion of our Medical School and Clerkship and Internal Medicine (IM) Residency Programs together with a healthy intake of well-trained foreign graduates through the Alberta International Medical Graduate Program, we participated in the expansion of the IM Residency Program to the RGH.

GIM R4 Fellowship Program

In 2009, the Division had 4 GIM PGY-4 and 1 PGY-5 Fellows. These were:

1. Dr. Sam Kohen (U of C)
2. Dr. Alex Leung (U of A)
3. Dr. Harpinder Nagi (UBC)
4. Dr. Jennifer Grossman (U of C)
5. Dr. Simona Burs (U of C)

In 2010, we will have:

1. Dr. Saren Azer (U of C)
2. Dr. Sundeep Deol (India)
3. Dr. Ranjani Aiyar (India)
4. Dr. Ken Parhar (U of C)

Clinical Assistant (CA) Program

Last year, we lost five CAs to the AIMG Program and two to CaRMs. Drs. Uzma Erum, Linas Kumeliauska and Mateer Abdul were accepted into the IM Residency Program in Calgary. Drs. Nyunt Kyi and William Han were accepted into Family Medicine residencies in Calgary and Edmonton, respectively. Dr. Saima Ehsan was recruited through the CaRMs match to Family Medicine at U of T and Shahina Suman Bithi to Internal Medicine at Ottawa.

GIM Clinical Scholar Program and Other Advanced-Level Training

There were six Clinical Scholars in our Division in 2009/2010. These were: Dr. Brian Forzley, Dr. Oliver Haw For Chin, Dr. Lee-Ann Hawkins, Dr. Aleem Bharwani, Dr. Pin Li, and Dr. Simona Burs. Dr. Forzley was recruited to a combined position in GIM/Nephrology in Penticton, BC, and Drs. Haw For Chin (RGH), Hawkins (FMC), Bharwani (FMC) and Pin Li (FMC) were all recruited to GIM in Calgary. Dr. Burs continues to work at RGH as she completes a Masters Degree in Clinical Epidemiology at the U of C.

ADMINISTRATION

Recruitment

Name	Area of Interest	Site
Irene Ma (UBC)	Medical Education/Simulation	FMC
Michaela Jordan (U of C)	Medical Education	PLC
Lee-Ann Hawkins (U of C)	Maternal Disorders of Pregnancy	FMC

Appointments

- Dr. Peter Sargious accepted a position with AHS in the Chronic Disease Management Portfolio
- Dr. Jeff Schaefer was appointed Director IM Residency Training Program

Promotions

- Dr. Marcy Mintz to Clinical Associate Professor
- Dr. Paul Gibson was promoted to Associate Professor
- Dr. Jeff Schaefer was promoted to Clinical Associate Professor
- Dr. Barry Baylis was promoted to Clinical Associate Professor

Honors and awards

International:

- American College of Physicians Joseph E. Johnson Leadership Award, 2009-2010 – Dr. Aleem Bharwani

National:

- RCPSC Prix d'Excellence, 2009-2010, Maria Bacchus
- Canadian Hypertension Society, Distinguished Service Award, 2009-2010 – Dr. Norm Campbell
- CIHR Canada Chair in Hypertension Prevention and Control, 2009 – Dr. Nom Campbell

University:

- Faculty of Medicine Distinguished Alumnus Award, 2009-2010 – Dr. Bill Ghali
- Clinical/Adjunct Professor Distinguished Service Award, 2009-2010 – Dr. Marcy Mintz
- Letter of Excellence in Teaching, Course IV, 2009 – Dr. Jeff Schaefer

Departmental:

- Department of Medicine, Innovation Award, 2009 – Drs. Barry Baylis and Bill Ghali for W21C
- Department of Medicine, Work Life Balance Award, 2009 – Dr. Paul Gibson
- Department of Medicine, Terry Grove's Clinical Excellence Award for RGH, 2009 – Dr. Don Cook

DOM Residency Training Program Awards:

- Rookie or the Year, IM Residency Program Teaching Award, 2009 – Dr. Mike Fisher
- Silver Finger, IM Residency Program Teaching Award, 2009 – Dr. Dave Sam

DOM Clerkship Awards:

- Clerkship Letter of Excellence, 2009-2010 – Dr. Jeff Schaefer
- Clerkship Letter of Excellence, 2009-2010 – Dr. Maria Bacchus
- Gold Star Award, Teaching In Healthy Populations Course 2009-2010 – Dr. Jeff Schaefer
- Gold Star Award, 2009-2010 – Dr. Jane Lemaire
- Gold Star Award, 2009-2010 – Dr. Paul LeBlanc
- Gold Star Award, 2009-2010 – Dr. Troy Pederson
- Gold Star Award, 2009-2010 – Dr. Mike Fisher
- Behind the Scenes Award, 2009-2010 – Ghazwan Altabbaa

Faculty Development:

- Dr. David Sam completed his Masters in Clinical Epidemiology and Public Health.
- Dr. Ghazwan Altabbaa is in his second year and is working on the thesis for a Masters in Medical Education.
- Dr. Irene Ma is enrolled in a PhD in Medical Education at the UofC beginning September 2010.

CHALLENGES AND FUTURE DIRECTION

- 2009/2010 has been another year of growth for the Division of GIM in Calgary
- During the forthcoming years, the Division will need to carefully plan for GIM physician needs at SHC. In addition to the initial ambulatory services, it is expected that GIM 24/7 inpatient services will be required
- The following expansion of clinical services is anticipated: the opening of a third Medical Teaching Unit (MTU) at PLC; the expansion of outpatient activities at the RRDTC, clinics for under-served populations and for smaller communities; and a possible increased leadership role for the RGH Medical Assessment Unit
- These plans for changes in clinical activities will need to occur despite continuing uncertainty around the ARP renegotiations. We hope this does not impede efforts to selectively recruit when necessary or retain and develop our current cohort of generalist physicians
- The Division’s substantial contributions to the Faculty’s education mission at all levels will continue and we expect 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
- Given the size and diversity of the Division, there will always be room to enhancing communication and collaboration among the membership. With a new Division Head in place and two anticipated new Site Leads, we look forward to the opportunity to develop a vision that may consolidate and enhance the academic and clinical directions of the Division
- The summer of 2010 will see three expected recruits:

Name	Area of Interest	Site
Aleem Bharwani (UofA/UofC)	MSc Health Policy, Harvard (Boston)	FMC
Pin Li (Shanghai)	Research in Quality Assurance and Outcomes	FMC
Eliana Castillo (Columbia)	Medical Disorders of Pregnancy	FMC

- 1 new Clinical Scholar will also be added to our Division in July 2010. Dr. Alex Leung. Dr. Leung is doing a Fellowship at Brigham a Women’s Hospital in Boston with Dr. David Bates
- 2009/2010 has been another year of unprecedented growth in GIM in Calgary

Congratulations to all members of the Division of GIM who have contributed to these rather remarkable achievements.

Division of Geriatric Medicine – Annual Report

Fiscal Year: April 1, 2009 – March 31, 2010

The Division of Geriatric Medicine consists of 10 members. Only half are full time members of the Division with two members cross appointed in GIM and three members part time, but fully in the Division of Geriatric Medicine. So while the Division has 10 members, the full time equivalent in our Division is 7.9. Three of our members have GFT appointments while the other seven have Major Clinical appointments with the U of C.

CLINICAL

The clinical activities of the Division of Geriatric Medicine are closely intertwined with those of the Seniors Health Program which in the last year has been reorganized into the Seniors Services, SubAcute Care and Transition Services, Calgary Health Zone.

Clinical activities that are the responsibility of the Division of Geriatric Medicine include Consultation Services at all the Acute Care sites and Seniors Health Clinic. The Division members also support programs of Seniors Health including Day Hospital, GARP unit and provide support to Geriatric Mental Health.

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

Ambulatory Services: There have been significant changes in the Ambulatory services in the last year.

- **RGH Seniors Health Clinic:** has created a multidisciplinary team and functions in a transdisciplinary model. With the reorganization of the clinic processes, including centralized booking, and the addition of Dr Janet Dawson, there has been a significant increase in the number of patients assessed and treated, resulting in waitlist reduction from six months to two to three months. Currently RGH Seniors clinic runs 12 half day clinics/week
- **Bridgeland Clinic:** In February 2010, the Crossbow Clinic was closed and moved to the new Bridgeland Clinic. Geriatric Medicine clinics located at FMC and PLC were also consolidated onto this new site. Currently there are five geriatricians and a Care of Elderly physician doing clinics at this site. This is also the site of the Calgary Falls Prevention Clinic. There are growing pains that occur with moving clinics from three different sites and we are looking to duplicate processes that have been successful at the RGH clinic at the Bridgeland site. Waitlists for clinics currently are six to eight months. We are optimistic that with time the waitlists will mirror those of RGH Seniors Health Clinic
- **Cognitive Assessment Clinic (CAC):** This clinic was a multidisciplinary clinic (Geriatric Medicine, Psychiatry and Neurology). Due to AHS policy of not filling vacancies, it was important to move the clinical resources (clerical and RN) from FMC to the Bridgeland site. It was felt that CAC could be fully relocated to Bridgeland, and dedicated clinic space was found for them at this site. Unfortunately the physicians in the clinic elected not to move to Bridgeland which resulted in the dissolution of CAC. As of March 31st, Seniors Health and Geriatrics were working with Neurology to reassign patients awaiting assessment by CAC. Seniors Health has agreed to assess all referrals of patients over the age of 65. Neurology is hoping in the future to open their own clinic to deal with cognitive issues and Geriatrics and Neurology are looking at how to work collaboratively to serve this population
- **Teleconsultation:** Geriatric Medicine continues their active teleconsultation program that supports six rural communities (Banff, Canmore, Cardston, Didsbury, Drumheller, Strathmore). Also, the Falls Prevention Program is building linkages with remote communities (Canmore)

Hospital Consultation: The Division offers in-patient consultation services at the three adult hospitals in Calgary. Seniors Health is active in promoting the NICHE Program, and members of the Division provide educational support to this initiative.

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

- Fanning Day Hospital
- Glenmore Day Hospital
- GARP
- One Line Triage
- Geriatric Psychiatry Unit

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

- Home Care
- Orthopaedic Surgery
- Long Term Care
- Alex Seniors Clinic
- West Central PCN
- SHC in the future

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

RESEARCH

- Scholarly Productivity:** In the year of the report, the Division has produced:
 - 16 Peer Reviewed Publications and one peer reviewed abstracts
 - Five Non peer reviewed publications and two abstracts
- Major Funding:** Sum of Successful grants allocated to Members is \$7,760,425
- Research Focus of Divisional Members:**
 - Knowledge Translation
 - a) Prevention of Delirium in Hip Fracture Patients, Urinary Incontinence
 - b) Geriatric Medicine Order Set
 - Health services – Telehealth, Dementia care, Community Care, Models of Geriatric Care, Clinical Informatics
 - Dr. Hogan is a lead 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 Stafford Chair in Geriatrics, U of C. He is a member of the Steering Committee for the Canadian Initiative on Frailty and Aging
 - Dr. Holroyd-Leduc is on the Appraisal Report of Resident Research Grant Application. Physician Services Incorporated Foundation as well a Member, Knowledge Translation & Exchange Grants Committee, CIHR
 - Dr. Schmaltz is an External Reviewer for the Heart and Stroke Foundation of Canada
 - Dr. Silvius, is a member of the CIHR Knowledge to Action Grant Review Committee.

EDUCATION

The Division is active in Education across all levels of medical education, but also in Multidisciplinary Education. The Division has recorded a total of 1,347 hours to teaching at various levels.

