

ANNUAL REPORT

April 1, 2015 - March 31, 2016



Dr. Cheryl Barnabe – Avenue Magazine’s Top 40 Under 40 Class of 2015

OUR MISSION

“To be widely recognised for advancing health and wellness, attracting best doctors, leading innovation, creating technologies, and disseminating knowledge”

Table of Contents

Executive Summary	4
Structure And Organization	6
Organization Chart.....	8
Demographics	9
Workforce Planning Overview	11
Workforce Statistics.....	11
Recruitment.....	13
Departures.....	14
Physician Awards	15
Promotions	16
Patient Flow - DoM Inpatient Data.....	17
Patient Flow - DoM Outpatient Data	19
Department of Medicine - Section And Program Reports	22
Calgary Urban Project Society (Cups) – Annual Report	23
Section of Dermatology – Annual Report.....	25
Clinical.....	25
Research.....	25
Education	26
Administration	28
Other Accomplishments.....	29
Challenges and Future Direction.....	30
Addendum 1	31
Section of Endocrinology and Metabolism - Annual Report.....	35
Clinical.....	35
Research.....	39
Education	40
Administration	41
Section of Gastroenterology and Hepatology – Annual Report.....	42
A) Division Accomplishments and Innovations in Clinical Care	42
B) Section Accomplishments and Innovations in Research	55
C) Section Accomplishments and Innovations in Education.....	58

D) Administration	62
E) Update On GI / Hepatology Section-Linked Endowed Chairs	63
Section of General Internal Medicine - Annual Report	64
Clinical Care	64
Administration / Leadership	66
Research.....	67
Education	68
Future Directions	70
Section of Geriatric Medicine – Annual Report	71
Clinical.....	71
Administration	72
Research.....	73
Education	74
Awards and Honors.....	75
Challenges and Future Directions	76
Section of Hematology And Hematologic Malignancies - Annual Report.....	77
Clinical.....	77
Research.....	78
Education	79
Administration	80
Awards	80
Challenges, Opportunities, and Future Direction.....	81
Section of Infectious Diseases – Annual Report.....	82
Clinical.....	82
Research.....	84
Education	85
Administration	88
Awards and Recognition.....	89
Challenges and Future Direction.....	90
Section of Respiratory Medicine – Annual Report.....	92
Clinical.....	94
Education	95

Research.....	96
Challenges and Future Direction.....	97
Section of Rheumatology – 2015 Annual Report	98
Clinical.....	98
Educational	99
Research.....	100
Challenges and Future Directions	101
Appendices.....	102

EXECUTIVE SUMMARY

The 2015-2016 annual reporting period has seen the conclusion of Dr. Subrata Ghosh's tenure as Department Head and the appointment of Dr. Richard Leigh as the incoming Academic Head and Calgary Zone Clinical Department Head of Medicine. During that transition period, Dr. Kelly Zarnke served as the Interim Department Head with distinction, and the functioning of the Department of Medicine has continued without interruption during the period under review. A highlight of this past year has been the creation of a Department of Medicine Strategic Plan, in which our vision is focused on *Building the medical network of the 21st century, a network without walls, without boundaries, without limits to quality patient care, research and education for the benefit of society*. Our mission is *To be widely recognised for advancing health and wellness, attracting best doctors, leading innovation, creating technologies, and disseminating knowledge*. As the incoming Department Head, I can offer my commitment that our core values will remain on *Putting Patient Interests First, Excellence in Patient Care, Education and Scholarship* and *Acting with Integrity* at all times.

My mandate for the Department of Medicine (DoM) going forward is to identify and mentor trainees who are likely to become academic leaders in medicine and related fields. In order to do so, we need to 1/ identify them, 2/ mentor and support them by 3/ providing them with the opportunities to be competitive for academic faculty positions at the best institutions in North America, and 4/ ultimately recruit them back to Calgary as the medical leaders of tomorrow. It is thus gratifying to see that a number of our young faculty members who have come through the training programs here in Calgary are now establishing themselves as national and international academic leaders in their respective fields. Moreover, these achievements continue to be recognized by the broader Calgary society in which we live and work. Dr. Cheryl Barnabe was recognized by Avenue Magazine as one of Calgary's **Top 40 Under 40** in 2015 (see cover) while Dr. Gabe Fabreau recently received the same award in 2016. With so many outstanding young clinicians, educators and researchers in the Department of Medicine, our future is bright and we will strive to fulfill our undoubted academic potential of becoming one of the top academic Departments of Medicine in both Canada and throughout North America.

During the period under review, the Department of Medicine has grown to 377 members out of which 201 are in the Department's *Academic Alternative Relationship Plan (AARP)*. Our membership is comprised of 56% men and 44% women.

The Internal Medicine Residency Program had 99 residents in the "core" Postgraduate Year (PGY) 1 to 4, while the Subspecialty Residency Programs within the DoM train an additional 82 residents; in total, the DoM educates over 170 residents every year in our core and sub-specialist residency programs.

With the advent of the provincial Academic Medicine Framework (AMF), the Department of Medicine continues to take a leadership role in identifying the key performance metrics around accountability and in developing physician profiles. The Department continues to have a strong focus on patient care for vulnerable populations, with diabetes clinics and General Internal Medicine clinics at Stoney Health Centre, Calgary Urban Project Society (CUPS) Health Centre, Calgary Zone tuberculosis clinic, Alexandra Community Health Clinic, Elbow River Healing Lodge at Sheldon Shumir Health Centre, as well as at the Southern Alberta Clinic for patients with HIV. Moreover, this past year residents in the Internal Medicine Residency Program led a new initiative of volunteering and fundraising for the *Calgary Drop In Centre*; they spent in excess of 100-people hours volunteering and raised over \$4000.

Recruitment and retention

Over this reporting period, 16 new members were recruited to the Department of Medicine. At the same time, there were eight resignations/retirements. High profile recruits included: Drs. Ralf Paschke, Gilles Lauzon, Michelle Grinman, Corisande Baldwin, Jason Tay and Humberto Jijon. Departmental administrative appointments included Drs. Kelly Zarnke (Interim Department Head), Richard Leigh (Department Head), Marcy Mintz (Internal Medicine Residency Program (IMRP) Director), Ralf Paschke (Section Chief, Endocrinology), Gilles Lauzon (Section Chief, Dermatology), and Jeff Schaefer (Section Chief, General Internal Medicine).

Clinical

Collectively, Department of Medicine members provided over 16,050 specialist inpatient consults (3.4% increase from 2014), and discharged 12,370 inpatients (10.2% increase from 2014) during the 2015 fiscal year. The average length of stay decreased by 0.4% from 2014, and is currently 10.0 days. The Central Access and Triage handled approximately 44,000 outpatient referrals and most sub-specialties have improved or stabilized their median wait-times for both urgent and routine referrals.

A number of new projects/initiatives were added to the Department's clinical programs over this reporting period and these include:

- A multidisciplinary juvenile localized scleroderma clinic in conjunction with pediatric rheumatology;
- "Community Access Physician" program - an endocrinologist is available during business hours to assist triage staff, to take all requests for phone advice, and to see any urgent referral such as new-onset type 1 diabetes. Over 1,800 referrals were handled by an endocrinologist without a clinic visit;
- Non-traditional consultation process for diabetes referrals - A nurse-led and physician supported consultation patient care process that will facilitate the ability to produce consultation-level care advice for diabetes for primary care physicians without reliance upon the traditional clinic visit. This has eliminated wait lists for diabetes referrals in the Calgary Zone;
- Establishment of a dedicated Primary Sclerosing Cholangitis-IBD Clinic (the first in Canada);
- Development of an immune deficiencies program involving adult and pediatric Hematology, Transfusion Medicine, General Internal Medicine, Rheumatology, and the Tom Baker Cancer Centre (TBCC);
- Rheum4U longitudinal database - the goal of which is to integrate research and quality improvement in order to facilitate continuous improvement in patient care and collaborate with Prediatric Rheumatology to be able to follow patients from childhood into adulthood.

Administration

During this reporting period, 145 AARP members of the Department of Medicine assumed a total of 1,047 leadership roles, ranging from senior academic roles within the University (Dean of the Cumming School of Medicine, Associate Vice President Health Research at the University of Calgary), to provincial leadership roles with the Strategic Clinical Networks Health Quality Council of Alberta, to national roles with the Royal College of Physicians and Surgeons of Canada (RCPSC) and the Canadian Task Force on Preventive Health Care. Overall, Department of Medicine members contributed approximately 35,955 hours annually to these leadership roles.

Education

The Internal Medicine Residency Program and all ten sub-specialty programs underwent successful accreditation review and received high praise from the Royal College of Physicians and Surgeons of Canada in February of 2015. All of our residency programs continue to be highly sought after with many more applicants than there are positions available. The Department also contributes substantially to teaching our undergraduate medical students and residents from other residency programs. Advanced simulation based training and research focus remain highlights of our residency programs. In February/March 2016, Department members Drs. Sylvain Corderre (Associate Dean, UME) and Kevin McLaughlin (Assistant Dean) oversaw the very successful accreditation of the Cumming School of Medicine by the Committee on the Accreditation of Canadian Medical Schools (CACMS) and American Liaison Committee on Medical Education (LCME) survey for an eight-year term.

Research

Our research-intense physicians continue to serve the Department's research mandate, producing over 600 peer reviewed publications and securing over 67 million dollars of external funding to support our scholarly enterprises. The Department remains a strong global player in clinical trials. Over 100 trials run at any given time, bringing the latest therapies to our patients. Members achieving top honours research contributions are listed in the Recognition and Awards section below.

Recognition and Awards

The following members have received prestigious academic awards during the period under review:

Canadian Institutes of Health Research (CIHR) Foundation Grants:

- Cheryl Barnabe
- Matthew James
- Marcello Tonelli

2015 University of Calgary Killam Annual Professorship:

- Paul L. Beck
- Braden Manns

DEPARTMENT OF MEDICINE – STRUCTURE AND ORGANIZATION
April 1, 2015 to March 31, 2016

Department Head	Dr. Subrata Ghosh / Dr. Kelly Zarnke (Interim)
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Site Chiefs

Foothills Medical Centre	Dr. Kelly Zarnke
Peter Lougheed Centre	Dr. Ian Scott
Rockyview General Hospital	Dr. Stefan Mustata / Dr. Ana Purdy
South Health Campus	Dr. Leanne Reimche

Section Chiefs

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

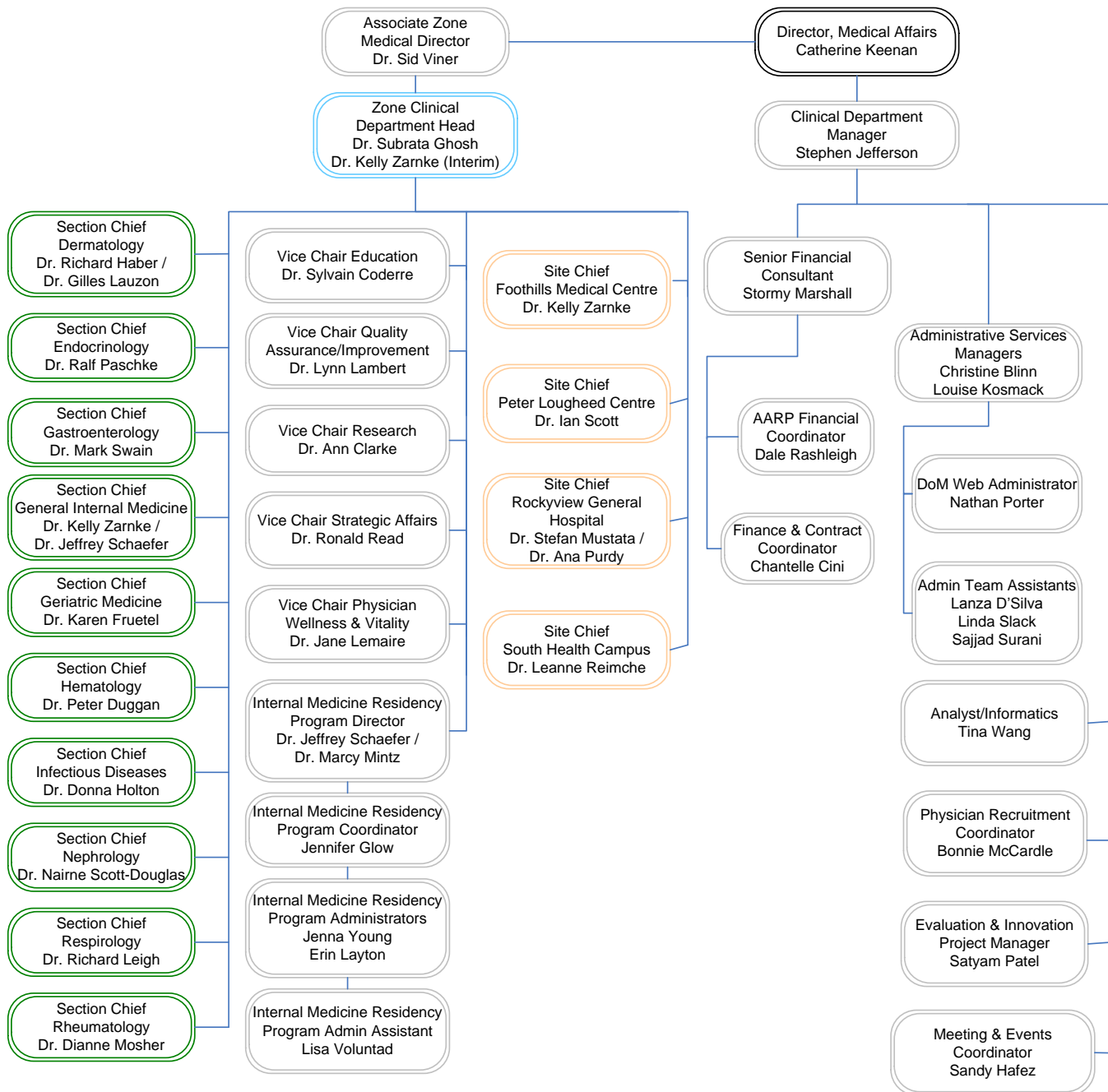
Education Directors

Post Graduate Medical Education Director	Dr. Jeffrey Schaefer / Dr. Marcy Mintz
Clerkship Director	Dr. Fiona Dunne
Continuing Medical Education Director	Dr. Adam Bass

Committees

Medical Services Executive Council	<p>Departmental Executive Leadership Committee; regularly-scheduled monthly meetings.</p> <p>Membership: Chair, Deputy Chair, Vice Chairs, Site Chiefs, Section Chiefs, Program Directors, Operations, Department Manager</p>
Internal Medicine Residency Program (IMRP) Committee	<p>Regularly-scheduled monthly Program planning meetings for the Internal Medicine Residency Program</p> <p>Membership: Chair, Deputy Chair, IMRP Director, IMRP Coordinator, IMRP Administrative Assistants, Monica Horne (Resident Education Coordinator), David Sam, Ghazwan Altabbaa, Irene Ma, Jason Tay, John Lam, John Davis, Oliver Haw For Chin, Rahim Kachra, Sudhir Nishtala, and Resident representatives</p>
Academic Alternate Relationship Plan (AARP) Management Committee	<p>Regularly-scheduled monthly management committee meeting for the Academic Alternate Relationship Plan (AARP).</p> <p>Membership: Adam Bass, Carolyn Owen, Dale Rashleigh (ARP Financial Coordinator, Medicine), Daniel Muruve, Stephen Duncan, Andrew Howarth, Stephen Jefferson (Manager, Medicine), Jimmy Kwok, Andrew Jenkins (Manager, Cardiac Sciences), Laurie Parsons, Liam Martin, Maria Bacchus, Otto Rorstad, Peter Grundy (outgoing Chair), Robert Hilsden, Ron Read (Senior Associate Dean, Faculty Affairs), Mitesh Thakrar, Stormy Marshall (Senior Financial Consultant, Medicine), Satyam Patel (Innovations & Evaluations Manager, Medicine), Richard Leigh (incoming Chair)</p>
DoM Medical Leadership Team	<p>Regularly-scheduled monthly meetings with Department of Medicine and AHS Operations.</p> <p>Membership: Barb Kathol (Executive Director, Medicine), Cathy Edmonds (Executive Director, Medicine), Karen Foudy (Site Director, PLC), Kathy Schultz (Executive Director, Medicine, RGH), Jana Ambrogiano (Executive Director, Medicine, PLC), Janice Stewart (Senior Operating Officer, PLC), Pam Holberton (Executive Director, Cardiac Sciences), Kelly Zarnke (Site Chief, FMC), Richard Leigh (Chief, Medicine), Ian Scott (Site Chief, PLC), Leanne Reimche (Site Chief, SHC), Stephen Jefferson (Manager, Medicine)</p>

DEPARTMENT OF MEDICINE – ORGANIZATION CHART
April 1, 2015 to March 31, 2016



DEPARTMENT OF MEDICINE – DEMOGRAPHICS
April 1, 2015 to March 31, 2016

Section Members by Gender

Primary Division	Total	Male		Female	
		Count	%	Count	%
Dermatology	30	19	63%	11	37%
Endocrinology	28	13	46%	15	54%
Gastroenterology	67	41	61%	26	39%
General Internal Med.	78	40	51%	38	49%
Geriatric Medicine	14	4	29%	10	71%
Haematology	30	17	57%	13	43%
Infectious Diseases	28	19	68%	9	32%
Nephrology	35	23	66%	12	34%
Respirology	40	25	63%	15	38%
Rheumatology	27	11	41%	16	59%
Total	377	212	56%	165	44%

NOTE:

Academic ARP, Clinical ARP & Fee for Service (FFS) Members

Age Groups by Gender

Ages	Total	Male		Female	
		Count	%	Count	%
20 - 30	5	1	20%	4	80%
31 - 40	125	56	45%	69	55%
41 - 50	108	53	49%	55	51%
51 - 60	74	49	66%	25	34%
61 - 70	46	36	78%	10	22%
71 - 80	16	15	94%	1	6%
81 - 90	2	2	100%	0	0%
Total	376	212	56%	164	44%

Faculty Ranks by Gender

Rank	Total	Male		Female	
		Count	%	Count	%
Adjunct Assistant Professor	2	2	100%	0	0%
Adjunct Associate Professor	3	2	67%	1	33%
Adjunct Professor	2	2	100%	0	0%
Clinical Lecturer	60	25	42%	35	58%
Clinical Assistant Professor	126	63	50%	63	50%
Clinical Associate Professor	66	36	55%	30	45%
Honorary Clinical Associate Professor	1	1	100%	0	0%
Clinical Professor	15	12	80%	3	20%
Assistant Professor	12	5	42%	7	58%
Associate Professor	20	10	50%	10	50%
Professor	47	42	89%	5	11%
Fellow	5	4	80%	1	20%
Unknown	18	8	44%	10	56%
Total	377	212	56%	165	44%

WORKFORCE PLANNING OVERVIEW

DEPARTMENT OF MEDICINE WORKFORCE STATISTICS April 1, 2015 to March 31, 2016

Primary Division	Total ARP + FFS	ARP	FFS	ARP FTE	ARP Recruit	ARP Resignee	FFS Recruit
Dermatology	30	6	24	6.00	1	0	2
Endocrinology & Metabolism	28	20	8	18.51	2	1	1
Gastroenterology	67	29	38	25.96	0	5	1
General Internal Medicine	78	36	42	30.15	1	1	1
Geriatric Medicine	14	12	2	9.61	1	0	1
Hematology	30	20	10	18.20	2	0	0
Infectious Diseases	28	15	13	13.60	0	0	0
Nephrology	35	20	15	19.00	1	0	0
Respirology	40	25	15	24.50	0	1	0
Rheumatology	27	18	9	16.30	2	2	0
Total	377	201	176	176.91	8	10	6

NOTES: No Locums included in count

DEPARTMENT OF MEDICINE – UNIVERSITY AFFILIATION
April 1, 2015 to March 31, 2016

Rank	Dermatology	Endocrinology & Metabolism	Gastroenterology	General Internal Medicine	Geriatric Medicine	Hematology	Infectious Diseases	Nephrology	Respirology	Rheumatology	Total
Adjunct Assistant Professor			1					1			2
Adjunct Associate Professor		1	1						1		3
Adjunct Professor						1				1	2
Clinical Lecturer	5	5	8	23	1	2	4	4	5	3	60
Clinical Assistant Professor	10	10	26	28	6	10	10	7	16	3	126
Clinical Associate Professor	8	3	9	10	3	9	3	8	6	7	66
Honorary Clinical Associate Professor									1		1
Clinical Professor	2	2	1	4		1			3	2	15
Assistant Professor	1		2	1	1	1		2	1	3	12
Associate Professor		1	4	5	2	1	3	3		1	20
Professor	1	6	9	4	1	3	4	8	6	5	47
Fellow			2	1				1	1		5
Unknown	3		4	2		2	4	1		2	18
Total	30	28	67	78	14	30	28	35	40	27	377

DEPARTMENT OF MEDICINE – RECRUITMENT
April 1, 2015 to March 31, 2016

Primary Section	Last Name	First Name	Start Date	FFS	ARP Member	University Appointment
Endocrinology	Billington	Emma	1 Dec 2015		1	Clinical Assistant Professor
Dermatology	Lauzon	Gilles	15 Nov 2015		1	Clinical Associate Professor
Dermatology	Sander	Megan	9 Nov 2015	1		Clinical Lecturer
Gastroenterology	Jijon	Humberto	1 Nov 2015		1	Clinical Assistant Professor
Nephrology	Rajan	Tasleem	12 Oct 2015		1	Clinical Assistant Professor
Cardiology*	Clarke	Brian	1 Oct 2015		1	Clinical Assistant Professor
Hematology	Tay	Jason	1 Oct 2015		1	Clinical Associate Professor
Gastroenterology	Soo	Isaac	15 Sept 2015	1		Clinical Assistant Professor
Dermatology	Wong	Joyce	2 Sept 2015	1		Clinical Lecturer
Endocrinology	Paschke	Ralf	8 Aug 2015		1	Professor
General Internal Med.	Grinman	Michelle	1 Aug 2015		1	Clinical Assistant Professor
Geriatrics	Persaud	Michelle	10 July 2015	1		Clinical Lecturer
Geriatrics	Hall	Stacey	1 July 2015		1	Clinical Assistant Professor
Endocrinology	Sinclair	Caitlyn	1 July 2015	1		Clinical Lecturer
General Internal Med.	Tien	Julia	14 May 2015	1		Clinical Lecturer
Rheumatology	Baldwin	Corisande	1 Apr 2015		1	Clinical Assistant Professor
TOTAL				6	10	

* Joint appointment with Department of Cardiac Sciences

DEPARTMENT OF MEDICINE – AARP DEPARTURES
April 1, 2015 to March 31, 2016

LAST	FIRST	SECTION	FTE	DATE OF DEPARTURE	SITE	ARP	UNIVERSITY AFFILIATION
Davidson	Warren	Respirology	1	31 Aug 2015	RGH	ARP	Assistant Professor
Edworthy	Steven	Rheumatology	.75	31 Dec 2015	FMC	ARP	Professor
Eksteen	Johannes	Gastroenterology	1	30 Sept 2015	FMC	ARP	Associate Professor
Hanley	David	Endocrinology	.75	30 June 2015	RRDTC	ARP	Professor
Lewkonja	Raymond	Rheumatology	.6	30 June 2015	RRDTC	ARP	Clinical Professor
Love	Jonathan	Gastroenterology	1	1 Apr 2015	FMC	ARP	Clinical Associate Professor
Myers	Robert	Gastroenterology	1	1 Mar 2016	FMC	ARP	Associate Professor
Nash	Carla	Gastroenterology	1	30 Jun 2015	FMC	ARP	Clinical Assistant Professor
TOTAL			6.35				

DEPARTMENT OF MEDICINE - PHYSICIAN AWARDS
April 1, 2015 to March 31, 2016

Dr. James (Michael) Ramsahai	Best Presentation, Resident Research Day - DOM
Dr. Lois Donovan	Continuing Medical Education Award – Cumming School of Medicine
Dr. Karmon Helmle	Department of Medicine Fall 2015 Research Development Fund Award
Dr. Karmon Helmle	Diabetes Junior Investigator Award – Canadian Society of Endocrinology and Metabolism
Dr. Dina Fisher	Dr. Bob Cowie Award - DOM
Dr. Dina Fisher	Dr. Howard McEwen Award for Clinical Excellence - DOM
Dr. Ghazwan Altabbaa & Team for the RGH Internal Medicine Simulation Program	Dr. John Conly Innovation Award - DOM
Dr. Lorne Price	Dr. John Dawson Award for Clinical Excellence – DOM
Dr. Anshula Ambasta	Dr. Subrata Ghosh Fellowship Award
Dr. Mani Kareemi	Dr. Terry Groves Award for Clinical Excellence – DOM
Dr. Chris Penney	Dr. Tom Enta Award for Clinical Excellence – DOM
Dr. A. P. Bromley	Graduate Sciences Education Award – Cumming School of Medicine
Dr. Jeffrey Schaefer	Postgraduate Clinical Education Award – Cumming School of Medicine
Dr. Marcy Mintz	Postgraduate Clinical Education Award – Cumming School of Medicine
Dr. Kelly Zarnke	Professionalism Award – DOM
Ebola Team: Drs. Stephen Vaughan, Bonnie Meatherall, Bayan Missaghi, John Conly, Oscar Larios, and Joseph Kim	Quality Improvement & Patient Safety Award – DOM
Dr. Aurore Fifi-Mah	Quality Improvement/Assurance Funding Competition - DOM
Dr. Kate Colizza	Quality Improvement/Assurance Funding Competition – DOM
Dr. M. Goyal	Research (Clinical) Award – Cumming School of Medicine
Dr. Paul Davis	SHC Clinical Excellence Award
Dr. Oliver Haw For Chin	Teaching Award (Clerkship)
Dr. Michael Ma	Teaching Award (Clerkship)
Dr. Fareed Kamar	Teaching Award (Clerkship)
Dr. Paul Davis	Teaching Award (Clerkship)
Dr. John Lam	Teaching Award (Clerkship)
Dr. Shannon Ruzycki	Teaching Award (Clerkship)
Dr. Alain Tremblay	Team Builder of the Year – DOM
Dr. Ghazwan Altabbaa	Undergraduate Medical Education Award – Cumming School of Medicine

DEPARTMENT OF MEDICINE - PROMOTIONS
April 1, 2015 – March 31, 2016

From Clinical Lecturer to Clinical Assistant Professor:

Natasha Sabur Respiratory Medicine

From Clinical Assistant to Clinical Associate Professor:

Dina Fisher Respiratory Medicine
Michelle Geddes Hematology
Vikas Kuriachan Joint Appointment with Cardiac Sciences
Paul MacEachern Respiratory Medicine
Ernesta Neri Joint Appointment with Oncology
Laurie Parsons Dermatology

From Clinical Associate to Clinical Professor:

Kirk Barber Dermatology
Kristin Fraser Respiratory Medicine

From Assistant Professor to Associate Professor

Doreen Rabi Endocrinology
Michael Parkins Infectious Diseases
Steven Heitman Gastroenterology

From Associate Professor to Full Professor

Alain Tremblay Respiratory Medicine
Pietro Ravani Nephrology
Richard Haber Dermatology

PATIENT FLOW - DOM INPATIENT DATA
April 1, 2015 to March 31, 2016

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

There were 12,370 inpatients discharged by DoM physicians during fiscal year of 2015-16. The total inpatient discharge of 2015-16 increased around 10.2% compared to the total inpatients discharged in year of 2014-15.

Inpatient Discharge Summary		
Division	2014-15	2015-16
Dermatology	-	-
Endocrinology	36	59
Gastroenterology	970	1010
Geriatric Medicine	-	-
General Internal Medicine	7060	7704
Hematology	850	926
Infectious Diseases*	46	64
Nephrology	940	983
Respirology	1328	1624
Rheumatology	-	-
Total	11230	12370
Yearly Changes (+/-)	5.7%	10.2%

Department of Medicine physicians also provided more than 16,050 consults for the inpatients discharged during fiscal year 2015-16. Compared to the previous fiscal year 2014-15, the total consults of 2015-16 increased around 3.4%

Inpatient Consults Provided by DOM		
Division	2014-15	2015-16
Dermatology	155	151
Endocrinology	513	471
Gastroenterology	3548	3566
Geriatric Medicine	865	961
General Internal Medicine	3725	3788
Hematology	647	642
Infectious Diseases	2781	3054
Nephrology	852	875
Respirology	2079	2140
Rheumatology	359	402
Total	15524	16050

For the average of Acute Length of Stay of 2015-16, Respirology dropped 0.9%, General Internal Medicine decreased 0.6%, the other three sections almost unchanged compared to the previous fiscal year 2014-15, the average of Acute Length of Stay for DoM dropped around 0.4% in the fiscal year of 2015-16.

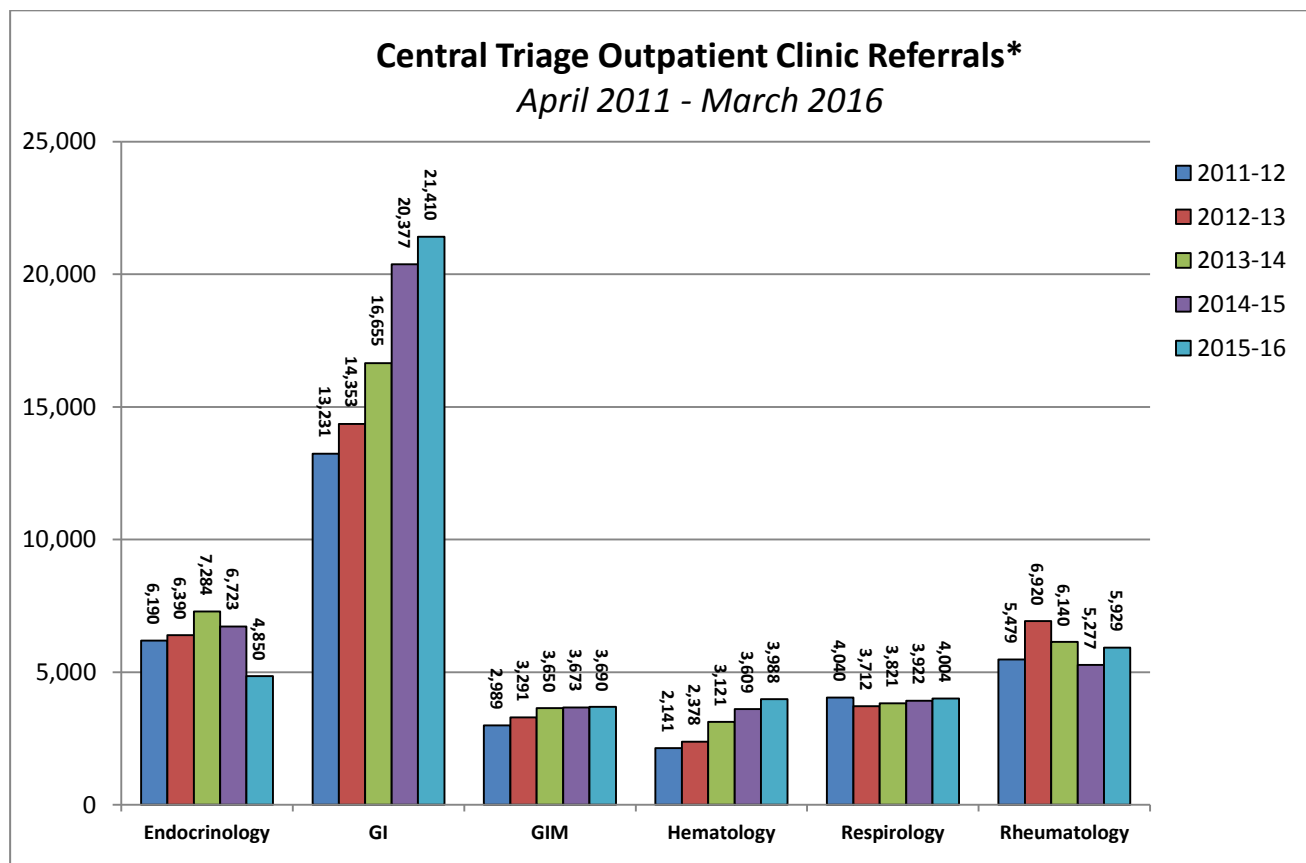
Average Acute Length of Stay (Days)		
Division	2014-15	2015-16
Dermatology	-	-
Endocrinology	-	-
Gastroenterology	4.9	4.9
Geriatric Medicine	-	-
General Internal Medicine	8.1	7.6
Hematology	18.4	18.2
Infectious Diseases*	-	-
Nephrology	12	11.6
Respirology	8.7	7.9
Rheumatology	-	-
Average	10.4	10.0

PATIENT FLOW - DOM OUTPATIENT DATA

April 1, 2015 to March 31, 2016

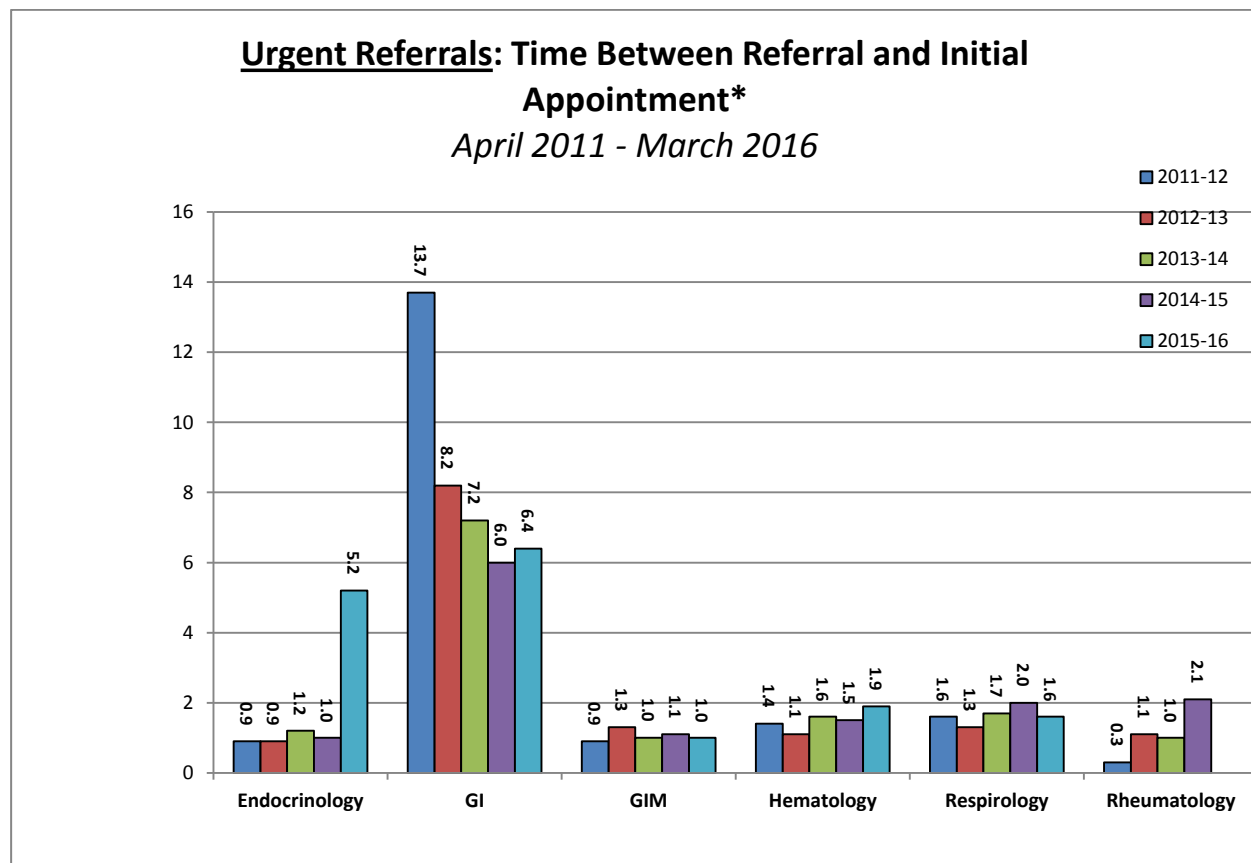
Information on Department of Medicine (DoM) outpatient clinic referrals was provided by Central Access & Triage and Gastroenterology (GI) Central Triage. It should be noted that information was not available for all Sections or for physicians who do not participate in the Central Triage process. Respiratory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

For outpatient clinic referrals during fiscal year 2015-16, compared to the numbers shown in the previous fiscal year 2014-15, the total referrals of Endocrinology decreased 28%¹, the total referrals of GI increased 5%, the total referrals of General Internal Medicine (GIM) remained the same, the total referrals of Hematology increased 11%, the total referrals of Respiratory medicine increased 2%, and the total referrals of Rheumatology increased 12%.



¹ Note: at the time of this report, the Department has not been able to confirm the validity of this data for Endocrinology

For the urgent referrals in 2015-16, the median wait time of GI increased 7%, the median wait time of Endocrinology increased 420%², the median wait time of Hematology increased 27% compared to what was reported in 2014-15. However, the median wait time of GIM decreased 9%, the median wait time of Respiratory medicine decreased 20% compared to the numbers shown in the previous year 2014-15. The median wait time of Rheumatology of urgent referrals are not available for 2015-16 as it changed to semi-urgent referrals.

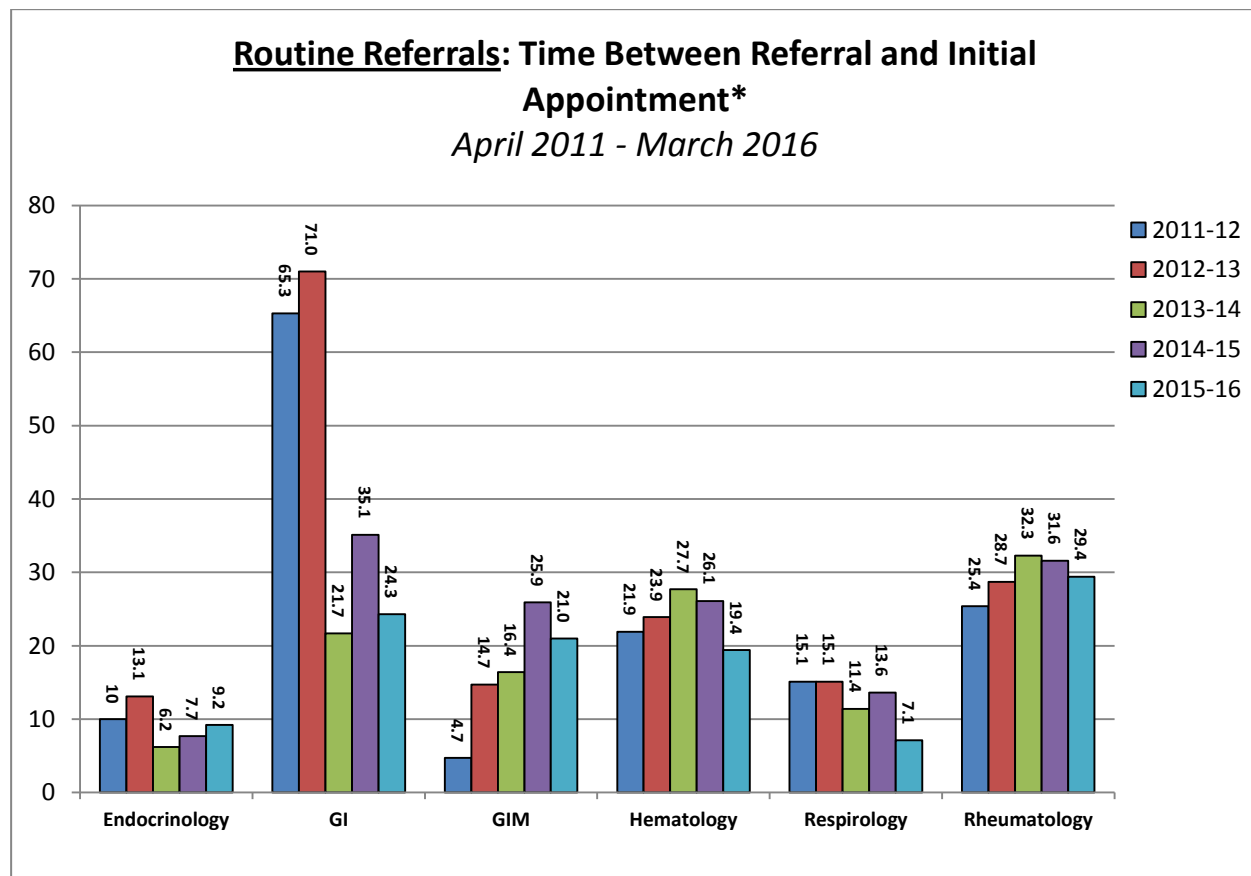


* Wait times are median wait time by weeks between the referral and the initial appointment.

** Rheumatology urgent referrals are changed to semi-urgent referrals during 2015-16.

² Note: at the time of this report, the Department has not yet been able to confirm the validity of this data for Endocrinology

For the routine referrals in 2015-16, the median wait time of Endocrinology increased 19%, the median wait time of GI decreased 31%, the median wait time of GIM decreased 19%, the median wait time of Hematology decreased 26%, the median wait time of respirology decreased 48%, and the median wait time of Rheumatology decreased 7% compared to the previous results in year 2014-15.



* Wait time are median wait time by weeks between the referral and the initial appointment. Due to outliers, the average wait time will typically be longer than the median wait time. GI also reports wait times separately for moderate and routine referrals.

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

DEPARTMENT OF MEDICINE - SECTION AND PROGRAM REPORTS

April 1, 2015 to March 31, 2016

Calgary Urban Project Society (CUPS) – Annual Report to the Department of Medicine April 1, 2015 to March 31, 2016

EXPECTED OUTCOMES

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

VISITS TO DATE

	# clinic days	# patient visits	2015/16Avg #visits/day	2014/15Avg #visits/day	2015/16 # no-shows	2015/16no-show rate (%)	2014/15 no-show rate (%)
Internal Medicine	5	16	3.2	2.4	5	31.3	26
Rheumatology	4	20	5	4.8	7	35	21
Internal Med/OB	10	37	3.7	3.0	11	29.7	50
Cardiology	5	21	4.2	4.2	11	52.4	26
Gastroenterology	6	30	5	5.8	14	46.7	30

CUPS Visiting Specialists include the following Physicians:

Internal Medicine: Dr. Janet Gilmour one half day monthly

Rheumatology: Dr. Liam Martin one half day quarterly

Internal Medicine in Obstetrics: Dr. Eliana Castillo one half day monthly

Cardiology: Dr. Edward O’Brien one half day monthly.

Gastroenterology: Dr. Kerri Novak and Dr. Michelle Buresi sharing one half day monthly.

DISCUSSION

The addition of these various Specialists to CUPS Health and Education Centre has been extremely valuable. CUPS patients highly benefit from **timely** access to Specialist care due to significant challenges in contacting these patients. Many of our patients are homeless and living “rough” in camps or on the streets, or use the homeless shelters, and therefore have little in the way of reliable contact information. Most do not have cell phones or addresses and contacting these patients to leave a message at the shelters or with their relatives/friends is usually unsuccessful. When appointments for Specialists are many months or years away, patients often no-show because we cannot inform them or remind them of appointments. Furthermore, many patients have significant barriers related to social determinants of health that make it challenging for them to attend specialist outpatient appointments. These include lack of reliable transportation, poverty, homelessness, unstable mental health and addictions. As the specialists at CUPS are mostly here monthly, it is easier for patients to remember the appointments and although our no-show rates are still high, they are likely improved over appointments made at outpatient clinics.

CUPS Health Centre is well-known to the downtown homeless and poor and we work with our community partners in providing comprehensive holistic care to this socially and medically complex population. We see about 100 new patients every month and about one third of these patients engage and require some sort of referral for their complex health needs. Between April 1, 2015 and March 30, 2016, the Health Clinic saw

35,587 total patient visits across all of our health programs, and helped out 5182 unique patients. Our Centre is a **comfortable, non threatening place** to come to and we feel that patients keep appointments here because of the familiarity of the building and care team. The inter-professional team works collaboratively to help patients meet their medical and social needs. Having Specialists come to CUPS allows our patients to come to our site, which improves the no show rate compared to an external outpatient site where most have to take public transportation and navigate unfamiliar buildings and systems. Many also face perceived social stigma when attempting to navigate unfamiliar environments. Despite improved access, we do recognize that there is still a fairly high no show rate (21-50%), which is consistent with other care providers in the clinic (Family Physicians, Nurse Practitioners), and reflects the social challenges of our patients.

In January 2014, the clinic has been a participant in a year-long quality improvement initiative called Alberta AIM (Access Improvement Measures), with the goals of improving access, efficiency and clinical care for our patients. Since starting this project, we have been able to accurately collect no-show rates for the clinic, and these rates are, as we predicted, very high, averaging about 30-40%. Alberta AIM has so far provided us with valuable tools and ideas to improve our clinic's access and efficiency for our patients. Several key changes we have made include phoning/emailing/text messaging patients to remind them of appointments, refining patient panels and attachment for each Family Physician and Nurse Practitioner, posting no-show rates in the waiting rooms, and educating our patients as to the importance of their appointments. We are now consistently phoning/texting/emailing patients to remind them of Visiting Specialist appointments.

Finally, CUPS patients are very **complex** and most have a number of concurrent diagnoses that include mental health and addiction issues. These diagnoses add an additional barrier for patients to attend appointments, and also complexity to any management plan suggested by the Specialists. Having on-site specialist consultation allows for collaboration and improved communication around patient care plans that are otherwise very challenging to do with off-site Specialists. This has improved patient care as some follow up work, problem solving and introduction of other CUPS services (eg, mental health and social work) can be done the same day as the specialist visit, rather than waiting for the consultation report to take action. Some visiting Specialists have taken time to call referring clinicians which establishes a collegiality that allows for easier access for new problems that need solving and improved collaborative team care.

We are extremely pleased with the level of support from our Specialist colleagues. Many are open to email questions or consultations or even phone calls when they are not physically on-site at CUPS, allowing for our primary care providers to have timely responses to important clinical questions. We have even established a system of booking endoscopy procedures for our patients with the Gastroenterologists that is timely and more accessible for our patients, many of whom never make it to these procedures as they are typically 12 months or more away.

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

Sincerely,

Dr. Van Nguyen
Health Director

Section of Dermatology – Annual Report

April 1, 2015 to March 31, 2016

The Section of Dermatology consisted of six full-time ARP members (2 GFT and 4 Major Clinical) and twenty-five community-based dermatologists during the reporting period. Twenty-two members of the Section of Dermatology held a University of Calgary academic appointment through the Department of Medicine during this period.

CLINICAL

1. Dr. Régine Mydlarski served as the Director of the Immunodermatology Clinic at the University of Calgary. This is a tertiary referral clinic for complex medical dermatology patients with connective tissue disease and immunobullous disorders. The clinic accepts referrals from Dermatologists, Rheumatologists and other allied specialists in Calgary, Western Canada, Central Canada, and parts of the United States. It has gained national and international recognition as a centre of excellence in bullous disease. As Director of Transplant Dermatology for the Southern Alberta Transplant Program (ALTRA), Dr. Mydlarski continued to provide dermatologic assessment to high-risk solid organ transplant recipients.
2. Dr. Laurie Parsons ran three subspecialty patch tests clinic per week with referrals from Dermatologists throughout Calgary. She also participated in three multi-disciplinary wound care clinics in her role as Medical Director of the University of Calgary Wound Care Clinic and one general dermatology clinic per week. She continued to be active in Telehealth, providing wound care Telehealth sessions. Dr. Parsons is also the MSK/Derm UME Course Coordinator.
3. Dr. Richard Haber conducted two general Dermatology clinics per week and added another ½-day general dermatology clinic on alternate Tuesdays, beginning February 2016. Dr. Haber added one pediatric dermatology half-day clinic per week at the Alberta Children's Hospital (ACH), for a total of two half-day clinics per week in pediatric dermatology. He also conducted monthly Telehealth Dermatology consultation clinics for Siksika first nation and High Level, Alberta.
4. Dr. Habib Kurwa ran a Mohs' micrographic surgery service to treat complex skin malignancies at the Richmond Road Diagnostic and Treatment Centre. He currently does four Mohs' surgical clinics per week and one Dermatologic Surgery (Non-Mohs') clinic per week, which includes providing photodynamic therapy. In addition, he does two surgical consultation clinics per week and was also Dermatology lead for Quality and Safety.
5. Dr. Lynne Robertson ran six medical dermatology clinics per week including establishing a specialized pigmented lesion/melanoma clinic using a Fotofinder mole mapping device. Dr. Robertson supervised a weekly Senior Dermatology Residency Clinic.
6. Dr. Gilles Lauzon joined the Section of Dermatology on November 15, 2015 as Calgary Zone chief, Section of Dermatology. He founded the cutaneous Lymphoma clinic (1 clinic per week, starting January 2016) and conducts one cutaneous transplant clinic per week. During this reporting period, arrangements were made for the conduct of two wound clinics at the Sheldon M Chumir Centre – clinics to start in the spring 2016.

RESEARCH

1. Dr. Mydlarski acted as Director of Dermatologic Research conducted in the divisional basic science laboratory. Her research areas of expertise were primarily cutaneous skin cancer. For the reporting period, Dr. Mydlarski received funding grants from the Canadian Dermatology Foundation in the amount of \$80,000. The laboratory hires one half-time Research Associate and one half-time post-doctoral fellow.
2. Dr. Habib Kurwa was co-researcher with Dr. Mydlarski regarding projects addressing cutaneous skin cancer and was co-applicant on a successful research grant application.

3. Dr. Gilles Lauzon submitted an application for a research grant from the Canadian Dermatology Foundation entitled: Characterization of Microvesicles Derived from Melanoma Cells, and was selected as a successful candidate in June 2016. Dr. Lauzon participated in and contributed to weekly research group meetings. It is expected that his research program will be in operation starting in the fall 2016.
4. Drs. Parsons, Robertson and Haber were co-investigators for a Venous Leg Ulcer Study sponsored by Smith and Nephew/Healthpoint and the Complete Psoriasis Study sponsored by Abbvie.
5. Dr. Andrei Metelitsa was very active in clinical trials. He was principal investigator on three clinical drug trials and sub-investigator in four other clinical drug trials.
6. During this reporting period the Section published 31 peer-reviewed publications, one book chapter, 14 non-peer reviewed publications and five abstracts (see addendum 1).

EDUCATION

1. Invited Lectures/Presentations:

The Section of Dermatology is heavily invested in medical education.

- a. The Section offers a highly rated dermatology elective program for Internal Medicine residents (one resident per block). Very competitive electives are offered for undergraduate medical students, clerks, family medicine residents and other residents, including medical genetics, plastic surgery, geriatrics and pediatrics.
- b. The Section sponsored the 10th Annual Day in Dermatology CME on October 17, 2015. This event was attended by over 130 family physicians and approximately 20 final year family practice residents.
- c. Dr. G. Lauzon was an invited speaker/presenter as follows:
 - University of Alberta, Division of Dermatology on March 30, 2016. Two presentations: 1) Genetics as relevant to Dermatology; 2) Oncology: basic principles. Attendance: 15-20 dermatology residents and faculty.
 - Hitting the Nail on the Head: Nail Conditions. Held November 18, 2015 at the 40th Annual Pearls for Practice Conference, Family Practice Review & Update. Course Audience: Family Medicine Physicians & Residents – attendance: 60 family physicians
 - Keynote speaker: What a family doctor should know about geriatric dermatology - 10th Annual Day in Dermatology for Family Physicians - October 17, 2015 – 130 Family Physicians, 20 Family Practice residents
- d. Dr. R. Haber was an invited speaker/presenter as follows:
 - January 13, 2015. Update: Epidermolysis bullosa; presented to residents in Medical Genetics. Alberta Children's Hospital, Calgary, Alberta.
 - May 7, 2015. Update: Rashes and Fevers, Pediatric Residents, Alberta Children's Hospital.
 - October 17, 2015 – Keynote speaker: Pearls in returning travelers. 10th Annual Day in Dermatology for Family Physicians.
 - October 22, 2015 – Presentation of the 16th Annual Arthur R Birt Lectureship, Children's Hospital Health Sciences Centre, Winnipeg, Manitoba. Topic: Interesting Pediatric Dermatology Cases

- e. Dr. L. Robertson was an invited speaker/presenter as follows:
 - Keynote speaker: What a Family Doctor should know about biological treatment of psoriasis. October 17, 2015. 10th Annual Day in Dermatology for Family Physicians.
- f. Dr. L. Parsons was an invited speaker/presenter as follows:
 - Pilonidal Sinus Disease- Canadian Association of Wound Care (CAWC) National Annual Meeting - Toronto October 2015
 - Hidradentis Suppurativa - CAWC National Meeting – October 2015
- g. Dr. H. Kurwa was an invited speaker/presenter as follows:
 - Keynote speaker: What a family doctor should know about Skin Cancer. October 17, 2015. 10th Annual Day in Dermatology for Family Physicians.
- h. Dr. PR Mydlarski was an invited speaker/presenter as follows:
 - Mydlarski PR. April 2015. Cutaneous manifestations of Inflammatory Bowel Disease. Medical Grand Rounds, University of Calgary.
 - Mydlarski PR. The genetics of pemphigus. June 2015. World Congress of Dermatology, Vancouver, BC.
 - Mydlarski PR. Molecular Biology. Basics of Skin Science, June 2015. World Congress of Dermatology, Vancouver, BC.
 - Mydlarski PR. Global Celebration Forum: Bullous Disease. June 2015. World Congress of Dermatology, Vancouver, BC.
 - Mydlarski PR. Alberta Society of Dermatologists. October 2015. The new pemphigus paradigm.
- i. Dr. A. Metilitsa was an invited speaker/presenter as follows:
 - January 11, 2016 – Rosacea Pathophysiology and ROSIVER Phase 3 Clinical Overview, Rosiver Regional Consultant Meeting.
- j. Dr. C. Zip was an invited speaker/presenter as follows:
 - Zip C. Treatment of Hormonal Acne. Derm Update, September 2015.
- k. Dr. D. Woolner was an invited speaker/presenter as follows:
 - Keynote speaker: What a Family Physician should know about Pediatric Dermatology. October 17, 2015. 10th Annual Day in Dermatology for Family Physicians.
- l. Dr. M. Kalisiak was an invited speaker/presenter as follows:
 - Invited to give a workshop at the Alberta College of Family Physicians 61st ASA (Annual Scientific Assembly) in Banff (<https://www.acfp.ca/what-we-do/annual-scientific-assembly/>), March 4, 2016

2. Undergraduate Education

- a. Dr. Laurie Parsons is the coordinator of MDCN-360 (Course II) which took place in November-December 2015
- b. Drs. Haber, Lauzon, Parsons, Poelman, Remington, Robertson, Woolner, and Zip lectured to the Undergraduate Medical Students during the 2015 MDCN-360 (Course II).

3. Graduate Education:

- a. Dr. Régine Mydlarski was the module co-ordinator for IMM-3, Autoimmunity and Immunodeficiency (MDSC 639.03).

- b. One Research Associate trained in the Dermatology Research Laboratory under the supervision of Dr. Regine Mydlarski during the reporting period.

4. Public Service:

- a. Dr Poelman participated in a public skin cancer screening clinic in Calgary as part of the Canadian Dermatology Association 28th National Sun Awareness Week in the Spring 2015. Patients were screened for and educated about skin cancer.

5. Awards and other Achievements:

- a. Dr. Metelitsa received the 2015 Calgary Doctors' Choice Award in Dermatology
- b. Dr. Haber received the Professional Association of Resident Physicians of Alberta (PARA) 2014-2015 Clinical Teaching Award - University of Calgary
- c. Dr. Lynne Robertson: External Examiner, Kuwait Dermatology Board Examination, Kuwait Institute of Medical Specialization. Examined final year residents, assisted in review of written and oral examination questions/ process September 2015
- d. Dr. Parsons created a Western Canada database for recording patch test results in Alberta and BC - National Contact Dermatitis Group
- e. Dr. Parsons developed the National Core Curriculum for Undergraduate Dermatology Teaching in Canada under auspices of the Canadian Professors of Dermatology
- f. Dr. PR Mydlarski. Department of Medicine Merit Award, University of Calgary, Alberta Health Services. Nov 2015
- g. Dr. C. Zip: RCPSC Dermatology Examination Board member
- h. Dr. Parsons was a recipient of the Associate Dean's Letter of Excellence for teaching excellence in Course II – MSK/Dermatology. Class of 2018 Medical Students; Undergraduate Medical Education Program.- March 2016
- i. Dr. M. Kalisiak was elected Calgary Zone Alberta Medical Association Representative Forum delegate 2015-20
- j. Dr. M. Kalisiak finished 1 year of the Journal of the American Academy of Dermatology Editorial Mentorship Program (<https://www.aad.org/members/leadership-institute/mentoring/jaad-editorial-mentorship-program>)

ADMINISTRATION

1. Dr. Haber acted as Zone Chief for the Section of Dermatology until November 15, 2015. He acted as Chair of the Dermatology Specialty Committee of the Royal College of Physicians and Surgeons for this period. He was Medical Telehealth Advisor for the Department of Medicine. He organized the Section of Dermatology Patient Viewing Rounds and chaired the accompanying Sectional Business Meetings, functions which ended on November 15, 2015.

2. Dr. Laurie Parsons continued in her respective roles as the Medical Director – Wound Care for Calgary, Coordinator of the Undergraduate Dermatology Teaching for MDCN-360, and Organizer of the city-wide Section of Dermatology Journal Club. In addition, she was a member of the EMIS User Working Group, Wound Advisory Committee and Best Practice Committee of the Department of Medicine. Nationally, she was the Chair of the National Dermatology Undergraduate Education Working Group, Canadian Professors of Dermatology. Dr. Parsons was dermatology representative on the ARP Management Committee and Chair of the Selection Committee for the University of Calgary Dermatology Residency Program. She is Chair, Selection Committee on the Dermatology Residency Program Committee, University of Calgary. She has a cross-appointment with the Department of Family Medicine and provides clinical teaching for family physicians and family medicine residents in that capacity. She is also on University of Toronto faculty for the International Interprofessional Wound Care Course (IIWCC).
3. Dr. Régine Mydlarski was Program Director of the Dermatology Residency Training Program at the University of Calgary and coordinated a successful Royal College external accreditation visit. She was the Medical Co-Director of the Medical Advisory Council of the Canadian Pemphigus and Pemphigoid Foundation. She was a member of the Advisory Board of the Skin Malignancy Working Group in Transplantation. Dr. Mydlarski was a Medical Advisor for the Medical Advisory Council of the International Pemphigus and Pemphigoid Foundation. She was Director of Immunodermatology for the Section of Dermatology and was the Director of Transplant Dermatology for the Southern Alberta Transplant Program. She was Director of Research in the Section of Dermatology and managed the dermatology basic research laboratory in that capacity. She was Chair of Research for the Residency Program Committee, University of Calgary.
4. Dr. Lynne Robertson was Chair of Evaluations for the University of Calgary Dermatology Residency Program Committee.
5. Dr. Habib Kurwa was Surgical Chair for the University of Calgary Dermatology Residency Program Committee. He was Section of Dermatology representative to the QA/QI committee of the Department of Medicine at the University of Calgary.

OTHER ACCOMPLISHMENTS

The Dermatology Residency Training Program entered its 7th year in 2015 and received full accreditation by the Royal College of Physicians and Surgeons of Canada in February 2015. Six residents have now successfully completed postgraduate training in dermatology in the program: two are practicing privately in Calgary, three are completing fellowship training and one has returned to Saudi Arabia.

The University of Calgary, Section of Dermatology accepted 3 PGY1 dermatology residents via the 2016 CaRMS match and the program has a total of 15 dermatology residents over the PGY1 to 5 years.

Dr. Vimal Prajapati started a monthly multidisciplinary juvenile scleroderma clinic in conjunction with pediatric rheumatology at the Alberta Children's Hospital. Dr. Prajapati also received his American Board of Dermatology Subspecialty Certification in pediatric dermatology during the reporting period.

Dr. Gilles Lauzon initiated a cutaneous lymphoma clinic at RRDTC, starting in January 2016. This clinic satisfies deficiencies which existed regarding patient care and dermatology resident educational requirements.

Dr. Mike Kalisiak finished 1 year of the Journal of American Academy of Sermatology (JAAD) Editorial Mentorship Program from the American Academy of Dermatology (AAD).

(<https://www.aad.org/members/leadership-institute/mentoring/jaad-editorial-mentorship-program>)

Dr. Parsons, Medical Director of the University of Calgary Wound Care Clinic, obtained a 1.0 FTE ARP position in the Wound Care Clinic, an accomplishment which will improve the efficiency and expertise of the clinic. Dr. Parsons also completed the course work for a Masters Degree in Wound Healing and Tissue Viability - Cardiff University. She is now working on completing her dissertation.

CHALLENGES AND FUTURE DIRECTION

1. Dr. Haber completed his second five-year term as Calgary Zone Chief, Section of Dermatology on November 15, 2015. Dr. Gilles Lauzon was appointed new Zone Chief on that date.
2. Effective November 15, 2015, there were six full-time ARP members in the Section of Dermatology. The Richmond Road Diagnostic and Treatment Centre makes available six clinical examination rooms and two surgical rooms. This does not allow full-time faculty to satisfy their clinical requirements (based on their respective contracts) such that three have to conduct clinics at other sites, a situation which affects the cohesiveness of the group and the quality of resident education.
3. The Section of Dermatology at RRDTC has available a phototherapy unit which cannot be used due to budgetary constraints. This makes it difficult to provide comprehensive management for patients attending the recently established cutaneous lymphoma clinic, necessitating outside referrals for this important treatment modality for cutaneous lymphomas.
4. There is an urgent need for a full-time pediatric dermatologist in Calgary. The Section of Dermatology has struggled to fulfill this need since 2005. Dermatology residents must now complete mandatory pediatric dermatology training at distant sites (Edmonton and/or Toronto). This is a priority for dermatology in Calgary.
5. There is no opportunity for the Section of Dermatology to recruit more full-time, academic ARP dermatologists due to space (administrative and clinical) and support staff restrictions. Likewise, the Section needs to be offered the opportunity to recruit non-ARP, fee-for-service dermatologists to practice clinical dermatology in the clinic at RRDTC, leading to enhanced patient care, resident education and opportunities for specialty clinics.

Addendum 1

Publications Section of Dermatology University of Calgary April 1, 2015 – March 31, 2016

Peer-Reviewed Journal Articles

1. **Ting PT**. Asymmetric periflexural exanthem of childhood. Medscape Drugs & Diseases. Updated May 13, 2016. Available at: <http://emedicine.medscape.com/article/1118863-overview>
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Completed August 29, 2016 Dr. G. Lauzon

Section of Endocrinology and Metabolism - Annual Report

April 1, 2015 to March 31, 2016

The Division of Endocrinology presently consists of 21 Faculty members and four fee-for-service members who maintain offices in Richmond Road Diagnostic and Treatment Centre (RRDTC), Health Sciences Centre Foothills Medical Centre (FMC), Peter Lougheed Centre (PLC), South Health Campus (SHC), and in the Associate Clinic Gulf Canada Square. The majority of the clinical work is conducted in the Endocrine Clinics at RRDTC, in proximity to the Diabetes Centre and the Osteoporosis Centre. The Division includes five Full Clinical Professors, five Clinical/Associate Professors, 13 Clinical/Assistant Professors, and two Clinical Scholars. The year saw one sabbatical with associated locum, one retirement, one new recruitment, and one recruitment to Assistant Professor.

CLINICAL

The Division of Endocrinology continues to provide both in-patient and out-patient consultative and chronic care in all areas of the specialty. In the past year, the Endocrinology Central Access and Triage (CAT) received 7040 out-patient referrals for MD appointments (not including Diabetes in Pregnancy).

The Division provided clinical services in a wide diversity of settings in addition to clinics for the Diabetes and Hypertension Centre (RRDTC), Peter Lougheed Centre (PLC), South Health Campus (SHC), and in the Associate Clinic Gulf Canada Square. The majority of the clinical work is conducted in the Endocrine Clinics at RRDTC, in proximity to the Diabetes Centre and the Osteoporosis Centre.

The Division staffs clinics for Diabetes in Pregnancy at all four acute care sites, General Endocrinology, Osteoporosis and Metabolic Bone Disease, Thyroid Cancer (TBCC), Neuroendocrine Tumour (TBCC), Solid Organ Transplant and an Outreach Clinic on the Stoney Reserve run by Dr. Otto Rorstad. Division members continue to operate two separate “tumour boards” for thyroid and neuroendocrine cancers in order to facilitate a multi-disciplinary team approach to management. A Transgender Endocrine Therapy Clinic has been started by Dr. Nathalie Saad.

New referral triage pathways and booking system were developed which has eliminated the prior delays in appointment scheduling. In August 2015 there were 950 patients with Diabetes Mellitus (DM) on a wait list with an 18 month wait time to see an Endocrinologist. In October 2015 there were also 759 osteoporosis referrals on a wait list with a 16 month wait time to see an Endocrinologist. Both wait lists have been eliminated by May 2016 by a concerted effort by all Division Members, development of new tools (osteoporosis group consults and diabetes case conferences) by revising triage pathways for all endocrinology patients and by defining and implementing referral pathways. The efficiency and effectiveness of our triage and booking system as a whole was increased, also with the specific intent of improving the wait times for patients with diabetes. In addition, our no show rate for diabetes appointments was approaching 35%. As part of an ARP innovative initiative, starting in April 2015, Dr. Bhayana led the creation of a Nurse-led and Physician-supported consultation process (Case Conference) to produce valuable integrated and practical management advice for primary care physicians without reliance upon the traditional clinic visit. A triage system for these referrals was created, assigning dedicated booking staff, creating an online booking system in e-scheduler and an electronic medical record (EMR) template that was accessible to both physicians and

educators, and generates a comprehensive letter to referring physicians. The Case Conferences were initiated in October 2015 and currently are used to manage approximately 20% of diabetes referrals each month.

To further increase our efficiency, from April 2015 to September 2015, in an effort led by Dr. Shelly Bhayana, the Division collaborated with the Diabetes, Hypertension and Cholesterol Centre (DHCC) and Central Access and Triage (CAT) to streamline the process of diabetes referrals. The triage system of DM referrals at DHCC and CAT was unified into one central process leading to increased efficiency and timely handling of referrals. An internal audit of the Section's capacity by Dr. Bhayana showed a need for more new DM appointments. Subsequently, several initiatives were undertaken to increase our capacity to see new DM patients including:

- a) a concerted effort of all Section Members to see more DM patients,
- b) the use of case conferences to manage new DM referrals that met a specific criteria and
- c) increased diligence of confirming appointments and avoiding duplicate / redundant appointments amongst those that did not attend appointments.

All of these efforts resulted in significantly more clinical appointments created essentially doubling our capacity to see new diabetes patients. The average number of DM appointments from August 2014 to July 2015 was 55 appointments per month and from August 2015 to July 2016 it was 121 appointments per month increasing to 136 appointments per month if case conferences are included. Currently, our wait time for diabetic patients to see an Educator is two weeks and to see an Endocrinologist is three months or less. There is no longer a 'wait list' for DM patients. The wait time for general Endocrinology and Osteoporosis referrals is approximately two weeks. In order to ensure sustainability of these changes the position of a Division CAT Director and Auditor was created and advertised. Dr. Shelly Bhayana was hired for this position.

The Division maintains a weekly **"Community Access Physician" Program** to assist with urgent referrals and wait list management. Each week, an Endocrinologist is available during business hours to assist triage staff, to take all requests for phone advice and to see any urgent referral such as new-onset Type I Diabetes. This has been well received in the community and is felt to have streamlined the ability of community physicians to get immediate access to endocrinology services. The 25% of CAT referrals that are not booked into a clinic appointment are dealt with by the Community Access Physician who still offers phone consultation or a letter to assist the referring physician in such cases. This means that over 1800 referrals were handled by an Endocrinologist without a clinic visit, a very important tool for waitlist management made possible through the AARP Program.

Regional Endocrinology Testing Unit (ETU) - The Division maintains and supervises the Regional Endocrinology Testing Unit under the direction of Dr. Bernard Corenblum where specialized metabolic testing is performed. The majority of such tests are done for endocrinology patients but the Testing Unit also supports some work by Nephrology and General Medicine. During the past fiscal year, the Unit performed over 748 specialized endocrine test protocols (which typically take one half to one full day) and provided 413 additional patients with specialized parenteral out-patient endocrine therapies and education not otherwise available in Day Medicine. In terms of total patient visits to the Unit, there was a 6% increase this year compared to last year. Since 2012, the ETU has seen a 36% increase in demand for patient tests and visits but without increase in staffing or space during that time. We have been struggling with the clinical demand for this unit with the available nursing personnel and resources available. We are actively trying to find solutions for now and for the future, and this is ongoing. We have two Nurses, each at 0.8 FTE. One has required medical leave to cut back her available hours, and the other is now on short term leave for similar reasons.

To try to compensate for the now even more decreased nursing availability, the following changes are being instituted, until further notice:

1. Testing that requires two Nurses cannot be done. Thus, insulin-induced hypoglycemia, fasting hypoglycemia testing, and postprandial hypoglycemia testing will not be offered. Alternatives to ITT for cortisol are ACTH stimulation, glucagon stimulation, and metyrapone stimulation.
2. Water deprivation testing done as out-patients in Foothills Medical Centre cannot be done.
3. Services such as thyrogen injection and self-administration of testosterone cannot be given.
4. Programs such as ovulation induction will not be offered.

The clinic will be open Monday, Tuesday, and Thursday only, with a single Nurse. We are actively trying to find alternative solutions and hopefully the above will be only for the short-term.

Diabetes Centre Calgary - The Endocrinology Division maintains primary responsibility for the Diabetes Centre Calgary (DCC) under the direction of Dr. Julie McKeen. In the past year, the DCC received 4552 referrals. The DCC staff (diabetes educators) conducted 17,884 patient care visits including initial assessments and follow-up appointments (face-to-face and telephone follow-ups). The Diabetes Triage was merged with the Endocrinology and Metabolism Central Access and Triage process, reducing duplication of clinician and clerical staff time, resulting in a more efficient process overall.

Launched in October 2015, under the guidance of Dr. Shelly Bhayana and the DCC administrative team, an innovative way to deliver diabetes support and specialist consultations, was developed known as Case Conference. The Case Conference is a Nurse-led and Physician-supported consultation process that has the potential to produce valuable and practical management advice for patients and their primary care physicians without reliance upon the traditional clinic visit, booking system in e-scheduler. An EMR template that is accessible to both physicians and educators is used to generate a letter to the referring physician. The DCC continues to deliver a large number of community diabetes education programs and supportive training modules to help the various Primary Care Networks (PCNs) maximize up-to-date diabetes management in the community setting.

Diabetes in Pregnancy Clinics - The number of women that our Diabetes in Pregnancy (DIP) clinics provides service to under the direction of Dr. Lois Donovan continues to increase. In 2014 a total 2,187 women were provided care in our multidisciplinary Diabetes in Pregnancy clinics at our four hospital locations, Peter Lougheed Centre, Foothills Medical Centre, Rockyview General Hospital, and South Health Campus. For the fiscal year of April 1, 2015 to March 31, 2016, a total of 2,327 women were provided care at our four hospital clinic sites. This follows a consistent increase in Diabetes in Pregnancy services provided by the Division for the last 10 years. During pregnancy close follow up of these individuals is required with multiple in person and phone contacts required. We are the only Diabetes in Pregnancy Service in the city that provided 24 hour in-patient and out-patient services to women with diabetes in pregnancy. Pregnancy outcomes in women with diabetes (especially Type 1 and 2) continue to be poorer than women without diabetes. Our DIP Clinics have been strong supporters of local, provincial, national, and international led research in contributing to advancing better care for women with diabetes in pregnancy and their children. Furthermore, Calgary Endocrinologists have had a strong presence in knowledge translation activities such as guideline development and in the Canadian Diabetes in Pregnancy Study Group (a special interest group of the Canadian Diabetes Association).

Current Challenges are high Diabetes Educator Staff turnover in the DIP clinics means physicians are needing to invest additional time with DIP educator staff training to ensure safe operations at the DIP clinics and see patients in follow up themselves more frequently until DIP physicians find it safe to delegate responsibilities, such as insulin adjustments to newly trained staff. We anticipate service demands will continue to increase for the Diabetes in Pregnancy Clinics.

The Neuroendocrine Tumor (NET) Clinic is held at the Tom Baker Cancer Clinic (TBCC) on the Foothills Medical Centre campus site. During 2015 to 2016 the specialists regularly attending scheduled clinics were Dr. Rorstad and Dr. Parkins (Endocrinology) and Dr. Pasioka (Surgery). Ms. France Singleton is our Registered Nurse dedicated to the Clinic. Preceding each of the two NET Clinics per month between noon and 1300 hours a meeting of the Neuroendocrine Tumor Board is convened. This multidisciplinary Tumor Board meeting includes regular representation from Endocrinology, Surgery, Medical Oncology, Nursing, Diagnostic Imaging, and Nuclear Medicine. The NET Board meeting is teleconferenced with physicians, usually medical Oncologists, in Regina, Saskatoon, and Lethbridge, depending on need. Patients for discussion are brought forth by members of the Tumor Board or the off-site Oncologists. If an expert opinion on tumor pathology is required, Dr. M. Khalil, Department of Pathology, kindly attends on request.

In general order of frequency, clinic patients have a NET of the intestine, endocrine pancreas, stomach, lung or other rare sites. The most frequent syndrome of hormone hypersecretion is the Carcinoid Syndrome due in part to serotonin. Less often, syndromes of excess production of pancreatic or ectopic hormones are managed in the clinic.

The Net Clinic provides a valuable educational experience for endocrinology (usually PGY 4 and 5) and Surgery Residents. During 2015 to 2016 the NET Clinic participated in an international clinical trial of telotristat, a tryptophan hydroxylase inhibitor, for patients with resistant symptoms of the Carcinoid Syndrome.

The Section has now formally taken over the primary responsibility for thyroid cancer care by acceptance of the leadership for the **Calgary Thyroid Cancer Team** by Dr. Symonds and the leadership of the **Provincial Endocrine Tumour Team** by Dr. Paschke. A one year Memorial Sloan Kettering Thyroid Cancer Training Fellowship was secured for our final year Endocrinology Resident, Dr. Sana Ghaznavi.

After a meeting of the Calgary Thyroid Cancer Team on February 10, 2016, the Calgary Multidisciplinary Thyroid Cancer Group (in collaboration with representatives from all other involved disciplines and the support from the Departments of Medicine, Surgery, and Oncology) submitted a business case to set up a Multidisciplinary Thyroid Cancer Clinic (MDTCC) at RRDTCC. We aim to also capture the 80% of thyroid cancer patients in Calgary that are currently not treated at TBCC but in various practice settings. This business case was well received by Alberta Cancer Control (ACC) but not funded as decided by ACC leadership meeting in March 2016.

Despite of this lack of funding, the following was achieved:

- We have devised an ultrasound-based malignancy risk assessment for thyroid nodules in conjunction with one of the major radiology providers in Southern Alberta (EFW) to be implemented in the fall of 2016.
- We have reached an agreement on consensus criteria between Endocrinology, Surgery, and Pathology in Calgary, for the management of ATA low recurrence risk patients to allow the consideration of partial thyroid surgery in the form of a lobectomy instead of a total thyroidectomy.
- We have reached an agreement on standard thyroid pathology evaluation and adjusted our follow-up strategy for these patients in Calgary. This will lead to a shift toward more

lobectomies instead of total thyroidectomies with a subsequent reduction in the risk for hypoparathyroidism, vocal cord paralysis, and risk for life-long thyroid hormone treatment.

- We have introduced Thyroid Cancer Triage Rounds for all newly diagnosed thyroid cancer cases in Calgary to help decide on recurrence risk and radioiodine treatment according to ATA recurrence risk.
- We have worked together with AHS Data Integrity and Integration, and C-MORE to generate standardized initial assessments and progress reports for thyroid cancer patients which will help standardize follow-up and will automatically populate an outcome database.
- We have attracted a Phase 2 Study for the first Tyrosine Kinase Inhibitor (TKI), which will very likely be available for the treatment of radioiodine resistant thyroid cancer in Canada by the end of 2016.
- We are preparing for the upcoming Provincial Endocrine Tumour Group Meeting in November 2016 to coordinate and harmonize these initiatives between Calgary and Edmonton and work towards the next step; i.e. MDTCCs in both cities.

The **Osteoporosis Team** achieved:

- Institution of a new Osteoporosis Group Medical Program called the “Self Consult Program” which allows us to see 10 to 15 patients at a single visit.
- A \$50,000 funding grant enabled the launch of the Self Consult Program and to hire a part time Research Nurse to document short and long term outcomes.
- With the efforts of the new Program, new physician recruitment and a concerted effort to increase phone consult use, the osteoporosis wait list.
- Ethics approval was obtained for the Program with multiple outcome measures and institution of a parallel non-group patient outcome comparison study.
- An \$8,000 grant was awarded to develop a patient-oriented educational website for the program.

RESEARCH

This was a successful year for researchers in the Division of Endocrinology and Metabolism, in a very competitive funding environment. The Division produced a total of 93 peer-reviewed papers, primarily in excellent journals and four book chapters. Division members collectively delivered eight local, 19 national, and 13 international invited presentations. There were seven new peer-reviewed grants, and 40 ongoing funded studies. External funding sources for these grants included the Canadian Institutes of Health Research, National Institutes of Health, Alberta Health, Alberta Innovates-Health Solutions, Public Health Agency of Canada, Juvenile Diabetes Foundation International, Agency for Health Research and Quality, The Lawson Foundation, Pure North S'Energy Foundation, MSI Foundation, and industry.

A key research-related recruitment was that of Dr. Ralf Paschke, who was recruited to Calgary from Leipzig, Germany to become Professor, Division and Zone Section Chief of Endocrinology & Metabolism in 2015. He is also the Chair of the Provincial Thyroid and Neuroendocrine Tumour Team with cross appointments to the Department of Oncology and Biochemistry and Molecular Biology. He heads a world-leading research program focused on thyroid cancer, thyroid nodules, molecular FNA diagnostics, the TSH-receptor and diseases caused by TSH-receptor mutations. Moreover, the recruitment of Dr. Markus Eszlinger, PhD enabled setting up a research lab in ACCI, obtaining ethics approval and starting collection of thyroid nodule FNA material for molecular FNA diagnostics and devising and testing of larger tNGS and MassArray mutation

panels for molecular thyroid nodule FNA diagnostics in Calgary with the aim to save 420 patients per year in Alberta from diagnostic lobectomies.

Dr. Sonia Butalia was recruited to an Assistant Professor position. Her research focuses on cohort and clinical trials related to diabetes and cardiometabolic conditions. Her research projects are supported by funding from the Canadian Institutes of Health Research (CIHR) and The Lawson Foundation. She is the primary supervisor for two Internal Medicine Residents in the Department of Medicine and has membership on one Master's of Science thesis committee in the Department of Community Health Sciences. She is involved in national guidelines including those from the Canadian Diabetes Association and Hypertension Canada.

EDUCATION

The office of Postgraduate Medical Education (PGME) in the Division of Endocrinology is tasked with two main purposes. The first is the maintenance of the Royal College of Physicians and Surgeons of Canada accredited Specialty Training Program in adult endocrinology and metabolism. The second is the provision of endocrinology training to other PGME programs within the University of Calgary. The day-to-day administration of the program and related tasks are under the purview of the Program Administrator, Ms. Rebakah Bootsvelde. The program director, Dr. Vicky Parkins, has been in the role since September 2013.

The specialty training program in Adult Endocrinology & Metabolism was started in the 1980's. The most recent accreditation was completed in February 2015 and the Program was fully accredited until the next external survey by the Royal College expected in 2022. We accept our applicants only through the CaRMS medicine specialty match, except under extraordinary circumstances. For the year 2015, the Fellowship Program graduated two community Endocrinologists. Dr. Caitlin Sinclair has joined the Associate Clinic and is a full Division Member. Dr. Linda Sandercock has joined the C-endo group of community Endocrinologists. We had the pleasure of welcoming Dr. Jamie Benham and Dr. Sana Ghaznavi into the Program in July 2015. Continuing in their final year of the program are Dr. Alex Leung and Dr. Jennifer Yamamoto. Dr. Leung received a national award for his case presentations at the CSEM/CDA Meeting. He was also productive on the National Guidelines Committee for CHEP and the CDA. Dr. Yamamoto pursued a MSc in Clinical Epidemiology and was awarded the Dr. McIntyre Prize for the highest GPA in her course work. Dr. Laura Hinz will return to her MSc in medical education in 2016 after her maternity leave.

The members of the Division of Endocrinology supervise PGME trainees in both out-patient clinics at the various regional sites and the in-patient service at the Foothills Medical Centre. The majority of our commitment is to the core Internal Medicine (IM) program. We hosted 35 core IM Residents for full four week block rotations. In addition, we were able to accommodate four elective Residents from core IM programs across the country with an interest in our specialty training program. We also provide four week rotations for a further 18 Residents from eight other programs including Psychiatry, Medical Genetics, and Obstetrics. We did offer unique block rotations for Rheumatology, Geriatrics, and PGY4/5 Internal Medicine trainees with a desire to focus on one particular aspect of our expertise. We hosted 22 Clinical Clerks for their two week rotation consisting of a combination of clinics, in-patient rotation, and allied health member experiences. All told, this equates to a total of 984 half day clinics (242 specialty trainees, 593 rotating trainees and 149 Clinical Clerks). The in-patient service was also an important focus of the Division's educational contribution with 1077 half days (276 specialty trainees, 627 rotating trainees and 174 Clinical Clerks). Further didactic sessions are provided on a regular basis to the Internal Medicine Clerks and the core IM Training Program on scheduled half days.

Finally, there are many initiatives, started in 2015 that will serve as the anchor for innovation in 2016. In collaboration with the Care of the Adult Unit in Family Medicine, we are looking to create an endocrine selective to further the exposure to chronic disease management as it pertains to endocrine disorders. The Royal College has also initiated a substantial paradigm shift towards competency based medical education with

their CanMeds 2015 Competency-by-Design Program. This will be an iterative process as our Program will work with the core IM Program to harmonize standards for 2017.

Undergraduate medical education continues to be a major focus of the endocrine Section. As a whole, the Section provided 324 hours of direct, face-to-face teaching to the medical school (an 8% increase over prior year). Of these 324 hours, there are 72 hours of lecture and 252 hours of small group teaching. In review of the student evaluations, the mean teaching score was 3.82 /5 for lectures and 4.0 /5 for small groups. Additionally, many hours were provided for other direct, planned educational activities for Residents, allied health workers, and professional CME. Dr. Hanan Bassyouni has continued as co-chair of the endocrinology-nephrology course in the medical school. Dr. Shelly Bhayana has taken on the role of the course evaluation representative for the endocrinology section.

ADMINISTRATION

- a) Dr. Ralf Paschke, from the University of Leipzig, Germany, joined the Division as Division Head in July 2015.
- b) Dr. Alun Edwards continued as Senior Medical Director, AHS Strategic Clinical Network for Diabetes, Nutrition and Obesity.
- c) Dr. Peter Grundy continued in his role as Chair of the ARP Management Committee for the Department of Medicine and continued to play a key role for the Department of Medicine in all aspects of the re-negotiation and administration of this most important alternative relationship program.
- d) Dr. Julie McKeen is the Medical Director of the Diabetes, Hypertension and Cholesterol Centre.
- e) Dr. Lois Donovan is the Medical Director of the Diabetes in Pregnancy Program.
- f) Dr. Greg Kline took over the position as Medical Director of the Calgary Osteoporosis and Metabolic Bone Program.
- g) Multiple members sit on national and international committees in metabolic bone disease, diabetes care, hypertension, thyroid cancer and thyroid nodules and molecular diagnostics of thyroid nodules and obesity.
- h) Dr. David Hanley retired.
- i) Dr. Emma Billington was recruited as a new Osteoporosis Physician and Associate Medical Director of the Calgary Osteoporosis and Metabolic Bone Centre.

Section of Gastroenterology and Hepatology – Annual Report April 1, 2015 to March 31, 2016

Section Head, Dr. Mark G. Swain
Deputy Section Head, Dr. Kerri Novak

The Calgary Zone Section (Division) of Gastroenterology and Hepatology is the largest medical subspecialty section within the Department of Medicine, consisting of a total of 53 fulltime members: 43 gastroenterologists (22 ARP and 21 FFS) and 10 hepatologists (5 ARP and 5 FFS).

The Section has developed an overarching strategic plan that encompasses a vision for the development of gastroenterology and hepatology clinical services, research and education within the Calgary Zone; all under the umbrella **Calgary Center for Digestive Health (CCDH)**. The **vision** is to establish the Calgary Centre for Digestive Health to accelerate the pathway from research discovery to patient wellness in Digestive Health. The **goal** is to be the top digestive health team in Canada by the year 2020, and to be recognized as one of the top ten digestive health groups in the world by the year 2025. The strategy to achieve this goal is outlined in **Appendix 1**.