Undergraduate	<ul style="list-style-type: none"> Members teach in many courses in the UGME curriculum. All Division members are expected to teach in Course V. Many members also teach in Physical Examination, Physicianship and Communication courses. 2 members are Master Teachers and as a result have taught in a wide variety of courses to a total of almost 600 hours of UGE small group teaching. 3 members supervised medical students in course 440 Dr Burback is co-chair of Course V Division members supervised 32 Clerkship rotations ranging from 2-4 weeks. This includes electives of out of town students. Participation in OSCE Participation in CaRMs interviews
Postgraduate	<ul style="list-style-type: none"> 35 residents did a clinical rotation in Geriatric Medicine, from Internal Medicine, Family Medicine, PMR and Neurology. Each had a 4 week rotation in Geriatrics The Division participated in the APIMG program Geriatrics participates in Noon Teaching Rounds and Academic Half day of various PGME programs estimated at 60 hours Supervision of 3 Resident Research Projects 2 Members are Members of the RCPSC Internal Medicine Examination Committee Dr. Burback sits on the PMR residency program committee Participation in PGY 1-3 OSCE
Graduate	<ul style="list-style-type: none"> 7 students were supervised by Division members
CME	<ul style="list-style-type: none"> 27 presentations locally, provincially and nationally
Multidisciplinary Educations	<ul style="list-style-type: none"> NICHE Education
Other	<ul style="list-style-type: none"> Dr. Holroyd Leduc assisted in the development of a Patient Safety Certificate Course. This involved developing teaching modules related to QI and Knowledge Translation for this new CME course Dr. Holroyd Leduc is co-editing an EBM Geriatric Medicine Book

ADMINISTRATION

Members of the Division provide the following leadership:

- Dr. Fruetel: Head, Division of Geriatric Medicine and Medical Leader, Seniors Health.
- Dr. Holroyd Leduc : Medical Coordinator, Clinical Informatics, DOM and has been appointed to the Alberta Clinical Council
- Dr. Silvius: Appointed Senior Medical Leader, Seniors Health for the province.
- Dr. Schmaltz: Telehealth Lead and participation in Provincial Telehealth Programs (Alberta Clinical Telehealth Forum) and Western Canadian Waiting List
- Dr. Powell: SPI
- Dr. Cohen: Divisional Representative, ARP Management Committee

CHALLENGES AND FUTURE DIRECTION

Challenges:

- The ability of the Division to manage its current work load is precarious. Currently we are meeting needs, but are anticipating gaps in coverage due to retirement, sabbatical leaves and parental leaves
- Increasing demands for Geriatric Medicine input in certain clinical populations is stretching the resources of the Division. Requests for more formal clinical relationships such as with Orthopedics Surgery, Home Care, Primary Care Network and Alex Seniors Clinic are worthy activities but have had to be put on hold
- The ability to recruit, is somewhat hampered by the limited number of residents training in Geriatric Medicine across the country. Calgary has not had a resident train in Geriatric Medicine in years. We have had success in recruiting a geriatrician from the United Kingdom, Dr Paula Pearce, who will start in September 2010
- Lack of infrastructure to measure outcomes in Seniors Health. Change process requires information, such as numbers of patients seen and wait times. Measuring these outcomes require infrastructure support
- Effects of restructuring with uncertainty about reporting structures and relationships which has put implementation of strategic plans on hold

Future Directions:

- It is difficult to indicate future direction given AHS restructuring of the Seniors Health Program. The strategic arm of Seniors Health is now provincial, and it remains to be seen how the Division of Geriatric Medicine can give input and advocate for Seniors within this new structure
- Further expansion of clinical services and building capacity in hospitals and communities is desired but dependent on recruitment
- We anticipate increased ambulatory capacity to meet the demand and reduce wait times for ambulatory consultation

Division of Hematology and Hematologic Malignancies - Annual Report

Fiscal Year: April 1, 2009 – March 31, 2010

CLINICAL

- i) New Clinics, Initiatives and Innovations
 - Continued development of the Rare Blood and Bleeding Disorders Comprehensive Care Program (Director Man-Chiu Poon), now expanding to include hemoglobinopathies under supervision of Dr Farzana Sayani.
 - Creation of another Advanced Practice Nurse (APN) role for outpatient BMT starting 2010. Ongoing APN roles in Tom Baker Cancer Centre (TBCC) Hematology clinics, with expanded roles for central referral/triage and CLL.
 - Development of an outpatient Thrombosis Program in Calgary in collaboration with GIM and other Divisions. Review of treatment guidelines, educational program, and research opportunities is ongoing.
- ii) Key Partnerships
 - Provincial Hematology Tumor Group (TBCC, CCI, Associate Cancer Centres)
 - Consultant, World Federation of Hemophilia Country Program for China. MC Poon
 - Ongoing monthly Hematology Clinics in Medicine Hat
 - Ongoing monthly BMT Clinics in Edmonton
 - International Health Program Project, Laos. C Brown

RESEARCH

- i) Scholarly Productivity
 - Peer Reviewed Publications/Articles - Total 55; Abstracts - Total 36
 - Non Peer Reviewed Articles – Total 10
 - Book Chapters – Total 6
 - Reviews –Total 22
- ii) Major Funding –Total Approx. \$12,403,966.00
 - New: \$725,000.00
 - Sources: Terry Fox Research Institute, Alberta Cancer Foundation, Alberta Cancer Research Institute, Calgary Laboratory Services, Canada Foundation for Innovation, Leukemia and Lymphoma Society, Hoffman la Roche and Genzyme.
 - Ongoing: \$11,678,966.00
 - Sources: Alberta Heritage Foundation, Alberta Cancer Board, Alberta Cancer Foundation, Calgary Laboratory Services, NCI/NIH, Canadian Institute of Health Research, Bayer, Division Research and Education Fund, Canadian Hemophilia Society, Association of Hemophilia Clinic Directors of Canada, PDL/Otsuka, NCIC, GSK, Hoffman la Roche
- iii) Research Focus of Divisional Members

Malignant Hematology:

- Clinical Trials (novel monoclonal antibodies, lenalidomide, NCIC-CTG cooperative group and industry) for Multiple Myeloma (Dr. N Bahlis), Lymphoma (Dr. D Stewart, Dr. C Owen) Leukemia/MDS (Dr. L Savoie and Dr. M Geddes).
- Translational: Provincial Hematology Tumor Bank (with Alberta Cancer Research Institute Biorepository), Biomarkers for lymphoma & myeloma (Dr. D Stewart, Dr. N Bahlis).

Blood and Marrow Transplantation:

- Busulfan pharmacokinetics, adjusted dose therapy, TBI, ATG (Dr. J Russell)
- Mesenchymal stem cell treatment of GVHD (Dr. A Daly)
- PET/CT-guided high dose therapy/ASCT for aggressive lymphoma (Dr. D Stewart)
- Blood vs Marrow Stem Cell Source for Unrelated Allogeneic SCT (Dr. L Savoie)
- Allergy, Immunology and Infection following Allogeneic SCT (Dr. J Storek)
- Autologous SCT for autoimmune disorders (Dr. J Storek)

Hemostasis/Hemophilia (Dr. MC Poon):

- 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

Thrombosis:

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

Medical Education:

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

Leadership in Research:

- Canada Research Chair in Immunology. Dr. J Storek
- Chief Editor, Clinical and Applied Thrombosis and Hemostasis. (Dr. R Hull)

EDUCATION

Teaching Hours (Approximate)

	Approximate. Number of Hours
Undergraduate	MDCN 350 Blood Course 440, 540, 320: 350 hrs
Postgraduate	MDSC 731.02 MDSC 678, & Resident Seminars, Journal Club: 60 hrs, Hematology Educational Rounds: 50 hrs
CME	National/International: 20 hrs Local: 26 hrs
Thesis Supervision	2 PhD, 3 MSc

i) Awards:

- International Total 2
- National Total 0
- Local (including provincial) Total 19

ii) Educational Leadership:

- International: Invited CME (MC Poon and R Hull), CME International Health Program (Dr. C Brown)
- National: RCPSC Hematology and Internal Medicine Exam Boards (Dr. K Valentine, Dr. L Savoie)

- Local: (including provincial) Director Hematology Residency Program (Dr. M Geddes), Director Blood Course (Dr. L Savoie)

ADMINISTRATION

- i) Leadership:
 - Local (including provincial) Total 13
 - National Total 3
 - International
- ii) Strategic Planning:
 - Recruitment of new Hematology staff members - Carolyn Owen (starting Spring, 2009) Mona Shafey and Dawn Goodyear (starting July, 2010).
- iii) Fundraising: Source and dollar value (approximate)
 - Patient Donations \$1,700.00
 - Industry Donations \$46,000.00
 - Used for Research and Education Purposes

CHALLENGES AND FUTURE DIRECTION

- i) Challenges
 - Transition from separate Calgary Health Region/Alberta Cancer Board administrations to the Alberta Health Services Board model. Objectives include bed capacity, functional planning for malignant hematology/BMT and the SHC, EMR, Patient Flow, Space Allocation, and Clinical Research Staff.
 - Lack of office space and secretarial support for new recruits
 - Program development for benign Hematology addressing waiting lists, triage, QA/QI, comprehensive research program and CGPs
 - Desire to increase accrual to Clinical Trials, expand research in BMT/Cell Therapy and Benign Hematology, improve support for Translational Research (protected time, start-up money, tumor bank), and initiating Health Services Research
 - Increased teaching responsibilities for increasing numbers of medical students and residents
- ii) Future Directions - Goals for the coming year include:
 - Planning for new SHC
 - Work with AHS Board, Calgary Zone and Cancer Care to coordinate cancer treatments
 - Expanding the Adult Rare Blood and Bleeding Disorders Clinic at the FMC to include hemoglobinopathy patients
 - Develop the Benign Hematology Program (Directed by Dr. K Valentine)
 - Increase research productivity, including competitive peer-review grants for translational research, establishing hematology tumor bank, and establishing clinical trials for benign hematology studies at FMC and for benign and malignant hematology studies at PLC
 - Recruitment of staff to meet demands of current workload, academic objectives, expanded medical school, and new SHC
 - Continuing the establishment of mentorship program for diverse needs of young Division members and fellows

Division of Infectious Diseases – Annual Report

Fiscal Year: April 1, 2009 – March 31, 2010

CLINICAL

The Infectious Diseases Division provides inpatient care at all adult hospitals in Calgary and outpatient care in a variety of settings (see below). Almost all consults are completed within 24 hours of when they are requested. The patient workload has continued to increase by 5%-10% per year. A variety of changes and improvements in the infectious diseases clinics were achieved this year.

Clinic	Access	Innovations	Case Load
Home Parental Therapy (HPTP)	<ul style="list-style-type: none"> Improved access via direct referral from the Urgent Care Centre. Refined patient care guidelines. 	<ul style="list-style-type: none"> Development of a shared patient care model with Urgent Care at Sheldon Chumir 	<ul style="list-style-type: none"> 13,000 MD visits 5,368 new MD visits
Southern Alberta (HIV) Clinic	<ul style="list-style-type: none"> Initiated nurse based patient re-assessment protocols 	<ul style="list-style-type: none"> Initiated nurse based patient re-assessment protocols 	<ul style="list-style-type: none"> 151 new patients 1319 active patients
STD Clinic	<ul style="list-style-type: none"> Outreach – via satellite clinic in Banff, collaboration with SafeWorks program; NE Women’s Clinic; Drop-In Centre, CUPS and Margaret Chisholm Resettlement Centre Development of Herpes Support Program developed with Sexual Health Access Calgary. Direct to teen STD education via Nexopia.com 	<ul style="list-style-type: none"> Standardization of patient care at STI clinics throughout the province 	<ul style="list-style-type: none"> 23620 patient visits 7043 new patients
Cystic Fibrosis Clinic	<ul style="list-style-type: none"> Continued use of Telehealth for rural patients 		<ul style="list-style-type: none"> 143 patients 579 clinic visits
General ID Clinics		<ul style="list-style-type: none"> General infectious disease consults through ID Fellows Clinics 	
Hepatitis C Clinic (CUPS)	<ul style="list-style-type: none"> Discussion of ID working in GI HCV clinics 		
MRSA Decolonization Clinic	<ul style="list-style-type: none"> Space created at RRDTTC for clinic 		<ul style="list-style-type: none"> 38 clinics per year 345 patients seen

Other Infectious Diseases (ID) Programs include:

- Infection Prevention and Control (IPC)
 - Formal report not available from IPC at date of this report. See 2009-2010 annual report for IPC
- Calgary Zone Antimicrobial Committee (formerly CHRAUC [Calgary Health Region Antibiotic Utilization Committee])
 - Reviewed the use of meropenem, fosfomycin, ceftazidime, and doripenem
 - Engaged in an education program promoting wise use of antibiotics
 - Worked to amalgamate all regional formularies into one AHS Formulary
 - Worked on protocol development order sets for *Clostridium difficile* and Meningitis, and the provincial pneumonia guideline
 - Reviewed antibiotic drug use in the community and in the acute care hospitals
 - Worked with Infection Prevention and Control regarding aspergillus rates and VRE

RESEARCH

The Division is active in research at several levels from bench to bedside. Division members spent 290 hours working as editors on journal boards, working as journal editors and reviewing grants.

Reported Division research activities include:

- 69 (55 in 2008-09) Papers in peer-reviewed journals
- 29 (29 in 2008-09) Papers in non-peer reviewed journals
- 39 (41 in 2008-2009) Abstracts and conference presentations
- 3 Book Chapters
- 9 local, 7 provincial and 16 international invited keynote presentations/plenary sessions at major scientific meetings

Major Funding:

- Division members currently hold \$3.6 million in research grants for the 2009 fiscal year from agencies ranging from CIHR and PHAC to local sources

Research focus of members:

- | | |
|-------------------|--|
| • 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. D. Holton | Infection Control, biofilm infections |
| • Dr. A. Johnson | Transplant-related infections |
| • Dr. K. Laupland | Population based infectious diseases epidemiology, leader of multi-national collaborative on blood stream infections |
| • Dr. M. Louie | Medical microbiology, <i>E. coli</i> O157, environmental antibiotic resistance |
| • Dr. T. Louie | <i>C. difficile</i> , MRSA decolonization, infection control |
| • Dr. M. Mah | Hand hygiene, social marketing |
| • Dr. D. Megran | Determinants of physician well being |
| • Dr. M. Parkins | Cystic Fibrosis |
| • Dr. A. Patullo | Clinical informatics, clinical decision support |
| • Dr. H. Rabin | Cystic fibrosis, major collaboration project with Department of Microbiology |
| • Dr. R. Read | Sexually transmitted infection, antibiotic resistance in agriculture |

EDUCATION

The Division of Infectious Diseases is committed to education at all levels, including the following:

Type of Education	Number of hours for Division
Undergraduate	85 hours formal teaching medical students MDCN 504/514.17 (bedside clerkship teaching 626 days U of C, 175 days non U of C service 801 days or 6408 hours 1602 teaching hours (0.25% of service hours)
Postgraduate	107 hours of formal teaching GIM/Family Practice Residents 584 days or 4672 hours service 1168 teaching hours (0.25% of service hours) ID Residents 323 days or 2584 hours service 646 teaching hours (0.25% of service hours)
Graduate	12.5 hours of formal teaching
CME	20 hours
Thesis Supervision	12 undergraduate students, 11 M Sc candidates, 4 doctoral candidates

Teaching Activities:

- ID Resident Teaching Program. This program has undergone major revisions to improve the formal training and educational experience of our ID residents

Educational Leadership:

- Dr. Ron Read and Dr. John Conly are active members of the Undergraduate Medical Education Committee of UME

New Initiatives and Innovations:

- STD Education direct-to-teens via www.Nexopia.com

ADMINISTRATION

Leadership members of the Infectious Disease Division are involved in Medical Administration at a number of levels. Administration duties accounts for 4.0 FTEs (33% of our FTEs) in members who do not have laboratory appointments. Our major roles include:

- **Dr. John Conly**
Zone Clinical Department Head, Head, Department of Medicine
- **Dr. John Gill**
Medical Director, Southern Alberta HIV Clinic (SAC)
Director, University of Calgary Retrovirology Laboratory

- **Dr. Marie Louie**
Acting Medical Director, Provincial Laboratory, Alberta Health Services
- **Dr. Dan Gregson**
Division Head, Medical Microbiology, Calgary Laboratory Services
- **Dr. Tom Louie, Dr. Mannie Mah, Dr. Donna Holton**
Site Medical Leaders - Infection Prevention and Control Program
- **Dr. David Megran,**
Senior Physician Executive, Alberta Health Services
- **Dr. Ron Read, Dr. John Gill, Dr. Donna Holton**
Division Chief
Medical Director, Home Parenteral Therapy Program (HPTP))
- **Dr. Ron Read**
Medical Director, Calgary STD Clinic
- **Dr. Andy Pattullo**
Medical Director, Advance Technology Clinical Informatics
- **Dr. Harvey Rabin**
Medical Director, Adult Cystic Fibrosis Clinic
- **Dr. Andrew Johnson**
ID Resident Training Program Director

CHALLENGES AND FUTURE DIRECTION

The Infectious Diseases (ID) division has experienced an increasing clinical workload because of new organisms (MRSA, H1N1), complex antimicrobial resistance patterns and a growing and aging patient population that has limited access to primary care. The ID division provides 24/7 coverage for all of the adult acute care sites. In addition, the ID Division cares for patients in more than 1300 outpatient clinics (HPTP, SAC, STI, CF clinics). The focus of the outpatient clinics is to prevent hospital admissions by providing timely outpatient care. The ID division works with IPC and public health to try to prevent diseases transmission in both outpatient and inpatient settings.

The non-clinical responsibilities (AHS administration, laboratory administration, laboratory work time and ICU) impact the amount of clinical care many division members are able to provide. Division members have heavy administration commitments. 33% of the division's time (4/12 non-laboratory FTEs) is assigned to administration responsibilities. Six division members do limited clinical work (6 weeks of inpatient serve and 6 weeks of HPTP) because of non-clinical responsibilities.

The number of attending staff within the ID Division continues to be a major challenge. A significant discord exists between the number of FTEs within the division and the workload that the division performs. In 2009-2010, the Division provided > 300 full clinical days of work in excess of clinical days assigned to Division in the clinical percent of their ISAs. We are facing manpower shortages due to retirement plans, sabbatical leaves (2 in 2011), population growth, expanded service expectations with the new South Health Campus coming online and ongoing roles for Infectious Diseases in the community.

Canada has a shortage of infectious disease physicians. Though the Division has placed job advertisements, no one applied to fill the advertised jobs. As a result, we have chosen to recruit our ID trainees. The ID training program has been completely recreated to ensure we have high quality applicants because of the quality of our training program. In 2009-10, we had 3 fellows in the ID training program.

The Division has also addressed our increasing clinical work load by forming collaborations with community clinics and agencies to take ID expertise into the community and rural areas. We have shifted care responsibilities for the less complex infectious diseases patients by training nurse practitioners in the HPTP program. We use teleconferencing for patient care and worked to take multidisciplinary rounds into the Telehealth CME program (H1N1 in pregnancy). We 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.

Division of Nephrology - Annual Report

Fiscal Year: April 1, 2009 – March 31, 2010

CLINICAL

Dimensions of Quality	Clinic, Innovation, Initiative	Key Personnel/ Leads	Outcome Measures (compared to pre-implementation.)
Access	Nephrology Central Referral Clinic	Braden Manns Nairne Scott-Douglas	Decreased wait times from up to 14 months down to less than 4 months for routine referrals. Urgent patients recognized by standardized measures and seen in less than 1-3 weeks. Opened new semi-urgent clinic (4-6 week wait). RN triaging 75%-80% of referrals
Access and Effectiveness	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	Brenda Hemmelgarn Ellen Novak NP	Being studied by Interdisciplinary Chronic Disease Collaboration (ICDC) in combination with similar clinics run by Northern Alberta Renal Program for effectiveness and cost-effectiveness. Opening new clinic in First Nations clinics
Effectiveness and Safety	Glomerulonephritis Clinic – Clinical Nurse specialist adjunct to Physician Care of active immunosuppression patients	Manns, and Sandra Whelan RN All nephrologists and trainees now using	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. Freeing up of MD's time to deliver more urgent care assessments. Expanded to all nephrologists

- Dr Chandra Thomas provides leadership and expansion of the previous pilot project relating to the Advanced Care Planning (ACP) initiative by the Region. Dr Thomas has developed a comprehensive program of ACP including partnering with Palliative Care. This consultative and intense management program initiates conversation with renal patients and supports them over many years. It also has a strong components relating to End of Life decisions, palliative care and pain control. The Southern Alberta Renal Program has supported this initiative through the funding of a clinical nurse specialist and a nurse practitioner. Partnering with NARP and developed a Pain Assessment and Management Tool to be used province-wide
- Under the Guidance of Dr. Stefan Mustata and an exercise physiologist, a dialysis bicycle exercise program has been developed. It is very popular with patients and increases the removal of toxic waste products during dialysis
- Community Kidney Kitchen: Dietitian run program that teaches Kidney Failure patients how to grocery shop and cook diets that are friendly to kidney failure

Key Partnerships

- Members of the Division of Nephrology including Drs. Manns, Hemmelgarn (coPI's) Quinn and Ravani received a \$5,000,000, 5 years team grant called the Interdisciplinary Chronic Disease Collaboration (ICDC) to investigate the effectiveness and cost-effectiveness of treatments for chronic disease. They have

already set up partnerships with other researchers in chronic disease and now are setting up contacts with health services administrators at Alberta Health and Wellness (AH & W). The aim is health administrator directed, health services research relating to chronic diseases. This is an exciting opportunity for researchers to engage health resource decision makers and give them the evidence they need to make decisions

- Dr Hemmelgarn and Dr Ahmed continue to work with First Nations elders and populations (Siksika and Tsuu T'ina) to investigate the causes of high disease burden and implement treatments for these high risk patients. In the past year they have made presentations to the Aboriginal Health Council, U of C Native Centre and the Elbow River Healing Lodge. As well Dr. Hemmelgran was an invited speaker and presented to the Assembly of First Nations Peoples
- Dr Hemmelgarn continues to also work on access and delivery of care to disadvantaged and marginalized populations such as aboriginal, elderly and the poor.
- The addition of Dr. Pietro Ravani to the Division of Nephrology has allowed for the start of a relationship with Italian researchers with similar interest in epidemiology and Health Services research
- Ongoing collaboration with researchers from Edmonton under the umbrella of the Alberta Kidney Disease Network (AKDN)

RESEARCH

Scholarly Productivity:

- Peer Reviewed Publications / Articles - Division of Nephrology is involved in the publication of 85 different peer reviewed articles, 60 as 1st, 2nd or senior authors. 33 more manuscripts in press and 35 abstracts
- Non-Peer Reviewed Articles – 1 non-peer reviewed articles
- Book Chapters- 1 book chapters
- Academic Reports or Reviews – 3 guidelines – Canadian Society of Nephrology and Canadian Hypertension Society
- 31 invited presentations

Major Funding:

- Members of the Division of Nephrology have active funding of just over \$23 million dollars of which just over \$4,000,000 is payable in the current year of this annual report. The main funding agencies are AHFMR and CIHR with much smaller amounts attributable to the Kidney Foundation of Canada, Canadian Agency for Drugs and Technology in Health (CADTH) and Industry sponsors.

Research Focus of Divisional Members

- 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 MacLaughlin and Dr Chou continue to investigate and publish in the areas of pedagogy. Specifically in the areas of how medical students and trainees learn and the medical trainee evaluation process. Dr. McLaughlin is particularly prolific in these areas
- Drs. MacRae, Ravani and Tai investigate the areas of Hemodialysis adequacy and Vascular Access
- Drs. Hemmelgarn and Manns through the AKDN are investigating genomic factors that influence chronic kidney disease
- Drs. Muruve, Wang and Tibbles continue to work on basic science areas that include gene therapies, immunologic responses, fibrosis and immune tolerance
- Dr. Tibbles (PI) in combination with Drs. Hemmelgarn and Manns received just under \$3 million for a multi-centred trial looking at treating BK virus in transplantation. This is a major cause of graft loss

Peer Review Activities

Grant Panels

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

Grant Review

- Ahmed, Sofia. 2009 Apr. Reviewer for the Kidney Research Scientist Core Education and National Training Program Post-Doctoral Fellowship Award Applications. Kidney Foundation of Canada
- Hemmelgarn, Brenda. 2009 Jan 1 - 2009 Dec 31. Biomedical Scientific Review Committee Internal Reviewer for the Scientific Review Committee. Kidney Foundation of Canada
- Hemmelgarn, Brenda. 2009 Jan 1 - 2009 Dec 31. Peer Review Committee – Internal reviewer. CIHR Aboriginal Peoples' Health Committee
- Hemmelgarn, Brenda. 2009 Jan 1 - 2009 Dec 31. External reviewer. Heart and Stroke Foundation of Canada
- Muruve, Daniel. 2006 - 2011. Experimental Medicine. Canadian Institutes of Health Research
- Tibbles, Lee Anne. 2005 - present. External Reviewer. Nova Scotia Health Research Foundation

Journal Reviews

- Ahmed, Sofia. 2009 Apr. American Journal of Kidney Diseases
- MacRae, Jennifer. 2006 Jan - present. Nephrology dialysis and Transplantation
- MacRae, Jennifer. 2006 Jan - present. American Journal of Kidney Disease
- MacRae, Jennifer. 2006 Jan - present. Kidney International
- MacRae, Jennifer. 2006 Jan - present. CJASN
- MacRae, Jennifer. 2006 Jan - present. Nephron
- MacRae, Jennifer. 2006 Jan - present. Canadian Journal of Cardiology
- Quinn, Robert. 2009 - present. Manuscript Review. American Journal of Kidney Disease
- Quinn, Robert. 2008 - present. Manuscript Review. Peritoneal Dialysis International
- Quinn, Robert. 2008 - present. Manuscript Review. Journal of the American Society of Nephrology
- Quinn, Robert. 2008 - present. Manuscript Review. Clinical Journal of the American Society of Nephrology
- Tibbles, Lee Anne. 2008 - present. External Reviewer, American Journal of Transplantation. American Society of Transplantation
- Tibbles, Lee Anne. 2008 - present. External Reviewer, Nephrology Dialysis and Transplantation
- Tibbles, Lee Anne. 2008 - present. External Reviewer, Transplant International. The Transplantation Society
- Tibbles, Lee Anne. 2007 - present. External Reviewer, Journal of the American Society of Nephrology. American Society of Nephrology
- Tibbles, Lee Anne. 2007 - present. External Reviewer, American Journal of Pathology
- Tibbles, Lee Anne. 2006 - present. External Reviewer, American Journal of Physiology. American Physiological Society

Editorship

- Hemmelgarn, Brenda. 2009 Jan 1 - 2009 Dec 31. Editorial Board. American Journal of Kidney Disease
- Hemmelgarn, Brenda. 2009 Jan 1 - 2009 Dec 31. Editorial Board. Canadian Journal of Cardiology
- Muruve, Daniel. 2008 - 2011. Gene Therapy
- Tibbles, Lee Anne. 2009 Oct 3. Chair: Working Group on the evolution of immunosuppression conversion strategies in renal transplant recipients. Science and Medicine Canada

Other

- Hemmelgarn, Brenda. 2009 Jan 1 - 2009 Dec 31. Clinical Trainee Advisory Committee MD/PhD and Clinical Fellowship reviews. Alberta Innovates - Health Solutions
- Hemmelgarn, Brenda. 2009 Jan 1 - 2009 Dec 31. CIHR Canada Graduate Scholarships PhD Awards Committee. CIHR
- Hemmelgarn, Brenda. 2009 Jan 1 - 2009 Dec 31. CIHR Canada Graduate Scholarship Master's Awards Committee. CIHR
- Tibbles, Lee Anne. 2010 - present. Abstract Review The Transplantation Society (International).

The Transplantation Society

- Tibbles, Lee Anne. 2010 - present. Abstract Review The Canadian Society of Transplantation. The Canadian Society of Transplantation
- Over 1,400 hrs in peer review processes by Division
- 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

Editorial Boards:

- Dr Hemmelgarn – Canadian Journal 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 McLaughlin – Chair U of C Clerkship Committee.
- Dr Tibbles is the director of the 2010 World Transplant Congress Organizing Committee and Executive Member of the International Congress of the Transplantation Society as well as a Member of the Kidney Foundation of Canada Biomedical Research Grants Committee.
- Dr Muruve – Member of CIHR Experimental Research Grants Committee and Member of the American Society of Gene Therapy, Immunology of Gene Therapy Committee.