A) Division Accomplishments and Innovations in Clinical Care

Clinical care provided through the CCDH is not housed in a single structure or facility in Calgary, but represents a closely linked network of four acute care sites (**FMC – Foothills Medical Centre, site chief Dr. Christopher Andrews; RGH – Rockyview General Hospital, site chief Dr. Mani Kareemi; PLC – Peter Lougheed Centre, site chief Dr. Rachid Mohamed; SHC - South Health Campus, site chief Dr. Michael Curley**), the Colon Cancer Screening Center (**CCSC; Medical Lead, Dr. Steven Heitman**), academic clinics (UCMC) and community based offices. Roughly 2/3 of gastroenterologists in the Calgary Zone are supported by a GI Central Access and Triage (CAT) which receives about 1800 referrals per month (growing by roughly 10% per year). The other 1/3 of referrals are received by community based gastroenterologists directly through office-linked referral systems. All 10 hepatologists participate in a dedicated hepatology CAT which receives about 450-550 referrals per month. The Inflammatory Bowel Disease (IBD) group is also supported by its own CAT which receives roughly 200 referrals per month. In addition, the CCSC receives roughly 1,600 referrals per month for colon cancer screening (now mostly FIT +ve). Procedural volumes supported by the Division within the Calgary Zone remain high, as indicated in the following summary (for April 1, 2015 to March 31, 2016):

- (i) FMC: colonoscopies 6016, EGD 5274, ileoscopies 116, EUS 884, DB EGD 47, DB colon 34, confocal microscopy 32, sig 668 (+ 871 at UCMC), TSE 318 (UCMC).
- (ii) PLC: colonoscopies 5455, EGD 4055, ileoscopies 15, EUS 86, ERCP 1030, sig 669.
- (iii) RGH: colonoscopies 6082, EGD 4390, ileoscopies 19, sig 753.
- (iv) SHC: colonoscopies 1875, EGD 2235, ileoscopies 6, sig 604, TSE 318, RFA 82.
- (v) CCSC: colonoscopies 17,427

The CCDH is supported by leading-edge translational research infrastructure providing outstanding patient care and an unsurpassed training environment for future physicians and researchers in 6 key areas of Digestive Health: (i) Inflammatory bowel disease, (ii) Hepatology, (iii) Motility, (iv) Colon cancer screening, (v) Therapeutic endoscopy, and (vi) Nutrition. Moreover, the organizational structure of the CCDH has allowed for the successful implementation of numerous highly innovative clinical care programs and pathways as outlined below:

(i) **Innovations in Clinical Care Delivery within the CCDH**

(a) **Calgary Liver Unit (Medical Lead, Dr. Kelly Burak):**

- **Hepatology Outreach Clinics:** In the spring of 2014 the Calgary Liver Unit opened the East Calgary Viral Hepatitis Outreach Clinic. Northeast Calgary has a high prevalence of chronic viral hepatitis, but many patients from this area are unable or unwilling to travel to FMC or SHC to see a Hepatologist. Currently, this clinic is operated by Dr. Meredith Borman, alternating with hepatology nurse practitioners, at the East Calgary Family Health Centre on a monthly basis. A portable Fibroscan capability has been established within the clinic for the non-invasive assessment of liver fibrosis. This outreach clinic will expand in 2016-17 to NE Calgary, and there are plans to perform point-of-care testing for viral hepatitis in the community, so that we can identify and treat more patients with chronic viral hepatitis. Regular ongoing outreach clinics are also operational at the Southern Alberta Clinic (HBV-HIV and HCV-HIV co-infected patients seen by Dr. Coffin) and the Calgary Refugee Clinic (viral hepatitis patients seen by Dr. Lee).
- **Viral Hepatitis Clinic (Medical Lead Dr. Carla Coffin):** The viral hepatitis clinic continues to be very active with assistance of two nurse clinicians and one clerk providing administrative support for insurance applications. Since 2011, there have been approximately 2600 MD-consult appointments for hepatitis B or hepatitis C (not including follow-up appointments). The clinic follows >700 active hepatitis B patients on antiviral therapy, and treats ~25-30 patients per month for hepatitis C. The follow-up of patients on treatment is facilitated by the development of a viral hepatitis clinic database that also allows opportunities for both clinical research as well as quality assurance projects to improve patient care.
- **Multidisciplinary Hepatocellular Cancer (HCC) Clinic and Community-based Computerized Recall HCC Screening Program (Medical Lead, Dr. Kelly Burak):** Established at both the FMC and SHC with weekly multidisciplinary team conferences held at the TBCC to discuss patients with liver cancer. This HCC clinic is led by a HCC dedicated nurse practitioner and includes hepatologists, hepatobiliary surgeons, diagnostic/interventional radiologists and radiation oncologists. In conjunction with this clinic, a new highly innovative automated HCC surveillance program has been developed and implemented within the Calgary Zone for high-risk patients with liver disease, in partnership with EFW Radiology. This program involves specialized ultrasound clinics, standardized reporting, database and automated recall policies to improve uptake and is being prospectively assessed and validated. Dr. Burak, (cross-appointed to Medical Oncology) continues to facilitate multidisciplinary care of HCC patients. He is working with Dr. Oliver Bathe (HPB surgery) and Dr. Vincent Tam (Medical Oncology) to develop a truly multidisciplinary team clinic for HCC patients, which is schedule to start at the TBCC (Holy Cross site) in late 2016 or early 2017.
- **ECHO Program:** This is an outreach program run by Dr. Sam Lee to help rural physicians more confidently treat hepatitis C (HCV). Videoconferences occur twice a month, starting in November 2015. Individual de-identified HCV patients are presented during the videoconference (2-4 patients/session) with management plan discussed and treatment organized. The hub for this program is the Liver Unit in Calgary, where we have Dr. Sam Lee, our hepatitis nurse clinician and a pharmacist expert in HCV drug-drug interactions. The 'spokes' of this program (to date) include: Medicine Hat, Lethbridge, Red Deer, Innisfail, Fernie/Blairmore, Grande Prairie, Fort McMurray, Yellowknife, North West Territories, Invermere B.C., Eagle River Health Centre (First Nations). The goal this coming year is to expand the First Nations spoke sites.
- **City-wide Liver Fibroscan Service:** More than 4000 Fibroscans are performed annually at the FMC site alone (with further capacity established with the recent addition of SHC Fibroscan capabilities, and portable Fibroscanning capacity at Outreach clinics) to assist in the non-invasive prognostication and management of patients with chronic liver disease. Fibroscanning often allows patients to avoid undergoing invasive liver biopsies.

- IFLEW (NAFLD/NASH) Multidisciplinary Clinic:** A multidisciplinary NAFLD clinic has been established at the SHC. The clinics are conducted by both an attending hepatologist (Dr. Jayakumar) and a dietician trained in NAFLD diets who is available to advise patients. ~8-12 patients seen in each clinic, with disease severity ranging from hepatic steatosis to NAFLD-related decompensated cirrhosis. Currently, patients requiring a liver biopsy are also asked to consent for research inclusion, and have storage of both serum and liver tissue in the Liver Unit Biobank and database. As of September 2013, a multi-disciplinary clinic was organized, wherein patients who are deemed to be high risk for vascular complications are seen by one of three dedicated general internists (Drs. A. Boscan, P. Davis, and R. Hawkins), who manage these patients with a goal of modifying their vascular risk factors. This multidisciplinary approach allows for optimization of care for these patients whose risk factors and diseases are currently managed either by their family doctor or a nurse practitioner, and allows for further research to be undertaken with regards to patients with NAFLD and vascular disease/risk factors. This clinic also allows for the establishment of an additional database for future longitudinal studies, and for the identification of special groups of patients that might benefit from inclusion into NASH/NAFLD studies (such as patients with “lean” NASH, and patients with advanced disease, but not cirrhosis). In addition to the above-mentioned high risk NAFLD multidisciplinary clinic, as of September 2014, the South Health Campus launched a low risk NAFLD clinic. Currently, the wait list for patients with NAFLD to be seen by a hepatologist is in excess of 2 years, and when ultimately seen patients often do not have clinically significant disease. Patients who are referred to a hepatologist for the reason of possible NAFLD will undergo non-invasive testing of their liver stiffness (with a Fibroscan; a surrogate marker of liver fibrosis). Patients who do not have evidence of fibrosis, and who are at low risk for developing fibrosis in the future, are triaged to the Initial Fatty Liver Education Workshop (IFLEW) clinic. These patients are then booked into a class consisting of 8-12 patients, where they are educated about their disease and lifestyle modifications they need to undertake in order to treat this disease. Teaching is done by the fatty liver nurse clinician, the GI dietician, a social worker, and an exercise trainer from the YMCA affiliated with the SHC Hospital. Each session lasts for a half day, and patients are provided with pamphlets outlining the material covered in the class, and the referring physician receives a form letter detailing the lifestyle changes the patient needs to implement, and also when to re-refer if there are concerns.
- NP Led Cirrhosis Clinics:** This nurse practitioner run clinic utilizes 2 NPs to care for patients with the complications of cirrhosis, and includes 2 abdominal paracentesis clinics per week that have been implemented to keep patients with refractory ascites from needing to come to radiology and emergency departments.
- Hepatitis B in Pregnancy Clinic:** Dr. Carla Coffin, Dr. Eliana Castillo (Maternal Fetal Medicine, Internal Medicine), Dr. Steven Martin (Alberta Children Hospital), Ms. Trudy Matwi, (Nurse Practitioner) with support of other members of the Calgary Liver Unit, have established a HBV in pregnancy clinic and an associated clinical care pathway for management of mothers with hepatitis B in pregnancy, post-partum, as well as infant follow-up (to ensure comprehensive clinical care). This has also enabled successful research collaboration, involving Alberta Public Health Disease Surveillance/Epidemiology Branch and Alberta Provincial Laboratory (Dr. Carmen Charlton). We have established a long-term registry/database, established a biobank (in consented patients), and are working to expand collaborations province-wide and nationally as part of the Canadian HBV Network.

- **Liver Transplant Clinic:** The Liver Transplant Clinic (Director, Dr. Kelly Burak) continues to excel at providing true multidisciplinary care of patients before and after liver transplantation. This clinic consists of 5 hepatologists, 5 RNs, a social worker, a dietician, and pharmacists. The clinic operates 3 half days per week with a weekly teleconference with the University of Alberta liver transplant group. Dr. Burak continues on the Organizing Committee for the Canadian Liver Transplant Forum. He also served on the Steering Committee for Liver Listing & Allocation Forum for Canadian Blood Service, which included Chairing the MELD/PELD Working Group and serving on the Forum Recommendations Group and Future Research Group for this important meeting held in May 2016, which saw Canada formally adopt MELD-Na allocation for adult liver transplant, a new allocation system for pediatric liver transplant, and the Alberta system (TTV115/AFP400) for listing patients with HCC for transplantation.

(b) Inflammatory Bowel Disease Clinic (Medical Lead, Dr. Remo Panaccione):

The IBD Clinic is comprised of an accomplished team of University of Calgary and Alberta Health Services clinicians and researchers – identified as one of the top three IBD Centres in the world. Known as the ‘IBD Clinic’, this group has 1.8 FTE Nurse Practitioners, has produced over 600 scientific publications, and is ranked fifth in the world for academic output by the Crohn’s and Colitis Foundation of Canada (CCFC).

- **Outreach Clinics:** Recognizing the disparity in the quality of care for complex inflammatory bowel disease in many rural regions of Southern Alberta, given the lack of access to expertise and specialty care, the IBD Outreach Clinic was established to attempt to bridge gaps in care and facilitate knowledge translation. Starting in early 2015, an outreach program to facilitate the care of IBD patients in rural regions was undertaken, with 3 on-site IBD clinics and 2 telehealth clinics with Medicine Hat completed to date. In addition, 2 very well attended evening educational events were conducted with a multi-disciplinary audience comprised of surgeons, family physicians and internists, with a focus on the management of complex hospitalized IBD patients. A similar case-based educational event with a collaborative IBD clinic (Dr. David Koegler, Lethbridge, Dr. Raj Hundal, Lethbridge, Dr. Kerri Novak, Calgary) is scheduled to begin in September 2016. General GI Outreach Clinics continue at CUPS, a well-established Calgary-based non-profit organization that aims to improve the health of patients with financial insecurity that may have particular challenges accessing care. The GI on-site clinic occurs once monthly and provides patient education and resources, and access to free endoscopy preparation kits and transportation post-endoscopy.
- **Point of Care Bowel Ultrasound (Medical Lead, Dr. Kerri Novak):** The University of Calgary Inflammatory Bowel Disease (IBD) Clinic is the first clinic in North America to establish the use of bedside or clinic-based transabdominal ultrasound as an adjunctive assessment tool, in addition to the standard use of clinical history, physical exam and serologic inflammatory markers, to routinely follow / monitor patients with IBD, by a trained gastroenterologist working in collaboration with Diagnostic Imaging. Through fundraising and public awareness campaigns, in addition to an award from the Department of Medicine (Business Costs Innovation Program, \$30,000), the IBD clinic was able to generate funds to purchase a permanent, high quality, high resolution ultrasound (US) machine for dedicated use for clinic patients. There are a number of ongoing research projects with over 400 patients recruited to date, to assess the accuracy, satisfaction and quality of US use at the bedside for clinical assessment. In September of 2016, a consistent referral process will be established for the Division to improve US access to all members, including those not associated with the FMC. This will endeavor to improve access to this safe, non-invasive technology for patients across the city, as wait times for DI-based US are long and are often separated in time from clinical assessment and clinical decision making. This clinic is closely aligned with DI. Dr. Novak is also a member of the international expert bowel US group (IBUS) who recently developed the first international European Crohn’s and Colitis Organization endorsed US program, and she will be participating as an instructor in the first didactic session taking place November 2016. Dr. Novak has been invited to demonstrate and speak on bowel US across Canada.

- IBD Pregnancy Clinic (medical Lead, Dr. Cynthia Seow):** The IBD pregnancy clinic was established by Dr. Yvette Leung and Dr. Cynthia Seow in September 2012. This is the first specialized IBD and pregnancy clinic that follows an MD driven clinical care pathway; with scheduled visits each trimester and in the postpartum period. Patients are also given the opportunity to be seen preconception, with the aim of optimizing disease control to improve pregnancy outcomes and to educate patients on the safety of IBD medications both during pregnancy and lactation. Patients who have active disease are triaged as urgent consults and seen within 1-2 weeks; with immediate advice given to referring gastroenterologist by phone when warranted. Scheduled visits ensure that patient's disease and nutrition status is optimal with monitoring for subclinical inflammation in the form of biomarkers (CRP) and bowel ultrasound. The clinic communicates closely with the referring gastroenterologist, family physician and obstetrician. Furthermore, due to our section being citywide with central triage; referrals are sent to this clinic from all parts of Calgary and from non-tertiary care sites in Southern Alberta. The clinic referrals have been steadily growing, with between 50-60 referrals per annum since 2012, but with 72 women being seen between January and July 2016.

. The clinic has clinical and research collaborations with the Medical Disorders in Pregnancy group (Internal Medicine), the High Risk Obstetric Group at Foothills Hospital, the regional Infertility Centre and the Alberta Pregnancy Outcomes and Nutrition (APrON) group. From a research perspective this is the first IBD and pregnancy registry in North America in which patient are seen preconception, peri-partum and postpartum, with full phenotyping, prospective follow-up of disease activity, the ability to link to the Alberta Perinatal Database and with prospectively stored biospecimens including blood and urine. With the funds acquired, the registry has hired a dedicated full time research coordinator. Dr. Seow has a full time IBD fellow, Dr. Hang Hock Shim who works with her, attends the IBD pregnancy clinic and is involved in relevant research projects. The IBD and pregnancy clinic has now established contacts with 11 other referral centers in Canada and formed MORE CaRe- IBD (Maternofetal Outcomes Research, a Canadian Registry in IBD). All sites follow the model developed at the University of Calgary; that is, linking excellence in clinical care to a research registry. Dr. Seow is also on the steering committee for SCOPE-IBD (The Scientific Consortium for Optimizing Pharmaco-Epidemiologic data in IBD) representing the IBD and pregnancy section. Establishing the University of Calgary's presence, Dr. Seow is the co-lead author and Dr. Leung is on the steering committee for the recent publication in Gastroenterology titled 'The Toronto Consensus Statements for the Management of Inflammatory Bowel Disease in Pregnancy'.
- RRDTC Relocation (IBD Center of Excellence):** The vision of the Calgary Inflammatory Bowel Disease (IBD) Research and Wellness Center is to create a unique world-class institute located at the Richmond Road Diagnostic and Treatment Centre (RRDTC). The Calgary IBD Centre will build on the successes of the University of Calgary's IBD Clinic and will have three areas of focus: patient care, education and research. Ultimately, this clinic will build upon the success of the University of Calgary IBD Clinic to serve as a beacon to the global IBD community as a model on how to best deliver care and education to IBD patients and ultimately improve and transform the lives of patients around the world through the integration of excellence in patient care and research. Housed in RRDTC the clinic will be in close proximity to rheumatology and dermatology; important disciplines taking care of immune mediated diseases which will allow for additional sharing of resources and expertise. A key example would be the provision for an infusion center. Co-location with ambulatory clinics at RRDTC will facilitate the establishment of an Immune Mediated Inflammatory Disease (IMID) Centre of Excellence. The presence of Diagnostic Imaging and Laboratory Services at RRDTC is also a key enabler to the success of the Calgary Inflammatory Bowel Disease Research and Wellness Center Calgary IBD Centre.

(c) Motility (Medical Lead, Dr. Chris Andrews):

- The Calgary Gut Motility Center (CGMC):** Opened at the South Health Campus (SHC) in December 2012, the mandate of the CGMC is to provide excellence in care for patients with gastrointestinal motility disorders. Three full time physicians with specific interest/training in motility disorders (Drs. Gupta, Buresi, and Curley) work directly at the center. Dr. Chris Andrews is the motility program lead. While primarily an IBD expert, Dr. Michael Stewart has a specific interest in the overlap of functional gut disorders and inflammatory bowel disease. Commonly seen disorders at CGMC include motility disorders such as gastroesophageal reflux disease and gastroparesis, as well as functional disorders such as irritable bowel syndrome, chronic constipation, and functional dyspepsia. The CGMC has innovative technology, which is only available at a few centers in Canada and includes the Bravo probe (48 hour wireless pH probe); 24 hour combined multichannel intraluminal impedance (MII) and pH testing and high-resolution esophageal manometry. Combined MII and pH testing allows for the detection and characterization of esophageal exposure to acid, weak acid and non-acid refluxate. Esophageal manometry is used for the detection and characterization of esophageal motility disorders such as achalasia. The motility lab performs ~1200 upper GI tract procedures per year and the wait time for these procedures is typically less than two weeks. The anorectal manometry program opened in spring 2013 and aids in the evaluation and management of patients with lower GI tract motility disorders. Anorectal manometry is typically reserved for patients with severe issues with defecation and therefore the number of tests performed remains relatively low compared to upper GI tract procedures (~thirty procedures/yr). Links to the FMC Pelvic Floor Clinic have been established to help manage these patients. The EndoFLIP system was purchased in 2014. This is a novel technology used to assess the dimensions and function of the esophagus. It can also be used to perform therapeutic dilation of the lower esophageal sphincter without the need for fluoroscopy. In-clinic endoscopy is also available and allows for unsedated thin-scope endoscopy to be performed when indicated. The CGMC has dedicated motility clinics in which patients with various motility disorders are seen. These are true multidisciplinary clinics, which include participation by physicians, nurses, pharmacists, social workers and dietitians. The CGMC also has close ties with the South Primary Care Network nurse navigator program (both functional dyspepsia and irritable bowel syndrome) as the two supervising physicians are based at the CGMC (Buresi and Curley). On the education front, the motility group continues to be busy with multiple elective residents and students spending time with the group over the last year. The CGMC has continued to host an annual Motility Disorder Symposium for Primary Care Physicians. This is a well-attended educational event and attendee feedback is overwhelmingly positive. A GI Motility Fellowship Program began in the fall of 2015 with Dr. Curley as the fellowship program director (funded through Allergan). This is one of only two motility fellowship training programs in Canada. Currently, trainees include Drs. Yaqoub Al-Awadh and Dorothy Li. Future plans include the generation of a research database of motility disorder patients and participation in clinical research trials.
- Small Bowel Capsule Program at SHC (Medical Lead, Dr. Michelle Buresi):** The Small Bowel Capsule Program is led by Dr. Michelle Buresi, Tara Green is the capsule nurse / coordinator (0.8 FTE). A second 0.5 FTE RN (Tasha Nash) has been hired to ensure full-time Monday to Friday Capsule availability, to augment the feasibility of urgent and inpatient studies. There are 5 physicians currently reading capsules (Drs. Shane Devlin, Fatin Adams, Michael Ma, Michelle Buresi and Ali Rezaie). In the last 3 years, the referral and triage processes have been standardized and studies are now stored in a central database on a drive accessible to all those reading capsules from any AHS computer, or remotely via FOB. This has improved efficiency and consistency in reading and reporting. The use of patency capsules was introduced in February 2014. These allow for prediction of patients at high risk for capsule retention. Accessibility to reports has been vastly improved through availability on Endopro and Netcare for procedures completed after April, 2015. Since January of 2016, 91 capsules and 24 patency capsules have been performed. We receive an average of 4 referrals per week, and complete 2-6 (average 3) capsule studies per week. Wait times (time to procedure) are on average 4 days for priority/inpatients, 16 days for urgent referrals, 73 days for

moderate referrals, and 145 days for routine referrals. We have created a searchable database of all studies done since January 2015. A research coordinator is examining this database in order to determine the local yield and impact of capsule endoscopy, including patency capsules. Future research will focus on assessing various protocols and bowel preps, and comparison to other small bowel imaging modalities. The capsule program continues to face some challenges. Wait times for routine studies are increased from last year with increases in urgent and moderate referrals. Wait times will be improved by the return of a second capsule nurse, the recruitment and training of new readers, and increased utilization of the network drive. research coordinator is examining this database in order to determine the local yield and impact of capsule endoscopy, including patency capsules. Future research will focus on assessing various protocols and bowel preps, and comparison to other small bowel imaging modalities. The capsule program continues to face some challenges. Wait times for routine studies are increased from last year with increases in urgent and moderate referrals. Wait times will be improved by the return of a second capsule nurse, the recruitment and training of new readers, and increased utilization of the network drive.

- **Esophageal Diseases Clinic at SHC:** A weekly “esophageal diseases clinic” is held at SHC, dedicated to general esophageal conditions including GERD, eosinophilic esophagitis (EoE), motility disorders, and functional esophageal diseases (visceral hypersensitivity; functional heartburn; dyspepsia). This clinic runs in conjunction with the Calgary Gut Motility Centre and includes esophageal manometry, EndoFLIP, 24h combined pH/impedance studies and wireless BRAVO pH probe studies. Novel technology has been acquired to assess and study esophageal conditions to improve patient care (such as EndoFLIP and Cellvizio). Availability of thin scope endoscopy again allows for immediate endoscopic assessment when indicated. These clinics run weekly and are staffed by gastroenterologists with interest in the esophagus (Drs. C. Andrews, M. Curley and M. Gupta). On average, they assess 20 patients/week. Having focused care in one site allows for development of dedicated clinics for conditions (such as EoE - dieticians are necessary to provide comprehensive care).
- **Barrett’s Esophagus (BE) Program:** Endoscopic mucosal resection and radio frequency ablation (RFA) have been established for the treatment of Barrett’s Esophagus (BE) in Calgary. These techniques have been consolidated at the SHC for integration with other esophageal testing programs (described above). These evidence based minimally invasive endoscopic techniques are an equally efficacious alternative option to surgery (esophagectomy). They offer a safer and less morbid method of managing early esophageal cancer/dysplastic Barrett’s esophagus. In conjunction with the Department of Anesthesia, monthly endoscopic treatment days are performed. Two gastroenterologists with additional fellowship training in this field (Drs. P. Belletrutti and M. Gupta) perform these procedures and dedicated Barrett’s esophagus clinics are held monthly to streamline evaluation and management. A prospective registry of all Barrett’s patients treated in Calgary is also being accumulated including quality of life measures and treatment outcomes. Interim data from this registry has been recently presented at national and international meetings. A cost-effectiveness and outcomes study is also underway comparing endoscopic therapy to traditional esophagectomy.
- **Functional GI Disorder Nurse Navigator program (NN):** The Nurse Navigator program initiated within the Calgary Foothills PCN has continued to expand. The NW program is now independent of GI Central Access and Triage (CAT) with internal self-referral and management, overseen through collaborative leadership between a GI-expert GP based within the medical home and gastroenterology – Dr. Yasmin Nasser. The service includes any chronic functional bowel disorder with a focus on GERD, dyspepsia, IBS, chronic abdominal pain syndromes and chronic constipation. The Nurse Navigator (NN) program at the South Health Campus has also grown, and now includes IBS as a common indication. The FMC NN program was started in January 2014 and includes a multidisciplinary education format with group assessment. Close collaboration is ongoing with the Living Well program, which provides nutrition support. All of these clinics and the clinical care by para-professionals are supported by the development of best-evidence clinical care pathways (with 5 finalized to date; GERD, dyspepsia, IBS, H. Pylori and constipation) overseen by expert GI physicians. In addition, education and knowledge translation within the Primary Care Networks, with

an aim to improve the care for common GI conditions within the medical home, has been facilitated by ‘lunch and learns’, where gastroenterologists visit the medical home, to educate and collaborate with physicians in their home office setting. Evening CMEs have also facilitated this process.

(d) Nutrition (Medical Leads, Drs. Maitreyi Raman and Melanie Stapleton):

- **Recruitment to support specific needs:** Isaac Soo (oncology), Liisa Meddings (Bariatrics) and Meena Mathivanan (home enteral/parenteral nutrition) have recently been recruited to augment city-wide capacity specifically in identified targeted growth areas in the area of nutrition support and patient care.
- **High Risk malnutrition clinic (Medical Lead, Dr. Maitreyi Raman):** This clinic is fully established, and led by Dr. M. Raman, with a dedicated nutritionist. The clinic is designed to provide multi-disciplinary nutritional care to pre-liver transplant patients, malnourished patients with IBD and patients with short bowel syndrome. All pre-liver transplant patients are assessed in this clinic as part of their pre-transplant care. A research database has been created and is fully operational to capture nutritional and clinical data to assess efficacy of this clinic. Novel strategies to capture energy requirements and optimize nutritional strategies using a hand-held indirect calorimeter are being rolled out, with a plan to validate clinic tools to the gold standard indirect calorimeter. Results to date confirm the high prevalence of malnutrition in the pre-liver transplant population, with personalized nutritional therapy leading toward decreased frequency of infections and hospitalizations. Efficacy of the malnutrition clinic is assessed through comparing outcomes with a control population of patients with cirrhosis. Future directions include expanding anthropometric testing to routine cirrhosis clinics, with consideration to hire a part time RD to operationalize the interventions. A national working group has been created to develop and implement national level guidelines for nutrition in cirrhosis. Dr. Raman is a co-lead of the Canadian Nutrition Therapy Working Group. This clinic works closely with the Home Enteral Clinic, as some patients require home enteral nutrition therapy to optimize nutritional care.
- **Nutrition in GI Oncology:** Dr. Isaac Soo (RGH) is developing collaborations with medical oncology to provide early nutritional support to malnourished patients with newly diagnosed upper GI cancers. This collaboration aligns with the Inform study, which is an international study assessing the impact of early nutrition therapy in patients with foregut tumors.
- **Nutrition and Post-Bariatric Surgery Care:** Nutrition care in the post-bariatric surgical population has been highlighted as an area of need in nutrition services. Dr. Liisa Meddings (RGH) will develop collaborations with the bariatric surgeons, and provide nutritional and GI care to this population.

(e) Endoscopy and Therapeutics (Medical Leads, Drs. Rachid Mohamed and Paul Belletrutti):

- **GI Clinic and Endoscopy Utilization:** Utilization of GI clinics and endoscopy time are being measured and continue to improve across all sites in the city. City-wide endoscopy patient slot templates have been implemented (ie. at all sites, if endoscopy slots cannot be filled by site members, they are opened up to section members city-wide). It is critical for GI to maximize utilization of this limited resource. The FMC has also standardized UCMC GI clinic patient templates and expectations for physicians to optimize patient throughput. At the FMC, patient endoscopy and clinic time slot utilization continues to be managed by our Physician Booking Optimization clerk within UCMC, and utilization of these resources continues to be positively impacted. We recently struck a working group involving GI physicians, RNs, LPNs, unit clerks, booking clerks, managers and completed a third party evaluation and process mapping of our clinic and endoscopy patient journeys. This has led to several innovations to improve communication and efficiency in an effort to optimize value added time, decrease wait times and improve the patient experience in GI. Remarkably, a post-implementation evaluation demonstrated a 40% decrease in the time from patient check in to discharge from our endoscopy unit. Ongoing projects and evaluation is planned to re-assess changes and make further improvements.

- **Thin scope endoscopy (TSE) and Flexible Sigmoidoscopy clinics:** This clinical stream allows for un-sedated upper endoscopy or sigmoidoscopy to be performed in the clinic setting. By utilizing the clinic setting for low risk patients with certain indications for upper endoscopy (e.g. screening for esophageal varices and Barrett's esophagus, screening for pathology in patients with heartburn or abdominal pain and concerning symptoms, celiac disease screening) or sigmoidoscopy (low-risk profile rectal bleeding) these endoscopies can be removed from the acute care GI endoscopy stream. Up to 8 such endoscopies can be performed per half-day clinic – endoscopies that would have typically required sedation in an acute care GI endoscopy room in the FMC, recovery time, and endoscopy nursing support. These clinics are currently being held at SHC and FMC. Patient outcomes and satisfaction, as well as economic benefits are being captured prospectively.
- **Therapeutic Endoscopy:** This remains a very strong and burgeoning aspect of our Section. As the field of gastroenterology continues to move towards more advanced endoscopic interventions, we are fortunate in Calgary to have the opportunity to keep up with new advances, equipment and techniques lead by this enthusiastic and well-trained group. Services offered in therapeutic endoscopy in Calgary are ERCP (endoscopic retrograde cholangiopancreatography) and biliary interventions, endoluminal GI stenting, large polyp resection, endoscopic ultrasound (EUS) and guided fine needle aspiration/interventions, double balloon enteroscopy, and endoscopic interventions for Barrett's esophagus (radiofrequency ablation and mucosal resection). Newer acquisitions have expanded our ability further to now be able to perform EUS at the PLC for patients with a moderate probability of a common bile duct stone prior to proceeding to a more risky ERCP, direct visualization of the common bile duct via cholangioscopy using a very thin fibre-optic scope (Spyglass), small EUS-guided core biopsies of solid masses using a new linear EUS scope and biopsy system and EUS-guided coil+glue injection to treat large gastric varices.
- **CREATE Program (PLC- Calgary Health Trust "Big Idea"):** The therapeutics program in Calgary is a regional program supporting patient care needs in Southern Alberta and the Interior of BC. However, in its' current location at the PLC the endoscopy group as a whole has no further room for physical expansion. The interventional endoscopy group has therefore begun the process of planning for a future large-scale expansion, to enhance its' ability to deliver excellent clinical care coupled with outstanding training opportunities and expanded research capacity, all as part of a regional center for therapeutic endoscopic services. A comprehensive proposal was put forward to the Calgary Health Trust for expansion of the PLC endoscopy unit to shelled space in another area of the PLC that is currently unused. This move would allow for much needed growth in clinic space at the PLC, and a substantial increase in clinical endoscopy output to provide significant enhancements in advanced endoscopic care. Furthermore, it would permit the strengthening of clinical research within the interventional endoscopy group. Collaboration with the bariatric surgery group at the PLC would facilitate clinical and academic work in this emerging and expanding field. This concept formed the "Big Idea" that was put forward from the PLC for fundraising through the Calgary Health Trust to form a leading edge regional program that will move forward as one of the key flagship programs for the PLC.

(f) CCSC (Medical Lead, Dr. Steven Heitman):

- **Optimizing links between acute care patient service with screening endoscopy needs in the Zone:** As part of ensuring best patient care, with a focus on timeliness of GI consultation support for the ED and ward consults while on call, a city-wide policy was developed and implemented that ensures clinicians would not undertake CCSC endoscopy lists (or seeing patients in off-site community based offices) while on call for GI at their respective sites.
- **The Forzani & MacPhail Colon Cancer Screening Centre (CCSC):** The CCSC is a dedicated colorectal cancer (CRC) screening facility that is unique in Canada. The Vision of the Centre is to be world-class through excellence in clinical care, education and research. A total of 31 division members and all 8 colorectal surgeons in Calgary work at the CCSC who collectively completed 17,427 colonoscopies in fiscal year 2015. The CCSC has its own central triage, but collaborates

closely with GI CAT. Patients are triaged according to clinical priority and are navigated from the time of referral through group-based and individualized pre-screening appointments, the colonoscopy procedure, review of pathology and ultimately rescreening and surveillance recommendations according to best practice clinical guidelines. The CCSC has a robust quality assurance program including, but not limited to adverse event monitoring, physician performance evaluation and patient and staff satisfaction surveys which help inform process improvement. Starting November 2013 the fecal immunochemical test (FIT) was introduced into Alberta as the preferred primary screening modality for individuals at average risk of CRC. This has led to dramatic shifts in referral patterns across the Calgary Zone with over a 50% decrease in average risk colonoscopy referrals accompanied by a greater than 500% increase in the number of FIT positive referrals at the CCSC. During 2013, prior to the introduction of FIT, 65 cancers were detected (1/293 procedures). After FIT was implemented 149 cancers were detected in 2014 (1/134 procedures) and 129 were found in 2015 (1/138 procedures). Furthermore, pre-cancerous polyps are identified and removed during a substantial proportion of colonoscopies completed at the Centre. Of all pathology volume currently processed at the Foothills Medical Centre, 1/3 originates from the CCSC. The CCSC monitors wait times to both pre-screen and colonoscopy appointments on a monthly basis. When wait times increase, the cause is identified and remedied. FIT+ patients are given the highest priority and are contacted by phone within 24-48 hours. Dedicated FIT+ colonoscopy spots are held to ensure colonoscopies can occur within 4-6 weeks of receipt of referral. At present, most colonoscopies at the Centre are performed on FIT+ patients, those at above average risk of CRC (due to a family history) and among patients with a prior history of polyps/cancer who require surveillance.

- **Skills Enhancement for Endoscopy (SEE) Program:** In addition to the education of patients on a daily basis the CCSC provides formal education for its nurses and clinical support staff. The Centre has also been at the forefront in driving the upskilling of endoscopists. The Skills Enhancement for Endoscopy (SEE) Program endorsed by the Canadian Association of Gastroenterology (CAG) is focused on optimizing quality in endoscopy. The CCSC is a SEE approved facility and drove the development of the Program in Canada. Regular courses at the Centre play an important role in the maintenance of competency in colonoscopy among practicing endoscopists. Finally, research and innovation continues to be a cornerstone of the CCSC and is led by Dr. Robert Hilsden. The CCSC has been extremely successful in recruiting patients into clinical trials. A number of important research articles have been generated based on data collected at the Centre and national collaborative work is ongoing. Data from the CCSC is instrumental in informing the Alberta Colorectal Cancer Screening Program and other programs and endoscopy units across the country often consult CCSC leadership for guidance in development.
- **Advanced Endoscopy Training Program (Program Director, Dr. Steven Heitman):** This program continues to be highly successful. The Program prioritizes academically inclined individuals who intend to be future leaders in the field. Although the Program receives industry supported funding annually, many of our recent fellows have also won prestigious awards including that from CIHR, AI-HS and CAG. Trainees leave the program highly skilled in advanced endoscopy, but given their research productivity are also well poised to succeed as academic therapeutic endoscopists. The Program is garnering national and international recognition with 35 applicants from all over the world interested in coming to Calgary for the next academic year. Our current trainees include:
 Nauzer Forbes: Nauzer was awarded a CAG/CIHR Clinical Fellowship Award. Nauzer is currently completing a Masters in the Department of Community Health Sciences at the University of Calgary alongside his clinical training. Roshan Razik: Roshan was accepted into the highly competitive MPH Program at Harvard and completed his degree during the first year of his training.

(ii) QA/QI Innovations and Accomplishments (Medical Lead, Dr. Kerri Novak)

- **Central Access and Triage (CAT) (Medical Lead, Dr. Kevin Rioux, to be taken over by Dr. Paul Belletrutti):** Our single point of entry model for access to GI services receives approximately 1800 referrals per month for 37 GI physicians, representing both academic and private practice. Allocation of triage priority is based on medical acuity and urgency, according to Canadian Association of Gastroenterology guidelines for medically acceptable wait times. The triage of referrals is mainly performed by nurses, with physician support and oversight. Efficiency within CAT continues to improve through process mapping, education and training of nurses and clerks, and benchmarked throughput. Updated fax communication forms have improved clarity of correspondence with referring physicians and put a unified face and brand to GI CAT. Real-time tracking of referral volume and indication, priority and pathway allocation, and wait times has been facilitated in the last year by linking data pipelines to visualization tools. Improved accessibility of essential CAT data has enabled a variety of quality improvement projects. The introduction of the Fecal Immunochemical Test in Calgary resulted in immediate and sustained increase in demand for urgent GI care and endoscopy, which was met by CAT through expansion and refinement of the Direct to Procedure and Urgent Clinic pathways. Enhanced Primary Care clinical care pathways were developed to help referring primary care physicians investigate and manage GI disorders in the patient's medical home. The CAT telephone consult service, through close collaboration with PCNs, has expanded to a zone-wide, Monday to Friday service, 'Specialist Link' - available to primary care physicians for advice in managing non-urgent GI issues. This service has been very successful in terms of responsiveness, accessibility, in support of our general practitioner colleagues' management of patients in the medical home. Furthermore, it has provided the foundation for expansion into other areas including pulmonary and neurology. CAT physicians continue to support primary care physician groups in Calgary by leading 'Lunch & Learn' sessions, a forum in which GI medical topics and access issues are discussed.
- **Innovations to Improve Access:** Ensuring timely access for the sickest patients is our first priority, with wait times maintained below 6-8 weeks for urgent clinics and DTP, with consistent waits under 2 weeks for the most urgent referrals (ie. urgent priority). However, waits for routine (non-urgent) referrals continue to be very long (> 24 months). Therefore, a number of important innovations in the last year (in addition to those outlined above) include the formation of a steering committee, comprised of leadership from the 4 Calgary Zone Primary Care Networks, rural PCNs, and community/ fee for service GI physicians and FMC GI site medical and operational leadership. This strategic committee has been successful in the following endeavors designed to address access issues for non-urgent GI referrals:

 - a) **'Specialist-Link':** A Telephone Consult Service as outlined above – The current telephone consult service through CAT has been expanded to the Calgary Zone with administration through the Calgary Foothills PCN. This began as a 4-month pilot, with excellent physician feedback, for routine non-urgent concerns (acute concerns directed to on-call physician). Collaborative presentations in the AHS fall Quality Summit to showcase this Primary Care-GI collaborative project will occur in October 2016, with demonstrated cost-savings and optimization of resources. Given the GI Specialist-link successes, the service is now being expanded to include internal medicine and neurology.

b) **Enhanced support for waitlisted patients:** ‘The Bucket’ – Given that more than 5500 patients are waiting for consultation within the queue in GI CAT, it was felt that addressing these patients, with no current supports/ guidance nor intervention, was key. As a result, a subcommittee was formed with an aim to:

- i) expand and disseminate clinical care pathways to enhance care for patients while they wait.
- ii) develop a strategy to support patients while on the wait list, including letters to both referring physician and patients, with organized, multidisciplinary education sessions aimed to improve symptoms and reduce the ultimate need for GI assessment (patients will be directed back to their referring physicians where available, offered the education class, and declined further GI formal consultation – re-referral will be recommended if indicated).

c) **Enhanced Primary Care Clinical Pathway (EPCCP) Development:** given the need for both improved referral quality and care within the medical home, it was recognized that summary algorithms for best-care were important components of knowledge translation to primary care. As a result, the development of four common clinical care pathways have been undertaken to help guide both Division members in the best-evidence care for common non-urgent referrals, as well as referring physicians. Pathways include: (i) Dyspepsia, (ii) Gastroesophageal reflux, (iii) Irritable Bowel Syndrome, and (iv) Chronic functional constipation (Appendix 2).

- **Patient Satisfaction:** Collection of patient satisfaction data continues to be inconsistent; therefore the aim of the Division is to make this process more consistent across the zone by facilitating the development of a standardized, uniform electronic assessment tool with easy computation/ outcome data. There will be 2 tools generated by the end of 2016, one for clinic and one for endoscopy. Results will be collated and distributed for each site annually.
- **Focus Groups:** Self-management and patient education are integral components to a number of strategies implemented to improve care for patients with chronic functional abdominal conditions, as there is no cure for these conditions with recurring symptoms. However, education programs to date were designed in the absence of patient input. Therefore, an active, rigorous evaluation of patient perceptions regarding effective patient resources and education strategies, personal concepts of illness, self-management and desired supports for their condition were ascertained through comprehensive focus-groups (led by a Professional Interviewer hired by the GI Division). Revision and evolution of current nutritional, behavioral and medical supports will occur based on this important input.
- **Endoscopy and Clinic Staff Satisfaction Survey:** 33 employees in clinic responded to a survey, with the majority (87%) feeling they make a significant difference to patient care. Many felt patient care is a top priority and most felt they had the necessary skills to perform their tasks. More than 50% reported enthusiasm about their work, however better recognition for a job well done was identified as a source needing improvement, which Division medical and operational leadership will be addressing.
- **Clinic Patient Teaching Documents:** Complete revision of endoscopy preparation and teaching sheets have been completed, with standardization across the Zone for both academic and private physician’s offices. Three components include preparation, procedure information (risks, expectations) and frequently asked questions. Teaching sheets specific for inpatients have been developed and will be included upon discharge for all patients who’ve undergone an inpatient procedure (this was a clearly identified gap as no inpatients received this information previously). All materials will be made available on the GI Sectional website. Direct collaboration with HealthLink has ensured consistent messaging around after hours care for patients, particularly post-procedure.
- **Hepatology Clinic Process Review:** In order to better understand bottlenecks and improve access for patients awaiting Hepatology consultation, the Liver Unit formally consulted with an Operations Management expert (Chris Roach) to conduct a review of clinic practices and process design in the Viral Hepatitis clinic. The goal was to identify opportunities to enhance access to care, and critical report findings has been implemented in late 2015.

- **Province-wide Electronic Gastroenterology & Hepatology Referral Guideline, Standardized Referral Process and e-Referral:** A province-wide, consensus generated referral guideline, chaired by Dr. K. Novak with Dr. S. van Zanten (Head GI, Edmonton) has been completed and finalized. This will serve as a guideline or template for all GI/Hepatology practices throughout the province (including rural and urban), and is being trialed as a triage algorithm within the Calgary Zone Central Access and Triage (CAT). Pending secure funding, GI will serve as a provincial pilot for e-referral, given established, consensus based referral guidelines and work with primary care to establish process.
- **Gastrointestinal Bleed Working Group:** This multi-disciplinary group (including representation from GI site leadership, Emergency Department (ED), General Internal Medicine (GIM), and Hospitalists, is charged with improving both the quality of care (with input from a number of participants to a province-wide clinical care pathway to direct/ improve the care of non-variceal upper GI bleeds), the appropriate disposition and timing of definitive diagnostic/ endoscopic management. A recent Chief Medical Office/ Medical Affairs Quality initiatives award (25,000.00\$) was given to facilitate the implementation and evaluation of the a) Glasgow Blatchford risk stratification/ clinical decision support tool to triage patients with non-variceal upper gastrointestinal bleeding (NVUGIB) and b) the clinical care pathway / algorithm, a best-evidence guide to support decisions regarding patient disposition according to their acuity/ bleeding risk.
- **Individual Acute Care Endoscopy Report Quality:** In early 2015, individual endoscopy quality reports (Appendix 3) were generated for all Divisional members, each reflecting the total number of endoscopies (including gastroscopy, colonoscopy and manometry, EUS, and ileoscopy), the total number of procedures completed with a trainee (either a GI trainee or surgery resident), as well as an aggregate (total assessed = 150) data summary of endoscopy report quality – to demonstrate consultation completeness, commentary on the impression and follow up. In 2016, this report was expanded, to include similar metrics regarding total procedures completed, with and without a trainee, both in the acute care setting and in the CCSC. In addition, we included a qualitative evaluation regarding endoscopy report impression (overall report conclusion) as well completeness/ commentary directed to the referring physician regarding follow up. Finally, a patient satisfaction survey regarding completeness, interpretation and importance of endoscopy reports received by patients post-endoscopy was included for all endoscopists. Future directions include the collaborative development (with Primary Care, a key stakeholder) and both private and ARP funded physicians to develop a framework for ‘best’ or ideal report components and metrics of evaluation, to support physicians in their path to improve endoscopy reporting.
- **Emergency Department (ED) Collaboration:** Recognizing the disposition and transition of patients within the ED is instrumental to patient flow and system optimization, early prioritization of endoscopy for definitive management of patients with gastrointestinal bleeding is important. Therefore, through inter-disciplinary collaboration and communication, we have developed an expedited system where 2 early morning slots are reserved specifically for patients in the ED, disposition often contingent upon endoscopic findings. An initial pilot has been started at the FMC. Patients are slated for 7:30 am, where a full consultation and endoscopy is then performed. Prospective data collection will be completed, to evaluate endoscopy intervention, impact upon ED time to disposition, admitting service, and length of hospital stay including decision to admit or discharge post-endoscopy.

(iii) Zone/Provincial/National Highlights, Awards and Recognitions for Clinical Care and QA/QI Innovations

- Alberta Health Services finalist for President’s Award in Innovation – GI and PCN links; one of 5 finalists out of 25 applications
- Quality report cards for CCSC and acute care endoscopy – to form framework for Provincial QA

strategy.

- CAG publication of Calgary GI/PCN Clinical Care Pathways : “Calgary Pathways”
- Lorne Price: awarded the John W Dawson Award for Clinical Excellence, and the ASG Award for Distinguished Service
- Jennifer Williams is the ASG representative to rep forum at AMA.
- Cynthia Cleary is the fees rep from the ASG to the AMA.
- Munaa Khaliq-Kareemi awarded RGH Medical Staff Association award for Excellence in clinical care June 2016, Department of Medicine, Dr. Terrance Groves award for Clinical Excellence 2016, Gastroenterology Residents Award for excellence in Feedback.
- Kevin Rioux, 2015 Department of Medicine Merit Award
- Kerri Novak, 2015 Department of Medicine Merit Award
- Carla Coffin, Appointment to World Health Organization Expert Advisory Panel on Essential Medicines.
- Chris Andrews, VP Administrative Affairs for CAG
- Remo Panaccione, Canadian Association of Gastroenterology Visiting Clinical Professor 2016.
- Eldon Shaffer, Alberta Medical Association Medal for Distinguished Service Oct 2015, for “an outstanding personal contribution to the medical profession and to the people of Alberta, that has contributed to the art and science of medicine and raised the standards of medical practice”, Canadian Association of Gastroenterology, Fellow (CAGF) designation award Feb 2016 (merit award for outstanding service and contributions to Gastroenterology).
- Kerri Novak, Interim Foothills Medical Director (September 1st 2015 to February 28th 2016)
- Gilaad Kaplan, Alberta Society of Gastroenterology Research Award
- Kelly Burak, was nominated to the Hepatology Special Interest Group for the World Gastroenterology Organization

B) Section Accomplishments and Innovations in Research

Research within the Section of Gastroenterology and Hepatology remains strong in the areas of basic science, clinically focused and translational studies, and clinical trials. Inflammatory bowel disease (IBD), liver disease research (including viral hepatitis, autoimmune liver diseases and liver cancer), GI inflammation, colorectal cancer screening, and gastrointestinal motility remain the core research areas of excellence within the Section. Excellence in our team translational research programs in inflammation was highlighted by the University of Calgary being awarded 2 (out of 9 awarded nationally) **CIHR Inflammation Team grants** (\$2.5 million each over 5 years; 2014-2019) with Division members as PI’s (Drs. M. Swain and B. Eksteen). In addition, Calgary was co-lead (with McMaster) for a \$30 million **CIHR SPOR grant** awarded (2016-2021) to study the microbiome and diet in IBS and IBD, and how these impact brain function in these diseases giving rise to symptoms including depression, anxiety, social withdrawal and fatigue that are commonly encountered in these GI conditions. The SPOR grant in turn links directly to research recruitment and activities that will be performed as part of the recently funded (\$25 million) Western Canada Microbiome Center in the Cumming School of Medicine at the University of Calgary.

The Section continues to have strong ties with basic scientists in the Gastrointestinal Research Group, Inflammation Research Network, Cancer Biology and Immunology Research Group. Many Section members have collaborative grants with basic scientists, and are involved in Provincial and National Group Grants.

(i) Research Publications and Grants Awarded/Held

The Section continues to be highly productive and successful in publishing research findings in peer reviewed journals. These publications were often co-authored by various members of the Section and included work in basic science, clinical innovations and outcomes, epidemiology, health economics, education and quality assurance (Appendix 4). In addition, the GI Section was again very successful in securing both external peer-

reviewed (including Tricouncil funding) and industry sponsored funds. Funds awarded to the Section include those to support peer reviewed basic science and clinically focused research, as well as funds obtained to support clinical trial research (Appendix 4).

(ii) Clinical Trials

The IBD and Hepatology programs continue to have very strong international clinical trial involvement (Phase II-IV) and remain two of the most active groups within the Cumming School of Medicine. Specifically, between April 1, 2015 and March 31, 2016 the Calgary Liver Unit was the second most active group within the Heritage Medical Research Clinic (HMRC) (next to the Canadian Longitudinal Study on Aging), with an average of 23 active trials each month in HMRC making up 17.4% of all patient visits to the HMRC, and accounting for ~\$1.2 million in revenue. Therefore the Calgary Liver Unit is the most active clinical trial group within the university. In addition, the IBD group had an average of 12 clinical trials per month and roughly 5% of all patient HMRC visits during this time period.

(iii) Research Awards, Distinctions and Recognitions

- Dr. Gil Kaplan, Interim Scientific Director, Digestive Health Strategic Network, AHS.
- Dr. Mark Swain, Acting Co-Medical Director, Digestive Health Strategic Network, AHS.
- Dr. Sam Lee, lead for CANUHC national HCV database
- Dr. Sam Lee, elected president of IASL for a 2-year term starting 1/16

(iv) Innovations in Research

- **Microbiome Facility:** Within the Cumming School of Medicine the Western Canadian Microbiome Centre has been established - a state of the art facility for microbiome research that will include a germ free animal platform and a genomics platform for analysis of microbiota. This strategic investment has been further bolstered through an additional \$10 million investment from Western Economic Diversification and a \$1 million investment from the Province of Alberta to provide associated bioinformatics capability. Recruitment of outstanding basic scientists and bioinformatics experts in the area of microbiome research has started, and will accelerate translational research opportunities in the area of the microbiome within the Division.
- **Dedicated GI and Hepatology Clinical Research Support Space:** The Section has implemented a number of strategic plans to allocate contiguous space near the GI clinic, and within GI office space on the 6th floor of the TRW, for the facilitation of translational clinical research. This research space also directly enhances clinical research components of the 2 CIHR Team Grants awarded to the Section, and will provide significant support for the SPOR IMAGINE grant.
 - (i) *The Clinical Integrative Research Space (CIRS)* has been physically established in a room in close proximity to the Gastrointestinal Ambulatory Clinic within UCMC (HSC Rm G192 and G194). The CIRS supports multidisciplinary research including epidemiological and clinical research, population health, health services & outcomes research, gene-environment interaction studies, biomarker studies, translational studies, and biobanking. The CIRS also facilitates patient recruitment, consenting, phenotyping, genotyping, envirotyping, serotyping, and microtyping. Researchers can use the CIRS to collect comprehensive phenotypic data through patient interviews, medical chart review, and electronic medical records. All data extracted in the CIRS is stored in the Research Data Haven. The Research Data Haven is a Citrix-based server that creates a virtual research environment that is secure, accessible, and supportive of collaboration.
 - (ii) *The GI Clinical Research Unit* currently houses research staff, data analysts, and trainees who are supervised by several members of the Section. The Clinical Research Unit is located in dedicated space within the GI Section footprint on the 6th floor of the TRW building. This unit allows for seamless interactions between translational clinical researchers and research staff, and directly

supports translational research projects within the Section.

- **University of Calgary IBD and Liver Unit Biobank:** Through support from the Metcalfe Foundation, the Cal Wenzel Family Foundation Chair in Hepatology, the CCC IBD Chair, the GI and Hepatology Biobank has been established and is operational, housed within the GIRG footprint. The UCLU-Metcalfe BioBank has been linked with the IBD Consortium Biobank which has already been established within the GIRG.
- **Ongoing Development of State-of-the-Art IBD and Hepatology Databases:** Funded through a successful CFI grant awarded to Drs. G. Kaplan, C. Coffin and C. Saunders. A BioBank Biosample Manager has been hired (funded by the CCC IBD Chair and by the Cal Wenzel Family Foundation Chair in Hepatology) to oversee tissue and sample processing, storage and retrieval for the Biobank. This environment has been further expanded with development of “partnet” to support collaborative research nationwide for Dr. Coffin (i.e., through the Canadian HBV Network, www.canadianhbvnetwork.ca). Demo site: <https://partnetnet.ucalgary.ca/research/liver/SitePages/Home.aspx>
- **GI-Section Co-funding of an AHS Data Analyst:** A 0.5 FTE data analyst (0.25 funded through the GI Section and 0.25 through AHS) has been hired and is in place to facilitate extraction of AHS data (and patient billings data linked through DIMR) to support excellence in patient care, as well as facilitate clinically based outcome and cost analysis research performed by Section members.
- **High Risk for IBD Clinic:** The High Risk for IBD Clinic is a multidisciplinary clinic that uses a centralized triage system to identify referrals for patients with a high index of suspicion for the diagnosis of IBD. The clinic (founded by Dr. Gil Kaplan) reduces wait times and improves access with the goal to optimize patient outcomes through early diagnosis and management. The infrastructure of this clinic allows for biobanking of blood, urine, and tissue at the diagnostic colonoscopy of IBD.
- **Digestive Health SCN:** Alberta Health Services Digestive Health Strategic Clinical Network was enabled in March 2016 with the launch date in November 2016. The DH SCN brings together gastroenterologists, researchers, and clinical leadership spanning the entire province of Alberta and representing sites from the largest academic center to the smallest rural center. The SCN represents a provincial network of clinical and administrative ‘champions’ will develop, implement, and evaluate strategies to improve the care of digestive diseases in Alberta.
- **SPOR IMAGINE Grant:** Inflammation, Microbiome, and Alimentation: Gastro-Intestinal and Neuropsychiatric Effects: the IMAGINE-SPOR chronic disease network was awarded in the spring of 2016 with Dr. Paul Moayyedi, McMaster University as the PI. This network is a national collaboration of patients and scientists that will examine how gut bacteria and diet cause/modulate inflammatory bowel disease and irritable bowel syndrome, and leads to the behavioral changes (ie. anxiety and depression) associated with these disorders. McMaster and the University of Calgary (Cumming School of Medicine) were the main co-sponsors of this grant application which will bring millions of research dollars in to the GI Section in Calgary for patient oriented research in IBS and IBD over the next 5 years.
- **Phase I Clinical Trial Unit:** A briefing note has been moved to the Zone leadership level for the development of a 2 bed phase I clinical trial unit to be located within the ICU of the FMC (in overcapacity beds built for future expansion). This proposal has been developed collaboratively between the ICU (Dr. Chip Doig) and the Section of Gastroenterology and Hepatology (Dr. Mark Swain) and will involve gastroenterology/hepatology/ ICU/cardiology/respirology/oncology and will provide 24 hr monitored beds for participants in first in man and first in patient studies.
- **GIRG-GI Division Research Day:** The inaugural GIRG-GI Division research day was sponsored by the GI Division and was held at the Hotel Alma in Calgary on April 22, 2016 (co-organized by Dr. Derek MacKay [GIRG] and Dr. Mark Swain [GI Division]). This meeting highlighted the outstanding collaborative and translational research endeavors that are being undertaken within these 2 groups. Dr. Sephen Vanner (Kingston) was the visiting Keynote Speaker, and the day’s sessions were divided into (i) GI infections, (ii) Autoimmune liver diseases, (iii) New faculty-new directions,

and (iv) inflammatory bowel disease. This research day was highly successful and will become an annual event.

- **TAILOR meeting:** The inaugural TAILOR (Translational Approaches to Inflammatory Liver Injury and Repair) Liver meeting was held at the Rimrock Hotel in Banff from September 19-21, 2014, funded through the Cal Wenzel Family Foundation Chair in Hepatology. This translational research meeting included a large international faculty of liver immunologists, clinicians and translational scientists (50 attendees) and highlighted the University of Calgary Liver Unit and its' members to a wide audience of leaders in hepatology. The meeting was a huge success. As a result of this, a second TAILOR meeting has been organized for September 16-19, 2016 at the Banff Center and will again include numerous national and international (USA, Belgium, UK, Norway) speakers and researchers, representing an integrative forum for enabling Calgary liver researchers to directly interact with key researchers from around the world in an intimate, informal setting.

C) Section Accomplishments and Innovations in Education

Education remains a key pillar of strength within the Section, with the Section again excelling in both internal and external awards that reflect the highest standards and commitment of Section members to educational programs and service locally, provincially, nationally and internationally.

(i) Educational Leadership Roles for Section Members within the Faculty of Medicine

- Dr. Sylvain Coderre, Associate Dean of UME.
- Dr. Jon Meddings, Dean, Cumming School of Medicine.
- Dr. Burak, Director of Teaching Innovation for UME.
- Dr. Burak, Consultant for UME in Office of Faculty Development
- Dr. Ron Bridges, Senior Associate Dean, Cumming School of Medicine
- Dr. Maitreyi Raman, Associate Director of Admissions, Faculty of Medicine
- Dr. Saumya Jayakumar, Director Course 1, UME.
- Dr. Maitreyi Raman, Education Chair, ASG
- Dr. Jennifer Bailey, Associate Director (Student Wellness), Student Affairs, Faculty of Medicine
- Dr. Edwin Cheng, Master Teacher, UME, Cumming School of Medicine, Course Leader (Evaluation), Course 1 - Gastroenterology (MDCN 350), UME, Cumming School of Medicine.

(ii) Faculty Education Awards and Distinctions

- Dr. Sylvain Coderre awarded Class of 2017 Gold Star, MDCN 350 Class of 2016 Gold Star, MDCN 350
Class of 2015 Dr. Allan R. Jones award for educational leadership Graduating classes 2003-2012 alumni survey: 40 nominations as excellent teacher, mentor, leader Class of 2015 Clerkship Award for Excellence in Clinical Teaching Class of 2015 Gold Star-Course 8.
- Dr. Michael Ma, Excellent Teaching in the Internal Medicine Clinical Clerkship Presented By The University of Calgary Undergraduate Medical Education Program
- Dr. Maitreyi Raman, 2016 GI Fellows University of Calgary - Excellence in Research Mentorship Award, 2015-2016 Associate Dean's Letter of Excellence UME, 2015-2016 UME Bronze Teaching Award,
2015-2016 Gold Star Award – Excellence in Teaching; University of Calgary – PGME Award Outstanding Commitment to Residency Education
- Dr. Burak, 2015 Gold Star Award for outstanding teaching for MDCN 350 (Course 1 2013), University of Calgary Students' Union Teaching Excellence Award Honorable Mention 2014-2015, 2015 Department of Medicine ARP Merit Award, 2016 Honor Role recognizing outstanding faculty for their excellent teaching during pre-clerkship training (Class of 2017), Silver Teaching Contribution (>20hrs) for teaching in Course 1 2015, 2016 Associated Dean's Letter of Excellence for teaching in Course 1 2015, 2016 University of Calgary "U Make a Difference" Award, presented April 29th, 2016, 2014 Excellence in Clinical Teaching Award from U of C Gastroenterology Residents awarded May 27, 2016.
- Dr. Mani Khaliq-Kareemi, Clinical Masters Program.
- Dr. Jennifer Williams, RPC GIM Core Program committee, member IM Education committee, Mentor for GIM "setting sail" mentoring Program.
- Dr. Gil Kaplan, 02/2016 Inducted as an AGA Fellow, American Gastroenterological Association, and 2015 AGA Future Leaders Program, American Gastroenterological Association and 2015 Research Mentorship Excellence Award, Division of Gastroenterology, University of Calgary.
- Dr. Eldon Shaffer, Associate Dean's Letter of Excellence for Teaching Jan 2016, Faculty of Medicine Gold Award, Class of 2018 (Course 1), Honour Roll Award "in recognition of great teaching", Class of 2017, Visiting Professor, Zamboanga City Medical Center and Department of Medicine, Ateneo de Zamboanga University, School of Medicine, Zamboanga City, Philippines. Sept 26-Oct 4, 2015.
- Dr. Edwin Cheng, Platinum Distinguished Service Award (Course 1), UME, Cumming School of Medicine
Honour Roll, UME, Cumming School of Medicine, Associate Dean's Letter of Teaching Excellence (Course 1 MDCN 350), UME, Cumming School of Medicine, Associate Dean's Letter of Teaching Excellence (Course 3 MDCN 730), UME, Cumming School of Medicine, Associate Dean's Letter of Teaching Excellence (Course 8), UME, Cumming School of Medicine, Associate Dean's Letter of Teaching Excellence (Integrative MDCN 480), UME, Cumming School of Medicine, Associate Dean's Letter of Teaching Excellence (Advanced Evidence Based Medicine MDCN 440), UME, Cumming School of Medicine, Associate Dean's Letter of Teaching Excellence (Medical Skills I, Communications MDCN 320), UME, Cumming School of Medicine, Associate Dean's Letter of Teaching Excellence (Medical Skills I, Physical Exam MDCN 320), UME, Cumming School of Medicine, Associate Dean's Letter of Teaching Excellence (Medical Skills 2, Communications MDCN 420), UME, Cumming School of Medicine, Associate Dean's Letter of Teaching Excellence (Medical Skills II, Physical Exam MDCN 420), UME, Cumming School of Medicine, Distinguished Service Award (Course 3 MDCN 730), UME, Cumming School of Medicine, Distinguished Service Award (Course 8), UME, Cumming School of Medicine, Distinguished Service Award (Medical Skills I, Communications MDCN 320), UME, Cumming School of Medicine, Distinguished Service Award (Medical Skills I, Physical Exam MDCN 320), UME, Cumming School of Medicine,

Distinguished Service Award (Integrative MDCN 480), UME, Cumming School of Medicine, Distinguished Service Award (Medical Skills 2, Communications MDCN 420), UME, Cumming School of Medicine, Distinguished Service Award (Medical Skills 2, Physical Exam MDCN 420), UME, Cumming School of Medicine.

(iii) GI Section Rounds and CME

Sectional rounds under the leadership of Dr. K. Rioux have been rejuvenated with the Friday morning rounds now including pathology/radiology rounds, interesting case rounds, state-of-the-art lectures, and translational rounds on a rotating basis; all of which are eligible for continuing medical education credit. Special lectures have been aimed at faculty development, educational case review, and quality improvement topics. Efforts have been made to encourage attendance by members of the Gastrointestinal Research Group, Immunology Research Group, and Inflammation Research Network to encourage cross-talk between clinical and basic science faculty and trainees. In fall 2015, the rounds were webcast on a regular basis to GI division members at the PLC, RVH, and SHC hospital sites (albeit with technical issues and variable success that will be addressed in the upcoming year). Dr. Paul Belletrutti continued as the Coordinator of the City Wide Continuing Medical Education Lecture Series. These rounds were very successful in the past year. One to two evening rounds are organized per month. The topics chosen are based on a sectional needs assessment that was undertaken in 2012, and included issues in IBD, viral hepatitis, GI oncology, functional bowel disorders, esophageal motility and advanced endoscopy. A diverse range of invited and internal speakers have participated. Attendance has increased by about 30% over previous years. Feedback from attendees has been very positive with high ratings for speaker quality and topic relevance. We will continue to improve the quality and further enhance attendance for these rounds in the coming year.

Dr. Carla Coffin and Dr. Maitreyi Raman - served on the Organizing Committee for the 4th Annual Alberta Digestive Diseases Summit (ADDS) and Dr. Burak organized the Nurses Course at ADDS for the third consecutive year.

(iv) Postgraduate Education

The GI Residency program in Calgary, led by Dr. Melanie Stapleton (Program Director), has established itself as the premier GI training program in Canada. The training program underwent an external review by the Royal College of Physicians and Surgeons and received full accreditation. This year's graduating class had a successful celebration and awards dinner in June 2015 which included Drs. Sunny Singh, Andrew Flynn, Tiffany Poon, and Ahmed Al Darmaki.

Our graduating residents and fellows have distinguished themselves in the following ways:

- Dr. Milne has accepted a teaching position in Internal Medicine at the University of British Columbia, Okanagan in Kelowna, BC, and will be joining the Division of Gastroenterology in Calgary as a locum physician July 2016-December 2016
- Dr. Shaheen has joined the Division of Gastroenterology in Calgary
- Dr. Jacob is pursuing further fellowship training in GI motility at the Mayo Clinic

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

- | | |
|-------------------------------------|-----------------------|
| • Overall Excellence in Teaching: | Dr. Paul Beck |
| • Research Mentorship Excellence: | Dr. Maitreyi Raman |
| • Formal Teaching Excellence: | Dr. Melanie Stapleton |
| • Clinical Teaching Excellence: | Dr. Kelly Burak |
| • Endoscopy Teaching Excellence: | Dr. Christian Turbide |
| • Excellence in Providing Feedback: | Dr. Mani Kareemi |

The incoming new GI residents are Dr. Michael Ney (University of Alberta), Dr. Matthew Mazurek (University of Alberta), and Dr. Yin Chan (University of Saskatchewan).

Calgary Fellowship training positions for 2015-2016 were awarded to the following individuals:

- IBD: Dr. Ahmed Al Darmaki, Dr. Heba Al Farhan, Dr. Hang Hock Shim
- Hepatology: Dr. Matthew Sadler
- Therapeutic Endoscopy: Dr. Nauzer Forbes and Dr. Roshan Razik
- Motility: Dr. Yaqub Al Awadh, Dr. Dorothy Li (starting 2016)

(v) Undergraduate Education

Course 1 (Gastroenterology and Hematology) flourished during 2014-2015 with Dr. M. Raman and Dr. E. Cheng leading the course. With Dr. Burak's leadership in innovation in education, the pilot "flip classroom" was very successful, resulting in improved examination performance with the flip intervention. Course ratings were high. Innovations to Course 1 for 2015-2016 include expanding the flip to a larger content (including nausea/vomiting, GERD and dysphagia); introducing a self-reflective exercise for students to complete based on clinical core experience and introducing a longitudinal pilot Wellness curriculum to focus on nutrition and lifestyle content. Dr. Saumya Jayakumar assumed course 1 leadership for 2015, and Dr. Edwin Cheng continues as course evaluation chair.

UME Course I, the Gastroenterology-Hematology course, hit an all-time high of "4.0/5" in its end-of-course ratings. This is a level uncommonly seen in our UME systems courses, and in fact only achieved last year by Course I and the Psychiatry course

The GI Division had a big part to play in the successful accreditation of our medical school. We received an eight-year accreditation decision, which has been an infrequent outcome for Canadian schools recently (in fact most have suffered severe negative decisions of probation or two year follow-up in recent years). People that played a part in that process from GI are: Dr. Jon Meddings (Dean), Dr. Sylvain Coderre (Associate Dean UME), Dr. Kelly Burak (faculty development and UME teaching innovations), Dr. Maitreyi Raman (Admissions), Dr. Jen Bailey (Student Affairs), Dr. Paul Beck (Leaders in Medicine).

(vii) International Collaborations and Educational Initiatives

- The joint University of Calgary/Chinese Medical University (CMU Beijing, Youan Hospital) Liver Unit has been established and ongoing collaborations continue, including the establishment of formal graduate level research experiences for Chinese trainees in Calgary.
- The University of Calgary Liver Unit began a formal collaboration with King Saud University (KSU) Liver Unit in Riyadh, Saudi Arabia. This collaboration has resulted in the establishment of clinical trial research coordinator preceptorships, and in two students from KSU pursuing MSc programs in GIRG labs at the University of Calgary. Further exchange visits and clinical preceptorships are planned for the future.
- The IBD group continues to take a leadership position nationally in IBD education. Dr. Panaccione remains the co-chair of the Crohn's and Colitis Canada Future Directions in IBD program. He also sits on the steering committee of the Mentoring in IBD program. These are the two premier national educational programs in IBD.
- A formal MOU for a collaborative link between the University of Calgary Liver Unit and ESSAULD in Lima, Peru has been signed and formal exchanges are moving forward.
- Dr. Burak joined the Core Faculty of the World Gastroenterology Organisation (WGO) Train the Trainer program and helped lead TTT workshops in South Africa and Taiwan, with one planned for Abu Dhabi in November 2016.
- Dr. Burak has joined the Organizing Committee for the WGO/American College of Gastroenterology World Congress of Gastroenterology to be held in Orlando in 2017
- Dr. Kerri Novak is a member of IBUS – the newly formed International Bowel UltraSound expert group, comprised of experts from Europe, Australia and Canada.

(viii) Innovations in Education

- Dr. Paul Beck continues as the Director of the highly successful **Leaders in Medicine (LIM) Program**. This program has 70-80 students that are jointly pursuing an MD degree combined with either a PhD or MSc or MBA. The Leaders in Medicine Program is one of the largest, most active and innovative programs in Canada, and was highlighted as a strength in recent reviews, and the recent accreditation success, of both the University of Calgary Medical School and the Faculty of Medicine Graduate Program.
- Flipped classroom has been championed by members of our Division in UME (Drs. Burak, Jayakumar, Andrews), during PGME academic half-day (Dr. Stapleton) and for Faculty Development (Dr. Burak through his development of the Teaching Improvement Podcast Series and Flipped Classroom workshops focused on improving teaching).

D) ADMINISTRATION

(i) Leadership Roles within the Section and Zone

- Dr. Jon Meddings, Dean Cumming School of Medicine
- Dr. Kerri Novak, AHS Clinical Integration Lead
- Dr. Ron Bridges, Senior Associate Dean, Cumming School of Medicine
- Dr. Subrata Ghosh Head Department of Medicine (stepped down, January 2016)
- Dr. Paul Belletrutti, Chair Calgary Zone Endoscopy Management Committee.
- Dr. Kelly Burak, Medical Lead Calgary Liver Unit and Southern Alberta Liver Transplant Clinic
- Dr. Carla Coffin Medical Lead, Viral Hepatitis Clinic
- Dr. Kerri Novak, Medical Lead QA/QI
- Dr. Paul Belletrutti Medical Lead, GI Central Access and Triage (CAT).
- Dr. Michelle Buresi Medical Lead, Small Bowel Capsule Program
- Dr. Melanie Stapleton GI Fellowship Program Director.
- Dr. Steven Heitman Director, Forzani and MacPhail Colon Cancer Screening Centre and the Southern Alberta Colon Cancer Screening program, and Lead, Therapeutic Endoscopy Training Program.
- Dr. Sylvain Coderre continues as Associate Dean, Faculty of Medicine UME (chair of the UME subcommittee for accreditation, member of 2016 accreditation steering committee).
- Dr. Maitreyi Raman Medical Director for Nutrition Services for the Calgary Zone.
- Dr. Saumya Jayakumar Course 1 Chair for Gastroenterology.
- Dr. Kelly Burak, Director Teaching Innovation for UME and Consultant for Office of Faculty Development
- Dr. Rachid Mohamed Medical Lead, Therapeutic Endoscopy Calgary Zone.
- Dr. Puja Kumar FMC GI Clerkship Director.

(ii) Recruitment to the Section

- Dr. Yasmin Nasser - basic research clinician investigator in the area of gut motility/IBS
- Dr. Humberto Jijon - basic research clinician investigator in the area of autophagy/IBD
- Dr. Aziz Shaheen - clinician investigator/epidemiologist liver disease and nutrition
- Dr. Liisa Meddings - nutrition (bariatrics)
- Dr. Isaac Soo - nutrition (oncology)
- Dr. Cathy Lu - clinician investigator in area of IBD and point of care ultrasound

(iii) Career Transitions

- Dr. Rob Myers, Senior Director, Clinical Research, Liver Diseases Therapeutic Area, Gilead Sciences, Inc., Forest City, CA.
- Dr. Subrata Ghosh, Director, Institute Translational Medicine, University of Birmingham, UK (leaving June 1, 2016).
- Dr. Marietta Iacucci, Lead Endoscopic Imaging, University of Birmingham, UK (leaving July 31, 2016).
- Dr. Yvette Leung, Gastroenterologist and IBD Specialist, St. Paul's Hospital, Vancouver, BC
- Dr. Kevin Rioux, Gastroenterologist and IBD Specialist, Victoria, BC.
- Dr. Bertus Eksteen, resigned from the ARP to become a FFS community hepatologist in the Aspen Clinic, Calgary.

E) UPDATE ON GI / HEPATOLOGY SECTION-LINKED ENDOWED CHAIRS

- **Cal Wenzel Family Foundation Chair in Hepatology** (Held by Dr. Mark Swain): Dr. Swain was renewed for a second term as Chair holder, after a formal presentation to the Donor and oversight committee in February 2016. The interest generated from the \$3.5 million Chair endowment was leveraged and used to support basic science and clinical research within the Calgary Liver Unit, the Liver Unit Biobank infrastructure and support personnel, bridge operating and pilot study funding, database support, data analyst salary support, and will be used to help fund the Calgary Liver Unit TAILOR meeting in Banff in September 2016.
- **N.B. Hershfield Professorship in Therapeutic Endoscopy** (Held by Dr. Steve Heitman): The interest generated from the N.B. Hershfield Professorship endowment is being leveraged and used to support research in advanced endoscopy with particular focus in the field of colorectal cancer and colonic luminal therapeutics. Funds are presently being used to support a research assistant, a data analyst and a promising advanced endoscopy fellow who recently won a CAG/CIHR Clinical Fellowship Award. Academic productivity within the advanced endoscopy group at the University of Calgary has increased significantly. In addition, Canada's first 2-day colonoscopy symposium dedicated to endoscopic imaging, polypectomy and quality will take place in May 2017. This will include an inaugural lectureship in endoscopic colorectal therapeutics funded by the Professorship.
- **Dr. Lloyd Sutherland Professorship in IBD/GI Research** (Held by Dr. Simon Hirota, PhD): Dr. Simon Hirota (a Ph.D. member of the Gastrointestinal Research Group) holds funding from Crohn's and Colitis Canada, Canada Foundation for Innovation John R. Evans Leaders Fund and is a Tier II Canada Research Chair in Host-microbe Interactions in Chronic Diseases. Support from the Sutherland Professorship has helped Dr. Hirota secure recent operating grants from the US Department of Defense (to study fibrostenotic Crohn's disease) and NSERC (to study host-pathogen interactions in gut).
- **Crohn's and Colitis Canada Chair in IBD Research** (Held by Dr. Keith Sharkey, PhD): The interest generated from this endowed Chair was used to support the IBD tissue bank (led by Dr. P. Beck), support for a junior investigator in IBD research, personnel support, laboratory support and to used support the annual IDRU lecture and Snyder Institute Endowed Chair seminar series speaker, Dr. Eugene Chang.

Section of General Internal Medicine - Annual Report

April 1, 2015 – March 31, 2016

Introduction to the General Internist

General Internal Medicine (GIM) is subspecialty that is recognized by the Royal College of Physicians and Surgeons of Canada. General Internists provide expert medical care to adults who may have:

- symptoms, signs, or abnormal tests results but without a diagnosis
- acute presentations of major system disease
- conditions affecting multiple organ systems
- multiple co-existing conditions
- chronic diseases
- medical conditions in surgical, obstetrical settings, or psychiatric settings

General Internists may have additional areas of clinical competence. Within the Calgary Zone, GIM includes members with expertise in: ambulatory urgent care, cardiovascular disease, clinical pharmacology, diabetes mellitus, end of life care, immune dysfunction, obstetrical internal medicine, perioperative care, populations with advanced age, venothrombotic disease, and vulnerable populations.

Undergraduate and Post-Graduate curricula require a significant exposure to internal medicine. Accordingly, GIM is very active in the provision of medical education throughout the Calgary Zone. General Internists are also providers of Continuing Professional Development and Inter-Professional Education.

Several members have been highly successful in research. Areas of research expertise within the Calgary Zone members include: care of the elderly, cardiovascular health in the obstetric population, clinical pharmacology, medical education, physician wellness, population and public health, and vulnerable population health care.

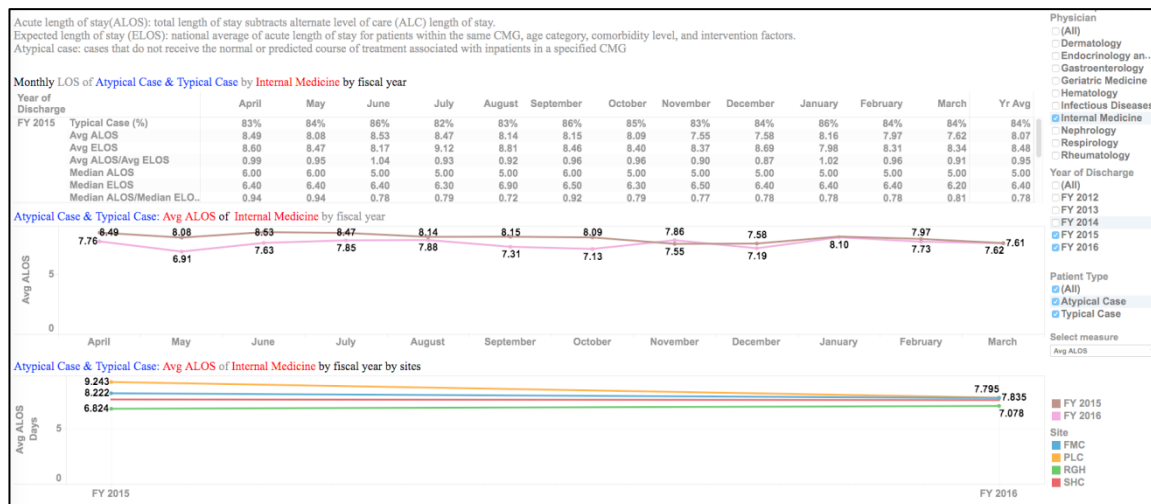
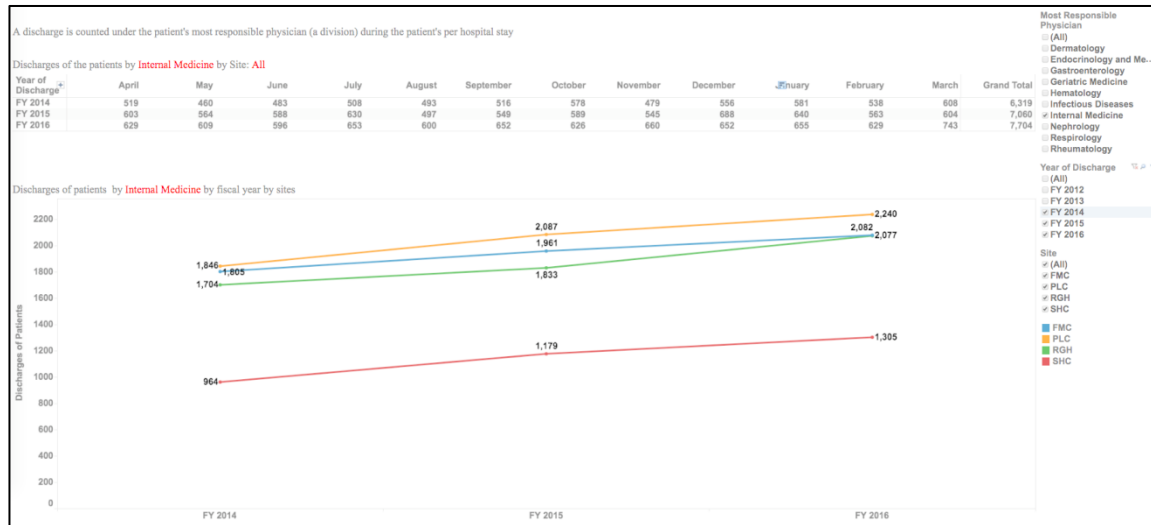
Clinical Care

General Internists are the Most Responsible Physicians on Medical Teaching Units (MTU) and General Medical Units (GMU). Residents and Clinical Clerks participate in MTU care whereas Clinical Assistants and/or Nurse Practitioners participate in GMUs. Both settings are multi-disciplinary with a strong inter-professional and collaborative philosophy.

MTU / GMU Distribution

- FMC – 3 MTU
- PLC – 3 MTU
- RGH – 2 MTU, 1 GMU
- SHC – 1 MTU, 1 GMU

Hospital Separations continued to increase and numbered ~7,500 during fiscal 2015-16. Average Lengths of Stay is about 8 days for all sites.



GIM provides in-patient consultative care at all adults sites. Consultation requests are received from all adult areas of the hospital. Common reasons for consultation include: management of medical conditions in the surgical patient, assessment and management of acute deterioration, diagnostic unknowns, assistance with discharge planning.

Obstetrical Internal Medicine refers to the management of pre-existing and new medical conditions in the pre-conception, pre-partum, peri-partum, and post-partum periods. Calgary is among the few sites in Canada that offers this specialized consultative service to inpatients. Most activity is at Foothills Medical Centre with clinics at all sites.

Outpatient Care

The Department and Section is in process of developing policies and procedures for measuring clinical activity. A considerable amount of clinical activity is undertaken by community practice physicians and the diversity of clinical sites makes data collection challenging.

GIM participates and/or offers the following clinic settings:

- Anticoagulation Management Clinic (PLC main site)
- Atrial Fibrillation (FMC)
- Brooks, Strathmore
- Calgary Refugee Clinic
- Calgary Urban Project Society (CUPS on 10th Ave SW)
- Chronic Complex Disease Management Clinic (PLC)
- Diabetes Mellitus (RRDTC)
- Elbow River Healing Lodge
- General Internal Medicine (all sites and RRDTC)
- GIM at Southern Alberta Clinic
- Immune Dysfunction Clinic
- Mosaic PCN
- Obstetrical Internal Medicine (all sites)
- Urgent GIM Assessment Clinic (all sites and RRDTC)
- Vascular Medicine (PLC)

Note: list may have inadvertently excluded some clinics

GIM also participates in RAAPID consultation with a catchment including southern Alberta and Southwestern British Columbia.

Administration / Leadership

Members of the Section serve as leaders at all levels of academic and clinic care. The 40 members of the Academic Alternate Relationship Plan have documented approximately 8,000 hours of leadership and committee work during the fiscal year.

Highlights at the International Level

- Dr. Norm Campbell: World Hypertension League, World Health Organization, Pan American Health Organization
- Dr. Paul Gibson: Cardiac Problems in Pregnancy Congress, North American Society of Obstetric Medicine
- Dr. Jane Lemaire: Laos Project Strategic Development Committee
- Dr. Kara Nerenberg: International Network for Health Weights in Pregnancy and Postpartum

Highlights at the National Level

- Dr. Maria Bacchus: Royal College of Physicians and Surgeons of Canada, Canadian Task Force for Preventative Health Care, Canadian Society for Internal Medicine
- Dr. Norman Campbell: Health Canada, Canadian Society for Internal Medicine, Canadian Stroke Network
- Dr. Fiona Dunne: Royal College of Physicians and Surgeons of Canada
- Dr. Gabe Fabreau: Canadian Society for Internal Medicine
- Dr. William Ghali: Canadian Society for Internal Medicine
- Dr. Paul Gibson: Royal College of Physicians and Surgeons of Canada
- Dr. Robert Herman: Canadian Society for Internal Medicine, Canadian Hypertension Society, American College of Physicians
- Dr. Lynn Lambert: Canadian Society for Internal Medicine
- Dr. Jane Lemaire: Royal College of Physicians and Surgeons
- Dr. Irene Ma: Canadian Society for Internal Medicine, Royal College of Physicians and Surgeons of Canada
- Dr. Marc Mintz: Royal College of Physicians and Surgeons of Canada
- Dr. Kara Nerenberg: Canadian Hypertension Education Program
- Dr. Tim Pollak: Royal College of Physicians and Surgeons of Canada, Canadian Cardiovascular Society
- Dr. Peter Sargious: Conference Board of Canada
- Dr. Jeffrey Schaefer: Royal College of Physicians and Surgeons of Canada, Medical Council of Canada, Canadian Association of Internal Medicine Program Directors.

GIM Leadership:

Dr. Kelly Zarnke completed his term as Section Chief in April 2016.

Site Leaders: Dr. Fiona Dunne (FMC), Dr. Troy Pederson (PLC), Dr. Anna Purdy (RGH), Dr. Ralph Hawkins (SHC), Dr. Steve Duncan (RRDTC).

Research

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

Research Chairs held (2):

- N Campbell: CIHR Canadian Chair Hypertension Prevention and Control
- W Ghali: John A Buchanan Chair in General Internal Medicine

Both of our research Chairs continue to be extremely productive in their work; supporting them remains a priority.

Sectional Research Priorities:

- Health Services Research: access to health care, public policy,
- Obstetrical Internal Medicine – cardiovascular focus
- Physician Wellness
- Medical Education
- Cardiovascular / Hypertension
- Health of Vulnerable Populations

Peer Reviewed Publications = 42

Abstracts = 23

Scientific Presentations = 50

Grants = \$9,000,000

Education

The Section remains strong in this area with participation at all levels. Dr. Fiona Dunne completed her term as Internal Medicine Clerkship Director which was handed off to Dr. Rahim Kachra. (Both from GIM)

The Internal Medicine Residency Program was directed by Dr. Jeffrey Schaefer until term completion in October, 2015. Dr. Marcy Mintz took on this significant role. (Both from GIM)

The GIM Residency Program Directorship was transferred from Dr. Troy Pederson to Dr. Mike Fisher. Highlights include the first annual GIM Resident Research Day.