EDUCATION

Teaching Hours

	Number of hours
Undergraduate	1,964
Postgraduate	989
Graduate	4,393
CME	167
Thesis Supervision	548

Awards / Recognition

- Ahmed, Sofia. Alberta Heritage Foundation for Medical Research Clinical Investigator Award. Alberta Heritage Foundation for Medical Research. \$700,000
- Ahmed, Sofia. Alberta Heritage Foundation for Medical Research Prize. Alberta Heritage Foundation for Medical Research. \$70,000
- Ahmed, Sofia. Kidney Foundation of Canada Biomedical Scholarship (declined). Kidney Foundation of Canada. \$90,000
- Ahmed, Sofia. Top Poster Presentation/ Young Investigators Forum. Institute of Circulatory and Respiratory Health. \$25,000
- Ahmed, Sofia. Alberta Heritage Foundation for Medical Research Allowance. Alberta Heritage Foundation for Medical Research. \$35,000
- Hemmelgarn, Brenda. Alberta Heritage Foundation for Medical Research Population Health Investigator Award - Renewal
- Hemmelgarn, Brenda. Canadian Institutes of Health Research New Investigator Award
- Hemmelgarn, Brenda. Dept of Med ; Research Preceptor Award
- MacRae, Jennifer. Nomination for fellows Letter of Recognition. U of C
- Manns, Braden. CIHR New Investigator. CIHR
- McLaughlin, Kevin. Gold Star teaching award for the Internal Medicine clerkship, 2009

- McLaughlin Kevin Letter of Excellence in teaching Course 4 (Renal, Endocrine and Obesity) 2009
- McLaughlin, Kevin. Undergraduate Medical Education Award for Innovation, 2009
- McLaughlin, Kevin. Award for outstanding contribution to resident teaching (“Repeat offender award”) 2009
- Muruve, Daniel. Scholar. AHFMR
- Muruve, Daniel. Canada Research Chair, Tier II
- Mustata, Stefan. Gold Star Teaching Award. U of C
- Quinn, Robert. CIHR Institute for Health Services & Policy Research Fellowship. CIHR. \$110,000
- Tibbles, Lee Anne. Certificate of Special Competence in Nephrology. Royal College of Physicians and Surgeons of Canada
- Tibbles, Lee Anne. Fellow of the Royal College of Physicians and Surgeons of Canada. Royal College of Physicians and Surgeons of Canada
- Wang, Wenjie. Amgen Western Canadian Kidney Research Senior Fellowship. U of A. \$144,000

New Initiatives / Innovations

- Dr. Brenda Hemmelgarn, Innovation program - CKD outreach clinic. Set up a clinic at Siksika for patients at high risk of developing kidney disease. Trained a nurse practitioner to run this clinic. Supervises this clinic weekly, from a distance, (by phone / pager if required). Meets weekly or bi-weekly to review patients
- Dr. John Klassen,. ABO Column Technology to the Renal Transplant Service
- Dr Tibbles, Development of a novel therapy for the treatment of BK Nephropathy in Renal Transplant patients

ADMINISTRATION

Leadership:

National

- Dr. Lee Anne Tibbles – President Canadian Society of Transplantation
- Dr Brenda Hemmelgarn – Chair of Hypertension Guidelines - Canadian Hypertension Society

Fundraising:

- Division of Nephrology with the help of the Kidney Foundation of Southern Alberta raised over \$2 million this past year as part of the five year goal of \$8 million
- Dr. Klassen in combination with philanthropist, Carlo Bellusci, has raised another \$250,000 towards a goal of \$1 million for an Endowed Professorship in Apheresis Research. He is currently at just over \$850,000 raised

CHALLENGES AND FUTURE DIRECTION

Challenges

- Space for Physician offices and support staff
- Space for research - especially space for the Roy and Vi Baay Chair in Kidney Research
- Funding for expanding home dialysis therapies
- Continued expansion of and alignment with the Northern Alberta Renal Program
- Cut in medical support staff numbers by AHS

Future Directions

- Recruitment of a world class researcher in epidemiology to fill the Baay Chair
- Expand evidence-based indications and research in Therapeutic Apheresis
- Expansion of Basic Science research
- Incorporating Telehealth

The Division of Respiratory Medicine – Annual Report

Fiscal Year: April 1, 2009 – March 31, 2010

The Division of Respiratory Medicine is delighted to report on our accomplishments in 2009. We have had an exciting and productive year. While there have been a great many changes, and many successes, the Division is facing a number of significant challenges, which we face with hope, optimism and determination.

The Division consists of 28 full members and six associate members based at three hospital sites and private clinics within AHS, Calgary Zone. Eight members are University Geographic Full Time, while 20 are University Major Part Time or in Private Practice. The Division provides continuous consultative service and inpatient ward service at three acute care hospitals, while maintaining a very busy outpatient clinical service across the region. Additionally, members of the Division report all pulmonary function tests at the three hospital sites and provide tuberculosis (TB) services for the Zone. The Division also has an outstanding record of academic productivity, and provides important administrative functions within the Department.

Alberta Health Services

This has been a difficult year at AHS. The downturn in the economy, and the perception that Alberta spends more per capita on health care than other provinces has prompted massive cuts in health care spending. A new CEO was hired (Dr. Stephen Duckett) whose job it is to contain the costs of health care in Alberta. All of this, coupled with concern about an H1N1 pandemic resulted in us turning our attention inward and focusing on what is essential. Fortunately, the H1N1 pandemic did not turn out to be as bad as it had been feared. Moreover, the administrators are convinced of the essential services provided by sleep medicine and interventional pulmonary medicine. Unfortunately, patient volumes and intensity of care have continued to grow (increased by almost 20%). Coupled with “no new resources”, this has led to Members having to “buckle down” and getting the work done. The focus on how we might do it better, smarter, faster is much less intense than it has been in recent years. As someone said, “when it comes to health care, it can be of high quality, fast, or less expensive; but you can only have two at the same time”. It is clear that we are trying to save money, but unfortunately, this is at the expense of efficiency (speed), and at the fear of losing quality. We all hope for a better 2010.

CLINICAL

Members of the Division are also one of Canada’s leaders in Sleep Medicine. Under the direction of Dr. Pat Hanly, The Sleep Centre has developed a unique and successful working relationship in the assessment and management of Sleep Disordered Breathing within the AHS, 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 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 and Paul MacEachern, 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. Alex Chee began his fellowship in Interventional Pulmonary Medicine in July 2009.

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. Bob Cowie leads this team of dedicated health care providers, including physicians, respiratory therapists, kinesiologists and nurses. Under the direction of Dr. Richard Leigh, with the help of Dr. Warren Davidson, and with the assistance of Innovation Initiative Funding, a program for assessing sputum inflammation is now well established and rapidly being incorporated into the standard management of patients.

The Division of Respiratory Medicine has also established a Pulmonary Hypertension Program. Dr. Doug Helmersen is the leader of this program and along with Dr. Sid Viner and Dr. Naushad Hirani, the Program provides day to day management as well as comprehensive diagnostic services including right heart catheterization and pharmacologic treatment. Aided by a private donation, Dr. Helmersen has purchased the equipment, including a dedicated

fluoroscopic system that is required for right heart catheterization studies. Together, this group is providing a world-class service for patients that would have died only a few years ago.

Contributions to Patient Care

A recent “environmental scan” demonstrated the tremendous contributions that members of the Division have made to patient care (internationally, nationally, provincially and regionally) by members of the Division (Appendix A). While the list spans multiple years, it highlights the depth and breadth of key opinion leaders within our Division.

RESEARCH

Innovation

- There have been no new innovation projects approved. The current projects continue to provide extremely valuable services to the Zone and the patients
- Dr. Stephen Field is leading the Cough Clinic initiative. The CHR Cough Clinic is now well established and running smoothly. Over 1,000 patients have been seen in the clinic, and it continues to serve its primary objective of shortened waitlists
- Dr. Pat Hanly, along with his team at the CHR/U of C Sleep Centre continue to benefit from the integration of an alternate care provider in the management of patients with sleep-disordered breathing. The objectives are to increase patient access to specialty services, improve patient outcomes and implement a quality assurance program for the administration of CPAP therapy. The program has been successful on all of these fronts
- Dr. Leigh continues to operate the induced sputum analysis for the assessment of asthma patients. A dedicated cytotechnologist performs sputum induction tests. These tests continue to demonstrate that the majority of asthma patients tested in the Calgary Zone have sputum eosinophilia, suggesting that therapy is suboptimal. In each case, results have led to reassessment of patient compliance, or to a change in management
- The Thoracic Oncology Program (TOP) operates under the guidance of Drs. Alain Tremblay, David Stather and Paul MacEachern. A full time NP and Clerk are dedicated to the TOP Program, which has allowed us to increase the number of patients seen while maintaining a nearly non-existent waitlist. The inception of the TOP Telehealth Clinic has also allowed the TOP Program to expand to the rural Calgary Zone and Southern Alberta
- Dr. Ford continues to operate a “Complex COPD” Clinic, which is an outpatient centered program at the RGH that integrates outcome research, PFT, DI, clinics, physicians, trainees, administrative staff, and allied health care providers with the goal of enhancing care for patients with chronic and acute respiratory disorders
- We all hope that we will return to an interest in new innovative and enhanced patient care in 2010

EDUCATION

Dr. Dina Fisher is the recipient of the inaugural Academic Training and Renewal Program (ATRP), which is sponsored by Boehringer Ingelheim and Pfizer to Dr. Dina Fisher. The goal of the program is to provide funding for Major Clinical Faculty to pursue an area of academic or educational interest. Dr. Fisher will be pursuing her interests in tuberculosis.

The GlaxoSmithKline Advanced Fellowship Training Program continues to be highly successful. As the field of Respiriology 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 the Clinical Scholar Program in the Department of Medicine, which partners with the AHFMR 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 participants of the program include:

Dr. Naushad Hirani	Pulmonary Hypertension	University of Bologna
Dr. Charlene Fell	Interstitial Lung Disease	University of Michigan (Funded by AHFMR)
Dr. Julie Jarand	Mycobacterial Diseases	University of Colorado and University of Cape Town
Dr. Paul MacEachern	Interventional Pulmonology	UBC and Germany

Anticipated:

Dr. Mitesh Thakrar
Dr. Tom Lim

Lung Transplantation
Occupational Medicine

Newcastle, UK (pending)
Los Angeles, CA (pending)

Awards

While it is impossible to mention all of the awards received by Members of the Division, it is worth highlighting a few. Dr. Kris Fraser was awarded the Gold Star Teaching Award and Dr. Karen Rimmer received the “Repeat Offender” teaching award. Dr. Dave Stather received the Leadership Development Program for Academic and Private Practice Physicians Award from the American College of Chest Physicians. Dr. Richard Leigh received an AHFMR Clinical Investigator award as well as a CIHR Clinician Scientist Award. We have two endowed professorships with the Division, the GSK-CIHR Professorship in Inflammatory Lung Disease and the Jesse Bowden Lloyd Professorship in Immunology.

ADMINISTRATION

The individual contribution of Members resulted in the publication of over 92 papers, abstracts and book chapters in 2009. This is an increase of 3% over last year. More than 105 presentations were given, and received over \$2.5M in research support in 2009.

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 Division.

- Dr. Charlene Fell made an important contribution to our understanding of the management of patients with pulmonary fibrosis. This work was published in the American Journal of Respiratory and Critical Care
- Dr. Pat Hanly has highlighted the benefit of nocturnal dialysis in sleep disordered breathing, published in Sleep Medicine
- Dr. Stephen Field has published the improvement in quality of life when pulmonologists and certified respiratory educators work together to manage patients with chronic cough. This work has been published in Chest
- Dr. Fraser has published an important contribution on the effect of simulator training on clinical skills acquisition, retention and transfer in Medical Education
- Dr. Richard Leigh demonstrated the potential link between rhinovirus infection and airway remodeling by showing the regulation of matrix metalloproteinases by the virus. This work was published in the American Journal of Respiratory and Critical Care
- Drs. MacEachern, Stather and Tremblay have highlighted the utility of endobronchial ultrasonography guided transbronchial needle aspiration in patients with suspected sarcoidosis. This work was published in Chest
- Dr. Chris Mody established the ability of NK cells to rearm after killing microbes. These studies underscore the potential to use NK cells repetitively as a continued mechanism of microbicidal activity. This observation was published in Infection and Immunity

Recruitment

The Division recruited Dr. Sachin Pendharkar (Systems and Operations Management), and Dr. Mike Roman (Exercise and Heart Lung Interactions) as Clinical Scholars. We anxiously await the arrival of Dr. Andrea Loewen who will join the Division with expertise in neuromuscular disease and sleep.

Dr. Ward Flemons (Health Safety and Quality) and Dr. Alain Tremblay (Interventional Pulmonary Medicine) have been appointed as Geographic Full Time members of the Division.

CHALLENGES AND FUTURE DIRECTION

The Division has been increasing its activity at a rapid pace. Clinical activity increased by almost 20% in the last year and recruitment is necessary to sustain this level of service. We also need to increase the number of University Geographic Full Time (GFT) members. Over the next five years, we hope to have 1/3 of our members with a GFT appointment. We will need to recruit three members to replace GFT retirements and an additional one GFT faculty to establish this ratio. Moreover, to replace other retirements and provide a critical mass of Respiriologists at four sites (including the new SHC), a total of nine Respiriologists will need to be recruited over the next five years. Additionally, the Division needs to pursue selective recruitment in areas of clinical need. These include pulmonary

rehabilitation, sleep medicine, lung transplantation, neuromuscular diseases, non-invasive ventilation, cystic fibrosis and pulmonary infections, and occupational and environmental Medicine. This must all be done in an environment of “no new dollars”.

Provision of outpatient services continues to be a pressing problem. Clinic space at all three sites (UCMG, RGH and PLC) is insufficient. More outpatient offices are needed. We hope that the clinics being developed in the TRW Building at the FMC will result in improvements at the UCMC site; however, we anticipate that problems will continue at the other sites. The space must be used more efficiently.

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 Respiriologists’ secretary is performing these tasks. The system is cumbersome, complex and has great potential for misadventure. A streamlined, and 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 (for example, a Flu outbreak or pandemic).

MDERA, which manages the Department of Medicine Electronic Medical Record (EMIS) has faced financial difficulties and will not fulfill the aspirations of the Department. A new electronic medical record system for the DOM 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 manage their present load. We are not in a position to provide the community rehabilitation, spirometry, patient diagnostic, and education program that conform to guidelines established by the Canadian Thoracic Society and identified as a priority for the Division.

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

Division of Rheumatology - Annual Report

Fiscal Year: April 1, 2009 – March 31, 2010

CLINICAL

The Division of Rheumatology underwent several changes in 2009. Dr. Mosher took over as Head of the Division replacing Dr. Martin who completed his ten-year term. Dr. Fahlman relocated to Regina and Dr. Abu-Hakima closed her private office.

Drs. Ziouzina and Fifi-Mah successfully completed their training in Rheumatology and Royal College exams and provided clinical care over the past year.

The Division of Rheumatology has 14 clinically active members. These members are divided into four categories as follows: six GFT, two major part-time, one clinical scholar and four clinical members. We also have two nurse practitioners (NP) who provide clinical service. During 2009, we had one NP who went on maternity leave in November and will not be returning to the Division as her family has relocated. These clinical services are provided at FMC, RGH and the PLC.

At FMC we have seven rheumatologists and one NP who provide 27 half-day clinics per week with the support of three clinic nurses. Over 4,000 patients had over 16,000 clinic visits at our clinic in Area 5A at FMC in 2009. A further three or four half-day clinics provided by our biologic clinic nurses, who are funded through a research grant from AH & W, provided care to over 1,200 patients who are being treated with biologic agents for rheumatoid arthritis with 1,500 clinic visits.

At RGH we had two rheumatologists who provided 8.5 clinics per week with the support of 1.5 FTE clinic nurses. Over 1,500 patients had over 6,000 visits at the Rheumatology Clinic in 2009.

At PLC we had two rheumatologists who provided 350 patients with over 1,400 visits per year in the outpatient clinic. A generic clinic nurse supports this clinic.

The **Central Referral and Access Program** has now triaged over 19,000 patients and, through this Program, wait times have been significantly reduced. Most referrals are tracked in the Central Triage database. There were 5,600 new patient referrals received in 2009. This data is utilized to help the Division plan for clinical services. The Program is managed by a clinical nurse specialist, two unit clerks and two rheumatologists, Drs. Barr and Martin. The majority of referrals to rheumatology are sent to our Central Triage office with a small number sent directly to rheumatologists' offices. Patients with early inflammatory arthritis are seen in the Early Inflammatory Arthritis clinic on an average of 2.5 weeks. Urgent referrals are seen within 1.4 weeks, semi-urgent in 4 weeks, moderate in 10 weeks, moderate-routine in 18 weeks and routine in 18 - 52 weeks. As anticipated, the wait times for routine patients has increased due to the need for ongoing follow up of inflammatory arthritis patients. Over the past year, two physicians left practice necessitating transfer of patients requiring ongoing care. Clinic space remains an ongoing concern for the Division given that the Central Triage office receives 200-400 new consultations per week.

At the Divisional Retreat in October of 2009, clinic flow issues were identified as a priority. Since that time, we have been actively working with AHS on streamlining clinic flow and simplifying processes.

In our clinical practice, we have six innovative clinics. These include the Young Adults with Rheumatic Diseases (YARD) clinic, the Early Inflammatory Arthritis Clinic (EIA), the Urgent Assessment Clinic, the Biologics/Pharmacovigilance Clinic, the NP clinic, and the Ankylosing Spondylitis/Spondyloarthropathy Clinic.

The purpose of the **YARD** clinic is to assist with the transfer of care for adolescents and young adults from pediatric to the adult health care system.

The **EIA** clinic takes place at two sites, FMC and RGH. The clinic is scheduled once per week at RGH and twice at FMC. There are five rheumatologists who provide services at these clinics. They are supported by a clinic nurse, a medical social worker and a physiotherapist at each clinic.

The **Urgent Assessment** clinic is currently held on an ad hoc basis. The clinic is managed through our Central Triage system. It offers patients who would otherwise be waiting in the Emergency Departments at various hospitals more rapid access to care. Patients are reviewed at the clinic by the rheumatology resident and the rheumatologist on-call.

The **NP** clinic takes place at FMC. We also previously ran a NP clinic at RGH, but this changed when one NP left our Division. These clinics are supported through our Central Triage system.

We continue to run a very successful **Biologics/Pharmacovigilance** Program supported by a Nurse Manager Specialist, Research Coordinator and Administrative Assistant. The Investigators of this research are Dr. Martin and Dr. Barr. This Program actively monitors over 1,200 patients who utilize various biologic agents to treat their disease. We analyze the long-term safety and efficacy of this group of drugs; ensuring clinical outcome measures meet insurance criteria for coverage and facilitate insurance applications and timely patient access to drugs. Through collection of clinical outcome measures, we have developed a local registry for further analysis and future research. This registry/database is the most comprehensive and complete collection of its kind in the world. The most unique feature of our database is that we are the only centre who collects socio-economic information. With this, we are able to analyze a broad range of data looking at many factors from clinical response times to the impact that this revolutionary treatment has had on society and the public health care system. This research study has evolved into what we hope and recommend will become standard of care.

The **Ankylosing Spondylitis/Spondyloarthropathy** clinic was recently started in January 2010. It is supported by Central Triage. The clinic is run by Dr. Mosher, a physiotherapist and a clinic nurse. This clinic runs on a weekly basis. Many of these patients are on or require biologic therapy. There have been significant issues identified around work and education that require the support of a social worker. Dr. Ziouzina has been in Toronto working with Dr. Gladman in psoriatic arthritis. It is planned that she will join this clinic as well when she returns to Calgary in August 2011.

RESEARCH

Dr. Barnabe

Pending	Systemic review and meta-analysis of cardiac events in TNF treated RA patients
Pending	
	Radiographic progress of RA in anti-TNF treated patients from pharmacovigilance cohort on nine year experience with infliximab treated RA (with Drs. Barr & Martin)

Dr. Barr

2008/01 - 2011/12	\$116,849, Funded, Site-investigator, Rheumatoid Arthritis: Comparison of active therapies in patients with active disease despite methotrexate therapy (RACAT), Veterans Administration and the Canadian Arthritis Network
2008/01 - 2011/12	\$80,000, Funded, Site-investigator, Rheumatoid Arthritis: Comparison of active therapies in patients with active disease despite methotrexate therapy (RACAT), Veterans Administration, and CIHR
2004/01 - 2011/12	\$90,000, Funded, Site-investigator, An open label study of efficacy and safety in retreatment of rituximab (MabThera/Rituxan) in patients with active rheumatoid arthritis, Hoffman La-Roche, IDEC & Genetech
2008/01 - 2010/12	Unfunded, investigator driven, Co-PI, Assessment of joint space narrowing and erosions using high resolution peripheral quantitative computed tomography (HR-pQCT) compared to plain radiography in patients with rheumatoid arthritis
2006/01 - 2010/12	\$840,000, Funded, Co-PI, Monitoring the safety and efficacy of biologic agents in the treatment of systemic rheumatic diseases, AH & W
2006/01 - 2010/12	\$80,000, Funded, Site-investigator, A randomized phase 3 double-blind controlled parallel group multicentre study to evaluate the safety and efficacy of rituximab (Mabthera, Rituxan) in combination with methotrexate compared to methotrexate alone in methotrexate-naive patients with active rheumatoid arthritis, Hoffman La-Roche
2009/01 - 2009/12	\$62,500, Funded, Site-investigator, A randomized, double-blind parallel group study of the safety and reduction in signs and symptoms during treatment with MRA versus

placebo in combination with methotrexate in patients with moderate to severe active rheumatoid arthritis, Hoffman La-Roche, SRM Medhisarch Inc (Japan)

Dr. Edworthy

2007 - 2011 \$413,400, Funded, Site/Local PI, Lymphoma Risk: A Consequence of Immune Suppression or Stimulation, The Arthritis Society
2007 - 2011 \$27,058, Funded, Site/Local PI, Lymphoma Risk: A Consequence of Immune Suppression or Stimulation, CCERN
2007 - 2011 \$20,000, Funded, Site/Local PI, Lymphoma Risk: A Consequence of Immune Suppression or Stimulation, MUHC Research Institute
2007 - 2009 \$227,600, Funded, Site/Local PI, Administrative Database Research in Rheumatic Diseases: Novel Techniques, CIHR

Dr. Fitzgerald

2009/01 - 2010/01 \$36,000, Funded, Co-PI, Access to Medical Services (Western Canada Waiting List Project) Rheumatology tool-testing, DOM

Dr. Fritzler

2009/05 - present \$300,000, Funded, Principal/Senior investigator, Phase IV: Autoimmune System (GW Bodies) Research, Anonymous Donor
2009/05 - present \$17,000, Funded, Principal/Senior investigator, Autoimmunity and eye diseases, Zabawski Fund: III
2009/05 - present \$17,000, Funded, Principal/Senior investigator, Biomarkers for Amyloidosis, James Manning Fund: III
2008/05 - present \$1,000,000, Funded, Co-investigator, AHFMR TEAM Osteoarthritis Research: from Bench to Bedside, AHFMR
2007/01 - present \$1,000,000, Funded, Co-PI, CIHR TEAM Scleroderma Research Group, CIHR
2006 - 2010/03 \$535,000, Funded, Principal/Senior investigator, Golgi complex and Endosomal Autoantigens, CIHR

Dr. LeClercq

2008/04 - 2012/05 \$183,939, Funded, Co-investigator, 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, NIH/Duke University
2009/03 - present Funded, Site-investigator, DETECT: a two-stage prospective observational cohort study in scleroderma patients to evaluate screening tests and the incidence of pulmonary arterial hypertension and pulmonary hypertension, Actelion Pharmaceuticals Canada Inc
2006 - present Funded, Co-investigator, A Randomized Double Blind Parallel Group Study of the Safety and Reduction of Signs and Symptoms During Treatment with MRA versus Placebo, in Combination with Methotrexate, in Patients with Moderate to Severe Active RA and an Inadequate Response to anti-TNF Therapy, Roche Pharmaceuticals
2004/05 - present \$99,000, Funded, Site-investigator, Canadian Scleroderma Research Group: National Registry and Data Base, CIHR
2008/11 - 2009/10 \$99,876, Funded, Co-investigator, Optimal Drug Therapy for the Treatment of Rheumatoid Arthritis: A synthesis of International Practice Guidelines and Current Research for the development of Canadian Practice Guidelines, CIHR

Dr. Martin

2008/01 - 2011/12 \$116,849, Funded, Site/Local PI, 2. Rheumatoid Arthritis: Comparison of active therapies in patients with RACAT, Veterans Administration and The Canadian Arthritis Network
2008/01 - 2011/12 \$80,000, Funded, Co-investigator, Rheumatoid Arthritis: Comparison of Active Therapies in patients with active disease despite methotrexate therapy RACAT, CIHR and Veterans Administration
2004/01 - 2011/12 \$90,000, Funded, Site/Local PI, 11. An open label study of efficacy and safety in re-treatment of Rituximab (MabThera/Rituxan) in patients with active rheumatoid

	arthritis. Hoffman La-Roche, IDEC & Genetech, Hoffman La-Roche, IDEC & Genetech
2008/01 - 2010/12	Unfunded, investigator driven, Co-PI, Assessment of joint space narrowing and erosions using high resolution peripheral quantitative computed tomography (HR-pQCT) compared to plain radiography in patients with rheumatoid arthritis, Unfunded
2007/01 - 2010/12	Unfunded, investigator driven, Co-PI, 13. Endothelial Cell Function in Newly Diagnosed Rheumatoid Arthritis Patients, Unfunded
2006/01 - 2010/12	\$840,000, Funded, Principal/Senior investigator, 1. Monitoring the safety and efficacy of biologic agents in the treatment of systemic rheumatic diseases, AH & W
2006/01 - 2010/12	\$80,000, Funded, Site/Local PI, 3. A randomized phase 3 double-blind controlled parallel group multicentre study to evaluate the safety and efficacy of Rituximab (Mabthera, Rituxan) in combination with methotrexate compared to methotrexate alone in methotrexate-naïve patients with active rheumatoid arthritis, Hoffman La-Roche
2005/01 - 2010/12	\$62,500, Funded, Site/Local PI, 12. A randomized, double-blind, parallel group study of the safety and reduction in signs and symptoms during treatment with MRA versus placebo in combination with Methotrexate in patients with moderate to severe active rheumatoid arthritis, Hoffman La-Roche & SRL Medhisarch Inc (Japan)
2004/01 - 2010/12	\$30,000, Funded, Site/Local PI, Re-treatment protocol – An open label study of efficacy and safety of re-treatment with Rituximab (MabThera/Rituxan) in patients with active rheumatoid arthritis, Hoffman La-Roche, IDEC & Genetech
2000/01 - 2010/12	\$173,760, Funded, Site/Local PI, 5. A randomized, double-blind, trial of anti-TNF alpha chimeric monoclonal antibody (infliximab) in combination with Methotrexate compared with Methotrexate alone for the treatment of patients with early rheumatoid arthritis. Centocor Inc, Centocor Inc
2004/01 - 2009/05	\$60,000, Funded, Site/Local PI, 9. A multi-centre study of the safety and efficacy of human anti-tumor necrosis factor (TNF) monoclonal antibody Adalimumab with active ankylosing spondylitis, Abbott Ltd Laboratories
Dr. Mosher	
2009/01 - present	\$200,000, Funded, Principal/Senior investigator, Impact of Arthritis 2010-2040, ACAP / CAN