Simulation based education was a priority area during the year. We are pleased to report the Dr. Ghazwan Altabbaa lead High Fidelity Simulation at his RGH site and was awarded Royal College Accreditation. His Program was only the 11th in Canada to be accredited.

At least 2,800 hours of teaching or education leadership was documented during the fiscal year. Several teaching awards were won including the Association of Faculties of Medicine of Canada's Clinical Teacher of Year to Dr. Jeffrey Schaefer.

Awards and Honours

Altabbaa, Ghazwan. Department of Medicine Dr. John M. Conly Innovation Award. The Rockyview General Hospital

Altabbaa, Ghazwan. 2015 Star Educator Award. The University of Calgary

Altabbaa, Ghazwan. Undergraduate Medical Education Award. The University of Calgary

Altabbaa, Ghazwan. Dr. John Wade visiting professorship. \$4,000

Bharwani, Aleem. Mentor of the Year. Royal College of Physicians and Surgeons of Canada

Bharwani, Aleem. 2015 leadership Award. Association of Chiefs in General Internal Medicine (ACLGIM)

Boscan, Alejandra. Dr. John Conly Innovation Award from DOM

Boscan, Alejandra. AARP Merit Award from DOM

Boscan, Alejandra. UME Associate Deans Letter of Excellence

Boscan, Alejandra. Distinguished Service Award letter physical exam

Castillo, Eliana. Lifestyle Balance Award. University of Calgary - Internal Medicine Residency Program

Cook, Donald. Department of Medicine John M. Conly Innovation Award. Department of Medicine (University of Calgary)

Davis, J Paul. DOM SHC Award for Clinical Excellence

Davis, J Paul. Excellence in Clerkship Teaching

Fabreau, Gabriel. UME Applied Evidence Based Medicine (AEBM) - Teaching Distinction. University of Calgary Undergraduate Medical Education

Fabreau, Gabriel. Undergraduate medical Education - Cumming School of Medicine Class of 2017 Honour Roll for excellence in pre-clerkship teaching. The University of Calgary

Fabreau, Gabriel. UndergraduaMedical Education – University of Calgary Clerkship Award for Excellence in Clinical Teaching. The University of Calgary

Fabreau, Gabriel. Department of Medicine – University of Calgary Internal Medicine Residency Program, 2015 Rookie of the Year Award for Excellence in Clinical Teaching. The University of Calgary

Fabreau, Gabriel. University of Calgary Clerkship Award for Excellence in Clinical Teaching. University of Calgary - Undergraduate Medical Education

Lemaire, Jane. University of Calgary Medical Group (UCMG) Financial Award. UCMG

Ma, Irene. Top grade reviewer for Annals of Internal Medicine letter of recognition. Annals of Internal Medicine

Ma, Irene. Department of Medicine Merit Award. University of Calgary

Mintz, Marcy. Repeat Offender Award. University of Calgary

Schaefer, Jeffrey. Clerkship Award for Excellence in Clinical Teaching. Faculty of Medicine, University of Calgary

Schaefer, Jeffrey. Post-Graduate Clinical Education Award for Clinical Adjunct and Research Faculty. Faculty of Medicine, University of Calgary

Schaefer, Jeffrey. Clinical Teacher Award. Association of Faculties of Medicine of Canada

Tang, Karen. Alberta Innovates - Health Solutions Clinician Fellowship. Alberta Innovates - Health Solutions (AI-HS). \$75,000

Tang, Karen. Canadian Institutes of Health Research (CIHR) Fellowship. Canadian Institutes of Health Research (CIHR). \$165,000

Zarnke, Kelly. Department of Medicine Professionalism Award. Department of Medicine,
University of Calgary

Future Directions

- Development of a Strategic Plan in association with Key Performance Indicators and Workforce Planning
- Section Review planned for 2017
- Development of Quality and Safety Indicators
- Focus on Health Care Sustainability
- Delivery of Care to Vulnerable Populations
- Obstetrical Internal Medicine Research and Clinical Care
- Competency By Design throughout the Educational Continuum

Section of Geriatric Medicine – Annual Report April 1, 2015 to March 31, 2016

The Section of Geriatric Medicine has 13 members (12 AARP; 1 FFS) as of March 31, 2016. This includes our new recruits Drs. Stacey Hall and Michelle Persaud. One member returned from a maternity leave in January 2016, while another began her maternity leave in February 2016. Nine members are full time and 3 are part time members in the AARP. One member is FFS. Three of our members have GFT appointments, while the others have Major Clinical appointments with the University of Calgary.

Our total FTE is 11.61 and breaks down into:

- 70% Clinical
- 15% Administration
- 5% Research
- 10% Education.

CLINICAL

The clinical activities of the Section of Geriatric Medicine are operationalized by Specialized Geriatric Services (SGS), who report to the Seniors, Palliative and Continuing Care program. Statistics for this program are kept in a calendar year, not a fiscal year, so the data presented is for 2015.

Clinical activities that are the primary responsibility of the Section of Geriatric Medicine include:

- Consultation Services at all four Acute Care sites
- Consultative Seniors Health Clinic
- Falls Prevention Clinic
- Consultative support to the Geriatric Day Hospital
- Consultative and Medical Leadership support to the Geriatric Assessment and Rehabilitation Program, which is an inpatient acute care/rehabilitation unit at RGH.
- Support of other programs outside of the SGS program, including Alex Seniors Centre and West Central PCN.

Ambulatory Services:

1. Seniors Health Clinics: There are three clinical sites for Seniors Health Clinics. All clinics have access to a multidisciplinary team and provide comprehensive assessment and consultation.
 - Rockyview Seniors Health Clinic (SHC), the Bridgeland SHC and the South Health SHC ran 1084 half-day clinics with a total of 2485 visits (1255 new patient visits) in 2015. This includes the Geriatric Residents Longitudinal clinic.
2. Falls Prevention Clinic: This is located at the Bridgeland site. This provides in home assessment of frail older adults with falls. 2 physicians provide support to this team.
3. Teleconsultation: Geriatric Medicine continues their active teleconsultation program that supports rural communities. The number of teleconsultations has decreased over the past few years, but Dr. Schmaltz is looking at ways to increase linkages with rural communities.
4. Support for PCN teams: Geriatricians provide consultative support to the West Central PCN Geriatrics team and the Alex Seniors clinic.

Inpatient Services:

1. Geriatric Assessment and Rehabilitation Program: Our members are taking a more active leadership role in GARP. This includes our members taking on roles as most responsible provider and also as consultant. Dr. Kwan has been the Medical Director, and has worked as part of a team focusing on improving the quality of care provided by the program.
2. Hospital Consultation: The Section offers in-patient consultation services at the four adult hospitals in Calgary, as well as city-wide on-call services. For this reporting period, between the four sites we provided an average of 150 consults per month.

Other Clinical Activities:

- Glenmore Day Hospital – case conferencing and assessment of complex patients at request.
- One Line Seniors Health Triage
- RCTP and Subacute units at Carewest - The RGH Geriatric medicine team has been providing consultation to the Glenmore Park site. This has now been expanded to include consultation to RCTP at the Sarcee and Fanning sites.

ADMINISTRATION

Members of the Section are active in administration and filling leadership roles locally, provincially and nationally. Highlighted leadership roles include:

Dr Burback:

- Co-chair of Course V – Neurosciences, Aging and the Senses, UME.

Dr. Fruetel:

- Section Head, Geriatric Medicine
- Medical Leader, Calgary-zone Seniors, Palliative and Continuing Care
- Medical Director, Calgary-zone Specialized Geriatric Services
- Board Member, West Central PCN
- President, Canadian Geriatrics Society
- Board Member, RCPSC Internal Medicine Examination Board

Dr. Hall

- Associate Program Director, Internal Medicine Residency program

Dr Hogan:

- Interim Section Head, Geriatric Medicine
- Brenda Strafford Foundation Chair in Geriatric Medicine.
- Academic Leader, Brenda Strafford Foundation Centre on Aging.
- Lead of Training & Capacity Building Program, Co-Lead of Theme 1 (Mechanisms and Prevention of Dementia) and Research Executive Committee member, Canadian Consortium on Neurodegeneration in Aging
- Calgary Site Lead and Chair of Clinical Working Group, Canadian Longitudinal Study on Aging
- Board Member, Gordie Howe C.A.R.E.S.
- Co-Chair, Research & Innovation Working Group, Provincial Dementia Strategy, Alberta Health

Dr. Holroyd-Leduc:

- Scientific Director, AHS Seniors Health SCN
- KT Committee Chair and Research Management Committee member, Canadian Frailty Network NCE
- Advisory Board Member, Knowledge Translation Platform, Alberta SPOR SUPPORT Unit

- Calgary area Site Lead, Translating Research in Elder Care (TREC) Research Team
- Co-Chair, Calgary-zone Elder Friendly Advisory Group
- Medical Leader, Hospitalized Elder Life Program
- Board Member, RCPSC Geriatric Medicine Examination Board
- Co-Chair, Research & Innovation Working Group, Provincial Dementia Strategy, Alberta Health

Dr. Pearce:

- Chair, Integrative Course Committee, UME
- Program Director, Geriatric Medicine Residency program

Dr. Schmaltz:

- Chair, Canadian Geriatrics Society CME committee

Dr. Silvius:

- Medical Director, AHS Seniors Health
- Medical Director, AHS Pharmacy Services
- Co-Chair, Appropriate Use of Antipsychotic Project, Seniors Health SCN

RESEARCH

Reporting for this section is for the calendar year for 2015 as entered into STAR. Four of our members have protected time for research (ranging between 4%-50%).

i) Research Publications:

- 18 peer reviewed journal research publications in 2015

ii) Research Funding:

- Sum of successful grants allocated to members (as PI/coPI/coI/KU) in 2015 is \$14,317,490.00

iii) Research Focus of Sectional Members:

- Our Section focuses primarily in the area of health services research and applied clinical research.

HIGHLIGHTS

- The Section of Geriatrics and Calgary-zone Seniors Health has been participating in KT/QI initiatives aimed at improving the care provided to older adults within acute care. This includes:
 - Partnering on an elder-friendly care initiative within the 4 Calgary adult hospitals, using funds from two peer-reviewed Calgary-zone QI grants. Dr. Holroyd-Leduc is the principal investigator on this initiative, and also a Co-PI on a Seniors Health SCN PRIHS grant from AIHS/AHS that is exploring elder-friendly approaches to the surgical environment (EASE).
 - Dr. Holroyd-Leduc is the Principal Knowledge-user on a CIHR KTA operating grant, which is collaboration with researchers from Ontario and several community-based hospitals in Alberta evaluating a knowledge translation intervention focused on mobilization of vulnerable elders within acute care (MOVE AB).
 - Several members (Drs. Burbach, Dempsey, Holroyd-Leduc, Kwok) participate on the Elder Friendly Care Calgary-zone Advisory group or Site working groups, which support these initiatives and other practice changes aimed at improving the care of older frail adults.
- Dr. Holroyd-Leduc is leading a collaboration with the Alzheimer's Society and the World Health Organization on a project exploring an on-line support for caregivers of persons with dementia, funded by a CIHR KTA grant.

- Dr. Hogan is the Calgary site Principal Investigator for the Canadian Longitudinal Study on Aging (CLSA), which is CIHR funded.
- Dr. Hogan has a leadership position in the Canadian Consortium on Neurodegeneration in Aging (CCNA), which is funded by CIHR. This includes being the Lead of Training & Capacity Building Program, Co-Lead of Theme 1 (Mechanisms and Prevention of Dementia) and Research Executive Committee member.
- Dr. Kwan is engaged in medical education research.
- Dr. Cohen supports research in the area of Industry-funded dementia trials.
- Dr. Silvius is a Knowledge User on funded research initiatives, including being involved with the Translating Research in Elder Care (TREC) Research Team.

iv) Leadership in Research

- Dr. Hogan is the Brenda Strafford Foundation Chair in Geriatrics and Academic Leader of the Brenda Strafford Centre on Aging, U of C. He is also a leader in two large research initiatives funded by CIHR: CLSA and CCNA
- Dr. Holroyd-Leduc was the Scientific Director of the Seniors Health Strategic Clinical Network. She is also the KT Committee Chair for the Canadian Frailty Network NCE and the Calgary area Site Lead for the Translating Research in Elder Care (TREC) Research Team
- Members from the Section of Geriatrics and Calgary Zone Seniors Health have been collaborating with Alberta Health and the Seniors Health SCN on the development of a provincial dementia strategy and action plan. Drs. Holroyd-Leduc and Hogan are co-Chaired the Research and Innovation working group. Drs. Fruetel and Silvius were members of the Primary Care and Dementia group and the Acute Care group. Drs. Hogan and Silvius were members of the Steering Committee.

EDUCATION

The Section is active in education across all levels of medical education, but also in multidisciplinary education. The Section has recorded a total of 2,305 formal teaching hours at the UME, PGME and CME levels in 2015.

Undergraduate (UME): All Section members are expected to teach in Course V (Aging and Neurosciences) but many members teach in other courses such as Medical Skills, Course III, IV, VI, VIII and the Integrative course.

- 4 members are Master Teachers with major commitments to teaching in the UME program. .
- 2 Members chaired UME education committees
 - Dr. Burbach co-chaired of Course V UGE (Neurology, Aging and Special Senses)
 - Dr. Pearce chaired of the Integrative Course
- Section members supervised clerkship rotations and course 440 medical students. This includes electives of out of town students.
- Members participated as OSCE examiners and CaRMs interviews
- Members participate in the faculty advisor program

Postgraduate (PGME): All members participate in teaching and supervision of residents on rotation in Geriatric Medicine from Internal Medicine, Family Medicine, PMR, Psychiatry, Pathology, and Neurology.

- Dr. Hall is Associate Program Director of the Internal Medicine Residency program
- Several of our members sit on various PGME Residency Program Committees
- Geriatrics participates in Noon Teaching Rounds and Academic Half day of various PGME programs.
- Dr. Fruetel is a member of the RCPSC Internal Medicine Examination Board and Dr. Holroyd Leduc is a member of the RCPSC Geriatric Medicine Examination Board.

- Members Participate as examiners in PGY 1-3 OSCE
- Members supervised a number of resident research projects
- Members participated as mentors for the Internal Medicine Resident Mentorship program

Subspecialty Program: Our subspecialty training program is among the strongest in Canada and is RCPSC accredited. During this reporting period we had 3 PGY4s, 1 PGY5 and 1 PGY6 in the subspecialty program. We also provided teaching and supervision to Care of Elderly PGY3s

- Our PGY6 (Dr. Goodarzi) was enrolled in the CIP program and was a Masters' candidate in CHS
- The subspecialty program hosted a very successful Resident Research day and was able to sponsor Dr. Dallas Seitz from Queen's as visiting professor and judge. All our residents had a project to present on this day

Graduate: We have two members with adjunct appointments with Community Health Science (CHS), who supervise graduate students and teach in graduate courses

- Our members supervised/co-supervised 4 graduate students in 2015, and were on the thesis committees of several other students

CME: Dr. Schmaltz is the Sectional CME lead and has been integral in the planning of the annual U of C Geriatric Update for rural/urban primary care. This event occurred in Fall 2015.

- Dr. Schmaltz is the CME lead for the Canadian Geriatrics Society.
- Members gave presentations or workshops locally, provincially and nationally

AWARDS AND HONORS

Ten Section members received a total of 22 Associate Dean's Letters for Teaching Excellence in the UGE curriculum.

Three Section members were named to the Honor Roll for teaching excellence.

Dr. Fruetel received a Department of Medicine Education Excellence Award.

Dr. Holroyd-Leduc reviewed Top 3 poster at the Alberta Quality Summit.

Dr. Hogan received a Service Recognition from the University of Calgary.

Dr. Kwan received a Volunteer Recognition from the University of Calgary.

CHALLENGES AND FUTURE DIRECTIONS

Main Challenge:

- **Operational budget:** We have been very appreciative of the Department of Medicine and AHS support in recruiting geriatricians. Over the past few years, we have also been successful in training a number of geriatricians through our Geriatric Medicine Residency training program. However, SGS has not seen any increase in operational dollars to support additional recruitment. While there is clinical need for more geriatricians, SGS will struggle to support more physicians without additional operation support or a Clinical ARP.

Future Directions:

1. **Recruitment to Geriatrics:**
 - a. Additional recruitment needs to be accompanied by increased operational dollars or a Clinical ARP.
 - b. Further AARP recruitment should focus on increasing academic (research) productivity.
2. **Increased Academic/Research productivity.** Our Section aims to become a leader in applied geriatric medicine research. As such, our key future recruits to the DOM AARP will have a focus on research.
3. **Seniors Strategic Clinical Network** has great potential for disseminating some of the programs developed in Calgary to the province. Four section members (Drs. Hogan, Fruetel, Holroyd Leduc and Silvius) are members of the core committee. This will provide opportunities for increasing networking and research opportunities.
4. **GARP and Day Hospital redesign:** We are exploring evidence-informed re-design of the GARP unit and the Carewest Day Hospital program, so that both can more optimally serve the needs of the frail elderly population within the Calgary-zone

Section of Hematology and Hematologic Malignancies - Annual Report April 1, 2015 to March 31, 2016

The section of Hematology and Hematological Malignancies has 30 members. This includes 21 Department of Medicine ARP members (19 FTEs) and 5 fee for service members (4.2 FTEs) as well as 3 clinical associates. In 2015 there were 5 GFT appointments while the remainder have major clinical appointments with the University of Calgary.

The total FTE breakdown among ARP members is as follows:

60% Clinical
6% Administrative
20% Research
14% Education

CLINICAL

The section provides malignant and benign hematology consult services at all Calgary hospitals. Regularly scheduled clinics occur at the Peter Lougheed Center, South Health Campus, Foothills Hospital, and Tom Baker Cancer Center. Inpatient hematology services are located at the Foothills and Peter Lougheed sites. In addition, section members provide outpatient malignant hematology clinics in Medicine Hat, and outpatient bone marrow transplant clinics in Edmonton.

Major Clinical programs of the section of Hematology and Hematologic Malignancies include:

1. Rare Blood and Bleeding Disorders clinic. The RBBD provides comprehensive and coordinated interdisciplinary care to adults diagnosed with rare hematological disorders including sickle cell disease, thalassemia, aplastic anemia, paroxysmal nocturnal hemoglobinuria (PNH), and hereditary angioedema.
2. Thrombosis. The recruitment of a hematologist specializing in thrombosis, Dr. Deepa Suryanarayan, has resulted in the creation of a city wide thrombosis program. Still in early development, a local Thrombosis Interest Group has been formed to engage representatives from a wide range of specialties and services in order to coordinate and standardizing the approach to thrombosis. It as begun to develop a thrombosis research portfolio and to thrombosis related CME within the city.
3. Immune Deficiencies. Dr. Jennifer Grossman is an NIH trained specialist in immune deficiency and provides care and consultative services for a growing number of patients with these complex medical disorders.
4. Bone Transplantation. The BMT program, located at the Tom Baker Cancer Center, Alberta Children's Hospital, and Foothills Medical center is one of the only transplant programs in Canada certified by FACT (Foundation for the Accreditation of Cellular Therapy) for all the accredited services of a hematopoietic stem cell transplant program including adult and pediatric autologous and allogeneic transplantation, peripheral blood and marrow collection, and stem cell processing. The program, led by Dr. Andrew Daly performs autologous stem cell transplants for patients from southern Alberta and allogeneic transplant services for the entire province. In the 2015/2016 year, 179 adult transplants were performed.

5. Malignant Hematology. The malignant hematology tumour group is led by Dr. Carolyn Owen and provides outpatient care for patients with hematological malignancies at the Tom Baker Cancer Center and Peter Lougheed Center.
6. Outpatient clinics and consultation services. Hematology outpatient clinics are located at the Foothills Medical Center, Peter Lougheed Hospital, and South Health Campus, with one private office in Bridgeland. The majority of section members use a central triage process, which received 4,000 referrals in 2015, while an additional 600 referrals were seen outside of the central triage process.

Key Partnerships

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

RESEARCH

Reporting for this section is for the 2015 calendar year as reported in STAR.

1. Scholarly Productivity for 2015

- Peer Reviewed Publications/Articles – 57
- Book Chapters – 3
- Peer reviewed abstracts – 35

2. Major Funding (PI only) –Total Approx. \$2,226,500

New: \$922,000

Sources: Cancer research society, Multiple Myeloma Research Foundation, Leukemia and Lymphoma Society of Canada, Calgary Health Trust/Section of Hematology, Alberta Cancer Foundation, CSL Behring, Bayer,

Ongoing: \$3,938,000

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

Clinical Trials: 3,500,000

Sources: NCIC, Various Industry

3. Research Focus of Sectional Members

Malignant Hematology:

- Multiple Myeloma: N. Bahlis, P. Neri, P. Duggan, V Jiminez Zepeda, J Tay
Clinical Trials (Mechanisms of resistance, novel monoclonal antibodies and immunotherapy, Novel agents, NCIC-CTG cooperative group and industry) Predictive Biomarkers and Molecular Biology of Myeloma, Myeloma tumour bank and database
- Lymphoma: D. Stewart, C. Owen, M. Shafey
Provincial Hematology Tumor Bank (with Alberta Cancer Research Institute Biorepository) , Clinical trials
- Leukemia/MDS : L Savoie and M Geddes
Leukemia/MDS National database. Clinical trials

Blood and Marrow Transplantation:

- SCT outcomes for indolent and aggressive lymphomas (D Stewart).
- Allergy, Immunology and Infection following Allogeneic SCT (J Storek)
- Autologous SCT for autoimmune disorders (J Storek)
- Haploidentical Stem Cell Transplants (A Daly)
- Treatment of Graft Versus Host disease (A. Daly, J Storek)
- Novel Conditioning Regimens for Autologous Transplantation (M Shafey)
- Improved outcomes of ATG-conditioned (Albertan) hematopoietic cell transplantation (J Storek)

Hemostasis/Hemophilia: (MC Poon, D Goodyear)

- Pregnancy loss and Von Willebrand's disease
- Treatment of Bleeding in Fibrinogen deficiency
- Bleeding assessment tools
- Etiology of decreased bone mass density in hemophilia patients
- Bone imaging in hemophilia

4. Research Leadership and Other Contributions

- Clinical trials accrual – 126
- Six members sit on 10 national or international grant panels
- 12 members are reviewers or editors for 27 journals
- Section members supervised 30 residents and 7 post doctoral trainees research.

EDUCATION

The section of Hematology and Hematological Malignancies continues to maintain a strong contribution to medical education locally and nationally.

- Dr. D. Goodyear became the Co- Chair (Hematology) for Course 1, University of Calgary, Undergraduate Medical Education, taking over the role from Dr. L Savoie. Division members provided 33 hours of didactic lectures and many more hours of small group and clinical core teaching.
- Dr. Mona Shafey took over the leadership of the hematology fellowship training program from Dr. Michelle Geddes in January of 2016. The program was successful in receiving full accreditation from the RCPSC. There are currently seven hematology fellows in various stages of training.

- Advanced fellowships continue to be offered in Bone Marrow Transplantation, Lymphoma, Myeloma, and Hemostasis.
- Division members gave 89 CME presentations or invited talks at conferences locally, nationally, and internationally.

ADMINISTRATION

1. Leadership of Committees:

- a. Local and Provincial – 13
- b. National
 - i. L. Savoie - Chair of RCPSC Hematology exam committee
 - ii. L. Savoie - President, Canadian Hematology Society
 - iii. C. Owen - Chair Canadian conference on CLL
 - iv. A. Daly – President, Canadian Blood and Marrow Transplant Group
- c. International
 - i. P Duggan - co-chair of the NIH BMT clinical trials network data safety and monitoring board
 - ii. MC Poom - Councilor of the International Society of Thrombosis

AWARDS

- Dr. C. Brown - Class of 2016 honor role, The University of Calgary Cumming School of Medicine,
- Dr. M. Geddes - Associate Dean's Letter of Excellence. The University of Calgary Cumming School of Medicine
- Dr. M. Geddes – Silver Teaching award, University of Calgary Cumming School of Medicine
- Dr. M. Geddes - Hematology Residency Program Teaching Award, The University of Calgary Cumming School of Medicine
- Dr. D. Goodyear - Associate Dean's Letter of Excellence. The University of Calgary Cumming School of Medicine
- Dr. D. Goodyear – Silver Teaching award, University of Calgary Cumming School of Medicine
- Dr. D. Jenkins - Gold Teaching Award. The University of Calgary Cumming School of Medicine
- Dr. D. Jenkins - Associate Dean's Letter of Excellence. The University of Calgary Cumming School of Medicine
- Dr. A. Lee - Bronze Teaching award, University of Calgary Cumming School of Medicine
- Dr. C. Owen - Arete Award for Research Excellence in Clinical Faculty 2015, Department of Oncology, The University of Calgary
- Dr. C. Owen - President's Excellence Awards. Alberta Health Services
- Dr. C. Owen - Outstanding Investigator - TBBC Clinical Research Unit. Tom Baker Cancer Center
- Dr. MC Poon – Class of 2016 honor role, The University of Calgary Cumming School of Medicine
- Dr. MC Poon- Mentorship Excellence Award (Department of Medicine). The University of Calgary
- Dr. MC Poon - American Society of Hematology Distinguished Emeritus Member. American Society of Hematology
- Dr. L. Savoie – Silver teaching award, University of Calgary Cumming School of Medicine
- Dr. L. Savoie – Associate Dean's Letter of Excellence. The University of Calgary Cumming School of Medicine
- Dr. M. Shafey - Associate Dean's Letter of Excellence. The University of Calgary Cumming School of Medicine
- Dr. M. Shafey - Silver teaching award, University of Calgary Cumming School of Medicine
- Dr. M. Shafey - Class of 2016 honor role, The University of Calgary Cumming School of Medicine

- Dr. K. Valentine - Associate Dean's Letter of Excellence, University of Calgary Cumming School of Medicine
- Dr. K. Valentine - Silver teaching Award, University of Calgary Cumming School of Medicine
- Dr. K. Valentine - Class of 2016 honor role, The University of Calgary Cumming School of Medicine,

CHALLENGES, OPPORTUNITIES, AND FUTURE DIRECTION

Benign Hematology

The Rare Blood and bleeding disorders clinic continues to experience steady growth in patient numbers, partly due to the changing ethnic demographics and population growth in our city. There has also been growing demand since the creation of an immune deficiencies program 2 years ago. Clinic space and allied health support for RBBD Program have not kept pace with this growth. In addition, the need to replicate these in clinics in the city's North-East, and to provide outreach to other centers in Southern Alberta, will create further strain on limited resources.

The division has recruited a specialist in thrombosis, and is excited to see a program developing for coordination and standardization of the prevention and treatment of thrombotic disorders in Calgary, thrombosis research and education. Recruitment of a second academic thrombosis specialist is expected in 2017.

Cancer Care

In 2015, Alberta Health Services confirmed funding for a new cancer centre in Calgary, to be completed in 2024. When completed this facility will provide adequate inpatient beds and outpatient beds to service the needs of the city and region for years to come. In the meantime, we continue to face challenges in providing such care given current resources that have shown limited growth in recent years. We have supported the recruitment of haematologists to Red Deer and Lethbridge in order to improve timely access to care, closer to a patient's home. We anticipate filling positions in these cities early in 2017.

To increase both inpatient and outpatients capacity, Cancer Care Alberta has funded a plan to deliver chemotherapy during evenings and weekends at the Tom Baker Cancer centre. This will improve capacity for therapy. In addition, extended hours and weekends will allow many therapies that currently require an inpatient stay to be delivered on an outpatient basis, thus improving access to inpatient beds.

Section of Infectious Diseases – Annual Report April 1, 2015 to March 31, 2016

The Adult Infectious Diseases (ID) Section has 29 members (15 AARP members (14 FTEs), 10 Fee for Service physicians (2.7 FTEs) and 4 members with dual training in Infectious Diseases and Medical Microbiologist (0.5 FTE in ID). Most (25) Section members have a primary appointment in the Department of Medicine (DOM) while 4 members have a primary appointments in Pathology and Laboratory Medicine (Microbiology) and a cross appointment to the Department of Medicine.

CLINICAL

Infectious Diseases Section provides inpatient care at all adult hospitals in Calgary and ambulatory patient care in a variety of specialized settings as described below. The Section spends 57% of our clinical service time working with inpatients and 43% with ambulatory patients. Almost all inpatient consults are completed within 24 hours of when they are requested. The Section encourages physicians to work at different acute care sites because the patient population is different at each site. The Section ran over 1,950 outpatient clinics (1,900 in prior year) and oversaw the outpatient treatment of almost 46,646 ambulatory patients.

Clinic	Access	Innovations	Case Load (previous year in parentheses)
Home Parental Therapy (HPTP)	-new referral system with Strathmore -new referral system for Family physician referral	- investigations to problem solve issues with new pumps -sharing the best practices of each HPTP site with other sites	1,222 clinics 20,582 (18,945) physician visits 6,372 (5,146) new patient visits 8.6% (10.9%) increase
Southern Alberta (HIV) Clinic (SAC)	-Lobbying for access to new antiretroviral medications -HIV-HCV co-infected clinic -streamline neurocognitive testing -154 (112) telehealth visits	-rewrite SCM inpatient care algorithms - QI outcome initiatives - add Geriatrician to staff to address the increasing patient age	327 (325) clinics by ID 5184 (4,912) patient visits 131 (194) new patients 1689 (1,680) active SAC pt

Sexually Transmitted Infection (STI) Clinic	-Expanded anal pap clinic -Outreach collaboration with community programs including the availability of naloxone kits -STI testing in jail	-Expedited partner therapy roll-out -Fast flow stream for specific visits -Express testing for low-risk patients -Weekly MSM evening clinic	129 (153) MD general clinics 302 (302) nursing clinics 27 (21) anal pap clinics 18,973 (20,889) pt visits 6,691 (6,694) new pts
Cystic Fibrosis Clinic (CF Clinic)	-Patients are seen by a team including physicians and a Nurse practitioner, physio-therapist and psychologist	-revision of format of multidisciplinary team meeting -employ Post-doctoral researcher in laboratory	94 (95) clinics 813 (756) clinic visits 189 (177) total patients 64 (52) admitted, 942 (551) days
Transplant Clinics	Seen in Hematology clinic as urgent (same day) consult		45 (48) consults
General ID Clinics	Two ID staff work with ID Trainees to see complex and chronic outpatient infectious disease cases	Improved scheduling allowing for more new patients to be seen	92 (74) clinics 545 (551) patients seen 301 (261) new patients
Tropical Diseases Clinic	-Tuesday, Friday clinics -go to Refugee Centre - Work with university in Ethiopia	-QI trails re <i>Strongyloides stercoralis</i> identification and Malaria treatment	56 (43) clinics 199 (159) patients 115 (97) new
Hepatitis C Treatment (CUPS and SAC)	-Working with all parties to arrange for drug coverage for treatment	-Collecting data showing effective therapy can be provided in a disadvantaged population	165 (100) new pt 305 (310) visits

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

1. **Infection Prevention and Control (IPC).** Highlights of this program include:
 - Assessment of management of Urinary Tract Infections in Long Term Care facilities
 - Study to determine and compare pacemaker rates of infection in Calgary
 - Successful reopening of Holy Cross Ambulatory Care Centre after 2013 flood damage
 - Ongoing study development of using probiotics to decrease *C. difficile* infection
 - Developed a standardized approach to safely remove Antibiotic Resistance Organism flags in SCM
 - Developed an assessment tool re patient suitability for admission to overcapacity bed space
 - Continued participation in the Canadian Nosocomial Surveillance System
 - Presented abstracts at national and international meetings
 - Published several IPC papers in peer reviewed journals
2. **Antimicrobial Utilization and Stewardship (AUS)**
 - Participated in a Global Point Prevalence Study on rate and quality of antimicrobial prescribing in Hospitalized patients.
 - Evaluated user acceptance of standardization of patient care management algorithms in SCM (*S. aureus*, *C. difficile*)
 - Publication of antimicrobial utilization data collected at the Alberta Children's Hospital.
 - Implementation of an advanced antimicrobial stewardship fellowship program for infectious diseases physicians plus the supervision of several antimicrobial preceptorships and studentships.
 - Update of iPhone application for antimicrobial stewardship and infectious diseases management as collaborative project by AUS members and Critical Care and Infectious Diseases physicians. Won LEADing Practice Award, Canada Health Infoway and Accreditation.
 - Successful implementation of an antimicrobial stewardship service to the hospitalist service of Foothills Medical Centre.

RESEARCH

The Section is active in research from bench to bedside. Section members spent 347 hours reviewing journal articles, 116 hours working as journal editors and 79 hours reviewing grant applications (Total 542 hours)

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

- 63 Papers published in peer-reviewed journals
- 54 Abstracts published in peer-reviewed journals
- 1 book chapter published

Presented papers or were invited speakers at a variety of scientific and health care associated meetings:

- 9 local, 5 provincial/national and 9 international scientific meetings.
- Several members are involved in the organization of local, national and international scientific and healthcare associated meetings.

Major Funding

In the 2015 calendar year, Section members held over \$3.1 million in research grants from agencies ranging from NIH, CIHR, AIHS, and a variety of Cystic Fibrosis organizations, to local sources and drug trials. Dr Parkins, the Training Program research mentor, has been very successful in working with trainees to identify projects. Section members have international recognition as leaders in HIV domestic violence research (Dr Gill), CF microbiome research (Drs Rabin, Parkins, Somayaji) and *C. difficile* treatment research (Dr. T Louie).

Research focus of members:

- **Dr. A Chu** Osteomyelitis, STIs, anal pap testing
- **Dr. D. Church** Medical microbiology, new technology development, HIV
- **Dr. J. Conly** IPC, MRSA biology/epidemiology, infection control, medical innovation
- **Dr. J. Gill** HIV/AIDS, economic analysis
- **Dr. D. Gregson** Medical microbiology, new technology development
- **Dr. J. Janvier** HIV in Aboriginal communities
- **Dr. A. Johnson** Transplant-related infections
- **Dr. J. Kim** IPC, MRSA,
- **Dr. O. Larios** IPC, new diagnostic microbiology technology, HCV and HIV co-infection
- **Dr. M. Louie** Medical microbiology, *E. coli* O157, environmental antibiotic resistance
- **Dr. T. Louie** IPC, *C. difficile*, MRSA decolonization
- **Dr. G. Macphail** HCV, marginalized patient population
- **Dr. M. Mah** Social marketing, adult learning
- **Dr. B. Meatherall** Tropical and travel medicine
- **Dr. B. Missaghi** IPC, Human Microbiome, Tropical Medicine
- **Dr. M. Parkins** Cystic Fibrosis, biofilm infections
- **Dr. A. Pattullo** Clinical informatics, clinical decision support
- **Dr. D. Pillai** Malaria, *C. difficile*, Point of Care Testing
- **Dr. H. Rabin** Cystic fibrosis, major collaboration project with Department of Microbiology
- **Dr. R. Read** Sexually transmitted infection, antibiotic resistance in agriculture
- **Dr R. Somayaji** Advanced clinical fellowship, Cystic fibrosis
- **Dr. S. Vaughan** Tropical and Travel Medicine: Medical Education

EDUCATION

The Section is committed to providing education to all levels of learners in the Faculty of Medicine (undergraduate studies, residency training programs at the PGY1-3 and also PGY4-5 levels). The Section gives lectures/information sessions as part of Continuing Medical Education for Family Physicians and physicians training programs within the DOM and beyond the DOM. The Section has weekly education and research rounds from September to June (34 formal ID Seminars and 70 half hour case presentations). Section member are involved in teaching, mentorship and supervision of students in other Faculties in the University of Calgary at the Undergraduate, Masters and PhD levels of education.

The Section spent 138 days (1104 hours) supervising Nurse Practitioner Students (276 teaching hours i.e., 25% of the time spent with these students) and lectured for 7 hours in the course.

Teaching Activities:

- a. ID Resident Teaching Program. The training program is fully accredited by the Royal College of Physicians and Surgeons of Canada (reviewed February 2015). Over 150 hours were spent doing accreditation work. All members of the Section are actively involved in the ID training program. The adult infectious diseases training program continues to revise the education content of the academic half day teaching sessions to ensure an outstanding program. All trainees participate in a 4 day orientation week in July.

Section members are actively involved in formal student evaluations (i.e., OSCIE (3 members), GIM Royal College reviews (2 members), selection of candidates for Medical School (2), PGY slots in General Internal Medicine (2) and Infectious Diseases (7). Section members have been judges at trainee research poster competitions locally and internationally (2).

Type of Education	Number of hours for Section (lecture time only, no preparation time included)
Undergraduate (Faculty of Medicine)	35 formal lectures & 64 hours of teaching in small group sessions for medical students, 39 hours formal Clerks+PGYs teaching and 26 hours of Clinical Ward Teaching Clinical teaching (assume 8 hour days) <ol style="list-style-type: none"> i. Bedside clerkship teaching 535 days or 4280 hours ii. 1070 clinical teaching hours (0.25% of service hours) 218 hours supervising student projects (4 projects) 35 hours Clinical elective (shadowing) (6)
Postgraduate (Faculty of Medicine)	124 hours of formal teaching lectures + 39 hours with PGYs and Clerks present. Clinical teaching (assume 8 hour days) <ol style="list-style-type: none"> 1. GIM/Family Practice Residents <ol style="list-style-type: none"> i. 1067 days or 8540 hours service ii. 2135 teaching hours (0.25% of service hours) 2. ID Residents <ol style="list-style-type: none"> i. 455 days or 3640 hours service ii. 910 teaching hours (0.25% of service hours) 219 hours supervising resident projects (16)
Undergraduate (not-Faculty of Medicine)	2 hours of formal lectures 256 hours supervising student projects (14 projects)

Graduate	1 hours of formal teaching 231 hrs supervising Master (6) and PhD candidates (6) and 40 hrs supervising Post-doctoral student (1)
CME not related to U of C	25 hours (local physician and healthcare provider CME)

Educational Leadership (671 hours)

- a. Infectious Disease Training program was fully accredited in 2015. The Program is constantly renewing itself to respond to developmental ideas required by the Royal College of Physicians and Surgeons of Canada as well recommendation made by members of the ID section and the trainees. New modules were created to address Royal College modified requirements in the Infectious Diseases program i.e., add specific training in Antimicrobial Stewardship and additional time in Infection Prevention and Control.

The Infectious Diseases program in conjunction with the new Calgary Medical Microbiology approved Royal College Program has developed the capacity to dually train individuals in a 3 year program (247 hours).

- b. Cummings School of Medicine (Undergraduate teaching) and non-Infectious Diseases Residency Training
Dr. Ron Read is an active member of the Undergraduate Medical Education Committee of UME. Dr. Bonnie Meatherall (Course 1, 340 hours), Dr. Ron Read, Dr Stephen Vaughan (Global Health) and Dr. Julie Carson (Medical Microbiology) (Course 8) are the Infectious Diseases leads for undergraduate courses.

Dr. Read implemented the Sexually Transmitted Infection module for Family Medicine Residents.

- c. University of Calgary non Faculty of Medicine
Dr. Ron Read is an active member of the University of Calgary, Department of the Faculty of Arts.

New Initiatives and Innovations:

- a. Collaboration with Medical Microbiology to create a combined Infectious Diseases and Medical Microbiology Training program.
- b. Collaborative project to find and replace pumps for the HPTP program. Calgary was the lead zone for identifying and finding solutions to multiple issues with the new pumps. The answers to these problems will be used throughout Canada.
- c. Dr Parkins, as the Section Research Mentor, was successful in sustaining research projects involving postgraduate trainees and multiple levels of non-Faculty of Medicine students (Bachelor, Master and PhD).
- d. The Tropical Diseases group developed, rolled-out and regularly updated a response to the new threat of Zika. They acted as consultants for the Media, Obstetrics and Gynecology and the Maternal Fetal group to develop algorithms re exposure to Zika in women.
- e. Institution of combined Infectious Diseases and Pulmonary joint rounds.

ADMINISTRATION

Members of the ID Section are involved in the medical administration of a large number of programs. Among people with primary DOM appointments, administration work accounts for 15% of the FTEs (2.97 FTEs). Section members participate in over 120 committees (local, regional, national and international). Locally, Section members are the medical directors for 3 programs with a large Public Health impact a) the Southern Alberta Clinic (HIV clinic), b) the Sexually Transmitted Infections Clinic, and c) Infection, Prevention and Control (IPC) program (five section members are medical IPC site officers at the adult acute care sites). In addition, Section members are the medical directors for a) the Home Parenteral Treatment Program, b) the Adult Cystic Fibrosis Clinic, c) Tropical Diseases Clinic, and d) Antimicrobial Stewardship.

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

- **Dr. Oscar Larios**
-SHC Medical Site officer, Infection Prevention and Control Program
- **Dr. Tom Louie**
-Infection Prevention and Control Program (IPC), Antimicrobial Stewardship
- **Dr. Mike Parkins**
- Medical Director, Adult Cystic Fibrosis Clinic
- **Dr. Ron Read**
-Medical Director, Calgary Sexually Transmitted Infection Clinic

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

- **Dr. Deirdre Church**
-Section Chief, Medical Microbiology, Calgary Laboratory Services
- **Dr. Marie Louie** (dual trained)
- Provincial Laboratory, Alberta Health Services

AWARDS AND RECOGNITION

2015-2016

Awarded by	Award Name	Recipient
Department of Medicine	Quality Improvement and Patient Safety Award	EbolaTeam (IPC(Drs Conly, Larios, Kim, Missaghi) and Tropical Diseases (Drs. Meatherall, Vaughan))
General Internal Medicine Residents	Silver Tongue Award	Steve Vaughan
Undergraduate Medical Education	Distinguished Teacher Award	Bonnie Meatherall
Undergraduate Medical Education	Associate Dean's Letter of Excellence	Jack Janvier
		Donna Holton
Undergraduate Medical Education	Teaching Stars awarded by Course number	Donna Holton (Silver*)
		Jack Janvier (Gold*)
		Bonnie Meatherall (Bronze*)
		Steve Vaughan (Bronze*)

Awarded by	Award Name	Recipient
University of Calgary	Research Mentor Award (BSc)	Michael Parkins
	Research Mentor Award (GIM)	Michael Parkins
RGH Basic Core Year Residents	Star educator	Andrew Pattullo

*ID teaches in multiple Course numbers, sum hours in each Course

CHALLENGES AND FUTURE DIRECTION

The Infectious Diseases (ID) Section has experienced an increasing clinical workload because new organisms (ZIKA, Ebola, MERS-CoV) continue to be identified and microbes continue to develop new and complex antimicrobial resistance patterns (MRSA, ESBL, AMPc). These new issues also create an administrative workload to develop local Public Health and Infection Prevention and Control policies about these issues even if the disease is not diagnosed in the Calgary Zone. The population of Calgary continues to a) age, b) have limited access to primary care, and c) have increasing patient acuity scores that result in increased numbers of patients being more susceptible to acquiring infections.

The ID Section provides 24/7 coverage for all adult acute care sites with the largest site having two clinical ID services. The Section cares for patients in 1,950 half-day outpatient clinics (HPTP, SAC, STI, CF clinics, General ID, Tropical Diseases). The focus of these outpatient clinics is to prevent hospital admissions by providing timely ambulatory care. The number of patients being referred for care at HPTP continues to increase in both numbers and complexity. Weekend coverage of HPTP is challenging as 4 clinics are compressed to two clinics without any change in number of patients seen. Access to some antimicrobial agents in the outpatient setting can be challenging as some drugs have very restricted access. Calgary is a Geo-Sentinel Surveillance Site in an international tropical diseases surveillance program. The high risk anal pap clinic has expanded to meet an increasing need within the HIV Program. The ID Section works with IPC and Public Health to try to prevent diseases transmission in both outpatient and inpatient settings.

Since 2012 the ID Section has at least two staff physicians working in all the specialized outpatient clinics (see Clinical Section) allowing for shared coverage of the patients. The Section is able to manage the workload and allow members to have a good life balance. The Section has a high percentage of attending physicians who are baby boomers and succession planning has started. The Section will need to hire physicians over the next 2-10 years to replace retiring physicians. The Section will be hiring GFT physicians to maintain a strong academic presence as well as physicians with specific clinical expertise.

The Section remains committed to having one of the best if not the best ID training program in the country. We have recruited high quality applicants each year for many years. In July 2016, 4 full time ID trainees were registered in the training program. One of these trainees will do a 2year post-doctoral research training (July 2017). Another trainee will pursue a Master's and a specialized clinical fellowship in cystic fibrosis. The initiative of the combined Royal College of Physicians and Surgeons Infectious Diseases and Medical Microbiology in Calgary is an exciting development.

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

Section of Respiratory Medicine – Annual Report April 1, 2015 to March 31, 2016

The Section of Respiratory Medicine continued to make important contributions to the academic pursuits of the Cumming School of Medicine (CSM) and clinical accomplishments of the Calgary Zone – Alberta Health Services (CZ-AHS) for the period April 1, 2015 to March 31, 2016. As of March 31, 2016 the Section had 25 Academic Alternative Relationship Plan (AARP) members, 6 Fee for Service (FFS) members, and 6 Associate members (all FFS) who hold cross appointments in the Section. Of the AARP Members, 6 hold Geographic Full Time (GFT) appointments, while the remaining 19 AARP members, and all of the FFS members, hold major clinical appointments.

The Section provides continuous consultative service and inpatient ward service at four acute care hospitals while maintaining a busy outpatient clinical service across the zone. In addition to general respiratory clinics the Section provides services in the following subspecialty clinics: Calgary COPD and Asthma Program (CCAP- all sites); Alberta Thoracic Oncology Program (FMC); Dyspnea Clinic (in conjunction with the TBCC – FMC and SHC); Cough (FMC); Bronchiectasis (FMC); Sleep Clinic (FMC); Interstitial Lung Disease (SHC); Neuromuscular (PLC); Pulmonary Hypertension (PLC), AND Lung Transplant (PLC). Members of the Section also report all pulmonary function and sleep diagnostic tests at the four hospital sites, and provide TB services for the zone through the Sunridge TB Clinic. ATOP, Lung Transplant, Neuromuscular and Interstitial Lung Disease all provide tele-health services to the outlying regions in the province, in addition to their inpatient and outpatient responsibilities. The Section continues to have an excellent record of academic productivity, and provides important administrative functions within the Department of Medicine and within the Faculty.

Recruitment

For the period April 1, 2015 to March 31, 2016 the Section was active in recruiting a new Section member to the RGH to replace Warren Davidson who relocated to British Columbia; Dr. Patrick Mitchell, who received his medical training in Ireland and his pulmonary (and research) training in Hamilton will be joining the Section in the summer of 2016. Dr. Mitchell will join the Section as a GFT appointment and be supported with the AARP position that was left vacant with Dr. Davidson's departure. Dr. Agnes Hurter who received her training in South Africa is currently being recruited to join Drs Fisher, Jarand, and Filed in the TB clinic with her inpatient and other outpatient responsibilities being located at the PLC. Drs. Jason Weatherald and Rhea Varughese, both based at the PLC are actively pursuing additional training to bring added expertise back to Calgary. Dr. Weatherald will be going to Paris in 2016 – 2017 for training in Pulmonary Hypertension. Dr. Varughese is pursuing additional training in lung transplantation and is due to return to Calgary in the spring of 2017. The Section of Respiratory Medicine continues to actively seek recruitment among appropriately trained individuals to fill faculty positions in the areas of: Clinician Scientist in Airways Disease, Health Services Research, Mycobacterial Disease, Sleep Medicine, and Neuromuscular Disease.

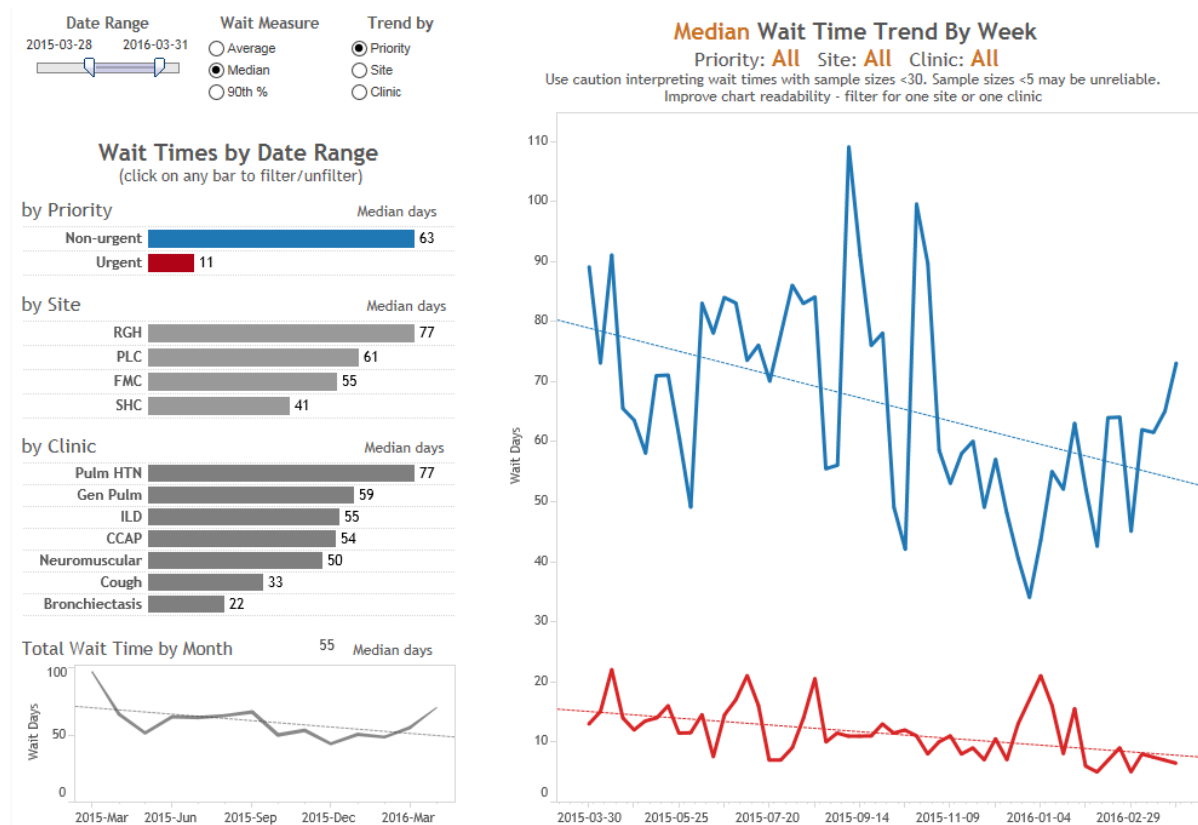
Alberta Health Services

As of January 1, 2016, SHC had a full quorum of respirologists on staff; the other three sites had ongoing requirements for additional respirologists due to the increasing need for inpatient consultation, inpatient ward service and increasing demand for complex outpatient subspecialty services. Pulmonary Central Access and Triage (PCAT) continues to function well; it directs consults to almost all outpatient clinics at all four sites (the exceptions are: TB Clinic, Sleep Clinic, ATOP and Lung Transplant). Wait times have improved at all sites Figure 1) although the PLC continues to struggle more than the other sites due to the reduced number of respirologists and the number of subspecialty programs that it provides. It is expected that in the coming year that with the arrival of Dr. Hurter and the return of Drs. Weatherald and Varughese PLC will be able to manage the demand for outpatient respiratory consultation.

Data (number of patients waiting, wait times, demand and supply) from PCAT is available and tracked regularly through Tableau for all clinics and all sites on AHS allowing ongoing management of wait lists. Formal business rules for PCAT

have been established and are working so that patients get to the correct clinic and therefore the correct site as soon as possible. Figures 1 and 2 highlight the type of data that is continuously updated in Tableau. Figure 1 shows the median waiting times at all four Calgary Zone site for respiratory out patient referrals. Figure 2 highlights the number of patients waiting for clinic appointments at each site across the Calgary Zone.

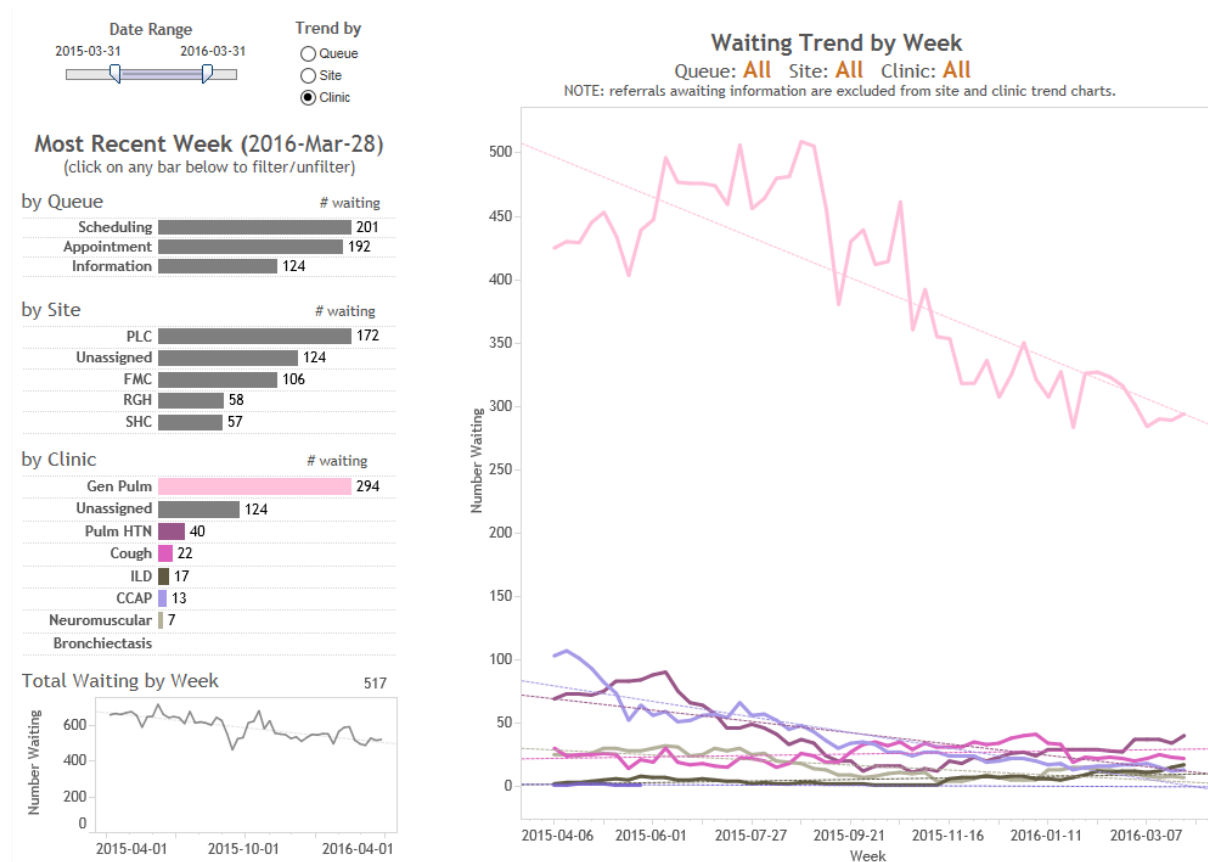
Figure 1. PCAT Waiting times – all sites, all clinics April 2015 – March 2016



Formal PCAT business rules have set the Section up for being able to move towards eReferral when that program has the resources to expand. The Section, under the leadership of Dr. Dan Miller from SHC, became the second Section in the Calgary Zone (Gastroenterology was the first) to offer additional services to primary care physicians through Specialist Link. This was started in January of 2016 and although call volumes were low to the end of March, 2016 the Section is committed to continue to promote this service because of the belief that it will reduce the number of consults. It also is an excellent mechanism to support primary care's medical home strategy.

A number of Section members continue to be involved involved with the Respiratory Health Strategic Clinical Networks (RHSCN) that were established by AHS. Dr. Sachin Pendharkar serves as co-chair of the sleep working group; this working group has made some critical contributions in the development of level 3 (ambulatory monitoring in the home) sleep diagnostic testing provincial standards. This has demanded that Dr. Pendharkar's working group collaborate with several professional Colleges. Other Section members who have made, and continue to make substantial contributions to the RHSCN at both the core committee and working group level include Drs. Mody, Walker, Lohmann, Field, Roman, Hirani, Flemons, Fraser, Hanly and Loewen. Drs. Tremblay, MacEachern and Chee are all involved in the Cancer SCN, as it pertains to lung cancer screening and management in Alberta.

Figure 2. PCAT Median number of patients waiting – all sites, all clinics April 2015 – March 2016



CLINICAL

Members of the Section continue to be among the national leaders in Sleep Medicine. Under the direction of Dr. Pat Hanly, and with the assistance of Drs. Ward Flemons, Kris Fraser, Sachin Pendharkar, Willis Tsai and Andrea Loewen, the group continues to develop novel and important alternative models of care delivery so as to improve patient access to diagnosis and treatment for severe sleep disordered breathing. The Sleep Centre continues to enjoy excellent collaboration with private homecare companies for sleep diagnostics and treatment. Members of the Sleep Centre have been active and influential in working with Respiratory Homecare Benefits within AADL to provide more timely and appropriate approvals for funding clients who require bi-level pressure and oxygen therapy for the treatment of sleep hypoventilation. Several members of the Section (Drs. Rimmer, Hanly, Loewen, Flemons) are members of the AADL Clinical Advisory Committee.

The Interventional Pulmonary Medicine program is one of only two such services in the country. Dr. Alain Tremblay is the leader of this program and, along with Drs. MacEachern, Chee, Hergott and Dumoulin, 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 Program is also recognized for its outstanding Advanced Fellowship training and Dr. Dr. Marc Fortin completed his training in IPM in June 2015, while Dr. Frederic McGovern started his 1-year Fellowship in July 2015. Dr. Fortin returned to the Université Laval now based out of Vancouver, while Dr. Fortin plans to return to the after the completion of his training.

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. Brandie Walker is the Medical Director of this team of dedicated health care providers that includes physicians, respiratory therapists and nurse clinicians. The program relies

heavily on the use of innovative tools such as induced sputum cell counts to manage patients with complex airways disease, and through the links with the Airways Inflammation Research Group, is able to offer patients access to novel mAb therapies that are not available in routine clinical practice.

The Interstitial Lung Disease program runs out of the SHC, and is the only such program in the Prairie Provinces. It is overseen by Drs. Charlene Fell and Kerri Johannson, and operates in close collaboration with Dr. Sharon LeClerc (Rheumatology) to provide cutting-edge therapies to patients with complex ILD, with or without associated connective tissue diseases.

Drs. Mody and Jarand continue to provide a unique Bronchiectasis program to serve patients with non-cystic fibrosis bronchiectasis. These patients invariably have complex medical disorders, and their optimal management is facilitated through this clinic.

Dr. Dina Fisher is the Medical Director for Tuberculosis Services in the Calgary zone, and together with Drs. Jarand and Field, they provide medical consultation at the Sunridge TB clinic. The burden of both *Mycobacterial tuberculosis* (including drug-resistant disease) as well as non-tuberculous mycobacterial diseases are increasing due to immigration and refugees from developing countries. There is a critical need to recruit additional physicians to TB services in the near term to meet this growing clinical demand.

The Lung Transplant and Pulmonary Hypertension programs run out of PLC, and Drs. Helmersen, Hirani and Thakrar provide an outstanding comprehensive service (including 24/7 call-coverage) for these complex medical patients. An increasing number of clinical trials are being performed in both programs, they have established reputations as clinical centres of excellence in their respective fields across the country.

Finally, Dr. Karen Rimmer – ably assisted by Dr. Andrea Loewen – runs the Neuromuscular and Chronic Ventilation program, which includes an outreach component providing medical services to patients in their homes by allied healthcare professionals with specialist care backup. This type of program, providing complex care via a variety of specialties (neuromuscular, sleep, ventilation) exemplifies the benefits of the AARP funding model, and are likely not sustainable in a more traditional FFS funding model.

University of Calgary

Two members of the Section, Dr. C. Mody and Dr. R. Leigh make substantial contributions to the administrative expertise of the Cumming School of Medicine as Department Heads (Mody – Department of Microbiology, Immunology and Infectious Disease; Leigh – Department of Medicine).

EDUCATION

The Calgary Adult Respiriology Training Program, under the leadership of Program Director, Dr. John Chan, is operating with full accreditation status from the Royal College of Physicians and Surgeons of Canada. The Training Program remains very popular among trainees across the country; July 2015 saw four new Fellows join the training program for the period 2015-2017 joining two fellows in the 2014 – 2016 cohort. This was the first time that the Section had 6 subspecialty trainees in the program concurrently. We attribute this popularity in the Program to the breadth of the training experience in Calgary, including the opportunity to have limited but dedicated training in Interventional Pulmonary Medicine, which is relatively unique across the country.

In addition to the post-graduate training program, the majority of Section members are heavily involved in teaching in the undergraduate medical school Course 3 (Respirology & Cardiology) at the University of Calgary. This teaching consists of formal class lectures, small group sessions, and bedside clinical teaching. Course 3 continues to be expertly coordinated and led by Dr. Naushad Hirani, along with Dr. Andrew Grant in Cardiology. Dr. Tara Lohmann is one of the course evaluation coordinators. Dr. Flemons, and colleagues within W21C have offered an elective in quality and safety for undergraduate students in Med 440 (Applied Evidence-Based Medicine). Dr. Flemons continues to chair the very successful CME certificate course in Quality and Safety Management. It is the only online course of its kind in Canada

and attracts participants from several health disciplines from across the province and several participants from out-of-province. Several GFT members are also involved in graduate student training, and in advanced, area-specific workshop development and teaching.

Awards and Promotions:

Dr. Dina Fisher was presented as the inaugural winner of the Bob Cowie Award. This award was created to recognize a mid-career member of the Section who best displays the attributes that Dr. Cowie brought to over 20 years of contributions to the Section of Respiratory Medicine including exemplary clinical skills and furthering the academic goals of the Section in education, research or administration.

Dr. Richard Leigh was appointed to the prestigious **Collegium Internationale Allergologum** by his international peers.

For the period under review, Dr Sachin Pendharkar was promoted to Associate Professor.

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

RESEARCH

The period April 1, 2015 to March 31, 2016 saw continued strength in the areas of academic activity and research within the Section of Respiratory Medicine. Members of the Section contributed to 51 peer-reviewed papers. While it is not possible to mention each report, it is worth highlighting some of these publications and grants, which demonstrate the breadth of academic productivity in the Section.

Dr. Mody's laboratory published a number of reports in 2015-2016, including one on *Cryptococcus gatti* capsule blocking surface recognition in the *Journal of Immunology*.

Dr. Sachin Pendharkar and colleagues published their conclusions in the *BMJ Quality and Safety* on research conducted as part of a CIHR grant that was obtained a few years previous on what happens when healthcare innovations collide at the time of implementation.

Drs. Field published guidelines for the treatment of unexplained cough with international colleagues who were part of the American College of Chest Physicians (ACCP) Expert Cough Panel. The guideline was published in *CHEST*.

Dr. Hanly together with colleagues from the Hotchkiss Brain Institute, Dr. Sachin Pendharkar and , along with Canadian colleagues that make up the Canadian Sleep and Circadian Network obtained a prestigious CIHR network grant of \$4,000,000.

Dr. Fisher is a member of a Canadian research coalition that obtained a CIHR Population and Public Health Foundation grant of \$1,128,500 looking at the treatment of latent TB infection and drug resistant disease.

Dr. Tremblay and colleagues obtained a grant of \$2,300,000 to evaluate Lung Cancer Screening in Alberta. Dr Tremblay also has a \$100,000 grant from the Western Canada Mesothelioma Foundation to investigate Cancer screening in asbestos exposed workers in Alberta.

Events:

A successful Retreat was held at Ghost River in March 2016, which included the Fellows Research Day, a group dinner, and a day to discuss *Medical Education*. The distinguished guests at the Retreat included two very well-known Cumming School of Medicine Medical Education Leaders, Dr. Kevin McLaughlin and Dr. Rachel Ellaway. The retreat was led by Dr. Kris Fraser.

CHALLENGES AND FUTURE DIRECTION

The Section continues to pursue an ambitious agenda of providing world class clinical expertise and care, based on innovation and clinical and translational research, along with outstanding medical education to all levels of learners. Recruitment is necessary to sustain this level of academic mandate, and opportunities for advanced fellowship training, possibly by reawakening the Clinical Scholar program, need to remain as priorities. We also need to increase the number of University Geographic Full Time members, with an immediate need for a clinician-scientist in the area of airways disease research. There is strong interest in recruiting clinician scientists with a strong background in health services research

Provision of outpatient services continues to be a pressing problem. Clinic space at three sites (FMC, RGH and PLC) continues to be challenging. More outpatient offices are needed and, at the PLC, the handling, stewardship and storage of patient charts continues to be problematic. We remain optimistic that the revamped PCAT system being led by Dr. Flemons will yield a streamlined, coordinated system for patient referral and booking across the zone.

The Section of Respiratory Medicine continues to provide a collegial and respectful working environment, with terrific collaborations between our Section and Thoracic Surgery, Chest Radiology and Lung Pathology. Collectively, we look forward to the future with enthusiasm, and anticipate that we will be able to continue to provide exemplary service and care, and meet the academic mandate of the University.

Section of Rheumatology – 2015 Annual Report

April 1, 2015 to March 31, 2016

In 1975, Dr. Douglas Kinsella established an academic rheumatic diseases unit at the Calgary General Hospital. The Section of Rheumatology flourished under his leadership and today we are the oldest section within the Department of Medicine.

The Section of Rheumatology is dedicated to providing educational and research opportunities to ensure that health care professionals have the necessary skills and information to provide the best possible patient and health system outcomes.

To support this vision, the Section of Rheumatology established the “Rheum4U” program. At the core of this program is the development of a longitudinal database which will integrate research and quality improvement in order to facilitate continuous improvement in patient care. Unique to our program is our collaboration with the Division of Pediatric Rheumatology which will allow us to follow patients from childhood into adulthood. To lead this program, we have established a Steering Committee led by the Division Heads of Adult and Pediatric Rheumatology and two co-chairs, Drs. Claire Barber and Paul MacMullan. Under their leadership, our program is well underway to meet the goals of our strategic plan and five year business plan. We are excited to announce that as a first step in implementing a process for clinical data collection, a pilot project will be launched this fall. We have been very successful in our fund raising efforts and in enlisting the support of our industry partners. We held an update session last October which was very well received and this has led to the formation of the Rheum4U Industry Advisory Council. In addition, the Division has developed a business plan and is seeking support for the development of a fulsome program of personal medicine in inflammation and arthritis for children and adults. Rheum4U is the core this multi-dimensional program.

CLINICAL

Physician Manpower/Service Sites

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

Our catchment area includes the southern half of Alberta to Red Deer, a population of over 1.6 million, and extends into southeastern British Columbia and southwestern Saskatchewan. The Section of Rheumatology currently delivers services through a multisite model. Our main sites include the Rheumatology Outpatient Clinics at the Richmond Road Diagnostic and Treatment Centre (RRDTC) and the South Health Campus (SHC). In addition, we have three community-based private office practices.

The Division recognizes that treatment of MSK diseases in the First Nations population continues to be an under-served area. To address this, Dr. Cheryl Barnabe continues to run outreach clinics in Siksika, Elbow Healing Lodge and Laverne. Dr. Mosher provides services to Morley and Drs. Martin and Le Clercq provide tele-rheumatology service to Pincher Creek. The Section also provides outreach clinics at the Calgary Urban Projects and the Southern Alberta Eye Centre.

Our collaboration with the Primary Care Networks continues to grow. We offer MSK Clinics at the Crowfoot Primary Care Clinic as well as tele-rheumatology services to 4 PCNs in Calgary (Mosaic, Calgary Foothills, Calgary West Central, and South Calgary) and the Highland, Bow Valley and Calgary Rural PCNs. We are working collaboratively with the Calgary panPCN to establish a rapid telephone advice line “Specialist Link” and to develop clinical care pathways for diseases we have agreed jointly could be managed in primary care.

The Section provides consultative services to all the hospitals in the Calgary zone on a 24 hour basis along with urgent telephone consultations from family physicians.

The Section of Rheumatology has 20 clinically active members, led by Dr. Dianne Mosher as Section Chief. Members are divided into three categories: 8 GFTs, 8 full time clinical members and 4 part-time clinical members. In addition, we have a part-time nurse practitioner (NP) who provides clinical service at the RRDTC clinics two days a week.

Dr. Corisande Baldwin joined the Section on January 1st of 2016 as a full-time major clinical member. Dr. Baldwin finished her Rheumatology training at the University of British Columbia in 2015. She has a research interest in vasculitis

and we look forward to her long career in Calgary. Drs. Claire Barber and Glen Hazlewood were promoted to academic positions within the University of Calgary in 2015. They both successfully defended their PhD theses.

The RRDTC site acts as the hub of our Section's clinical activities where 15 of our physicians provide over 35 half day clinics per week with the support of our interdisciplinary Allied Health team. In 2015, the total number of patient visits conducted by our team of physicians, nurses and Allied health team was 14,591.

At the SHC site, two full time rheumatologists provided 8.5 clinics per week with the support of 2.0 FTE nursing staff. In 2015, our SHC clinic recorded 3861 patient visits. At SHC, a "Stable RA" clinic has been established. This is a collaborative clinic where stable RA patients are assessed and seen by the clinic nurses. Evaluation of this model is underway to assess its ability to be replicated at other sites including rural sites.

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

Section Programs / Specialty Clinics

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

In 2015, we received approximately 5,798 new patient referrals to our Central Triage Program which equates to nearly 500 referrals per month. Central Triage is managed by our nurse clinician with two part time nursing staff and two unit clerks assisting.

Our goal of shorter wait times across all referral categories has led to the formation of several sub-specialty clinics within our service model. These include the Early Inflammatory Arthritis Clinic, the Ankylosing Spondylitis Clinic, the Nurse Practitioner Clinic, the Urgent Assessment Clinic, the Biologics Clinic, a Young Adults with Rheumatic Disease Clinic (YARD), a Vasculitis Clinic and a Systemic Lupus Erythematosus clinic. We are working with the Calgary panPCN to this end as well.

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

In partnership with our Pediatric Rheumatology colleagues at the Alberta Children's Hospital, the Section runs a joint YARD (Young Adults with Rheumatic Diseases) Clinic with the purpose of transitioning the care of adolescents and young adults to the adult health care system. This clinic continues to be a model to other medical disciplines that promotes continuity of care by the systematic transfer of care to an adult system.

EDUCATIONAL

The Undergraduate Medical Education program comprising of the Musculoskeletal and Skin course was once again led in the fall of 2015 by Dr. Gary Morris. Dr. Morris coordinated and scheduled both the site based and community based section members to teach the course content and small group sessions over the six week period. For all of his hard work, Dr. Morris was awarded the Gold STAR award for Undergraduate Teaching by the University of Calgary. For this upcoming fall, Dr. Paul MacMullan has taken over as UME Coordinator. Dr. Morris has done an exemplary job as UME Coordinator and we look forward to another successful UME course under Dr. MacMullan.

Dr. Chris Penney continues in his role coordinating the Section's CME and the Clinical Clerks Program. The clinical clerks continue to experience over 30 hours per week in the varied rheumatology clinics. Dr. Penney also continues to offer his weekly teaching session that is focused on the GALS screening examinations. These are open to all trainees and Allied Health staff and are aimed at improving the examination of the musculoskeletal system in patients. In May of 2015, we held our bi-annual CME event for family physicians in MSK diseases. The program was very well received, garnering excellent feedback and reviews. Our next CME event will be held in the spring of 2017. In recognition of his excellent

clinical service (over 30 years!) and dedication to educating the next generation of rheumatologists, Dr. Penney was awarded the Department of Medicine's Dr. Tom Enta Award for Clinical Excellence.

The Section of Rheumatology continues to develop a strong Post Graduate Medical Education Program. We were successful in matching three new PGY4 residents who began their training as of July 1st, 2016. We also have three residents who completed their training in 2016. We are excited to report that all three residents have expressed interest in remaining in Calgary to practice.

Notably this year, Dr. Gary Morris took over the role of Program Director from Dr. Susan Barr, who in her term as Program Director, grew our training program to the largest number of trainees we have ever had as well as successfully led the Royal College accreditation review. Dr. Morris brings with him a wealth of education experience as he was formally the Section's UME Coordinator as well as currently coordinates our weekly academic rounds.

The Rheumatology Residency Training Program held our third annual Rheumatology Residents' Bootcamp Weekend in May of 2015. Fourteen PGY1 Internal Medicine residents had the opportunity to network with rheumatologists and participate in MSK examination small groups. This program continues to be popular amongst residents who are considering Rheumatology for their subspecialty training.

Section wide activities include weekly Academic Rounds for all staff and trainees. Dr. Gary Morris continues to do an exemplary job of organizing rounds and has done so since 2007. Attesting the high quality of rounds, most of our divisional members, as well as nurses and Allied Health professionals, attend rounds on a weekly basis.

The Section acknowledges the importance of training of our Allied Health professionals in MSK conditions. In addition to supporting Allied Health Rounds coordinated by Theresa Lupton, our Central Triage nurse clinician, we provide support for our Allied Health members to attend courses and workshops.

RESEARCH

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

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

Dr. Deborah Marshall, PhD, was awarded the Arthur J. E. Child Chair in Rheumatology Research in September of 2012. She was the co-supervisor for both Dr. Glen Hazlewood and Dr. Claire Barber as they finished their PhD theses in 2015. She has been working diligently with the Division to develop Rheum4U and our vision for Precision Medicine in Inflammation and Arthritis.

Dr. Ann Clarke is in her third year as the Arthritis Society Chair in Rheumatic Diseases. Dr. Clarke has been able to establish a cohort of over 200 lupus patients in just three short years. We are delighted that Dr. Clarke has joined the Rheumatology Residency Program Committee this year as the Research Coordinator for our residents. We are confident that Dr. Clarke's vast research knowledge and experience will enrich the training of our residents. In addition to her busy clinical, research and educational responsibilities, Dr. Clarke is also the Vice Chair of Research for the Department of Medicine and the Vice Chair of Research for SLICC (Systemic Lupus International Collaborating Clinics).

Dr. Marvin Fritzler is a world renowned leader in autoimmunity research and continues to garner international recognition for his research. Dr. Fritzler was awarded a significant grant (\$390,000) this year for a research project entitled, "Autoantibodies and Neurological Disease: M-Phase phosphoprotein I."

The Division has a number of young researchers whose ever impressive portfolio of grants and awards continues to grow. Dr. Cheryl Barnabe, Dr. Glen Hazlewood and Dr. Claire Barber provide the Division with an extremely bright future in MSK research. They continue to win a number of significant awards and grants including: Best Abstract at the Canadian Rheumatology Meeting (Barber), CIHR New Investigator Awards (Barnabe, Hazlewood), CRA/TAS Clinical Investigator Award (Barnabe), CIHR Foundation Grant (Barnabe), CRA Best Clinical Researcher Award (Hazlewood) and ACR Best Oral Presentation (Hazlewood).

CHALLENGES AND FUTURE DIRECTIONS

Recruitment and retention continues to be a challenge faced by the Division of Rheumatology. Within the next few years, our Division will lose a number of members to retirement. These retiring rheumatologists currently carry very heavy clinical loads and it is incumbent upon us to recruit major clinical members to replace these retirements. One of the major issues for our Division is capacity and the long term implications of caring for patients with chronic diseases.

Rheumatology patients are our patients for life. It is important for us to look at alternative models of care in order to deal with the ever growing list of patients waiting for our services. On a positive note, we have a number of rheumatology trainees who have expressed interest in continuing their practice in Calgary after they have completed their training. We look forward to the future as our Division grows and with the establishment of the Rheum4U program, we are confident that we will be able to attract rheumatologists from all over Canada. We trust that the Department of Medicine and the Cumming School of Medicine will provide us with support and guidance required as we go forward.



Dianne Mosher, MD, FRCPC
Division Chief, Rheumatology
Cumming School of Medicine
University of Calgary

APPENDICES

Department of Medicine Strategic Plan

2015

Mission

“To be widely recognised for advancing health and wellness, attracting best doctors, leading innovation, creating technologies, and disseminating knowledge”

Vision

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

Core Principles

“Innovation – Excellence – Patient Care – Scholarship – Education Leadership
– Mentorship – Technology”

Introduction

The combined academic and Calgary Zone clinical Department of (Internal) Medicine is an integral and multifaceted component of the Healthcare system in Alberta. Our mission is to be recognised for advancing health and wellness, recruiting the best talent, leading innovation, creating technologies and disseminating knowledge. We deliver evidence-based quality clinical services to a continually growing Calgary Zone population (1.5 million currently) in acute care facilities and subspecialty ambulatory clinics across Southern Alberta.

The academic Department can trace its roots back to founding of the University of Calgary Faculty of Medicine, now the Cumming School of Medicine (CSM), in 1967. The largest Department in the CSM, it has grown to 356 primary members, 83 cross-appointed members, 106 residents (core IM residency program), and 88 residents in subspecialty (a total of 10) training programs.

Members of the Department are organised into ten specialty sections, each led by a Section Chief responsible for the delivery of both academic and clinical programs within the section. The Department's executive also includes four Vice Chairs to drive the critical mission areas: Research, Education, Strategic Affairs and Quality Assurance/Improvement. Each acute care site in the city is represented by a designated Site Chief. Faculty members are currently supported by funding from: Alberta Health's Academic Alternate Relationship Plan (AARP), Alberta Health Services, University of Calgary, Alberta Innovates- Health Solutions and conventional Fee-for-service (FFS).

The Department takes a leading role in both reshaping the traditional models of care and developing the wellness model of interdisciplinary and collaborative care. We are at the forefront in using simulation-based training programs at all levels to prepare the physicians of tomorrow for the increasingly complex healthcare needs of our patients. Our ground breaking research efforts are aimed at: a) developing new therapies for human diseases, b) best practice guidelines to facilitate knowledge translation and implementation, c) advancing medical education, and d) improving quality of care and patient safety.

The Department has grown rapidly in size and scope over the past few years. Constantly changing political, governance and economic landscapes, however, pose a significant risk of impeding our growth and future development plans. In view of these instabilities, it is imperative for the Department to move quickly to use available opportunities and seek practical solutions to our challenges. The Strategic Planning process was seen as a way to conceptualize Departmental priorities for the immediate future (next five years) in order to sustain growth and innovation; and to act as a template to minimize the effects of external forces on the Departmental mission in Calgary and throughout Southern Alberta.

Sections within the Department of Medicine



Engagement and Planning Process

A Strategic Planning process leading up to this document was conceived in the spring of 2015 and started with teaming up Department's Vice Chair for Strategic Affairs with Evaluation & Innovation Project Manager. The planning team conceptualised this as a **"Of the members, For the members, By the members"** process that was guided by the principles highlighted in the box. The consultation process involved three phases: 1) a department wide survey, 2) one-on-one interviews with key internal and external stakeholders, and 3) an external review.

Department wide survey: The survey tool was employed to provide all primary members of the department an opportunity to engage. The survey questionnaire explicitly asked respondents to list up to three Strategic Priorities for the Department, in their view, for the next five years. Of 137 participants, 92 answered the question and a total of 224 priority areas were proposed encompassing clinical care, workforce, innovations, research, education, administration and the AARP.

Stakeholder Interviews: A total of 34 internal and external stakeholders representing all constituencies (male/female, ten sections, AARP/FFS, GFT/Major Clinical, Education, new/established members) were consulted through one-on-one meetings to seek their perspectives on strengths, weaknesses, challenges and opportunities to the department. Dialogues revolved around future directions, goals and priorities for the department.

External Review: Following extensive outreach and consultation, the draft Strategic Plan was subjected to review by an External Reviewer, a senior Internal Medicine department head with extensive national experience in program review. The reviewer's visit included meetings with key individuals likely to champion the Department's Strategic Plan to

Guiding Principles

- ✓ Department's Vision, Mission and Core Principles, not subject to debate in this process, will provide foundational framework to the Strategic Planning.
- ✓ We respect Vision, Mission and Strategic Plans of the Cumming School of Medicine, the University of Calgary, and the Alberta Health Services and our Strategic Plan will be aligned with these statements.
- ✓ We commit to an inclusive Strategic Planning Process and will extensively reach out to engage all stakeholders through various means.
- ✓ We value the trust given to us by Albertans and will adhere to Transparency and Social Accountability.

discuss execution and barriers to implementation. Success of this initiative will depend on having Department members on-board with the Strategic Plan. Therefore, the external reviewer also consulted grass-root level members of the department to evaluate their engagement levels with the Strategic Plan and to suggest ways to enhance engagement. The external reviewer's final recommendations were incorporated into the final version presented here. The Strategic Plan was first introduced to the Department at the 2015 annual retreat.



Hire

Inspire

Retire

Admire

It was almost universally agreed that the Department's major strength is its "People". Faculty members include well respected clinicians, recognised researchers, skilled educators and influential leaders. As the Department continues to grow, people management will be increasingly important to ensure that its members have easy access to information, support and the resources they need for optimal performance clinically and academically.

Recruitment. The AARP, including the previous Clinical Scholar program, has enabled the Department to recruit extraordinary talent in all four pillars of medicine over the past decade. However, a crippling limitation of the AARP has been its funding uncertainty that has derailed developmental plans in the past. It is imperative for the department to have stability in the AARP to create fiscal-proof recruitment plans aligned with our strategic priorities and to remain a competitive recruiter of exceptional talent. The departmental workforce plan must optimize the balance between AARP and fee-for-service physicians to accomplish our strategic goals. The Department will advocate for a provincial AARP that includes innovation funding and local decision making over recruitment.

Alignment: CSM Finding and Keeping Excellent Faculty

Orientation. Recruitment is the start; it is vital that new recruits can "hit the ground running" on arrival (or even before). The process of on-boarding of new members is crucial to getting them settled in, feeling welcome and ready to contribute. Orientation has multiple components involving activities at the level of both Section and Department. A coordinated orientation process will give the new member all the information and most importantly, connect them to the people they need to know for success. Toward this end, a strategy to give new members a clear idea of who to go to for what should be developed between Section chiefs and the Department office team.

Alignment: CSM Professional Development at all Career Stages

Mentorship. The Department views mentoring of promising faculty members in their early career stages as an investment for the future. Our commitment to a structured mentorship program is a high priority, and is equally important for all new members regardless of their level of experience or academic rank. The mentorship program should involve more than one mentor, both internal and external to their section for each new member to cover off career development, academic and clinical affairs, navigating the system etc.

Alignment: CSM Supporting our Faculty and Enhancing their Capacity for Productivity

Succession Planning. Any sudden disruption to the community's existing pool of specialist physicians will leave a skill gap and poses a significant threat to quality patient care in terms of continuity and special expertise. Our move to a process of managed Succession Planning will help to mitigate these risks. The Department can capitalise on our retiring faculty's expertise, capacity and legacy. Retiring faculty, on the other hand, can choose end-of-career pathways to transfer their skills and knowledge and consider new ways to contribute before and after retirement.

Alignment: CSM Faculty Renewal

Communication. Department members work and provide service at multiple scattered and geographically isolated facilities in Calgary and also reach out to communities across Southern Alberta. The department is committed to create and continuously improve innovative communication streams to keep all faculty members informed, connected, and engaged, regardless of their location.

Alignment: Department's Vision



Our present health care system continues to struggle with population growth, new medical technologies, aging populations with complex clinical conditions, and increasing care demands in a challenging fiscal environment. The Department needs to work proactively to develop and evaluate new models of care provision to meet these needs and relieve the pressure on acute care facilities. Failure to do so will lead to increased wait times, clogging of the acute care system and reduced quality of care. The Department will seek the right mix of AARP and FFS resources and work with AHS and the University to provide solutions to these problems.

I**nnovation Sandbox.** In a rapidly-changing medical environment, the ability of the Department to rapidly recognize new opportunities and challenges; and to respond with innovative modifications to the types and styles of medical care provision will be vital to maintaining a lead role in provision of specialty and complex chronic medical care. In order for the Department to optimize its existing intellectual resources and to allow rapid and effective collaboration and brainstorming, the Department will move to create an “Innovation Sandbox”, an idea incubator; a virtual environment that will allow members to get together, and to involve external experts to develop innovation ideas, conceptualize solutions and generate proposals to stakeholders to move innovation ideas into practice.

Alignment: AHS Strategy for Clinical Health Research, Innovation and Analytics 2015-2020

“O**rganically” Organised Multi-specialty clinics.** How we work together is an ever-evolving theme, and we all agree that there are more efficient ways to organize ourselves to optimize access, patient flow and communication. Previous models have been somewhat prescriptive or opportunistic, and the experience from these previous experiments points toward a model of organically formed multi-specialist and allied care provider teams. Innovation around the way specialists interact with each other around patient care, education and research goes beyond a new relationship with primary care and creates synergy and efficiencies in the way we do our work. As a corollary, this type of integration of disciplines and professions mandates new paradigms for training Internists and strategically utilising alternate care providers to deliver specialised services to patients. The goal of such a specialty clustering is to enable specialists to concentrate on complex clinical care and to approach “One Stop Shopping” with multiple specialists in one place for better care coordination. The Department will support reorganization of specialist clustering from different disciplines together to foster organic groupings.