Publications

Peer-Reviewed Manuscripts

- **Barnabe C**, Hanley D. Effect of TNF Inhibition on Bone Density and Turnover Markers in Patients with Rheumatoid Arthritis and Spondyloarthritis. *Semin Arthritis Rheum* 2009; 39(2):116-122
- **Barnabe C, LeClercq S, Fitzgerald A**. The Development of Inflammatory Arthritis and Other Rheumatic Diseases Following Stem Cell Transplantation. *Semin Arthritis Rheum* 2009; 39(1):55-60
- Moser JJ, **MJ Fritzler**, JB Rattner. Primary ciliogenesis defects are associated with human astrocytoma/glioblastoma cells. *BMC Cancer*. 2009;9:448
- Assassi S, **MJ Fritzler**, FC Arnett, GL Norman, KR Shah, P Gourh, N Manek, M Perry, D Ganesh, MH Rahbar, MD Mayes MD. Primary Biliary Cirrhosis (PBC), PBC Autoantibodies, and Liver Function Abnormalities in a Large Population of Systemic Sclerosis Patients. *J Rheumatol* 2009;36:2250-6
- Arnett FC, P Gourh, S Shete, CW Ahn, RE Honey, SK Agarwal, T McNearney, M Fischbach, **MJ Fritzler**, MD Mayes, JD Reveille. Major Histocompatibility Complex (MHC) Class II Alleles, Haplotypes, and Epitopes which Confer Susceptibility or Protection in the Fibrosing Autoimmune Disease Systemic Sclerosis: Analyses in Over 1300 American Caucasian, African and Hispanic Cases and 1000 Controls. *Ann Rheum Dis*. 2009
- El-Gabalawy HS, D Robinson, DM Hart, B Elias, J Markland, C Peschken, M Schroeder, **MJ Fritzler**, M Cheang, K Oen. Immunogenetic risks of anti-cyclical citrullinated peptide (CCP) antibodies in North American Native population with RA and their First Degree relatives. *J Rheumatol*. 2009;36:1130-5
- Schulte-Pelkum J, **Fritzler MJ**, Mahler M. Update on the Ro/SS-A autoantibody system. *Autoimmun Rev*. 2009;8:632-7

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- Blondin D, Z Zhang, K Shideler, H Hou, **MJ Fritzler**, RP Mydlarski. The prevalence of non-organ specific autoantibodies in patients with pemphigus vulgaris. *J Cutaneous Med & Surg* 13: 82-87, 2009. *J Cutaneous Med & Surg*. 2009; 13: 82-87
- Mahler M, **MJ Fritzler**. PM1-Alpha ELISA: The assay of choice for the detection of anti-autoantibodies? *Autoimmunity Rev*. 2009;8:373-378, 2009
- Juřenčák R, **MJ Fritzler**, PN Tyrrell, LT Hiraki, SM Benseler, ED Silverman. Autoantibodies in Pediatric Systemic Lupus Erythematosus: Ethnic Grouping, Cluster Analysis and Clinical Correlations. *J Rheumatol*. 2009;36:416-21
- Nozawa K, **MJ Fritzler**, Y Takasaki, MR Wood, EKL Chan. Clustering of Golgi complex and other cytoplasmic organelles during apoptosis. *Cell Biol Intl*. 2009;33:148-57
- Lafyatis R, E Kissin, M York, K Viger, **MJ Fritzler**, P Merkel, RW Simms RW. B cell depletion with Rituximab in patients with diffuse cutaneous scleroderma. *Arthritis Rheum*. 2009;60:578-83
- Moser JJ, EKL Chan EKL, **MJ Fritzler MJ**. Optimization of immunoprecipitation-Western blot analysis in detecting GW182-associated components of GW/P Bodies. *Nature Protocols*. 2009;4:674-485
- Bernatsky S, P Panopolis, A Clarke, M Hudson, J Pope, S LeClercq, J Markland, D Robinson, N Jones, P Docherty, M Abu-Hakima, J-P Mathieu, Y St. Pierre, C Smith, N Khalidi, E Sutton, **MJ Fritzler** and the Canadian Scleroderma Research Group, Baron M. The Cost of Systemic Sclerosis. *Arthritis Rheum*. 2009;61:119-23
- Bernatsky S, P Panopolis, M Hudson, J Pope, S LeClercq, D Robinson, N Jones, J Markland, M Abu-Hakima, J-P Mathieu, P Docherty, N Khalidi, E Sutton, **MJ Fritzler**; the Canadian Scleroderma Research Group, M Baron. Demographic and Clinical Factors Associated with Physician Service Use in Systemic Sclerosis. *J Rheumatol*. 2009;36:96-8
- Bernatsky S, M Hudson, J Pope, J Markland, D Robinson, N Jones, P Docherty, M Abu-Hakima, S LeClercq, J Dunne, CD Smith, E Sutton, N Khalidi, J-P Mathieu, A Masetto, S Ligier, E Kaminska, **MJ Fritzler**; Canadian Scleroderma Research Group, M Baron. Reports of abnormal cervical cancer screening tests in systemic sclerosis. *Rheumatology (Oxford)*. 2009;48:149-51
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- Hudson M, R Steele, Y Lu, BD Thombs, P Panopolis, **MJ Fritzler**, Canadian Scleroderma Research Group, M Baron. Clinical correlates of self-reported physical health status in systemic sclerosis. *J Rheumatol*. 2009;36:1226-9
- Hudson M, BD Thombs, R Steele, P Panopolis, E Newton, **MJ Fritzler**, Canadian Scleroderma Research Group, M Baron. Quality of life in patients with systemic sclerosis compared to the general population and patients with other chronic conditions. *J Rheumatol*. 2009;36:768-72
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- Bernatsky S, Panopolis P, Hudson M, Pope J, **LeClercq S**, Robinson D, Jones N, Markland J, **Abu-Hakima M**, Mathieu J-P, Docherty P, Khalidi N, Sutton E, Baron M, and the Canadian Scleroderma Research Group. Demographic and Clinical Factors Associated with Physician Service Use in Systemic Sclerosis. *J Rheumatol* 2009 Jan; 36[1] 96-8
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haplotypes are associated with rheumatoid arthritis and primary biliary cirrhosis in the Canadian population. *Arthritis Rheum.* 2009 Apr;60(4):93 1-7

Abstracts

- **Barnabe C, Hazlewood G, Barr S, Martin L.** Use of Rituximab or Abatacept After Anti-TNF Discontinuation in Patients with Severe Rheumatoid Arthritis. *J Rheumatol* 2009;36(11):2564
- McMillan L, **Barr S, Barnabe C, Martin L.** Achieving remission in rheumatoid arthritis with biologic therapies. *J Rheumatol* 2009; 36(11):2576
- **Barnabe C, Hazlewood G, Fahlman N, Barr SG, Martin L.** Rational Selection of Next Biologic After Anti-TNF α Discontinuation in Rheumatoid Arthritis. *Ann Rheum Dis* 2009; 68(Suppl3):739
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- **Edworthy S,** Teixeira E, Watson P, Ferland D, Zummer M. Lessons Learned From a Failure of Technology. *Canadian Rheumatology Association February 2009*
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- Dr. **Avril Fitzgerald,** Dr. Barbara Conner-Spady, Dr. Carolyn DeCoster, Dr. Ray Naden, Dr. Gillian Hawker, Dr. Tom Noseworthy. *Rheumatology Priority Referral Score: Clinical Testing. J Rheum* 36(11)2570-2571. Nov 2009
- Dr. **Avril Fitzgerald,** Dr. Barbara Conner-Spady, Dr. Carolyn DeCoster, Dr. Ray Naden, Dr. Gillian Hawker, Dr. Samra Mian, Dr. Tom Noseworthy and the Investigators of the Western Canada Waiting List Project (WCWL). *WCWL Rheumatology Priority Referral Score: Reliability and Validity Testing. Arthritis Rheumatism* 2009; 60 (10): Suppl S 19

Communications-Peer Reviewed

- Moser JJ, **MJ Fritzler.** Cytoplasmic Ribonucleoprotein (RNP) bodies and their relationship to GW/P Bodies. *Intl J Biochem & Cell Biol.* 2009
- Mahler M, **MJ Fritzler MJ.** The changing landscape of the clinical value of the PM/Scl autoantibody system [editorial]. *Arthritis Research & Therapy* 2009;11:R106
- Arto Ohinmaa, **Liam Martin,** Anthony S. Russell, Susan Barr, Dalton Sholter, **Chris Penney,** Doug Lier, Charles Yam, Anderson Chuck, Walter P. Maksymowych. Changes in health related quality of life and clinical status of rheumatoid arthritis patients during 15 months biologics treatment. Oct 2009
- **Fifi-Mah A, Ziouzina O, Penney C, Martin L.** Is viral arthritis the self limited form of undifferentiated arthritis. Jun 2009
- Maksymowych WP, **Martin L,** Russell AS, **Barr S,** Sholter D, **Penney C,** Lier D, Yan C, Chuck A, Ohinmaa A. Improvements in health related quality of life, work productivity and resource utilization with anti-TNF therapies according to functional status at baseline: The Alberta Biologics Registry. Jun 2009
- Debert C, **Hazlewood G, Penney C.** Evaluation of an evidence based standardized knee physical examination video module for medical students. May 2009

Communications-Non-Peer Reviewed

- Mahler M, **MJ Fritzler.** AI test has no problem in detection of anti-ribosomal P – author’s response. *Arth Res & Ther* 2009;25:411
- **Fritzler MJ.** The Clinical Paradox of Esoteric and Novel Autoantibodies. In, Conrad K, Chan, EKL, Sack U, Shoenfeld Y, Wiik A (eds), *From Etiopathogenesis to the Prediction of Autoimmune Diseases: Relevance of Autoantibodies. Autoantigens, Autoantibodies and Autoimmunity. Proceedings 9th Dresden Symposium on Autoantibodies.* Pabst Science Publishers, 2009

EDUCATION

- Dr. Penney has been the Course Coordinator for Rheumatology and also the Course Evaluator. He will step down from this position in July 2010 to lead the Division in CME and the Clinical Clerks Program. Dr. Morris will take over as Course Director for Rheumatology

- We continue to provide more than 30 hours per week of clinical experience for clinical clerks in our clinics. Dr. Lewkonja has been responsible for the organization of their rotations as well as doing a separate bedside teaching session once per year. We have accepted students from across Canada for a two week elective in Rheumatology. Dr. Mosher covered Dr. Lewkonja's position while he took a well earned sabbatical from January to July 2010. As previously mentioned, Dr. Penney will be taking over the lead in this program in July
- Dr. Fitzgerald stepped down as Postgraduate Education Program Director in July 2009 and Dr. Barr now holds this position. Dr. Ziouzina and Dr. Fifi-Mah completed their rheumatology residencies and were successful at their Royal College exams. Dr. Ziouzina has done an extra 6 months in Toronto with Dr. Gladman in Psoriatic Arthritis. Both will join the Division as active clinic staff this coming year. Dr. Chu began as our 1st year rheumatology trainee in July 2009. Dr. Stajkovic will join the Division in July 2010. Dr. Barnabe is completing her Masters in Clinical Epidemiology and will continue as a 1.0 Clinical Scholar to study and develop a program in Aboriginal Health. We also provide clinical experience for IM residents and Psychiatry residents
- The Division runs weekly educational rounds for all staff and trainees in addition to holding weekly Allied Health Rounds
- Dr. L Martin was awarded the Gold Star for undergraduate medical teaching in 2009. Dr. C Penney was awarded the Dean's Letter of Excellence

ADMINISTRATION

- Chair, Assessment Committee, PAR, College of Physicians and Surgeons of Alberta
- Chair, Board of Governors, Centre Street Church
- Chair, Board of Management, Alberta Science & Research Authority (ASRA)
- Chair, Course Chair - MDCN 440 Evidence Based Medicine, U of C
- Chair, EHR Data Stewardship Committee, Calgary Health Region/ DOM
- Chair, Executive Committee, Alberta Science and Research Authority (ASRA)
- Chair, Executive Committee, Alliance for a Canadian Arthritis Plan
- Chair, Foothills Medical Staff Association, FMC
- Chair, Rheumatology Ethics Curriculum Committee, Canadian Rheumatology Program Directors
- Chair, Rheumatology Postgraduate Training Program, Faculty of Medicine, U of C
- Co-Chair, Alberta Heritage Foundation for Medical Research, OA Team Grant Committee, U of C / U of A
- Co-Chair, Arthritis Society Chair Search and Selection Committee, U of C
- Coordinator (Calgary), Canadian Early Arthritis Cohort (CATCH)
- Coordinator, Pathology Rounds, Division of Rheumatology
- Coordinator, Telehealth rheumatology clinics for Southern Alberta, Division of Rheumatology
- Coordinator, Telehealth rheumatology Clinic for Southern Alberta, DOM
- Evaluations Co-ordinator, Rheumatology Course 2 - U of C
- Director, Rheumatology Training Program, DOM, U of C
- Director, MSK Course 2, U of C
- Regional Medical Director, Patient Partners
- Co-Director, Western Alliance of Rheumatology Program Committee, Western Alliance of Rheumatology
- Co-Director, Scientific Committee for Provincial Biological Program, U of C / U of A / AH & W
- Examiner (Graduate) Medical Council of Canada, Division of Rheumatology, DOM
- Leader, Autoimmune Research Network, U of C
- Leader, Rheumatology Rounds, Division of Rheumatology, DOM
- Medical Co-Director, Severe Arthritis Clinic, Division of Rheumatology, U of C
- Medical Director, Rheumatology Central Referral & Triage Innovation Project, DOM, U of C
- Medical Director, Lupus HealthNet Program, Division of Rheumatology, U of C
- Member, Canadian Scientific Committee, 3e Multinational initiative in Rheumatology
- Member, 3e Multinational Working Group
- Member, Addiction and Mental Health Integration, Research, Evaluation, Knowledge Exchange /Translation Working Group, Alberta Mental Health Board
- Member, Admissions Selection MD Program Committee, Faculty of Medicine
- Member, Advisory Committee on Research Commercialization, U of C
- Member, Alberta Biologics Scientific Committee

- Member, Alberta Bone and Joint Network
- Member, Arthritis Working Group, Alberta Bone and Joint Network
- Member, Alberta Life Sciences Institute Board, Alberta Life Sciences Institute
- Member, Alberta Referral Directory Steering Committee, AHS
- Member, Business case for arthritis working group - Alliance for a Canadian Arthritis Plan / CAN
- Member, Steering Committee, Alliance for a Canadian Arthritis Plan
- Member, Government Relations Committee, Alliance for Canadian Arthritis Program
- Member, American College of Rheumatology Informatics Sub Committee
- Member, Arthritis Society of Canada Board (Alberta / N.W.T.)
- Member, Arthur JE Child Chair Search and Selection Committee, U of C
- Member, Board of Directors, Alberta Prion Research Institute
- Member, Board of Directors, NCE PrionNet
- Member, Board of Advisors, Vaccine Infectious Diseases Organization (VIDO)
- Member, Board of Governors, Genome Alberta
- Member, Calgary and Area Physician Association Executive, CHR
- Member, Campus Development Committee, Ambrose University College
- Member, CDIC(Undergraduate Medical Education Committee), U of C Faculty of Medicine
- Member, Clinical Sub-Committee of the Standards Collaborative Coordinating Committee
- Member, Corporate Governance and Human Resources Committee, Genome Alberta
- Member, Curriculum Design and Implementation Committee, U of C
- Member, Education Committee, Canadian Rheumatology Association
- Member, EHR Data Stewardship Committee, AH & W
- Member, EMIS Implementation Collaboration Group, CHR
- Member, EMR/EHR Clinical Information Initiative Steering Committee
- Member, Examination Board for Rheumatology, Royal College of Physicians and Surgeons of Canada
- Member, Examination Board for Internal Medicine, Royal College of Physicians and Surgeons of Canada
- Member, Executive Board, Laurentian Rheumatology Meeting
- Member, Executive Council, Snyder Institute of Infection, Immunity & Inflammation
- Member, Executive Faculty Council, Faculty of Medicine
- Member, External Awards and Recognition Committee, Faculty of Medicine
- Member, McCaig Institute Strategic Advisory Board
- Member, McCaig Institute Executive Committee
- Member, McCaig Community and Partners Advisory Committee
- Member, MDCN 440/Research Elective Program, Directed Studies and Clinical Elective
- Member, MDCN 340/Research Methods and Evidence Based Medicine
- Member, Medical Advisory Board, CHR
- Member, Medical Informatics Committee, DOM, U of C
- Member, Medical Services Executive Committee, Faculty of Medicine
- Member, Medical Services Executive Council, AHS
- Member, PCN Initiative, Division of Rheumatology
- Member, Pharmacy and Therapeutics Committee, Canadian Rheumatologic Association
- Member, Physician Performance Committee, College of Physicians and Surgeons of Alberta
- Member, Postgraduate Education Committee in Rheumatology, Faculty of Medicine
- Member, Regional Bone and Joint Health Program Committee
- Member, Research Partnership Committee, Alberta Mental Health Board
- Member, Resident Program Committee, Division of Rheumatology, U of C
- Member, Rheumatology Division Headship Review Committee
- Member, Rheumatology Program Committee, DOM, U of C
- Member, Rheumatology Postgraduate Training Program, Faculty of Medicine, U of C
- Member, Roles & Mandates Framework for Alberta's Provincially Funded Research and Innovation System, Alberta Advanced Education and Technology (AAET)
- Member, Social Accountability Committee, Faculty of Medicine, U of C
- President, (MDERA) Medical Doctors' Electronic Record Association of Southern Alberta
- President, Executive Committee, Alliance for a Canadian Arthritis Plan

- Representative (Division), ARP Management Committee, U of C
- Representative (Rheumatology Division), AMA
- Secretary/Treasurer, MDERA (Medical Doctors of Southern Alberta Electronic Records Association)
- Teacher, Allied Health professional Training in Rheumatology

CHALLENGES AND FUTURE DIRECTION

- The Division of Rheumatology is fortunate to have two research chair positions. The Arthritis Society Chair position has been extended to Dr. Fritzler for a further two years. A collaboration between Dr. El-Gabalawy in Manitoba and Dr. Fritzler in Aboriginal Health as well as the establishment of the Autoimmune Network is part of the future direction in research that this chair position facilitates. The Search and Selection Committee for the Arthur Child Chair in Arthritis Clinical Epidemiology and Research has been co-chaired by Drs. Shrive (Director, McCaig Institute) and Mosher. A successful candidate has been identified and offered the position. This individual will make a significant contribution to Pillar III, IV research within the McCaig Institute and the Division of Rheumatology
- Dr. Atkinson received the Distinguished Rheumatologist Award at the Canadian Rheumatology Association meeting in Quebec City in February 2010. Dr. Edworthy was promoted to full professorship at the U of C. Dr. Ziouzina will join the Division in August 2010 with a focus on psoriatic arthritis. Dr. Fifi-Mah will take Dr. Fitzgerald's position at Rockyview Hospital. Her interest is in vasculitis and systemic lupus. She will spend time with Dr. Guillevin in Paris this summer and join the Division in September 2010
- Dr. Fitzgerald will take a leave of absence from July to December 2010. She will then hold a 0.25 FTE position and see routine patients not requiring on-going care. She will remain active in undergraduate education
- The establishment of a lupus clinic and the 'Lupus Health Net' database is a priority for the Division in 2010/2011 along with Aboriginal Health and PCN Models of Care. A research committee of the Division was formed (Research Facilitation Committee) to coordinate and facilitate basic, translational and clinical research within the Division of Rheumatology. This committee, being led by Dr. Fritzler and Dr. Mosher, was struck as a recommendation from the 2009 Division Retreat and will focus on knowledge translation, continuum of care, project prioritization, project management, funding and mentorship
- Dr. Edworthy in conjunction with the FMC PCN has established a model of care using a clinical nurse specialist as a case manager in conjunction with our Central Triage. This work will proceed in cooperation with the Alberta Bone and Joint Institute and the Division and is set to launch in September 2010
- The Alberta Bone and Joint Network was established by AHS to develop and adopt clinical care pathways. Dr. Mosher is a network member and Dr. LeClerc co-chairs the Arthritis Working Group Subcommittee

As a result of new recruitment and the filling of our chair positions, the Division is poised to make an even greater contribution to research and to set direction within the McCaig Institute for Bone and Joint Health. The Division continues to have a strong clinical presence and to be a leader in innovative health care delivery models with our Central Triage, specialty clinics, and now primary care models.

Appendix to Division of Hematology and Hematological Malignancies – Annual Report

Grants, Peer Reviewed Articles, Chapters, and Awards July 1 2009- June 30 2010

New Grants

Title: Integrin Beta 7 Mediated Regulation of MM Cells Adhesion, Proliferation and survival
Source: Alberta Cancer Research Institute
Total Amount : \$280,000.00
Role: PI N Bahlis
From 2010 to 2011

Title: Elucidating the Clinical Relevance of Micro RNA (miRNA) in Diffuse Large B Cell Lymphoma (DLBCL)
Source: Alberta Cancer Research Institute
Total Amount : \$50,000.00
Role: PI C Owen
From 2010 to 2011

Title: Integrin Beta 7 Mediated Regulation of MM Cells Adhesion and Survival
Source: Leukemia and Lymphoma Society
Total Amount : \$120,000.00
Role: PI N Bahlis
From 2009 to 2011

Title: Role of Integrin Beta 7 in Myeloma Cells Survival and Proliferation
Source: Alberta Cancer Board
Total Amount : \$275,000.00
Role: PI N Bahlis
From 2009 to 2011

Ongoing

Title: Tissue Array in Multiple Myeloma
Source: Multiple Myeloma Research Foundation
Total Amount : \$75,000.00
Role: PI N. Bahlis
From 2008 June

Title: Establishing a TMA Based Quantitative Classification in Multiple Myeloma
Source: Alberta Cancer Board
Total Amount: \$232,000.00
Role: PI N Bahlis
From 2008 June to 2010 June

Title: Predicting Benefit and Improving Outcomes of High Dose Therapy (HDT) and Autologous Stem Cell Transplantation (SCT) for Lymphoma (NHL) and Myeloma (MM) patients Through Tissue Arrays Based Classifications and Sensitive Detection of Minimal Residual Disease (MRD)
Sources: Terry Fox Research Initiative and Alberta Cancer Foundation
Total Amount: \$1,300,000.00
Role: Co-PIs D Stewart, N Bahlis
From 2009 to 2012

Title: Alberta Lymphoma/Myeloma Clinical Database Project
Source: Hoffman La Roche, Canada
Total Amount: \$220,000.00
Role: PI D Stewart
Amount: 2009 Jan to 2012 Jan

Title: Predictions of Outcomes of Hematopoietic Cell Transplant Recipients Using Novel Immune Assays
Source: ACRI
Total Amount: \$450,000.00
Role: PI J Storek
Amount: 2009 to 2012

Title: Assaying Thymoglobulin Levels for the Study of Pharmacokinetics and Pharmacodynamics of Thymoglobulin in Pediatric Hematopoietic Stem Cell Transplant Recipients
Source: Genzyme
Total Amount: \$16,200.00
Role: Co-PI J Storek
Amount: 2009 to 2010

Title: Risk of Ischemic Heart Disease in Hemophilia – Evaluating Endothelial Function in Hemophilia
Source: Canadian Hemophilia Society
Total Amount: \$50,000.00
Role: PI M-C Poon
From 2009 to 2010

Title: Medical Patients ThromboProphylaxis and Late Outcomes, Retrospective Chart Auditing
Source: Sanofi-Aventis Canada Inc.
Total Amount: \$235,000.00
Role: PI R Hull
From 2009

Title: Evaluating the Risk of Ischemic Heart Disease in Hemophiliacs and Carriers of Hemophilia: A Case Study
Source: Division of Hematology and Hematologic Malignancies Research and Education Fund
Total Amount: \$32,550.00
Role: PI M-C Poon
From 2008 to 2010

Title: Thrombophilia Screening Practices in the Community: An Impact Assessment for Family Physicians in the Calgary Health Region (CHR)
Source: Calgary Laboratory Services Research and Development Fund
Total Amount: \$8,070.00
Role: PI M-C Poon
From 2008 to 2010

Title: Development of Hemophilia Physiotherapy Education, Phase 2: Train-the-Trainer Program Development
Source: Canadian Hemophilia Society International Project Grant
Total Amount: \$15,000.00
Role: Co-PI M-C Poon
From 2008 to 2010

Title: Validation of fixed infusion rate test dose protocol + pharmacokinetics of once daily IV busulfan
Source: National Institutes of Health, National Heart, Lung and Blood Institute
Source: PDL/Otsuka
Total Amount: \$250,000.00
Role: PI J Russell
From 2008 to 2010

Title: FDG-PET-Stratified R-DICEP and R-BEAM/ASCT for Diffuse Large B-Cell Lymphoma

Source: Hoffman La Roche

Total Amount: \$652,154.00

Role: PI D Stewart

From: 2007 to present

Title: Role of RGS1 in Multiple Myeloma.