Alignment: AHS Partnering for Better Health Outcomes

Innovate a new kind of Primary Care partnership. Strategic positioning of Primary Care physicians as first point of contact for patients accessing care makes them ideal partners in delivering integrated care across the continuum from prevention to acute care. This includes the spectrum from solo practitioners to PCNs and other primary care physician networks, and includes the AMA concept of the Medical Home. The work of developing new ways for specialists to collaborate with primary care has already begun and will be expanded to involve all sections in the Department. This aligns with an AHS goal to optimize movement of clinical care into the community, and will change the role of medical specialists towards knowledge translation and to working in true multidisciplinary teams of care providers to provide specialty expertise and oversight where appropriate and direct patient care is required. It is anticipated that this can significantly reduce wait times for patients and increase direct access for primary care providers to medical specialists.

Alignment: AHS Bringing Appropriate Care to the Community

Integrated Ambulatory EMR. The department's 2015 survey revealed that while most of our physicians have access to a satisfactory inpatient Electronic Medical Record (EMR) system in acute care facilities, only 25% agreed the same was true for their ambulatory clinics. Moreover, lack of integration between EMR platforms in ambulatory and inpatient settings severely bottlenecks our efforts to improve continuity of care and importantly, limits our research opportunities. A province wide initiative, announced in April 2015, to implement a Provincial Clinical Information System is currently underway that is planned to be an integrated, accessible, comprehensive and standardised system. The Department will engage with AHS and partners to advocate for inclusion of our members into the early phases of development and implementation and to identify short-term interim solutions in view of the provincial program's proposed timelines.

Alignment: Alberta Health I-Plan



Precision medicine. The advent of accessible genomics data has rapidly opened up frontiers in applying individual genomic data to inform and optimize medical therapy for individual patients. It is clear that this will soon revolutionize the provision of medical care in many areas, and that Departments of Internal Medicine will be at the forefront of this movement. Our Department is home to over eighty Geographical Full-time members, including ten Endowed chairs and Professorships, and is well known for its high quality research and productivity. Faculty members collaborate with colleagues nationally and internationally in research programs ranging from basic science to translational research to population health research to large scale clinical trials. We are well positioned to move into the realm of Precision Medicine; each section will have areas that are amenable to work in this area, and will be able to identify and develop other areas in the future. Strategic recruitment of Department members to add to existing expertise and collaborate within the Institutes will create a critical mass of expertise in Genomics, Informatics, and Clinical Trials to develop this area of focus in Medicine. Dr. Christina Hirota is currently the Department's Personalised Medicine Project Co-ordinator, to consolidate efforts underway within various sections already pursuing Precision Medicine initiatives with the goal of supporting existing work and fostering multi-specialty collaborations.

Essential to the success of our Precision Medicine priority is the development of targeted strategies to encourage and support promising residents and early-stage faculty members into the Clinician-Scientist career path. We also need to ensure that existing Clinician-Scientists have adequate financial support in these challenging times and seek out new sources of support for them. We will synergise with the Cumming School of Medicine in developing core infrastructure: genomics and other omics platforms, bioinformatics, clinical databases, and clinical trials facilities, to advance the concept of Precision Medicine.

Alignment: CSM Pan-Institute Initiatives in Precision Medicine

Research Office. Beyond the concepts of optimizing orientation and mentoring in the Department, there is a need for a single point of contact for research activities undertaken by the Department of Medicine members. The goal of a Research Office is to act as a resource to new and existing members of the Department. The functions of the Research office are to foster research activities of all kinds, to connect members with information about research funds available (CSM, AHS, external funding), how to apply and access funding, potential collaborators, how to apply for ethics approval, internal review of applications and any other functions that lead to successful research in the Department, as well as to organize forums for dissemination of research findings, and with knowledge translation activities.

There are very few Departments of Medicine in the country who have developed such an office, and those who have are pleased with the outcomes. For many members in our

Department, similar resources may be available through the Institutes; the DOM Research Office will help Institute members connect to existing resources, and will act as our internal resource for member investigators not affiliated with an Institute.

Alignment: CSM Setting the Stage for Innovation in Research



education

The Department of Medicine remains absolutely committed to our mandate to train future generations of medical experts, scholars, educators, leaders and advocates. Department members extensively contribute to medical education at all levels, from premedical sciences, through medical undergraduate, residency and postgraduate and continuing medical education. Our Innovation efforts in all these realms have resulted in recognition of excellence in teaching, curriculum development and educational scholarship.

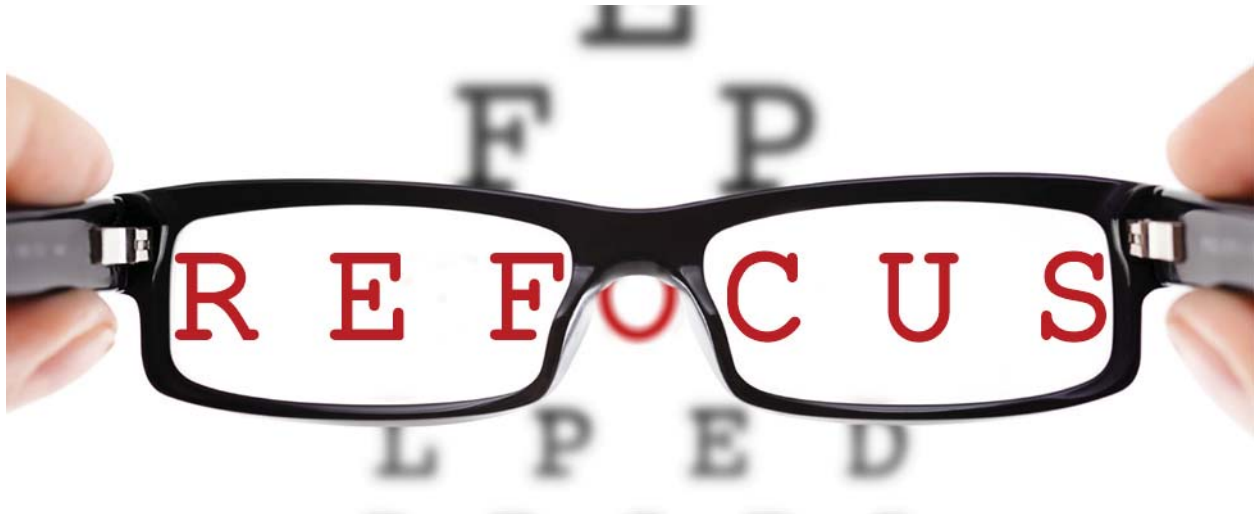
E**ducation Office.** In the current state, the Department's undergraduate, postgraduate and continuing medical education enterprises are dispersed and separately administered. Education leaders in the Department envision establishment of an "Education Office" (under the leadership of a departmental Vice Chair for Education) to coordinate all of the Department's educational activities under one aegis. Enhanced collaboration and communication through this office will allow efficient use of resources and promote scholarship and knowledge sharing of best educational practices for the benefit of trainees. This concept would facilitate the development of comprehensive education evaluation metrics and collection of robust data to support evidence-informed quality improvement in our educational programs.

E**ducation for Promotion.** Such an Education Office would also act as a hub for faculty members interested in advancing their teaching skills or education research and prepare them for success in the constantly evolving landscape of educational scholarship. The Department will advocate for education-based promotion criteria to incent educational contributions toward academic promotion at the same level as clinical, research, and administrative contributions.

L**eadership Training.** In recognition of the coming changes in the delivery of clinical care and the role of the physician leading multidisciplinary teams, the Department will create a leadership training program for our trainees and members to develop and enhance the skills they will need to be productive leaders and collaborators in the multi-disciplinary care teams of the future. This will include, but not be limited to, training in communication skills, people management, conflict resolution, human resources, finance, and medical administration. The activities of the Leadership Program will include training opportunities at the residency, fellowship and medical staff levels, including internal training courses as well as external courses through the University and external agencies including AMA and CMA. The program will explore funding opportunities to support our members in acquiring and maintaining leadership skills.

Alignment: CSM Supporting a Culture of Life-Long Learning

CSM Training the Physicians of Today to Create a Sustainable Health System
Tomorrow



Strategic Planning as practiced in the commercial realm has one goal: to maximize profit. It involves identifying areas of the organisation that are less productive and reallocation of those resources into areas that would result in increased productivity or profitability. Stakeholders were prompted to think of an element of their work that is less productive, perhaps outdated, or does not lead to improved patient outcomes, and could be given up without compromising the quality of care.

- **Pre-operative assessments:** This was raised several times as an area of intense activity that should be revisited to determine the clinical benefit, particularly in lower risk surgical scenarios. Review of the evidence, local outcome assessments, and reconsideration of the admission criteria and the role of alternate care providers should be undertaken.
- **ISA's- research component:** The AARP has been the driving force behind clinical and importantly non-clinical (research, education, and administration) enterprises in the department. Faculty members have benefited from protected time (range from 5% to 80%) under AARP for non-clinical pursuits. While low-percentage components of ISAs may be justifiable for administrative or possibly educational activities, it is unlikely that any significant amount of research can be completed with 5-10% protected time.
- **Excessive Reporting:** Accountability is an important activity for the Department. It is inconceivable that there is a rational justification for members to prepare and submit multiple accountability reports using different formats and different start/stop dates each year. Much time and energy is wasted in this unsatisfying activity. The Department should develop efficient means of data capture to expedite reporting in a single format and develop meaningful metrics to most accurately highlight individual and collective productivity.

¹ Individual Services Agreement

Strengths

- Our people
- Academic Alternative Relationship Plan (AARP)- a tool to foster all facets of Medicine
- Vast knowledge base and expertise of faculty members
- Collegial relations among members despite our diversity
- Department has immensely benefited from visionary leadership over the years
- Infrastructure support for clinical enterprises
- Internationally recognised researchers
- Cutting-edge research programs
- Highly ranked Internal Medicine residency program
- Exposure to all acute care facilities for Clerks during rotations
- Strong outreach programs in remote areas

Weaknesses

- AARP fiscal instability
- AARP accountability parameters loose
- Misalignments between manpower and operational plans, do not reflect service needs
- Mismatch between Administrative roles, honorarium and time allocation within the department; too many leaders
- Inadequate engagement with the private practice members
- Lack of Ambulatory EMR choking up clinical research initiatives
- Poor incentives for FFS members to take on non-clinical roles
- Lack of metrics to measure innovation
- Relationship of department with UCMG poorly understood

Opportunities

- Pursue organic multi-specialist ambulatory care model as opposed to traditional referral system/wait lists
- Integrate relationships with Primary Care colleagues
- Innovate community care models for chronic complex patients
- Strategic use of allied health professionals to improve care access
- Lead in improvising continuum of care to expedite flow through hospital
- Enhanced focus on CME and care pathways for Primary Care physicians
- Initiate dialogues with patients towards patient-focussed care
- Pursue strategic partnerships with Pharma in clinical research
- Lead the development towards precision medicine
- Inspire, attract and nurture young Clinicians and Clinician-Scientists
- Emphasize development of Leadership and Management skills in UME and PGME programs

Threats

- Population growth, specially ageing, increasing care demands
- Oil-dependent health budget especially inability to design budget-proof future plans
- Loss of Clinical Scholar program
- Geographical dispersion creating silos
- Limited presence of Internal Medicine specialists in Community settings
- Age polarisation of workforce due to voluntary AARP retirements
- Lack of formal succession planning protocols
- Unequal distribution of resources across acute care sites
- Unequal penetration of research at all sites
- Site tribalization

**External Review of the Department of Medicine Draft Strategic Plan 2016-2020,
University of Calgary
Dr. Graydon Meneilly, November 2015**

Introduction

It was a pleasure to review the strategic planning process of the department of medicine at the University of Calgary. I would like to thank Drs. Subrata Ghosh and Ronald Read as well as Satyam Patel for the arrangements, which were exemplary. I think the document as it currently stands is a good start and nicely captures the future of the department. I have few comments that I hope will be helpful as you flesh out the plan at your retreat.

I have had the privilege to review most of the departments in this country over the last decade, and I would like to offer a few observations before making my recommendations. First, I would say that the ARP has transformed your department. You are doing tremendously well. Clinically, you provide integrated and distributed care to the Calgary Zone in a way that is unique in the country. I am particularly impressed by the central triage system that has transformed access to care, as well as by your outreach activities to the disadvantaged populations in Calgary and surrounding communities. The quantity and quality of care continues to grow. On the education side you are fully engaged in the undergraduate curriculum to a greater extent than most other departments in the country. You have the only program in the country that has full and exemplary accreditation for its core and postgraduate programs, and the programs for simulation and mentoring are world class. In research, the amount of funding and the quality and quantity of publications increases every year, while most departments in the country remain stagnant.

I have several things for you to consider in your strategic planning process. I would anticipate that you would decide to focus on a subset of them, either because you feel that some issues are beyond your span of control or because other issues are not a top priority at the present time.

Clinical

The number 1, 2 and 3 priority for discussion should be the future of the ARP and the relationship to FFS. The ARP is what has allowed you to achieve the excellence you have. It needs to be nurtured and supported. You should explore various scenarios that include reduction, expansion and stagnation and consider how you can use the ARP creatively with FFS. For example, could you consider major clinical appointments to the ARP that are primarily FFS with a partial FTE to reflect contributions in teaching, research and service? As part of the discussion of the ARP you need to begin to set your clinical priorities and develop a workforce plan for the next 5 years as this will help you focus on how your resources can be best utilized. One patient population that could be considered as an area of focus for the future is patients with complex comorbidities. How can they best be managed in the hospital and the community in conjunction with primary care? You should also discuss the performance metrics that need to be evaluated as part of the ARP and

begin to grapple with the concept of performance assessment of practicing physicians. For example, should each member of the ARP undergo peer review every few years?

Recommendation 1: Discuss the future of the ARP including the relationship to FFS, workforce plan, clinical priorities, performance metrics and other important issues.

Although this may be beyond your span of control you need to consider the ambulatory care enterprise. How can you best advocate for an integrated outpatient EHR? How can you grapple with the challenges of clinic administrative support, assignment of space and scheduling, as well as IT issues? How do you integrate with primary care and develop more multidisciplinary specialty clinics?

Recommendation 2: Discuss issues regarding ambulatory care.

Education

I have already alluded to the excellence of your education programs. I reviewed the document from Karen Fruetel about the appointment of a Vice Chair Education and an office of education. I can tell you that the development of such an office has transformed our educational activities at UBC. Many of the things that I will mention as potential strategic issues are already addressed in the plan for the office of education. The question is whether you want to discuss these issues in detail at a departmental retreat or whether you want to have a parallel educational strategic planning process under the auspices of that office. If you are going to discuss education at your current retreat, I have the following things for you to consider.

There is a need for more opportunities for pedagogical training for young faculty with a focus on education. Although the university has a master teacher program, access to other opportunities for training including certificate and masters programs is needed and protected time to accomplish this would be helpful. There is a need for more focus in the areas of educational scholarship. Competency by design will be an area of emphasis for the training programs and needs to be addressed.

Recommendation 3: As part of this retreat or in a separate educational forum, discuss the composition and role of the educational office, opportunities for formal pedagogical training, educational scholarship and the implications of competency by design for the training programs.

The HVP program is outstanding and allows trainees exceptional opportunities to learn about the health issues of disadvantaged populations. Many trainees already do electives in settings outside Calgary. However, consideration should be given to expanding opportunities for trainees to engage not only in the HVP program, but also in rural and remote healthcare settings in Alberta and in third world countries.

Recommendation 4: Strongly consider expanding the HVP program to allow placements in rural and remote settings and third world countries.

Research

The donation to create the Cumming School of Medicine is a great gift to the Faculty of Medicine. It will allow transformational change in a way that could only be dreamed of previously. The Dean is beginning to develop the priorities for this investment. Precision medicine is part of the plan and the department is already taking important steps to align with this priority. However, the department needs to fully embrace the opportunities provided by the Cumming School. It should clearly articulate its research priorities and attempt to align them as much as possible with Cumming.

Recommendation 5: Discuss how the department can fully engage in the strategic planning process for the Cumming School and align its priorities with this process as much as possible.

Several departments around the country have developed a research office, run by a PhD. This office helps with ethics facilitation, grant support, contracts support, statistics, linkages with research institutes, and the development of novel collaborative opportunities. It is particularly valuable for young faculty and those who do not fit seamlessly into a large group.

Recommendation 6: The department should consider the formation of a research office.

Clinician Scientists are the lifeblood of an academic department of medicine, but they are an endangered species. Future funding for clinician scientists should be discussed, including opportunities through the ARP, philanthropy, and creative relationships with research institutes, foundations and funding agencies.

Recommendation 7: Discuss funding streams for the clinician scientists of the future.

Innovation

The original ARP was characterized by a unique program for innovation. Many of the outputs from this program, such as central triage, have left a lasting impact on the health zone and are unique in North America. Even though the funding for the original program has gone, every effort should be made to strategize for the content and support of the next round of innovation.

Recommendation 8: Consider methods to rejuvenate the Innovation program that characterized the early phases of the ARP.

Other

It is clear that more attention should be paid to mentoring. There should be a mentoring committee that is charged with making sure that every young faculty member has a mentor as soon as they begin their appointment. GFTs should have one mentor inside and one outside the division and major clinical's should have one mentor. These relationships need to be monitored regularly by the committee and adjusted as necessary.

Recommendation 9: Develop a more structured and formalized mentoring program.

The clinical scholars program provided a tremendous opportunity that allowed young faculty to obtain the “value added” that is required to achieve a staff position. This should be resurrected. Perhaps young trainees can be given the opportunity to perform highly remunerated clinical activity on a short term basis to help to fund this training.

Recommendation 10: Discuss how to resurrect the Clinical Scholars Program

Academic Health Science Centers and networks are the wave of the future. These networks have been transformational in some jurisdictions in regard to clinical care, teaching, research and engagement with industry. There are already significant collaborations between the northern and southern departments of medicine. Some thought should be given as how the SCNs and the University of Alberta Department of Medicine can be engaged in order to begin to develop an AHSN.

Recommendation 11: Discuss opportunities to link with the University of Alberta and SCNs as a step toward developing an AHSN.

The Department of Medicine in the Calgary Zone is far more integrated than any other department in the country. However, there has still been some tribalization of sites, and many members of the department continue to work in silos. Efforts to modify this should be discussed including increasing dual site assignment of faculty, distribution of resources and programs, and other potential solutions.

Recommendation 12: Discuss methods to reduce the silos that have developed in different sites in the Calgary Zone.

There are certain health problems that are endemic in aboriginal populations such as Diabetes, arthritis, and HIV. The department has more aboriginal internists than any other program in the country. Efforts could be made to expand the number of aboriginal internists and develop innovative programs in areas of need, as has already been done in rheumatology.

Recommendation 13: Consider increasing the number of aboriginal internists and further develop innovative care programs for diseases with a high prevalence in first nations.

The department has recruited a large number of young dynamic individuals who will be tremendous leaders in the future. There is a need for leadership development programs for young faculty, perhaps in conjunction with the Cumming School.

Recommendation 14: Discuss the development of a leadership program for young faculty.

Minor points, probably not for discussion at a retreat

The membership is frustrated by the number of activity reports that need to be filled out and efforts should be made to harmonize these activities. The new leadership structure needs to be discussed and clarified to the department as it is not readily apparent to the rank and file.

Dr. Graydon Meneilly
Head UBC Department of Medicine
Eric W. Hamber Professor

Appendix II: Scholarly Publications in 2015-16

Name	Title	Authors	Publication Date	Peer Reviewed
Dermatology				
Richard M. Haber	original research journal article			
	The utility of dermatoscopes	Richard M Haber MD, FRCPC	Apr 01, 2015	No
	Citation: Canadian Journal of Diagnosis. 2015 Apr 01;32(4):34.			
	Erratum	Richard M Haber MD, FRCPC	Apr 01, 2015	No
	Citation: Canadian Journal of Diagnosis. 2015 Apr 01;32(4):37.			
	Identification of a CAST Mutation in a Cohort Previously Misdiagnosed as Having Autosomal Recessive Pachyonychia Congenita.	Haber RM, Rose TH	Dec 03, 2015	Yes
	Citation: JAMA Dermatol. 2015 Dec 03;151(12):1393-1394.			
	Diagnostic Markers for Malignant Nevus: Best of 2015 Experts on Call. Canadian J Diagnosis 2015;Nov/Dec 32(10):41	Haber RM	Nov 01, 2015	No
	Citation: Experts on Call. Canadian J Diagnosis. 2015 Nov 01;32(10):41.			
	Complications of laser hair removal.	Haber RM	Oct 01, 2015	No
	Citation: Canadian J Diagnosis. 2015 Oct 01;32(9):24.			
	Managing Petechial Rash.	Haber RM	Oct 01, 2015	No
	Citation: Canadian J Diagnosis. 2015 Oct 01;32(9):36.			
	Haber RM. Treating genital warts	Haber RM	Sep 01, 2015	No
	Citation: Canadian J Diagnosis. 2015 Sep 01;32(8):30.			
	Dilute bleach baths for eczema	Haber RM	Jul 01, 2015	No
	Citation: Canadian J Diagnosis . 2015 Jul 01;32(7):18.			
	Halo nevus	Haber RM.	Jul 01, 2015	Yes
	Citation: Canadian J Diagnosis. 2015 Jul 01;32(7):26.			
	Lipodystrophia Centrifugalis Abdominalis Infantilis: A Case in a Vietnamese Patient.	Paluzzi D, Peters T, Haber RM	Jan 27, 2016	Yes
	Citation: J Cutan Med Surg. 2016 Jan 27.			
	Pyoblepharitis Vegetans in Association With Pyodermatitis-Pyostomatitis Vegetans:Expanding the Spectrum of a Rare, Multisystem Disorder	Dupuis EC, Haber RM, Robertson LH	Mar 01, 2016	Yes
	Citation: J Cutan Med Surg. 2016 Mar 01;20(2):163-165.			
	Malignant Potential and Seborrheic Keratosis	Haber RM	Jan 02, 2016	No
	Citation: Canadian Journal of Diagnosis. 2016 Jan 02;33(1):24.			
	Liquid Nitrogen and Peripheral Vascular Disease	Haber RM	Feb 01, 2016	No
	Citation: Canadian Journal of Diagnosis. 2016 Feb 01;33(2):22.			
	Differentiating Between Toe Nail Issues	Haber RM	Feb 01, 2016	No
	Citation: Canadian Journal of Diagnosis. 2016 Feb 01;33(2):30.			
	Suspected Basal Cell Carcinoma	Haber RM	Mar 01, 2016	No
	Citation: Canadian Journal of Diagnosis. 2016 Mar 01;33(3):19.			
Person Total:			15 publications	
review				
Fifty shades of yellow: a review of the xanthodermatoses.	Frew JW, Murrell DF, Haber RM	Oct 03, 2015	Yes	
Citation: Int J Dermatol. 2015 Oct 03;54(10):1109-23.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Mid-dermal elastolysis: A female-centric disease; case report and updated review of the literature Division of Dermatology, University of Calgary, Calgary, Alberta, Canada Received 6 March 2015, Revised 27 May 2015, Accepted 29 May 2015, Available online 26 July 2015 doi:10.1016/j.ijwd.2015.05.004	Jori Hardin, MD, MSc, Elaine Dupuis, MD, MBA, Richard M. Haber, MD, FRCPC,	Jul 26, 2015	Yes
	Citation: <i>International Journal of Women's Dermatology</i> . 2015 Jul 26;1(3):126-130.			
	Person Total:		2 publications	
P. Regine Mydlarski	abstract			
	Plasmablastic lymphoma arising in a patient with refractory pyoderma gangrenosum.	Asgarpour JM, Dupuis EC, Parsons LM and Mydlarski PR.	Jun 08, 2015	Yes
	Citation: <i>23rd World Congress of Dermatology Proceedings</i> . 2015 Jun 08.			
	Burnout in Canadian Dermatology Residents.	Shoimer I, Patten S and Mydlarski PR.	Jun 08, 2015	Yes
	Citation: <i>23rd World Congress of Dermatology Proceedings</i> . 2015 Jun 08.			
	Non-invasive strategies to prevent methotrexate-induced hepatotoxicity in dermatology.	Tran MC, Eksteen JA and Mydlarski PR.	Jun 08, 2015	Yes
	Citation: <i>23rd World Congress of Dermatology Proceedings</i> . 2015 Jun 08.			
	A microRNAome analysis of cutaneous squamous cell carcinomas.	Urban D, Kwong L, Tran JM, Bahrani B and Mydlarski PR.	Jun 08, 2015	Yes
	Citation: <i>23rd World Congress of Dermatology Proceedings</i> . 2015 Jun 08.			
	Person Total:		4 publications	
	book chapter			
	Treatment of pemphigus vulgaris. Autoimmune Bullous Diseases - Approach and Management.	Shoimer I, Wong R and Mydlarski PR.	Dec 01, 2015	Yes
	Citation: 2015 Dec 01.			
	Person Total:		1 publication	
	original research journal article			
	Incidence of melanoma in organ transplant recipients in Alberta, Canada.	Sander MA, Tran MC, Ravani P and Mydlarski PR.	Dec 01, 2015	Yes
	Citation: <i>Clinical Transplantation (under revision)</i> . 2015 Dec 01.			
Person Total:		1 publication		
	Division Total:		23 publications	
Endocrinology & Metabolism				
Bernard Corenblum				
				No
	Person Total:		0 publications	
Alun L. Edwards	abstract			
	Diabetic foot disease, self-care, and clinical monitoring in adults with type 2 diabetes: the Alberta's Caring for Diabetes (ABCD) cohort study.	Al Sayah F, Qiu W, Soprovich A, Edwards AL, Johnson JA.	Sep 20, 2015	Yes
	Citation: <i>EASD 51st Annual meeting, Stockholm, Sweden..</i> 2015 Sep 20.			
	Person Total:		1 publication	
	editorial			

Name	Title	Authors	Publication Date	Peer Reviewed
	Alberta's Caring for Diabetes Project: Engaged Scholarship Informing Quality Improvement.	Edwards AL, Noseworthy TW	Oct 03, 2015	Yes
	Citation: 2015 Oct 03.			
	Person Total:		1 publication	
	original research journal article			
	The association between sociodemographic and clinical characteristics and poor glycaemic control: a longitudinal cohort study.	McBrien KA, Manns BJ, Hemmelgarn BR, Weaver R, Edwards AL, Ivers N, Rabi D, Lewanczuk R, Braun T, Naugler C, Campbell D, Saad N, Tonelli M	Nov 05, 2015	Yes
	Citation: Diabet Med. 2015 Nov 05.			
	Prevalence and Timing of Screening and Diagnostic Testing for Gestational Diabetes Mellitus: A Population-Based Study in Alberta, Canada.	Donovan LE, Savu A, Edwards AL, Johnson JA, Kaul P	Jan 03, 2016	Yes
	Citation: Diabetes Care. 2016 Jan 03;39(1):55-60.			
	Diabetic Foot Disease, Self-Care and Clinical Monitoring in Adults with Type 2 Diabetes: The Alberta's Caring for Diabetes (ABCD) Cohort Study.	Al Sayah F, Soprovich A, Qiu W, Edwards AL, Johnson JA	Oct 03, 2015	Yes
	Citation: Can J Diabetes. 2015 Oct 03;39 Suppl 3:S120-6.			
	Introduction of a new health technology into a provincial health system: a case study of insulin pump therapy. Healthcare Management Forum (Sept) 2015 28: 210-214	Menon D, Safinski T, Nardelli A, Edwards A.	Sep 01, 2015	Yes
	Citation: Healthcare Management Forum . 2015 Sep 01;28:210-214.			
	Perceived Barriers to and Facilitators of Patient-to-Provider E-Mail in the Management of Diabetes Care. Can J Diabetes. 2015;39(6):478-83. PMID: 26409770	Popeski N, McKeen J, Khokhar B, Edwards A, Ghali WA, Sargious P, White D, Hebert M, Rabi DM.	Dec 01, 2015	Yes
	Citation: Can J Diabetes.. 2015 Dec 01;39(6):478-483.			
The association between sociodemographic and clinical characteristics and poor glycemic control: a longitudinal cohort study. Diabet Med. 2015 Nov 3. doi: 10.1111/dme.13023. [Epub ahead of print]	McBrien K, Manns B, Hemmelgarn B, Weaver RG, Edwards AL, Ivers N, Rabi DM, Lewanczuk RZ, Braun TC, Naugler C, Campbell D, Saad N, Tonelli M.	Nov 03, 2015	Yes	
Citation: Diabetic Medicine. 2015 Nov 03;4:28.				
Person Total:		6 publications		
David A. Hanley	abstract			
	Changes in Multisite Quantitative Ultrasound Speed of Sound over Five Years of Follow-Up: the Canadian Multicentre Osteoporosis Study.	Olszynski WP, Hanley DA, Davison KS, Brown JP, Adachi JD.	Apr 25, 2015	Yes
	Citation: IBMS/ECTS Joint Meeting, Rotterdam 2015. 2015 Apr 25.			
	HR-pQCT and DXA changes in bone density and microarchitecture over two years in young adults.	Hanley DA, Burt LA, Manske SL, Bhatla JL, Boyd SK.	Apr 25, 2015	No
	Citation: IBMS/ECTS Joint Meeting, Rotterdam 2015. 2015 Apr 25.			
	Person Total:		2 publications	
original research journal article				

Name	Title	Authors	Publication Date	Peer Reviewed
	Vitamin D, the autonomic nervous system, and cardiovascular risk.	Mann MC, Hollenberg MD, Hanley DA, Ahmed SB	Apr 03, 2015	Yes
	Citation: <i>Physiol Rep.</i> 2015 Apr 03;3(4).			
	Bilateral Asymmetry of Radius and Tibia Bone Macroarchitecture and Microarchitecture: A High-Resolution Peripheral Quantitative Computed Tomography Study.	Hildebrandt EM, Manske SL, Hanley DA, Boyd SK	Apr 10, 2015	Yes
	Citation: <i>J Clin Densitom.</i> 2015 Apr 10.			
	The relationship between serum 25(OH)D and bone density and microarchitecture as measured by HR-pQCT.	Boyd SK, Burt LA, Sevic LK, Hanley DA	Apr 10, 2015	Yes
	Citation: <i>Osteoporos Int.</i> 2015 Apr 10.			
Person Total:			3 publications	
Charlotte A. Jones				No
	Person Total:			
			0 publications	
David Lau	abstract			
	Early responders of liraglutide 3.0 mg from the SCALE Obesity and Prediabetes trial: efficacy and safety results.	Lau DCW, Blüher M, Hermansen K, Greenway F, Fujioka K, Claudius B, Jensen CB, Wilding JPH	May 01, 2015	Yes
	Citation: <i>Endocrine Practice.</i> 2015 May 01;21((suppl 2)):116.			
	The impact of gastrointestinal adverse events on weight loss with liraglutide 3.0 mg as adjunct to diet and exercise program.	Lean, MEJ, le Roux C, Fujioka K, Caterson ID, Lilleøre SK, Jensen, CB, Lau DCW	May 01, 2015	Yes
	Citation: <i>Endocrine Practice.</i> 2015 May 01;21((suppl 2)):118.			
	Additional analyses of the weight-lowering efficacy of liraglutide 3.0 mg in overweight and obese adults: the SCALE Obesity and Prediabetes randomized trial.	Krempf M, Astrup A, Fujioka K, Greenway F, Halpern A, Lau DCW, le Roux C, Violante Ortiz R, Wilding J, Jensen T, Svendsen CB, Pi-Sunyer X	May 06, 2015	Yes
	Citation: <i>Obesity Facts.</i> 2015 May 06;8((suppl 1)):210.			
	Liraglutide 3.0 mg reduces body weight and improves cardiometabolic risk factors in overweight/obese adults: the SCALE Obesity and Prediabetes Randomised Trial.	Lau DCW, Krempf M, Astrup A, le Roux CW, Fujioka K, Greenway F, Halpern A, Violante Ortiz R, Wilding J, Boras D, Lilleøre SK, Pi-Sunyer X	Apr 01, 2015	Yes
	Citation: <i>Can J Diabetes.</i> 2015 Apr 01;39:S48-49.			
	Additional Analyses of the Weight-lowering Efficacy of Liraglutide 3.0 mg in Overweight and Obese Adults: The SCALE Obesity and Prediabetes Randomized Trial.	Lau DCW, Krempf M, Astrup A, le Roux CW, Fujioka K, Greenway F, Halpern A, Violante Ortiz R, Wilding J, Boras D, Lilleøre SK, Pi-Sunyer X	Apr 01, 2015	Yes
	Citation: <i>Can J Diabetes.</i> 2015 Apr 01;39:S48.			
	Liraglutide 3.0 mg reduces body weight and improves HRQoL in overweight or obese adults without diabetes: SCALE Obesity and Prediabetes randomized, double-blind, placebo-controlled, 56-week trial.	Lau D, Fujioka K, Astrup A, Greenway F, Halpern A, Krempf M, le Roux CW, Violante Ortiz R, Wilding J, Wolden M, Jensen CB, Pi-Sunyer X	May 06, 2015	Yes

Name	Title	Authors	Publication Date	Peer Reviewed
	Citation: <i>Obesity Facts</i> . 2015 May 06;8((suppl 1)):185.			
	Early weight loss responders to liraglutide 3.0 mg achieve greater reversal of prediabetes than placebo in the SCALE Obesity and Prediabetes trial.	Wilding JPH, Bluher M, Hermansen K, Greenway F, Fujioka K, Claudius B, Le Lay A, Lau DCW	Jun 01, 2015	Yes
	Citation: <i>Diabetes</i> . 2015 Jun 01;64(Suppl 1):A568.			
	Person Total:		7 publications	
	original research journal article			
	Addressing conflict of interest and bias in research, education and clinical practice	Lau DCW	Jun 01, 2015	No
	Citation: <i>Can J Diabetes</i> . 2015 Jun 01;39(4):247-249.			
	Diabetes technology and devices transform the lives of people with diabetes	Lau DCW	Jun 01, 2015	No
	Citation: <i>Can J Diabetes</i> . 2015 Jun 01;39(3):174-175.			
	Recommendations for obesity management and prevention have come a long way.	Lau DCW	Apr 01, 2015	No
	Citation: <i>Can J Diabetes</i> . 2015 Apr 01;39(2):89-90.			
	A double-blinded randomized controlled trial of liraglutide for weight management.	Pi-Sunyer X, Astrup A, Fujioka K, Greenway F, Halpern A, Krempf M, Lau DCW, le Roux CW, Violante Ortiz R, Jensen CB, Wilding R.	Jun 01, 2015	Yes
	Citation: <i>New Engl J Med</i> . 2015 Jun 01.			
	Recommendations for obesity management and prevention have come a long way	Lau, DCW	Apr 01, 2015	No
	Citation: <i>Can J Diabetes</i> . 2015 Apr 01;39(2):89-90.			
	Person Total:		5 publications	
Ralf Paschke	abstract			
	Recurrent EZH1 mutations in autousom thyroid adenomas	Calebiro D, Grassi E, Eszlinger M, Ronchi C, Godbole A, Bathon K, Gelmini G, de Filippis T, Krohn K, Bircan R, Gozu H, Sancak S, Nieziela M, Strom T, Fassnacht M, Persani L, Paschke R	Oct 23, 2015	No
	Citation: <i>15th International Thyroid Congress</i> . 2015 Oct 23:479.			
	MIRNA expression differentiates mutation negative follicular thyroid carcinomas from follicular thyroid adenomas	Stokowy T, Wojtas B, Jarzab B, Krohn K, Hegedus L, Paschke R, Eszlinger M	Oct 21, 2015	No
	Citation: <i>15th International Thyroid Congress</i> . 2015 Oct 21:413.			
	Nephrotoxic Effect of a Tyrosine Kinase Inhibitor (TKI) with Anti-VEGF Receptor Activity	Paschke L, Karsay E, Lincke T, Muhlberg KS, Linder T, Paschke R	Oct 19, 2015	No
	Citation: <i>15th International Thyroid Congress</i> . 2015 Oct 19:260.			
	A full-length model of the thyrotropin receptor supported by experimental data from mass spectrometry and targeted receptor mutation	Schaarschmidt J, Nagel M, Huth S, Jaeschke H, Kalkof S, Meiler J, Paschke R	Oct 18, 2015	No
	Citation: <i>15th International Thyroid Congress</i> . 2015 Oct 18:132.			

Name	Title	Authors	Publication Date	Peer Reviewed
	Final overall survival analysis of patients with locally advanced or metastatic radioactive iodine-refractory differentiated thyroid cancer (RAI-rDTC) treated with sorafenib in the Phase 3 DECISION trial: an exploratory crossover adjustment analyses	M Brose, B Jarzab, R Elisei, L Giannetta, L Bastholt, C de la Fouchardiere, F Pacini, R Paschke, C Nutting, YK Shong, S Sherman, J Smit, J Chung, G Meinhardt, M Schlumberger, C Kappeler	Oct 11, 2015	No
	Citation: <i>European Society of Medical Oncology. 2015 Oct 11.</i>			
	Person Total:		5 publications	
	original research journal article			
	The Treatment of Well-Differentiated Thyroid Carcinoma.	Paschke R, Lincke T, Müller SP, Kreissl MC, Dralle H, Fassnacht M	Jun 28, 2015	Yes
	Citation: <i>Dtsch Arztebl Int. 2015 Jun 28;112(26):452-8.</i>			
	Molecular analysis of residual ThinPrep material from thyroid FNAs increases diagnostic sensitivity.	Krane JF, Cibas ES, Alexander EK, Paschke R, Eszlinger M	Jun 03, 2015	Yes
	Citation: <i>Cancer Cytopathol. 2015 Jun 03;123(6):356-61.</i>			
	Molecular testing of thyroid fine-needle aspirations improves presurgical diagnosis and supports the histologic identification of minimally invasive follicular thyroid carcinomas.	Eszlinger M, Piana S, Moll A, Bösenberg E, Bisagni A, Ciarrocchi A, Ragazzi M, Paschke R	Apr 03, 2015	Yes
	Citation: <i>Thyroid. 2015 Apr 03;25(4):401-9.</i>			
	Fine-needle aspiration diagnoses of noninvasive follicular variant of papillary thyroid carcinoma.	Howitt BE, Chang S, Eszlinger M, Paschke R, Drage MG, Krane JF, Barletta JA	Dec 03, 2015	No
	Citation: <i>Am J Clin Pathol. 2015 Dec 03;144(6):850-7.</i>			
	TERT Promoter Mutations in Papillary Thyroid Microcarcinomas.	de Biase D, Gandolfi G, Ragazzi M, Eszlinger M, Sancisi V, Gugnoni M, Visani M, Pession A, Casadei G, Durante C, Costante G, Bruno R, Torlontano M, Paschke R, Filetti S, Piana S, Frasoldati A, Tallini G, Ciarrocchi A	Sep 03, 2015	No
	Citation: <i>Thyroid. 2015 Sep 03;25(9):1013-9.</i>			
Laser capture microdissection is a valuable tool in the preoperative molecular screening of follicular lesions of the thyroid: an institutional experience.	Bongiovanni M, Molinari F, Eszlinger M, Paschke R, Barizzi J, Merlo E, Giovannella L, Fasolini F, Cattaneo F, Ramelli F, Mazzucchelli L, Frattini M	Oct 03, 2015	No	
Citation: <i>Cytopathology. 2015 Oct 03;26(5):288-96.</i>				
Person Total:		6 publications		
Doreen M. Rabi	original research journal article			
	Sex Versus Gender-Related Characteristics: Which Predicts Outcome After Acute Coronary Syndrome in the Young?	Pelletier R, Khan NA, Cox J, Daskalopoulou SS, Eisenberg MJ, Bacon SL, Lavoie KL, Daskupta K, Rabi D, Humphries KH, Norris CM, Thanassoulis G, Behloul H, Pilote L, GENESIS-PRAXY Investigators	Jan 21, 2016	Yes
	Citation: <i>J Am Coll Cardiol. 2016 Jan 21;67(2):127-35.</i>			

Name	Title	Authors	Publication Date	Peer Reviewed
	Plasma 3-Epi-25-Hydroxycholecalciferol Can Alter the Assessment of Vitamin D Status Using the Current Reference Ranges for Pregnant Women and Their Newborns.	Aghajafari F, Field CJ, Rabi D, Kaplan BJ, Maggiore JA, O'Beirne M, Hanley DA, Eliasziw M, Dewey D, Ross S, APron Study Team	Jan 03, 2016	Yes
Citation: <i>J Nutr.</i> 2016 Jan 03;146(1):70-5.				
	The association between sociodemographic and clinical characteristics and poor glycaemic control: a longitudinal cohort study.	McBrien KA, Manns BJ, Hemmelgarn BR, Weaver R, Edwards AL, Ivers N, Rabi D, Lewanczuk R, Braun T, Naugler C, Campbell D, Saad N, Tonelli M	Nov 05, 2015	Yes
Citation: <i>Diabet Med.</i> 2015 Nov 05.				
	Perceived Barriers to and Facilitators of Patient-to-Provider E-Mail in the Management of Diabetes Care.	Popeski N, McKeen C, Khokhar B, Edwards A, Ghali WA, Sargious P, White D, Hebert M, Rabi DM	Dec 03, 2015	Yes
Citation: <i>Can J Diabetes.</i> 2015 Dec 03;39(6):478-83.				
	Diagnostic accuracy of fine needle aspiration biopsy for detection of malignancy in pediatric thyroid nodules: protocol for a systematic review and meta-analysis.	Lai SW, Roberts DJ, Rabi DM, Winston KY	Sep 26, 2015	Yes
Citation: <i>Syst Rev.</i> 2015 Sep 26;4:120.				
	Temporal variation of diabetic ketoacidosis and hypoglycemia in adults with type 1 diabetes: A nationwide cohort study.	Butalia S, Johnson JA, Ghali WA, Southern DA, Rabi DM	Aug 26, 2015	Yes
Citation: <i>J Diabetes.</i> 2015 Aug 26.				
	Sex differences in health behavior change after premature acute coronary syndrome.	Leung Yinko SS, Maheswaran J, Pelletier R, Bacon SL, Daskalopoulou SS, Khan NA, Eisenberg MJ, Karp I, Lavoie KL, Behloul H, Pilote L, GENESIS-PRAXY investigators	Aug 03, 2015	Yes
Citation: <i>Am Heart J.</i> 2015 Aug 03;170(2):242-8.				
	Charts versus Discharge ICD-10 Coding for Sternal Wound Infection Following Coronary Artery Bypass Grafting	Southern DA, Doherty C, De Souza MA, Quan H, Harrop AR, Nickerson D, Rabi D	Jul 01, 2015	Yes
Citation: <i>Perspect Health Inf Manag.</i> 2015 Jul 01.				
	Potential factors associated with fruit and vegetable intake after premature acute coronary syndrome: a prospective cohort study	Leung Yinko SS, Pelletier R, Behloul H, Bacon SL, Karp I, Thanassoulis G, Daskalopoulou SS, Eisenberg MJ, Khan NA, Lavoie KL, Pilote L, GENESIS-PRAXY investigators	Jun 01, 2015	Yes
Citation: <i>Int J Food Sci Nutr.</i> 2015 Jun 01;2015;66(8):943-9.				

Name	Title	Authors	Publication Date	Peer Reviewed
	The 2015 Canadian Hypertension Education Program recommendations for blood pressure measurement, diagnosis, assessment of risk, prevention, and treatment of hypertension	Daskalopoulou SS, Rabi DM, Zarnke KB, Dasgupta K, Nerenberg K, Cloutier L, Gelfer M, Lamarre-Cliche M, Milot A, Bolli P, McKay DW, Tremblay G, McLean D, Tobe SW, Ruzicka M, Burns KD, Vallée M, Ramesh Prasad GV, Lebel M, Feldman RD, Selby P, Pipe A, Schiffrin EL, McFarlane PA, Oh P, Hegele RA, Khara M, Wilson TW, Brian Penner S, Burgess E, Herman RJ, Bacon SL, Rabkin SW, Gilbert RE, Campbell TS, Grover S, Honos G, Lindsay P, Hill MD, Coutts SB, Gubitz G, Campbell NR, Moe GW, Howlett JG, Boulanger JM, Prebtani A, Larochelle P, Leiter LA, Jones C, Ogilvie RI, Woo V, Kaczorowski J, Trudeau L, Petrella RJ, Hiremath S, Stone JA, Drouin D, Lavoie KL, Hamet P, Fodor G, Grégoire JC, Fournier A, Lewanczuk R, Dresser GK, Sharma M, Reid D, Benoit G, Feber J, Harris KC, Poirier L, Padwal RS	May 01, 2015	Yes
Citation: <i>Can J Cardiol.</i> 2015 May 01;31(5):549-68.				
	Systolic Blood Pressure Control Among Individuals With Type 2 Diabetes: A Comparative Effectiveness Analysis of Three Interventions.	Espeland MA, Probstfield J, Hire D, Redmon JB, Evans GW, Coday M, Lewis CE, Johnson KC, Wilmoth S, Bahnson J, Dulin MF, Green JB, Knowler WC, Kitabchi A, Murillo AL, Osei K, Rehman SU, Cushman WC, Look AHEAD Research Group, ACCORD Study Group	Aug 03, 2015	No
Citation: <i>Am J Hypertens.</i> 2015 Aug 03;28(8):995-1009.				
Person Total:			11 publications	
Ronald Sigal	abstract			
	Sarcopenic Obesity in Type 2 Diabetes: Characteristics and Responses to Exercise Training.	Terada T, Boulé N, Forhan M, Prado C, Kenny G, Prud'homme D, Sigal RJ.	Apr 28, 2015	Yes
	Citation: <i>Canadian Obesity Summit, Toronto, ON April 28-May 2, 2015.. 2015 Apr 28.</i>			
	Older Adults Experience Greater Levels of Thermal and Cardiovascular Strain During Extreme Heat Exposures.	Kenny GP, Flouris AD, Dervis S, Friesen BJ, Sigal RJ, Malcolm J, Poirier FP.	May 27, 2015	Yes
	Citation: <i>American College of Sports Medicine annual meeting, San Diego, May 27-30 2015.. 2015 May 27.</i>			
	Person Total:		2 publications	
	original research journal article			
	Body composition and energy intake - skeletal muscle mass is the strongest predictor of food intake in obese adolescents: The HEARTY trial.	Cameron JD, Sigal RJ, Kenny GP, Alberga AS, Prud'homme D, Phillips P, Doucette S, Goldfield G	Feb 10, 2016	Yes
Citation: <i>Appl Physiol Nutr Metab.</i> 2016 Feb 10:1-7.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Cardiac rehabilitation completion is associated with reduced mortality in patients with diabetes and coronary artery disease.	Armstrong MJ, Sigal RJ, Arena R, Hauer TL, Austford LD, Aggarwal S, Stone JA, Martin BJ	Apr 03, 2015	Yes
Citation: <i>Diabetologia</i> . 2015 Apr 03;58(4):691-8.				
	Effects of aerobic training, resistance training, or both on cardiorespiratory and musculoskeletal fitness in adolescents with obesity: the HEARTY trial.	Alberga AS, Prud'homme D, Sigal RJ, Goldfield GS, Hadjiyannakis S, Phillips P, Malcolm J, Ma J, Doucette S, Gougeon R, Wells GA, Kenny GP	Mar 03, 2016	Yes
Citation: <i>Appl Physiol Nutr Metab</i> . 2016 Mar 03;41(3):255-65.				
	Exercise as Medicine: Key Concepts in Discussing Physical Activity with Patients who have Type 2 Diabetes.	Armstrong MJ, Sigal RJ	Dec 03, 2015	Yes
Citation: <i>Can J Diabetes</i> . 2015 Dec 03;39 Suppl 5:S129-33.				
	Assessment of the MyWellness Key accelerometer in people with type 2 diabetes.	McGinley SK, Armstrong MJ, Khandwala F, Zanuso S, Sigal RJ	Nov 03, 2015	Yes
Citation: <i>Appl Physiol Nutr Metab</i> . 2015 Nov 03;40(11):1193-8.				
	Insulin Dose and Cardiovascular Mortality in the ACCORD Trial.	Siraj ES, Rubin DJ, Riddle MC, Miller ME, Hsu FC, Ismail-Beigi F, Chen SH, Ambrosius WT, Thomas A, Bestermann W, Buse JB, Genuth S, Joyce C, Kovacs CS, O'Connor PJ, Sigal RJ, Solomon S, ACCORD Investigators	Nov 03, 2015	Yes
Citation: <i>Diabetes Care</i> . 2015 Nov 03;38(11):2000-8.				
	Behavioral Programs for Type 2 Diabetes Mellitus: A Systematic Review and Network Meta-analysis.	Pillay J, Armstrong MJ, Butalia S, Donovan LE, Sigal RJ, Vandermeer B, Chordiya P, Dhakal S, Hartling L, Nuspl M, Featherstone R, Dryden DM	Dec 03, 2015	Yes
Citation: <i>Ann Intern Med</i> . 2015 Dec 03;163(11):848-60.				
	Behavioral Programs for Type 1 Diabetes Mellitus: A Systematic Review and Meta-analysis.	Pillay J, Armstrong MJ, Butalia S, Donovan LE, Sigal RJ, Chordiya P, Dhakal S, Vandermeer B, Hartling L, Nuspl M, Featherstone R, Dryden DM	Dec 03, 2015	Yes
Citation: <i>Ann Intern Med</i> . 2015 Dec 03;163(11):836-47.				
	Aerobic and resistance training do not influence plasma carnosinase content or activity in type 2 diabetes.	Stegen S, Sigal RJ, Kenny GP, Khandwala F, Yard B, De Heer E, Baelde H, Peersman W, Derave W	Oct 03, 2015	Yes
Citation: <i>Am J Physiol Endocrinol Metab</i> . 2015 Oct 03;309(7):E663-9.				
	Effects of aerobic training, resistance training, or both on psychological health in adolescents with obesity: The HEARTY randomized controlled trial.	Goldfield GS, Kenny GP, Alberga AS, Prud'homme D, Hadjiyannakis S, Gougeon R, Phillips P, Tulloch H, Malcolm J, Doucette S, Wells GA, Ma J, Cameron JD, Sigal RJ	Dec 03, 2015	Yes
Citation: <i>J Consult Clin Psychol</i> . 2015 Dec 03;83(6):1123-35.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Effects of aerobic and resistance training on abdominal fat, apolipoproteins and high-sensitivity C-reactive protein in adolescents with obesity: the HEARTY randomized clinical trial.	Alberga AS, Prud'homme D, Kenny GP, Goldfield GS, Hadjiyannakis S, Gougeon R, Phillips P, Malcolm J, Wells G, Doucette S, Ma J, Sigal RJ	Oct 03, 2015	Yes
Citation: <i>Int J Obes (Lond)</i> . 2015 Oct 03;39(10):1494-500.				
	Screen time is independently associated with health-related quality of life in overweight and obese adolescents.	Goldfield GS, Cameron JD, Murray M, Maras D, Wilson AL, Phillips P, Kenny GP, Hadjiyannakis S, Alberga AS, Tulloch H, Doucette S, Sigal RJ	Oct 03, 2015	Yes
Citation: <i>Acta Paediatr</i> . 2015 Oct 03;104(10):e448-54.				
	Effect of Sitagliptin on Cardiovascular Outcomes in Type 2 Diabetes.	Green JB, Bethel MA, Armstrong PW, Buse JB, Engel SS, Garg J, Josse R, Kaufman KD, Koglin J, Korn S, Lachin JM, McGuire DK, Pencina MJ, Standl E, Stein PP, Suryawanshi S, Van de Werf F, Peterson ED, Holman RR, TECOS Study Group	Jul 18, 2015	Yes
Citation: <i>N Engl J Med</i> . 2015 Jul 18;373(3):232-42.				
	Systolic Blood Pressure Control Among Individuals With Type 2 Diabetes: A Comparative Effectiveness Analysis of Three Interventions.	Espeland MA, Probstfield J, Hire D, Redmon JB, Evans GW, Coday M, Lewis CE, Johnson KC, Wilmoth S, Bahnson J, Dulin MF, Green JB, Knowler WC, Kitabchi A, Murillo AL, Osei K, Rehman SU, Cushman WC, Look AHEAD Research Group, ACCORD Study Group	Aug 03, 2015	Yes
Citation: <i>Am J Hypertens</i> . 2015 Aug 03;28(8):995-1009.				
Person Total:			14 publications	
review journal article				
	Screen Time is Independently Associated with Health-Related Quality of Life in Overweight and Obese Adolescents: A HEARTY Study.	Goldfield GS, Murray M, Maras D, Wilson AL, Phillips P, Kenny GP, Hadjiyannakis S, Alberga AS, Sigal RJ.	Oct 01, 2015	Yes
Citation: <i>Acta Paediatrica</i> . 2015 Oct 01;104(10):448-54.				
	Does Type 1 diabetes alter postexercise thermoregulatory and cardiovascular function in young adults? <i>Scand J Med Sci Sports</i> . 2015 Oct;25(5):e504-14. PMID 25487370.	McGinn R, Carter MR, Barrera-Ramirez J, Sigal RJ, Flouris AD, Kenny GP.	Oct 25, 2015	Yes
Citation: <i>Scand J Med Sci Sports</i> . 2015 Oct 25(5):504-14.				
	Behavioral programs for type 2 diabetes mellitus: a systematic review and network meta-analysis.	Pillay J, Armstrong MJ, Butalia S, Donovan L, Sigal RJ, Vandermeer B, Chordiya P, Dhakal S, Hartling L, Nuspi M, Featherstone R, Dryden DM.	Dec 01, 2015	Yes
Citation: <i>Ann Intern Med</i> . 2015 Dec 01;163(11):836-47.				
	Body temperature regulation in diabetes.	Kenny GP, Sigal RJ, McGinn R.	Jan 06, 2016	Yes
Citation: <i>Temperature</i> . 2016 Jan 06.				
Person Total:			4 publications	

Name	Title	Authors	Publication Date	Peer Reviewed	
Norman Wong C.W.	original research journal article				
	RVX-208, a BET-inhibitor for treating atherosclerotic cardiovascular disease, raises ApoA-I/HDL and represses pathways that contribute to cardiovascular disease.	Gilham D, Wasiak S, Tsujikawa LM, Halliday C, Norek K, Patel RG, Kulikowski E, Johansson J, Sweeney M, Wong NC.	Jan 22, 2016	Yes	
	Citation: Atherosclerosis. 2016 Jan 22;247:48-57. doi: 10.1016/j.atherosclerosis.2016.01.036. . 2016 Jan 22.				
	An evaluation of RVX-208 for the treatment of atherosclerosis.	Nikolic D, Rizzo M, Mikhailidis DP, Wong NC, Banach M.	Jun 01, 2015	Yes	
	Citation: Expert Opin Investig Drugs. 2015 Jun 01;2015;24(10):1389-98. doi: 10.1517/13543784.2015.1083010..				
	An evaluation of RVX-208 for the treatment of atherosclerosis	Nikolic D, Rizzo M, Mikhailidis DP, Wong NC, Banach M	Oct 01, 2015	Yes	
	Citation: Expert Opin Investig Drugs. 2015;24(10):1389-98. doi: 10.1517/13543784.2015.1083010.. 2015 Oct 01.				
Person Total:		3 publications			
Division Total:		70 publications			
Gastroenterology					
Paul Beck	abstract				
	PAR2 Activation Inhibits Epithelial Wound Healing by Affecting E-Cadherin Expression and Lamellipodia Formation.	Trusevych E, Beck PL, MacNaughton W.	Feb 19, 2016	Yes	
	Citation: Online CDDW 2016 Abstract Book. 2016 Feb 19.				
	Mycophenolate Mofetil-Induced Immunosuppression is Associated With a Wasting Phenotype, Altered Expression of Colonic Inflammatory Mediators and Reductioned Intestinal Microbial Diversity - Dissecting the Mechanisms of Gastrointestinal Dysfunction Triggered by Anti-Rejection Drugs.	Pereira S, Moffat A, Alston L, Rioux K, Beck PL, Workentine M, Greenway S, Hirota S.	Feb 19, 2016	Yes	
	Citation: Online CDDW 2016 Abstract Book. 2016 Feb 19.				
	A Prospective, Dual Center, Randomized Trial Comparing Colonoscopy Vs Capsule Delivered Fecal Microbiota Transplantation (FMT) in the Management of Recurrent Clostridium Difficile Infection (RCDI).	Kao D, Roach B, Hotte N, Silva M, Madsen K, Beck PL, Louie T.	Feb 19, 2016	Yes	
	Citation: Online CDDW 2016 Abstract Book. 2016 Feb 19.				
	Person Total:		3 publications		
	original research journal article				
	The Src kinase Fyn is protective in acute chemical-induced colitis and promotes recovery from disease.	Lopes F, Wang A, Smyth D, Reyes JL, Doering A, Schenck LP, Beck P, Waterhouse C, McKay DM	Apr 17, 2015	No	
Citation: J Leukoc Biol. 2015 Apr 17.					
Inhibiting Inducible Nitric Oxide Synthase in Enteric Glia Restores Electrogenic Ion Transport in Mice with Colitis.	MacEachern SJ, Patel BA, Keenan CM, Dicay M, Chapman K, McCafferty DM, Savidge TC, Beck PL, MacNaughton WK, Sharkey KA	Apr 11, 2015	No		
Citation: Gastroenterology. 2015 Apr 11.					
Vitamin D? metabolites enhance the NLRP3-dependent secretion of IL-1? from human THP-1 monocytic cells.	Tulk SE, Liao KC, Muruve DA, Li Y, Beck PL, MacDonald JA	May 03, 2015	No		
Citation: J Cell Biochem. 2015 May 03;116(5):711-20.					

Name	Title	Authors	Publication Date	Peer Reviewed
	Lost: Young Canadian physician-scientists need a map.	Lewinson RT, Keough MB, Beck PL, Hollenberg MD, Yipp BG	Mar 11, 2016	Yes
	Citation: <i>Sci Transl Med.</i> 2016 Mar 11;8(329):329fs6.			
	NLRP3 regulates a non-canonical platform for caspase-8 activation during epithelial cell apoptosis.	Chung H, Vilaysane A, Lau A, Stahl M, Morampudi V, Bondzi-Simpson A, Platnich JM, Bracey NA, French MC, Beck PL, Chun J, Vallance BA, Muruve DA	Feb 21, 2016	Yes
	Citation: <i>Cell Death Differ.</i> 2016 Feb 21.			
	Proceedings from the 6th Annual University of Calgary Leaders in Medicine Research Symposium.	Roberts JI, Beatty JK, Peplowski MA, Keough MB, Yipp BG, Hollenberg MD, Beck PL	Dec 06, 2015	Yes
	Citation: <i>Clin Invest Med.</i> 2015 Dec 06;38(6):E318-50.			
	Highlights from the 6th Annual University of Calgary Leaders in Medicine Research Symposium and the Keynote Address by Dr. Danuta Skowronski.	Roberts JI, Beatty JK, Peplowski MA, Keough MB, Yipp BG, Hollenberg MD, Beck PL	Dec 06, 2015	Yes
	Citation: <i>Clin Invest Med.</i> 2015 Dec 06;38(6):E314-7.			
	Gastrointestinal dysbiosis and the use of fecal microbial transplantation in <i>Clostridium difficile</i> infection.	Schenck LP, Beck PL, MacDonald JA	Nov 17, 2015	Yes
	Citation: <i>World J Gastrointest Pathophysiol.</i> 2015 Nov 17;6(4):169-80.			
	<i>Helicobacter pylori</i> Eradication in Patients with Immune Thrombocytopenic Purpura: A Review and the Role of Biogeography.	Frydman GH, Davis N, Beck PL, Fox JG	Aug 03, 2015	Yes
	Citation: <i>Helicobacter.</i> 2015 Aug 03;20(4):239-51.			
	Inhibiting Inducible Nitric Oxide Synthase in Enteric Glia Restores Electrogenic Ion Transport in Mice With Colitis.	MacEachern SJ, Patel BA, Keenan CM, Dickey M, Chapman K, McCafferty DM, Savidge TC, Beck PL, MacNaughton WK, Sharkey KA.	Aug 01, 2015	Yes
	Citation: <i>Gastroenterology.</i> 2015 Aug 01;149(2):445-55.			
	Person Total:		10 publications	
Ronald J. Bridges	review journal article			
	The association of colonoscopy quality indicators with the detection of screen-relevant lesions, adverse events and post-colonoscopy cancers in an asymptomatic Canadian colorectal cancer screening population.	Hilsden RJ., Rostom A., Dube C., Heitman S., Bridges RJ., McGregor SE., Rostom A.	May 05, 2015	Yes
	Citation: <i>Gastrointestinal Endoscopy.</i> 2015 May 05;82(5).			
	Person Total:		1 publication	
Kelly Burak	abstract			
	The Flipped Classroom improves learning of Hepatology in Undergraduate Medical Education	Burak K, McLaughlin K, Coderre S, Busche K, Raman M	Aug 01, 2015	Yes
	Citation: <i>J Gastroenterol Hepatol.</i> 2015 Aug 01;30(Suppl 3):98-99.			

Name	Title	Authors	Publication Date	Peer Reviewed
	Protein-calorie malnutrition is prevalent among cirrhotic patients awaiting liver transplant as measured by direct estimates of protein and calorie intake as well as both subjective and objective tools	Marr K, Shaheen A, Lam L, Stapleton M, Burak K, Raman M	Feb 01, 2016	Yes
Citation: <i>Can J Gastroenterol Hepatol</i> . 2016 Feb 01:A31.				
	Low testosterone levels are associated with sarcopenia in cirrhotic patients.	Tandon P, Low G, Mourtzakis M, Ma MM, Burak KW, Montano-Loza AJ.	Apr 01, 2015	Yes
Citation: <i>J Hepatol</i> . 2015 Apr 01;62(2):P0128.				
	Custom Dietary Interventions by a Multi-Disciplinary Team Improves Calorie and Protein Intake, Nutritional Status, and Is Associated With Fewer Infective Complications in Patients on the Pre-Liver Transplant List.	Marr KJ, Lam L, Schock L, Stapleton M, Burak KW, Raman M.	Apr 01, 2015	Yes
Citation: <i>Gastroenterology</i> . 2015 Apr 01;148(4):S897-S898.				
	Frailty assessment in cirrhosis – variable prevalence across screening tools.	Tandon P, Zenith L, Shaikh T, Mitchell N, Abrales JG, Carbonneau M, Burak KW, Bailey RJ, Tangri N, Ma MM.	Apr 01, 2015	Yes
Citation: <i>J Hepatol</i> . 2015 Apr 01;62(2):P0140.				
Person Total:			5 publications	
original research journal article				
	Validation of the Model of End-Stage Liver Disease for Liver Transplant Allocation in Alberta: Implications for Future Directions in Canada	Burak KW, Meeberg GA, Myers RP, Fick GH, Swain MG, Bain VG, Kneteman NM, Hilsden RJ	Jan 01, 2016	Yes
Citation: <i>Can J Gastroenterol Hepatol</i> . 2016 Jan 01;2016(2016):7 pages.				
	Making progress in the ethical treatment of medical trainees	Busche K, Burak KW, Veale P, Coderre S, McLaughlin K	Jun 20, 2015	Yes
Citation: <i>Adv Health Sci Educ Theory Pract</i> . 2015 Jun 20.				
	STAT order: Should patients with chronic liver disease be prescribed statins to prevent fibrosis progression and hepatocellular carcinoma?	Abrales JG, Burak KW	Mar 06, 2016	Yes
Citation: <i>Hepatology</i> . 2016 Mar 06.				
	Treatment outcomes with telaprevir-based therapy for HIV/hepatitis C coinfecting patients are comparable with hepatitis C monoinfected patients	O'Neil CR, Pang JX, Lee SS, Swain MG, Burak KW, Klein P, Myers RP, Kapler J, Gill MJ, Labrie M, Coffin CS	Dec 01, 2015	Yes
Citation: <i>Can J Infect Dis Med Microbiol</i> . 2015 Dec 01;26(6):293-6.				
	Validation of coding algorithms for the identification of patients hospitalized for alcoholic hepatitis using administrative data.	Pang JX, Ross E, Borman MA, Zimmer S, Kaplan GG, Heitman SJ, Swain MG, Burak KW, Quan H, Myers RP	Sep 13, 2015	Yes
Citation: <i>BMC Gastroenterol</i> . 2015 Sep 13;15:116.				
	Risk factors for mortality in patients with alcoholic hepatitis and assessment of prognostic models: A population-based study	Pang J, Ross E, Borman M, Zimmer S, Kaplan G, Heitman S, Swain M, Burak K, Quan H, Myers R	Apr 29, 2015	Yes
Citation: <i>Can J Gastroenterol Hepatol</i> . 2015 Apr 29;29(3):131-138.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Validation, current use and future directions of the Model for End-stage Liver Disease for liver transplant allocation in Canada	Burak KW, Meeberg GA, Myers RP, Fick GH, Swain MG, Bain VG, Kneteman NM, Hilsden RJ	Jun 15, 2015	Yes
	Citation: <i>Can J Gastroenterol Hepatol.</i> 2015 Jun 15.			
	Hepatocellular carcinoma (HCC): Consensus, controversies and future directions. A report from the Canadian Association for the Study of the Liver (CASL) HCC meeting	Burak KW, Sherman M	May 01, 2015	Yes
	Citation: <i>Can J Gastroenterol Hepatol.</i> 2015 May 01;29(4):178-84.			
	A phase II trial of second-line axitinib following prior antiangiogenic therapy in advanced hepatocellular carcinoma	McNamara MG, Le LW, Horgan AM, Aspinall A, Burak KW, Dhani N, Chen E, Sinaei M, Lo G, Kim TK, Rogalla P, Bathe OF, Knox JJ	May 15, 2015	Yes
	Citation: <i>Cancer.</i> 2015 May 15;121(10):1620-1627.			
Person Total:			9 publications	
Sylvain P. Coderre	original research journal article			
	The potential and conditional benefits of retrieval practice on learning	McLaughlin K, Coderre S.	Jul 01, 2015	Yes
	Citation: <i>Adv Health Sci Educ Theory Pract.</i> 2015 Jul 01.			
	Finding the middle path in tracking former patients for the purpose of learning.	McLaughlin K, Coderre S.	Jul 01, 2015	Yes
	Citation: <i>Academic Medicine.</i> 2015 Jul 01.			
	Making progress in the ethical treatment of medical trainees.	Busche K, Burak K, Veale P, Coderre S, McLaughlin K.	Jul 01, 2015	Yes
	Citation: <i>Adv Health Sci Educ Theory Pract.</i> 2015 Jul 01.			
	Working memory, reasoning, and expertise in medicine – insights into their relationship using functional neuroimaging.	Hruska P, Krigolson O, Coderre S, McLaughlin K, Cortese F, Doig C, Beran T, Wright B, Hecker K.	Jul 01, 2015	Yes
	Citation: <i>Advances in Health Sciences Education.</i> 2015 Jul 01.			
	Hemispheric activation differences in novice and expert clinicians during clinical decision making.	Hruska P, Hecker K, Coderre S, McLaughlin K, Cortese F, Doig C, Beran T, Wright B, Krigolson O.	Jul 01, 2015	Yes
	Citation: <i>Advances in Health Sciences Education..</i> 2015 Jul 01.			
	Are we at risk of groupthink in our approach to teamwork interventions in health care?	Kaba A, Wishart I, Fraser K, Coderre S, McLaughlin K.	Jul 01, 2015	Yes
	Citation: <i>Medical Education.</i> 2015 Jul 01.			
	Making progress in the ethical treatment of medical trainees.	Busche K, Burak K, Veale P, Coderre S, McLaughlin K.	Jun 22, 2015	Yes
	Citation: <i>Adv Health Sci Educ Theory Pract J.</i> 2015 Jun 22.			
Person Total:			7 publications	
Carla S. Coffin	abstract			
	Hepatitis B virus compartmentalization before and after nucleoside analog treatment	Gao, S, Duan ZP, Chen Y, Zhang J, Lee SS, van der Meer F, van Marle G, Osiowy C, Coffin CS	Nov 01, 2015	Yes
	Citation: <i>Can J Gastroenterol and Hepatol.</i> 2015 Nov 01;29(Supplement A):Abstract A177.			

Name	Title	Authors	Publication Date	Peer Reviewed
	A prospective study of 148 untreated and Tenofovir treated chronic hepatitis B (CHB) pregnant patients in Canada	Samadi Kochaksaraei G, Castillo E, Scott A, Simmonds, K, Oshiomogho JI, Lee SS, Myers RP, Martin SA, Coffin CS	Sep 01, 2015	Yes
Citation: <i>Can J Gastroenterol and Hepatol.</i> 2015 Sep 01;29(Supplement A):Abstract A184.				
	Treatment outcomes with telaprevir-based therapy for HIV/HCV-coinfected patients are comparable to HCV-monoinfected patients: A Canadian experience	O'Neil CR, Pang JXQ, Kapler J, Gill J, Lee SS, Swain MG, Klein P, Labrie M, Myers RP, Coffin, CS	Sep 01, 2015	Yes
Citation: <i>Can J Gastroenterol and Hepatol.</i> 2015 Sep 01;29(Supplement A):Abstract A189.				
	Hepatitis B mutations and chronic hepatitis B clinical outcomes during pregnancy and post-partum follow-up	Wang T, Virine B, Gao S, Oshiomogho J, Castillo E, van Marle G, Osiowy C, Coffin CS	Sep 01, 2015	Yes
Citation: <i>Can J Gastroenterol and Hepatol.</i> 2015 Sep 01;29(Supplement A):Abstract A190.				
Person Total:			4 publications	
original research journal article				
	A Prospective Study of 161 Untreated and Tenofovir Treated Chronic Hepatitis B (CHB) Pregnant Patients in Canada	Samadi Kochaksaraei G, Castillo E, Scott A, Simmonds, K, Oshiomogho JI, Lee SS, Myers RP, Martin SA, and Coffin CS	Apr 30, 2015	Yes
Citation: <i>Journal of Viral Hepatitis.</i> 2015 Apr 30;in press.				
	Hepatitis B Virus (HBV) Variants Fluctuate in Paired Plasma and Peripheral Blood Mononuclear Cells Among Patient Cohorts During Different Chronic Hepatitis B (CHB) Disease Phases	Coffin CS, Osiowy C, Gao S, Nishikawa S, van Der Meer F, van Marle G	Apr 01, 2015	Yes
Citation: <i>J Viral Hepat.</i> 2015 Apr 01;22(4):416-26.				
	Treatment outcomes with telaprevir-based therapy for HIV/HCV-coinfected patients are comparable to HCV-monoinfected patients.	O'Neil CR, Pang JXQ, Kapler J, Gill J, Lee SS, Swain MG, Klein P, Labrie M, Myers RP, Coffin, CS	Dec 31, 2015	Yes
Citation: <i>Can J Infect Dis Med Microbiol.</i> 2015 Dec 31;26(6):293-6.				
	Correction: Hepatitis B Virus (HBV) Variants in Untreated and Tenofovir Treated Chronic Hepatitis B (CHB) Patients During Pregnancy and Post-Partum Follow-up	Virine B, Osiowy C, Gao S, Wang T, Castillo E, Oshiomogho J, Lee SS, van Marle G, Coffin CS	Dec 21, 2015	Yes
Citation: <i>PLoS One.</i> 2015 Dec 21;10(12):e0145898.				
	Detection of Hepatitis B Virus (HBV) Genomes and HBV Drug Resistant Variants by Deep Sequencing Analysis of HBV Genomes in Immune Cell Subsets of HBV Mono-Infected and/or Human Immunodeficiency Virus Type-1 (HIV-1) and HBV Co-Infected Individuals	Lee Z, Nishikawa S, Gao S, Eksteen JB, Czup M, Gill MJ, Osiowy C, van der Meer F, van Marle G, Coffin CS	Sep 21, 2015	Yes
Citation: <i>PLoS One.</i> 2015 Sep 21;10(9):e0137568.				
	New paradigms in Hepatitis B management: Only diamonds are forever (LDV039)	Coffin CS, Lee SS	Sep 15, 2015	Yes
Citation: <i>Br Med Bull.</i> 2015 Sep 15;116(1):79-91.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Clinical course of 161 untreated and tenofovir-treated chronic hepatitis B pregnant patients in a low hepatitis B virus endemic region	Samadi Kochaksaraei G, Castillo E, Osman M, Simmonds K, Scott AN, Oshiomogho JI, Lee SS, Myers RP, Martin SR, Coffin CS	Jan 03, 2016	Yes
	Citation: <i>J Viral Hepat.</i> 2016 Jan 03;23(1):15-22.			
	The oral toll-like receptor-7 agonist GS-9620 in patients with chronic hepatitis B virus infection.	Gane EJ, Lim YS, Gordon SC, Visvanathan K, Sicard E, Fedorak RN, Roberts S, Massetto B, Ye Z, Pflanz S, Garrison KL, Gaggar A, Mani Subramanian G, McHutchison JG, Kottlilil S, Freilich B, Coffin CS, Cheng W, Kim YJ	Aug 03, 2015	Yes
	Citation: <i>J Hepatol.</i> 2015 Aug 03;63(2):320-8.			
	Hepatitis B Virus (HBV) Variants in Untreated and Tenofovir Treated Chronic Hepatitis B (CHB) Patients during Pregnancy and Post-Partum Follow-up	Virine B, Osiowy C, Gao S, Wang T, Castillo E, Oshiomoghoto J, Lee SS, van Marle G, Coffin CS	Oct 16, 2015	Yes
	Citation: <i>PLoS One.</i> 2015 Oct 16;10(10):e0140070.			
	Person Total:		9 publications	
	poster			
	Potent Nucleos/tide Analogs (NA) differentially affect HBV Replication and Evolution in Peripheral Blood Mononuclear Cells (PBMC) versus Liver of Chronic Hepatitis B (CHB) Carriers	Gao, S, Coffin, CS	Oct 08, 2015	Yes
	Citation: 2015 Oct 08.			
	Utility of quantitative hepatitis B surface antigen (qHBsAg) testing for predicting maternal viremia associated with HBV mother to child transmission in a multi-ethnic cohort of pregnant chronic hepatitis B (CHB) carriers in Canada	Samadi Kochaksaraei G, Charlton C, Congly SE, Matiw T, Bindra G, Castillo E, Martin SR, Coffin CS	Nov 09, 2015	Yes
	Citation: 2015 Nov 09.			
	Person Total:		2 publications	
	review journal article			
The Clinical Relevance of Hepatitis B Virus (HBV) Variants	Gao S, Duan ZP, and Coffin CS	Apr 30, 2015	Yes	
Citation: <i>World Journal of Hepatology.</i> 2015 Apr 30.				
Person Total:		1 publication		
Subrata Ghosh	abstract			
	Endoscopic assessment of mucosal healing in Crohn's Disease by Novel iSCAN Endoscopic and refined Histological gradings	Iacucci M, Fort Gasia M, Panaccione R, Kaplan G, Ghosh S, Gui X	May 18, 2015	Yes
	Citation: <i>Digestive Disease Week 2015.</i> 2015 May 18;Mo1205:357.			
	The global incidence of appendicitis: a population based North American cohort study and systematic review	Quan S, Ferris M, Tanyingoh D, Kaplan B, Molodecky N, Myers R, Ball C, Chernoff G, Ghosh S, Dixon E, Kaplan G	May 19, 2015	Yes
	Citation: <i>Digestive Disease Week 2015.</i> 2015 May 19;Tu1109:408.			

Name	Title	Authors	Publication Date	Peer Reviewed
	Treatment of infliximab or adalimumab induces suppression of circulating CD45RO (high) CD4+ T-Cells in Crohn's disease patients after 4 weeks of drug administration	Ueno A, Wilkens R, Jijon H, Deane M, Chan R, Oshiomogho J, Li J, Kaplan G, Iacucci M, Beck P, Panaccione R, Wilson S, Novak K, Ghosh S	May 19, 2015	Yes
Citation: <i>Digestive Disease Week 2015. 2015 May 19;Tu 1310:419.</i>				
	A randomized comparison of high definition colonoscopy alone with high definition dye spraying and electronic virtual chromoendoscopy using iSCAN for detection of colonic dysplastic lesions during IBD surveillance colonoscopy	Iacucci M, Fort Gasia M, Urbanski S, Parham M, Kaplan G, Panaccione R, Ghosh S	May 17, 2015	Yes
Citation: <i>Digestive Disease Week 2015. 2015 May 17;327:129.</i>				
	The TOUCHSTONE study: a randomized double-blind, placebo-controlled induction trial of an oral S1P receptor modulator (RPC1063) in moderate to severe ulcerative colitis	Sandborn W, Feagan B, Wolf D, D'Haens G, Vermeire S, Hanauer S, Ghosh S, Smith H, Cravets M, Frohna P, Gujrathi S, Olson A	May 17, 2015	Yes
Citation: <i>Digestive Disease Week 2015. 2015 May 17;445:141.</i>				
	Phase IIA, Randomized, Placebo-Controlled Evaluation of the efficacy and safety of induction therapy with eldelumab (anti-IP-10 antibody; BUS-936557) in patients with active crohn's disease	Sandborn W, Rutgeerts P, Colombel JF, Ghosh S, Petryka R, Sands B, Mitra P, Luo A	May 19, 2015	Yes
Citation: <i>Digestive Disease Week 2015. 2015 May 19;827:192.</i>				
	Acute air pollution exposure is not associated with upper gastrointestinal bleeding secondary to peptic ulcer disease: a case-crossover study	Quan S, Yang H, Hilsden R, Madsen K, Van Zanten S, Novak K, Lang E, Ghosh S, Kaplan G	May 16, 2015	Yes
Citation: <i>Digestive Disease Week 2015. 2015 May 16;Sa1094:232.</i>				
	Predictors of 3-year risk of colectomy among hospitalized patients with ulcerative colitis: a population-based study	Al-Darmaki A, Hubbard J, Seow C, Leung Y, Novak K, Ghosh S, Panaccione R, Kaplan G	May 16, 2015	Yes
Citation: <i>Digestive Disease Week. 2015 May 16;Sa1200:238.</i>				
	Durable Clinical Remission and response in adalimumab-treated patients with ulcerative colitis	Panaccione R, Colombel JF, Sandborn W, Reinisch W, D'Haens G, Hommes D, Ghosh S, Pappalardo B, Petersson J, Robinson A, Lazar A, Zhou Q, Thakkar R	May 16, 2015	Yes
Citation: <i>Digestive Disease Week 2015. 2015 May 16;Sa1229:239.</i>				
	The comparative efficacy of induction of remission for mesalamine, sulfasalazine, and budesonide for the treatment of mild to moderate crohn's disease: a bayesian network meta-analysis	Coward S, Kuenzig E, Hazlewood G, Holmes R, Panaccione R, Ghosh S, Seow C, Rezaie A, Kaplan G	May 16, 2015	Yes
Citation: <i>Digestive Disease Week 2015. 2015 May 16;Sa1255:241.</i>				
	Adalimumab serum concentration as a predictor for clinical efficacy in ulcerative colitis	Mostafa N, Robinson A, Sharma S, Sandborn W, Ghosh S, Hanauer S, Colombel JF, Thakkar R, Awni W	May 16, 2015	Yes
Citation: <i>Digestive Disease Week . 2015 May 16;Sa1265:241.</i>				

Name	Title	Authors	Publication Date	Peer Reviewed
	Early detection of clostridium difficile infection impacts disease related outcomes in patients with ulcerative colitis patients: a population bases inception cohort study	Negron M, Barkema H, Rezaie A, Rioux K, De Buck J, Checkley S, Beck P, Carroll M, Fedorak R, Dieleman L, Panaccione R, Ghosh S, Kaplan G	May 17, 2015	Yes
Citation: <i>Digestive Disease Week 2015. 2015 May 17;Su1298:302.</i>				
Person Total:			12 publications	
original research journal article				
	Post-operative mortality among patients with inflammatory bowel diseases: A systematic review and meta-analysis of population-based studies	Singh S, Al-Darmaki A, Frolkis AD, Seow CH, Leung Y, Novak KL, Ghosh S, Eksteen B, Panaccione R, Kaplan GG	Jun 15, 2015	Yes
Citation: <i>Gastroenterology. 2015 Jun 15.</i>				
	Clinic –based point of care transabdominal ultrasound for monitoring Crohn’s disease – impact on clinical decision making	Novak K, Tanyingoh D, Petersen F, Kucharzik T, Panaccione R, Ghosh S, Kaplan GG, Wilson A, Kannengeisser K, Maaser C	Jun 16, 2015	Yes
Citation: <i>J Crohn's Colitis 2015. 2015 Jun 16.</i>				
	Transperianal ultrasonography in perianal Crohn disease	Wright EK, Novak KL, Lu C, Panaccione R, Ghosh S, Wilson SR	May 21, 2015	Yes
Citation: <i>Can J Gastroenterol Hepatol . 2015 May 21.</i>				
	Optimizing the inflammatory bowel disease unit to improve quality of care: expert recommendations.	Louis E, Dotan I, Ghosh S, Mlynarsky L, Reenaers C, Schreiber S	May 18, 2015	Yes
Citation: <i>J Crohns Colitis. 2015 May 18.</i>				
	Clinic-based Point of Care Transabdominal Ultrasound for Monitoring Crohn’s Disease: Impact on Clinical Decision Making.	Novak K, Tanyingoh D, Petersen F, Kucharzik T, Panaccione R, Ghosh S, Kaplan GG, Wilson A, Kannengiesser K, Maaser C	Jun 18, 2015	Yes
Citation: <i>J Crohns Colitis. 2015 Jun 18.</i>				
	Ulcerative colitis-associated hospitalization costs: A population-based study.	Coward S, Heitman SJ, Clement F, Hubbard J, Proulx MC, Zimmer S, Panaccione R, Seow C, Leung Y, Datta I, Ghosh S, Myers R, Swain M, Kaplan GG	Jun 18, 2015	Yes
Citation: <i>Can J Gastroenterol Hepatol. 2015 Jun 18.</i>				
	Post-operative Mortality Among Patients With Inflammatory Bowel Diseases: A Systematic Review and Meta-Analysis of Population-based Studies.	Singh S, Al-Darmaki A, Frolkis AD, Seow CH, Leung Y, Novak KL, Ghosh S, Eksteen B, Panaccione R, Kaplan GG	Jun 07, 2015	Yes
Citation: <i>Gastroenterology. 2015 Jun 07.</i>				
	Transperineal ultrasonography in perianal Crohn disease: A valuable imaging modality.	Wright EK, Novak KL, Lu C, Panaccione R, Ghosh S, Wilson SR	May 23, 2015	Yes
Citation: <i>Can J Gastroenterol Hepatol. 2015 May 23.</i>				
	Optimizing the inflammatory bowel disease unit to improve quality of care: expert recommendations.	Louis E, Dotan I, Ghosh S, Mlynarsky L, Reenaers C, Schreiber S	May 20, 2015	Yes

Name	Title	Authors	Publication Date	Peer Reviewed
	Citation: <i>J Crohns Colitis</i> . 2015 May 20.			
	Complete mucosal healing defined by endoscopic Mayo subscore still demonstrates abnormalities by novel high definition colonoscopy and refined histological gradings.	Iacucci M, Fort Gasia M, Hassan C, Panaccione R, Kaplan GG, Ghosh S, Gui X	Apr 02, 2015	Yes
	Citation: <i>Endoscopy</i> . 2015 Apr 02.			
	Topical therapy in ulcerative colitis: always a bridesmaid but never a bride?	Ghosh S, Daperno M	Apr 03, 2015	Yes
	Citation: <i>Gastroenterology</i> . 2015 Apr 03;148(4):701-4.			
	Person Total:		11 publications	
	poster			
	Mucosal gene expression patterns from inflamed intestine may distinguish newly diagnosed IBD from established IBD	Hirota C, Fort Gasia M, Deane M, Bindra G, Dubeau MF, Moran G, Rabbani I, Ueno A, Panaccione R, Beck P, Kaplan G, Ghosh S	May 18, 2015	Yes
	Citation: 2015 May 18.			
	Regulation of TREM-1 and TREM-2 protein expression by Vitamin D in monocyte-derived macrophages from ulcerative colitis patients	Chan R, Hung D, Deane M, Ueno A, Fort Gasia M, Hirota C, Tom M, Iacucci M, Ghosh S	May 18, 2015	Yes
	Citation: 2015 May 18.			
	Endoscopic findings of early GVHD in GI Tract by Novel iSCAN endoscopy	Iacucci M, Fort Gasia M, Gui X, Chaudhry A, Ghosh S, Daly A	May 19, 2015	Yes
	Citation: 2015 May 19.			
	Clinical outcome of ulcerative colitis patients with complete mucosal healing but with subtle abnormalities detected by novel iSCAN endoscopic	Fort Gasia M, Gui X, Panaccione R, Kaplan G, Ghosh S, Iacucci M	May 19, 2015	Yes
	Citation: 2015 May 19.			
	To improve the evaluation of eosinophilic esophagitis by using high-definition iSCAN virtual chromoendoscopy in combination with a refined histology scoring system	Iacucci M, Fort Gasia M, Ghosh S, Gui X	May 19, 2015	Yes
	Citation: 2015 May 19.			
	Distinctive Th17 Lymphocyte Plasticity in Intestinal Lamina Propria of IBD Patients Compared With Healthy Controls	Li J, Ueno A, Fort Gasia M, Hirota C, Deane M, Chan R, Iacucci M, Kaplan G, Panaccione R, Luider J, Wang T, Tom M, Qian J, Gui X, Ghosh S	May 16, 2015	Yes
	Citation: 2015 May 16.			
	In Vitro Adalimumab Exposure Decreases ROR γ T Expressing and ROR γ T/FoxP3 Double Expressing T-Lymphocytes From Peripheral Blood of Crohn's Disease Patients: A Study of Th17 Plasticity in Response to Anti-TNF	Ueno A, Li J, Hirota C, Jijon H, Fort Gasia M, Chan R, Tom M, Kaplan G, Beck P, Panaccione R, Iacucci M, Ghosh S	May 16, 2015	Yes
	Citation: 2015 May 16.			
	1,25-Dihydroxyvitamin D3 Decreases Th1 and Tc1 Lymphocytes From the Peripheral Blood of IBD Patients and Healthy Controls Ex Vivo but Has No Effect on IL-17 or FoxP3 Expression	Tom M, Ueno A, Fort Gasia M, Chan R, Hung D, Chenoo S, Hirota C, Li A, Li J, Deane M, Iacucci M, Panaccione R, Kaplan G, Beck P, Buret A, Ghosh S	May 16, 2015	Yes

Name	Title	Authors	Publication Date	Peer Reviewed
	Citation: 2015 May 16.			
	Lamina Propria T Helper Cell Subsets Distinguish Between Ulcerative Colitis and Crohn's Disease	Li J, Ueno A, Fort Gasia M, Hirota C, Deane M, Chan R, Iacucci M, Kaplan G, Panaccione R, Luider J, Wang T, Tom M, Qian J, Gui X, Ghosh S	May 17, 2015	Yes
	Citation: 2015 May 17.			
	Cigarette Smoke Extract Differentially Affects Expression of CD11c in Monocyte-Derived Dendritic Cells in Crohn's Disease Patients With Active Versus Inactive Disease	Jijon H, Ueno A, Traves S, Chan R, Fort Gasia M, Tanyingoh D, Beck P, Kaplan G, Panaccione R, Iacucci M, Proud D, Ghosh S	May 17, 2015	Yes
	Citation: 2015 May 17.			
	Serum TNF- ? Level Changes During Pregnancy Are Associated With Timing of Delivery in IBD Patients	Leung Y, Seow C, Hirota C, Ehteshami-Afshar E, Tanyigoh D, Kaplan G, Bindra G, Beck P, Panaccione R, Ghosh S, Ueno A	May 17, 2015	Yes
	Citation: 2015 May 17.			
	Downregulation of IL-17 Related Cytokines in the Second Trimester of Pregnancy in Women With IBD Supports Pregnancy Driven Immunomodulatory Effects Involving the Th17 Pathway	Seow C, Leung Y, Hirota C, Ehteshami-Afshar E, Kaplan G, Bindra G, Beck P, Panaccione R, Ghosh S, Ueno A	May 17, 2015	Yes
	Citation: 2015 May 17.			
	The Age dependent effect of smoking on the risk of surgery for the inflammatory bowel diseases	Frolkis A, DeBruyn J, Jette N, Lowerison M, Engbers J, Lewis J, Vallerand I, Patten S, Eksteen B, Barnabe C, Panaccione R, Ghosh S, Wiebe S, Kaplan G	May 17, 2015	Yes
	Citation: 2015 May 17.			
	Patients with Crohn's disease who never smoke are more likely to carry NOD2 variants: a case-only NOD2-Smoking interaction study	Kuenzig E, Barkema H, Eksteen B, Seow C, Barnabe C, Silverberg M, Beck P, Fedorak R, Dieleman L, Madsen K, MacNaughton W, Panaccione R, Ghosh S, Kaplan G	May 17, 2015	Yes
	Citation: 2015 May 17.			
	Person Total:		14 publications	
	original research journal article			
Steven J. Heitman	Risk factors for mortality in patients with alcoholic hepatitis and assessment of prognostic models: A population-based study.	Pang JX, Ross E, Borman MA, Zimmer S, Kaplan GG, Heitman SJ, Swain MG, Burak K, Quan H, Myers RP	Apr 01, 2015	Yes
	Citation: Can J Gastroenterol Hepatol. 2015 Apr 01;29(3):131-8.			
	Incremental benefit of preoperative EUS for the detection of pancreatic neuroendocrine tumors: a meta-analysis.	James PD, Tsolakis AV, Zhang M, Belletrutti PJ, Mohamed R, Roberts DJ, Heitman SJ.	Apr 01, 2015	Yes
	Citation: Gastrointest Endosc. 2015 Apr 01;81(4):848-56.			