Source: Alberta Cancer Board

Total Amount : \$100,000.00

Role: PI N Bahlis

From 2007 Jan to 2009 Jan

Title: Infection Prophylaxis in patients with CLL undergoing fludarabine based chemotherapy, a randomized trial

Source: Alberta Health Services Cancer Care

Total Amount: \$14,716.00

Role: PI D Jenkins

Amount: 2007 Jan to 2009 Dec

Title: Evaluation of the Risk of Ischemic Heart Disease in Hemophiliacs and Carriers of Hemophilia: A Case Study

Source: Division of Hematology and Hematologic Malignancies Research and Education Fund

Total Amount: \$32,550.00

Role: PI M-C Poon

From 2007 to 2009

Title: Investigation of Clotting Activity Heterogeneity in Hemophilia A

Source: Association of Hemophilia Clinic Directors of Canada

Total Amount: \$211,973.00

Role: PI M-C Poon

From 2007 Jan to 2009

Title: CD28-Mediated Regulation of Multiple Myeloma Cell Proliferation and Survival

Source: NCI/NIH.

Total Amount: \$250,000.00

Role: Co-I N Bahlis

From 2007 Jul to 2012 Jul

Source: Canadian Institutes of Health Research

Total Amount: \$147,328.00

Role: PI R Card

From 2006 Oct to 2009 Sep

Title: Alberta Heritage Foundation for Medical Research Clinical Investigator and Establishment Grant

Source: AHFMR

Total Amount: \$420,000.00

Role: PI J Storek

From: 2006 to 2009

Title: Improving Health Care Access and Sustainability with Microfluidic Platforms

Source: Alberta Heritage Foundation

Total Amount: \$5,000,000.00

Role: Co-I N Bahlis

From 2006 Jul to 2012 Jul

Title: Canada Research Chair in Immunology

Total Amount: \$500,000.00

Role: Chair J Storek

From: 2005 to 2009

Title: Prospective Investigation of Pulmonary Embolism Diagnosis (PIOPED III)

Source: National Institutes of Health, National Heart, Lung and Blood Institute

Total Amount: \$751,442.00

Role: PI R Hull

Collaborator: G Pineo

From 2005 to 2009

Title: Canada Foundation for Innovation establishment grant

Source: Canada Foundation for Innovation

Total Amount: \$384,983.00

Role: PI J Storek

From: 2004 to 2009

Peer Reviewed Publications

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- Di Minno G, Coppola A, Di Minno MND, Poon M-C. Glanzmann thrombasthenia (defective platelet integrin α IIb β 3): proposal of algorithms for management between evidence and open issues. *Thrombosis and Haemostasis* 2009; 102 (6): 1157-1164
- Dowlati A, Cooper BW. Phase I trial of fludarabine, bortezomib and rituximab for relapsed and refractory indolent and mantle cell non-Hodgkin lymphoma. *Br J Haematol* 2009; 147: 89-96
- Dueck G, Chua N, Prasad A, Finch D, Stewart D, White D, van der Jagt R, Johnston J, Belch A, Reiman T. Interim report of a phase II clinical trial of lenalidomide for T-cell non-Hodgkin's lymphoma. Accepted to *Cancer* 2010
- Fareed J, Hull RD. Apixaban to Prevent Venous Thromboemboliam After Knee Replacement. (Editorial). *Lancet* 2010 Mar; 375:779-80. Mar 2010
- Gupta V, Tomblyn M, Pedersen TL, Atkins HL, Battiwalla M, Gress RE, Pollack MS, Storek J, Thompson JC, Tieberghien P, Young JAH, Ribaud P, Horowitz MM, Keating A: Allogeneic hematopoietic cell transplantation in HIV-positive patients with hematological disorders: A report from the Center for

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- Hull RD, Pineo GF, Brant R, Liang J, Cook R, Solymoss S, Poon MC, Raskob G. Home Therapy of Venous Thrombosis with Long-term LMWH versus Usual Care: Patient Satisfaction and Post Phlebotic Syndrome. *Am J Med* 2009;122 (8): 762-9
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Book Chapters

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AWARDS

Dr. Nizar Bahlis

Bronze Award for Teaching Contribution, U of C (2009)

Dr. Andrew Daly

Associate Dean's Letter of Excellence, U of C (2009)

Bronze Award for Teaching Contribution, U of C (2009)

Dr. Peter Duggan

Associate Dean's Letter of Excellence, U of C (2009)

Gold Award for Teaching Contribution, U of C (2009)

Dr. Michelle Geddes

Associate Dean's Letter of Excellence, U of C (2009)

Letter of Distinguished Service, Silver Contribution, U of C (2009)

Dr. Russell Hull

International Union of Angiology Award (2010)

Dr. Deirdre Jenkins

Gold Star Teaching Award, U of C (2009)

Associate Dean's Letter of Excellence, U of C (2009)

Platinum Award for Teaching Contribution, U of C (2009)

Dr. Carolyn Owen

Bronze Award for Teaching Contribution, U of C (2009)

Dr. Man-Chiu Poon

City of Calgary Friends of Canada Award, \$5,000 2009

DOM, U of C and CHR, The Dr. John Dawson Award for Clinical Excellence (FMC) 2009

Faculty of Medicine, University of Calgary, Guenter Distinguished Achievement Award - U of C 2009

American Society of Hematology, American Society of Hematology Distinguished Emeritus Member 2007 to present

Dr. Doug Stewart

Associate Dean's Letter of Excellence, U of C (2009)

Bronze Award for Teaching Contribution, U of C (2009)

Dr. Karen Valentine

Silver Award for Teaching Contribution, U of C (2009)

Associate Dean's Letter of Excellence, U of C (2009)

Dr. Michael Wong

Associate Dean's Letter of Excellence, U of C (2009)

Appendix to Division of Respiratory Medicine – Annual Report

Contributions to patient care (internationally, nationally, provincially and regionally) by members of the Division.

Faculty Member	Contributions that are advancing the care for the pulmonary patient
Cowie	Development of Proposed Standards for Respiratory Health of Albertans for Alberta Breathes
Cowie	Development of CTS Asthma asthma consensus guidelines
Cowie	Development of models for the delivery of asthma and COPD assessment and education through the Calgary Asthma Program
Davidson	Development of the Southern Alberta Refractory Asthma Clinic (excellence in patient care)
Davidson	Development of the Birt-Hogg Dube Clinic (excellence in patient care)
Davidson	Development of the RGH Induced Sputum Project (excellence in patient care)
Davidson	Development of the Adult Respiratory Disease Protocol – Healthlink Alberta (excellence in patient care)
Davidson	Member - CANA COPD Action Plan Committee (excellence in patient care)
Davidson	Member - Canadian Severe Asthma Network (excellence in patient care)
Davidson	Chair – COPD and Asthma Network of Alberta
Davidson	Medical Director – CHR Pulmonary Diagnostics Laboratories
Davidson	Chair - Obstructive Disease Unit (U of C Medical School)
Fell	Development and Co-Chair of the Canadian Thoracic Society Pulmonary Fibrosis Interest Group
Fell	Development & Director of U of C Interstitial Lung Disease Clinic
Fell	Development & Co-Director of the U of C Connective Tissue Disease - Interstitial Lung Disease Clinic
Fell	Development of the Division of Respiratory Medicine Multidisciplinary Interstitial Lung Disease Rounds series to advance excellence in patient care
Fell	Development of Regional Guidelines for the Six-Minute Walk Test for patients with interstitial lung disease
Fell	Participant in the Multidisciplinary Bone Marrow Transplant Lung Disease
Field	Development of CTS community acquired pneumonia guidelines
Field	Development of Chronic bronchitis guidelines
Field	Development of Canadian TB standards
Field	CCAP cofounder
Field	Development of Chronic cough clinic
Fisher	Participant - PLC Triage Project
Fisher	Member - Immigration Subcommittee of the Canadian Tuberculosis Committee
Fisher	Participant – Calgary Tuberculosis Services
Ford	Member - National Lung Health Framework Steering Committee
Ford	Development of CTS COPD Guidelines
Ford	Development of Canadian Lung Association Web site for the "Canadian Lung Health Test"
Ford	Development of Principles of Exercise Training and Prescription (Canadian publication)
Ford	Development of Complex Multidisciplinary COPD Clinic
Ford	LWCC Cardiopulmonary Exercise Testing Medical Leader for Interpretation and Exercise Prescription
Ford	Development of Advanced Training Program for Pulmonary Rehabilitation

Ford	Development of the Heliox/Hyperoxia Intervention for LWCC as an "Adjunct to Pulmonary Rehabilitation"
Fraser	Member, Portable Monitoring for sleep apnea guidelines, Canadian Sleep Society
Fraser	Member, Alberta Provincial Respiratory Strategy Interim Steering Committee "Alberta Breathes"
Fraser	Working Group Member: Academic Detailing – AHS: "Management of Chronic Insomnia in Primary Care"
Fraser	Creation and maintenance of Clinical Sleep Medicine Fellowship (education)
Hanly	CTS Guideline Committee for Sleep Disordered Breathing
Hanly	Development of expanded role of ACP in Multidisciplinary Sleep Clinic
Hanly	Development of Sleep Fellowship training Program
Hanly	Recruitment and training of community MDs to manage sleep-disordered breathing
Helmersen	Co-Chair: Canadian Thoracic Society Chronic Thromboembolic PH Guidelines
Helmersen	AIM Collaborative Project (Round 1) - PLC Pulmonary Clinic (I believe we're the only pulmonary clinic in the province to have completed AIM thus far)
Helmersen	PLC Pulmonary Central Triage project
Helmersen	Respirology Representative to the Alberta Netcare Personal Health Portal Clinical Working Group (COPD and CHF are the model chronic diseases planned for the Personal Health Portal)
Helmersen	Developed PLC Inpatient Tobacco Reduction Initiative
Hirani	Development of CTS guidelines on Chronic Thromboembolic Pulmonary Hypertension (in preparation)
Hirani	Development of PLC Urgent Pulmonary Clinic (excellence in patient care)
Hirani	Participant in Multidisciplinary Pulmonary Vascular Clinic (excellence in patient care)
Hirani	Participant in AIM Collaborative Project for outpatient clinics
Hirani	Participant in Pulmonary Vascular Fellow training program (education)
Leigh	Member of CTS Asthma Guidelines committee and development of the 2010 Asthma Management Continuum
Leigh	Member - Alberta Breathes Interim Steering Committee to promote provincial excellence in patient care
Leigh	Development of multidisciplinary asthma clinic (excellence in patient care)
Leigh	Development of clinical sputum induction and analysis program (excellence in patient care)
Leigh	Development of omalizumab injection clinic for refractory asthma (excellence in patient care)
Leigh	Participant - multidisciplinary cough clinic (excellence in patient care)
Leigh	Development of Pulmonary Division Visiting Professor Program to promote excellence in patient care and research
MacEachern	Participant - Development of Malignant Pleural Effusion clinic at the Tom Baker Cancer Center (excellence in patient care, research)
MacEachern	Participant - Development of Thoracic Oncology Clinic for expedited evaluation of patients with suspected lung cancer, including collaboration with an ACP - nurse practitioner (excellence in patient care)
MacEachern	Participant - Development of Interventional Pulmonary Medicine Service offering advanced bronchoscopic diagnostic and therapeutic techniques to patients in Southern Alberta and beyond (excellence in patient care, research)
MacEachern	Participant - Development of Advanced Training Program in Interventional Pulmonary Medicine (education)
Mellor	Development of Electronic Medical Record for the DOM

Mody	Development of ATS statement on the Management of Fungal Disease (in press)
Mody	Development of Clinical Associate Program in Respiriology – FMC (four CA’s – three in residency)
Mody	Development of Multidisciplinary Lung/Bone Marrow Transplant Clinic (excellence in patient care)
Mody	Development of Multidisciplinary Bronchiectasis Clinic (excellence in patient care)
Mody	Development of Advanced Training Program for Respiriology Fellows to promote excellence in patient care and research (seven faculty recruits)
Mody	Development of Advanced Training and Research Program for Respiriology Faculty to promote excellence in patient care and research (one faculty)
Mody	Participant - Multidisciplinary Cystic Fibrosis Clinic (excellence in patient care)
Pendharkar	Member - Alberta Sleep Strategy Initiative (Alberta Breathes)
Pendharkar	Member - Exercise subcommittee for AHS Pulmonary Diagnostics (focus on operations and scheduling)
Pendharkar	Participant - Development of Multidisciplinary "Sleep Board" (case review with physicians and alternate care providers)
Pendharkar	Graduate Studies - Operations and Systems Management in Health Care
Rimmer	Development of National practice guidelines for Home Ventilation
Rimmer	Development of Multidisciplinary Neuromuscular Respiriology Clinic
Stather	Development of Advanced Training Program in Interventional Pulmonary Medicine (education)
Stather	Participant - Development of Malignant Pleural Effusion clinic at the Tom Baker Cancer Center (excellence in patient care, research)
Stather	Participant - Development of Thoracic Oncology Clinic for expedited evaluation of patients with suspected lung cancer, including collaboration with an ACP - nurse practitioner (excellence in patient care)
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Tremblay	Development of Interventional Pulmonary Medicine Service offering advanced bronchoscopic diagnostic and therapeutic techniques to patients in Southern Alberta and beyond (excellence in patient care, research)
Tremblay	Participant - Development of Advanced Training Program in Interventional Pulmonary Medicine (education)
Tsai	CTS Guideline Committee for Sleep Disordered Breathing
Tsai	Development of an electronic platform for regional sleep diagnostic testing