Name	Title	Authors	Publication Date	Peer Reviewed
	The association of colonoscopy quality indicators with the detection of screen-relevant lesions, adverse events, and postcolonoscopy cancers in an asymptomatic Canadian colorectal screening population.	Hilsen RJ, Dube C, Heitman SJ, Bridges R, McGregor SE, Rostom A.	Nov 01, 2015	Yes
	Citation: <i>Gastrointest Endosc.</i> 2015 Nov 01;82(5):887-894.			
	Biliary obstruction caused by the liver fluke, <i>Fasciola hepatica</i> .	Ishikawa I, Meier-Stephenson V, Heitman SJ.	Jan 04, 2016	Yes
	Citation: <i>CMAJ.</i> 2016 Jan 04.			
	Validation of coding algorithms for the identification of patients hospitalized for alcoholic hepatitis using administrative data.	Pang JX, Ross E, Borman MA, Zimmer S, Kaplan GG, Heitman SJ, Swain MG, Burak KW, Quan H, Myers RP.	Sep 11, 2015	Yes
	Citation: <i>BMC Gastroenterol.</i> 2015 Sep 11.			
	Ulcerative colitis-associated hospitalization costs: a population-based study.	Coward S, Heitman SJ, Clement F, Hubbard J, Proulx MC, Zimmer S, Panaccione R, Seow C, Leung Y, Datta I, Ghosh S, Myers RP, Swain M, Kaplan GG.	Oct 29, 2015	Yes
	Citation: <i>Can J Gastroenterol Hepatol.</i> . 2015 Oct 29.			
Person Total:			6 publications	
Robert J. Hilsden	abstract			
	The Impact of the Fecal Immunochemical Test on Colonoscopy Utilization and Resources at a Canadian Regional Screening Centre (Sa1040)	Hilsden RJ, McGregor SE, Bridges R, Rostom A, Dube C, Heitman SJ.	Apr 30, 2015	Yes
	Citation: <i>Gastroenterology.</i> 2015 Apr 30;148(4):Supplement 1, Page S-204.			
	Post Colonoscopy Colorectal Cancer: How Should We Calculate a Rate? Implications for Quality Programs (Mo1930)	Sadowski DC, Fitzgerald N, Flanagan WM, Hilsden RJ.	Apr 30, 2015	Yes
	Citation: <i>Gastroenterology.</i> 2015 Apr 30;148(4):Supplement 1, Page S-742.			
	Acute Air Pollution Exposure Is Not Associated With Upper Gastrointestinal Bleeding Secondary to Peptic Ulcer Disease: A Case-Crossover Study (Sa1094)	Quan D, Yang H, Hilsden RJ, Madsen K, van Zanten SV, Novak KL, Lang E, Ghosh S, Kaplan G.	Apr 30, 2015	Yes
	Citation: <i>Gastroenterology.</i> 2015 Apr 30;148(4):Supplement 1, Page S-222.			
	Predicting Colonoscopy Duration for Fecal Immunochemical Test Positive Patients Using Information Available at the Time of Referral.	Hilsden RJ, Heitman SJ, McGregor SE, Naugler C	Oct 01, 2015	Yes
	Citation: <i>Am J Gastroenterol.</i> 2015 Oct 01;110(Suppl 1):S623.			
	Non-Invasive Detection of Sessile Serrated Polyps in an Average Risk Colorectal Cancer Screening Population: Comparison of Multi-Target Stool DNA and Fecal Immunochemical Testing	Berger BM, Imperiale TF, Hilsden RJ, Aguilar H, Barclay RL, Kiesel JB, Lavin P, Ahlquist DA, Lidgard GP	May 07, 2015	Yes
	Citation: <i>Gastroenterology.</i> 2015 May 07(Suppl 1):113.			
	Person Total:			5 publications
original research journal article				
Evaluation of risk index for advanced proximal neoplasia of the colon. Gastrointestinal Endoscopy.	Ruco A, Stock D, Hilsden RJ, McGregor SE, Paszat LF, Saskin R, Rabeneck L	Jun 01, 2015	Yes	
Citation: <i>Gastrointestinal Endoscopy.</i> 2015 Jun 01;81(6):1427-32.				

Name	Title	Authors	Publication Date	Peer Reviewed	
	Validation of the Model of End-stage Liver Disease (MELD) for liver transplant allocation in Alberta: implications for future directions in Canada.	Kelly W. Burak, Glenda A Meeberg, Robert P. Myers, Gordon H. Fick, Mark G. Swain, Vincent G. Bain, Norman M. Kneteman, Robert J. Hilsden	Jun 30, 2015	Yes	
	Citation: <i>Canadian Journal of Gastroenterology and Hepatology</i> . 2015 Jun 30.				
	Validation, current use and future directions of the Model for End-stage Liver Disease for liver transplant allocation in Canada.	Burak KW, Meeberg GA, Myers RP, Fick GH, Swain MG, Bain VG, Kneteman NM, Hilsden RJ.	Jun 15, 2015	Yes	
	Citation: <i>Can J Gastroenterol Hepatol.</i> . 2015 Jun 15.				
	The association of colonoscopy quality indicators with the detection of screen-relevant lesions, adverse events, and postcolonoscopy cancers in an asymptomatic Canadian colorectal cancer screening population.	Hilsden RJ, Dube C, Heitman SJ, Bridges R, McGregor SE, Rostom A.	Nov 01, 2015	Yes	
	Citation: <i>Gastrointestinal Endoscopy</i> . 2015 Nov 01;82(5):Pages 887-894.				
	Evaluation of a clinical risk index for advanced colorectal neoplasia among a North American population of screening age. BMC Gastroenterol.	Ruco A, Stock D, Hilsden RJ, McGregor SE, Paszat LF, Saskin R, Rabeneck L	Nov 19, 2015	Yes	
	Citation: <i>BMC Gastroenterol</i> . 2015 Nov 19;15(1):162.				
	Upper gastrointestinal bleeding due to peptic ulcer disease is not associated with air pollution: a case-crossover study.	Quan S, Yang H, Tanyingoh D, Villeneuve PJ, Stieb DM, Johnson M, Hilsden R, Madsen K, van Zanten SV, Novak K, Lang E, Ghosh S, Kaplan G.	Oct 14, 2015	Yes	
	Citation: <i>BMC Gastroenterol.</i> . 2015 Oct 14;15(131).				
Person Total:			6 publications		
Gilaad G. Kaplan	editorial				
	Editorial: Smoking Cessation for Crohn's Disease: Clearing the Haze.	Kaplan GG	Mar 03, 2016	No	
	Citation: 2016 Mar 03.				
	The Changing Landscape of Inflammatory Bowel Disease: East Meets West.	Kaplan GG, Jess T	Jan 03, 2016	No	
	Citation: 2016 Jan 03.				
	Airway diseases and inflammatory bowel diseases: is it something in the air (pollution)?	Hirota JA, Carlsten C, Sadatsafavi M, Kaplan G, Hirota SA	Jul 03, 2015	No	
	Citation: 2015 Jul 03.				
	Person Total:			3 publications	
	original research journal article				
	Accounting for spatial effects in land use regression for air pollution modelling.	S Bertazzon, M Johnson, K Eccles, GG Kaplan	Oct 01, 2015	Yes	
Citation: <i>Spatial and Spatio-temporal Epidemiology</i> . 2015 Oct 01;14-15:9-21.					
Long-term outcomes of colectomy surgery among patients with ulcerative colitis	C Brown, PR Gibson, A Hart, GG Kaplan, S Kachroo, Q Ding, E Hautamaki, T Fan, CM Black, X Hu, K Beusterien	Oct 05, 2015	Yes		
Citation: <i>Springer Plus</i> . 2015 Oct 05;4:573.					

Name	Title	Authors	Publication Date	Peer Reviewed
	Clostridium difficile associated risk of death score (CARDS): a novel severity score to predict mortality among hospitalised patients with C. difficile infection.	Kassam Z, Cribb Fabersunne C, Smith MB, Alm EJ, Kaplan GG, Nguyen GC, Ananthakrishnan AN	Mar 03, 2016	Yes
Citation: <i>Aliment Pharmacol Ther.</i> 2016 Mar 03;43(6):725-33.				
	Immunogenicity of Influenza Vaccine for Patients with Inflammatory Bowel Disease on Maintenance Infliximab Therapy: A Randomized Trial.	deBruyn J, Fonseca K, Ghosh S, Panaccione R, Gasia MF, Ueno A, Kaplan GG, Seow CH, Wrobel I	Mar 03, 2016	Yes
Citation: <i>Inflamm Bowel Dis.</i> 2016 Mar 03;22(3):638-47.				
	A comparison of outcomes between laparoscopic and open appendectomy in Canada.	Blackmore C, Tanyingo D, Kaplan GG, Dixon E, MacLean AR, Ball CG	Dec 03, 2015	Yes
Citation: <i>Can J Surg.</i> 2015 Dec 03;58(6):431-2.				
	Global Birth Prevalence of Spina Bifida by Folic Acid Fortification Status: A Systematic Review and Meta-Analysis.	Atta CA, Fiest KM, Frolkis AD, Jette N, Pringsheim T, St Germaine-Smith C, Rajapakse T, Kaplan GG, Metcalfe A	Jan 03, 2016	Yes
Citation: <i>Am J Public Health.</i> 2016 Jan 03;106(1):e24-34.				
	Methods of defining hypertension in electronic medical records: validation against national survey data.	Peng M, Chen G, Kaplan GG, Lix LM, Drummond N, Lucyk K, Garies S, Lowerison M, Weibe S, Quan H	Nov 06, 2015	No
Citation: <i>J Public Health (Oxf).</i> 2015 Nov 06.				
	Characterization of Intestinal Microbiota in Ulcerative Colitis Patients with and without Primary Sclerosing Cholangitis.	Kevans D, Tyler AD, Holm K, Jørgensen KK, Vatn MH, Karlsen TH, Kaplan GG, Eksteen B, Gevers D, Hov JR, Silverberg MS	Mar 03, 2016	Yes
Citation: <i>J Crohns Colitis.</i> 2016 Mar 03;10(3):330-7.				
	Point-of-care ultrasound accurately distinguishes inflammatory from noninflammatory disease in patients presenting with abdominal pain and diarrhea.	Novak KL, Jacob D, Kaplan G, Boyce E, Ghosh S, Ma I, Lu C, Wilson S, Panaccione R	Nov 04, 2015	Yes
Citation: <i>Can J Gastroenterol Hepatol.</i> 2015 Nov 04.				
	Upper gastrointestinal bleeding due to peptic ulcer disease is not associated with air pollution: a case-crossover study.	Quan S, Yang H, Tanyingoh D, Villeneuve PJ, Stieb DM, Johnson M, Hilsden R, Madsen K, van Zanten SV, Novak K, Lang E, Ghosh S, Kaplan GG	Oct 16, 2015	Yes
Citation: <i>BMC Gastroenterol.</i> 2015 Oct 16;15:131.				
	Validation of coding algorithms for the identification of patients hospitalized for alcoholic hepatitis using administrative data.	Pang JX, Ross E, Borman MA, Zimmer S, Kaplan GG, Heitman SJ, Swain MG, Burak KW, Quan H, Myers RP	Sep 13, 2015	Yes
Citation: <i>BMC Gastroenterol.</i> 2015 Sep 13;15:116.				
	Clinical predictors of thiopurine-related adverse events in Crohn's disease.	Moran GW, Dubeau MF, Kaplan GG, Yang H, Eksteen B, Ghosh S, Panaccione R	Jul 09, 2015	Yes
Citation: <i>World J Gastroenterol.</i> 2015 Jul 09;21(25):7795-804.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Effects of Concomitant Immunomodulator Therapy on Efficacy and Safety of Anti-Tumor Necrosis Factor Therapy for Crohn's Disease: A Meta-analysis of Placebo-controlled Trials.	Jones JL, Kaplan GG, Peyrin-Biroulet L, Baidoo L, Devlin S, Melmed GY, Tanyingoh D, Raffals L, Irving P, Kozuch P, Sparrow M, Velayos F, Bressler B, Cheifetz A, Colombel JF, Siegel CA	Dec 03, 2015	Yes
Citation: <i>Clin Gastroenterol Hepatol.</i> 2015 Dec 03;13(13):2233-40.e1-2; quiz e177-8.				
	Clinic-based Point of Care Transabdominal Ultrasound for Monitoring Crohn's Disease: Impact on Clinical Decision Making.	Novak K, Tanyingoh D, Petersen F, Kucharzik T, Panaccione R, Ghosh S, Kaplan GG, Wilson A, Kannengiesser K, Maaser C	Sep 03, 2015	Yes
Citation: <i>J Crohns Colitis.</i> 2015 Sep 03;9(9):795-801.				
	Ulcerative colitis-associated hospitalization costs: a population-based study.	Coward S, Heitman SJ, Clement F, Hubbard J, Proulx MC, Zimmer S, Panaccione R, Seow C, Leung Y, Datta I, Ghosh S, Myers RP, Swain M, Kaplan GG	Oct 03, 2015	Yes
Citation: <i>Can J Gastroenterol Hepatol.</i> 2015 Oct 03;29(7):357-62.				
	Postoperative Mortality Among Patients With Inflammatory Bowel Diseases: A Systematic Review and Meta-analysis of Population-Based Studies.	Singh S, Al-Darmaki A, Frolkis AD, Seow CH, Leung Y, Novak KL, Ghosh S, Eksteen B, Panaccione R, Kaplan GG	Oct 03, 2015	Yes
Citation: <i>Gastroenterology.</i> 2015 Oct 03;149(4):928-37.				
	Fine particulate air pollution, nitrogen dioxide, and systemic autoimmune rheumatic disease in Calgary, Alberta.	Bernatsky S, Smargiassi A, Johnson M, Kaplan GG, Barnabe C, Svenson L, Brand A, Bertazzon S, Hudson M, Clarke AE, Fortin PR, Edworthy S, Bélisle P, Joseph L	Jul 03, 2015	Yes
Citation: <i>Environ Res.</i> 2015 Jul 03;140:474-8.				
	Complete mucosal healing defined by endoscopic Mayo subscore still demonstrates abnormalities by novel high definition colonoscopy and refined histological gradings.	Iacucci M, Fort Gasia M, Hassan C, Panaccione R, Kaplan GG, Ghosh S, Gui X	Aug 03, 2015	Yes
Citation: <i>Endoscopy.</i> 2015 Aug 03;47(8):726-34.				
Person Total:			18 publications	
review				
	The global burden of IBD: from 2015 to 2025.	Kaplan GG	Dec 03, 2015	Yes
Citation: <i>Nat Rev Gastroenterol Hepatol.</i> 2015 Dec 03;12(12):720-7.				
Person Total:			1 publication	
book chapter				
Samuel S. Lee	New paradigms in Hepatitis B therapy: only diamonds are forever.	Coffin CS, Lee SS	Jul 01, 2015	No
Citation: 2015 Jul 01.				
	Disordered central neural regulation of the cardiovascular system in liver failure.	Liu H, Almutlaq L, Lee SS	Jul 01, 2015	No
Citation: 2015 Jul 01.				
Person Total:			2 publications	
original research journal article				

Name	Title	Authors	Publication Date	Peer Reviewed
	Boceprevir and peginterferon ?-2b plus ribavirin therapy of HCV genotype 3 relapsers: A pilot study.	Lee SS, Kilvert L, Liu H, Trepanier J	Mar 03, 2016	No
Citation: <i>Dig Liver Dis.</i> 2016 Mar 03;48(3):344.				
	Clinical course of 161 untreated and tenofovir-treated chronic hepatitis B pregnant patients in a low hepatitis B virus endemic region.	Samadi Kochaksaraei G, Castillo E, Osman M, Simmonds K, Scott AN, Oshiomogho JI, Lee SS, Myers RP, Martin SR, Coffin CS	Jan 03, 2016	No
Citation: <i>J Viral Hepat.</i> 2016 Jan 03;23(1):15-22.				
	Blunted cardiac response to hemorrhage in cirrhotic rats is mediated by local macrophage-released endocannabinoids	Gaskari SA, Liu H, d'Mello C, Kunos G, Lee SS	Jul 01, 2015	No
Citation: <i>J Hepatol.</i> 2015 Jul 01.				
	Diagnosis and management of acute kidney injury in patients with cirrhosis: revised consensus recommendations of the International Club of Ascites.	Angeli P, Gines P, Wong F, Bernardi M, Boyer TD, Gerbes A, Moreau R, Jalan R, Sarin SK, Piano S, Moore K, Lee SS	Jul 01, 2015	No
Citation: <i>Gut (in press).</i> 2015 Jul 01.				
	Fixed-dose combination therapy with daclatasvir, asunaprevir, and beclabuvir for noncirrhotic patients with HCV genotype 1 infection.	Poordad F, Sievert W, Mollison L, Bennett M, Tse E, Bräu N, Levin J, Sepe T, Lee SS, Angus P, Conway B, Pol S, Boyer N, Bronowicki JP, Jacobson I, Muir AJ, Reddy KR, Tam E, Ortiz-Lasanta G, de Lédinghen V, Sulkowski M, Boparai N, McPhee F, Hughes E, Swenson ES, Yin PD, UNITY-1 Study Group	May 07, 2015	Yes
Citation: <i>JAMA.</i> 2015 May 07;313(17):1728-35.				
	Blunted cardiac response to hemorrhage in cirrhotic rats is mediated by local macrophage-released endocannabinoids.	Gaskari SA, Liu H, D'Mello C, Kunos G, Lee SS	Jun 03, 2015	Yes
Citation: <i>J Hepatol.</i> 2015 Jun 03;62(6):1272-7.				
	Diagnosis and management of acute kidney injury in patients with cirrhosis: revised consensus recommendations of the International Club of Ascites.	Angeli P, Ginès P, Wong F, Bernardi M, Boyer TD, Gerbes A, Moreau R, Jalan R, Sarin SK, Piano S, Moore K, Lee SS, Durand F, Salerno F, Caraceni P, Kim WR, Arroyo V, Garcia-Tsao G	Apr 03, 2015	Yes
Citation: <i>J Hepatol.</i> 2015 Apr 03;62(4):968-74.				
	Diagnosis and management of acute kidney injury in patients with cirrhosis: revised consensus recommendations of the International Club of Ascites.	Angeli P, Gines P, Wong F, Bernardi M, Boyer TD, Gerbes A, Moreau R, Jalan R, Sarin SK, Piano S, Moore K, Lee SS, Durand F, Salerno F, Caraceni P, Kim WR, Arroyo V, Garcia-Tsao G, International Club of Ascites	Apr 03, 2015	Yes
Citation: <i>Gut.</i> 2015 Apr 03;64(4):531-7.				
Person Total:			8 publications	

Name	Title	Authors	Publication Date	Peer Reviewed
Robert P. Myers	original research journal article			
	Noninvasive methods, including transient elastography, for the detection of liver disease in adults with cystic fibrosis	Sadler MD, Crotty P, Fatovich L, Wilson S, Rabin HR, Myers RP	Apr 03, 2015	Yes
	Citation: <i>Can J Gastroenterol Hepatol.</i> 2015 Apr 03;29(3):139-44.			
	Risk factors for mortality in patients with alcoholic hepatitis and assessment of prognostic models: A population-based study	Pang JX, Ross E, Borman MA, Zimmer S, Kaplan GG, Heitman SJ, Swain MG, Burak K, Quan H, Myers RP	Apr 03, 2015	Yes
	Citation: <i>Can J Gastroenterol Hepatol.</i> 2015 Apr 03;29(3):131-8.			
	Person Total:		2 publications	
Remo Panaccione	abstract			
	Inflammatory Bowel Diseases Patients Are At Lower Risk Of Acute Coronary Syndrome.	Shaheen A, Ma C, Panaccione R, Seow CH, Novak KL, Ghosh S, Stapleton MP, Kaplan GG.	Feb 19, 2016	Yes
	Citation: <i>Online CDDW 2016 Abstract Book.</i> 2016 Feb 19.			
	The Rising Burden of Inflammatory Bowel Disease in North America From 2015 to 2025: A Predictive Model.	Coward S, Clement F, Williamson T, Molodecky N, Hazlewood G, McBrien K, Ng S, Heitman S, Seow CH, Panaccione R, Ghosh S, Kaplan GG.	Feb 19, 2016	Yes
	Citation: <i>Online CDDW 2016 Abstract Book.</i> 2016 Feb 19.			
	The Interaction Between NOD2 and Smoking is Specific to the 1007FS SNP of the NOD2 Gene in Crohn's Disease: A Systematic Review and Meta-Analysis.	Kuenzig E, Eksteen B, Barkema HW, Seow CH, Barnabe C, Silverberg M, Lakatos P, Panaccione R, Ghosh S, Kaplan GG.	Feb 19, 2016	Yes
	Citation: <i>Online CDDW 2016 Abstract Book.</i> 2016 Feb 19.			
	Validation of Administrative Data for Capturing Crohn's Disease Patients Requiring Surgical Bowel Resection.	Ma C, Panaccione R, Moran G, Benchimol E, Seow CH, Leung Y, Novak KL, Iacucci M, Ghosh S, Kaplan GG.	Feb 19, 2016	Yes
	Citation: <i>Online CDDW 2016 Abstract Book.</i> 2016 Feb 19.			
	Canadian Patient And Caregiver Perspectives on Subsequent Entry Biologics For Inflammatory Bowel Disease.	Attara G, Bailey R, Bressler B, Marshall J, Panaccione R, Aumais G.	Feb 19, 2016	Yes
	Citation: <i>Online CDDW 2016 Abstract Book.</i> 2016 Feb 19.			
	Person Total:		5 publications	
	original research journal article			
	Complete mucosal healing defined by endoscopic Mayo subscore still demonstrates abnormalities by novel high definition colonoscopy and refined histological gradings.	Iacucci M, Fort Gasia M, Hassan C, Panaccione R, Kaplan GG, Ghosh S, Gui X	Apr 02, 2015	Yes
	Citation: <i>Endoscopy.</i> 2015 Apr 02.			
	Clinical practice guidelines for the medical management of nonhospitalized ulcerative colitis: the toronto consensus.	Bressler B, Marshall JK, Bernstein CN, Bitton A, Jones J, Leontiadis GI, Panaccione R, Steinhart AH, Tse F, Feagan B, Toronto Ulcerative Colitis Consensus Group	May 03, 2015	Yes
	Citation: <i>Gastroenterology.</i> 2015 May 03;148(5):1035-1058.e3.			

Name	Title	Authors	Publication Date	Peer Reviewed
	The Probiotic VSL#3 Has Anti-inflammatory Effects and Could Reduce Endoscopic Recurrence After Surgery for Crohn's Disease.	Fedorak RN, Feagan BG, Hotte N, Leddin D, Dieleman LA, Petrunia DM, Enns R, Bitton A, Chiba N, Paré P, Rostom A, Marshall J, Depew W, Bernstein CN, Panaccione R, Aumais G, Steinhart AH, Cockeram A, Bailey RJ, Gionchetti P, Wong C, Madsen K	May 03, 2015	Yes
Citation: <i>Clin Gastroenterol Hepatol.</i> 2015 May 03;13(5):928-935.e2.				
	Vedolizumab for the Treatment of Ulcerative Colitis.	Shahidi N, Bressler B, Panaccione R	Dec 09, 2015	Yes
Citation: <i>Exper Opin Biol Ther.</i> 2015 Dec 09;16(1):129-35.				
	Transperineal Ultrasonography in Perianal Crohn's Disease.	Wright EK, Novak KL, Lu C, Panaccione R, Ghosh S, Wilson Sr.	Nov 01, 2015	Yes
Citation: <i>Can J Gastroenterol Hepatol.</i> 2015 Nov 01;29(8):445-7.				
	Complete Mucosal Healing Defined by Endoscopic Mayo Subscore Still Demonstrates Abnormalities by Novel High Definition Colonoscopy and Refined Histological Gratings.	Iacucci M, Fort Gasia M, Hassan C, Panaccione R, Kaplan GG, Ghosh S, Gui X.	Aug 01, 2015	Yes
Citation: <i>Endoscopy.</i> 2015 Aug 01;47(8):726-34.				
	The safety of vedolizumab for ulcerative colitis and Crohn's disease.	Colombel JF, Sands BE, Rutgeerts P, Sandborn W, Danese S, D'Haens G, Panaccione R, Loftus EV Jr, Sankoh S, Fox I, Parikh A, Milch C, Abhyankar B, Feagan BG	Feb 20, 2016	Yes
Citation: <i>Gut.</i> 2016 Feb 20.				
	Immunogenicity of Influenza Vaccine for Patients with Inflammatory Bowel Disease on Maintenance Infliximab Therapy: A Randomized Trial.	deBruyn J, Fonseca K, Ghosh S, Panaccione R, Gasia MF, Ueno A, Kaplan GG, Seow CH, Wrobel I	Mar 03, 2016	Yes
Citation: <i>Inflamm Bowel Dis.</i> 2016 Mar 03;22(3):638-47.				
	Point-of-care ultrasound accurately distinguishes inflammatory from noninflammatory disease in patients presenting with abdominal pain and diarrhea.	Novak KL, Jacob D, Kaplan G, Boyce E, Ghosh S, Ma I, Lu C, Wilson S, Panaccione R	Nov 04, 2015	Yes
Citation: <i>Can J Gastroenterol Hepatol.</i> 2015 Nov 04.				
	Type I interferons for induction of remission in ulcerative colitis.	Wang Y, MacDonald JK, Benchimol EI, Griffiths AM, Steinhart AH, Panaccione R, Seow CH	Sep 16, 2015	Yes
Citation: <i>Cochrane Database Syst Rev.</i> 2015 Sep 16(9):CD006790.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Early combined immunosuppression for the management of Crohn's disease (REACT): a cluster randomised controlled trial.	Khanna R, Bressler B, Levesque BG, Zou G, Stitt LW, Greenberg GR, Panaccione R, Bitton A, Paré P, Vermeire S, D'Haens G, MacIntosh D, Sandborn WJ, Donner A, Vandervoort MK, Morris JC, Feagan BG, REACT Study Investigators	Nov 09, 2015	Yes
Citation: <i>Lancet.</i> 2015 Nov 09;386(10006):1825-34.				
	Selecting Therapeutic Targets in Inflammatory Bowel Disease (STRIDE): Determining Therapeutic Goals for Treat-to-Target.	Peyrin-Biroulet L, Sandborn W, Sands BE, Reinisch W, Bemelman W, Bryant RV, D'Haens G, Dotan I, Dubinsky M, Feagan B, Fiorino G, Gearry R, Krishnareddy S, Lakatos PL, Loftus EV Jr, Marteau P, Munkholm P, Murdoch TB, Ordás I, Panaccione R, Riddell RH, Ruel J, Rubin DT, Samaan M, Siegel CA, Silverberg MS, Stoker J, Schreiber S, Travis S, Van Assche G, Danese S, Panes J, Bouguen G, O'Donnell S, Pariente B, Winer S, Hanauer S, Colombel JF	Sep 03, 2015	Yes
Citation: <i>Am J Gastroenterol.</i> 2015 Sep 03;110(9):1324-38.				
	Clinical predictors of thiopurine-related adverse events in Crohn's disease.	Moran GW, Dubeau MF, Kaplan GG, Yang H, Eksteen B, Ghosh S, Panaccione R	Jul 09, 2015	Yes
Citation: <i>World J Gastroenterol.</i> 2015 Jul 09;21(25):7795-804.				
	Clinicians' guide to the use of fecal calprotectin to identify and monitor disease activity in inflammatory bowel disease.	Bressler B, Panaccione R, Fedorak RN, Seidman EG	Oct 03, 2015	Yes
Citation: <i>Can J Gastroenterol Hepatol.</i> 2015 Oct 03;29(7):369-72.				
	Clinic-based Point of Care Transabdominal Ultrasound for Monitoring Crohn's Disease: Impact on Clinical Decision Making.	Novak K, Tanyingoh D, Petersen F, Kucharzik T, Panaccione R, Ghosh S, Kaplan GG, Wilson A, Kannengiesser K, Maaser C	Sep 03, 2015	Yes
Citation: <i>J Crohns Colitis.</i> 2015 Sep 03;9(9):795-801.				
	Ulcerative colitis-associated hospitalization costs: a population-based study.	Coward S, Heitman SJ, Clement F, Hubbard J, Proulx MC, Zimmer S, Panaccione R, Seow C, Leung Y, Datta I, Ghosh S, Myers RP, Swain M, Kaplan GG	Oct 03, 2015	Yes
Citation: <i>Can J Gastroenterol Hepatol.</i> 2015 Oct 03;29(7):357-62.				
	Postoperative Mortality Among Patients With Inflammatory Bowel Diseases: A Systematic Review and Meta-analysis of Population-Based Studies.	Singh S, Al-Darmaki A, Frolkis AD, Seow CH, Leung Y, Novak KL, Ghosh S, Eksteen B, Panaccione R, Kaplan GG	Oct 03, 2015	Yes
Citation: <i>Gastroenterology.</i> 2015 Oct 03;149(4):928-37.				
Person Total:			17 publications	

Name	Title	Authors	Publication Date	Peer Reviewed
Kevin P. Rioux	original research journal article			
	Lead Poisoning From a Ceramic Jug Presenting as Recurrent Abdominal Pain and Jaundice.	Mohamed M, Ugarte-Torres A, Groshaus H, Rioux K, Yarema M	Jan 03, 2016	No
	Citation: <i>ACG Case Rep J.</i> 2016 Jan 03;3(2):141-3.			
	Gut microbiota manipulation with prebiotics in patients with non-alcoholic fatty liver disease: a randomized controlled trial protocol.	Lambert JE, Parnell JA, Eksteen B, Raman M, Bomhof MR, Rioux KP, Madsen KL, Reimer RA	Dec 05, 2015	No
	Citation: <i>BMC Gastroenterol.</i> 2015 Dec 05;15:169.			
	A novel method to identify fat malabsorption: The serum retinyl palmitate test.	Raman M, Fenton T, Crotty P, Ghosh S, Rioux KP, Hundal R	Aug 08, 2015	No
	Citation: <i>Clin Chim Acta.</i> 438:103-6, 2015.. 2015 Aug 08;438:103-6.			
Person Total:			3 publications	
Alaa Rostom				No
	Person Total:			0 publications
Cynthia H-T. Seow	abstract			
	Serum TNF-alpha Level Changes During Pregnancy are Associated with Timing of Delivery in IBD Patients	Leung Y, Seow CH, Hirota C, Ehteshami Afshar E, Tanyingoh D, Kaplan GG, Bindra GK, Beck PL, Panaccione R, Ghosh S, Ueno A.	May 17, 2015	Yes
	Citation: <i>Gastroenterol.</i> 2015 May 17.			
	Downregulation of IL-17 related Cytokines in the Second Trimester of Pregnancy in Women with IBD Supports Pregnancy Driven Immunomodulatory Effects Involving the Th17 Pathway.	Seow CH, Leung Y, Hirota C, Ehteshami-Afshar E, Kaplan GG, Bindra GK, Beck PL, Panaccione R, Ghosh S, Ueno A.	May 17, 2015	Yes
	Citation: <i>Gastroenterol.</i> 2015 May 17.			
	Patients With Crohn's Disease Who Never Smoke Are More Likely To Carry NOD2 Variants: A Case-Only NOD2-Smoking Interaction Study.	Kuenzig ME, Barkema H, Eksteen B, Seow CH, Barnabe C, Silverberg M, Beck PL, Fedorak RN, Dieleman L, Madsen K, MacNaughton WK, Panaccione R, Ghosh S, Kaplan GG.	May 17, 2015	Yes
	Citation: <i>Gastroenterol.</i> 2015 May 17.			
	Pregnancy and Birth Rates Are Decreased Among Women With IBD: Results of a Canadian Population-Based Cohort Study.	Targownik LE, Nguyen GC, Metcalfe A, Benchimol EI, Jones J, Kaplan GG, Rosenfeld G, Lam MC, Singh H, Bernstein CN, Nugent Z, Leung Y, Seow CH.	May 17, 2015	Yes
	Citation: <i>Gastroenterol.</i> 2015 May 17.			
	Biologic Therapies are Effective in Inducing and Maintaining Mucosal Healing in Ulcerative Colitis: A Systematic Review & Metanalysis.	Stewart MJ, Al-Darmaki A, Panaccione R, Kaplan GG, Seow CH.	May 17, 2015	Yes
	Citation: <i>Gastroenterol.</i> 2015 May 17.			

Name	Title	Authors	Publication Date	Peer Reviewed
	The Comparative Efficacy of Induction of Remission for Mesalamine, Sulfasalazine, Corticosteroids, and Budesonide for the Treatment of Mild to Moderate Crohn's Disease: A Bayesian Network Meta-Analysis.	Coward S, Kuenzig ME, Hazlewood G, Holmes R, Panaccione R, Ghosh S, Seow CH, Rezaie A, Kaplan GG.	May 17, 2015	Yes
Citation: <i>Gastroenterol.</i> 2015 May 17.				
	The Interaction Between NOD2 and Smoking is Specific to the 1007fs SNP of the NOD2 Gene in Crohn's Disease: A Systematic Review and Meta-Analysis.	Kuenzig E, Eksteen B, Barkema HW, Seow CH, Barnabe C, Silverberg M, Lakatos P, Panaccione R, Ghosh S, Kaplan GG.	Oct 01, 2015	Yes
Citation: <i>Am J Gastroenterol.</i> 2015 Oct 01;110:S838.				
	Age at Diagnosis of Crohn's Disease May Explain NOD2-Smoking Interactions.	Kuenzig E, Eksteen B, Barkema HW, Seow CH, Silverberg M, Fedorak R, Dieleman L, Panaccione R, Ghosh S, Kaplan GG.	Oct 01, 2015	Yes
Citation: <i>Am J Gastroenterol.</i> 2015 Oct 01;110:S837.				
	The Rising Burden of Inflammatory Bowel Disease in North America from 2015 to 2025: A Predictive Model.	Coward S, Clement F, Williamson T, Hazlewood G, Ng S, Heitman S, Seow CH, Panaccione R, Ghosh S, Kaplan GG.	Oct 01, 2015	Yes
Citation: <i>Am J Gastroenterol.</i> 2015 Oct 01;110:S829.				
Person Total:			9 publications	
original research journal article				
	Clinical practice guidelines for the medical management of nonhospitalized ulcerative colitis: the toronto consensus.	Bressler B, Marshall JK, Bernstein CN, Bitton A, Jones J, Leontiadis GI, Panaccione R, Steinhart AH, Tse F, Feagan B, Toronto Ulcerative Colitis Consensus Group	May 03, 2015	Yes
Citation: <i>Gastroenterology.</i> 2015 May 03;148(5):1035-1058.e3.				
	The Toronto Consensus Statements for the Management of Inflammatory Bowel Disease in Pregnancy.	Nguyen GC, Seow CH, Maxwell C, Huang V, Leung Y, Jones J, Leontiadis GI, Tse F, Mahadevan U, van der Woude CJ, IBD in Pregnancy Consensus Group	Mar 03, 2016	Yes
Citation: <i>Gastroenterology.</i> 2016 Mar 03;150(3):734-757.e1.				
	Immunogenicity of Influenza Vaccine for Patients with Inflammatory Bowel Disease on Maintenance Infliximab Therapy: A Randomized Trial.	deBruyn J, Fonseca K, Ghosh S, Panaccione R, Gasia MF, Ueno A, Kaplan GG, Seow CH, Wrobel I	Mar 03, 2016	Yes
Citation: <i>Inflamm Bowel Dis.</i> 2016 Mar 03;22(3):638-47.				
	New Applications for Traditional Drugs in Inflammatory Bowel Disease: What Do Cochrane Reviews Tell Us?	Chande N, Marshall JK, Seow CH, Sandborn WJ, Parker CE, Nelson S, Feagan BG	Dec 03, 2015	Yes
Citation: <i>Inflamm Bowel Dis.</i> 2015 Dec 03;21(12):2948-57.				
	Oral budesonide for induction of remission in ulcerative colitis.	Sherlock ME, MacDonald JK, Griffiths AM, Steinhart AH, Seow CH	Oct 28, 2015	Yes
Citation: <i>Cochrane Database Syst Rev.</i> 2015 Oct 28;10:CD007698.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Type I interferons for induction of remission in ulcerative colitis.	Wang Y, MacDonald JK, Benchimol EI, Griffiths AM, Steinhart AH, Panaccione R, Seow CH	Sep 16, 2015	Yes
	Citation: <i>Cochrane Database Syst Rev.</i> 2015 Sep 16;9:CD006790.			
	Ulcerative colitis-associated hospitalization costs: a population-based study.	Coward S, Heitman SJ, Clement F, Hubbard J, Proulx MC, Zimmer S, Panaccione R, Seow C, Leung Y, Datta I, Ghosh S, Myers RP, Swain M, Kaplan GG	Oct 03, 2015	Yes
	Citation: <i>Can J Gastroenterol Hepatol.</i> 2015 Oct 03;29(7):357-62.			
	Postoperative Mortality Among Patients With Inflammatory Bowel Diseases: A Systematic Review and Meta-analysis of Population-Based Studies.	Singh S, Al-Darmaki A, Frolkis AD, Seow CH, Leung Y, Novak KL, Ghosh S, Eksteen B, Panaccione R, Kaplan GG	Oct 03, 2015	Yes
	Citation: <i>Gastroenterology.</i> 2015 Oct 03;149(4):928-37.			
	Person Total:			8 publications
Eldon Shaffer	book chapter			
	Diarrhea	Shaffer EA	Jun 30, 2015	No
	Citation: 2015 Jun 30.			
	Epidemiology and Natural History of Cholesterol Gallstones	Stinton LM, Shaffer EA	Dec 31, 2015	No
	Citation: 2015 Dec 31.			
	Person Total:			2 publications
Mark G. Swain	original research journal article			
	Risk factors for mortality in patients with alcoholic hepatitis and assessment of prognostic models: A population-based study.	Pang JX, Ross E, Borman MA, Zimmer S, Kaplan GG, Heitman SJ, Swain MG, Burak K, Quan H, Myers RP	Apr 03, 2015	Yes
	Citation: <i>Can J Gastroenterol Hepatol.</i> 2015 Apr 03;29(3):131-8.			
	Person Total:			1 publication
	Division Total:			161 publications
General Internal Medicine				
C. Maria Bacchus	original research journal article			
	"Diagnosing technical competence in six bedside procedures: comparing checklists and global rating scale in the assessment of resident performance:. Acad Med.	Walzak A, Bacchus M, Schaefer JP, Zarnke K, Glow J, Brass C, McLaughlin K, Ma IWY.	Apr 15, 2015	Yes
	Citation: <i>Acad Med.</i> 2015 Apr 15.			
	Person Total:			1 publication
	review journal article			
	Recommendations on screening for cognitive impairment in older adults	Canadian Task Force on Preventive Health Care	Jan 05, 2016	Yes
	Citation: <i>CMAJ.</i> 2016 Jan 05;188(1).			
	Recommendations on screening for colorectal cancer in primary care	Canadian Task Force on Preventive Health Care	Mar 15, 2016	Yes
	Citation: <i>CMAJ.</i> 2016 Mar 15;188(5).			
Person Total:			2 publications	

Name	Title	Authors	Publication Date	Peer Reviewed
Norman R.C. Campbell	original research journal article			
	The Science of Salt: A Regularly Updated Systematic Review of the Implementation of Salt Reduction Interventions (June-October 2015).	Trieu K, McLean R, Johnson C, Santos JA, Angell B, Arcand J, Raj TS, Campbell NR, Wong MM, Leung AA, Neal B, Webster J	Mar 16, 2016	Yes
	Citation: <i>J Clin Hypertens (Greenwich)</i> . 2016 Mar 16.			
	The Science of Salt: A Systematic Review of Clinical Salt Studies 2013 to 2014.	Johnson C, Raj TS, Trudeau L, Bacon SL, Padwal R, Webster J, Campbell N	May 01, 2015	Yes
	Citation: <i>J Clin Hypertens (Greenwich)</i> . 2015 May 01;17(5):401-11.			
	METHods of ASsessing blood pressUre: identifying thReshold and target valuEs (MeasureBP): A Review & Study Protocol.	Blom KC, Farina S, Gomez YH, Campbell NR, Hemmelgarn BR, Cloutier L, McKay DW, Dawes M, Tobe SW, Bolli P, Gelfer M, McLean D, Bartlett G, Joseph L, Featherstone R, Schiffrin EL, Daskalopoulou SS	Apr 03, 2015	Yes
	Citation: <i>Curr Hypertens Rep</i> . 2015 Apr 03;17(4):533.			
	The World Hypertension League Challenges Hypertension and Cardiovascular Organizations to Develop Strategic Plans for the Prevention and Control of Hypertension.	Campbell NR, Lackland DT, Lisheng L, Zhang XH, Nilsson PM, Redburn KA, Niebylski ML	May 01, 2015	Yes
	Citation: <i>J Clin Hypertens (Greenwich)</i> . 2015 May 01;17(5):325-7.			
	Accuracy and Usefulness of Select Methods for Assessing Complete Collection of 24-Hour Urine: A Systematic Review.	John KA, Cogswell ME, Campbell NR, Nowson CA, Legetic B, Hennis AJ, Patel SM	Jan 05, 2016	Yes
	Citation: <i>J Clin Hypertens (Greenwich)</i> . 2016 Jan 05.			
	The Science of Salt: A Regularly Updated Systematic Review of Salt and Health Outcomes (June and July 2015).	Arcand J, Wong MM, Trieu K, Leung AA, Campbell NR, Webster J, Johnson C, Raj TS, McLean R, Neal B	Dec 31, 2015	Yes
	Citation: <i>J Clin Hypertens (Greenwich)</i> . 2015 Dec 31.			
	Epidemiology of Hypertension in Canada: An Update.	Padwal RS, Bienek A, McAlister FA, Campbell NR, Outcomes Research Task Force of the Canadian Hypertension Education Program	Aug 17, 2015	Yes
	Citation: <i>Can J Cardiol</i> . 2015 Aug 17.			
	Beyond the opportunities of SDG 3: the risk for the NCDs agenda.	Ordunez P, Campbell NR	Jan 03, 2016	Yes
	Citation: <i>Lancet Diabetes Endocrinol</i> . 2016 Jan 03;4(1):15-7.			
	Restructuring Hypertension Congresses and Scientific Meetings for Improved Hypertension Prevention and Control.	Campbell NR, Redburn KA, Niebylski ML, Drouin D, Zhang XH, Lisheng L, Nilsson P, Lackland DT, World Hypertension League, Corvallis, Montana, USA	Dec 13, 2015	Yes
	Citation: <i>J Clin Hypertens (Greenwich)</i> . 2015 Dec 13.			

Name	Title	Authors	Publication Date	Peer Reviewed
	Implementation of World Health Organization Package of Essential Noncommunicable Disease Interventions (WHO PEN) for Primary Health Care in Low-Resource Settings: A Policy Statement From the World Hypertension League.	Zhang XH, Lisheng L, Campbell NR, Niebylski ML, Nilsson P, Lackland DT, World Hypertension League	Jan 03, 2016	Yes
Citation: <i>J Clin Hypertens (Greenwich)</i> . 2016 Jan 03;18(1):5-6.				
	Announcing "Up to Date in the Science of Sodium".	Arcand J, Webster J, Johnson C, Raj TS, Neal B, McLean R, Trieu K, Wong MM, Leung AA, Campbell NR	Nov 16, 2015	Yes
Citation: <i>J Clin Hypertens (Greenwich)</i> . 2015 Nov 16.				
	Systematic review of studies evaluating urinary iodine concentration as a predictor of 24-hour urinary iodine excretion for estimating population iodine intake.	Ji C, Lu T, Dary O, Legetic B, Campbell NR, Cappuccio FP, Sub-Group for Research and Surveillance of the PAHO–WHO Regional Expert Group for Cardiovascular Disease Prevention through Population-wide Dietary Salt Reduction	Jul 03, 2015	Yes
Citation: <i>Rev Panam Salud Publica</i> . 2015 Jul 03;38(1):73-81.				
	The Impact of Using Different Methods to Assess Completeness of 24-Hour Urine Collection on Estimating Dietary Sodium.	Wielgosz A, Robinson C, Mao Y, Jiang Y, Campbell NR, Muthuri S, Morrison H	Oct 14, 2015	Yes
Citation: <i>J Clin Hypertens (Greenwich)</i> . 2015 Oct 14.				
	Death by food: Why pharmacists should care.	Al Hamarneh YN, Tsuyuki RT, Campbell NR	Sep 03, 2015	Yes
Citation: <i>Can Pharm J (Ott)</i> . 2015 Sep 03;148(5):232-3.				
	World Hypertension League Position on Public Use of Blood Pressure Kiosks.	Campbell NR, Niebylski ML, Redburn K, Lisheng L, Nilsson P, Zhang XH, Lackland DT	Dec 03, 2015	Yes
Citation: <i>J Clin Hypertens (Greenwich)</i> . 2015 Dec 03;17(12):913.				
	Global health metrics and non-communicable diseases: the case of hypertension.	Ordunez P, Campbell N	Oct 03, 2015	Yes
Citation: <i>Lancet Diabetes Endocrinol</i> . 2015 Oct 03;3(10):763.				
	A Needs Assessment of Sub-Sahara African National Hypertension Organizations for Hypertension Prevention and Control Programs.	Khalsa TK, Campbell NR, Redburn KA, Lemogoum D, Niebylski ML	Oct 03, 2015	Yes
Citation: <i>J Clin Hypertens (Greenwich)</i> . 2015 Oct 03;17(10):756-9.				
	Healthcare Costs Attributable to Hypertension: Canadian Population-Based Cohort Study.	Weaver CG, Clement FM, Campbell NR, James MT, Klarenbach SW, Hemmelgarn BR, Tonelli M, McBrien KA, Alberta Kidney Disease Network and the Interdisciplinary Chronic Disease Collaboration	Sep 03, 2015	Yes
Citation: <i>Hypertension</i> . 2015 Sep 03;66(3):502-8.				
	Hypertension in sub-Saharan Africa: a massive and increasing health disaster awaiting solution	Campbell NR, Lemogoum D.	Jul 31, 2015	Yes
Citation: <i>Cardiovasc J Afr</i> . 2015 Jul 31;26(4):152-4.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Inaugural Maximum Values for Sodium in Processed Food Products in the Americas	Campbell N, Legowski B, Legetic B, Nilson E, L'Abbe M.	Aug 01, 2015	Yes
Citation: <i>J Clin Hypertens (Greenwich)</i> . 2015 Aug 01;17(8):611-3.				
	A Call to Regulate Manufacture and Marketing of Blood Pressure Devices and Cuffs: A Position Statement From the World Hypertension League, International Society of Hypertension and Supporting Hypertension Organizations.	Campbell NR, Gelfer M, Stergiou GS, Alpert BS, Myers MG, Rakotz MK, Padwal R, Schutte AE, O'Brien E, World Hypertension League, International Society of Hypertension	Feb 10, 2016	Yes
Citation: <i>J Clin Hypertens (Greenwich)</i> . 2016 Feb 10.				
	Problems and Solutions in Implementing the World Hypertension League Recommendations for Automated Office Assessment of Blood Pressure.	Veiga EV, Daniel AC, Bortolotto LA, Machado CA, Plavinik FL, Cláudio Rigoyen M, Campbell N, Kenerson J, Cloutier L	Jan 03, 2016	Yes
Citation: <i>J Clin Hypertens (Greenwich)</i> . 2016 Jan 03;18(1):7-9.				
	Salt Reduction Initiatives around the World - A Systematic Review of Progress towards the global Target	Trieu K, Neal B, Hawkes C, Dunford E, Campbell n, Rodriguez-Fernandez R, Legetic B, McLaren L, Barberio A, Webster J.	Jul 22, 2015	Yes
Citation: <i>PLoS ONE</i> . 2015 Jul 22;10(7):e0130247.				
	Hypertension in Canada and the Global Context. The Wine Is Vintage and the Glass Is Two-Thirds Full, but Is the Bottle Empty?	Campbell NR, Feldman RD	Jul 30, 2015	Yes
Citation: <i>Can J Cardiol</i> . 2015 Jul 30.				
	Questionable Scientific Basis for Relaxed Dietary Sodium Recommendations.	Campbell N	Feb 13, 2016	Yes
Citation: <i>Can J Cardiol</i> . 2016 Feb 13.				
	WHL Note on the Kaiser Permanente Article.	Campbell NR, Lackland DT, Niebylski ML	Mar 05, 2016	Yes
Citation: <i>J Clin Hypertens (Greenwich)</i> . 2016 Mar 05.				
	Healthy food subsidies and unhealthy food taxation: A systematic review of the evidence.	Niebylski ML, Redburn KA, Duhane T, Campbell NR	Jun 03, 2015	Yes
Citation: <i>Nutrition</i> . 2015 Jun 03;31(6):787-795.				
	Inaugural Maximum Values for Sodium in Processed Food Products in the Americas.	Campbell N, Legowski B, Legetic B, Nilson E, L'Abbé M	Apr 24, 2015	Yes
Citation: <i>J Clin Hypertens (Greenwich)</i> . 2015 Apr 24.				

Name	Title	Authors	Publication Date	Peer Reviewed
	The 2015 canadian hypertension education program recommendations for blood pressure measurement, diagnosis, assessment of risk, prevention, and treatment of hypertension.	Daskalopoulou SS, Rabi DM, Zarnke KB, Dasgupta K, Nerenberg K, Cloutier L, Gelfer M, Lamarre-Cliche M, Milot A, Bolli P, McKay DW, Tremblay G, McLean D, Tobe SW, Ruzicka M, Burns KD, Vallée M, Ramesh Prasad GV, Lebel M, Feldman RD, Selby P, Pipe A, Schiffrin EL, McFarlane PA, Oh P, Hegele RA, Khara M, Wilson TW, Brian Penner S, Burgess E, Herman RJ, Bacon SL, Rabkin SW, Gilbert RE, Campbell TS, Grover S, Honos G, Lindsay P, Hill MD, Coutts SB, Gubitz G, Campbell NR, Moe GW, Howlett JG, Boulanger JM, Prebtani A, Larochelle P, Leiter LA, Jones C, Ogilvie RI, Woo V, Kaczorowski J, Trudeau L, Petrella RJ, Hiremath S, Stone JA, Drouin D, Lavoie KL, Hamet P, Fodor G, Grégoire JC, Fournier A, Lewanczuk R, Dresser GK, Sharma M, Reid D, Benoit G, Feber J, Harris KC, Poirier L, Padwal RS, Canadian Hypertension Education Program	May 03, 2015	Yes
Citation: <i>Can J Cardiol.</i> 2015 May 03;31(5):549-68.				
	The World Hypertension League: Where no and where to in salt reduction.	Campbell NRC, Lackland DT, Lisheng L, Zhang X-H, Nilsson PM, Niebylski, ML for the World Hypertension League Executive	Jun 01, 2015	Yes
Citation: <i>Cardiovascular Diagnosis & Therapy.</i> 2015 Jun 01;5(3):238-42.				
	A Randomized Trial of the Effect of Pharmacist Prescribing on Improving Blood Pressure in the Community: The Alberta Clinical Trial in Optimizing Hypertension (RxACTION).	Tsuyuki RT, Houle SK, Charrois TL, Kolber MR, Rosenthal MM, Lewanczuk R, Campbell NR, Cooney D, McAlister FA	Jun 12, 2015	Yes
Citation: <i>Circulation.</i> 2015 Jun 12.				
	High Blood Pressure in Sub-Saharan Africa: Why Prevention, Detection, and Control are Urgent and Important.	Campbell NR, Bovet P, Schutte AE, Lemogoum D, Nkwescheu AS	Jun 15, 2015	Yes
Citation: <i>J Clin Hypertens (Greenwich).</i> 2015 Jun 15.				
	Hypertension in Canada: Past, Present, and Future	Schiffrin EL, Campbell NR, Feldman RD, Kaczorowski J, Lewanczuk R, Padwal R, Tobe SW	Mar 01, 2016	Yes
Citation: <i>Ann Glob Health.</i> 2016 Mar 01;82(2):288-99.				
Person Total:			33 publications	
William A. Ghali	original research journal article			
	Implications of design on infection prevention and control practice in a novel hospital unit: the Medical Ward of the 21st Century.	VanSteelandt A, Conly J, Ghali W, Mather C	Aug 03, 2015	No
	Citation: <i>Anthropol Med.</i> 2015 Aug 03;22(2):149-61.			

Name	Title	Authors	Publication Date	Peer Reviewed
	Capturing diagnosis-timing in ICD-coded hospital data: recommendations from the WHO ICD-11 topic advisory group on quality and safety.	Sundararajan V, Romano PS, Quan H, Burnand B, Drösler SE, Brien S, Pincus HA, Ghali WA	Aug 03, 2015	No
	Citation: <i>Int J Qual Health Care.</i> 2015 Aug 03;27(4):328-33.			
	Exploring physician specialist response rates to web-based surveys.	Cunningham CT, Quan H, Hemmelgarn B, Noseworthy T, Beck CA, Dixon E, Samuel S, Ghali WA, Sykes LL, Jetté N	Apr 11, 2015	Yes
	Citation: <i>BMC Med Res Methodol.</i> 2015 Apr 11;15(1):32.			
	Exfoliative erythroderma as a paraneoplastic presentation of adenocarcinoma of the gallbladder.	Eltawansy SA, Agrawal A, Modi A, Hassanien S, Zhang B, Pei Z, Ghali W	Apr 03, 2015	Yes
	Citation: <i>J Gastrointest Oncol.</i> 2015 Apr 03;6(2):E26-9.			
	Predictors of intraoperative hypotension and bradycardia.	Cheung CC, Martyn A, Campbell N, Frost S, Gilbert K, Michota F, Seal D, Ghali W, Khan NA	May 03, 2015	Yes
	Citation: <i>Am J Med.</i> 2015 May 03;128(5):532-8.			
Person Total:			5 publications	
Paul S. Gibson	conference proceedings			
	Incidence of Myocardial Infarction in Pregnancy: A Systematic Review and Meta-analysis	Paul Gibson, Mariam Narous, Matthew James	Feb 28, 2016	Yes
	Citation: 2016 Feb 28.			
	Person Total:		1 publication	
	original research journal article			
	Severe Hypomagnesemia with Long-Term Use of a Proton Pump Inhibitor: A Case Report	Trottier AM, Gibson PS	Sep 01, 2015	Yes
	Citation: <i>Can J GIM.</i> 2015 Sep 01;10(3):42-6.			
	Person Total:		1 publication	
	review journal article			
	The Hypertensive Disorders of Pregnancy	Magee LA, Pels A, Helewa M, Rey E, von Dadelszen P, Audibert F1, Bujold E, Côté AM, Douglas MJ, Eastabrook G, Firoz T, Gibson P, Gruslin A, Hutcheon J, Koren G, Lange I, Leduc L, Logan AG, MacDonell KL, Moutquin JM, Sebbag I.	Sep 01, 2015	No
	Citation: <i>Best Pract Res Clin Obstet Gynaecol.</i> 2015 Sep 01;29(5):643-57.			
	Person Total:		1 publication	

Name	Title	Authors	Publication Date	Peer Reviewed
Robert J. Herman	original research journal article			
	The 2015 canadian hypertension education program recommendations for blood pressure measurement, diagnosis, assessment of risk, prevention, and treatment of hypertension.	Daskalopoulou SS, Rabi DM, Zarnke KB, Dasgupta K, Nerenberg K, Cloutier L, Gelfer M, Lamarre-Cliche M, Milot A, Bolli P, McKay DW, Tremblay G, McLean D, Tobe SW, Ruzicka M, Burns KD, Vallée M, Ramesh Prasad GV, Lebel M, Feldman RD, Selby P, Pipe A, Schiffrin EL, McFarlane PA, Oh P, Hegele RA, Khara M, Wilson TW, Brian Penner S, Burgess E, Herman RJ, Bacon SL, Rabkin SW, Gilbert RE, Campbell TS, Grover S, Honos G, Lindsay P, Hill MD, Coutts SB, Gubitz G, Campbell NR, Moe GW, Howlett JG, Boulanger JM, Prebtani A, Larochelle P, Leiter LA, Jones C, Ogilvie RI, Woo V, Kaczorowski J, Trudeau L, Petrella RJ, Hiremath S, Stone JA, Drouin D, Lavoie KL, Hamet P, Fodor G, Grégoire JC, Fournier A, Lewanczuk R, Dresser GK, Sharma M, Reid D, Benoit G, Feber J, Harris KC, Poirier L, Padwal RS, Canadian Hypertension Education Program	May 03, 2015	Yes
	Citation: <i>Can J Cardiol.</i> 2015 May 03;31(5):549-68.			
	Person Total:		1 publication	
Irene W.Y. Ma	original research journal article			
	Defining Competencies for Ultrasound-Guided Bedside Procedures: Consensus Opinions From Canadian Physicians.	Brown GM, Otremba M, Devine LA, Gray C, Millington SJ, Ma IW	Jan 03, 2016	Yes
	Citation: <i>J Ultrasound Med.</i> 2016 Jan 03;35(1):129-41.			
	Point-of-care ultrasound accurately distinguishes inflammatory from noninflammatory disease in patients presenting with abdominal pain and diarrhea.	Novak KL, Jacob D, Kaplan G, Boyce E, Ghosh S, Ma I, Lu C, Wilson S, Panaccione R	Nov 04, 2015	Yes
	Citation: <i>Can J Gastroenterol Hepatol.</i> 2015 Nov 04.			
	Use of an error-focused checklist to identify incompetence in lumbar puncture performances.	Ma IW, Pugh D, Mema B, Brindle ME, Cooke L, Stromer JN	Oct 03, 2015	Yes
	Citation: <i>Med Educ.</i> 2015 Oct 03;49(10):1004-15.			
	Part versus whole: a randomized trial of central venous catheterization education.	Chan A, Singh S, Dubrowski A, Pratt DD, Zalunardo N, Nair P, McLaughlin K, Ma IW	Oct 03, 2015	Yes
	Citation: <i>Adv Health Sci Educ Theory Pract.</i> 2015 Oct 03;20(4):1061-71.			

Name	Title	Authors	Publication Date	Peer Reviewed
	Treatment options for the pediatric patent ductus arteriosus: systematic review and meta-analysis.	Lam JY, Lopushinsky S, Ma I, Dicke F, Brindle M	Apr 04, 2015	Yes
	Citation: <i>Chest.</i> 2015 Apr 04.			
	Diagnosing Technical Competence in Six Bedside Procedures: Comparing Checklists and a Global Rating Scale in the Assessment of Resident Performance.	Walzak A, Bacchus M, Schaefer JP, Zarnke K, Glow J, Brass C, McLaughlin K, Ma IW	Apr 17, 2015	Yes
	Citation: <i>Acad Med.</i> 2015 Apr 17.			
	Embracing complexity: taking the messiness in simulation-based training one step further.	Ma IW	Apr 03, 2015	Yes
	Citation: <i>Med Educ.</i> 2015 Apr 03;49(4):346-8.			
	Barriers to goals of care discussions with seriously ill hospitalized patients and their families: a multicenter survey of clinicians.	You JJ, Downar J, Fowler RA, Lamontagne F, Ma IW, Jayaraman D, Kryworuchko J, Strachan PH, Ilan R, Nijjar AP, Neary J, Shik J, Brazil K, Patel A, Wiebe K, Albert M, Palepu A, Nouvet E, des Ordon AR, Sharma N, Abdul-Razzak A, Jiang X, Day A, Heyland DK, Canadian Researchers at the End of Life Network (CARENET)	Apr 03, 2015	Yes
	Citation: <i>JAMA Intern Med.</i> 2015 Apr 03;175(4):549-56.			
	Person Total:		8 publications	
Kara Nerenberg	abstract			
	Effect of an intervention to improve the cardiovascular health of postpartum women with a history of hypertensive disorders of pregnancy.	Younger-Lewis D, McDonnell L, Westcott C, Elias N, Perron S, Martin N, Ives S, Pipe A, Reid RB, Nerenberg KA.	May 01, 2015	Yes
	Citation: <i>Canadian Journal of Cardiology.</i> . 2015 May 01;32(Supplement):9.			
	Person Total:		1 publication	
	book chapter			
	Textbook: Maternal-Fetal Medicine. Chapter 38: Pregnancy as a window to future health.	Smith G, Murphy MSQ, Nerenberg KA.	Mar 01, 2016	Yes
	Citation: 2016 Mar 01.			
	Person Total:		1 publication	
	original research journal article			
	The Usefulness of the Canadian Diabetes Risk Assessment Questionnaire (CANRISK) in Predicting Dysglycemia in Women with Histories of Gestational Diabetes.	Chaudhry SN, Doyle MA, Nerenberg KA, Malcolm JC, Keely E	Dec 03, 2015	Yes
	Citation: <i>Can J Diabetes.</i> 2015 Dec 03;39(6):491-5.			
	Vascular risk reduction and weight management at a Hospital-Based Postpartum Preeclampsia Clinic.	Janmohamed R, Montgomery-Fajic E, Sia W, Germaine D, Wilkie J, Khurana R, Nerenberg KA.	Apr 01, 2015	Yes
	Citation: <i>Journal of Obstetrics and Gynaecology Canada.</i> 2015 Apr 01;37(4):330-337.			
Person Total:		2 publications		

Name	Title	Authors	Publication Date	Peer Reviewed
P. Timothy Pollak	conference proceedings			
	Differences in 24-h ambulatory blood pressure (ABPM) responses between differing nifedipine osmotic delivery formulations coincide with differences in dissolution profiles.	Pollak PT, Dehar N, Herman RJ, Zarnke KB, Feldman RD	Oct 23, 2015	Yes
	Citation: 2015 Oct 23.			
	Person Total:			1 publication
	original research journal article			
	Herbal Cardiotoxicity: Can Mother Nature Hurt the Heart?	Pollak PT	Mar 03, 2016	Yes
	Citation: Can J Cardiol. 2016 Mar 03;32(3):291-3.			
	A maintenance dosing nomogram to aid clinical decision making for individualizing amiodarone therapy of atrial fibrillation.	Pollak PT, Frenkel V, Shafer SL	Oct 01, 2015	Yes
	Citation: Can J Cardiol. 2015 Oct 01;31(10):238-9.			
	Gender segregation of 24-h ambulatory blood pressure (ABPM) response to switching between differing nifedipine osmotic delivery formulations.	Pollak PT, Dehar N, Herman RJ, Zarnke KB, Feldman RD	Oct 01, 2015	Yes
	Citation: Can J Cardiol. 2015 Oct 01;31(10):S67.			
	Natural history of pulmonary function in patients monitored for risk of amiodarone pulmonary toxicity.	Pollak PT, Tourin PA	Oct 01, 2015	Yes
	Citation: Can J Cardiol. 2015 Oct 01;31(10):S239.			
	A generalized additive mixed model (GAMM) to characterize ambulatory systolic blood pressure (SBP) differences between alternate nifedipine osmotic delivery formulations.	Pollak PT, Dehar N, Herman RJ, Zarnke KB, Feldman RD	Feb 01, 2016	Yes
	Citation: Clin Pharmacol Therap 2016. 2016 Feb 01;99(Suppl 1):S50.			
	Clinically Important differences in systolic ambulatory blood pressure in patients switched between alternate nifedipine osmotic delivery formulations	Pollak PT, Herman RJ, Feldman RD	Jan 15, 2016	Yes
	Citation: J Hypertension. 2016 Jan 15;34(e-Supplement 1):in press.			
	Person Total:			6 publications
	poster			
	Utility of longitudinal pulmonary function monitoring for early detection of amiodarone pulmonary toxicity.	Pollak PT, Tourin PA.	Jun 10, 2015	Yes
	Citation: 2015 Jun 10.			
	Gender segregation of 24-h ambulatory blood pressure (ABPM) response to switching between differing nifedipine osmotic delivery formulations.	Pollak PT, Dehar N, Herman RJ, Zarnke KB, Feldman RD.	Jun 10, 2015	Yes
	Citation: 2015 Jun 10.			
	Merits of widespread single-dose dexamethasone as part of a comprehensive perioperative pain management plan.	Yu HC, Pollak PT, Hawboldt GS	Nov 20, 2015	Yes
	Citation: 2015 Nov 20.			
	Person Total:			3 publications

Name	Title	Authors	Publication Date	Peer Reviewed
Kelly B. Zarnke	original research journal article			
	Diagnosing technical competence in six bedside procedures: comparing checklists and a global rating scale in the assessment of resident performance.	Walzak A, Bacchus M, Schaefer JP, Zarnke K, Glow J, Brass C, McLaughlin K, Ma IW.	Sep 01, 2015	Yes
	Citation: Acad Med.. 2015 Sep 01;90(8):1100-8.			
	Diagnosing technical competence in six bedside procedures: comparing checklists and a global rating scale in the assessment of resident performance.	Walzak A, Bacchus M, Schaefer JP, Zarnke K, Glow J, Brass C, McLaughlin K, Ma IW.	Sep 01, 2015	Yes
	Citation: Acad Med.. 2015 Sep 01;90(8):1100-8.			
	Person Total:		2 publications	
	Division Total:		69 publications	
Geriatric Medicine				
Karen Fruetel	abstract			
	Primary Care physicians perceived barriers, facilitators and strategies to enhance conservative care for older adults with chronic kidney disease	Helen Tam-Tham, Brenda R Hemmelgarn, David JT Campbell, Chandra M Thomas, Karen Fruetel	Nov 03, 2015	Yes
	Citation: Kidney Week 2015. 2015 Nov 03.			
	Person Total:		1 publication	
	original research journal article			
	Primary care physicians' perceived barriers, facilitators and strategies to enhance conservative care for older adults with chronic kidney disease: a qualitative descriptive study.	Tam-Tham H, Hemmelgarn BR, Campbell DJ, Thomas CM, Fruetel K, Quinn RR, King-Shier KM	Dec 19, 2015	Yes
Citation: Nephrol Dial Transplant. 2015 Dec 19.				
Person Total:		1 publication		
Jayna M. Holroyd-Leduc	abstract			
	Evaluation of a standardized electronic end-of-life order set targeted at improving the quality of end-of-life within hospital.	Drew-McKinstry, M, Arnold, J, Simone, J, Holroyd-Leduc, J, Sinnarajah, A	Mar 03, 2016	Yes
	Citation: Alberta College of Family Physicians 61st Annual Scientific Assembly. 2016 Mar 03.			
	Paucity of evidence for use of postmenopausal hormone therapy for cardiovascular prevention in women with chronic kidney disease	Ramesh, S, Mann, M, James, M, Wilton, S, Holroyd-Leduc, J, Ahmed, S	Nov 03, 2015	Yes
	Citation: American Society of Nephrology Kidney Week. 2015 Nov 03.			
	Sex hormone status in women with women with chronic kidney disease: a survey of nephrologists.	Ramesh, S, Seely, E, James, M, Holroyd-Leduc, J, Wilton, S, Ahmed, S	Nov 03, 2015	Yes
	Citation: American Society of Nephrology Kidney Week. 2015 Nov 03.			
	Elder friendly care in acute care	Holroyd-Leduc, J, Osiowy, K	Oct 27, 2015	Yes
	Citation: Rural and Remote Dementia Care Summit. 2015 Oct 27.			
	Elder friendly care in acute care.	Holroyd-Leduc, J, Osiowy, K	Oct 26, 2015	Yes
	Citation: Alberta Quality Summit. 2015 Oct 26.			
A systemic review of depression screening tools.	Goodarzi, Z, Mele, B, Roberts, D, Holroyd-Leduc, J	Oct 01, 2015	Yes	
Citation: Canadian Conference on Dementia. 2015 Oct 01.				

Name	Title	Authors	Publication Date	Peer Reviewed
	A study protocol for adapting and evaluation PC-DATA in rural primary health care.	Kosteniuk, J, Morgan, D, Seitz, D, Holroyd-Leduc, J, O'Connell, M, Kirk, A, Stewart, N	Sep 20, 2015	Yes
Citation: 14th Conference of the Canadian Rural Health Research Society. 2015 Sep 20.				
Person Total:			7 publications	
original research journal article				
The effect of hormone therapy on all-cause and cardiovascular mortality in women with chronic kidney disease: protocol for a systematic review and meta-analysis.	Ramesh S, Mann MC, Holroyd-Leduc JM, Wilton SB, James MT, Seely EW, Ahmed SB	Apr 10, 2015	Yes	
Citation: Syst Rev. 2015 Apr 10;4(1):44.				
Measuring Resource Utilization: A Systematic Review of Validated Self-Reported Questionnaires.	Leggett LE, Khadaroo RG, Holroyd-Leduc J, Lorenzetti DL, Hanson H, Wagg A, Padwal R, Clement F	Mar 03, 2016	Yes	
Citation: Medicine (Baltimore). 2016 Mar 03;95(10):e2759.				
Optimizing senior's surgical care - Elder-friendly Approaches to the Surgical Environment (EASE) study: rationale and objectives.	Khadaroo RG, Padwal RS, Wagg AS, Clement F, Warkentin LM, Holroyd-Leduc J	Aug 23, 2015	Yes	
Citation: BMC Health Serv Res. 2015 Aug 23;15:338.				
Evidence of increasing public participation in advance care planning: a comparison of polls in Alberta between 2007 and 2013.	Simon JE, Ghosh S, Heyland D, Cooke T, Davison S, Holroyd-Leduc J, Wasylenko E, Howlett J, Fassbender K, Advance Care Planning Collaborative Research and Innovation Opportunities Program (ACP CRIO)	Jan 29, 2016	Yes	
Citation: BMJ Support Palliat Care. 2016 Jan 29.				
Comparative safety and effectiveness of cognitive enhancers for Alzheimer's dementia: protocol for a systematic review and individual patient data network meta-analysis.	Veroniki AA, Straus SE, Ashoor HM, Hamid JS, Hemmelgarn BR, Holroyd-Leduc J, Majumdar SR, McAuley G, Tricco AC	Jan 15, 2016	Yes	
Citation: BMJ Open. 2016 Jan 15;6(1):e010251.				
Effect of Nutrients, Dietary Supplements and Vitamins on Cognition: a Systematic Review and Meta-Analysis of Randomized Controlled Trials.	Forbes SC, Holroyd-Leduc JM, Poulin MJ, Hogan DB	Dec 03, 2015	Yes	
Citation: Can Geriatr J. 2015 Dec 03;18(4):231-45.				
Use of Femoral Nerve Blocks to Manage Hip Fracture Pain among Older Adults in the Emergency Department: A Systematic Review.	Riddell M, Ospina M, Holroyd-Leduc JM	Sep 12, 2015	Yes	
Citation: CJEM. 2015 Sep 12:1-8.				
Advance care planning: identifying system-specific barriers and facilitators.	Hagen NA, Howlett J, Sharma NC, Biondo P, Holroyd-Leduc J, Fassbender K, Simon J	Aug 03, 2015	Yes	
Citation: Curr Oncol. 2015 Aug 03;22(4):e237-45.				
Physician experience and outcomes among patients admitted to general internal medicine teaching wards.	McAlister FA, Youngson E, Bakal JA, Holroyd-Leduc J, Kassam N	Oct 08, 2015	Yes	
Citation: CMAJ. 2015 Oct 08;187(14):1041-8.				
Person Total:			9 publications	
Division Total:			18 publications	

Name	Title	Authors	Publication Date	Peer Reviewed
Hematology & Hematologic Malignancies				
Nizar Bahlis Jacques	abstract			
	Phase II study of daratumumab (DARA) monotherapy in patients with ≥ 3 lines of prior therapy or double refractory multiple myeloma (MM): 54767414MMY2002 (Sirius).	Sagar Lonial, Brendan M. Weiss, Saad Zafar Usmani, Seema Singhal, Ajai Chari, Nizar J. Bahlis, Andrew Belch, Amrita Y. Krishnan, Robert A. Vescio, María-Victoria Mateos, Amitabha Mazumder, Robert Z. Orlowski, Heather J Sutherland, Joan Blade, Emma Catherine Scott, Huaibao Feng, Imran Khan, Clarissa M. Uhlar, Tahamtan Ahmadi, Peter Michael Voorhees	Jun 06, 2015	Yes
	Citation: <i>Journal of Clinical Oncology</i> . 2015 Jun 06;33:LBA8512.			
	Person Total:		1 publication	
	original research journal article			
	Bortezomib-Containing Regimens for the Treatment of Newly Diagnosed and Relapsed Amyloid Light Chain Amyloidosis: A Single-Center Experience.	Jimenez-Zepeda VH, Duggan P, Neri P, Bahlis NJ	Mar 31, 2016	Yes
	Citation: <i>Clin Lymphoma Myeloma Leuk</i> . 2016 Mar 31.			
	Elotuzumab in combination with lenalidomide and dexamethasone in patients with relapsed multiple myeloma: final phase 2 results from the randomised, open-label, phase 1b-2 dose-escalation study.	Richardson PG, Jagannath S, Moreau P, Jakubowiak AJ, Raab MS, Facon T, Vij R, White D, Reece DE, Benboubker L, Zonder J, Tsao LC, Anderson KC, Bleickardt E, Singhal AK, Lonial S, 1703 study investigators	Dec 03, 2015	Yes
	Citation: <i>Lancet Haematol</i> . 2015 Dec 03;2(12):e516-27.			
	Cytogenetics and long-term survival of patients with refractory or relapsed and refractory multiple myeloma treated with pomalidomide and low-dose dexamethasone.	Dimopoulos MA, Weisel KC, Song KW, Delforge M, Karlin L, Goldschmidt H, Moreau P, Banos A, Oriol A, Garderet L, Cavo M, Ivanova V, Alegre A, Martinez-Lopez J, Chen C, Spencer A, Knop S, Bahlis NJ, Renner C, Yu X, Hong K, Sternas L, Jacques C, Zaki MH, San Miguel JF	Oct 03, 2015	Yes
	Citation: <i>Haematologica</i> . 2015 Oct 03;100(10):1327-33.			
	Impact of prior treatment and depth of response on survival in MM-003, a randomized phase 3 study comparing pomalidomide plus low-dose dexamethasone versus high-dose dexamethasone in relapsed/refractory multiple myeloma.	San Miguel JF, Weisel KC, Song KW, Delforge M, Karlin L, Goldschmidt H, Moreau P, Banos A, Oriol A, Garderet L, Cavo M, Ivanova V, Alegre A, Martinez-Lopez J, Chen C, Renner C, Bahlis NJ, Yu X, Teasdale T, Sternas L, Jacques C, Zaki MH, Dimopoulos MA	Oct 03, 2015	Yes
	Citation: <i>Haematologica</i> . 2015 Oct 03;100(10):1334-9.			

Name	Title	Authors	Publication Date	Peer Reviewed
	Coexistent B-cell and plasma cell neoplasms: a case series providing novel clinical insight.	Jamani K, Duggan P, Neri P, Bahlis N, Jimenez-Zepeda VH	Jun 14, 2015	Yes
	Citation: <i>Leuk Lymphoma</i> . 2015 Jun 14;1-17.			
	Health-related quality-of-life in patients with newly diagnosed multiple myeloma in the FIRST trial: lenalidomide plus low-dose dexamethasone versus melphalan, prednisone, thalidomide.	Delforge M, Minuk L, Eisenmann JC, Arnulf B, Canepa L, Fragasso A, Leyvraz S, Langer C, Ezaydi Y, Vogl DT, Giraldo-Castellano P, Yoon SS, Zarnitsky C, Escoffre-Barbe M, Lemieux B, Song K, Bahlis NJ, Guo S, Monzini MS, Ervin-Haynes A, Houck V, Facon T	Jun 03, 2015	Yes
	Citation: <i>Haematologica</i> . 2015 Jun 03;100(6):826-33.			
Person Total:			6 publications	
Carolyn J. Owen	original research journal article			
	A canadian perspective on the first-line treatment of chronic lymphocytic leukemia.	Owen C, Bence-Bruckler I, Chamakhi I, Toze C, Assaily W, Christofides A, Robinson S	Jun 03, 2015	No
	Citation: <i>Clin Lymphoma Myeloma Leuk</i> . 2015 Jun 03;15(6):303-13.			
	Obinutuzumab for the treatment of patients with previously untreated chronic lymphocytic leukemia: overview and perspective.	Owen CJ, Stewart DA	Aug 03, 2015	No
	Citation: <i>Ther Adv Hematol</i> . 2015 Aug 03;6(4):161-70.			
	Disease evolution and outcomes in familial AML with germline CEBPA mutations.	Tawana K, Wang J, Renneville A, Bödör C, Hills R, Loveday C, Savic A, Van Delft FW, Treleaven J, Georgiades P, Uglow E, Asou N, Uike N, Debeljak M, Jazbec J, Ancliff P, Gale R, Thomas X, Mialou V, Döhner K, Bullinger L, Mueller B, Pabst T, Stelljes M, Schlegelberger B, Wozniak E, Iqbal S, Okosun J, Araf S, Frank AK, Lauridsen FB, Porse B, Nerlov C, Owen C, Dokal I, Gribben J, Smith M, Preudhomme C, Chelala C, Cavenagh J, Fitzgibbon J	Sep 05, 2015	No
	Citation: <i>Blood</i> . 2015 Sep 05;126(10):1214-23.			
	New Treatment Perspectives in CLL: Using Disease and Patient Characteristics to Optimize Outcomes	Carolyn Owen MD,* Sarit Assouline MD,† John Kuruvilla MD,‡ David MacDonald MD,§ Anna Christofides MSc RD, Sarah Di Clemente MSc, Laurie Sehn MD#	Oct 01, 2015	No
	Citation: <i>New Evidence - Canadian Vision for Oncology</i> . 2015 Oct 01;Number 25(October 2015):78-85.			
	Update on recurrent genetic aberrations in acute myeloid leukemia	Jamani, Kareem; Owen, Carolyn	Oct 01, 2015	No
	Citation: <i>International Journal of Hematologic Oncology</i> . 2015 Oct 01;4(No. 5):179-190.			

Name	Title	Authors	Publication Date	Peer Reviewed	
	Novel Therapies for Chronic Lymphocytic Leukemia: A Canadian Perspective.	Owen C, Assouline S, Kuruvilla J, Uchida C, Bellingham C, Sehn L	Nov 03, 2015	No	
	Citation: <i>Clin Lymphoma Myeloma Leuk.</i> 2015 Nov 03;15(11):627-634.e5.				
	Ibrutinib as Initial Therapy for Patients with Chronic Lymphocytic Leukemia.	Burger JA, Tedeschi A, Barr PM, Robak T, Owen C, Ghia P, Bairey O, Hillmen P, Bartlett NL, Li J, Simpson D, Grosicki S, Devereux S, McCarthy H, Coutre S, Quach H, Gaidano G, Maslyak Z, Stevens DA, Janssens A, Offner F, Mayer J, O'Dwyer M, Hellmann A, Schuh A, Siddiqi T, Polliack A, Tam CS, Suri D, Cheng M, Clow F, Styles L, James DF, Kipps TJ, RESONATE-2 Investigators	Dec 19, 2015	No	
	Citation: <i>N Engl J Med.</i> 2015 Dec 19;373(25):2425-37.				
	Quantifying Benefit of Autologous Transplantation for Relapsed Follicular Lymphoma Patients via Instrumental Variable Analysis.	Oh DH, Li H, Duan Q, Villa D, Peters A, Chua N, Owen CJ, Connors JM, Stewart DA	Jan 18, 2016	No	
	Citation: <i>Biol Blood Marrow Transplant.</i> 2016 Jan 18.				
	Azacitidine in the treatment of blastic plasmacytoid dendritic cell neoplasm: a report of 3 cases.	Khwaja R, Daly A, Wong M, Mahé E, Cerquozzi S, Owen C	Mar 19, 2016	No	
	Citation: <i>Leuk Lymphoma.</i> 2016 Mar 19:1-3.				
Person Total:			9 publications		
Man-Chiu Poon	abstract				
	Independent Adjudicator assessment of efficacy of recombinant factor VIIa in bleeding/surgery in the Glanzmann's Thrombasthenia Registry (GTR).	Chitlur M, Rajpurkar M, Recht M, Cooper D, d'Oiron R, Zotz R, Di Minno G, Poon M-C.	Apr 18, 2015	Yes	
	Citation: <i>The Hemostasis and Thrombosis Research Society (HTRS) 2015 Scientific Symposium, New Orleans, LA, USA Apr 16-18, 2015.</i> 2015 Apr 18.				
	Results of assessment of refractoriness of the observational multinational Glanzmann's Thrombasthenia Registry (GTR).	Recht M, Rajpurkar M, Chitlur M, Cooper D, d'Oiron R, Zotz R, Di Minno G, Poon M-C.	Apr 18, 2015	Yes	
	Citation: <i>The Hemostasis and Thrombosis Research Society (HTRS) 2015 Scientific Symposium, New Orleans, LA, USA Apr 16-18, 2015.</i> 2015 Apr 18.				
	Patient-reported fractures in Hemophilia.	Lee A, Khanna P, Poon M-C.	May 01, 2015	Yes	
	Citation: <i>Haemophilia.</i> 2015 May 01.				
	Benign joint hypermobility syndrome is prevalent in children with undefined bleeding disorders.	Steele M, VanGunst S, Odiaman L, Poon M-C, Jackson S.	Jun 20, 2015	Yes	
	Citation: <i>[XXV Congress of the International Society on Thrombosis and Haemostasis, Toronto, Canada, June 20-25, 2015.]</i> 2015 Jun 20.				
	Person Total:			4 publications	
	book chapter				
	Coagulation Factor Concentrates. Chapter 5 (update), Clinical Guide to Transfusion	Poon M-C, Goodyear MD, Lee A.	Jun 20, 2015	Yes	
	Citation: 2015 Jun 20.				
	Hemostatic Disorders. Chapter 17 (update), Clinical Guide to Transfusion	Poon M-C, Goodyear MD, Lee A.	Jun 20, 2015	Yes	
	Citation: 2015 Jun 20.				
Person Total:			2 publications		

Name	Title	Authors	Publication Date	Peer Reviewed
Jan Storek	abstract			
	Autologous Hematopoietic Stem Cell Transplantation in Neuromyelitis Optica-An Update.	Burton J, Metz L, Storek J	Apr 01, 2015	No
	Citation: American Academy of Neurology Annual Meeting, Washington, DC. 2015 Apr 01.			
	Person Total:			1 publication
	original research journal article			
	Older recipient age is paradoxically associated with a lower incidence of chronic GVHD in Thymoglobulin recipients: a retrospective study exploring risk factors for GVHD in allogeneic transplantation with Thymoglobulin GVHD prophylaxis.	Lim AB, Storek J, Beligaswatte A, Collins M, Tacey M, Williamson T, Mason K, Li E, Chaudhry MA, Russell JA, Daly A, Szer J, Lewis I, Ritchie D	Apr 03, 2015	No
	Citation: Bone Marrow Transplant. 2015 Apr 03;50(4):566-72.			
	Person Total:			1 publication
	Division Total:			24 publications
Infectious Diseases				
John Conly	abstract			
	Prevalence of colonization with Staphylococcus aureus in patients attending inner city community clinics in Calgary	A Ugarte Torres, A Chu, R Read, T Louie, D Gregson, L Ward, J DeLongchamp, J McClure, K Zhang, J MacDonald, J Conly	May 21, 2015	Yes
	Citation: Internal Medicine Research Day . 2015 May 21.			
	Environmental scan of Canadian infection prevention and control practices for containment of outbreaks in acute care hospital settings.	Geransar R, Ocampo W, Clayden N, Jones J, Dahodwala M, de Grood J, Joffe M, Taylor G, Missaghi B, Pearce C, Groeneveld A, Ghali W, Conly J.	Jun 15, 2015	Yes
	Citation: Poster presentation. 2015 Jun 15.			
	Investigation of a perceived increase in cardiac implantable cardioverter-defibrillator (ICD) and pacemaker (PPM) surgical site infections (SSI) at a tertiary care center.	Tremblay I, Kavanagh K, Hillier K, Conly J.	Jun 15, 2015	Yes
	Citation: Poster presentation. 2015 Jun 15.			
	Human factors evaluation of simulated Ebola virus disease patient scenarios: system factors and the potential For health care worker contamination.	Hallihan G, Wiley K, Baers J, Davies J, Conly J, Caird J.	Jun 15, 2015	Yes
	Citation: Oral Presentation at the IPAC Canada 2015 National Education Conference. 2015 Jun 15.			
	Human Factors Evaluation to Identify Systems Factors to Improve Safety during Donning and Doffing Personal Protective Equipment (PPE) in Ebola Virus Disease Management Scenarios	Hallihan GM, Baers JH, Wiley K, Davies JM, Kaufman J, Conly J, Caird JK.	Oct 10, 2015	Yes
	Citation: Presented at ID Week. 2015 Oct 10.			
	Severe skin lesions induced by a predominant CA-MRSA strain USA300 are associated with a unique neutrophil response and involvement of Proteinase Activated Receptors (PARS)	Zhang J, Conly J, McClure J, Wu K, Tambalo D, Petri D Barber, Elsayed S, Armstrong G, Hollenberg M, Zhang K.	Apr 17, 2015	Yes
	Citation: Can J Infect Dis Med Microbiol Vol 26 No 2 March/April 2015. 2015 Apr 17;26(2).			
	Person Total:			6 publications

Name	Title	Authors	Publication Date	Peer Reviewed
	book chapter			
	Principles of Critical Care Fourth Edition. "Soft Tissue Infections"	Conly, J	Aug 01, 2015	Yes
	Citation: 2015 Aug 01.			
	Person Total:		1 publication	
	original research journal article			
	Colistin-Nonsusceptible Pseudomonas aeruginosa Sequence Type 654 with blaNDM-1 Arrives in North America.	Mataseje LF, Peirano G, Church DL, Conly J, Mulvey M, Pitout JD	Jan 13, 2016	Yes
	Citation: Antimicrob Agents Chemother. 2016 Jan 13;60(3):1794-800.			
	Molecular Characterization by Using Next-Generation Sequencing of Plasmids Containing blaNDM-7 in Enterobacteriaceae from Calgary, Canada.	Chen L, Peirano G, Lynch T, Chavda KD, Gregson DB, Church DL, Conly J, Kreiswirth BN, Pitout JD	Dec 09, 2015	Yes
	Citation: Antimicrob Agents Chemother. 2015 Dec 09;60(3):1258-63.			
	Use of ward closure to control outbreaks among hospitalized patients in acute care settings: a systematic review.	Wong H, Eso K, Ip A, Jones J, Kwon Y, Powelson S, de Grood J, Geransar R, Santana M, Joffe AM, Taylor G, Missaghi B, Pearce C, Ghali WA, Conly J	Nov 09, 2015	Yes
	Citation: Syst Rev. 2015 Nov 09;4:152.			
	The development and application of a molecular community profiling strategy to identify polymicrobial bacterial DNA in the whole blood of septic patients.	Faria MM, Conly JM, Surette MG	Oct 18, 2015	Yes
	Citation: BMC Microbiol. 2015 Oct 18;15:215.			
	Efficacy of a pressure-sensing mattress cover system for reducing interface pressure: study protocol for a randomized controlled trial.	Wong H, Kaufman J, Baylis B, Conly JM, Hogan DB, Stelfox HT, Southern DA, Ghali WA, Ho CH	Oct 01, 2015	Yes
	Citation: Trials. 2015 Oct 01;16:434.			
	The development and application of a molecular community profiling strategy to identify polymicrobial bacterial DNA in the whole blood of septic patients.	Faria MMP, Conly J, Surette MG	Oct 14, 2015	No
	Citation: BMC Microbiology (2015). 2015 Oct 14;15:215.			
	Antimicrobial use over a four-year period using day of therapy measurement at a Canadian pediatric acute care hospital	Dalton BR, MacTavish SJ, Bresee LC, Rajapakse N, Vanderkooi O, Vayalumkal J, Conly J	Oct 01, 2015	Yes
	Citation: Can J Infect Dis Med Microbiol 2015. 2015 Oct 01;26(5):253-258.			
	Potential Health Care Worker Contamination during Personal Protective Equipment Removal and Disposal: Video-Analysis of Ebola Virus Disease Patient Simulations.	Hallihan G, Davies J, Baers J, Wiley K, Kaufman J, Conly J, Caird J.	Sep 15, 2015	Yes
Citation: Proceedings of the Human Factors and Ergonomics Society 59th Annual Meeting. 2015 Sep 15;59(1):543-7.				
Use of ward closure to control outbreaks among hospitalized patients in acute care settings: a systematic review.	Wong H, Eso K, Ip A, Jones J, Kwon Y, Powelson S, de Grood J, Geransar R, Santana M, Joffe AM, Taylor G, Missaghi B, Pearce C, Ghali WA, Conly J.	Nov 07, 2015	Yes	
Citation: Syst Rev. 2015. 2015 Nov 07.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Efficacy of a pressure-sensing mattress cover system for reducing interface pressure: study protocol for a randomized controlled trial.	Wong H, Kaufman J, Baylis B, Conly JM, Hogan DB, Stelfox HT, Southern DA, Ghali WA, Ho CH	Sep 29, 2015	Yes
Citation: <i>Trials</i> 2015. 2015 Sep 29.				
	Molecular Characterization by Using Next-Generation Sequencing of Plasmids Containing bla _{NDM-7} in Enterobacteriaceae from Calgary, Canada.	Chen L, Peirano G, Lynch T, Chavda KD, Gregson DB, Church DL, Conly J, Kreiswirth BN, Pitout JD	Dec 07, 2015	Yes
Citation: <i>Antimicrob Agents Chemother.</i> 2015. 2015 Dec 07.				
	Use of an electronic medication administration record for surveillance of medication omissions: results of a one year study of antimicrobials in the inpatient setting.	Dalton B, Sabuda D, Bresee L, Conly J.	Apr 09, 2015	Yes
Citation: <i>PLoS One.</i> 2015. 2015 Apr 09.				
	Implications of design on infection prevention and control practice in a novel hospital unit: The Medical Ward of the 21st Century. Anthropology & Medicine Journal	IN-PRESS ARTICLE - NOT PUBLISHED APRIL 2015	Apr 01, 2015	No
Citation: <i>Anthropology & Medicine Journal.</i> 2015 Apr 01.				
Person Total:			13 publications	
other				
	Colistin resistant <i>Pseudomonas aeruginosa</i> ST654 with bla _{NDM-1} arrives in North America	Mataseje LF, Peirano G, Church DL, Conly J, Mulvey M, Pitout JD	Sep 19, 2015	Yes
Citation: 2015 Sep 19.				
Person Total:			1 publication	
poster				
	The ?-Hemolysin (Hla) Gene Knockout (KO) in Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) USA300 Alters the Local Host Cytokine/Chemokine Profile to Levels Induced by MRSA Non-Dermonecrosis Strains in a Murine Dermonecrosis Model	Zhang J, Conly J, Wu K, Harding M, DeLongchamp J, McClure J, Zhang K	Jan 01, 2016	Yes
Citation: 2016 Jan 01.				
	Novel findings in the epidemiology of <i>Staphylococcus aureus</i> in patients attending inner city community clinics in Calgary.	Ugarte Torres A, Chu A, Read R, Louie T, Gregson D, Ward L, DeLongchamp J, McClure J, Zhang K, MacDonald J, Conly J	Oct 11, 2015	Yes
Citation: 2015 Oct 11.				
	The Components of an Successful Advanced Fellowship Training Program in Pediatric Antimicrobial Stewardship	Rajapakse N, Vayalumkal JV, Bresee L, Dalton B, Jadavji T, Tsang C, Vanderkooi OG, Conly J	Oct 10, 2015	Yes
Citation: 2015 Oct 10.				
Person Total:			3 publications	

Name	Title	Authors	Publication Date	Peer Reviewed
Michael Gill	original research journal article			
	Trends in incidences and risk factors for hepatocellular carcinoma and other liver events in HIV and hepatitis C virus co-infected individuals from 2001 to 2014: a multi-cohort study.	Gjærde Lars I., Shepherd L. Jablonowska E. Lazzarin, A., Rougemont, M., Darling K., Battegay M, Braun D. Martel-Laferriere V. Lundgren JD., Rockstroh Jürgen K., Gill MJ, Rauch A, Mocroft A., Klein MB., Peters L.	Jul 01, 2015	Yes
	Citation: <i>Clinical infectious Diseases</i> . 2015 Jul 01.			
	Changes in quality of life, healthcare use and substance use in HIV-hepatitis C co-infected patients after Hepatitis C therapy: a prospective cohort study.	Yeung MW, Young J, Moodie EEM, Rollet-Kurhajec KC, Schwartzman K, Greenaway C, Cooper C, Cox J, Gill MJ, Hull M, Walmsley S, Klein MB, for the Canadian Co-infection Cohort Study Investigators.	Jul 01, 2015	Yes
	Citation: <i>HIV Clinical Trials</i> . 2015 Jul 01;16(3):100-110..			
	Decision making under explicit risk is impaired in individuals with human immunodeficiency virus (HIV)	Fujiwara E, Tomlinson SE, Purdon SE, Gill MJ, Power C.	Jul 01, 2015	Yes
	Citation: <i>Journal of Clinical and Experimental Neuropsychology</i> . 2015 Jul 01;37(7):733-750.			
	Detection of Hepatitis B virus (HBV) genomes and HBV drug resistant variants by deep sequencing analysis of HBV genomes in immune cello subsets of HBV mono-infected and/or human immunodeficiency virus type-1 (HIV-1) and HBV co-infected individuals.	Lee Z, Nishikawa S, Gao S, Eksteen JB, Czub M, Gill MJ, Oslowy C, van der Meer F, van Marle G, Coffin CS	Jul 01, 2015	Yes
	Citation: <i>PLoS Pathogens</i> . 2015 Jul 01;10(9):e0137568 doi 10.1371.			
	Mortality of treated HIV-1 positive individuals according to viral subtype in Europe and Canada: collaborative cohort analysis.	ART-CC, CANOC, UK CHIC, COHERE. (Dr. Gill was on both the steering and writing committees for this work).	Jul 01, 2015	Yes
	Citation: <i>AIDS</i> . 2015 Jul 01;30(3):503-513.			
	Treatment outcomes with telaprevir-based therapy for HIV/Hepatitis C-co-infected patients are comparable to HCV-monoinfected patients.	O'Neil CR, Pang JXQ, Lee S, Swain MG, Burak KW, Klein P, Myers RP, Kapler J, Gill MJ, Labrie M, Coffin C.	Jul 01, 2015	Yes
	Citation: <i>Canadian Journal of Infectious Diseases & Medical Microbiology</i> . 2015 Jul 01;26(6):293-296.			
	Dual therapy treatment strategies for the management of patients infected with HIV: a systematic review of current evidence in ARV-naïve or ARV-experienced virologically suppressed patients	Baril JG, Angel JB, Gill MJ, Gathe J, Cahn P, van Wyk J, Walmsley S	Jan 01, 2016	Yes
	Citation: <i>PLOS One</i> . 2016 Jan 01;11(2):e0148231.			

Name	Title	Authors	Publication Date	Peer Reviewed
	Laboratory measures are imperfect proxies of primary care encounters: implications for quantifying clinical retention among HIV-infected adults in North America	Rebeiro PF, Alhoff KN, Lau B, gill MJ, Abraham AG, Horberg MA, Kitahata MM, Yehia Baligh R, Samji H, Brooks JT, Buchacz K, Napravnik S, Silverberg MJ, Rachlis A, Gebo KA, Sterling TR, Moore Rd, Gang Sj for the North American AIDS Cohort Collaboration on Research Design (NA-ACCORD)	Jul 01, 2015	Yes
Citation: <i>American Journal of Epidemiology</i> . 2015 Jul 01;182(11):952-960.				
	Injection drug use and Hepatitis C are risk factors for mortality in HIV-infected individuals: The Antiretroviral Therapy Cohort Collaboration	May MT, Justice AC, Birnie K, Ingle SM, Smit C, SMith C, Neau D, Guiguet M, Schwarze-Zander C, Moreno S, guest JL,d'Arminio Monforte A, Tural C, Gill MJ, Bregenzer A, Kirk O, Saag M, Sterling TR, Crane HM, Sterne JAC	Jul 01, 2015	Yes
Citation: <i>JAIDS</i> . 2015 Jul 01;69(3):348-354.				
	A Case of Long-Term Seronegative Human Immunodeficiency Virus (HIV) Infection: The Importance of the Humoral Response to HIV.	Siemieniuk RA, van der Meer F, van Marle G, Gill MJ	Jan 03, 2016	Yes
Citation: <i>Open Forum Infect Dis</i> . 2016 Jan 03;3(1):ofv209.				
	Maintaining the continuity of HIV-care records for patients transferring care between centers: challenges, workloads, needs and risks.	Gill MJ, Ody M, Lynch T, Jessiman-Perreault L, Krentz HB	Feb 03, 2016	Yes
Citation: <i>AIDS Care</i> . 2016 Feb 03:1-6.				
	How Generalizable Are the Results From Trials of Direct Antiviral Agents to People Coinfected With HIV/HCV in the Real World?	Saeed S, Strumpf EC, Walmsley SL, Rollet-Kurhajec K, Pick N, Martel-Laferrrière V, Hull M, Gill MJ, Cox J, Cooper C, Klein MB, Canadian Co-Infection Cohort Study	Jan 08, 2016	Yes
Citation: <i>Clin Infect Dis</i> . 2016 Jan 08.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Using observational data to emulate a randomized trial of dynamic treatment-switching strategies: an application to antiretroviral therapy.	Cain LE, Saag MS, Petersen M, May MT, Ingle SM, Logan R, Robins JM, Abgrall S, Shepherd BE, Deeks SG, Gill MJ, Touloumi G, Vourli G, Dabis F, Vandenhende MA, Reiss P, van Sighem A, Samji H, Hogg RS, Rybniker J, Sabin CA, Jose S, Del Amo J, Moreno S, Rodríguez B, Cozzi-Lepri A, Boswell SL, Stephan C, Pérez-Hoyos S, Jarrin I, Guest JL, Monforte AD, Antinori A, Moore R, Campbell CN, Casabona J, Meyer L, Seng R, Phillips AN, Bucher HC, Egger M, Mugavero MJ, Haubrich R, Geng EH, Olson A, Eron JJ, Napravnik S, Kitahata MM, Van Rompaey SE, Teira R, Justice AC, Tate JP, Costagliola D, Sterne JA, Hernán MA, Antiretroviral Therapy Cohort Collaboration, the Centers for AIDS Research Network of Integrated Clinical Systems, and the HIV-CAUSAL Collaboration	Jan 02, 2016	Yes
Citation: <i>Int J Epidemiol.</i> 2016 Jan 02.				
	Montreal Cognitive Assessment Performance in HIV/AIDS: Impact of Systemic Factors.	Koenig N, Fujiwara E, Gill MJ, Power C	Jan 03, 2016	Yes
Citation: <i>Can J Neurol Sci.</i> 2016 Jan 03;43(1):157-62.				
	Mortality in migrants with HIV in western Europe.	Gill MJ, Krentz HB	Dec 03, 2015	Yes
Citation: <i>Lancet HIV.</i> 2015 Dec 03;2(12):e508-9.				
	Central nervous system penetration effectiveness of antiretroviral drugs and neuropsychological impairment in the Ontario HIV Treatment Network Cohort Study.	Carvalho A, Gill MJ, Letendre SL, Rachlis A, Bekele T, Raboud J, Burchell A, Rourke SB, and the Centre for Brain Health in HIV/AIDS	Nov 18, 2015	Yes
Citation: <i>J Neurovirol.</i> 2015 Nov 18.				
	The Impact of Non-Antiretroviral Polypharmacy on the Continuity of Antiretroviral Therapy (ART) Among HIV Patients.	Krentz HB, Gill MJ	Jan 03, 2016	Yes
Citation: <i>AIDS Patient Care STDS.</i> 2016 Jan 03;30(1):11-7.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Cumulative Incidence of Cancer Among Persons With HIV in North America: A Cohort Study.	Silverberg MJ, Lau B, Achenbach CJ, Jing Y, Althoff KN, D'Souza G, Engels EA, Hessol NA, Brooks JT, Burchell AN, Gill MJ, Goedert JJ, Hogg R, Horberg MA, Kirk GD, Kitahata MM, Korthuis PT, Mathews WC, Mayor A, Modur SP, Napravnik S, Novak RM, Patel P, Rachlis AR, Sterling TR, Willig JH, Justice AC, Moore RD, Dubrow R, North American AIDS Cohort Collaboration on Research and Design of the International Epidemiologic Databases to Evaluate AIDS	Oct 08, 2015	Yes
Citation: <i>Ann Intern Med.</i> 2015 Oct 08;163(7):507-18.				
	Injection Drug Use and Hepatitis C as Risk Factors for Mortality in HIV-Infected Individuals: The Antiretroviral Therapy Cohort Collaboration.	May MT, Justice AC, Birnie K, Ingle SM, Smit C, Smith C, Neau D, Guiguet M, Schwarze-Zander C, Moreno S, Guest JL, Monforte Ad, Tural C, Gill MJ, Bregenzer A, Kirk O, Saag M, Sterling TR, Crane HM, Sterne JA	Jul 03, 2015	Yes
Citation: <i>J Acquir Immune Defic Syndr.</i> 2015 Jul 03;69(3):348-54.				
	Rising Obesity Prevalence and Weight Gain Among Adults Starting Antiretroviral Therapy in the United States and Canada.	Koethe JR, Jenkins CA, Lau B, Shepherd BE, Justice AC, Tate JP, Buchacz K, Napravnik S, Mayor AM, Horberg MA, Blashill AJ, Willig A, Wester CW, Silverberg MJ, Gill J, Thorne JE, Klein M, Eron JJ, Kitahata MM, Sterling TR, Moore RD, North American AIDS Cohort Collaboration on Research and Design (NA-ACCORD)	Jan 03, 2016	Yes
Citation: <i>AIDS Res Hum Retroviruses.</i> 2016 Jan 03;32(1):50-8.				
	Impact of age on retention in care and viral suppression.	Yehia BR, Rebeiro P, Althoff KN, Agwu AL, Horberg MA, Samji H, Napravnik S, Mayer K, Tedaldi E, Silverberg MJ, Thorne JE, Burchell AN, Rourke SB, Rachlis A, Mayor A, Gill MJ, Zinski A, Ohl M, Anastos K, Abraham AG, Kitahata MM, Moore RD, Gebo KA, North American AIDS Cohort Collaboration on Research and Design (NA-ACCORD)	Apr 03, 2015	Yes
Citation: <i>J Acquir Immune Defic Syndr.</i> 2015 Apr 03;68(4):413-9.				
Person Total:			21 publications	
Michael D. Parkins	abstract			
	Infection control (IC) knowledge, beliefs and behaviours (KBB) amongst those with epidemic <i>Pseudomonas aeruginosa</i> (ePA).	Somayaji R, Waddell B, Workentine ML, Nyberg L, Leong J, Rabin HR, Brager NP, Surette MG and MD Parkins.	Jun 12, 2015	Yes
	Citation: <i>Journal of Cystic Fibrosis.</i> 2015 Jun 12;16(S47).			

Name	Title	Authors	Publication Date	Peer Reviewed
	Incidence and impact of Klebsiella species respiratory infections in cystic fibrosis patients: a longitudinal single centre study.	Phang S, Rabin HR and MD Parkins.	Jun 12, 2015	Yes
	Citation: <i>American Journal of Respiratory and Critical Care Medicine</i> . 2015 Jun 12.			
	Clinical outcomes of chronic 'Prairie Epidemic Strain' Pseudomonas aeruginosa infection in adults with cystic fibrosis.	2. Somayaji R, Lam J, Surette M, Waddell B, Purighalla S, Sibley C, Rabin H and MD Parkins	Jun 12, 2015	Yes
	Citation: <i>Journal of Cystic Fibrosis</i> . 2015 Jun 12;16(S47).			
	Is epidemic Pseudomonas aeruginosa infection in patients with cystic fibrosis a risk factor for poor clinical outcome following lung transplantation?	Pritchard J, Waddell B, Somayaji R, Rabin HR, Lien D, Thakrar M and MD Parkins	May 12, 2015	Yes
	Citation: <i>American Journal of Respiratory and Critical Care Medicine</i> . 2015 May 12.			
	Person Total:		4 publications	
	original research journal article			
	Tobramycin Inhalation Powder: an efficient and efficacious therapy for the treatment of Pseudomonas aeruginosa infection in cystic fibrosis.	Somayaji,R and MD Parkins	Jun 01, 2015	Yes
	Citation: <i>Future Medicine</i> . 2015 Jun 01;6 (2):121-37.			
	Emerging Bacterial Pathogens in Cystic Fibrosis.	Parkins MD and RA Floto.	Jun 01, 2015	Yes
	Citation: <i>Journal of Cystic Fibrosis</i> . 2015 Jun 01;May;14(3) :293-304 .			
	Reduction in Pseudomonas aeruginosa sputum density during a cystic fibrosis pulmonary exacerbation does not predict clinical response.	Lam J, Somayaji R, Surette MG, Rabin HR and MD Parkins.	Apr 03, 2015	Yes
	Citation: <i>BMC Infectious Diseases</i> . . 2015 Apr 03;Mar 22;15:145.			
Prevalence and Impact of Streptococcus pneumoniae in Adult Cystic Fibrosis Patients: A Retrospective Chart Review and Capsular Serotyping Study.	Thornton CS, Brown EL Alcantara JS, Rabin HR and MD Parkins.	May 01, 2015	Yes	
Citation: <i>BMC Pulmonary Medicine</i> . 2015 May 01;May 2;15(1):49.				
Person Total:		4 publications		
Harvey R. Rabin	original research journal article			
	Prevalence and impact of Streptococcus pneumoniae in adult cystic fibrosis patients: a retrospective chart review and capsular serotyping study.	Thornton CS, Brown EL, Alcantara J, Rabin HR, Parkins MD	May 04, 2015	Yes
	Citation: <i>BMC Pulm Med</i> . 2015 May 04;15:49.			
	Noninvasive methods, including transient elastography, for the detection of liver disease in adults with cystic fibrosis.	Sadler MD, Crotty P, Fatovich L, Wilson S, Rabin HR, Myers RP	Apr 03, 2015	Yes
	Citation: <i>Can J Gastroenterol Hepatol</i> . 2015 Apr 03;29(3):139-44.			
	Fluorodeoxyglucose Positron Emission Tomography/Computed Tomography Interpretation Criteria for Assessment of Antibiotic Treatment Response in Pyogenic Spine Infection.	Riccio SA, Chu AK, Rabin HR, Kloiber R	May 03, 2015	Yes
	Citation: <i>Can Assoc Radiol J</i> . 2015 May 03;66(2):145-52.			
Person Total:		3 publications		

Name	Title	Authors	Publication Date	Peer Reviewed
Ronald R. Read	original research journal article			
	Gonorrhea Treatment Failures With Oral and Injectable Expanded Spectrum Cephalosporin Monotherapy vs Dual Therapy at 4 Canadian Sexually Transmitted Infection Clinics, 2010-2013.	Singh AE, Gratrix J, Martin I, Friedman DS, Hoang L, Lester R, Metz G, Ogilvie G, Read R, Wong T	Jun 03, 2015	Yes
	Citation: Sex Transm Dis. 2015 Jun 03;42(6):331-6.			
	Person Total:		1 publication	
	Division Total:		57 publications	
Nephrology				
Sofia B. Ahmed	original research journal article			
	Role of vascular function in predicting arteriovenous fistula outcomes: an observational pilot study.	MacRae JM, Ahmed S, Hemmelgarn B, Sun Y, Martin BJ, Roifman I, Anderson T.	May 04, 2015	Yes
	Citation: Can J Kidney Health Dis.. 2015 May 04.			
	The effect of hormone therapy on all-cause and cardiovascular mortality in women with chronic kidney disease: protocol for a systematic review and meta-analysis.	Ramesh S, Mann MC, Holroyd-Leduc JM, Wilton SB, James MT, Seely EW, Ahmed SB	Apr 10, 2015	Yes
	Citation: Syst Rev. 2015 Apr 10;4(1):44.			
	Predictors of successful completion of diagnostic home sleep testing in patients with chronic kidney disease.	Lee J, Turin TC, Nicholl DD, Ahmed SB, Loewen AH, Hemmelgarn BR, Azad AK, Hanly PJ	May 03, 2015	Yes
	Citation: Sleep Breath. 2015 May 03;19(2):669-75.			
	Vitamin D, the autonomic nervous system, and cardiovascular risk.	Mann MC, Hollenberg MD, Hanley DA, Ahmed SB	Apr 03, 2015	Yes
	Citation: Physiol Rep. 2015 Apr 03;3(4).			
	Nocturnal hypoxemia severity and renin-angiotensin system activity in obstructive sleep apnea.	Zalucky AA, Nicholl DD, Hanly PJ, Poulin MJ, Turin TC, Walji S, Handley GB, Raneri JK, Sola DY, Ahmed SB	Oct 03, 2015	Yes
	Citation: Am J Respir Crit Care Med. 2015 Oct 03;192(7):873-80.			
	Human intermittent hypoxia-induced respiratory plasticity is not caused by inflammation.	Beaudin AE, Waltz X, Pun M, Wynne-Edwards KE, Ahmed SB, Anderson TJ, Hanly PJ, Poulin MJ	Oct 03, 2015	Yes
	Citation: Eur Respir J. 2015 Oct 03;46(4):1072-83.			
	Vitamin D supplementation is associated with stabilization of cardiac autonomic tone in IgA nephropathy.	Mann MC, Hemmelgarn BR, Exner DV, Hanley DA, Turin TC, Wheeler DC, Sola DY, Ellis L, Ahmed SB	Aug 03, 2015	Yes
	Citation: Hypertension. 2015 Aug 03;66(2):e4-6.			
	Person Total:		7 publications	
Ellen D. Burgess	original research journal article			
	Assessment and management of hypertension in transplant patients.	Weir MR, Burgess ED, Cooper JE, Fenves AZ, Goldsmith D, McKay D, Mehrotra A, Mitsnefes MM, Sica DA, Taler SJ	Jun 03, 2015	Yes
	Citation: J Am Soc Nephrol. 2015 Jun 03;26(6):1248-60.			

Name	Title	Authors	Publication Date	Peer Reviewed
	The 2015 canadian hypertension education program recommendations for blood pressure measurement, diagnosis, assessment of risk, prevention, and treatment of hypertension.	Daskalopoulou SS, Rabi DM, Zarnke KB, Dasgupta K, Nerenberg K, Cloutier L, Gelfer M, Lamarre-Cliche M, Milot A, Bolli P, McKay DW, Tremblay G, McLean D, Tobe SW, Ruzicka M, Burns KD, Vallée M, Ramesh Prasad GV, Lebel M, Feldman RD, Selby P, Pipe A, Schiffrin EL, McFarlane PA, Oh P, Hegele RA, Khara M, Wilson TW, Brian Penner S, Burgess E, Herman RJ, Bacon SL, Rabkin SW, Gilbert RE, Campbell TS, Grover S, Honos G, Lindsay P, Hill MD, Coutts SB, Gubitz G, Campbell NR, Moe GW, Howlett JG, Boulanger JM, Prebtani A, Larochelle P, Leiter LA, Jones C, Ogilvie RI, Woo V, Kaczorowski J, Trudeau L, Petrella RJ, Hiremath S, Stone JA, Drouin D, Lavoie KL, Hamet P, Fodor G, Grégoire JC, Fournier A, Lewanczuk R, Dresser GK, Sharma M, Reid D, Benoit G, Feber J, Harris KC, Poirier L, Padwal RS, Canadian Hypertension Education Program	May 03, 2015	No
	Citation: <i>Can J Cardiol.</i> 2015 May 03;31(5):549-68.			
	Person Total:		2 publications	
Matthew James	original research journal article			
	Kidney function does not modify the favorable quality of life changes associated with revascularization for coronary artery disease: Cohort study	James MT, Wilton SB, Clement FM, Ghali WA, Knudtson ML, Tan Z, Tonelli M, Hemmelgarn BR, Norris CM.	Jan 04, 2016	Yes
	Citation: <i>American Heart Association.</i> 2016 Jan 04.			
	Can Acute Kidney Injury Be Considered a Clinical Quality Measure. <i>Nephron.</i> 2015;131(4):237-41.	James MT, Pannu N.	Oct 14, 2015	Yes
	Citation: <i>Nephron.</i> 2015 Oct 14;131(4):237-41.			
	Guidelines for Classification of Acute Kidney Diseases and Disorders. <i>Nephron.</i> 2015;131(4):221-6.	Barry R, James MT.	Oct 14, 2015	Yes
	Citation: <i>Nephron.</i> 2015 Oct 14;131(4):221-6.			
	Treatment of Sleep Disordered Breathing Liberates Obese Hypoxemic Patients from Oxygen.	Povitz M, Hanly PJ, Pendharkar SR, James MT, Tsai WH.	Oct 15, 2015	Yes
	Citation: <i>PLoS One.</i> 2015 Oct 15.			
	Acute kidney injury: Do electronic alerts for AKI improve outcomes?	James MT, Garg AX	Apr 23, 2015	Yes
	Citation: <i>Nat Rev Nephrol.</i> 2015 Apr 23.			

Name	Title	Authors	Publication Date	Peer Reviewed
	Methods for identifying 30 chronic conditions: application to administrative data.	Tonelli M, Wiebe N, Fortin M, Guthrie B, Hemmelgarn BR, James MT, Klarenbach SW, Lewanczuk R, Manns BJ, Ronksley P, Sargious P, Straus S, Quan H, Alberta Kidney Disease Network	Apr 19, 2015	Yes
Citation: <i>BMC Med Inform Decis Mak.</i> 2015 Apr 19;15(1):31.				
	The effect of hormone therapy on all-cause and cardiovascular mortality in women with chronic kidney disease: protocol for a systematic review and meta-analysis.	Ramesh S, Mann MC, Holroyd-Leduc JM, Wilton SB, James MT, Seely EW, Ahmed SB	Apr 10, 2015	Yes
Citation: <i>Syst Rev.</i> 2015 Apr 10;4(1):44.				
	Prevalence of Sleep Disordered Breathing in Obese Chronically Hypoxemic Patients: A Cross-Sectional Study.	Povitz M, James MT, Pendharkar SR, Raneri J, Hanly PJ, Tsai WH	Apr 01, 2015	Yes
Citation: <i>Ann Am Thorac Soc.</i> 2015 Apr 01.				
	A Meta-analysis of the Association of Estimated GFR, Albuminuria, Diabetes Mellitus, and Hypertension With Acute Kidney Injury	James MT, Grams M, Woodward M, Elley CR, Green JA, Wheeler DC, de Jong P, Gansevoort RT, Levey AS, Warnock DG, Sarnak M.	Apr 30, 2015	Yes
Citation: <i>American Journal of Kidney Disease.</i> 2015 Apr 30.				
	A Modified Delphi Process to Identify Process of Care Indicators for the Identification, Prevention and Management of Acute Kidney Injury after Major Surgery.	James MT, Pannu N, Dueck R, Karsanji D, Tonelli M, Hemmelgarn BR, Manns BJ, Bagshaw SM, Stelfox HT, Dixon E	Apr 20, 2015	Yes
Citation: <i>Can J Kidney Health and Disease.</i> 2015 Apr 20.				
	Crescentic Glomerulonephritis: Variation in Markers of Kidney Function and Structure.	Chun J, James MT	Mar 03, 2016	Yes
Citation: <i>Am J Kidney Dis.</i> 2016 Mar 03;67(3):355-6.				
	Area Median Income and Metropolitan Versus Nonmetropolitan Location of Care for Acute Coronary Syndromes: A Complex Interaction of Social Determinants.	Fabreau GE, Leung AA, Southern DA, James MT, Knudtson ML, Ghali WA, Ayanian JZ	Feb 25, 2016	Yes
Citation: <i>J Am Heart Assoc.</i> 2016 Feb 25;5(2).				
	Preemptive Correction of Arteriovenous Access Stenosis: A Systematic Review and Meta-analysis of Randomized Controlled Trials.	Ravani P, Quinn RR, Oliver MJ, Karsanji DJ, James MT, MacRae JM, Palmer SC, Strippoli GF	Mar 03, 2016	Yes
Citation: <i>Am J Kidney Dis.</i> 2016 Mar 03;67(3):446-60.				
	Pre-emptive correction for haemodialysis arteriovenous access stenosis.	Ravani P, Quinn RR, Oliver MJ, Karsanji DJ, James MT, MacRae JM, Palmer SC, Strippoli GF	Jan 09, 2016	Yes
Citation: <i>Cochrane Database Syst Rev.</i> 2016 Jan 09;1:CD010709.				
	Relation Between Family History of Premature Coronary Artery Disease and the Risk of Death in Patients With Coronary Artery Disease.	Abdi-Ali A, Shaheen A, Southern D, Zhang M, Knudtson M, White J, Graham M, James MT, Wilton SB	Feb 03, 2016	Yes
Citation: <i>Am J Cardiol.</i> 2016 Feb 03;117(3):353-8.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Risk prediction models for acute kidney injury following major noncardiac surgery: systematic review.	Wilson T, Quan S, Cheema K, Zarnke K, Quinn R, de Koning L, Dixon E, Pannu N, James MT	Feb 03, 2016	Yes
	Citation: <i>Nephrol Dial Transplant.</i> 2016 Feb 03;31(2):231-40.			
	Magnitude of rate of change in kidney function and future risk of cardiovascular events.	Turin TC, Jun M, James MT, Tonelli M, Coresh J, Manns BJ, Hemmelgarn BR	Jan 03, 2016	Yes
	Citation: <i>Int J Cardiol.</i> 2016 Jan 03;202:657-65.			
	Comorbidity as a driver of adverse outcomes in people with chronic kidney disease.	Tonelli M, Wiebe N, Guthrie B, James MT, Quan H, Fortin M, Klarenbach SW, Sargious P, Straus S, Lewanczuk R, Ronksley PE, Manns BJ, Hemmelgarn BR	Oct 03, 2015	Yes
	Citation: <i>Kidney Int.</i> 2015 Oct 03;88(4):859-66.			
	Healthcare Costs Attributable to Hypertension: Canadian Population-Based Cohort Study.	Weaver CG, Clement FM, Campbell NR, James MT, Klarenbach SW, Hemmelgarn BR, Tonelli M, McBrien KA, Alberta Kidney Disease Network and the Interdisciplinary Chronic Disease Collaboration	Sep 03, 2015	Yes
	Citation: <i>Hypertension.</i> 2015 Sep 03;66(3):502-8.			
	A nephrology guide to reading and using systematic reviews of observational studies.	Ravani P, Ronksley PE, James MT, Strippoli GF	Oct 03, 2015	Yes
	Citation: <i>Nephrol Dial Transplant.</i> 2015 Oct 03;30(10):1615-21.			
	A Meta-analysis of the Association of Estimated GFR, Albuminuria, Diabetes Mellitus, and Hypertension With Acute Kidney Injury.	James MT, Grams ME, Woodward M, Elley CR, Green JA, Wheeler DC, de Jong P, Gansevoort RT, Levey AS, Warnock DG, Sarnak MJ, CKD Prognosis Consortium	Oct 03, 2015	Yes
	Citation: <i>Am J Kidney Dis.</i> 2015 Oct 03;66(4):602-12.			
	A Meta-analysis of the Association of Estimated GFR, Albuminuria, Age, Race, and Sex With Acute Kidney Injury.	Grams ME, Sang Y, Ballew SH, Gansevoort RT, Kimm H, Kovesdy CP, Naimark D, Oien C, Smith DH, Coresh J, Sarnak MJ, Stengel B, Tonelli M, CKD Prognosis Consortium	Oct 03, 2015	Yes
	Citation: <i>Am J Kidney Dis.</i> 2015 Oct 03;66(4):591-601.			
Person Total:			22 publications	
Jennifer M. MacRae	abstract			
	Anemia Poster presentation	Kelvin Leung, JM MacRae	Nov 01, 2015	No
	Citation: <i>ASN San Diego.</i> 2015 Nov 01.			
	Predictors of six-month mortality subsequent to chronic dialysis initiation among an older adult population.	James Wick, Tanvir Turin Chowdhury, Peter Faris, Jennifer MacRae, Rob Weaver, Brenda Hemmelgarn.	Nov 01, 2015	Yes
Citation: <i>ASN San Diego.</i> 2015 Nov 01.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Citrasate dialysate and the reduction of heparin: Results from the randomized trial. An oral presentation at Annual Dialysis Conference	Kelvin Leung, Pietro Ravani, Rob Quinn and Jennifer MacRae	Feb 26, 2016	Yes
	Citation: <i>Annual Dialysis Conference. 2016 Feb 26.</i>			
	Person Total:		3 publications	
	original research journal article			
	Preemptive Correction of Arteriovenous Access Stenosis: A Systematic Review and Meta-analysis of Randomized Controlled Trials.	Ravani P, Quinn RR, Oliver MJ, Karsanji DJ, James MT, MacRae JM, Palmer SC, Strippoli GF	Mar 03, 2016	Yes
	Citation: <i>Am J Kidney Dis. 2016 Mar 03;67(3):446-60.</i>			
	Pre-emptive correction for haemodialysis arteriovenous access stenosis.	Ravani P, Quinn RR, Oliver MJ, Karsanji DJ, James MT, MacRae JM, Palmer SC, Strippoli GF	Jan 09, 2016	Yes
	Citation: <i>Cochrane Database Syst Rev. 2016 Jan 09;1:CD010709.</i>			
	The effect of citrate dialysate on intradialytic heparin dose in haemodialysis patients: study design of a randomised controlled trial.	Tai DJ, Leung K, Ravani P, Quinn RR, Scott-Douglas N, MacRae JM, Alberta Kidney Disease Network	Aug 27, 2015	Yes
	Citation: <i>BMC Nephrol. 2015 Aug 27;16:147.</i>			
Braden J. Manns	The association between intradialytic exercise and hospital usage among hemodialysis patients.	Parker K, Zhang X, Lewin A, MacRae JM	Apr 03, 2015	Yes
	Citation: <i>Appl Physiol Nutr Metab. 2015 Apr 03;40(4):371-8.</i>			
	Person Total:		4 publications	
	original research journal article			
	Assessing the extent to which current clinical research is consistent with patient priorities: a scoping review using a case study in patients on or nearing dialysis. Can J Kidney Health Dis. 2015 Oct 1;2:35.	Jun M, Manns B, Laupacis A, Manns L, Rehal B, Crowe S, Hemmelgarn BR.	Oct 12, 2015	Yes
	Citation: <i>Can J Kidney Health Disease. 2015 Oct 12.</i>			
	Establishing a Canadian national clinical trials network for kidney disease: proceedings of a planning workshop. Can J Kidney Health Dis. 2015 Nov 17;2:46.	Rigatto C, Walsh M, Zalunardo N, Clase CM, Manns BJ, Madore F, Samuel SM, Morgan CJ, Wolfs W, Suri RS.	Nov 01, 2015	Yes
	Citation: <i>Can J Kidney Health Disease. 2015 Nov 01.</i>			
	Patient and Caregiver Priorities for Outcomes in Hemodialysis: An International Nominal Group Technique Study.	Urquhart-Secord R, Craig JC, Hemmelgarn B, Tam-Tham H, Manns B, Howell M, Polkinghorne KR, Kerr PG, Harris DC, Thompson S, Schick-Makaroff K, Wheeler DC, van Biesen W, Winkelmayer WC, Johnson DW, Howard K, Evangelidis N, Tong A	Mar 10, 2016	Yes
Citation: <i>Am J Kidney Dis. 2016 Mar 10.</i>				

Name	Title	Authors	Publication Date	Peer Reviewed
	The association between sociodemographic and clinical characteristics and poor glycaemic control: a longitudinal cohort study.	McBrien KA, Manns BJ, Hemmelgarn BR, Weaver R, Edwards AL, Ivers N, Rabi D, Lewanczuk R, Braun T, Naugler C, Campbell D, Saad N, Tonelli M	Nov 05, 2015	Yes
Citation: <i>Diabet Med.</i> 2015 Nov 05.				
	Magnitude of rate of change in kidney function and future risk of cardiovascular events.	Turin TC, Jun M, James MT, Tonelli M, Coresh J, Manns BJ, Hemmelgarn BR	Jan 03, 2016	Yes
Citation: <i>Int J Cardiol.</i> 2016 Jan 03;202:657-65.				
	Standardised outcomes in nephrology - Haemodialysis (SONG-HD): study protocol for establishing a core outcome set in haemodialysis.	Tong A, Manns B, Hemmelgarn B, Wheeler DC, Tugwell P, Winkelmayer WC, van Biesen W, Crowe S, Kerr PG, Polkinghorne KR, Howard K, Pollock C, Hawley CM, Johnson DW, McDonald SP, Gallagher MP, Urquhart-Secord R, Craig JC, SONG-HD Collaboration	Aug 21, 2015	Yes
Citation: <i>Trials.</i> 2015 Aug 21;16:364.				
	Comorbidity as a driver of adverse outcomes in people with chronic kidney disease.	Tonelli M, Wiebe N, Guthrie B, James MT, Quan H, Fortin M, Klarenbach SW, Sargious P, Straus S, Lewanczuk R, Ronksley PE, Manns BJ, Hemmelgarn BR	Oct 03, 2015	Yes
Citation: <i>Kidney Int.</i> 2015 Oct 03;88(4):859-66.				
	Optimizing Value From Cardiac Rehabilitation: A Cost-Utility Analysis Comparing Age, Sex, and Clinical Subgroups.	Leggett LE, Hauer T, Martin BJ, Manns B, Aggarwal S, Arena R, Austford LD, Meldrum D, Ghali W, Knudtson ML, Norris CM, Stone JA, Clement F	Aug 03, 2015	Yes
Citation: <i>Mayo Clin Proc.</i> 2015 Aug 03;90(8):1011-20.				
	The Safety of Eplerenone in Hemodialysis Patients: A Noninferiority Randomized Controlled Trial.	Walsh M, Manns B, Garg AX, Bueti J, Rabbat C, Smyth A, Tyrwhitt J, Bosch J, Gao P, Devereaux PJ, Wald R	Sep 06, 2015	Yes
Citation: <i>Clin J Am Soc Nephrol.</i> 2015 Sep 06;10(9):1602-8.				
	Relocation of remote dwellers living with hemodialysis: a time trade-off survey.	Tonelli M, Molzahn AE, Wiebe N, Davison SN, Gill JS, Hemmelgarn BR, Manns BJ, Pannu N, Pelletier R, Thompson S, Klarenbach SW, Alberta Kidney Disease Network	Oct 03, 2015	Yes
Citation: <i>Nephrol Dial Transplant.</i> 2015 Oct 03;30(10):1767-73.				
	Direct Oral Anticoagulants for the Treatment of Venous Thromboembolic Events: Economic Evaluation [Internet]. Ottawa (ON): Canadian Agency for Drugs and Technologies in Health; 2016 Mar.	Klarenbach S, Lee K, Boucher M, So H, Manns B, Tonelli M.	Mar 01, 2016	Yes
Citation: <i>CADTH.</i> 2016 Mar 01.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Methods for identifying 30 chronic conditions: application to administrative data.	Tonelli M, Wiebe N, Fortin M, Guthrie B, Hemmelgarn BR, James MT, Klarenbach SW, Lewanczuk R, Manns BJ, Ronksley P, Sargious P, Straus S, Quan H, Alberta Kidney Disease Network	Apr 19, 2015	Yes
	Citation: <i>BMC Med Inform Decis Mak.</i> 2015 Apr 19;15(1):31.			
	Trace element supplementation in hemodialysis patients: a randomized controlled trial.	Tonelli M, Wiebe N, Thompson S, Kinniburgh D, Klarenbach SW, Walsh M, Bello AK, Faruque L, Field C, Manns BJ, Hemmelgarn BR, Alberta Kidney Disease Network	Apr 13, 2015	Yes
	Citation: <i>BMC Nephrol.</i> 2015 Apr 13;16(1):52.			
Person Total:			13 publications	
Kevin J. McLaughlin	original research journal article			
	Making progress in the ethical treatment of medical trainees.	Busche K, Burak KW, Veale P, Coderre S, McLaughlin K	Jun 22, 2015	No
	Citation: <i>Adv Health Sci Educ Theory Pract.</i> 2015 Jun 22.			
	Diagnosing Technical Competence in Six Bedside Procedures: Comparing Checklists and a Global Rating Scale in the Assessment of Resident Performance.	Walzak A, Bacchus M, Schaefer JP, Zarnke K, Glow J, Brass C, McLaughlin K, Ma IW	Apr 17, 2015	No
	Citation: <i>Acad Med.</i> 2015 Apr 17.			
	The potential and conditional benefits of retrieval practice on learning.	McLaughlin K, Coderre S	May 03, 2015	No
Citation: <i>Adv Health Sci Educ Theory Pract.</i> 2015 May 03;20(2):321-4.			3 publications	
Daniel Muruve	original research journal article			
	Vitamin D? metabolites enhance the NLRP3-dependent secretion of IL-1? from human THP-1 monocytic cells.	Tulk SE, Liao KC, Muruve DA, Li Y, Beck PL, MacDonald JA	May 03, 2015	Yes
	Citation: <i>J Cell Biochem.</i> 2015 May 03;116(5):711-20.			
	Hierarchical Regulation of Wound Healing by NOD-Like Receptors in Cardiovascular Disease.	Bracey NA, Duff HJ, Muruve DA	May 03, 2015	Yes
Citation: <i>Antioxid Redox Signal.</i> 2015 May 03;22(13):1176-87.			2 publications	
Robert R. Quinn	original research journal article			
	?-Blocker Dialyzability and Mortality in Older Patients Receiving Hemodialysis.	Weir MA, Dixon SN, Fleet JL, Roberts MA, Hackam DG, Oliver MJ, Suri RS, Quinn RR, Ozair S, Beyea MM, Kitchlu A, Garg AX	Apr 03, 2015	No
	Citation: <i>J Am Soc Nephrol.</i> 2015 Apr 03;26(4):987-96.			
Person Total:			1 publication	
Pietro Ravani	original research journal article			
	The attributes of an effective teacher differ between the classroom and the clinical setting.	Haws J, Rannelli L, Schaefer JP, Zarnke K, Coderre S, Ravani P, McLaughlin K	Feb 20, 2016	Yes
Citation: <i>Adv Health Sci Educ Theory Pract.</i> 2016 Feb 20.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Preemptive Correction of Arteriovenous Access Stenosis: A Systematic Review and Meta-analysis of Randomized Controlled Trials.	Ravani P, Quinn RR, Oliver MJ, Karsanji DJ, James MT, MacRae JM, Palmer SC, Strippoli GF	Mar 03, 2016	No
	Citation: <i>Am J Kidney Dis.</i> 2016 Mar 03;67(3):446-60.			
	Pre-emptive correction for haemodialysis arteriovenous access stenosis.	Ravani P, Quinn RR, Oliver MJ, Karsanji DJ, James MT, MacRae JM, Palmer SC, Strippoli GF	Jan 09, 2016	No
	Citation: <i>Cochrane Database Syst Rev.</i> 2016 Jan 09;1:CD010709.			
	Long-term Kidney Transplant Outcomes in Primary Glomerulonephritis: Analysis From the ERA-EDTA Registry.	Pippias M, Stel VS, Aresté-Fosalba N, Couchoud C, Fernandez-Fresnedo G, Finne P, Heaf JG, Hoitsma A, De Meester J, Pálsson R, Ravani P, Segelmark M, Traynor JP, Reisæter AV, Caskey FJ, Jager KJ	Nov 21, 2015	No
	Citation: <i>Transplantation.</i> 2015 Nov 21.			
	Trends in dialysis modality choice and related patient survival in the ERA-EDTA Registry over a 20-year period.	van de Luijngaarden MW, Jager KJ, Segelmark M, Pascual J, Collart F, Hemke AC, Remón C, Metcalfe W, Miguel A, Kramar R, Aasarød K, Abu Hanna A, Krediet RT, Schön S, Ravani P, Caskey FJ, Couchoud C, Pálsson R, Wanner C, Finne P, Noordzij M	Jan 03, 2016	No
	Citation: <i>Nephrol Dial Transplant.</i> 2016 Jan 03;31(1):120-8.			
	The effect of citrate dialysate on intradialytic heparin dose in haemodialysis patients: study design of a randomised controlled trial.	Tai DJ, Leung K, Ravani P, Quinn RR, Scott-Douglas N, MacRae JM, Alberta Kidney Disease Network	Aug 27, 2015	No
	Citation: <i>BMC Nephrol.</i> 2015 Aug 27;16:147.			
	Regulatory T cells and minimal change nephropathy: in the midst of a complex network.	Bertelli R, Bonanni A, Di Donato A, Cioni M, Ravani P, Ghiggeri GM	Feb 03, 2016	No
	Citation: <i>Clin Exp Immunol.</i> 2016 Feb 03;183(2):166-74.			
A nephrology guide to reading and using systematic reviews of observational studies.	Ravani P, Ronksley PE, James MT, Strippoli GF	Oct 03, 2015	No	
Citation: <i>Nephrol Dial Transplant.</i> 2015 Oct 03;30(10):1615-21.				
Characteristics and Outcomes of Granulomatosis With Polyangiitis (Wegener) and Microscopic Polyangiitis Requiring Renal Replacement Therapy: Results From the European Renal Association-European Dialysis and Transplant Association Registry.	Hruskova Z, Stel VS, Jayne D, Aasarød K, De Meester J, Ekstrand A, Eller K, Heaf JG, Hoitsma A, Martos Jimenez C, Ravani P, Wanner C, Tesar V, Jager KJ	Oct 03, 2015	No	
Citation: <i>Am J Kidney Dis.</i> 2015 Oct 03;66(4):613-20.				
Person Total:			9 publications	
Lee Anne Tibbles	abstract			
	Epithelial-to-Mesenchymal transition as a mechanism for BK virus induced kidney fibrosis	Cunnington R, Tibbles L.A.	Jul 01, 2015	Yes
	Citation: <i>Baay Chair Sponsored Session.</i> 2015 Jul 01.			

Name	Title	Authors	Publication Date	Peer Reviewed
	Evaluating the role of lymphocytes in polyoma BK virus infection	Morsy D, Cunningham R, Tibbles L.A.	Jul 01, 2015	Yes
	Citation: <i>Baay Chair Sponsored Session. 2015 Jul 01.</i>			
	BK polyomavirus orchestrates renal fibrosis through epigenetic modulations and induces Necroptosis in renal tubular cells	Borkar M, Srivastava V, Tibbles L.A.	Jul 01, 2015	Yes
	Citation: <i>Baay Chair Sponsored Session. 2015 Jul 01.</i>			
	BK Virus Nephropathy	Morsy D, Tibbles L.A.	Jul 01, 2015	Yes
	Citation: <i>Banff CST. 2015 Jul 01.</i>			
	BK polyomavirus orchestrates renal fibrosis through epigenetic modulations and induces Necroptosis in renal tubular cells	Borkar M, Srivastava V, Tibbles L.A.	Jul 01, 2015	Yes
	Citation: <i>Banff CST. 2015 Jul 01.</i>			
Person Total:			5 publications	
Marcello Tonelli	original research journal article			
	Relocation of remote-dwellers living with hemodialysis: a time trade-off survey.	Tonelli M, Molzahn AE, Wiebe N, Davison SN, Gill JS, Hemmelgarn BR, Manns BJ, Pannu N, Pelletier R, Thompson S, Klarenbach SW, Alberta Kidney Disease Network	Jun 03, 2015	Yes
	Citation: <i>Nephrol Dial Transplant. 2015 Jun 03.</i>			
	Estimated glomerular filtration rate and albuminuria for prediction of cardiovascular outcomes: a collaborative meta-analysis of individual participant data.	Matsushita K, Coresh J, Sang Y, Chalmers J, Fox C, Guallar E, Jafar T, Jassal SK, Landman GW, Muntner P, Roderick P, Sairenchi T, Schöttker B, Shankar A, Shlipak M, Tonelli M, Townsend J, van Zuilen A, Yamagishi K, Yamashita K, Gansevoort R, Sarnak M, Warnock DG, Woodward M, Ärnlöv J, CKD Prognosis Consortium	May 30, 2015	Yes
	Citation: <i>Lancet Diabetes Endocrinol. 2015 May 30.</i>			
	ADAPT-NMR 3.0: utilization of BEST-type triple-resonance NMR experiments to accelerate the process of data collection and assignment.	Dashti H, Tonelli M, Markley JL	May 31, 2015	Yes
	Citation: <i>J Biomol NMR. 2015 May 31.</i>			
	Comparative efficacy and safety of blood pressure-lowering agents in adults with diabetes and kidney disease: a network meta-analysis.	Palmer SC, Mavridis D, Navarese E, Craig JC, Tonelli M, Salanti G, Wiebe N, Ruospo M, Wheeler DC, Strippoli GF	May 25, 2015	Yes
	Citation: <i>Lancet. 2015 May 25;385(9982):2047-56.</i>			
	Association of Drug Effects on Serum Parathyroid Hormone, Phosphorus, and Calcium Levels With Mortality in CKD: A Meta-analysis.	Palmer SC, Teixeira-Pinto A, Saglimbene V, Craig JC, Macaskill P, Tonelli M, de Berardis G, Ruospo M, Strippoli GF	May 22, 2015	Yes
	Citation: <i>Am J Kidney Dis. 2015 May 22.</i>			

Name	Title	Authors	Publication Date	Peer Reviewed
	Sub-50-fs widely tunable Yb:CaYAlO ₄ laser pumped by 400-mW single-mode fiber-coupled laser diode.	Pirzio F, Cafiso SD, Kemnitz M, Guandalini A, Kienle F, Veronesi S, Tonelli M, Aus der Au J, Agnesi A	Apr 22, 2015	Yes
Citation: <i>Opt Express</i> . 2015 Apr 22;23(8):9790-5.				
	Novel approach for solid state cryocoolers.	Volpi A, Di Lieto A, Tonelli M	Apr 08, 2015	Yes
Citation: <i>Opt Express</i> . 2015 Apr 08;23(7):8216-26.				
	A Meta-analysis of the Association of Estimated GFR, Albuminuria, Age, Race, and Sex With Acute Kidney Injury.	Grams ME, Sang Y, Ballew SH, Gansevoort RT, Kimm H, Kovesdy CP, Naimark D, Oien C, Smith DH, Coresh J, Sarnak MJ, Stengel B, Tonelli M, CKD Prognosis Consortium. Electronic address: ckdpc@jhmi.edu	May 04, 2015	Yes
Citation: <i>Am J Kidney Dis</i> . 2015 May 04.				
	Multitarget Therapeutic Leads for Alzheimer's Disease: Quinolizidinyl Derivatives of Bi- and Tricyclic Systems as Dual Inhibitors of Cholinesterases and β -Amyloid (A β) Aggregation.	Tonelli M, Catto M, Tasso B, Novelli F, Canu C, Iusco G, Pisani L, Stradis AD, Denora N, Sparatore A, Boido V, Carotti A, Sparatore F	Jun 03, 2015	Yes
Citation: <i>ChemMedChem</i> . 2015 Jun 03;10(6):1040-53.				
	NMRFAM-SDF: a protein structure determination framework.	Dashti H, Lee W, Tonelli M, Cornilescu CC, Cornilescu G, Assadi-Porter FM, Westler WM, Eghbalnia HR, Markley JL	Apr 24, 2015	Yes
Citation: <i>J Biomol NMR</i> . 2015 Apr 24.				
	Methods for identifying 30 chronic conditions: application to administrative data.	Tonelli M, Wiebe N, Fortin M, Guthrie B, Hemmelgarn BR, James MT, Klarenbach SW, Lewanczuk R, Manns BJ, Ronksley P, Sargious P, Straus S, Quan H, Alberta Kidney Disease Network	Apr 19, 2015	Yes
Citation: <i>BMC Med Inform Decis Mak</i> . 2015 Apr 19;15(1):31.				
	Trace element supplementation in hemodialysis patients: a randomized controlled trial.	Tonelli M, Wiebe N, Thompson S, Kinniburgh D, Klarenbach SW, Walsh M, Bello AK, Faruque L, Field C, Manns BJ, Hemmelgarn BR, Alberta Kidney Disease Network	Apr 13, 2015	Yes
Citation: <i>BMC Nephrol</i> . 2015 Apr 13;16(1):52.				
	Ebola Virus Disease: Ethics and Emergency Medical Response Policy.	Jecker NS, Dudzinski DM, Diekema DS, Tonelli M	Apr 11, 2015	Yes
Citation: <i>Chest</i> . 2015 Apr 11.				
	Defining a Two-pronged Structural Model for PB1 (Phox/Bem1p) Domain Interaction in Plant Auxin Responses.	Korasick DA, Chatterjee S, Tonelli M, Dashti H, Lee SG, Westfall CS, Fulton DB, Andreotti AH, Amarasinghe GK, Strader LC, Jez JM	May 17, 2015	Yes
Citation: <i>J Biol Chem</i> . 2015 May 17;290(20):12868-78.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Recommendations for growth monitoring, and prevention and management of overweight and obesity in children and youth in primary care.	Canadian Task Force on Preventive Health Care	Apr 09, 2015	Yes
	Citation: <i>CMAJ. 2015 Apr 09;187(6):411-21.</i>			
	Training the teachers. The clinician-educator track of the university of washington pulmonary and critical care medicine fellowship program.	Adamson R, Goodman RB, Kritek P, Luks AM, Tonelli MR, Benditt J	Apr 03, 2015	Yes
	Citation: <i>Ann Am Thorac Soc. 2015 Apr 03;12(4):480-5.</i>			
	NMRFAM-SPARKY: enhanced software for biomolecular NMR spectroscopy.	Lee W, Tonelli M, Markley JL	Apr 17, 2015	Yes
	Citation: <i>Bioinformatics. 2015 Apr 17;31(8):1325-7.</i>			
	We don't prescribe statins to lower cholesterol: we prescribe statins to reduce vascular risk.	Tonelli M	May 03, 2015	Yes
	Citation: <i>J Am Soc Nephrol. 2015 May 03;26(5):1001-3.</i>			
Person Total:			18 publications	
Division Total:			89 publications	
Respiratory Medicine				
Robert L. Cowie	book chapter			
	Murray and Nadel's Textbook of Respiratory Medicine 6 edition	Cowie, RL and Becklake MR	Apr 01, 2015	Yes
	Citation: <i>2015 Apr 01.</i>			
	Person Total:			1 publication
Warren J. Davidson	abstract			
	Accuracy of exhaled nitric oxide in predicting sputum eosinophilia in outpatient respirology patients. American Thoracic Society Meeting. Denver 2015.	Saini K, Davidson WJ.	May 20, 2015	Yes
	Citation: <i>ATS Meeting . 2015 May 20.</i>			
	Person Total:			1 publication
	original research journal article			
	Flow-volume loop abnormality detecting a previously unrecognized right upper lobe tracheal bronchus. Resp Med Case Reports 2015: 1-3. doi:10.1016/j.rmcr.2015.02.003.	Ruzycki S, Tsai W, Davidson WJ.	Apr 01, 2015	Yes
	Citation: <i>Resp Med Case Reports . 2015 Apr 01.</i>			
	Person Total:			1 publication
Patrick J. Hanly	abstract			
	Access to Zzzz's: A quality improvement journey	Byblow C, Ward K, Pawlak B, Hanly PJ, Warren J, Pendharkar S	Apr 01, 2015	Yes
	Citation: <i>Canadian Respiratory Journal. 2015 Apr 01;22(Suppl A):23A.</i>			
	Person Total:			1 publication
	book chapter			
	Sleep Medicine	Hanly P	Jun 30, 2015	Yes
	Citation: <i>2015 Jun 30.</i>			
	Person Total:			1 publication
editorial				

Name	Title	Authors	Publication Date	Peer Reviewed
	Consider the Kidney when managing Obstructive Sleep Apnea: Commentary on Abuyassin et al. Obstructive Sleep Apnea and Kidney Disease: A potential bidirectional relationship?	Hanly P	Jun 30, 2015	Yes
Citation: 2015 Jun 30.				
Person Total:			1 publication	
original research journal article				
	Staging Sleep in Polysomnograms: Analysis of Inter-Scorer Variability.	Younes M, Raneri J, Hanly P	Mar 23, 2016	Yes
Citation: J Clin Sleep Med. 2016 Mar 23.				
	An observational study of the effectiveness of alternative care providers in the management of obstructive sleep apnoea.	Pendharkar SR, Dechant A, Bischak DP, Tsai WH, Stevenson AM, Hanly PJ	Oct 29, 2015	Yes
Citation: J Sleep Res. 2015 Oct 29.				
	Nocturnal Hypoxemia Is Associated with White Matter Hyperintensities in Patients with a Minor Stroke or Transient Ischemic Attack.	Patel SK, Hanly PJ, Smith EE, Chan W, Coutts SB	Dec 17, 2015	Yes
Citation: J Clin Sleep Med. 2015 Dec 17;11(12):1417-24.				
	Nocturnal hypoxemia severity and renin-angiotensin system activity in obstructive sleep apnea.	Zalucky AA, Nicholl DD, Hanly PJ, Poulin MJ, Turin TC, Walji S, Handley GB, Raneri JK, Sola DY, Ahmed SB	Oct 03, 2015	Yes
Citation: Am J Respir Crit Care Med. 2015 Oct 03;192(7):873-80.				
	Consider the Kidney when Managing Obstructive Sleep Apnea.	Hanly PJ	Aug 17, 2015	No
Citation: J Clin Sleep Med. 2015 Aug 17;11(8):845-6.				
	Human intermittent hypoxia-induced respiratory plasticity is not caused by inflammation.	Beaudin AE, Waltz X, Pun M, Wynne-Edwards KE, Ahmed SB, Anderson TJ, Hanly PJ, Poulin MJ	Oct 03, 2015	Yes
Citation: Eur Respir J. 2015 Oct 03;46(4):1072-83.				
	Predictors of successful completion of home diagnostic sleep testing in patients with kidney disease.	Lee J, Turin TC, Nicholl DD, Ahmed SB, Loewen AH, Hemmelgarn BR, Azad AK, Hanly PJ.	May 19, 2015	No
Citation: Sleep Breath. 2015 May 19;19(2):669-75.				
	Treatment of Sleep Disordered Breathing Liberates Obese Hypoxemic Patients from Oxygen	Povitz M, Hanly P, Pendharkar S, James M, Tsai W	Oct 09, 2015	Yes
Citation: PLoS One. 2015 Oct 09;10(10):e0140135.				
	Imaging and Baseline Predictors of Cognitive Performance in Minor Ischemic Stroke and Patients With Transient Ischemic Attack at 90 Days	Mandzia JL, Smith EE, Horton M, Hanly P, Barber PA, Godzwon C, Donaldson E, Asdaghi N, Patel S, Coutts SB	Feb 04, 2016	Yes
Citation: Stroke. 2016 Feb 04;47(3):726-31.				
	Odds ratio product of sleep EEG as a continuous measure of sleep state.	Younes M, Ostrowski M, Soiferman M, Younes H, Younes M, Raneri J, Hanly P.	Apr 01, 2015	Yes
Citation: Sleep. 2015 Apr 01;38(4):641-54.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Predictors of successful completion of diagnostic home sleep testing in patients with chronic kidney disease.	Lee J, Turin TC, Nicholl DD, Ahmed SB, Loewen AH, Hemmelgarn BR, Azad AK, Hanly PJ.	May 01, 2015	Yes
	Citation: <i>Sleep and Breathing</i> . 2015 May 01;19(2):669-75.			
	Human intermittent hypoxia induced respiratory plasticity is not caused by inflammation	Andrew E. Beaudin, Xavier Waltz, Matiram Pun, Katherine E. Wynne-Edwards, Sofia B. Ahmed, Todd J. Anderson, Patrick J. Hanly, and Marc J. Poulin	Jun 30, 2015	Yes
	Citation: <i>Eur Respir J</i> . 2015 Jun 30.			
	Person Total:		12 publications	
Richard Leigh	abstract			
	Activation of Airway Epithelial Inflammatory and Remodeling Responses by Mechanotransduction is Enhanced by Human Rhinovirus Infection.	Nikitenko S, Shariff S, Proud D, Leigh R.	May 17, 2015	Yes
	Citation: <i>Am J Respir Crit Care Med</i> . 2015 May 17;191:A1321.			
	Human Rhinovirus Infection of Human Bronchial Epithelial Cells Induces Fibroblast Chemotaxis.	Shelfoon CJ, Traves SL, Kooi C, Shariff S, Leigh R, Proud D.	May 17, 2015	Yes
	Citation: <i>Am J Respir Crit Care Med</i> . 2015 May 17;191:A2069.			
	A Predictive Model for Determining the Efficacy of Multiple Doses of QGE031 (Ligelizumab) versus Omalizumab and Placebo in Inhibiting the Allergen-Induced Early Asthmatic Response.	Gauvreau GM, Boulet LP, Leigh R, Cockcroft DW, Davis BE, Mayers I, FitzGerald JM, Dahlen B, Watson RM, Milot J, Swystun V, Hui L, Lantz AS, Bowen M, Arm J, Maahs S, Meiser K, Lowe P, Skerjanec A, Carlsten C, Strandberg K, Killian KJ, Laviolette M, Drollmann A, O'Byrne PM.	May 17, 2015	Yes
	Citation: <i>Am J Respir Crit Care Med</i> . 2015 May 17;191:A2488.			
	Lack of Improvement in Quality of Life and Dyspnea as Patients with an Acute Exacerbation of Chronic Obstructive Pulmonary Disease Transition from Hospital to the Community.	Bhutani M, Fuhr DP, Rowe BH, Damant RW, Leigh R, Byers B, Stickland MK.	May 17, 2015	Yes
	Citation: <i>Am J Respir Crit Care Med</i> . 2015 May 17;191:A2537.			
	Evaluation of Arterial Stiffness and Vascular Function in Chronic Obstructive Pulmonary Disease Patients Admitted to Hospital.	Stickland MK, Fuhr DP, Rowe BH, Damant RW, Leigh R, Byers B, Andersson I, Bhutani M.	May 17, 2015	Yes
	Citation: <i>Am J Respir Crit Care Med</i> . 2015 May 17;191:A2822.			
	Synergistic Effects of Human Rhinovirus and Bacterial Infections on Induction of CCL20 from Human Bronchial Epithelial Cells.	Maciejewski BA, Kooi C, Traves SL, Wiehler S, Proud D, Leigh R.	May 17, 2015	Yes
	Citation: <i>Am J Respir Crit Care Med</i> . 2015 May 17;191:A3242.			
	Modulation of the Airway Epithelial Host Response Through Human α -Defensin-2 Dysregulation by Human Rhinovirus and Pseudomonas Aeruginosa Co-Infection.	Arnason J, Kooi C, Traves SL, Proud D, Leigh R.	May 17, 2015	Yes

Name	Title	Authors	Publication Date	Peer Reviewed
	Citation: <i>Am J Respir Crit Care Med.</i> 2015 May 17;191:A3797.			
	Inhaled Budesonide Enhances Effector Gene Expression in Humans: A Randomized Controlled Trial and Comparison with In Vitro Analysis,	Leigh R, King EM, Shah S, Dumonceaux CJ, Rider CF, Traves SL, Slater DM, Kelly MM, Miller-Larsson A, Newton R.	May 17, 2015	Yes
	Citation: <i>Am J Respir Crit Care Med.</i> 2015 May 17;191:A5027.			
	Human Airway Smooth Muscle Chemotaxis Following Human Rhinovirus Infection Of Bronchial Epithelial Cells.	Shariff S, Nikitenko S, Shelfoon CJ, Traves SL, Proud D, Leigh R.	May 17, 2015	Yes
	Citation: <i>Am J Respir Crit Care Med.</i> 2015 May 17;191:A5597.			
	Development of a New Bronchodilator to Enable Better Treatment of Asthma, COPD, and CF.	Green F, Leigh R, Shrestha G, Galal S, Chiu A, Fadayomi M, Pieron C, El Mays T, Nelson DE, Al-Saiedy MR, Swystun V, Lewis G, Dennis J.	May 17, 2015	Yes
	Citation: <i>Am J Respir Crit Care Med.</i> 2015 May 17;191:A5788.			
	The Role of an Artificial Surfactant in Mucous Plug Clearance In Vitro.	Al-Saiedy MR, Nelson DE, Amrein M, Leigh R, Green F.	May 17, 2015	Yes
	Citation: <i>Am J Respir Crit Care Med.</i> 2015 May 17;191:A5997.			
	Molecular Biomarkers of Atopic Asthma in Blood and Sputum	Bigler J, Boedigheimer M, Farnsworth C, Timour M, O'Byrne PM, Gauvreau GM, Boulet LP, Cockcroft DW, Fitzgerald JM, Davis BE, Leigh R, Parnes J, Russell CB.	May 17, 2015	Yes
	Citation: <i>Am J Respir Crit Care Med.</i> 2015 May 17;191:A1073.			
	Person Total:		12 publications	
	original research journal article			
	Chemokine release from hyuman rhinovirus-infected airway epithelial cells promote fibroblast migration	Shelfoon C, Shariff S, Traves SL, Kooi C, Leigh R, Proud D.	Feb 13, 2016	Yes
	Citation: <i>J Allergy Clin Immunol.</i> 2016 Feb 13; [Epub ahead of print]			
	Blood flow during handgrip exercise in COPD: Effect of vitamin C.	Hartmann SE, Waltz X, Leigh R, Anderson TJ, Poulin MJ.	Feb 2016	Yes
	Citation: <i>Med Sci Sports Exerc.</i> 2016 Feb; 48(2): 200-9			
	Rhinovirus in the pathogenesis and clinical course of asthma.	Jamieson KC, Warner SM, Leigh R, Proud D.	Dec 2015	Yes
	Citation: <i>Chest</i> 2015. 148(6): 1508-16			
	Rhinovirus load is high despite preserved interferon-β response in Cystic Fibrosis bronchial epithelial cells.	Dauletbaev N, Das M, Cammisano M, Chen H, Singh S, Kooi C, Leigh R, Beaudoin T, Rousseau S, Lands LC.	Nov 23, 2015	Yes
	Citation: <i>PLoS One.</i> 2015 Nov 23; 10(11): e0143129			
	Cerebrovascular responsiveness to hypercapnia is stable over six months in older adults.	Spencer MD, Tyndall AV, Davenport MH, Argourd L, Anderson TJ, Eskes GA, Friedenreich CM, Hogan DB, Leigh R, Meshi B, Smith EE, Wilson BJ, Wilton SB, Poulin MJ.	Nov 23, 2015	Yes
	Citation: <i>PLoS One.</i> 2015 Nov 23; 10(11): e0143059			

Name	Title	Authors	Publication Date	Peer Reviewed
	Asthma characteristics and biomarkers from the Airways Disease Endotyping for Personalized Therapeutics (ADEPT) longitudinal profiling study.	Silkoff PE, Strambu I, Laviolette M, Singh D, FitzGerald JM, Lam S, Kelsen S, Eich A, Ludwig-Sengpiel A, Hupp GC, Backer V, Porsbjerg C, Girodet PO, Berger P, Leigh R, Kline JN, Dransfield M, Calhoun W, Hussaini A, Khatri S, Chanez P, Susulic VS, Brnathan ES, Curran M, Das AM, Brodmerkel C, Baribaud F, Loza MJ.	Nov 17, 2015	Yes
	Citation: <i>Respir Res.</i> 2015 Nov 17; 16: 142			
	Empowering family physicians to impart proper inhaler teaching to patients with Chronic Obstructive Pulmonary Disease and Asthma.	Leung J, Bhutani M, Leigh R, Pelletier D, Good C, Sin DD.	Sept 2015	Yes
	Citation: <i>Can Respir J</i> 2015; 22(5): 266-270			
	Efficacy and safety of tralokinumab in patients with severe uncontrolled asthma: A randomised, double-blind, placebo-controlled, phase 2b trial.	Brightling CE, Chanez P, Leigh R, O'Byrne PM, Kom S, She D, May RD, Streicher K, Ranade K, Piper E.	Sept 2015	Yes
	Citation: <i>Lancet Respir Med.</i> 2015; 3: 692-701			
	Airway inflammation, cough symptoms and athlete quality of life in elite female cross country skiers – A longitudinal study.	Kennedy MD, Davidson WJ, Wong LE, Traves SL, Leigh R, Eves ND.	Aug 17, 2015	Yes
	Citation: <i>Scand J Med Sci Sports.</i> 2015 Aug 17. doi: 10.1111/sms.12527.[Epub ahead of print]			
	Cerebrovascular and ventilator responses to acute isocapnic-hypoxia in healthy aging and lung disease: Effect of vitamin C.	Hartmann S, Waltz Z, Kissel C, Szabo L, Walker B, Leigh R, Anderson T, Poulin M.	Aug 15, 2015	Yes
	Citation: <i>J Appl Physiol</i> 2015; 119(4): 363-73			
	Virus-induced modulation of lower airway diseases: pathogenesis and pharmacologic approaches to treatment.	Leigh R, Proud D	Apr 03, 2015	Yes
	Citation: <i>Pharmacol Ther.</i> 2015 Apr 03;148:185-98.			
Person Total:			11 publication	
Sachin Pendharkar	abstract			
	Prevalence of Sleep Disordered Breathing in Obese Chronically Hypoxemic Patients: A Cohort Study	Povitz M, James MT, Pendharkar SR, Raneri J, Hanly PJ, Tsai WH	Jul 01, 2015	Yes
	Citation: <i>American Thoracic Society International Conference.</i> 2015 Jul 01.			
	An environmental scan of quality of care measures in use at Canadian Sleep Centres.	Liang A, Pendharkar SR	Jul 01, 2015	Yes
	Citation: <i>Campus Alberta Student Conference on Health</i> 2015.. 2015 Jul 01.			
	Effectiveness of a standardized admission order set for acute exacerbation of COPD.	Pendharkar SR, Hirani N, Faris P, Bhutani M, Hall J, Graham J, Mody CH, Ospina MB, Stickland MK	Jul 01, 2015	Yes
	Citation: <i>American Thoracic Society International Conference</i> 2015.. 2015 Jul 01.			
	Effectiveness of a standardized admission order set for acute exacerbation of COPD	Pendharkar SR, Hirani N, Faris P, Bhutani M, Hall J, Graham J, Mody CH, Ospina MB, Stickland MK	May 20, 2015	Yes
Citation: <i>American Thoracic Society International Conference</i> 2015. 2015 May 20.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Access to Zzz's: a quality improvement journey	Byblow C, Ward K, Pawlak B, Hanly PJ, Warren J, Pendharkar SR	Apr 24, 2015	Yes
Citation: <i>Canadian Respiratory Conference 2015. 2015 Apr 24.</i>				
	Prevalence of Sleep Disordered Breathing in Obese Chronically Hypoxemic Patients: A Cohort Study	Povitz M, James MT, Pendharkar SR, Hanly PJ, Tsai WH	May 17, 2015	Yes
Citation: <i>American Thoracic Society International Conference 2015. 2015 May 17.</i>				
	Implementation challenges: integrated versus fragmented innovations in health care	Woiceshyn J, Blades KG, Pendharkar SR.	Jun 14, 2015	Yes
Citation: <i>International Society for Professional Innovation Management Conference 2015. 2015 Jun 14.</i>				
Person Total:			7 publications	
internet publication				
	Canada's dirty air: how pollution is hurting our health (News article – not peer-reviewed). Healthy Debate(www.healthydebate.ca).	Milne V, Dhalla I, Pendharkar SR	Nov 05, 2015	Yes
Citation: <i>2015 Nov 05.</i>				
	Should Canada do more to curb the threat of radon gas? (News article – not peer-reviewed). Healthy Debate (www.healthydebate.ca). 2015 Sept 10.	Glauser W, Pendharkar SR, Konkin J	Sep 10, 2015	No
Citation: <i>2015 Sep 10.</i>				
	Why do you have to pay for an ambulance? (News article – not peer-reviewed). Healthy Debate (www.healthydebate.ca).	Glauser W, Pendharkar SR, Nolan M	Jul 30, 2015	No
Citation: <i>2015 Jul 30.</i>				
	Should Canadian communities continue to fluoridate water? (News article – not peer-reviewed). Healthy Debate (www.healthydebate.ca).	Glauser W, Pendharkar SR, Caulfield T	Jul 09, 2015	No
Citation: <i>2015 Jul 09.</i>				
Person Total:			4 publications	
original research journal article				
	Prevalence of Sleep Disordered Breathing in Obese Chronically Hypoxemic Patients: A Cross-Sectional Study.	Povitz M, James MT, Pendharkar SR, Raneri J, Hanly PJ, Tsai WH	Apr 01, 2015	Yes
Citation: <i>Ann Am Thorac Soc. 2015 Apr 01.</i>				
	Use of Electronic Data and Existing Screening Tools to Identify Clinically Significant Obstructive Sleep Apnea	Severson CA, Pendharkar SR, Ronskley PE, Tsai WH	Apr 01, 2015	Yes
Citation: <i>Can Respir J. 2015 Apr 01.</i>				
	Healthcare Use in Individuals with Obesity and Chronic Hypoxemia Treated for Sleep Disordered Breathing.	Povitz M, Tsai WH, Pendharkar SR, Hanly PJ, James MT	Dec 06, 2015	Yes
Citation: <i>J Clin Sleep Med. 2015 Dec 06.</i>				
	An observational study of the effectiveness of alternative care providers in the management of obstructive sleep apnoea.	Pendharkar SR, Dechant A, Bischak DP, Tsai WH, Stevenson AM, Hanly PJ	Oct 29, 2015	Yes
Citation: <i>J Sleep Res. 2015 Oct 29.</i>				
	Implementing integrated versus fragmented complex innovations in acute health care.	Woiceshyn J, Blades K, Pendharkar SR	Oct 16, 2015	Yes
Citation: <i>Health Care Manage Rev. 2015 Oct 16.</i>				

Name	Title	Authors	Publication Date	Peer Reviewed
	Using operational analysis to improve access to pulmonary function testing.	Ip A, Asamoah-Barnieh R, Bischak DP, Davidson WJ, Flemons WW, Pendharkar SR	Sep 24, 2015	Yes
	Citation: <i>Can Respir J.</i> 2015 Sep 24.			
	Treatment of Sleep Disordered Breathing Liberates Obese Hypoxemic Patients from Oxygen.	Povitz M, James MT, Pendharkar SR, Hanly PJ, Tsai WH.	Oct 09, 2015	Yes
	Citation: <i>PLOS One.</i> 2015 Oct 09;10(10):e0140135.			
	Person Total:		7 publications	
	other			
	Do calories on restaurant menus make a difference?	Glauser W, Konkin J, Pendharkar SR	Apr 09, 2015	No
	Citation: 2015 Apr 09.			
	Person Total:		1 publication	
	review journal article			
Alain Tremblay	What happens when healthcare innovations collide?	Pendharkar SR, Woiceshyn J, da Silveira GJ, Bischak D, Flemons W, McAlister F, Ghali WA	Jan 03, 2016	Yes
	Citation: <i>BMJ Qual Saf.</i> 2016 Jan 03;25(1):9-13.			
	Person Total:		1 publication	
	abstract			
	Radiologist Initiated Referral for Patients Suspected of Having a Thoracic Malignancy	Nadine Strilchuk, Niloofar Taghizadeh, Paul Burrowes, Laura Hampton, Alex Chee, Paul MacEachern, Rommy Koetzler, Sean McFadden, Alain Tremblay	Oct 01, 2015	Yes
	Citation: <i>CHEST.</i> 2015 Oct 01.			
	Low Prevalence of High Grade Lesions Detected with Autofluorescence Bronchoscopy in the Setting of Lung Cancer Screening in the Pan-Canadian Lung Cancer Screening Study.	Tremblay A, Taghizadeh N, McWilliams A, MacEachern P, Stather D, Kam Soghrati, John Thenganatt, Serge Puksa, Allan McLellan, Kazuhiro Yasufuku, Kayvan Amjadi, Simon Martel, Francis Laberge, Michael Johnston, Ming Tsao, Diana Ionescu, Stefan Urbanski, David Hwang, JC Cutz, Harman Sekhon, Christian Couture, Zhaolin Xu, Tammemagi M, Sukhinder Atkar-Khattra, Lam S, for the Pan-Canadian Early Lung Cancer Study Group.	Oct 01, 2015	Yes
	Citation: <i>CHEST.</i> 2015 Oct 01.			
	Assessment of Airway Wall Structure in Asthmatic Patients With Cryobiopsy	Alex Chee; Austin Laing; Margaret Kelly; Alain Tremblay; Paul MacEachern; Richard Leigh	Oct 01, 2015	Yes
	Citation: <i>CHEST.</i> 2015 Oct 01.			
	Inpatient Admissions for Malignant Pleural Effusions in the United States - Data from the 2012 National Inpatient Sample (HCUP-NIS).	Niloofar Taghizadeh, Marc Fortin, Alain Tremblay;	Jan 01, 2016	Yes

Name	Title	Authors	Publication Date	Peer Reviewed
Citation: ASCO. 2016 Jan 01.				
	Tobacco use in non-eligible participant in a Lung Cancer Screening Program	Niloofer Taghizadeh, Marc Fortin, Alain Tremblay;	Jan 01, 2016	Yes
Citation: ASCO. 2016 Jan 01.				
	Performance of a Novel 19G EBUS-TBNA Needle in Patients	A. Sczaniecka ¹ , X. Gonzalez ¹ , A. Tremblay ² , K. Yasufuku ³ ¹ Olympus Respiratory America - Redmond, WA/US, ² University of Calgary - Calgary, AB/CA, ³ University of Toronto, Toronto General Hospital - Toronto, ON/CA	Jan 01, 2016	Yes
Citation: ACCP-CHEST 2016. 2016 Jan 01.				
	Flexible 19 Gauge Endobronchial Ultrasound-Guided Transbronchial Needle Aspiration Needle - First Canadian Experience	Tyan C, Patel P, Czarnecka K, Fortin M, MacEachern P, Hergott CA, Tremblay A, Yasufuku K.	May 01, 2015	Yes
Citation: ATS International Conference . 2015 May 01.				
Person Total:			7 publications	
original research journal article				
	Self-expandable metallic stents in nonmalignant large airway disease	Marc Fortin MD FRCPC, Paul MacEachern MD FRCPC, Christopher A Hergott MD FRCPC FCCP, Alex Chee MD FRCPC, Elaine Dumoulin MD FRCPC, Alain Tremblay MDCM FRCPC FCCP	Jul 01, 2015	Yes
Citation: Canadian Respiriology. 2015 Jul 01.				
	Intranasal Fentanyl Intoxication Leading to Diffuse Alveolar Hemorrhage	Shannon Ruzycki MD, Mark Yarema MD, Michael Dunham MD, Hossein Sadrzadeh PhD, Alain Tremblay MDCM	Oct 26, 2015	Yes
Citation: Journal of Medical Toxicology. 2015 Oct 26.				
	Pleural Controversies: Indwelling pleural catheter vs pleurodesis for malignant pleural effusions	Fortin, Marc. Tremblay, Alain.	Jun 01, 2015	Yes
Citation: Journal of Thoracic Disease. 2015 Jun 01.				
	Intrapleural Fibrinolysis for the Treatment of Indwelling Pleural Catheter-Related Symptomatic Loculations – A Multi-Center Observational Study	Thomas, Rajesh; Piccolo, Francesco; Miller, Daniel; MacEachern, Paul; Chee, Alex; Huseini, Taha; Yarmus, Lonny; Bhatnagar, Rahul; Lee, Hans; Feller-Kopman, David; Maskell, Nicholas; Tremblay, Alain; Lee, Y C Gary	Sep 01, 2015	Yes
Citation: CHEST. 2015 Sep 01.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Complications Following Therapeutic Bronchoscopy for Malignant Central Airway Obstruction: Results of the AQUiRE Registry	David E. Ost MD MPH,1 Armin Ernst MD, Horia B. Grosu MD, Xiudong Lei PhD, Javier Diaz-Mendoza MD, Mark Slade MBBS, Thomas R. Gildea MD MS, Michael Machuzak MD, Carlos A. Jimenez MD, Jennifer Toth MD, Kevin L. Kovitz MD, Cynthia Ray MD, Sarah Greenhill MD, Roberto F. Casal MD, Francisco A. Almeida MD, Momen Wahidi MD, George A. Eapen MD, Lonny B. Yarmus DO, Rodolfo C. Morice MD, Sadia Benzaquen MD, Alain Tremblay MDCM, Michael Simoff MD On behalf of the AQUiRE Bronchoscopy Registry	Aug 01, 2015	Yes
Citation: CHEST. 2015 Aug 01.				
	Sequential Radial probe Endobronchial Ultrasound and Electromagnetic Navigation Bronchoscopy for the Diagnosis of Peripheral Pulmonary Lesions	Chee A, MacEachern P, Hergott E, Dumoulin E, Tremblay A	Jun 01, 2015	Yes
Citation: Journal of Visualized Experiments (JoVE). 2015 Jun 01.				
	Plasma pro-surfactant protein B and lung function decline in smokers.	Leung JM, Mayo J, Tan W, Tammemagi CM, Liu G, Peacock S, Shepherd FA, Goffin J, Goss G, Nicholas G, Tremblay A, Johnston M, Martel S, Laberge F, Bhatia R, Roberts H, Burrowes P, Manos D, Stewart L, Gingras M, Pasian S, Tsao MS, Lam S, Sin DD, Pan-Canadian Early Lung Cancer Study Group	Apr 03, 2015	Yes
Citation: Eur Respir J. 2015 Apr 03;45(4):1037-45.				
Person Total:			7 publications	
review journal article				
	Pleural Controversies: Indwelling pleural catheter vs pleurodesis for malignant pleural effusions.	Fortin, Marc. Tremblay, Alain	Jun 01, 2015	Yes
Citation: Journal of Thoracic Disease. 2015 Jun 01.				
Person Total:			1 publication	
	Division Total:		76 publications	
Rheumatology				
Claire Barber	abstract			
	Developing-System Level Performance Measures for Evaluation Models of Care for Inflammatory Arthritis.	Barber C, Lacaille D, Mosher D, Akhavan P, Ellsworth J, Houghton K, Battish M, Levy D, Schmeling H, Tibollo H, Grant S, Khodyakov D, Marshall D.	May 15, 2015	Yes
Citation: Journal of Rheumatology. 2015 May 15;42:1266.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Measuring the Rheumatologist Workforce in Canada: Stand Up and Be Counted!	Barber C, Jewett L, Ahluwalia V, Avers H, Baillie C, Badley E, Mosher D, Thorne C, Cividino A, Zummer M, Barnabe C, Lacaille D, Ellsworth J, Levy D, Ruban T, Brophy J, Pope J, McDougall R, London K, Thomson J, Charnock C, Yacyshyn E, Marshall D.	Feb 06, 2016	Yes
Citation: <i>J Rheumatol.</i> 2016 Feb 06;43(6):56-57.				
	Quality of Cardiovascular Care in RA: Assessing the Current State and Identifying Areas of Improvement.	Barber C, Esdaile J, Martin L, Faris P, Barnabe C, Guo S, Lopatina E, Marshall D.	Feb 06, 2016	Yes
Citation: <i>J Rheumatol.</i> 2016 Feb 06;43(6):56.				
	Key Performance Indicators for Evaluation of Centralized Intake Systems for Osteoarthritis and Rheumatoid Arthritis Healthcare Teams in Alberta.	Barber C, Patel J, Woodhouse L, Smith C, Homik J, LeClerc S, Mosher D, Christiansen T, Squire Howden J, Wasylak T, Greenwood-Lee J, Emrick A, Suter E, Kathol B, Khodyakov D, Grant S, Campbell-Scherer D, Phillips L, Hendricks J, Marshall D.	Feb 06, 2016	Yes
Citation: <i>J Rheumatol.</i> 2016 Feb 06;43(6):57.				
	Measuring the Rheumatologist Workforce in Canada: Preliminary Results of the Stand Up and Be Counted Survey.	Barber CE, Jewett L, Ahluwalia V, Baillie C, Mosher D, Zummer M, Thorne JC, Ellsworth J, Avers H, Barnabe C, Cividino A, Pope JE, Badley E, Levy D, Ruban T, London K, McDougall R, Brophy J, Lacaille D, Marshall DA.	Sep 15, 2015	Yes
Citation: <i>Arthritis Rheumatol.</i> 2015 Sep 15;Supplement 10(67).				
Person Total:			5 publications	
dissertation (PhD)				

Name	Title	Authors	Publication Date	Peer Reviewed
	Development and Testing of Cardiovascular Quality Indicators for Rheumatoid Arthritis.	This was a manuscript based thesis, each manuscript has different co-authors: 1. Barber CE, Smith A, Esdaile JM, Barnabe C, Martin LO, Faris P, Hazlewood G, Noormohamed R, Alvarez N, Mancini GB, Lacaille D, Keeling S, Aviña-Zubieta JA, Marshall DA. Best Practices for Cardiovascular Disease Prevention in Rheumatoid Arthritis: A Systematic Review of Guideline Recommendations and Quality Indicators. Arthritis Care Res (Hoboken) 2015; 67(2):169-79. 2. Barber CE, Marshall DA, Alvarez N, Mancini GB, Lacaille D, Keeling S, Aviña-Zubieta JA, Khodyakov D, Barnabe C, Faris P, Smith A, Noormohamed R, Hazlewood G, Martin LO, Esdaile JM. Development of Cardiovascular Quality Indicators (QIs) for Rheumatoid Arthritis: Results from an International Expert Panel Using a Novel Online Process. The Journal of Rheumatology 2015; 42(9):1548-55. Please note, the version in this dissertation is a pre-copy editing, author-produced manuscript. The definitive, publisher-authenticated version is available online at jrheum.org. 3. Barber CE, Esdaile JM, Martin LO, Faris P, Barnabe C, Guo S, Lopatia E, Marshall, DA. Gaps in Addressing Cardiovascular Risk in Rheumatoid Arthritis: Assessing Performance Using Cardiovascular Quality Indicators. A version of this manuscript has been accepted at J Rheumatology and is in press. ?	Dec 04, 2015	Yes
Citation: 2015 Dec 04.				
Person Total:			1 publication	
original research journal article				
	Development of System-level Performance Measures for Evaluation of Models of Care for Inflammatory Arthritis in Canada.	Barber CE, Marshall DA, Mosher DP, Akhavan P, Tucker L, Houghton K, Batthish M, Levy DM, Schmeling H, Ellsworth J, Tibollo H, Grant S, Khodyakov D, Lacaille D, and the Arthritis Alliance of Canada Performance Measurement Development Panel	Jan 15, 2016	Yes
Citation: J Rheumatol. 2016 Jan 15;43(3):530-540.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Development of Cardiovascular Quality Indicators for Rheumatoid Arthritis: Results from an International Expert Panel Using a Novel Online Process.	Barber CE, Marshall DA, Alvarez N, Mancini GB, Lacaille D, Keeling S, Aviña-Zubieta JA, Khodyakov D, Barnabe C, Faris P, Smith A, Noormohamed R, Hazlewood G, Martin LO, Esdaile JM, Quality Indicator International Panel	Sep 03, 2015	No
	Citation: <i>J Rheumatol.</i> 2015 Sep 03;42(9):1548-55.			
	Development of key performance indicators to evaluate centralized intake for patients with osteoarthritis and rheumatoid arthritis.	Barber CE, Patel JN, Woodhouse L, Smith C, Weiss S, Homik J, LeClercq S, Mosher D, Christiansen T, Howden JS, Wasylak T, Greenwood-Lee J, Emrick A, Suter E, Kathol B, Khodyakov D, Grant S, Campbell-Scherer D, Phillips L, Hendricks J, Marshall DA	Nov 16, 2015	Yes
	Citation: <i>Arthritis Res Ther.</i> 2015 Nov 16;17(1):322.			
Person Total:			3 publications	
Cheryl Barnabe	abstract			
	The age dependent effect of smoking on the risk of surgery for the inflammatory bowel diseases	Frolkis A	May 01, 2015	Yes
	Citation: <i>Digestive Disease Week 2015, Washington DC.</i> 2015 May 01.			
	Patient's with Crohn's Disease who Never Smoke are More Likely to Carry NOD2 Variants: A case-only NOD2-Smoking Interaction Study	Kuenzig E	May 01, 2015	Yes
	Citation: <i>Digestive Disease Week 2015, Washington DC.</i> 2015 May 01.			
	High-Resolution peripheral Quantitative Computed Tomography (HR-pQCT) Imaging in the Assessment of Periarticular Bone of Metacarpophalangeal and Wrist Joints	Nagaraj S, Finzel S, Stok K, Barnabe C	Jan 01, 2016	Yes
	Citation: <i>Canadian Rheumatology Association.</i> 2016 Jan 01;43(6):1242-3.			
	Air Pollution and the Rheumatic Diseases: A Systematic Review and Meta-Analysis	Sun G, Hazlewood G, Bernatsky S, Kaplan G, Eksteen B, Barnabe C	Jan 01, 2016	Yes
	Citation: <i>Canadian Rheumatology Association.</i> 2016 Jan 01;43(6):1192-3.			
	Comparison of Health Service Utilization Costs Between Aboriginal and Non-Aboriginal Patients with Rheumatoid Arthritis Requiring Biologic Therapy	Barnabe C, Zheng Y, Ohinmaa A, Hemmelgarn B, Kaplan G, Martin L, Maksymowych WP	Jan 01, 2016	Yes
	Citation: <i>Canadian Rheumatology Association.</i> 2016 Jan 01;43(6):1207.			
	No Sex Bias in the Escalation of Therapy in the Treatment of Early Inflammatory Arthritis	Garner S, Barnabe C, Boire G, Hitchon C, Keystone E, Haraoui B, Thorne C, Tin D, Jamal S, Pope J, Bykerk V	Jan 01, 2016	Yes
	Citation: <i>Canadian Rheumatology Association.</i> 2016 Jan 01;43(6):1218.			
	No Escalation of Therapy Despite High Disease Activity in the CATCH Cohort	Garner S, Barnabe C, Boire G, Hitchon C, Keystone E, Haraoui B, Thorne C, Tin D, Pope J, Bykerk V	Jan 01, 2016	Yes

Name	Title	Authors	Publication Date	Peer Reviewed
Citation: <i>Canadian Rheumatology Association. 2016 Jan 01;43(6):1218-9.</i>				
	A Systematic Review to Characterize Healthcare Utilization for Indigenous People Living with Arthritis in Canada, New Zealand, Australia and the United States	Loyola Sanchez A, Edgar K, Barnabe C	Jan 01, 2016	Yes
Citation: <i>Canadian Rheumatology Association. 2016 Jan 01;43(6):1179.</i>				
	Quality of Cardiovascular Care in RA: Assessing the Current State and Identifying Areas for Improvement	Barber C, Esdaile J, Martin L, Faris P, Barnabe C, Guo S, Lopatina E, Marshall D	Jan 01, 2016	Yes
Citation: <i>Canadian Rheumatology Association. 2016 Jan 01;43(6):1204.</i>				
	Measuring the Rheumatologist Workforce in Canada: Stand Up and Be Counted!	Barber C, Jewett L, Ahluwalia V, Avers H, Baillie C, Badley E, Mosher D, Thorne C, Cividino A, Zummer M, Barnabe C, Lacaille D, Ellsworth J, Levy D, Ruban T, Brophy J, Pope J, McDougall R, London K, Thomson J, Charnock C, Yacyshyn E, Marshall D	Jan 01, 2016	Yes
Citation: <i>Canadian Rheumatology Association. 2016 Jan 01;43(6):1204-5.</i>				
	A Systematic Review of Rheumatoid Arthritis Characteristics and Clinical Outcomes in Indigenous Populations of Canada, the United States, Australia and New Zealand	Edgar K, Barnabe C	Jan 01, 2016	Yes
Citation: <i>Canadian Rheumatology Association. 2016 Jan 01;43(6):1216.</i>				
	The Impact of Obesity on Remission and Disease Outcomes in Rheumatoid Arthritis: A Systematic Review and Meta-Analysis	Liu Y, Kaplan G, Hazlewood G, Eksteen B, Barnabe C	Jan 01, 2016	Yes
Citation: <i>Canadian Rheumatology Association. 2016 Jan 01;43(6):1231.</i>				
	Adherence to a Treat-To-Target Strategy is Key to Attainment of Sustained Remission in Rheumatoid Arthritis: Data from the Real-World Practice BIODAM Cohort	Homik J, Larche M, Thorne C, Boire G, Barnabe C, Rahman P, Hitchon C, Hutchings E, Dadashova R, Paschke J, Maksymowych WP for BIODAM Investigators	Jan 01, 2016	Yes
Citation: <i>Canadian Rheumatology Association. 2016 Jan 01;43(6):1223-4.</i>				
	Is Treat-to-Target Really Working? A Longitudinal Analysis in BIODAM	Maksymowych WP, Larche M, Thorne C, Boire G, Homik J, Barnabe C, Rahman P, Hitchon C, Hutchings E, Dadashova R, Paschke J, Ramiro S	Jan 01, 2016	Yes
Citation: <i>Canadian Rheumatology Association. 2016 Jan 01;43(6):1181.</i>				
	Biologic Therapy Treatment Complications in the Alberta Aboriginal Population with Rheumatoid Arthritis	Barnabe C, Zheng Y, Ohinmaa A, Hemmelgarn B, Kaplan G, Martin L, Maksymowych WP	Jan 01, 2016	Yes
Citation: <i>Canadian Rheumatology Association. 2016 Jan 01;43(6):1152.</i>				
	Complications of Inflammatory Arthritis in First Nations and non-First Nations Populations of Alberta, Canada	Barnabe C, Kaplan G, Avina-Zubieta A, Lacaille D, Hemmelgarn B, Esdaile J	Jan 01, 2016	Yes
Citation: <i>Canadian Rheumatology Association. 2016 Jan 01;43(6):1206-7.</i>				
	Relationship between bone loss and inflammation: What can HR-pQCT imaging add?	Barnabe C	Jul 01, 2015	Yes

Name	Title	Authors	Publication Date	Peer Reviewed
Citation: <i>IBMS BoneKEy</i> . 2015 Jul 01.				
	Early Rheumatoid Arthritis Patients in the Worse Disease Trajectory Group Fail to Achieve Improvement in Physical Function	Barnabe C, Sun Y, Barlett SJ, Boire G, Hitchon C, Keystone EC, Haraoui B, Thorne JC, Tin D, Pope JE, Bykerk V, CATCH Investigators	Jul 01, 2015	Yes
Citation: <i>Arthritis Rheumatol</i> . 2015 Jul 01;67(10):703-4.				
	Measuring the Rheumatologist Workforce in Canada: Preliminary Results of the Stand Up and Be Counted Survey	Barber CEH, Jewett L, Ahluwalia V, Baillie C, Mosher D, Zimmer M, Thorne JC, Ellsworth J, Avers H, Barnabe C, Cividino A, Pope JE, Badley EM, Levy DM, Ruban T, Lundon K, McDougall R, Brophy J, Lacaille D, Marshall D, Canadian Rheumatology Association Human Resources Committee	Jul 01, 2015	Yes
Citation: <i>Arthritis Rheumatol</i> . 2015 Jul 01;67(10):1610-11.				
	Is Treat-to-Target Really Working? A Longitudinal Analysis in BIODAM	Ramiro S, Landewe RBM, van der Heijde D, FitzGerald O, Ostergaard M, Homik J, Elkayam O, Thorne JC, Larche M, Ferraccioli G, Backhaus M, Boire G, Combe B, Schaefferbeke T, Saraux A, Dougados M, Adami S, Govoni M, Sinigaglia L, Cantagrel AG, Allaart CF, Barnabe C, Bingham CO III, Tak PP, van Schaardenburg D, Hammer HB, Dadashova R, Hutchings E, Paschke J, Maksymowych WP	Jul 01, 2015	Yes
Citation: <i>Arthritis Rheumatol</i> . 2015 Jul 01;67(10):3819-21.				
	Reaching Consensus – Volumetric Joint Space Width Calculations in Finger Joints of Arthritis Patients	Stok KS, Burghardt AJ, Boutroy S, Vilayphiou N, Li X, Marotte H, Boyd SK, Barnabe C	Jul 01, 2015	Yes
Citation: <i>Arthritis Rheumatol</i> . 2015 Jul 01;67(10):1678-9.				
	Is Rheumatic Disease Really More Severe in Indigenous Populations? A Systematic Review of Clinical Outcomes in Indigenous Populations of Canada, the United States, Australia and New Zealand	Hurd K, Barnabe C	Jul 01, 2015	Yes
Citation: <i>Arthritis Rheumatol</i> . 2015 Jul 01;67(10):2737-8.				
	Enhancing Comparative Effectiveness Research by Combining Observational and Randomized Trial Data to Personalize the Choice Between Methotrexate and Triple Therapy for Methotrexate-Naïve Patients with Early Rheumatoid Arthritis	Hazlewood GS, Barnabe C, Boire G, Hitchon C, Keystone EC, Haraoui B, Thorne JC, Tin D, Pope JE, Lin D, Bykerk V, CATCH Investigators	Jul 01, 2015	Yes
Citation: <i>Arthritis Rheumatol</i> . 2015 Jul 01;67(10):1357-9.				

Name	Title	Authors	Publication Date	Peer Reviewed
	No Sex Bias in the Escalation of Therapy in the Treatment of Early Inflammatory Arthritis	Garner S, Barnabe C, Boire G, Hitchon C, Keystone EC, Haraoui B, Thorne JC, Tin D, Pope JE, Bykerk V, CATCH Investigators	Jul 01, 2015	Yes
Citation: <i>Arthritis Rheumatol.</i> 2015 Jul 01;67(10):657-8.				
	Complications of Inflammatory Arthritis in First Nations and Non-First Nations Populations of Alberta, Canada	Barnabe C, Kaplan GG, Avina-Zubieta JA, Lacaille D, Hemmelgarn B, Esdaile JM	Jul 01, 2015	Yes
Citation: <i>Arthritis Rheumatol.</i> 2015 Jul 01;67(10):44-46.				
	Biologic Therapy Treatment Complications in the Alberta Aboriginal Population with Rheumatoid Arthritis	Barnabe C, Zheng Y, Ohinmaa A, Hemmelgarn B, Kaplan G, Martin L, Maksymowych WP	Jul 01, 2015	Yes
Citation: <i>Arthritis Rheumatol.</i> 2015 Jul 01;67(10):672-3.				
	Comparison of Health Service Utilization Costs Between Aboriginal and Non-Aboriginal Patients with Rheumatoid Arthritis Requiring Biologic Therapy	Barnabe C, Zheng Y, Ohinmaa A, Hemmelgarn B, Kaplan G, Martin L, Maksymowych WP	Jul 01, 2015	Yes
Citation: <i>Arthritis Rheumatol.</i> 2015 Jul 01;67(10):1622-4.				
	Air Pollution and the Rheumatic Diseases: A Systematic Review and Meta-Analysis	Sun G, Hazlewood G, Bernatsky S, Kaplan G, Eksteen B, Barnabe C	Jul 01, 2015	Yes
Citation: <i>Arthritis Rheumatol.</i> 2015 Jul 01;67(10):1551-2.				
	Methotrexate Monotherapy and Methotrexate Combination Therapy with Traditional and Biologic DMARDS for Rheumatoid Arthritis: A Cochrane Systematic Review and Network Meta-Analysis	Hazlewood GS, Barnabe C, Tomlinson GA, Marshall D, Devoe D, Bombardier C	Jul 01, 2015	Yes
Citation: <i>Arthritis Rheumatol.</i> 2015 Jul 01;67(10):1355-6.				
	Impact of Obesity on the Disease Course of Rheumatoid Arthritis	Liu Y, Kaplan G, Eksteen B, Barnabe C	Jul 01, 2015	Yes
Citation: <i>Arthritis Rheumatol.</i> 2015 Jul 01;67(10):59-60.				
	Non-adherence to Treat-to-Target of Rheumatoid Arthritis in the International RA BIODAM Program: What Defines this Population?	Maksymowych W, Homik J, Thorne C, Shaikh S, Boire G, Hitchon C, Barnabe C, Martin L, Rahman P, Larche M, Dadashova R, Hutchings E, Paschke J	Jul 01, 2015	Yes
Citation: <i>J Rheumatol.</i> 2015 Jul 01;42:1344.				
	Quantified Differences in Erosion Number and Size in the First Year of Inflammatory Arthritis Using High-Resolution Peripheral Quantitative Computed Tomography (HR-pQCT)	Tom S, Finzel S, Blair-Pattison A, Martin L, Hazlewood G, Barber C, LeClerc S, Kaminska E, Penney C, Mosher D, Boyd SK, Barnabe C	Jul 01, 2015	Yes
Citation: <i>J Rheumatol.</i> 2015 Jul 01;42(1335-6).				
	Is the Heart in the Right Place? Cardiac Risk Profiles of Early Rheumatoid Arthritis Patients	Harrison T, Barnabe C, Martin L	Jul 01, 2015	Yes
Citation: <i>J Rheumatol.</i> 2015 Jul 01;42:1337-8.				
	Treatment Outcomes with Biologic Therapies for Rheumatoid Arthritis in the Alberta Aboriginal Population	Barnabe C, Hemmelgarn B, Kaplan GG, Martin L, Maksymowych WP	Jul 01, 2015	Yes
Citation: <i>J Rheumatol.</i> 2015 Jul 01;42:1277.				

Name	Title	Authors	Publication Date	Peer Reviewed
	The Importance of Primary Care Providers for Managing Rheumatoid Arthritis for First Nations Patients: Discrepancies in RA Prevalence and Specialist Care Use	Barnabe C, Jones CA, Bernatsky S, Peschken C, Voaklander D, Homik J, Esdaile J, Hemmelgarn B	Jul 01, 2015	Yes
Citation: <i>J Rheumatol.</i> 2015 Jul 01;42:1276.				
	Sociodemographic and Health Status Characteristics Explain Five Clinical Outcome and Radiographic Trajectories in Early Rheumatoid Arthritis: Data from the CATCH Cohort	Barnabe C, Sun Y, Boire G, Hitchon C, Haraoui B, Thorne C, Tin D, van der Heijde D, Curtis J, Keystone E, Bykerk V	Jul 01, 2015	Yes
Citation: <i>J Rheumatol.</i> 2015 Jul 01;42:1277.				
	Is Treat-To-Target Really Working? A Longitudinal Analysis in BIODAM.	Ramiro S, Landewe R, van der Heijde D, FitzGerald O, Ostergaard M, Homik J, Elkayam O, Thorne JC, Larche M, Ferraccioli G, Backhaus M, Boire G, Combe B, Schaefferbeke T, Saraux A, Dougados M, Adami S, Govoni M, Sinigaglia L, Cantagrel A, Allaart CF, Barnabe C, Bingham III CO, Tak PP, van Schaardenburg D, Hammer HB, Dadashova R, Hutchings E, Paschke J, Maksymowych WP	Jan 01, 2016	Yes
Citation: <i>EULAR.</i> 2016 Jan 01;10(1136):2103.				
	Comparing Initial Treatment Strategies with Methotrexate on First Use of Biologic Therapy: Results from the Canadian Early Arthritis Cohort	Gottheil S, Pope J, Schieir O, Hazlewood G, Keystone E, Jamal S, Barnabe C, Boire G, Hitchon C, Thorne C, Bykerk V, Tin D, Haraoui B, CATCH Investigators	Jan 01, 2016	Yes
Citation: <i>EULAR.</i> 2016 Jan 01;10(1136):1914.				
Person Total:			38 publications	
original research journal article				
	Early medication use in new-onset rheumatoid arthritis may delay joint replacement: results of a large population-based study.	Moura CS, Abrahamowicz M, Beauchamp ME, Lacaille D, Wang Y, Boire G, Fortin PR, Bessette L, Bombardier C, Widdifield J, Hanly JG, Feldman D, Maksymowych W, Peschken C, Barnabe C, Edworthy S, Bernatsky S, CAN-AIM	Aug 05, 2015	Yes
Citation: <i>Arthritis Res Ther.</i> 2015 Aug 05;17:197.				
	Development of Cardiovascular Quality Indicators for Rheumatoid Arthritis: Results from an International Expert Panel Using a Novel Online Process.	Barber CE, Marshall DA, Alvarez N, Mancini GB, Lacaille D, Keeling S, Aviña-Zubieta JA, Khodyakov D, Barnabe C, Faris P, Smith A, Noormohamed R, Hazlewood G, Martin LO, Esdaile JM, Quality Indicator International Panel	Sep 03, 2015	Yes
Citation: <i>J Rheumatol.</i> 2015 Sep 03;42(9):1548-55.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Toward Ensuring Health Equity: Readability and Cultural Equivalence of OMERACT Patient-reported Outcome Measures.	Petkovic J, Epstein J, Buchbinder R, Welch V, Rader T, Lyddiatt A, Clerehan R, Christensen R, Boonen A, Goel N, Maxwell LJ, Toupin-April K, De Wit M, Barton J, Flurey C, Jull J, Barnabe C, Sreih AG, Campbell W, Pohl C, Duruöz MT, Singh JA, Tugwell PS, Guillemin F	Dec 03, 2015	Yes
	Citation: <i>J Rheumatol.</i> 2015 Dec 03;42(12):2448-59.			
	Fine particulate air pollution, nitrogen dioxide, and systemic autoimmune rheumatic disease in Calgary, Alberta.	Bernatsky S, Smargiassi A, Johnson M, Kaplan GG, Barnabe C, Svenson L, Brand A, Bertazzon S, Hudson M, Clarke AE, Fortin PR, Edworthy S, Bélisle P, Joseph L	Jul 03, 2015	Yes
	Citation: <i>Environ Res.</i> 2015 Jul 03;140:474-8.			
	Estimating the Burden of Osteoarthritis to Plan for the Future.	Marshall DA, Vanderby S, Barnabe C, MacDonald KV, Maxwell C, Mosher D, Wasylak T, Lix L, Enns E, Frank C, Noseworthy T	Oct 03, 2015	Yes
	Citation: <i>Arthritis Care Res (Hoboken).</i> 2015 Oct 03;67(10):1379-86.			
	Response to 'Body mass index and the risk of rheumatoid arthritis: a systematic review and dose-response meta-analysis'.	Liu Y, Barnabe C	Aug 21, 2015	Yes
	Citation: <i>Arthritis Res Ther.</i> 2015 Aug 21;17:216.			
	Heterogeneous Disease Trajectories Explain Variable Radiographic, Function and Quality of Life Outcomes in the Canadian Early Arthritis Cohort (CATCH)	Barnabe C, Sun Y, Boire G, Hitchon CA, Haraoui B, Thorne JC, Tin D, van der Heijde D, Curtis JR, Jamal S, Pope JE, Keystone EC, Bartlett S, Bykerk VP	Jul 01, 2015	Yes
	Citation: <i>PLoS One.</i> 2015 Jul 01;10(8).			
	Person Total:		7 publications	
Ann E. Clarke	abstract			
	Increased risk of allergic conditions in children born to women with SLE.	Couture J, Ben-Soshan M, Pineau C, Scott S, Clarke AE, Bernatsky S, Vinet E.	Feb 18, 2016	Yes
	Citation: <i>Annual Scientific Meeting of the Canadian Rheumatology Association, February 17-20, 2016, Lake Louise, AB.</i> 2016 Feb 18.			
	Mood disorders in SLE: results from an international, inception cohort study.	Hanly JG, Li S, Urowitz MB, SLICC	Jun 01, 2015	Yes
	Citation: <i>EULAR 2015 Annual Meeting, June 2015, Rome.</i> 2015 Jun 01.			
	Lupus-related SNP and risk of diffuse large B-Cell Non-Hodgkin Lymphoma.	Bernatsky S, Spinelli JJ, Gaffney P, Smedby KE, Ramsey-Goldman R, Wang S, Clarke AE.	Nov 07, 2015	Yes
	Citation: <i>Meeting of the American College of Rheumatology, November 6-11, 2015, San Francisco.</i> 2015 Nov 07.			
	Tryptase levels in children presenting with anaphylaxis to the Montreal Children's Hospital.	De Schryver S, Halbrich M, Clarke AE, La Vieille S, Eisman H, Alizadehfar R, Joseph L, Morris J, Ben-Shoshan M.	Oct 01, 2015	Yes

Name	Title	Authors	Publication Date	Peer Reviewed
Citation: Annual Meeting of the Canadian Society of Allergy and Clinical Immunology, October 2015, Vancouver, B.C. . 2015 Oct 01.				
	Cell of origin of diffuse large B-cell lymphoma (DLBCL) in patients with SLE.	Tessier-Cloutier B, Farinha P, Baecklund E, Lee J LF, Ramsey-Goldman R, Clarke AE, Bernatsky S, Gascoyne RD, SLICC Investigators.	Nov 08, 2015	Yes
Citation: Annual Meeting of the American College of Rheumatology, Nov. 6-11, 2015, San Francisco . 2015 Nov 08.				
	Cancer Risk in 5,108 patients with juvenile idiopathic arthritis (JIA).	Niaki OZ, Clarke AE, von Scheven E, Hayward K, Yeung R, Oen K, Duffy C, Rosenberg A, O'Neil K, Labrecque J, Bernatsky S.	Nov 10, 2015	Yes
Citation: Annual Meeting of the American College of Rheumatology, Nov. 6-11, 2015, San Francisco. 2015 Nov 10.				
	Lupus Nephritis in an International, Inception Cohort. Longitudinal analysis using a multistate Markov model approach	Hanly JG, Su L, SLICC et al.	Nov 11, 2015	Yes
Citation: Annual Meeting of the American College of Rheumatology, Nov. 6-11, 2015, San Francisco . 2015 Nov 11.				
	Increased risk of allergic conditions in children born to women with SLE.	Couture J, Ben-Soshan M, Pineau C, Scott S, Clarke AE, Bernatsky S, Vinet E.	Nov 12, 2015	Yes
Citation: Annual Meeting of the American College of Rheumatology, Nov. 6-11, 2015, San Francisco . 2015 Nov 12.				
	Atherosclerotic vascular events in a multinational SLE inception cohort: Description and predictive risk factors over a 15 year period.	Urowitz M, Gladman D, SLICC members.	Nov 12, 2015	Yes
Citation: Annual Meeting of the American College of Rheumatology, Nov. 6-11, 2015, San Francisco . 2015 Nov 12.				
	Evolution of disease burden over 7 years in a multicenter SLE inception cohort.	Urowitz M, Gladman D, SLICC members.	Nov 13, 2015	Yes
Citation: Annual Meeting of the American College of Rheumatology, Nov. 6-11, 2015, San Francisco . 2015 Nov 13.				
	A paper patient-based flare study in SLE.	Isenberg DA, Sturgess J , SLICC members	Nov 13, 2015	Yes
Citation: Annual Meeting of the American College of Rheumatology, Nov. 6-11, 2015, San Francisco . 2015 Nov 13.				
	The prevalence of Anti-DFS70 antibodies in an international inception cohort of SLE patients.	Choi M, Clarke AE, SLICC members	Nov 12, 2015	Yes
Citation: Annual Meeting of the American College of Rheumatology, Nov. 6-11, 2015, San Francisco . 2015 Nov 12.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Economic evaluation of lupus nephritis in an international inception cohort: comparing the hospitalization, medication, dialysis, and procedure costs of those with and without nephritis.	478. Barber MR, Hanly JG, O'Keeffe A, Su L, Urowitz MB, St. Pierre Y, Romero-Diaz J, Gordon C, Bae SC, Bernatsky S, Wallace DJ, Merrill JT, Isenberg DA, Rahman A, Ginzler EM, Fortin P, Gladman DD, Sanchez-Guerrero, Petri M, Bruce IN, Dooley MA, Ramsey-Goldman R, Aranow C, Alarcon GS, Chatham W, Steinsson K, Nived O, Sturfelt GK, Manzi S, Khamashta MA, van Vollenhoven RF, Zoma AA, Ramos-Casals M, Ruiz-Irastorza G, Stoll SL, Inanc M, Kalunian KC, Kamen DL, Maddison P, Peschken CA, Jacobsen S, Askanase A, Buyon J, Theriault C, Thompson K, Farewell V, Clarke AE.	Nov 12, 2015	Yes
Citation: Annual Meeting of the American College of Rheumatology, Nov. 6-11, 2015, San Francisco . 2015 Nov 12.				
	A new susceptibility locus for SLE on chromosome 12.	Demirci FY, Wang X, Kelly JA, Morris D, Barnada MM, Feingold E, Kao AH, Sivils KL, Bernatsky, S, Pineau C, Clarke AE, Ramsey-Goldman R, Vyse TJ, Gaffney PM, Manzi S, Kamboh MI.	Nov 11, 2015	Yes
Citation: . Annual Meeting of the American College of Rheumatology, Nov. 6-11, 2015, San Francisco. 2015 Nov 11.				
	Comparison of systemic lupus erythematosus in 3 different ethnic groups: Results from the 1000 faces of lupus cohort.	Nguyen M, Silverman, E, Pope J, Fortin PR, Pineau C, Smith CD, Chedeville G, Huber A, Arbillaga H, Zimmer M, Clarke AE, Bernatsky S, Tucker L, Hudson M, CaNIOS Investigators and Peschken C.	Nov 12, 2015	Yes
Citation: Annual Meeting of the American College of Rheumatology, Nov. 6-11, 2015, San Francisco. 2015 Nov 12.				
	The initial presentation of cerebrovascular disease attributed to Lupus is most frequent early in the disease course: Results from an International, Inception Cohort study.	Hanly J, SLICC members et al.	Nov 11, 2015	Yes
Citation: Annual Meeting of the American College of Rheumatology, Nov. 6-11, 2015, San Francisco . 2015 Nov 11.				
	Increased direct health care costs in SLE pregnancies.	Moura CS, Bernatsky S, St. Pierre Y, Scott S, Pineau C, Clarke AE, Vinet E.	Nov 13, 2015	Yes
Citation: Annual Meeting of the American College of Rheumatology, Nov. 6-11, 2015, San Francisco . 2015 Nov 13.				
	START: Susceptibility to food allergies in a registry of twins.	Dery A, Clarke AE, Nadeau K, Harada L, Weatherall K, Greenwood C, Daley D, Asai Y, Ben-Soshan M.	Oct 01, 2015	Yes

Name	Title	Authors	Publication Date	Peer Reviewed
	Citation: Allergan Annual Conference, Vancouver, October 2015 . 2015 Oct 01.			
	C-CARE: Evaluation of risk factors associated with food-induced anaphylaxis in children treated at the Emergency Department.	De Schryver S, Clarke AE, LaVieille S, Alizadehfar R, Dery A, Mill C, Joseph L, Eisman H, Morris J, Hochstadter E, Gravel J, Lim R, Ben-Soshan M.	Nov 06, 2015	Yes
	Citation: American College of Allergy, Asthma and Immunology Annual Meeting, Nov. 5-9, 2015, San Antonio, Texas. 2015 Nov 06.			
	Anaphylaxis cases treated by out-of-hospital EMS in Western Quebec.	Grzyb MJ, Clarke AE, Kimchi N, Moisan J, Lachaine C, LaVieille S, Asai Y, Joseph L, Mill C, Ben-Soshan M	Mar 05, 2016	Yes
	Citation: American Academy of Allergy, Asthma and Immunology Annual Meeting, March 4-7, 2016, Los Angeles, California . 2016 Mar 05.			
	START: Susceptibility to food allergies in a Registry of twins.	DeSchryver S, Dery A, Clarke AE, Nadeau K, Harada L, Weatherall K, Greenwood C, Daley D, Asai Y, Bamfort F, Ben-Soshan M.	Mar 05, 2016	Yes
	Citation: American Academy of Allergy, Asthma and Immunology Annual Meeting, March 4-7, 2016, Los Angeles, California . 2016 Mar 05.			
	Comparison of pediatric anaphylaxis at Montreal Children's Hospital and British Columbia Children's Hospital: Rate, Clinical Characteristics, Triggers and Management.	Lee A, Ben-Soshan B, Enarson P, Mill C, Mill J, Clarke AE, Shand G, Chan E.	Mar 05, 2016	Yes
	Citation: American Academy of Allergy, Asthma and Immunology Annual Meeting, March 4-7, 2016, Los Angeles, California . 2016 Mar 05.			
	C-CARE: Comparing anaphylaxis in Montreal vs Vancouver.	Lee A, Ben-Soshan B, Enarson P, Mill C, Mill J, Clarke AE, Shand G, Chan E.	Mar 05, 2016	Yes
	Citation: American Academy of Allergy, Asthma and Immunology Annual Meeting, March 4-7, 2016, Los Angeles, California . 2016 Mar 05.			
	Clinical manifestations and disease activity comparison between childhood-onset and adult-onset SLE – The 1000 Canadian faces of lupus cohort.	Pope J, Peschken C, Levy D, Bernatsky S, Tucker L, Silverman E, Moyer M, Pineau C, Zummer M, Smith D, Clarke AE, Hitchon C, Zubieta A, Huber A, Arbillaga H, Chedeville G, Hudson M, Petty R.	Feb 18, 2016	Yes
	Citation: Scientific Meeting of the Canadian Rheumatology Association, February 17-20, 2016, Lake Louise, AB . 2016 Feb 18.			
	Autoantibody profiles in patients from the SLE cohort with and without malignancy.	Goobie GC, Urowitz MB, Hanly JG, Fritzler M, St. Pierre Y, Ramsey-Goldman R, Clarke AE, Bernatsky S & SLICC Investigators.	Feb 18, 2016	Yes
	Citation: Annual Scientific Meeting of the Canadian Rheumatology Association, February 17-20, 2016, Lake Louise, AB . 2016 Feb 18.			
	A longitudinal analysis of change in lupus nephritis in an international inception cohort using a multistate Markov model approach.	Hanly J, SLICC Investigators	Feb 17, 2016	Yes
	Citation: Annual Scientific Meeting of the Canadian Rheumatology Association, February 17-20, 2016, Lake Louise, AB . 2016 Feb 17.			
	The initial presentation of cerebrovascular disease attributed to Lupus is most frequent early in the disease course: Results from an international, inception cohort study.	Hanly J, SLICC Investigators.	Feb 18, 2016	Yes

Name	Title	Authors	Publication Date	Peer Reviewed
	Citation: Annual Scientific Meeting of the Canadian Rheumatology Association, February 17-20, 2016, Lake Louise, AB . 2016 Feb 18.			
	Comparison of systemic lupus erythematosus in 3 different ethnic groups: Results from the 1000 faces of lupus cohort	Nguyen M, Silverman, E, Pope J, Fortin PR, Pineau C, Smith CD, Chedeville G, Huber A, Arbillaga H, Zimmer M, Clarke AE, Bernatsky S, Tucker L, Hudson M, CaNIOS Investigators and Peschken C.	Feb 18, 2016	Yes
	Citation: Annual Scientific Meeting of the Canadian Rheumatology Association, February 17-20, 2016, Lake Louise, AB . 2016 Feb 18.			
	The prevalence of anti-DFS70 antibodies in an international inception cohort of SLE patients.	Choi M, Hanly J, Urowitz M, Clarke AE, Fritzler M, SLICC investigators.	Feb 18, 2016	Yes
	Citation: Annual Scientific Meeting of the Canadian Rheumatology Association, February 17-20, 2016, Lake Louise, AB . 2016 Feb 18.			
	Economic evaluation of lupus nephritis in an international inception cohort: comparing the hospitalization, medication, dialysis, and procedure costs of those with and without nephritis	Barber MR, Urowitz MB, Hanly JG, Su L, St. Pierre Y, Su L, Farewell V, Clarke AE, SLICC Investigators.	Feb 17, 2016	Yes
	Citation: Annual Scientific Meeting of the Canadian Rheumatology Association, February 17-20, 2016, Lake Louise, AB . 2016 Feb 17.			
	The wolf in the water: Lupus vs Lymphoma.	Choi M, Cooke L, Clarke AE, Fritzler M, MacMullan P	Feb 18, 2016	Yes
Marvin J. Fritzler	Citation: Annual Scientific Meeting of the Canadian Rheumatology Association, February 17-20, 2016, Lake Louise, AB . 2016 Feb 18.			
	Person Total:			31 publications
	original research journal article			
Marvin J. Fritzler	2013 american college of rheumatology/european league against rheumatism classification criteria for systemic sclerosis outperform the 1980 criteria: data from the canadian scleroderma research group.	Alhajeri H, Hudson M, Fritzler M, Pope J, Tatibouet S, Markland J, Robinson D, Jones N, Khalidi N, Docherty P, Kaminska E, Masetto A, Sutton E, Mathieu JP, Ligier S, Grodzicky T, LeClerc S, Thorne C, Gyger G, Smith D, Fortin PR, Larché M, Baron M	Apr 03, 2015	Yes
	Citation: Arthritis Care Res (Hoboken). 2015 Apr 03;67(4):582-7.			
	Person Total:			1 publication
Glen Hazlewood	abstract			
	Treatment Preferences of Patients with Early Rheumatoid Arthritis: A Discrete-Choice Experiment.	Glen S. Hazlewood, Claire Bombardier, George A. Tomlinson, Carter Thorne, VP Bykerk, Andrew Thompson, Diane Tin and Deborah Marshall.	Sep 29, 2015	No
	Citation: Arthritis Rheumatol.. 2015 Sep 29;2015; 67 (suppl 10). .			
	Air Pollution and the Rheumatic Diseases: A Systematic Review and Meta-Analysis	Gavin Sun ; Glen Hazlewood ; Sasha Bernatsky ; Gilaad Kaplan ; Bertus Eksteen ; Cheryl Barnabe.	Feb 17, 2016	Yes
	Citation: Arthritis Rheumatology 2015:67 (suppl 10). 2016 Feb 17.			
Glen Hazlewood	Patient Preferences in Decision Making for Treatment of Rheumatoid Arthritis: A Systematic Review	Maysoon Eldoma ; Caylib Durand ; Glen Hazlewood.	Feb 17, 2016	Yes

Name	Title	Authors	Publication Date	Peer Reviewed
	Citation: <i>Canadian Rheumatology Association Annual Meeting. 2016 Feb 17.</i>			
	Air Pollution and the Rheumatic Diseases: A Systematic Review and Meta-Analysis	Gavin Sun ; Glen Hazlewood ; Sasha Bernatsky ; Gilaad Kaplan ; Bertus Eksteen ; Cheryl Barnabe.	Nov 08, 2015	Yes
	Citation: <i>American Colleg of Rheumatology Annual Meeting. 2015 Nov 08.</i>			
	Person Total:		4 publications	
	original research journal article			
	Heterogeneous Disease Trajectories Explain Variable Radiographic, Function and Quality of Life Outcomes in the Canadian Early Arthritis Cohort (CATCH).	Barnabe C, Sun Y, Boire G, Hitchon CA, Haraoui B, Thorne JC, Tin D, van der Heijde D, Curtis JR, Jamal S, Pope JE, Keystone EC, Bartlett S, Bykerk VP; CATCH Investigators.	Aug 24, 2015	Yes
	Citation: <i>PLoS One. 2015 Aug 24;Aug 24(10(8)):e0135327.</i>			
	The comparative effectiveness of oral versus subcutaneous methotrexate for the treatment of early rheumatoid arthritis.	Hazlewood GS, Thorne JC, Pope JE, Lin D, Tin D, Boire G, Haraoui B, Hitchon CA, Keystone EC, Jamal S, Bykerk VP, CATCH Investigators	May 17, 2015	Yes
	Citation: <i>Ann Rheum Dis. 2015 May 17.</i>			
	Reply: To PMID 25448924.	Hazlewood GS, Rezaie A, Kaplan GG	Jun 03, 2015	Yes
	Citation: <i>Gastroenterology. 2015 Jun 03;148(7):1484.</i>			
	Choosing wisely: the Canadian Rheumatology Association's list of 5 items physicians and patients should question.	Chow SL, Carter Thorne J, Bell MJ, Ferrari R, Bagheri Z, Boyd T, Colwill AM, Jung M, Frackowiak D, Hazlewood GS, Kuriya B, Tugwell P, Canadian Rheumatology Association Choosing Wisely Committee	Apr 03, 2015	Yes
	Citation: <i>J Rheumatol. 2015 Apr 03;42(4):682-9.</i>			
	Improving Appropriate Access to Care with Central Referral and Triage in Rheumatology.	Hazlewood GS, Barr SG, Lopatina E, Marshall DA, Lupton TL, Fritzler MJ, Mosher DP, Steber WA, Martin L	Jan 29, 2016	Yes
	Citation: <i>Arthritis Care Res (Hoboken). 2016 Jan 29.</i>			
	Development of Cardiovascular Quality Indicators for Rheumatoid Arthritis: Results from an International Expert Panel Using a Novel Online Process.	Barber CE, Marshall DA, Alvarez N, Mancini GB, Lacaille D, Keeling S, Aviña-Zubieta JA, Khodyakov D, Barnabe C, Faris P, Smith A, Noormohamed R, Hazlewood G, Martin LO, Esdaile JM,	Sep 03, 2015	Yes
	Citation: <i>J Rheumatol. 2015 Sep 03;42(9):1548-55.</i>			
	Person Total:		6 publications	
William O. Martin (Liam)	abstract			
	Modifiable Lifestyle Factors Negatively Impact HAQ Scores and Treating to Target in Early Rheumatoid Arthritis Patients	Harrison T, Martin L	May 01, 2015	Yes
	Citation: <i>Annals of Rheumatic Disease. 2015 May 01(Suppl 12).</i>			
	Are Cardiac Risk Profiles of Early Rheumatoid Arthritis Patients addressed at clinic?	Harrison T, Barnabe C, Martin L	May 01, 2015	Yes

Name	Title		Authors	Publication Date	Peer Reviewed
	Citation: <i>Rheumatology</i> . 2015 May 01;54(Suppl 1).				
	Person Total:			2 publications	
	original research journal article				
	Clinical and Serological Analysis of Patients with Positive Anticyclic Citrullinated Peptide Antibodies Referred Through a Rheumatology Central Triage	Martin L, Steber WA, Lupton TL, Mahler M, Fitch CM, McMillan JD, Schmidt DR and Fritzler MJ	May 01, 2015	Yes	
	Citation: <i>Journal of Rheumatology</i> . 2015 May 01;42(5):771-7.				
	Person Total:			1 publication	
	other				
	Rheumatoid Arthritis in a Policy Perspective A Registry for Research and Better Treatment of Albertans	Marshall D, Jonsson E, Martin L, Mosher D, MacDonald K	Apr 01, 2015	No	
	Citation: 2015 Apr 01.				
	Person Total:			1 publication	
Dianne Mosher	original research journal article				
	Development of System-level Performance Measures for Evaluation of Models of Care for Inflammatory Arthritis in Canada.	Barber CE, Marshall DA, Mosher DP, Akhavan P, Tucker L, Houghton K, Batthish M, Levy DM, Schmeling H, Ellsworth J, Tibollo H, Grant S, Khodyakov D, Lacaille D, Arthritis Alliance of Canada Performance Measurement Development Panel	Mar 03, 2016	Yes	
	Citation: <i>J Rheumatol</i> . 2016 Mar 03;43(3):530-40.				
	2014 Update of the Canadian Rheumatology Association/Spondyloarthritis Research Consortium of Canada Treatment Recommendations for the Management of Spondyloarthritis. Part II: Specific Management Recommendations.	Rohekar S, Chan J, Tse SM, Haroon N, Chandran V, Bessette L, Mosher D, Flanagan C, Keen KJ, Adams K, Mallinson M, Thorne C, Rahman P, Gladman DD, Inman RD	Apr 03, 2015	Yes	
	Citation: <i>J Rheumatol</i> . 2015 Apr 03;42(4):665-81.				
	Improving Appropriate Access to Care with Central Referral and Triage in Rheumatology.	Hazlewood GS, Barr SG, Lopatina E, Marshall DA, Lupton TL, Fritzler MJ, Mosher DP, Steber WA, Martin L	Jan 29, 2016	Yes	
	Citation: <i>Arthritis Care Res (Hoboken)</i> . 2016 Jan 29.				
	2014 update of the canadian rheumatology association/spondyloarthritis research consortium of Canada treatment recommendations for the management of spondyloarthritis. Part I: principles of the management of spondyloarthritis in Canada.	Rohekar S, Chan J, Tse SM, Haroon N, Chandran V, Bessette L, Mosher D, Flanagan C, Keen KJ, Adams K, Mallinson M, Thorne C, Rahman P, Gladman DD, Inman RD	Apr 03, 2015	Yes	
	Citation: <i>J Rheumatol</i> . 2015 Apr 03;42(4):654-64.				

Name	Title	Authors	Publication Date	Peer Reviewed
	Development of key performance indicators to evaluate centralized intake for patients with osteoarthritis and rheumatoid arthritis.	Barber CE, Patel JN, Woodhouse L, Smith C, Weiss S, Homik J, LeClerc S, Mosher D, Christiansen T, Howden JS, Wasylak T, Greenwood-Lee J, Emrick A, Suter E, Kathol B, Khodyakov D, Grant S, Campbell-Scherer D, Phillips L, Hendricks J, Marshall DA	Nov 16, 2015	Yes
Citation: <i>Arthritis Res Ther.</i> 2015 Nov 16;17(1):322.				
	Estimating the Burden of Osteoarthritis to Plan for the Future.	Marshall DA, Vanderby S, Barnabe C, MacDonald KV, Maxwell C, Mosher D, Wasylak T, Lix L, Enns E, Frank C, Noseworthy T	Oct 03, 2015	Yes
Citation: <i>Arthritis Care Res (Hoboken).</i> 2015 Oct 03;67(10):1379-86.				
	Missing Anticitrullinated Protein Antibody Does Not Affect Short-term Outcomes in Early Inflammatory Arthritis: From the Canadian Early Arthritis Cohort.	Shu J, Bykerk VP, Boire G, Haraoui B, Hitchon C, Thorne JC, Tin D, Keystone EC, Pope JE; CATCH Investigators.	Sep 01, 2015	Yes
Citation: <i>Journal of Rheumatology.</i> 2015 Sep 01;42(11):2023-8.				
	Heterogeneous Disease Trajectories Explain Variable Radiographic, Function and Quality of Life Outcomes in the Canadian Early Arthritis Cohort (CATCH).	Barnabe C, Sun Y, Boire G, Hitchon CA, Haraoui B, Thorne JC, Tin D, van der Heijde D, Curtis JR, Jamal S, Pope JE, Keystone EC, Bartlett S, Bykerk VP; CATCH Investigators.	Aug 24, 2015	Yes
Citation: <i>PLoS One.</i> 2015 Aug 24;10(8):e0135327.				
Person Total:			8 publications	
Division Total:			108 publications	
Department Total:			729 publications	
			636 peer reviewed publications	

Appendix III: Research Studies and Grants in 2015

Name	Title	Role	Theme	Status	Funding Source	Award
Dermatology						
Haber, Richard M.	Research funded with peer-reviewed grant support					
	Research with no funding or non-peer reviewed support					
	Smith and Nephew/Healthpoint Venous Leg Ulcers Protocol #HP802-247-09-029 and HP802-247-09-031 "A Phase 3 Randomized, Double Blind, Vehicle Controlled Study Investigating the Safety and Efficacy of HP802-247 in the Treatment of Venous Leg Ulcers >12 cm ² to ? 36 cm ² "	co-investigator	clinical			\$0.00
	Complete Psoriasis Study	co-investigator	clinical			\$1,800.00
2 grants						\$1,800.00
Mydlarski, P. Regine	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	MiRNAs: unraveling the mechanisms of squamous cell carcinoma	principal investigator	basic/ biomedical	New	Canadian Dermatology Foundation	\$60,000.00
	Sun protection knowledge and educational practices of health care professionals involved in the care of organ transplant recipients	co-principal investigator	basic/ biomedical	New	Canadian Dermatology Foundation	\$5,000.00
	Burnout among Canadian dermatology residents	co-principal investigator	basic/ biomedical	New	Canadian Dermatology Foundation	\$5,000.00
	MiR-125b: a key regulator of the PI3K/Akt/mTOR signalling pathway in squamous cell carcinoma	principal investigator	basic/ biomedical	New	Canadian Dermatology Foundation	\$60,000.00
	MiR-125b: a negative regulator of p53 in squamous cell carcinoma	principal investigator	basic/ biomedical	New	Canadian Dermatology Foundation	\$30,000.00
	The microbiome of non-melanoma skin cancer	co-principal investigator	basic/ biomedical	New	Canadian Dermatology Foundation	\$50,000.00
	6 grants					
8 grants						\$210,000.00
Endocrinology & Metabolism						
Edwards, Alun L.	Research with no funding or non-peer reviewed support					
	Implementation of an in-hospital diabetes management protocol	principal investigator	basic/ biomedical			\$0.00
	Improved approaches to insulin treatment of hospitalized patients with diabetes	principal investigator	health services			\$10,000.00
	Research funded with peer-reviewed grant support					
	Access with Evidence Development - Government of Alberta Insulin Pump policy	co-investigator	health services	New	Alberta Health	\$500,000.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Healthy Living Interventions to reduce childhood obesity	co-investigator	basic/ biomedical	New	Institute of Child Health, Faculty of Medicine, University of Calgary	\$300,000.00
	Leading Clinical Trials in Islet and Stem Cell Transplantation, Restoration of Self-tolerance and Beta Cell Regeneration - Solving the Supply and Survival Problem in Type 1 Diabetes	co-investigator	basic/ biomedical	New	Alberta Innovates - Health Solutions (AIHS)	\$5,000,000.00
	Improving the Efficient and Equitable Care of Patients with Chronic Medical Conditions: Interdisciplinary Chronic Disease Collaboration (ICDC).	co-investigator	health services	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$5,000,000.00
	Evaluating Self-Management and Educational Support in Extremely Obese Patients Awaiting Multidisciplinary Bariatric Care (EVOLUTION)	co-investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$346,727.00
	Team to Address Bariatric Care in Canadian Children	co-investigator	health services	New	CIHR - INMD	\$350,000.00
	A Mixed-Methods Human Factors Evaluation of Patient Health Portals in Diabetes.	co-investigator	health services	New	CIHR-IHSPR	\$300,000.00
	9 grants					\$11,806,727.00
Hanley, David A.	Research with no funding or non-peer reviewed support					
	Randomized Double Blind Study Investigating Dose-Dependent Longitudinal Effects of Vitamin D Supplementation on Bone Health	co-principal investigator	clinical			\$2,279,815.00
	Research funded with peer-reviewed grant support					
	Canadian Multicentre Osteoporosis Study	local principal investigator	social, cultural, environmental and population	New	Canadian Institutes of Health Research	\$300,000.00
	A biomedical engineering approach to investigating bone quality across the lifespan	co-principal investigator	basic/ biomedical	Ongoing / Renewed	Canadian Institutes of Health Research	\$152,618.00
	The Canadian Multicentre Osteoporosis and Muscle Quality Study (CaMos MQS) on the Development of Frailty and Fractures.	co-investigator	social, cultural, environmental and population	New	Canadian Institutes of Health Research	\$302,030.00
	On the development of bone quality parameters for assessing osteoporosis using peripheral quantitative computed tomography.	co-investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$657,830.00
	5 grants					\$3,692,293.00
Jones, Charlotte A.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Taking Care of Chronic disease: Realizing approaches for Canada's aging ethnic population: a workshop.	co-investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$9,950.00
	Libin Cardiovascular Institute. ETHOS team workshop	principal investigator	basic/ biomedical	New	Libin Cardiovascular Institute. ETHOS team workshop	\$14,500.00

Name	Title	Role	Theme	Status	Funding Source	Award
2 grants						\$24,450.00
Lau, David	Research with no funding or non-peer reviewed support					
	Protocol H80-CA-GWCE. Effect of Exenatide on abdominal fat distribution in patients with type 2 diabetes pretreated with metformin.	principal investigator	clinical			\$114,919.00
	Dapagliflozin Evaluation of Cardiovascular Events (DECLARE – TIMI 58); A Multicenter, Randomized, Double-Blind, Placebo-Controlled Phase 3b Trial to Evaluate the Effect of Dapagliflozin 10 mg Once Daily on the Incidence of Cardiovascular Death, Myocardial Infarction or Ischemic Stroke in Patients with Type 2 Diabetes.	principal investigator	clinical			\$165,000.00
	Effect of liraglutide on body weight in non-diabetic subjects or overweight subjects with co-morbidities. A randomized, double-blind, placebo controlled, parallel group. Multicentre, multi-national trial with stratification of subjects to either 56 or 160 weeks of treatment based on pre-diabetes status at randomization	principal investigator	clinical			\$280,552.00
	Research funded with peer-reviewed grant support					
	Development of a multidimensional measure of activity energy expenditure for use in large populations.	co-investigator	basic/ biomedical	Ongoing / Renewed	Canadian Institutes of Health Research	\$292,950.00
	Metabolic syndrome and lifestyle risk factors in endometrial cancer and survival. PI. CM Friedenreich.	co-investigator	clinical	Ongoing / Renewed	Alberta Cancer Board (ACB)	\$519,462.00
5 grants						\$1,372,883.00
Paschke, Ralf	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	molecular etiology and molecular diagnosis of thyroid cancer research start up grant	principal investigator	basic/ biomedical	New	University of Calgary	\$1,000,000.00
	Phase 2 trial of Selumetinib	principal investigator	basic/ biomedical	Ongoing / Renewed	Astra Zeneca	\$350,000.00
	Molecular FNA Diagnostics	principal investigator	basic/ biomedical	Ongoing / Renewed	Wilhelm Sander-Stiftung	\$210,000.00
	Lenvatinib, Select study, Phase 3 study	principal investigator	basic/ biomedical	Ongoing / Renewed	EISAI America Inc (San Diego, CA)	\$210,000.00
	Sorafenib, Decision study	principal investigator	basic/ biomedical	Ongoing / Renewed	Bayer AG	\$560,000.00
	5 grants					\$2,330,000.00
Rabi, Doreen M.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	A Mixed Methods Human Factors Evaluation of Patient Health Portals in Diabetes	principal investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$220,713.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Maternal vitamin D concentration and it's association with pregnancy and neonatal outcomes	co-principal investigator	clinical	Ongoing / Renewed	Faculty of Medicine Bridge Funding	\$20,000.00
	Optimizing physician training in motivational interviewing (MI) to improve MI competency, patient health behaviors, and morbidity among patients with cardiovascular and chronic lung disease	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$100,000.00
	Ambulatory care sensitive conditions identified in hospital discharge data: Which admissions are deemed avoidable	co-investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$31,000.00
	Improving efficiency and access in diabetes care through e-communications: Developing a framework for clinical and technology policy.	principal investigator	health services	New	NSERC	\$43,830.00
	The Effect of Air Pollution in Developing Type 1 Diabetes Mellitus	co-principal investigator	health services	New	Canadian Institutes of Health Research	\$112,317.00
	Preventing Myocardial Infarctions with the Air Quality Health Index	co-investigator	health services	New	Canadian Institutes of Health Research	\$222,414.00
	Alberta Heritage Foundation for Medical Research Population Health Investigator Award	principal investigator	health services	Ongoing / Renewed	Alberta Heritage Foundation	\$110,000.00
	Sex Differences in Cardiovascular Outcomes in Diabetes: Exploring the mediating effects of cardioprotective medication use, adherence and efficacy in women and men	principal investigator	health services	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$770,000.00
	9 grants					\$1,630,274.00
Rorstad, Otto P.	Research funded with peer-reviewed grant support					
	Research with no funding or non-peer reviewed support					
	A multicenter, randomized, blinded, efficacy and safety study of pasireotide LAR vs octreotide LAR in patients with metastatic carcinoid tumors whose disease-related symptoms are inadequately controlled by somatostatin analogs.	co-principal investigator	clinical			\$26,430.00
	1 grant					\$26,430.00
Sigal, Ronald	Research with no funding or non-peer reviewed support					
	REMIT-DAPA: Remission Evaluation of a Metabolic Intervention in Type 2 Diabetes (REMIT) with Dapagliflozin	local principal investigator	clinical			\$78,000.00
	EXSCEL trial	local principal investigator	clinical			\$291,125.00
	Research funded with peer-reviewed grant support					
	The Feasibility and Preliminary Efficacy of Referral to Exercise Physiologists, Psychologists, and Supplementary Physical Behaviour Change Strategies for School Teachers 'at risk' for Type 2 Diabetes, with Pre Diabetes or with Type 2 Diabetes: A Pilot Study. Australian Teachers Health	co-investigator	clinical	New	Australian Teachers Health Foundation	\$65,000.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Foundation					
	Exercise Interventions in People with or At Risk of Diabetes	principal investigator	clinical	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$50,000.00
	Exercise Interventions in People With or At Risk of Diabetes (AHFMR Health Senior Scholar award)	principal investigator	clinical	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$1,085,000.00
	Heat Stress in Older Adults and Individuals with Type 2 Diabetes	co-investigator	clinical	New	Canadian Institutes of Health Research	\$441,731.00
	PERL (Preventing Early Renal Loss): A Multicenter Clinical Trial of Allopurinol to Prevent GFR Loss in Type 1 Diabetes	local principal investigator	clinical	New	National Institutes of Health Research (NIH US)	\$840,000.00
	Evaluation of an Improved Home-based Alternative to Traditional Weight Training in People with Type 2 Diabetes	principal investigator	clinical	New	The Lawson Foundation	\$204,000.00
	Behavioral Health Programs for Diabetes	co-investigator	health services	New	Agency for Health Research and Quality (AHRQ)	\$625,000.00
	The Canadian E-PARaDiGM (Exercise-Physical Activity and Diabetes Glucose Monitoring) Protocol	co-investigator	clinical	New	Canadian Institutes of Health Research	\$19,250.00
	10 grants					\$3,699,106.00
Wong, Norman C.W.	Research with no funding or non-peer reviewed support					
	Endocrine enhancement research	principal investigator	multi-themed			\$500,000.00
	Research funded with peer-reviewed grant support					
	Infrastructure for Gene Therapy	principal investigator	basic/ biomedical	Ongoing / Renewed	IIPP/ASRIP	\$200,000.00
	Regulation of Apo AI Expression	principal investigator	basic/ biomedical	Ongoing / Renewed	Heart & Stroke Foundation of Canada	\$55,000.00
	3 grants					\$755,000.00
	49 grants					\$25,337,163.00
Gastroenterology						
Andrews, Christopher N.	Research funded with peer-reviewed grant support					
	Research with no funding or non-peer reviewed support					
	Operating funds for Centre for Digestive Motility	principal investigator	clinical			\$250,000.00
	1 grant					\$250,000.00
Aspinall, Alexander	Research funded with peer-reviewed grant support					
	Research with no funding or non-peer reviewed support					

Name	Title	Role	Theme	Status	Funding Source	Award
	1) Vitamin D supplementation after Liver Transplantation: The Effect on Hepatitis C Clearance for Patients with Recurrent Hepatitis C Infection After Liver Transplantation.	principal investigator	health services			\$8,000.00
	Non-invasive criteria to predict the presence of varices in patients with Child-Pugh A cirrhosis	principal investigator	health services			
	Patient Satisfaction with Unsedated Outpatient Upper Endoscopy to Screen for Varices in patients with Child-Pugh A cirrhosis	principal investigator	health services			
	3 grants					\$8,000.00
Beck, Paul	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	The NLRP3-inflammasome is a key regulator of intestinal homeostasis.	co-principal investigator	basic/ biomedical	Ongoing / Renewed	Crohn's and Colitis Foundation of Canada	\$364,500.00
	Innate Immune Responses in Clostridium Difficile Toxin-induced Intestinal Injury.	co-principal investigator	basic/ biomedical	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$1,135,000.00
	Hypoxia-inducible factor-1 (HIF-1) plays an innate protective role in Clostridium difficile-induced colitis. Canadian Institute of Health Research New Investigator. My Share: \$707,917. Total Grant: \$707,917	co-principal investigator	basic/ biomedical	Ongoing / Renewed	Canadian Institutes of Health Research	\$707,917.00
	Etiology of Inflammatory Bowel Disease: Gene, Microbe & Environment Interactions.	co-principal investigator	basic/ biomedical	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$5,000,000.00
	A multicenter national group grant.	co-principal investigator	basic/ biomedical	Ongoing / Renewed	Crohn's and Colitis Foundation of Canada, Genetics, Environmental and Microbial (GEM) Project.	\$5,000,000.00
	5 grants					\$12,207,417.00
Burak, Kelly	Research funded with peer-reviewed grant support					
	Research with no funding or non-peer reviewed support					
	The Flipped classroom in Undergraduate Medical Education: How does it fare?	co-principal investigator	health services (education)			\$0.00
	1 grant					\$0.00
Coffin, Carla S.	Research with no funding or non-peer reviewed support					
	University of Calgary Liver Unit Hepatitis B and Hepatitis C Patient Registry	principal investigator	clinical			\$52,000.00
	A Provincial Initiative for Evaluation of Immunoprophylaxis Strategies for Prevention of Mother to Child Transmission of Hepatitis B Virus in	principal investigator	basic/ biomedical			\$0.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Alberta Ethics ID:25084					
	The Incidence of HBV-related Hepatocellular Carcinoma in Chronic Hepatitis B Patients on Long-Term Nucleos(tide) Analog Therap	co-principal investigator	basic/ biomedical			\$17,141.00
	Research funded with peer-reviewed grant support					
	Molecular Status of Hepatocellular Carcinoma Related Chronic Hepatitis B Virus Infection	principal investigator	basic/ biomedical	Ongoing / Renewed	NSERC	\$3,500.00
	Molecular Status of Hepatocellular Carcinoma Related Chronic Hepatitis B Virus Infection	principal investigator	basic/ biomedical	Ongoing / Renewed	URGC Seed Grant	\$10,000.00
	National Hepatitis C Collaborative Network	co-investigator	basic/ biomedical	Ongoing / Renewed	Canadian Institutes of Health Research	\$4,500,000.00
	New Investigator Salary Support Award "Hepatitis B Virus (HBV) Heterogeneity and Lymphotropism in Human Immunodeficiency Type - 1 (HIV-1) Infected Patients"	principal investigator	basic/ biomedical	Ongoing / Renewed	Canadian Institutes of Health Research	\$300,000.00
	Development of a Vaccine Against the Hepatitis C Virus (HCV) and Demonstration of Efficacy in Intravenous Drug Users.	team grant investigator	basic/ biomedical	New	Alberta Innovates - Health Solutions (AIHS)	\$500,000.00
8 grants						\$5,382,641.00
Eksteen, Johannes A.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Prebiotic fiber supplementation and gut microbiota in non-alcoholic fatty liver disease.	principal investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$618,884.00
	CIHR Team Grant- Health Challenges in Chronic Inflammation Signature Initiative	principal investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$2,500,000.00
	Role of innate immune system in fatty liver disease	principal investigator	basic/ biomedical	New	NSERC	\$46,000.00
	Genetics of PSC	national principal investigator	multi-themed	New	Private donation	\$16,000,000.00
4 grants						\$19,164,884.00
Heitman, Steven J.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Univeristy of Calgary Medical Group (UCMG) bridge funding for New CIHR OOGP grant in March 2014 competition	principal investigator	health services	New	University of Calgary Medical Group (UCMG)	\$16,850.00
	Start-up funds to create a research platform for therapeutic endoscopy at the University of Calgary, Project Holder, Canada.	principal investigator	health services	Ongoing / Renewed	Cumming School of Medicine, University of Calgary	\$272,795.00
2 grants						\$289,645.00
Hilsden, Robert J.	Research with no funding or non-peer reviewed support					
Research funded with peer-reviewed grant support						

Name	Title	Role	Theme	Status	Funding Source	Award
	Development and Validation of tools to support the Alberta colorectal Cancer Screening Program's quality assurance program	principal investigator	basic/ biomedical	Ongoing / Renewed	Alberta Health	\$150,000.00
	Exact Sciences DeeP-C Study Multi-Target Colorectal Cancer Screening Test for the Detection of Colorectal Advanced Adenomatous Polyps and Cancer.	principal investigator	clinical	Ongoing / Renewed	Exact Sciences Corporation	\$959,961.00
	Investigator Award Health Scholarship	principal investigator	basic/ biomedical	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$770,000.00
	3 grants					\$1,879,961.00
Kaplan, Gilaad G.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Translational Health Research Collaboratorium	co-principal investigator	clinical	New	Alberta Advanced Education and Technology Small Equipment Grant	\$175,391.00
	The Effect of Air Pollution in Developing Type 1 Diabetes Mellitus.	co-investigator	social, cultural, environmental and population	New	Canadian Institutes of Health Research	\$120,000.00
	An enhanced method to measure chronic disease burdens using health administrative data.	co-investigator	clinical	New	Canadian Institutes of Health Research	\$182,043.00
	Preventing Myocardial Infarctions with the Air Quality Health Index.	principal investigator	social, cultural, environmental and population	New	Canadian Institutes of Health Research	\$225,000.00
	Aberrant dendritic cell and T cell immune function driven by IBD associated genetic mutations.	co-investigator	clinical	New	Crohn's and Colitis Foundation of Canada.	\$200,000.00
	Do altitude-related air pressure differences influence susceptibility to cardiovascular disease?	co-investigator	health services	New	Canadian Institutes of Health Research	\$360,000.00
	Bayesian models for synthesizing random controlled trials and patients' preferences for treatment options in early rheumatoid arthritis and Crohn's disease	co-principal investigator	clinical	New	Canadian Institutes of Health Research	\$100,000.00
	CIHR Catalyst Grant (Methods in Post-Market Drug Safety and Effectiveness Research) for Bayesian models for synthesizing random controlled trials and patients' preferences for treatment options in early rheumatoid arthritis and Crohn's disease.	co-principal investigator	clinical	New	Canadian Institutes of Health Research	\$100,000.00
	The effect of outdoor air pollution on the development and the prognosis of the inflammatory bowel diseases in Canada	principal investigator	social, cultural, environmental and population	New	Alberta Innovates - Health Solutions (AIHS)	\$770,000.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Reassessment of Clinical Practices for Patient Presenting to the Emergency Department with Upper Gastrointestinal Bleeding.	co-principal investigator	clinical	New	AI-HS PRIHS	\$750,000.00
	CIHR Programmatic Grants in Environments, Genes and Chronic Disease for "Elucidating the Gene-Environment Interactions that drive Autoimmune Disease among South Asian Canadians – The GEMINI Program".	co-investigator	clinical	New	Canadian Institutes of Health Research	\$2,500,000.00
	A translational approach to understanding and managing primary sclerosing cholangitis.	co-principal investigator	clinical	New	The Faculty of Medicine's Emerging Research Teams Grant Program	\$300,000.00
	A Multidisciplinary Approach to Target Chronic Inflammation of the Gut, Liver and Joint	co-investigator	clinical	New	Canadian Institutes of Health Research	\$2,500,000.00
	Nod-like receptors: linking innate immunity and inflammation to chronic disease	co-investigator	clinical	New	Canadian Institutes of Health Research	\$2,500,000.00
	PRECISION: Preventing Complications from Inflammatory Skin, Joint and Bowel Conditions	co-investigator	social, cultural, environmental and population	New	Canadian Institutes of Health Research	\$2,500,000.00
	Brain Dysfunction in Chronic Inflammatory Disease: Reciprocal Effects of CNS and Periphery Crosstalk	co-investigator	clinical	New	Canadian Institutes of Health Research	\$2,500,000.00
	Canadian Children Inflammatory Bowel Disease Network.	co-principal investigator	clinical	New	CHILD-CIHR	\$5,000,000.00
17 grants						\$20,782,434.00
Lee, Samuel S.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Optimizing chronic hepatitis C treatment using pharmacogenomic biomarkers	co-principal investigator	clinical	New	Canadian Institutes of Health Research	\$445,000.00
1 grant						\$445,000.00
Myers, Robert P.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Noninvasive prediction of hepatic fibrosis using serum markers in patients with chronic hepatitis B.	principal investigator	health services	Ongoing / Renewed	Canadian Liver Foundation	\$118,832.00
	Brain Dysfunction in Chronic Inflammatory Disease: Reciprocal Effects of CNS and Periphery Crosstalk	team grant investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$2,292,479.00
2 grants						\$2,411,311.00
Panaccione, Remo	Research with no funding or non-peer reviewed support					
	An Open-Label, Multicenter, Efficacy and Safety Study to Evaluate Two Treatment Algorithms in Subjects with Moderate to Severe Crohn's Disease (CALM). Protocol M11-271, Abbott Laboratories	principal investigator	clinical			\$30,533.00

Name	Title	Role	Theme	Status	Funding Source	Award
	A Randomized, Double-blind, Placebo-controlled Study to Evaluate the Safety, Tolerability, and Efficacy of AMG 827 in Subjects with Moderate to Severe Crohn's Disease.	principal investigator	clinical			\$6,551.00
	Prospective, Multicenter, Randomized, Double-blind, Placebo-Controlled Trial Comparing REMICADE® (infliximab) and Placebo in the Prevention of Recurrence in Crohn's Disease Patients Undergoing Surgical Resection Who Are at an Increased Risk of Recurrence – PREVENT.	principal investigator	clinical			\$31,079.00
	A Randomized, Double-blind, Placebo-Controlled Study to Investigate the Efficacy and Safety of GSK1605786A in the Treatment of Subject with Moderately-to-Severely Active Crohn's Disease – SHIELD 1.	principal investigator	clinical			\$7,670.00
	An Open-Label Extension Study to Assess the Safety of GSK1605786A in Subjects with Crohn's Disease – SHIELD 3.	principal investigator	clinical			\$12,701.00
	A Double-blind, Randomized, Placebo-controlled, Dose-ranging Study to Evaluate the Efficacy and Safety of PF-04236921 in Subjects with Crohn's Disease who are anti-TNF Inadequate Responders (ANDANTE)	principal investigator	clinical			\$14,971.00
	A Multicenter Open-label Extension Study for Subjects who participated in Study B0151003 (ANDANTE II), Protocol B0151005.	principal investigator	clinical			\$10,697.00
	A Phase 2A Randomized, Double-blind, Sponsor Unblinded, Placebo-Controlled, Multiple Dose Study to Evaluate the Pharmacodynamics, Pharmacokinetics and Safety of Anrukizumab in Patients with Active Ulcerative Colitis,	principal investigator	clinical			\$8,508.00
	A Phase IIb Randomized, Placebo-Controlled Study to Evaluate the Clinical Efficacy and Safety of Induction and Maintenance Therapy with BMS-936557 in Subjects with Active Ulcerative Colitis (UC) – BMS Protocol IM129-005.	principal investigator	clinical			\$53,595.00
	A Phase 3, Randomized, Placebo-Controlled, Blinded, Multicenter Study of the Induction of Clinical Response and Remission by Vedolizumab in Patients With Moderate to Severe Crohn's Disease -Protocol C13011.	principal investigator	clinical			\$6,697.00
	A Phase 3, Randomized, Double-blind, Placebo-controlled, Parallel-group, Multicenter Study to Evaluate the Safety and Efficacy of Ustekinumab Induction Therapy in Subjects with Moderately to Severely Active Crohn's Disease (UNITI-2)	principal investigator	clinical			\$0.00

Name	Title	Role	Theme	Status	Funding Source	Award
	A Phase 3, Randomized, Double-blind, Placebo-controlled, Parallel-group, Multicenter Study to Evaluate the Safety and Efficacy of Ustekinumab Maintenance Therapy in Subjects with Moderately to Severely Active Crohn's Disease (IMUNITI)	principal investigator	clinical			\$0.00
	An Open-label Multicenter Study to Evaluate the Impact of Adalimumab on Quality of Life, Health Care Utilization and Costs of Ulcerative Colitis Subjects in the Usual Clinical Practice Setting (IMPACT)	principal investigator	clinical			\$0.00
	A Randomized, Double-Blind, Placebo-controlled Study to Evaluate the Efficacy and Safety of Oral Budesonide MMX 9mg Extended-release Tablets as Add-on Therapy in Patients With Active Mild or Moderate Ulcerative Colitis not Adequately Controlled on a Background Oral 5-ASA Regimen (CONTRIBUTE)	principal investigator	clinical			\$0.00
	A Multicenter, Randomized, Double-blind, Placebo-controlled, Parallel-group Study of Oral CP-690,550 as an Induction Therapy in Subjects With Moderate to Severe Ulcerative Colitis (OCTAVE/Induction 1)	principal investigator	clinical			\$0.00
	Research funded with peer-reviewed grant support					
	The Faculty of Medicine's Emerging Research Teams Grant Program for "A translational approach to understanding and managing primary sclerosing cholangitis."	co-investigator	clinical	New	Faculty of Medicine	\$100,000.00
	PACE Program	principal investigator	clinical	New	Crohn's and Colitis	\$500,000.00
	A 52-week Randomized, Double-blind, Placebo-Controlled Study to Investigate the Efficacy and Safety of GSK1605786A in the Maintenance of Remission in Subjects with Crohn's Disease (SHIELD 2)	principal investigator	clinical	New	GlaxoSmithKline	\$9,978.00
	18 grants					\$792,980.00
Rioux, Kevin P.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Infrastructure for study of bacterial ecology of the human intestine in health and disease	principal investigator	basic/ biomedical	Ongoing / Renewed	Canadian Foundation for Innovation - Leaders Opportunity Fund	\$634,000.00
	1 grant					\$634,000.00
Rostom, Alaa	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	PI	co-principal investigator	health services	New	Foothills Development Council	\$250,000.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Development of a Celiac disease consensus conference	co-principal investigator	clinical	New	Canadian Institutes of Health Research	
	2 grants					\$250,000.00
Seow, Cynthia H-T.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	An Open-label Multicenter Study to Evaluate the Impact of Adalimumab on Quality of Life, Health Care Utilization and Costs of Ulcerative Colitis Subjects in the Usual Clinical Practice Setting (IMPACT)	co-investigator	clinical	Ongoing / Renewed	Abbott Canada Inc.	\$0.00
	A Phase 3, Randomized, Double-blind, Placebo-controlled, Parallel-group, Multicentre Study to Evaluate the Safety and Efficacy of Ustekinumab Induction Therapy in Subjects with Moderately to Severely Active Crohn's Disease (UNITI-2)	co-investigator	clinical	Ongoing / Renewed	Centocor Ortho Biotech	\$0.00
	A Phase 3, Randomized, Double-blind, Placebo-controlled, Parallel-group, Multicentre Study to Evaluate the Safety and Efficacy of Ustekinumab Maintenance Therapy in Subjects with Moderately to Severely Active Crohn's Disease (IMUNITI)	co-investigator	clinical	Ongoing / Renewed	Centocor Ortho Biotech	\$0.00
	A multicenter, randomized, double-blind, placebo-controlled, parallel-group study of oral CP-690,550 as an induction therapy in subjects with moderate to severe ulcerative colitis	co-investigator	clinical	Ongoing / Renewed	Pfizer	\$0.00
	A Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety of Oral Budesonide MMX 9mg Extended-Release Tablets as Add-On Therapy in Patients With Active Mild or Moderate Ulcerative Colitis not Adequately Controlled on a Background Oral 5-ASA Regimen (CONTRIBUTE)	co-investigator	clinical	Ongoing / Renewed	Santarus	\$0.00
	A Phase 3, Randomized, Double-blind, Placebo-controlled, Parallel-group, Multicentre Study to Evaluate the Safety and Efficacy of Ustekinumab Induction Therapy in Subjects with Moderately to Severely Active Crohn's Disease Who Have Failed or Are Intolerant to TNF Antagonist Therapy (UNITI-1)	co-investigator	clinical	Ongoing / Renewed	Centocor Ortho Biotech	\$0.00
	Designing and Implementing a Care Pathway for Therapeutic Drug Monitoring of Anti-TNF Monoclonal Antibodies in Inflammatory Bowel Disease.	principal investigator	health services	New	Alberta Health	\$301,243.00
	Impact of Maternal Thiopurine Therapy on Pregnancy Outcome and Neonatal Anemia.	principal investigator	clinical	New	American College of Gastroenterology	\$9,999.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Impact of Maternal Thiopurine Therapy on Pregnancy Outcome and Neonatal Anemia.	co-investigator	clinical	New	MSI Foundation	\$98,000.00
	9 grants					\$409,242.00
Shaffer, Eldon	Research funded with peer-reviewed grant support					
	Research with no funding or non-peer reviewed support					
	Eosinophilic esophagitis: epidemiology in the Calgary Health Region	principal investigator	basic/ biomedical			\$0.00
	1 grant					\$0.00
Swain, Mark G.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Regulatory role of NK cells in the hepatic innate immune response.	principal investigator	basic/ biomedical	Ongoing / Renewed	Canadian Institutes of Health Research	\$617,940.00
	Health Challenges in Chronic Inflammation Initiative. Brain Dysfunction in Chronic Inflammatory Disease: Reciprocal Effects of CNS and Periphery Crosstalk.	principal investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$2,292,479.00
	Health Challenges in Chronic Inflammation Initiative. A Multidisciplinary Approach to Target Chronic Inflammation of the Gut, Liver And Joint	co-investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$2,443,500.00
	3 grants					\$5,353,919.00
81 grants					\$70,261,434.00	
General Internal Medicine						
Bacchus, C. Maria	Research with no funding or non-peer reviewed support					
	Determinants of Competency in Communication	co-investigator	health services (education)			\$0.00
	Development of guidelines for preventive health care for Canadians	co-investigator	health services			\$1,300,000.00
	Research funded with peer-reviewed grant support					
	"Use of a medical app to reduce inappropriate investigations and to improve understanding of evidence based history & physical exams in trainees".	co-principal investigator	health services (education)	New	DOM Research	\$15,000.00
	Use of a medical app to reduce inappropriate investigations and to improve understanding of evidence based history and physical examination in trainees	co-principal investigator	health services (education)	Ongoing / Renewed	DOM research	\$15,000.00
	4 grants					\$1,330,000.00
Campbell, Norman R.C.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Utilizing HIV/AIDS infrastructure as a gateway to chronic care of hypertension in Africa	co-investigator	social, cultural, environmental and population	New	Canadian Institutes of Health Research	\$710,389.00

Name	Title	Role	Theme	Status	Funding Source	Award
	DREAM-GLOBAL: Diagnosing hypertension - Engaging Action and Management in Getting/ Lower Bp in Aboriginal and LMIC - A Research Proposal	co-investigator	health services (education)	New	Canadian Institutes of Health Research	\$1,804,101.00
	Canada Chair in Hypertension Prevention & Control	principal investigator	multi-themed	New	Canadian Institutes of Health Research	\$750,000.00
	3 grants					\$3,264,490.00
Ghali, William A.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Meeting and network planning grant for the WHO Quality and Safety Topic Advisory Group.	co-principal investigator	health services	Ongoing / Renewed	Agency for Healthcare Research and Quality	\$70,000.00
	Funding support for the WHO Quality and Safety Topic Advisory Group.	co-principal investigator	health services	Ongoing / Renewed	Canadian Institute for Health Information	\$30,000.00
	The W21C Research Program.	co-principal investigator	health services	Ongoing / Renewed	Gov't. of Alberta & Alberta Innovates for Health Solutions	\$2,100,000.00
	A mixed-methods human factors evaluation of patient health portals in diabetes.	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$220,000.00
	Optimizing physician training in motivational communication skills for health behavior change.	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$780,000.00
	A prognostic tool to inform management of acute coronary syndrome in people with kidney disease.	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$160,000.00
	An evaluation of the organizational process of developing a provincial acute care discharge model in Alberta hospitals.	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$130,500.00
	POISE-2 Clinical Trial	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$3,684,006.00
	W21C: Interdisciplinary research and innovation for health system quality and safety.	principal investigator	health services	New	Canadian Institutes of Health Research	\$4,700,000.00
	9 grants					\$11,874,506.00
Ghosh, Subrata	Research with no funding or non-peer reviewed support					
	Study of metabolomics in serum and urine in IBD - Other Investigators - Remo Panaccione, Martin Storr	co-investigator	clinical			\$80,000.00
	Research funded with peer-reviewed grant support					
	Innovations in therapeutic endoscopy	principal investigator	clinical	Ongoing / Renewed	Pentax, Boston Scientific, Wilson Cook	\$180,000.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Reassessment of Clinical Practices for Patient presenting to the Emergency Department with Upper Gastrointestinal Bleeding.	co-principal investigator	health services	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$750,000.00
	Therapeutic Drug Monitoring of Biologics in chronic inflammatory disease	principal investigator	clinical	Ongoing / Renewed	Calgary Zone Medical Affairs Contingency Grant	\$873,900.00
	iSCAN for Adenoma detection	co-principal investigator	clinical	New	DoM	\$9,800.00
	Study of microbiome changes that characterize malnourished IBD patients	co-investigator	clinical	New	Broad Foundation/CCFA	\$110,000.00
	Study of microbiome changes that characterize malnourished IBD patients	co-investigator	clinical	New	Broad Foundation/CCFA	\$110,000.00
	Tobacco Cessation for Crohn's Patients.	co-investigator	clinical	Ongoing / Renewed	Alberta IBD Consortium	\$165,000.00
	Aberrant dendritic cell and T cell immune function driven by IBD associated genetic mutations.	principal investigator	clinical	New	Crohn's and Colitis Foundation of Canada (CCFC) Vertex	\$200,000.00
	Relapse prevention of ulcerative colitis by prebiotics: efficacy and	co-investigator	clinical	New	Canadian Institutes of Health Research	\$450,000.00
	LOI: SPOR Initiative	principal investigator	health services	New	Canadian Institutes of Health Research	\$50,000.00
	Transabdominal Ultrasonography Contrast Enhanced - prospective study to evaluate	co-investigator	clinical	Ongoing / Renewed	Abbott Laboratories	\$368,000.00
	Tobacco Cessation for Crohn's Patients	co-investigator	health services (education)	Ongoing / Renewed	Alberta IBD Consortium	\$165,000.00
	A multidisciplinary approach to target chronic inflammation of the Gut, Liver and Joint	co-principal investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$2,443,500.00
	Endopix/Endoflag system and Arthemis system for computerized endoscopic image manipulation	principal investigator	health services	New	The Foothills Development Council/Mike Metcalfe Soccer Marathon	\$100,000.00
	15 grants					\$6,055,200.00
Gibson, Paul S.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	The Control of Hypertension in Pregnancy Study (CHIPS) - CHIPS-Child Subsidy	local principal investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$1,070,427.00
	Real-Time Clinical Audit for the Medical Disorders in Pregnancy Program: Clinical Database. Hardware and Software Requirements.	co-investigator	clinical	New	Department of Medicine AARP Business Costs Program	\$6,741.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Real-Time Clinical Audit for the Medical Disorders in Pregnancy Program: Clinical Database.	co-investigator	clinical	New	Department of Medicine AARP Business Costs Program	\$30,000.00
	Utilization of LMWH for prevention and Treatment of Venous Thrombosis During Pregnancy	principal investigator	health services	New	Sanofi	\$28,500.00
	4 grants					\$1,135,668.00
Herman, Robert J.	Research with no funding or non-peer reviewed support					
	Chair of the Rocky Mountain/American College of Physicians Annual Internal Medicine Conference	national principal investigator	multi-themed			\$210,340.00
	Research funded with peer-reviewed grant support					
	Novel Application of Spectral Domain Optical Coherence Tomography (SD-OCT) Retinal Scanning Technology for the Early Assessment of Post Chemotherapy Cognitive Impairment (PCCI) in Breast Cancer Patients.	co-principal investigator	clinical	New	Alberta Cancer Foundation	\$15,000.00
	2 grants					\$225,340.00
Ma, Irene W.Y.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Evaluating the usability of augmented reality technology in simulation-based teaching of central venus catheterization	principal investigator	health services (education)	New	2014 University of Calgary Teaching and Learning Grant	\$7,500.00
	Defining entrustable professional activities for procedural skills	co-investigator	health services (education)	New	2015 Medical Council of Canada Research and Development Grant	\$33,900.00
	2013 DOM Quality Improvement Spring Competition: Evaluating the Implementation of a Procedure Cart for Internal Medicine Postgraduate Training.	principal investigator	health services	Ongoing / Renewed	Department of Medicine	\$10,000.00
	2012 Medical Education Research Grant: Development of Error-Based Checklists in Bedside Procedural Skills: An Exploration of their Role in the Assessment of Procedural Competency	principal investigator	health services (education)	Ongoing / Renewed	The Royal College of Physicians and Surgeons of Canada	\$47,536.00
	4 grants					\$98,936.00
Nerenberg, Kara	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Pregnancy Plus: A Prenatal & Postpartum Program for Women Managing Pregnancy Plus a Chronic Medical Condition.	co-principal investigator	clinical	New	Alberta Health Services Strategic Clinical Network in Maternal Infant Child and Youth Health Scientific Directors Fund.	\$10,000.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Pregnancy Plus: A Prenatal & Postpartum Program for Women Managing Pregnancy Plus a Chronic Medical Condition.	co-principal investigator	clinical	New	Calgary Center for Clinical Research (Clinical Research Fund Seed Grant)	\$50,000.00
	IMPROVE (Identifying Methods for Postpartum Reduction of Vascular Events) Pilot Randomized Controlled Trial. (March 2016 – Feb 2018) PI: Nerenberg KA Co-PI: Anderson T, Ahmed S, Metcalfe A, Hawkins TLA, Kuret V, Sidkar K, Wen C.	principal investigator	clinical	New	Calgary Center for Clinical Research (Clinical Research Fund Seed Grant)	\$48,442.00
	3 grants					\$108,442.00
Pollack, P. Timothy	Research with no funding or non-peer reviewed support					
	Long-term management of amiodarone in an ambulatory setting.	principal investigator	clinical			\$42,003.00
	Research funded with peer-reviewed grant support					
	Observation of Blood Pressure Responses to Pharmacy Switches Between Formulary Approved Nifedipine Preparations	principal investigator	clinical	Ongoing / Renewed	International Investigator Sponsored Grant Competition	\$89,000.00
	Transferring knowledge to improve patient safety	local principal investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$62,000.00
	CTAF-2: A 7- to 13-month, prospective, randomized, double-blind placebo-controlled study to determine the efficacy of 8 mg/day oral perindopril to prevent recurrence of Atrial Fibrillation in patients with essential hypertension.	local principal investigator	clinical	Ongoing / Renewed	Montreal Heart Institute	\$32,000.00
	Drug Safety and Effectiveness Network - Pharmacogenomics of Adverse Reaction Events National Team (DSEN-PREVENT)	local principal investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$250,000.00
	5 grants					\$475,003.00
Sargious, Peter M.	Research with no funding or non-peer reviewed support					
	Exploring the Medical Teaching Unit Preceptor Role	co-investigator	multi-themed			\$20,000.00
	Research funded with peer-reviewed grant support					
	Health Impact Assessment and the City of Calgary Planning Process	co-investigator	social, cultural, environmental and population	New	Urban Alliance	\$14,375.00
	Iterative Development of a Patient-Centred Care Planning E-Tool	principal investigator	health services	New	NSERC	\$38,950.00
	Improving decision making about goals of care for hospitalized, elderly patients: a 'multi-incubator unit' study (IDECIDE)	local sub-investigator	health services	New	Technology Evaluation in the Elderly Network	\$504,246.00
	W21C	team grant investigator	health services	New	Alberta Innovates - Health Solutions (AIHS)	\$5,000,000.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Improving the Efficient and Equitable Care of Patients with Chronic Medical Conditions	team grant investigator	health services	New	Alberta Innovates - Health Solutions (AIHS)	\$5,000,000.00
					6 grants	\$10,577,571.00
Zarnke, Kelly B.	Research with no funding or non-peer reviewed support					
	OCT use as a novel potential vascular assessment tool in hypertensive patients and pregnant patients at risk of and with re-eclampsia	co-investigator	clinical			\$120,000.00
	Defining the clinical use of hand-held bedside Ultrasound for Internal Medicine Inpatient services.	principal investigator	health services (education)			\$30,000.00
	Research funded with peer-reviewed grant support					
	Creation of an Obstetrical Medicine database to capture demographic and outcome data	local sub-investigator	clinical	New	Sanofi-Aventis (Canada)	\$10,000.00
					3 grants	\$160,000.00
					58 grants	\$35,305,156.00
Geriatric Medicine						
Hogan, David	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Dementia Services and Health Outcomes.	co-investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$100,000.00
	National Population Health Study of Neurological Conditions	co-investigator	clinical	New	Public Health Agency of Canada	\$402,000.00
	W21C: Interdisciplinary Research and Innovation for Health System Quality and Safety	co-investigator	health services	New	Alberta Innovates - Health Solutions (AIHS)	\$5,000,000.00
	Exploring frailty and its role in the assessment of high risk medications and risk for poor health outcomes in vulnerable populations	co-investigator	health services	New	Canadian Institutes of Health Research	\$330,803.00
	CCNA	co-investigator	health services	New	Canadian Institutes of Health Research	\$21,948,000.00
	Framing-LTC	co-investigator	health services	New	TVN Strategic Impact Grant	\$596,906.00
	Canadian Longitudinal Study on Aging	co-investigator	health services	New	Canadian Institutes of Health Research	\$41,600,000.00
					7 grants	\$69,977,709.00
Holroyd-Leduc, Jayna M.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Advancing patient-centered knowledge translation across the care continuum: promoting health and wellness for older adults	co-principal investigator	clinical	New	Canadian Institutes of Health Research	\$23,301.00

Name	Title	Role	Theme	Status	Funding Source	Award
	The development and validation of a family-partnered care pathway for very elderly patients admitted to ICU	co-investigator	clinical	New	Canadian Institutes of Health Research	\$25,000.00
	Environmental scan to describe the current care received by frail seniors in Canada	local principal investigator	health services	New	TVN NCE	\$300,000.00
	Effects of aerobic exercise on cognition and brain health in older adults at increased risk of Alzheimer disease and dementia	co-investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$890,550.00
	Improving care for adults with Parkinson's disease and dementia complicated by co-morbid depression and anxiety	principal investigator	clinical	New	Alberta Innovates - Health Solutions (AIHS)	\$24,936.00
	Optimizing the health of seniors: the development, implementation, and evaluation of an electronic multi-chronic disease tool (e-MCD)	co-principal investigator	clinical	New	Canadian Institutes of Health Research	\$707,558.00
	Telemonitoring and protocolized case management for hypertension in seniors	co-principal investigator	clinical	New	Canadian Institutes of Health Research	\$937,500.00
	Development of quality indicators for older persons' transitions across care settings: a systematic review and delphi process	co-principal investigator	clinical	New	Canadian Institutes of Health Research	\$100,000.00
	Elder Friendly Care Initiative	principal investigator	clinical	New	AHS Calgary-zone Medical Affairs	\$45,000.00
	MOVE (Mobilization of Vulnerable Elderly)	principal investigator	clinical	New	AHS CMO	\$45,000.00
	Knowledge Translation Canada: Strategic Training Initiative in Health Research	local sub-investigator	multi-themed	New	Canadian Institutes of Health Research	\$3,013,309.00
	Advanced care planning and goals of care Alberta: a population based knowledge translation intervention study	co-investigator	health services	New	Alberta Innovates - Health Solutions (AIHS)	\$2,500,000.00
	Enhancing Uptake of Systematic Reviews	co-investigator	health services	New	Canadian Institutes of Health Research	\$305,382.00
	Optimizing Seniors' Surgical Care: The Elder Friendly Surgical Unit	co-principal investigator	clinical	New	Alberta Innovates - Health Solutions (AIHS)	\$739,388.00
	Evaluating the economic impact and quality of care of the Smart-e-Pants innovation for pressure ulcer prevention	co-investigator	clinical	New	Alberta Innovates - Health Solutions (AIHS)	\$750,000.00
	Development, implementation and evaluation of a provincial kidney conservative care clinical pathway	co-investigator	clinical	New	Alberta Innovates - Health Solutions (AIHS)	\$750,000.00
	Implementation and evaluate of a multi-component online resource for caregivers of persons with dementia	principal investigator	clinical	New	Canadian Institutes of Health Research	\$200,000.00
	Mobilization of Vulnerable Elderly in Alberta	co-principal investigator	clinical	New	Canadian Institutes of Health Research	\$199,690.00

Name	Title	Role	Theme	Status	Funding Source	Award
					18 grants	\$11,556,614.00
					25 grants	\$81,534,323.00
Hematology & Hematologic Malignancies						
Bahlis, Nizar Jacques	Research with no funding or non-peer reviewed support					
	miRNAs as predictors of response to Lenalidomide in relapsed myeloma	principal investigator	basic/ biomedical			
	Role of CRBN and IKZF1/IKZF3 in Lenalidomide resistance	principal investigator	basic/ biomedical			\$150,000.00
	Research funded with peer-reviewed grant support					
	Repurposing E3 ligases for the treatment of multiple myeloma	principal investigator	basic/ biomedical	New	CRS: Cancer Research Society	\$120,000.00
	Mechanisms of resistance to IMiDs in multiple myeloma	co-principal investigator	basic/ biomedical	New	Leukemia Lymphoma Society Canada	\$150,000.00
	CRL4a-CRBN E3 ligase hypermorphic and neomorphic repurposing in myeloma	principal investigator	basic/ biomedical	New	Multiple Myeloma Research Foundation	\$200,000.00
	Mechanisms of resistance to IMiDs in multiple myeloma	co-investigator	basic/ biomedical	New	Leukemia and Lymphoma Society Canada	\$150,000.00
	The role of integrin beta-7 in myeloma cells homing, migration and drug resistance.	principal investigator	basic/ biomedical	Ongoing / Renewed	Alberta Cancer Foundation	\$280,000.00
	Bortezomib induced BRCAness sensitizes myeloma cells to PARP inhibitors	co-principal investigator	basic/ biomedical	Ongoing / Renewed	Multiple Myeloma Research Foundation	\$75,000.00
	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).	co-principal investigator	basic/ biomedical	Ongoing / Renewed	Terry Fox Foundation	\$600,000.00
	miRNA signature as predictor of response to therapy in Diffuse Large B cell Lymphoma	co-investigator	basic/ biomedical	Ongoing / Renewed	Alberta Cancer Foundation	\$50,000.00
	Pilot Project to establish a tissue microarray on bone marrow biopsies of myeloma patients	principal investigator	basic/ biomedical	Ongoing / Renewed	Calgary Laboratory Services	\$10,000.00
	Role of RGS1 in multiple myeloma cells trafficking	principal investigator	basic/ biomedical	Ongoing / Renewed	Alberta Cancer Board (ACB)	\$35,000.00
	Role of RGS1 in multiple myeloma	principal investigator	basic/ biomedical	Ongoing / Renewed	Alberta Cancer Board (ACB)	\$100,000.00
	Tissue array based classification of Multiple Myeloma	principal investigator	basic/ biomedical	Ongoing / Renewed	Alberta Cancer Board (ACB)	\$35,000.00
	CD28 mediated regulation of MM cell proliferation and survival	co-investigator	basic/ biomedical	Ongoing / Renewed	National Cancer Institute of Canada	\$250,000.00
	Bortezomib mediated BRCAness in MM cells: novel therapeutic approach combining PARP1-2 and 26S Proteasome Inhibitor.	principal investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$522,880.00

Name	Title	Role	Theme	Status	Funding Source	Award
16 grants						\$2,727,880.00
Owen, Carolyn J.	Research funded with peer-reviewed grant support					
	Research with no funding or non-peer reviewed support					
	Investigation of the molecular genetics of familial MDS/AML	principal investigator	basic/ biomedical			\$8,600.00
	Molecular Analysis of light-chain switch and transformation to aggressive lymphoma from follicular lymphoma.	principal investigator	basic/ biomedical			\$10,800.00
	2 grants					
						\$19,400.00
Poon, Man-Chiu	Research with no funding or non-peer reviewed support					
	Prospective observational registry on treatment of Glanzmann's thrombstenia	international principal investigator	clinical			
	Low bone mineral density in hemophilia: What do our patients think?	principal investigator	clinical			\$0.00
	Attitudes toward Prenatal Diagnosis and Pregnancy Management in Carriers of Hemophilia: A Qualitative Analysis exploring the views of Carriers in Southern Alberta	co-investigator	clinical			\$0.00
	History of Hemophilia Care in Canada	co-principal investigator	health services (education)			\$24,000.00
	Research funded with peer-reviewed grant support					
	Barrier to ehealth care delivery to patents with mild hemophilia A	co-principal investigator	clinical	New	Calgary Health Trust Hematology Education and Research Fund	\$14,558.00
	Hematologist Exchange Program (Between Hemophilia Program in Calgary and China)	international principal investigator	health services (education)	New	CSL-Behring	\$29,333.00
	A Multicenter Study on the Retrospective Safety and Efficacy of Fibrinogen Concentrate (Human) (FCH) for Routine Prophylaxis, Treatment of Bleeding or Surgery in Subjects with Congenital Fibrinogen Deficiency with a Prospective Followup Component	local principal investigator	clinical	New	CSL-Behring	\$60,950.50
	Potential role of thromboelstography (TEG) in DDAVP response monitoring for von Willebrand disease and mild hemophilia A	co-principal investigator	clinical	New	Calgary Laboratory Service Research Fund	\$9,520.00
	HR-pQCT: a novel imaging technology detects microarchitectural skeletal pathology in hemophilia patients"	co-principal investigator	clinical	New	Canadian Hemophilia Society	\$129,177.00
	9 grants					
Storek, Jan	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Predictors of GVHD for preempeptive therapy of GVHD	principal investigator	basic/ biomedical	New	Buckley Foundation	\$67,000.00
	Preemptive Therapy of GVHD	principal investigator	clinical	New	Alberta Cancer Foundation	\$10,650.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Killer Immunoglobulin-like Receptors and haploidentical hematopoietic cell transplantation	co-investigator	basic/ biomedical	New	o Calgary Health Trust Hematology Research and Education Fund	\$10,000.00
	IL-10 gene profile of allogeneic HCT donors as a biomarker of GVHD	co-investigator	basic/ biomedical	New	Calgary Lab Services	\$9,825.00
	Precise Genetic Profiling of KIRs of NK cells as predictors of allogeneic HCT outcomes	co-investigator	basic/ biomedical	New	Calgary Lab Services	\$31,000.00
	Scleroderma – Cyclophosphamide or Transplantation? trial	local principal investigator	clinical	Ongoing / Renewed	US Public Health Services	\$183,939.00
	Toward improved outcomes of ATG-conditioned hematopoietic cell transplantation	principal investigator	basic/ biomedical	New	Alberta Innovates - Health Solutions (AIHS)	\$750,000.00
	Early Detection of Relapse of Leukemia after Hematopoietic Cell Transplantation Using Sorted Chimerism	principal investigator	basic/ biomedical	New	Alberta Cancer Foundation	\$5,200.00
	Identification of patients at high risk of developing posttransplant lymphoproliferative disorder (PTLD) and leukemia relapse using Epstein-Barr virus-specific T cells and NK cells	principal investigator	basic/ biomedical	New	Calgary Health Trust Hematology Research and Education Fund	\$33,000.00
	Team Grant on Biomarkers of Chronic Graft-vs-Host Disease.	local principal investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$300,000.00
	Team Grant on Solid Organ and Hematopoietic Cell Transplantation.	team grant investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$14,000,000.00
					11 grants	\$15,400,614.00
					38 grants	\$18,415,432.50
Infectious Diseases						
Conly, John	Research with no funding or non-peer reviewed support					
	A Prevalence Survey of Colonization and Infection with Methicillin-Resistant Staphylococcus aureus in Patients attending a Sexually Transmitted Infections Clinic	principal investigator	clinical			\$0.00
	Global Point Prevalence Survey of Antimicrobial Consumption and Resistance	national principal investigator	clinical			\$0.00
	Point Prevalence Survey for Antiseptic Resistance Project	co-principal investigator	clinical			\$0.00
	Research funded with peer-reviewed grant support					
	AIHS Strategic Initiative - Innovation Platforms - 2013/09/01 to 2016/08/31	co-investigator	health services	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$175,000.00
	W21C Interdisciplinary Research and Innovation for Health Systems Quality and Safety	co-principal investigator	health services	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$4,679,601.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Ward of the 21st Century Research and Innovation Centre	co-principal investigator	health services	New	ATCO Group, Government of Alberta, University of Calgary and Office of VPR	\$2,000,000.00
	6 grants					\$6,854,601.00
Gill, Michael	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Concerted Action for SeroConversion diagnosis in Europe	co-principal investigator	health services	Ongoing / Renewed	European Union	\$7,000,000.00
	Research evidence into action for community health in HIV/AIDS initiative	co-investigator	health services	New	Canadian Institutes of Health Research	\$5,000,000.00
	Towards a transformative understanding of HAND (TCO-125271) via U of A	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$2,500,000.00
	Inflammatory markers and aging in HIV patients	co-investigator	health services	New	Canadian Institutes of Health Research	\$2,500,000.00
	HIV/HCV co-infection	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$400,000.00
	National Institute of Health USA, \$700,000 USD North American HIV Cohort Collaboration Co-Applicant: M.J. Gill	co-investigator	health services	Ongoing / Renewed	NIH	\$3,500,000.00
	6 grants					\$20,900,000.00
Louie, Thomas J.	Research funded with peer-reviewed grant support					
	Research with no funding or non-peer reviewed support					
	Phase 2 clinical trial of increasing doses of CB 183,315 versus vancomycin for the treatment of Clostridium difficile infection	local principal investigator	clinical			\$208,000.00
	1 grant					\$208,000.00
Parkins, Michael D.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	The University of Calgary, Department of Medicine Academic Relationship Plan, Cost deferral initiative. "Pulsed-field gel electrophoresis (PFGE) equipment for bacterial strain typing to improve patient care and infection control policies in Infectious Diseases and Respiratory Medicine". Co-Principle Investigator	principal investigator	clinical	Ongoing / Renewed	Academic Relationship Plan/Alberta Health Services – Cost deferral initiative	\$25,000.00
	Exploring the mechanisms of inhaled aztreonam lysine clinical efficacy in individuals with cystic fibrosis and chronic Pseudomonas aeruginosa infection	principal investigator	basic/ biomedical	Ongoing / Renewed	Gilead Sciences	\$393,260.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Factors involved in the occurrence and evolution of an acute pulmonary exacerbation in patients with cystic fibrosis chronic lung infection: A preliminary investigation focusing on host factors.	principal investigator	basic/ biomedical	Ongoing / Renewed	The University of Calgary, Seed Grant Competition	\$25,000.00
	“Improving the Microbiologic Diagnosis of Orthopedic Device Associated Infections”. Principle Investigator	principal investigator	clinical	Ongoing / Renewed	Department of Medicine and Surgery Research Competition.	\$12,500.00
	Continuous infusions of ?-lactam antibiotics for the management of drug resistant Gram-negative infections in individuals with cystic fibrosis and other nosocomial infections	principal investigator	clinical	Ongoing / Renewed	Academic Relationship Plan/Alberta Health Services – Cost deferral initiative	\$10,000.00
	Epidemiology, natural history, and virulence potential of Pseudomonas aeruginosa strains infecting individuals with non-Cystic fibrosis bronchiectasis.	principal investigator	basic/ biomedical	New	Lung Association of Alberta & N.W.T.	\$30,000.00
	The University of Calgary, Department of Medicine Academic Relationship Plan, Cost deferral initiative. “BioNumerics: enhanced bacterial strain typing to improve patient care in infectious diseases and respiratory medicine”. Principle Investigator	principal investigator	clinical	Ongoing / Renewed	Academic Relationship Plan/Alberta Health Services – Cost deferral initiative	\$14,290.00
	7 grants					\$510,050.00
Rabin, Harvey R.	Research funded with peer-reviewed grant support					
	Research with no funding or non-peer reviewed support					
	Cystic Fibrosis Incentive Grant	local principal investigator	health services			\$63,509.00
	1 grant					\$63,509.00
Read, Ronald R.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	HPV surveillance using Sexual Health and Sexually Transmitted Infection Clinics	co-investigator	health services (education)	Ongoing / Renewed	unfunded research	
	Surveillance of E. coli, Enterococci, Antimicrobial Resistance (AMR) and Enterococcus species distribution in beef operations and associated environments	principal investigator	basic/ biomedical	Ongoing / Renewed	Beef Cattle Research Council of Canada	\$1,000,609.00
	2 grants					\$1,000,609.00
23 grants						\$29,536,769.00
Nephrology						
Ahmed, Sofia B.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Vitamin D Supplementation and Cardiac Autonomic Tone in Hemodialysis Patients: A Blinded, Randomized Placebo-Controlled	principal investigator	clinical	New	Heart & Stroke Foundation of Canada	\$90,390.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Trial					
	Evaluation of the renin angiotensin system in Aboriginal People	principal investigator	clinical	New	Alberta Innovates - Health Solutions (AIHS)	\$80,000.00
	Evaluation of the Renin-Angiotensin System in Aboriginal People	principal investigator	clinical	New	Alberta Innovates - Health Solutions (AIHS)	\$880,000.00
	Evaluation of the renin angiotensin system in Aboriginal People	principal investigator	clinical	New	Alberta Innovates - Health Solutions (AIHS)	\$880,000.00
	4 grants					\$1,930,390.00
Burgess, Ellen D.	Research funded with peer-reviewed grant support					
	Research with no funding or non-peer reviewed support					
	Survey of nephrologists regarding ethics education and ethical dilemmas in practice	principal investigator	basic/ biomedical			\$0.00
	1 grant					\$0.00
James, Matthew	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Mobilizing knowledge across the continuum of care for acute kidney injury.	principal investigator	health services	New	Canadian Institutes of Health Research	\$5,000.00
	Better prediction and decision support to improve care and outcomes for acute kidney injury	principal investigator	clinical	New	Canadian Institutes of Health Research	\$855,843.00
	A Prognostic Tool To Inform Management of Acute Coronary Syndrome in People with Kidney Disease.	principal investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$107,340.00
	Exploring the interplay between renal function and outcomes in non-valvular atrial fibrillation.	co-investigator	health services	Ongoing / Renewed	Heart & Stroke Foundation of Canada	\$136,111.00
	Epidemiology, costs and consequences of multimorbidity.	co-investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$384,265.00
	Inflammation and Disease Team Grant, Nod-like receptors: linking innate immunity and inflammation to chronic disease.	co-investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$365,725.00
	Refined prognostication in coronary artery disease using routine laboratory data.	co-investigator	clinical	Ongoing / Renewed	MSI Foundation	\$49,000.00
	Identifying Opportunities to Improve Care for Patients after Acute Kidney Injury	local principal investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$121,790.00
	Processes of Care and Clinical Outcomes of Acute Kidney Injury: A Multidisciplinary Research Program.	principal investigator	health services	Ongoing / Renewed	Kidney Foundation of Canada	\$25,000.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Predicting the need for community care for chronic kidney disease following hospitalization with acute kidney injury.	principal investigator	health services (education)	Ongoing / Renewed	MSI Foundation	\$136,504.00
	Chronic Disease SPOR Network Grant. Risk prediction to support shared decision-making for managing heart disease.	co-principal investigator	clinical	New	Canadian Institutes of Health Research	\$800,000.00
	11 grants					\$2,986,578.00
Klassen, John	Research with no funding or non-peer reviewed support					
	Establish a biobank for Apheresis	principal investigator	basic/ biomedical, clinical, health services			\$300,000.00
	Research funded with peer-reviewed grant support					
	FACTS study team. Canadian Pilot Clinical Trial: Lentivirus-Mediated Gene Therapy.	co-investigator	clinical	New	Health Services Research and Innovation	\$0.00
	Integrated Therapeutic Apheresis Chair	co-investigator	clinical	New	Calgary Health Trust	\$0.00
	3 grants					\$300,000.00
MacRae, Jennifer M.	Research with no funding or non-peer reviewed support					
	Vascular Access Survey of Canadian nephrologists	principal investigator	clinical			\$0.00
	Effect of fistula creation on cardiac remodelling	principal investigator	clinical			\$0.00
	Exercise intensity and urea clearance on hemodialysis: Pilot project	principal investigator	clinical			\$0.00
	Biofeedback and the prevention of Intradialytic hypotension	principal investigator	clinical			\$10,000.00
	Research funded with peer-reviewed grant support					
	When less is more: individualizing the hemodialysis access strategy.	co-investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$50,000.00
	Pilot randomized trial comparing catheters to fistula in elderly incident hemodialysis patients	co-investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$50,000.00
	Dopps review of data	co-principal investigator	basic/ biomedical	New	Kidney Foundation of Canada	\$50,000.00
	Randomized trial of Buttonhole vs Standard Rope Ladder Needling in Home hemodialysis patients.	co-investigator	basic/ biomedical	Ongoing / Renewed	Baxter	\$30,000.00
	EPROS and outcomes	co-investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$200,000.00
	Vascular Access	co-investigator	clinical	New	Canadian Institutes of Health Research	\$300,000.00
	Feasibility of buttonhole cannulation in home hemodialysis patients	co-investigator	clinical	New	Baxter High Intensity HD Grant	\$22,000.00
	Biofeedback a randomized cross-over trial of Blood Volume Controlled biofeedback in HD patients with intradialytic hypotension	principal investigator	clinical	New	Kidney Foundation of Canada	\$20,000.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Biofeedback a randomized cross-over trial of Blood Volume Controlled biofeedback in HD patients with intradialytic hypotension	principal investigator	basic/ biomedical	New	Division of Nephrology	\$20,000.00
	DOPPS 4 and DOPPS 5	principal investigator	basic/ biomedical	Ongoing / Renewed	DOPPS	\$10,000.00
	Biofeedback a randomized cross-over trial of Blood Volume Controlled biofeedback in HD patients with intradialytic hypotension	principal investigator	basic/ biomedical	New	Roy and Baay Vi Foundation	\$20,000.00
	Biofeedback a randomized cross-over trial of Blood Volume Controlled biofeedback in HD patients with intradialytic hypotension	principal investigator	clinical	New	The Roy and Vi Baay Foundation	\$20,000.00
	16 grants					\$802,000.00
Manns, Braden J.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Canadian Innovative Methods involving Patients and Researchers in Outcome Improvements for Chronic Kidney Disease (Can-IMPROVE CKD): a strategic planning meeting	principal investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$20,000.00
	The Access Study	principal investigator	health services	New	Alberta Health	\$1,450,000.00
	Assessing outcomes of enhanced Chronic disease Care through patient Education and a value-based formulary Study (ACCESS)	principal investigator	health services (education)	New	University of Calgary Major Grants Clinical REsearch Fund	\$300,000.00
	Screening for Chronic Kidney Disease – the SEEKD study	co-investigator	health services	New	Kidney Foundation of Canada	\$900,000.00
	Risk of adverse effects among elderly statin users	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$100,000.00
	Seeing the forests and the trees - Innovative approaches to exploring heterogeneity in systematic reviews of complex knowledge translation interventions to enhance policy decision making	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$600,000.00
	Epidemiology, costs and consequences of multimorbidity	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$663,000.00
	Implementation and evaluation of a clinical pathway for chronic kidney disease in primary care.	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$674,412.00
	AHFMR Scholar Salary Award for grant entitled: "Determining the effectiveness and cost-effectiveness of chronic disease management programs for patients with diabetes"	principal investigator	health services	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$700,000.00
	The Interdisciplinary Chronic Disease Collaboration (ICDC) Team	co-principal investigator	health services	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$5,000,000.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Listening, Learning and Leading: Canadians Seeking Solutions and Innovations to Overcome Chronic Kidney Disease (Can-SOLVE CKD)	co-principal investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$25,000,000.00
					11 grants	\$35,407,412.00
McLaughlin, Kevin J.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	W21C: Interdisciplinary Research and Innovation for Health System Quality and Safety	co-investigator	basic/ biomedical	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$4,679,601.00
					1 grant	\$4,679,601.00
Muruve, Daniel	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	The Role of the Inflammasome in Renal Injury	principal investigator	basic/ biomedical	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$50,000.00
	A biobank for the molecular classification of kidney disease	principal investigator	basic/ biomedical	New	Canada Foundation for Innovation	\$824,000.00
	Personalized Medicine, Inflammation and Kidney Disease	principal investigator	basic/ biomedical	New	Canada Research Chair, Tier II	\$500,000.00
	Nod-like receptors: linking innate immunity and inflammation to chronic disease	co-principal investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$2,441,000.00
	NOD-Like Receptors and Inflammasomes in Kidney Disease	principal investigator	basic/ biomedical	New	Kidney Foundation of Canada	\$50,000.00
	NOD-Like Receptors and Inflammasomes in Kidney Disease	principal investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$812,117.00
	Favouring engraftment and preventing rejection /GVHD through targeted disruption of danger and death signals:from cells to patients.	co-principal investigator	health services	New	Canadian Institutes of Health Research	\$2,001,220.00
					7 grants	\$6,678,337.00
Mustata, Stefan	Research funded with peer-reviewed grant support					
	Research with no funding or non-peer reviewed support					
	Effects of exercise training on physical impairment, quality of life and risk factors for cardiovascular disease in patients with chronic kidney disease	principal investigator	basic/ biomedical			\$3,500.00
	Reliability and validity of the Duke Activity Status Index (DASI) for assessing aerobic capacity in patients with chronic kidney disease.	principal investigator	clinical			\$15,000.00
					2 grants	\$18,500.00
Quinn, Robert R.	Research with no funding or non-peer reviewed support					

Name	Title	Role	Theme	Status	Funding Source	Award
	Research funded with peer-reviewed grant support					
	PDOPPS: The Peritoneal Dialysis Outcomes and Practice Patterns Study, CIHR, \$250,000.00	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$0.00
	Reducing the risk of serious adverse events and improving quality of life for patients with kidney disease: the role of arteriovenous fistula creation in hemodialysis patients	principal investigator	clinical	New	Canadian Institutes of Health Research	\$305,757.00
	The New Ontario Health Systems research program and kidney, dialysis, and transplantation knowledge user decision support	co-investigator	health services	New	Canadian Institutes of Health Research	\$1,548,978.00
	Biofeedback a randomized cross-over trial of blood volume controlled biofeedback in HD patients with intradialytic hypotension	co-investigator	clinical	New	Kidney Foundation of Canada	\$50,000.00
	Biofeedback a randomized cross-over trial of blood volume controlled biofeedback in HD patients with intradialytic hypotension	co-investigator	clinical	New	Kidney Foundation of Canada	\$50,000.00
	Predicting the need for community care for chronic kidney disease following hospitalization with acute kidney injury	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$179,612.00
	Canadian Network for Observational Drug Effect Studies (cNODES)	co-investigator	health services	New	Canadian Institutes of Health Research	\$17,500,000.00
	ICES Kidney, Dialysis, and Transplantation Research Program	co-investigator	health services	New	Canadian Institutes of Health Research	\$802,023.00
8 grants						\$20,436,370.00
Ravani, Pietro	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Reducing the risk of serious adverse events and improving the quality of life for patients with kidney disease: the role of arteriovenous fistula creations in hemodialysis patients.	co-principal investigator	health services	Ongoing / Renewed	Health Services Research and Innovation	\$300,000.00
	Canadian Network for Observational Drug Effect Study (cNODES). co-applicant with S. Suissa, C. Dormuth, A. Levy and A. Martens.	co-investigator	health services	New	Canadian Institutes of Health Research	\$17,500,000.00
2 grants						\$17,800,000.00
Tibbles, Lee Anne	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Novel Markers to Improve the Detection of Declining Kidney Function	co-investigator	basic/ biomedical	Ongoing / Renewed	Canadian Institutes of Health Research	\$234,867.00
	Effect of Immunosuppressive Medication Use on Patient Outcomes Following Kidney Transplant Failure	co-investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$963,864.00

Name	Title	Role	Theme	Status	Funding Source	Award
	The Canadian ACE-Inhibition Trial to Improve Renal Outcomes and Patient Survival in Kidney Transplantation	co-investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$2,964,260.00
	The BK:KIDNI Trial; BK Viremia: Kinase Inhibition to Decrease Nephropathy Intervention Trial	national principal investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$3,319,686.00
	Increasing Donation and Improving Transplantation Outcomes Lead – Core III Training Core Co-Lead Project 5 – Viral Complications of Transplantation	co-investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$35,000,000.00
	Biomarkers of Viral Pathogenesis	principal investigator	basic/ biomedical	New	University of Calgary/Alberta Health Services New Emerging Team Competition	\$300,000.00
	6 grants					\$42,782,677.00
Tonelli, Marcello	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Improving the efficient and equitable care of patients with chronic medical conditions: Interdisciplinary Chronic Disease Collaboration (ICDC)	principal investigator	health services	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$1,000,000.00
	Quality of cancer care in remote-dwelling Canadians	principal investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$237,868.00
	Implementation and evaluation of a clinical pathway for chronic kidney disease in primary care	co-principal investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$524,422.00
	Risk of adverse effects among elderly statin users	principal investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$100,000.00
	Effecto of a two dialyzer strategy for treating chronic dialysis patients	principal investigator	basic/ biomedical	Ongoing / Renewed	Kidney Foundation of Canada	\$94,766.00
	Identifying opportunities to improve care for patients after acute kidney injury	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$116,915.00
	Functional and symptom trajectories in elderly chronic kidney disease patients and their association with dialysis initiation	co-investigator	health services	Ongoing / Renewed	Canadian Institutes of Health Research	\$379,279.00
	Identifying preventable causes of excess mortality in remote-dwelling hemodialysis patients	principal investigator	health services	Ongoing / Renewed	Alberta Heritage Foundation for Medical Research	\$17,900.00
	Enhanced dissemination of the CTFPHC recommendations	principal investigator	health services	Ongoing / Renewed	Canadian Task Force on Preventive Health Care	\$0.00
	9 grants					\$2,471,150.00
Wang, Wenjie	Research with no funding or non-peer reviewed support					

Name	Title	Role	Theme	Status	Funding Source	Award
	Research funded with peer-reviewed grant support					
	The role of etrasapnin CD151 in progressive kidney allograft fibrosis	principal investigator	basic/ biomedical	Ongoing / Renewed	southern Alberta Transplant Program	\$25,000.00
	Role of tetraspanin CD151 in progressive kidney disease	principal investigator	basic/ biomedical	New	University of Calgary	\$18,000.00
	Function of NLRP3 in tubular epithelial-mesenchymal transition	principal investigator	basic/ biomedical	New	unfunded research	
3 grants						\$43,000.00
84 grants						\$136,336,015.00
Respiratory Medicine						
Cowie, Robert L.	Research with no funding or non-peer reviewed support					
	AMG827 CP196 GSK3373	local principal investigator	clinical			\$100,000.00
	Research funded with peer-reviewed grant support					
	CanCOLD	local principal investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$105,000.00
2 grants						\$205,000.00
Davidson, Warren J.	Research funded with peer-reviewed grant support					
	Research with no funding or non-peer reviewed support					
	Exercise recommendations for respiratory disease - Asthma	principal investigator	clinical			\$0.00
	Emergency room asthma transition project.	principal investigator	clinical			\$5,000.00
	Biologics & Refractory Asthma Clinic Database Development Project	principal investigator	clinical			\$3,000.00
	Systems operations in a multi-site tertiary pulmonary function laboratory.	co-investigator	health services			\$161,658.00
	4 grants					
\$169,658.00						
Flemons, W. Ward	Research with no funding or non-peer reviewed support					
	Patient safety and quality improvement medical advisor	local principal investigator	health services			\$270,000.00
	Research funded with peer-reviewed grant support					
	Improving access to pulmonary consultation and testing.	local sub-investigator	health services	Ongoing / Renewed	Alberta Health Services	\$161,658.00
	An evaluation of the organizational process of developing a Provincial acute-care discharge model in Alberta Hospitals.	local sub-investigator	health services	New	Canadian Institutes of Health Research	\$268,272.00
	W21C: Interdisciplinary Research and Innovation for Health System Quality and Safety	local sub-investigator	health services	New	Alberta Innovates - Health Solutions (AIHS)	\$4,679,602.00
	4 grants					
\$5,379,532.00						
Hanly, Patrick J.	Research with no funding or non-peer reviewed support					
	Sub-study of the multi centre SAVE (Sleep Apnea Vascular Endpoints) trial that is evaluating renal function in patients with obstructive sleep apnea and cardiovascular disease	co-investigator	clinical			\$0.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Proof of concept study that evaluates the effect of cycloserine on obstructive sleep apnea	co-investigator	clinical			\$0.00
	Automated scoring of overnight polysomnograms	co-investigator	clinical			\$0.00
	Association of kidney disease with obstructive sleep apnea in a population study of men	co-investigator	clinical			\$0.00
	Research project to evaluate polysomnographic predictors of driving performance in patients with obstructive sleep apnea	co-investigator	clinical			\$0.00
	"Predictors of Hypoventilation: A Retrospective Analysis of Factors that Predicted Hypoventilation and Need for Non-Invasive Positive Pressure Ventilation"	co-investigator	clinical			\$0.00
	The Natural History of Sleep Disturbance in Peri-Operative Rotator Cuff and Knee Osteoarthritis Patients: A Pilot Study in Outpatient Orthopaedic Populations	co-investigator	clinical			\$0.00
Research funded with peer-reviewed grant support						
	Effect of CPAP on blood rheological properties and cerebral blood flow reactivity in OSA: Role of oxidative stress	co-investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$67,500.00
	The search for a biomarker of kidney injury due to nocturnal hypoxemia.	principal investigator	clinical	New	Department of Medicine, University of Calgary	\$15,000.00
	Mobilizing the healthcare community towards an integrated approach to improving outcomes of patients with sleep disorders - Canadian Sleep and Circadian Network (CSCN).	co-investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$4,000,000.00
	Effects of aerobic exercise on cognition and brain health in older adults at increased risk of Alzheimer disease and dementia: probing the underlying biological mechanisms using translational physiology.	co-investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$890,550.00
	Regulation of Cerebral Blood Flow in Obstructive Sleep Apnea	co-investigator	basic/ biomedical	New	Canadian Institutes of Health Research	\$774,740.00
	Effects of intermittent hypoxia on the regulation of cerebral blood flow in healthy humans and in patients with obstructive sleep apnea: role of oxidative stress	co-investigator	basic/ biomedical	New	Hotchkiss Brain Institute	\$50,000.00
	Evaluation of a "Fast Track" Respiratory Therapy Clinic for Patients with Suspected Severe Sleep-Disordered Breathing	co-investigator	clinical	New	The Lung Association	\$30,000.00
	Treatment of obstructive sleep apnea in patients with chronic kidney disease	principal investigator	clinical	New	Philips Respironics	\$160,000.00
	Treatment of obstructive sleep apnea in patients with chronic kidney disease	principal investigator	clinical	New	Alberta Health Service, Respiratory Health Strategic Clinical Network	\$5,600.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Treatment of Obstructive Sleep Apnea in Patients with Chronic Kidney Disease – Pilot Study to assess the Feasibility of using CPAP (Continuous Positive Airway Pressure)	principal investigator	clinical	New	Bachelor of Health Sciences Pgm, University of Calgary and Faculty of Medicine Sleep Research Pgm	\$5,600.00
	Role of Intermittent Hypoxia in the Pathogenesis of Obstructive Sleep Apnea	co-investigator	clinical	New	Heart & Stroke Foundation of Canada	\$362,955.00
	Effect of CPAP on blood rheological properties and cerebral blood flow reactivity in OSA: Role of oxidative stress	co-investigator	basic/ biomedical	New	Alberta Innovates - Health Solutions (AIHS)	\$150,000.00
	19 grants					\$6,511,945.00
Leigh, Richard	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Developing and Assessing the Effectiveness of a Post-discharge Care Pathway to Reduce Emergency Department Re-visits and Hospital Re-admission Rates for Patients with COPD (PRIHS).	co-principal investigator	clinical	New	Alberta Innovates - Health Solutions (AIHS)	\$749,379.00
	Engaging Patients in the Design of a Clinical Discharge Pathway and Evidence Lay Summaries for Acute Exacerbations of Chronic Obstructive Pulmonary Disease	co-principal investigator	clinical	New	Canadian Institutes of Health Research	\$25,000.00
	Differences in Emergency Department Visits for Asthma: Does Sex Matter?	co-investigator	clinical	New	Woman & Children's Health Research Institute, University of Alberta	\$50,000.00
	Allergy, Genes and Environment	principal investigator	clinical	Ongoing / Renewed	AllerGen NCE - Clinical Investigator Collaborative	\$160,000.00
	The Canadian Respiratory Research Network (CRRN): Origin and Progression of Airway Disease - ICRH Emerging Network Grant.	co-investigator	clinical	New	Canadian Institutes of Health Research	\$6,400,000.00
	Rhinovirus Induced Exacerbations of Asthma and COPD	co-investigator	basic/ biomedical	Ongoing / Renewed	Canadian Institutes of Health Research	\$810,305.00
	Difficult Asthma Program	principal investigator	basic/ biomedical	Ongoing / Renewed	Edith and Robert Strauss Foundation, Meakins-Christie Laboratories, McGill University	\$50,000.00
	How does management of Chronic Obstructive Pulmonary Disease hospitalizations affect patient-centred health outcomes and cerebrovascular risk?	co-principal investigator	clinical	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$750,000.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Development and validation of a novel rescue therapy for severe asthma.	co-principal investigator	clinical	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$250,000.00
	Do rhinovirus infections contribute to airway remodeling in asthma?	principal investigator	basic/ biomedical	Ongoing / Renewed	Canadian Institutes of Health Research	\$1,000,000.00
	Airway inflammation and airway remodeling - CORE B - Human Asthma Core - Consortium.	co-principal investigator	basic/ biomedical	New	National Institute of Allergy and Infectious Diseases (NIAID)	\$250,000.00
	11 grants					\$10,494,684.00
Pendharkar, Sachin	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	A Scoping Review of Quality Indicators for Sleep-Disordered Breathing	principal investigator	health services	New	Alberta Health Services Respiratory Health Strategic Clinical Network Mini-Grant	\$5,000.00
	Evaluation of a "Fast Track" Respiratory Therapy Clinic for Patients with Suspected Severe Sleep Disordered Breathing	principal investigator	health services	New	Canadian Thoracic Network of Alberta and Northwest Territories Angela Jone Memorial Research Award	\$30,000.00
	Developing and Assessing the Effectiveness of a Post-Discharge Care Pathway to Reduce Emergency Department Re-Visits and Hospital Re-Admission Rates for Patients with Chronic Obstructive Pulmonary Disease	co-investigator	health services	New	Alberta Innovates - Health Solutions (AIHS)	\$750,000.00
	An Analysis of Hospital Length of Stay and 30-day Readmission Rates of COPD Patients after the Implementation of Standardized COPD Order Sets at the Peter Lougheed Centre	co-investigator	health services	New	Alberta Health Services Respiratory Health Strategic Clinical Network Mini-Grant	\$5,000.00
	An Evaluation of the Organization Process of Developing a Provincial Acute Care Discharge Model in Alberta Hospitals	principal investigator	health services	New	Canadian Institutes of Health Research	\$268,272.00
	Mobilizing The Healthcare Community Towards An Integrated Approach To Improving Outcomes Of Patients With Sleep Disorders – Canadian Sleep and Circadian Network (CSCN)	co-investigator	multi-themed	New	Canadian Institutes of Health Research	\$3,999,713.00

Name	Title	Role	Theme	Status	Funding Source	Award
	An Environmental Scan of Quality Indicators for Sleep-Disordered Breathing	principal investigator	health services	New	Alberta Health Services Respiratory Health Strategic Clinical Network Summer Studentship	\$5,600.00
	Alberta Lung Cancer Screening Program	co-investigator	clinical	New	Alberta Cancer Foundation	\$2,326,648.00
	8 grants					\$7,390,233.00
Tremblay, Alain	Research with no funding or non-peer reviewed support					
	Diagnostic imaging initiated referral for patients suspected of having lung cancer	principal investigator	health services			\$0.00
	Does Endobronchial Ultrasound Guided Transbronchial Needle Aspiration of Mediastinal Lymph Nodes Contribute to False Positive Findings on PET-CT Imaging?	principal investigator	clinical			\$0.00
	EMPROVE (Evaluation of the SVS Valve for Emphysema to Improve Lung Function)	local sub-investigator	clinical			\$0.00
	A Retrospective Study of Bronchoscopic Removal for the Treatment of Intracavitary Pulmonary Aspergilloma	co-investigator	clinical			\$0.00
	Cancer Screening in Asbestos Exposed Workers in Alberta	principal investigator	clinical			\$100,000.00
	Tissue sampling project for endobronchial ultrasound bronchoscopy.	local principal investigator	basic/ biomedical			\$17,707.00
	Olympus / Spiration bronchoscopy sampling prototype development and testing.	principal investigator	basic/ biomedical			\$30,879.00
	Research funded with peer-reviewed grant support					
	Alberta Lung Cancer Screening Program	principal investigator	clinical	New	Alberta Cancer Foundation	\$2,323,648.00
	Early Detection of Lung Cancer - A Pan-Canadian Study	local principal investigator	multi-themed	Ongoing / Renewed	Terry Fox Research Institute	\$694,584.00
	Does Bronchial Thermoplasty result is long-term structural changes in the airway?	co-investigator	clinical	New	The Lung Association – Alberta & NWT	\$30,000.00
	Assessment of Airway Wall Structure in Asthmatic Patients With Cryobiopsy	co-investigator	clinical	New	American Association of Bronchology and Interventional Pulmonology	\$10,000.00
	11 grants					\$3,206,818.00
		59 grants				
Rheumatology						
Barber, Claire	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Vanier Canada Graduate Scholarships	principal investigator	basic/ biomedical	New	Vanier Canada Graduate Scholarships	\$150,000.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Alberta Innovates Health Solutions Clinical Research Fellowship (Training Grant)	principal investigator	health services	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$212,000.00
	Vanier Canada Graduate Scholarship (Training Grant)	principal investigator	health services	Ongoing / Renewed	Vanier Canada Graduate Scholarship	\$28,429.00
	Testing of System-Level Performance for Inflammatory Arthritis	principal investigator	health services	Ongoing / Renewed	Canadian Initiative for Outcomes in Rheumatology Care (CIORA)	\$110,000.00
	Optimizing Centralized Intake to Improve Arthritis Care in Albertans	co-investigator	health services	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$1,138,435.00
	PRECISION: Preventing Complications from Inflammatory Skin, Joint and Bowel Conditions	co-investigator	health services	Ongoing / Renewed	Alberta Innovates - Health Solutions (AIHS)	\$2,442,065.00
	6 grants					\$4,080,929.00
Barnabe, Cheryl	Research with no funding or non-peer reviewed support					
	SPECTRA (Study Group for XTreme-CT in Rheumatoid Arthritis) Collaboration	co-principal investigator	clinical			
	RA-BIODAM	local principal investigator	clinical			
	SPECTRA (Study Group for XTreme-CT in Rheumatoid Arthritis) Collaboration	principal investigator	clinical			\$750.00
	RA-BIODAM	local principal investigator	clinical			\$5,000.00
	Research funded with peer-reviewed grant support					
	Arthritis of Indigenous Populations (Foundation Scheme Grant)	principal investigator	health services	New	Canadian Institutes of Health Research	\$575,209.00
	Western Indigenous Mentorship Network Program	co-investigator	social, cultural, environmental and population	New	Canadian Institutes of Health Research	\$25,000.00
	Planning for the Collaborative Implementation of a Peer-support Shared Decision Making Strategy by in with Aboriginal Populations: Building Foundations for a Program of Research in Health Systems that Treat Chronic Disease	co-investigator	social, cultural, environmental and population	New	Canadian Institutes of Health Research	\$25,000.00
	American College of Rheumatology Study Group	principal investigator	health services	New	American College of Rheumatology	\$750.00
	Indigenous Patient Preferences for Rheumatoid Arthritis Pharmacotherapy	co-principal investigator	social, cultural, environmental and population	New	Arthritis Research Canada	\$45,217.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Bridging the Evidence Gap: Understanding Patient and Physician Choices for Treatment in Early Rheumatoid Arthritis	co-investigator	clinical	New	Canadian Institutes of Health Research	\$258,170.00
	Testing of System-Level Performance Measures for Inflammatory Arthritis	co-investigator	clinical	New	Canadian Initiative for Outcomes in Rheumatology Care	\$110,000.00
	Arthritis Care of Indigenous Populations	principal investigator	social, cultural, environmental and population	New	Canadian Rheumatology Association, Arthritis Society	\$300,000.00
	Aboriginal Community Summer Research Training Institute	principal investigator	health services (education)	New	Alberta Innovates - Health Solutions (AIHS)	\$3,000.00
	Development and usability testing of a personalized risk communication tool to facilitate the shared decision of methotrexate treatment options in early rheumatoid arthritis	co-investigator	health services	New	Canadian Initiative for Outcomes in Rheumatology Care	\$23,195.00
	Erosion Healing and Restoration of Function in Rheumatoid Arthritis	co-principal investigator	health services	New	The Arthritis Society	\$333,989.00
	Developing an innovative evidence-based decision support tool to improve osteoarthritis care planning and health service management for diverse patient populations in Alberta, Saskatchewan and Manitoba.	co-investigator	health services	New	Canadian Institutes of Health Research	\$429,713.00
	Case Managers to Improve the Management of Inflammatory Arthritis and Associated Comorbidities with First Nations Communities: A Proof of Concept Study	co-principal investigator	health services	New	Canadian Initiative for Outcomes in Rheumatology Care	\$120,000.00
	Case Managers to Improve the Management of Arthritis and Associated Comorbidities with Aboriginal Communities: A Proof of Concept Study	co-principal investigator	health services	New	The Arthritis Society	\$359,000.00
	Optimizing Centralized Intake to Improve Arthritis Care for Albertans	co-investigator	health services	New	Alberta Innovates - Health Solutions (AIHS)	\$750,000.00
	Our Health Counts Toronto: Developing a Population Based Urban Aboriginal Cohort to Assess and Enhance Individual, Family, and Community Health and Wellbeing	co-investigator	health services	New	Canadian Institutes of Health Research	\$992,000.00
	A Multidisciplinary Approach to Target Chronic Inflammation of the Gut, Liver and Joint. Team Grant: Health Challenges in Chronic Inflammation Initiative	co-investigator	health services	New	Canadian Institutes of Health Research	\$2,443,500.00
	Brain Dysfunction in Chronic Inflammatory Disease: Reciprocal Effects of CNS and Periphery Crosstalk. Team Grant: Health Challenges in Chronic Inflammation	co-investigator	health services	New	Canadian Institutes of Health Research	\$2,292,479.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Initiative					
	PRECISION: Preventing Complications from Inflammatory Skin, Joint and Bowel Conditions. Team Grant: Health Challenges in Chronic Inflammation Initiative	co-investigator	health services	New	Canadian Institutes of Health Research	\$2,422,690.00
	23 grants					\$11,514,662.00
Barr, Susan	Research funded with peer-reviewed grant support					
	Research with no funding or non-peer reviewed support					
	Optimizing Centralized Intake to Improve Arthritis Care for Albertans	co-investigator	health services			\$750,000.00
	STARLET – SouThern Alberta Registry for Lupus ErythemaTosus	co-principal investigator	clinical			\$575,000.00
	2 grants					\$1,325,000.00
Clarke, Ann E.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	GET-FACTS: Genetics, Environment and Therapies: Food Allergy Clinical Tolerance Studies	co-principal investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$1,960,605.00
	C-CARE: A Cross-Canada Anaphylaxis Registry (Project of CanFAST)	co-principal investigator	clinical	Ongoing / Renewed	AllerGen – Networks of Centres of Excellence	\$195,815.00
	SPAACE to SPAACE: Trends in Food Allergy Prevalence over Time (Project of CanFAST)	principal investigator	clinical	Ongoing / Renewed	AllerGen – Networks of Centres of Excellence	\$195,815.00
	Causes and Prevention: Identifying the Genetic Basis of Peanut Allergy (Project of CanFAST)	co-principal investigator	clinical	Ongoing / Renewed	AllerGen – Networks of Centres of Excellence	\$650,665.00
	Canadian Food Allergy Strategic Team (CanFAST)	co-principal investigator	clinical	Ongoing / Renewed	AllerGen – Networks of Centres of Excellence	\$2,314,255.00
	Development of a National Food Allergy Strategy for Canada	co-principal investigator	clinical	Ongoing / Renewed	AllerGen – Networks of Centres of Excellence	\$50,000.00
	Cancer Risk: Advancing knowledge in systemic rheumatic disease	co-investigator	clinical	Ongoing / Renewed	National Institutes of Health Research (NIH US)	\$70,167.00
	Cancer Risk: Advancing knowledge in systemic rheumatic disease	co-investigator	clinical	Ongoing / Renewed	National Institutes of Health Research (NIH US)	\$100,000.00

Name	Title	Role	Theme	Status	Funding Source	Award
	PRECISION: Preventing Complications from Inflammatory Skin, Joint and Bowel Conditions	co-investigator	clinical	Ongoing / Renewed	CIHR Inflammatory Disease Initiative	\$2,500,000.00
	Neurodevelopmental Disorders in Children Born to Women with Systemic Lupus Erythematosus	co-investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$92,010.00
	10 grants					\$8,129,332.00
Edworthy, Steven M.	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Lymphoma Risk: A Consequence of Immune Suppression or Stimulation?	local principal investigator	health services	Ongoing / Renewed	Arthritis Society	\$413,400.00
	Lymphoma Risk: A Consequence of Immune Suppression or Stimulation?	local principal investigator	health services	Ongoing / Renewed	CCERN	\$27,058.00
	Lymphoma Risk: A Consequence of Immune Suppression or Stimulation?	local principal investigator	health services	Ongoing / Renewed	MUHC Research Institute	\$20,000.00
	3 grants					\$460,458.00
Fritzler, Marvin J.	Research with no funding or non-peer reviewed support					
	Autoimmune Neurological Disease	principal investigator	basic/ biomedical			\$254,000.00
	Research funded with peer-reviewed grant support					
	SEROLOGICAL TECHNOLOGIES AND PROFILES TO DELIVER PRECISION DIAGNOSTICS FOR INFLAMMATORY BOWEL DISEASE PATIENTS	principal investigator	basic/ biomedical	New	American College of Gastroenterology	\$35,000.00
	Canadian Scleroderma Study Group: Grant # QDG-66878 Establish a Canadian Clinical and Serum Database	team grant investigator	clinical	Ongoing / Renewed	Canadian Institutes of Health Research	\$1,000.00
	3 grants					\$290,000.00
Hazlewood, Glen	Research with no funding or non-peer reviewed support					
	Research funded with peer-reviewed grant support					
	Arthritis Care for Indigenous Populations	co-investigator	social, cultural, environmental and population	New	Canadian Institutes of Health Research	\$575,209.00
	Bridging the Evidence Gap: Understanding Patient and Physician Choices for Treatment in Early Rheumatoid Arthritis	principal investigator	health services	New	Canadian Institutes of Health Research	\$258,170.00
	Indigenous Patient Preferences for Rheumatoid Arthritis Pharmacotherapy	co-principal investigator	health services	New	Arthritis Research Canada (ARC)	\$46,217.00
	Testing of System-Level Performance Measures for Inflammatory Arthritis	co-investigator	health services	New	Canadian Initiative Outcomes in Rheumatology Care (CIORA)	\$110,000.00
	Bayesian Models for Synthesizing Randomized Controlled Trials and Patients' Preferences for Treatment Options in Early Rheumatoid Arthritis and Crohn's Disease	principal investigator	health services	New	Canadian Institutes of Health Research	\$99,744.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Start Up Funds	principal investigator	health services	New	U of C, DOM, Division of Rheumatology, Arthur JE Child Chair, Arthritis Chair and O'Brien Institute for Public Health	\$85,000.00
	6 grants					\$1,174,340.00
Martin, William O. (Liam)	Research with no funding or non-peer reviewed support					
	Early Inflammatory Clinic Assessment. E23077	principal investigator	clinical			\$80,000.00
	Monitoring the safety and efficacy of biologic agents in the treatment of systemic rheumatic diseases	principal investigator	clinical			\$250,000.00
	A Phase 3b, Randomized, Active Controlled Trial to Evaluate the Efficacy and Safety of Abatacept SC in Combination with Methotrexate in Inducing Clinical Remission Compared to Methotrexate Monotherapy in Adults with Very Early RA	principal investigator	clinical			\$78,900.00
	Builder 2 A Phase II/III seamless, multi-center, randomized, double-blind, placebo-controlled study of the reduction in signs and symptoms and inhibition of structural damage during treatment with tocilizumab versus placebo in patients with ankylosing spondylitis who have failed non-steroidal anti-inflammatory drugs and are naïve to TNF antagonist therapy (Protocol No. NA22823C)	principal investigator	clinical			\$91,669.00
	Builder 1 A Phase II/III seamless, multi-center, randomized, double-blind, placebo-controlled study of the reduction in signs and symptoms and inhibition of structural damage during treatment with tocilizumab versus placebo in patients with ankylosing spondylitis who have failed non-steroidal anti-inflammatory drugs and are naïve to TNF antagonist therapy (Protocol No. NA22823C)	principal investigator	clinical			\$276,962.00
	Monitoring the safety and efficacy of biologic agents in the treatment of systemic rheumatic diseases.	principal investigator	clinical			\$100,000.00
	Endothelial Cell Function in Newly Diagnosed Rheumatoid Arthritis Patients.	co-principal investigator	clinical			\$0.00
	Prospective Observational Study to Evaluate the Use of Musculoskeletal Ultrasonography to Improve Rheumatoid Arthritis Management: Canadian Experience (ECHO study)	co-principal investigator	clinical			\$15,000.00
	A Phase 3b, Randomized, Active Controlled Trial to Evaluate the Efficacy and Safety of Abatacept SC in Combination with Methotrexate in Inducing Clinical Remission Compared to	principal investigator	clinical			\$78,900.00

Name	Title	Role	Theme	Status	Funding Source	Award
	Methotrexate Monotherapy in Adults with Very Early RA. (VERA)					
	Research funded with peer-reviewed grant support					
	Rheumatoid Arthritis: Comparison of active therapies in patients with active disease despite methotrexate therapy (RACAT)	local principal investigator	clinical	Ongoing / Renewed	Veteran's Administration and Candian Arthritis Network	\$1,160,000.00
	Brain Dysfunction in Chronic Inflammatory Disease: Reciprocal Effects of CNS and Periphery Crosstalk.	co-investigator	clinical	New	Canadian Institutes of Health Research	\$2,292,479.00
	11 grants					\$4,423,910.00
Mosher, Dianne	Research with no funding or non-peer reviewed support					
	Fit for Work: Arthritis in the Workplace & Early Intervention Clinics / Employer & Employee Intervention	principal investigator	health services			\$800,000.00
	Research funded with peer-reviewed grant support					
	Developing an innovative evidence-based decision support tool to improve osteoarthritis care planning and health service management for diverse patients populations in Alberta, Saskatchewan and Manitoba, Canadian Institutes of Health Research (CIHR), \$429,174, Co-investigator	co-investigator	health services	New	Canadian Institutes of Health Research	\$429,174.00
	RACER Questionnaire: Reliability and Validity Testing in Youth with Arthritis.	co-investigator	clinical	New	The Arthritis Society	\$200,000.00
	A randomized controlled trial evaluating the effectiveness of the Making It Work program at preventing work loss and improving work productivity in employed people with inflammatory arthritis.	local principal investigator	clinical	New	Canadian Institutes of Health Research	\$584,295.00
	Optimizing Centralized Intake to Improve Arthritis Care for Albertans	co-investigator	health services	New	Alberta Innovates - Health Solutions (AIHS)	\$1,138,435.00
5 grants						\$3,151,904.00
69 grants						\$34,550,535.00
Department Total:					496 grants	\$465,346,507.50

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Adjunct Associate Professor	A		p	Abdo	Ayman A.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Abu-Hakima	Maysan	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Adamiak	Eugene J.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Adams	Fatin	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Adams	Stewart P.	\$0	\$0
Secondary	Clinical Associate Professor	CL		p	Aggarwal	Sandeep G.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Ahmad	Aijaz	\$0	\$0
Primary	Associate Professor	C	AHS/AHFMR	f	Ahmed	Sofia B.	\$206,044	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Alanen	Kenneth W.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Ali	Khan	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Altabbaa	Ghazwan	\$0	\$0
Secondary	Clinical Associate Professor	CL	AHS	MJ	Alvarez	A.M. Nanette	\$0	\$0
Secondary	Professor	T	AHS	f	Anderson	Todd J.	\$2,377,184	\$323,675
Primary	Clinical Associate Professor	CL	AHS	MJ	Andrews	Christopher N.	\$5,509	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Aspinall	Alexander I.	\$39,881	\$0
Primary	Clinical Professor	CL		p	Atkinson	Martin H.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Azam	Adeel	\$0	\$0
Primary	Associate Professor	C	AHS	f	Bacchus	C. Maria	\$0	\$0
Primary	Associate Professor	C	AHS/TBCC	f	Bahlis	Nizar J.	\$307,770	\$130,720
Primary	Clinical Lecturer	CL	AHS	p	Bailey	Jennifer L.	\$0	\$0
Primary	Clinical Assistant Professor	C	AHS	MJ	Baldwin	Corisande S.M.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Banage	Christine L.N.	\$0	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Secondary	Clinical Associate Professor	CL	AHS	p	Banijamali	Hamid S.	\$0	\$0
Primary	Assistant Professor	C	AHS	f	Barber	Claire E.	\$77,000	\$0
Primary	Clinical Professor	CL		p	Barber	Kirk A.	\$0	\$0
Primary	Associate Professor	C	AHS	f	Barnabe	Cheryl C.M.	\$589,122	\$234,899
Primary	Associate Professor	C	AHS	f	Barr	Susan G.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Bass	Adam J.	\$0	\$0
Primary	Clinical Associate Professor	CL		p	Bass	Sidney	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Bassyouni	Hanan	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Baylis	Barry W.	\$0	\$0
Secondary	Associate Professor	C	TBCC/AHS	f	Bebb	D. Gwyn	\$422,542	\$0
Primary	Professor	T	AHFMR	f	Beck	Paul L.	\$417,554	\$227,937
Primary	Clinical Associate Professor	CL		p	Behm	Allan R.	\$0	\$0
Secondary	Professor	T	AHS	df	Belenkie	Israel	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Belletrutti	Paul J.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS, South	p	Benke	Stanley M.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Bharwani	Aleem M.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Bhayana	Shelly	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Billington	Emma O.	\$0	\$0
Primary	Clinical Associate Professor	CL		p	Blahey	Walter B.	\$0	\$0
Primary	Clinical Associate Professor	CL		p	Blustein	Philip K.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Borman	Meredith A.	\$0	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Clinical Assistant Professor	CL	AHS	MJ	Boscan	Alejandra G.	\$0	\$0
Secondary	Clinical Professor	CL		p	Bowen	Thomas J.	\$0	\$0
Secondary	Clinical Associate Professor	CL	AHS	p	Boyne	Timothy S.	\$0	\$0
Secondary	Associate Professor	C	AHS	f	Brager	Nancy P.D.	\$0	\$0
Primary	Professor	T		f	Bridges	Ronald J.	\$0	\$0
Primary	Professor	T	AHS	f	Brown	Christopher B.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Brown	Kristen L.	\$0	\$0
Secondary	Associate Professor	T	AHS	df	Brownell	A. Keith W.	\$0	\$0
Primary	Professor	C	AHS	f	Burak	Kelly W.	\$220,811	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Burback	Darren C.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Buresi	Michelle C.	\$0	\$0
Primary	Professor	T	AHS	f	Burgess	Ellen D.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Burns	Michele A.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Butalia	Sonia	\$0	\$0
Primary	Professor	T	AHS	f	Campbell	Norman R.C.	\$122,500	\$75,000
Secondary	Clinical Assistant Professor	CL	AHS/TBCC	p	Card	Cynthia M.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Castillo	Eliana	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Chalmers-Nixon	Tara S.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Chan	John S.	\$0	\$0
Secondary	Clinical Lecturer	CL	AHS	MJ	Chang	Christine	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Chee	Alex C. M.	\$10,000	\$0
Primary	Clinical Lecturer	CL	AHS	p	Cheng	Edwin J.	\$10,985	\$0
Secondary	Associate Professor	C	TBCC/AHS	f	Cheng	Tina	\$120	\$0
Primary	Clinical Lecturer	CL	AHS	p	Chou	Julie P.	\$0	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Clinical Associate Professor	CL	AHS	MJ	Chou	Sophia H.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Chu	Angel	\$0	\$0
Secondary	Clinical Lecturer	CL	AHS	p	Chuang	Ryan	\$0	\$0
Secondary	Professor	T	CLS	f	Church	Deirdre L.	\$0	\$0
Primary	Professor	T	AHS	f	Clarke	Ann E.	\$624,805	\$251,699
Secondary	Clinical Assistant Professor	CL	AHS	MJ	Clarke	Brian A.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Clearsky	Lorne	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Cleary	Cynthia E.	\$0	\$0
Primary	Professor	C	AHS	f	Coderre	Sylvain P.	\$31,505	\$0
Primary	Associate Professor	C	AHS	f	Coffin	Carla S.	\$502,024	\$60,000
Primary	Clinical Assistant Professor	CL	AHS	MJ	Cohen	Adrienne F.	\$0	\$0
Primary	Clinical Associate Professor	CL		p	Cohen	Howard B.	\$0	\$0
Primary	Clinical Lecturer	CL		p	Cole	Martin J.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Congly	Stephen E.	\$73,259	\$0
Primary	Professor	T	AHS/CLS	f	Conly	John M.	\$484,647	\$0
Secondary	Clinical Assistant Professor	CL	AHS	MJ	Connelly	Michael S.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Connors	William J.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Conradie	Johan A.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Cook	D. Roy	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Cook	Donald R.	\$0	\$0
Primary	Professor	T	AHS	f	Corenblum	Bernard	\$0	\$0
Primary	Professor	C	AHS	df	Cowie	Robert L.	\$44,608	-\$29,585
Primary	Clinical Associate Professor	CL		p	Crawford	Anne-Marie	\$0	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Clinical Assistant Professor	CL		p	Cross	David P.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Cruikshank	Jack S.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Curley	Michael A.	\$0	\$0
Secondary	Clinical Associate Professor	CL		p	Curtis	Michael J.	\$183,967	\$0
Primary	Adjunct Professor	A		p	Dabrosin Söderholm	Johan	\$0	\$0
Primary	Clinical Associate Professor	CL		MJ	Daly	Andrew S.	\$882	\$0
Primary	Clinical Lecturer	CL	AHS	dMJ	Damaraju	Deepti	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Dave	Amritlal M.	\$0	\$0
Primary	Adjunct Associate Professor	A		p	Davidson	Warren J.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Davis	J. Paul	\$0	\$0
Primary	Clinical Associate Professor	CL		p	Dear	Richard A.R.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Dechant	Anthony	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Dempsey	Erika J.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Deol	Sandeep S.	\$0	\$0
Primary	Adjunct Associate Professor	A		p	Deshpande	Sameer A.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Desreux	Michelle	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Devlin	Shane M.	\$0	\$0
3rd	Clinical Associate Professor	CL	AHS	p	Dicke	Franciscus P.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Doctor	Joel A.	\$0	\$0
3rd	Professor	T	AHS	f	Doig	Chip J.	\$290,360	\$111,881

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Clinical Associate Professor	CL	AHS	MJ	Donovan	Lois E.	\$98,427	\$3,560
Primary	Clinical Associate Professor	CL	AHS	dMJ	Dubé	J. Catherine	\$0	\$0
Secondary	Professor	T		f	Duff	Henry J.	\$10,100	\$0
Primary	Clinical Associate Professor	CL		MJ	Duggan	Peter R.	\$551,502	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Dumoulin	Elaine	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	MJ	Duncan	Stephen C.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Dunne	Fiona M.	\$0	\$0
Secondary	Associate Professor	T	AHS	f	Easton	Paul A.	\$0	\$0
Primary	Professor	C	Access/AHS	f	Edwards	Alun L.	\$100	\$0
Primary	Professor	C	AHS	df	Edworthy	Steven M.	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Eksteen	Johannes A.	\$639,641	\$501,200
Primary	Clinical Assistant Professor	CL	AHS	p	Elliott	Meghan J.	\$0	\$0
Primary	Adjunct Professor	A		p	Esdaile	John M.	\$0	\$0
Secondary	Professor	T	AHS	f	Exner	Derek V.	\$624,178	\$249,999
Primary	Clinical Assistant Professor	CL	AHS	MJ	Fabreau	Gabriel E.	\$20,000	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Fell	Charlene D.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Feng	Xiumei	\$0	\$0
Secondary	Clinical Associate Professor	CL	AHS	MJ	Ferland	Andre	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Ferraz	Jose G.P.	\$0	\$0
Primary	Clinical Professor	CL	AHS	MJ	Field	Stephen K.	\$65,619	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Clinical Assistant Professor	CL	AHS	MJ	Fifi-Mah	Aurore V.	\$15,000	\$0
Secondary	Clinical Associate Professor	CL		p	Filipchuk	Neil G.	\$0	\$0
Secondary	Clinical Assistant Professor	CL	AHS	MJ	Fine	Nowell M.	\$102,367	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Fisher	Dina A.	-\$2,329	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Fisher	Michael J.	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Fitzgerald	Avril A.	\$0	\$0
Primary	Professor	C	AHS	f	Flemons	W. Ward	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Forestell	Clair F.	\$0	\$0
Primary	Clinical Professor	CL	AHS	MJ	Fraser	Kristin L.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Fripp	Amber	\$0	\$0
Primary	Professor	T	AHS	f	Fritzler	Marvin J.	\$1,971,827	\$0
Primary	Associate Professor	C	AHS	f	Fruetel	Karen	\$0	\$0
Secondary	Adjunct Assistant Professor	A		p	Ganguly	Anutosh	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS/TBCC	MJ	Geddes	Michelle N.	\$0	\$0
Primary	Professor	T	AHS	f	Ghali	William A.	\$1,089,755	\$55,000
Primary	Professor	T	AHS	df	Ghosh	Subrata	\$524,167	\$100,000
Primary	Associate Professor	C	AHS	f	Gibson	Paul S.	\$1,750	\$0
Primary	Clinical Assistant Professor	CL		p	Gili	Adrian F.	\$0	\$0
Primary	Professor	T	AHS	f	Gill	M. John	\$256,452	\$194,201
Secondary	Professor	T		f	Gillis	Anne M.	\$88,510	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Gilmour	Janet G.	\$0	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Clinical Assistant Professor	CL	AHS	MJ	Girard	Louis-Philippe	\$25,388	\$0
3rd	Clinical Professor	CL		p	Giuffre	R. Michael	\$0	\$0
Secondary	Clinical Assistant Professor	CL		p	Godinez-Luna	Tomas	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Goodyear	M. Dawn	\$0	\$0
Secondary	Clinical Assistant Professor	CL	AHS	MJ	Grant	Andrew D. M.	\$123,588	\$0
Secondary	Associate Professor	C	CLS	f	Gregson	Daniel B.	\$0	\$0
Primary	Clinical Assistant Professor	CL		MJ	Grinman	Michelle N.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Grinman	Susana E.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Grisdale	William R.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Groschaus	Horatio E.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Grossman	Jennifer K.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Groves	Terry D.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Grundy	Peter D.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Gupta	Milli	\$0	\$0
Primary	Adjunct Lecturer	A		p	Guthrie	Nancy	\$0	\$0
Primary	Professor	C	AHS	f	Haber	Richard M.	\$3,500	\$0
3rd	Associate Professor	T	AHS/TBCC	df	Hagen	Neil A.	\$367,847	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Hall	Stacey L.	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Hamilton	Douglas R.	\$0	\$0
Primary	Clinical Professor	CL	AHS	p	Hanley	David A.	\$47,880	\$31,088
Primary	Professor	C	AHS	f	Hanly	Patrick J.	\$235,022	\$25,000
Secondary	Clinical Assistant Professor	CL		p	Hansen	James L.	\$0	\$0
Secondary	Associate Professor	C	TBCC/AHS	f	Hao	Desirée	\$0	\$0
3rd	Clinical Associate Professor	CL		p	Harder	Joyce R.	\$0	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Clinical Assistant Professor	CL	AHS	p	Hausmann	Jessica	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Haw For Chin	Oliver R.	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Hawkins	Ralph G.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Hawkins	T. Lee-Ann	\$0	\$0
Primary	Assistant Professor	C	AHS	f	Hazlewood	Glen S.	\$76,269	\$53,769
Primary	Associate Professor	C	AHS	f	Heitman	Steven J.	\$175,000	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Helmersen	Douglas S.	\$13,004	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Helmle	Karmon E.	\$0	\$0
Secondary	Professor	T	AHS	f	Hemmelgarn	Brenda	\$1,288,291	\$380,853
Primary	Clinical Associate Professor	CL	AHS	MJ	Hergott	Christopher A.	\$13,548	\$0
Primary	Professor	T	AHS	f	Herman	Robert J.	\$0	\$0
Primary	Honorary Clinical Professor	H		p	Hershfield	Noel B.	\$0	\$0
Secondary	Clinical Assistant Professor	CL	AHS	MJ	Heydari	Bobby	\$0	\$0
Secondary	Professor	T	AHS	f	Hill	Michael D.	\$2,169,694	\$323,121
Primary	Associate Professor	IT	AHS	f	Hilsden	Robert J.	\$367,292	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Hirani	Naushad	\$162,270	\$0
Primary	Professor	T	AHS	f	Hogan	David B.	\$776,303	\$471,838
Secondary	Professor	T		f	Hollenberg	Morley D.	\$274,328	\$184,409
Primary	Associate Professor	C	AHS	f	Holroyd-Leduc	Jayna M.	\$448,482	\$321,834
Primary	Clinical Associate Professor	CL	AHS	MJ	Holton	Donna L.	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Hons	Ronald B.	\$0	\$0
Secondary	Assistant Professor	C	AHS	f	Howarth	Andrew G.	\$31,948	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Secondary	Clinical Professor	CL		MJ	Howlett	Jonathan G.	\$35,016	\$0
Primary	Clinical Associate Professor	CL		MJ	Huan	Susan	\$0	\$0
Primary	Professor	T	AHS	f	Hull	Russell D.	\$0	\$0
Secondary	Clinical Assistant Professor	CL	AHS	p	Hulme	W. Terrance	\$0	\$0
Primary	Clinical Lecturer	CL		p	Hundal	Rajveer	\$0	\$0
Secondary	Clinical Professor	CL	AHS	MJ	Hutchison	Stuart J.	\$0	\$0
Primary	Adjunct Associate Professor	A		p	Iacucci	Marietta	\$196,479	\$0
Primary	Clinical Assistant Professor	CL		p	Ikuta	Roland M.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Ionescu	Andreea G.	\$0	\$0
Secondary	Clinical Professor	CL	AHS	MJ	Isaac	Debra L.	\$28,163	\$0
Primary	Associate Professor	C	AHS	f	James	Matthew T.	\$224,226	\$221,226
Primary	Clinical Lecturer	CL	AHS	MJ	Janovcik	Juri E.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Janvier	Jack A.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Janzen	Ernest P.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Jarand	Julie M.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Jayakumar	Saumya	\$59,633	\$0
Primary	Clinical Associate Professor	CL	AHS/TBCC	MJ	Jenkins	Deirdre A.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Jhandir	M. Faisal M.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Jijon	Humberto B.	\$0	\$0
Secondary	Clinical Assistant Professor	CL	AHS	MJ	Jimenez-Zepeda	Victor H.	\$0	\$0
Secondary	Professor	T	CRC	f	Jirik	Frank R.	\$316,915	\$165,083
Primary	Clinical Assistant Professor	CL	AHS	MJ	Johannson	Kerri A.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Johnson	Andrew S.	\$0	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Adjunct Professor	A	AHS	p	Jones	Allan R.	\$0	\$0
Primary	Adjunct Associate Professor	A		p	Jones	Charlotte A.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Kachra	Rahim	\$0	\$0
Primary	Clinical Lecturer	CL		p	Kahlon	Bhavneet K.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Kalisiak	Michal S.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Kallas-Koeman	Melissa M.	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Kaminska	Elzbieta A.	\$0	\$0
Primary	Associate Professor	IT	AHS/CIHR	f	Kaplan	Gilaad G.	\$494,065	\$162,414
Secondary	Associate Professor	C	AHS	f	Kavanagh	Katherine M.	\$0	\$0
Secondary	Clinical Assistant Professor	CL	AHS	MJ	Kealey	Angela J.	\$0	\$0
Primary	Clinical Associate Professor	CL		p	Kellner	Barbara L.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Kennedy	Richard J.	\$0	\$0
Primary	Clinical Lecturer	CL		p	Kerr	Brendan G.	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	p	Khaliq-Kareemi	Munaa	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Kim	Joseph	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Kinnear	Susan E.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Kirshen	Carly	\$0	\$0
Primary	Professor	T	AHS	f	Klassen	John	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Kline	Gregory A.	\$1,104,531	\$0
Secondary	Professor	C	AHS	f	Knudtson	Merril L.	\$1,101,585	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Kothandaraman	Maitreyi	\$78,121	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Secondary	Professor	T	CRC/AHFMR	f	Kubes	Paul	\$4,234,540	\$1,414,194
Secondary	Associate Professor	C	AHS	f	Kuhn	Susan M.	\$3,208	\$0
Primary	Clinical Lecturer	CL	AHS	MJ	Kumar	Puja R.	\$0	\$0
Secondary	Clinical Associate Professor	CL	AHS	MJ	Kuriachan	Vikas P.	\$29,511	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Kurwa	Habib A.	\$50,000	\$0
Primary	Clinical Lecturer	CL	AHS	MJ	Kwan	Emily T.Y.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Kwok	Jimmy C.W.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Lambert	Lynn A.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Landry	Jennifer M.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Larios	Oscar E.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS/TBCC	MJ	Lategan	Johannes C.	\$0	\$0
Primary	Professor	T	Diab Assoc	f	Lau	David C.W.	\$47,844	\$0
Primary	Adjunct Professor	A		p	Laupland	Kevin B.	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Lauzon	Gilles J.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Lauzon	Matthew A.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Le Blanc	Paul E.	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Le Clercq	Sharon A.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Lee	Adrienne	\$60,227	\$0
Primary	Professor	T	AHS	f	Lee	Samuel S.	\$382,557	\$0
Primary	Professor	T	AHS	f	Leigh	Richard	\$540,327	\$171,664
Primary	Clinical Professor	CL	AHS	MJ	Lemaire	Jane B.	\$6,250	\$0
Primary	Clinical Lecturer	CL		p	Lenz	Ryan C.	\$0	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Secondary	Clinical Associate Professor	CL		p	Lesoway	Robert N.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Leung	Alexander A.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Leung	Kelvin C-W	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Leung	Yvette P. Y.	\$0	\$0
Primary	Clinical Professor	CL	AHS	MJ	Lewkonja	Ray M.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Li	Pin	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Lim	Thomas W.P.	\$0	\$0
Primary	Research Assistant Professor	A		p	Liu	Hongqun	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Loewen	Andrea H.S.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Lohmann	Tara E.	\$0	\$0
Primary	Clinical Professor	CL	AHS	MJ	Louie	Thomas J.	\$616,074	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Love	Jonathan R.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Lubitz	Paul A.	\$0	\$0
Primary	Associate Professor	IT	AHS	f	Ma	Irene W.Y.	\$8,917	\$0
Primary	Clinical Lecturer	CL	AHS	p	Ma	Jeffrey C.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Ma	Ling Ling	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Ma	Michael Z.	\$0	\$0
Secondary	Clinical Assistant Professor	CL		p	Ma	Patrick T.S.	\$0	\$0
Primary	Clinical Associate Professor	CL	TBCC	MJ	MacEachern	Paul R.	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	MacKay	Elizabeth A.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	MacMullan	Paul A.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Macphail	Gisela L.	\$0	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Associate Professor	C	AHS	f	MacRae	Jennifer M.	\$3,038	\$0
Primary	Clinical Associate Professor	CL	AHS	p	Mah	Manuel W.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Mangat	Birinder K.	\$0	\$0
Primary	Professor	T	AHS/AIHS	f	Manns	Braden J.	\$354,944	-\$10,500
Secondary	Professor	T		f	Marshall	Deborah A.	\$726,863	\$320,060
Primary	Professor	T	AHS	f	Martin	William O. (Liam)	\$104,640	\$0
Primary	Clinical Lecturer	CL	AHS	p	Mathivanan	Meena	\$0	\$0
Secondary	Adjunct Professor	A		p	Maxwell	Colleen J.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	McKeen	Julie A.	\$0	\$0
Primary	Professor	C	AHS	f	McLaughlin	Kevin J.	\$0	\$0
Secondary	Clinical Professor	CL	AHS	MJ	McMeekin	James D.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Meatherall	Bonnie L.	\$0	\$0
Primary	Professor	T	AHS	f	Meddings	Jonathan B.	\$1,381,567	\$0
Primary	Associate Professor	T	AHS	f	Megran	David W.	\$0	\$0
Primary	Honorary Clinical Associate Professor	H		p	Mellor	Jeffrey	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	p	Metelitsa	Andrei	\$0	\$0
Secondary	Associate Professor	C	AHS	f	Midgley	Julian P.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Miller	Daniel J.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Minty	Evan P.	\$7,100	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Mintz	Marcy J.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Misra	Tarun	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Missaghi	Bayan	\$0	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Clinical Assistant Professor	C	AHS	MJ	Mitchell	Patrick D.	\$0	\$0
Secondary	Professor	T	AHS	f	Mitchell	L. Brent	\$17,208	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Modi	Monica	\$0	\$0
Secondary	Professor	T		f	Mody	Christopher H.	\$589,214	\$412,441
Primary	Clinical Lecturer	CL	AHS	p	Mohamed	Rachid	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	p	Morris	Gary L.	\$0	\$0
Secondary	Associate Professor	C	TBCC/AHS	f	Morris	Donald G.	\$654,530	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Mortis	Garth P.	\$0	\$0
Primary	Professor	C	AHS	f	Mosher	Dianne P.	\$30,405	\$0
Primary	Professor	T	AHFMR	f	Muruve	Daniel A.	\$675,174	\$453,503
Primary	Clinical Associate Professor	CL	AHS	MJ	Mustata	Stefan	\$0	\$0
Primary	Assistant Professor	C	AHS	f	Mydlarski	P. Regine	\$0	\$0
Primary	Associate Professor	IT	AHS	f	Myers	Robert P.	\$5,200	\$0
Primary	Adjunct Assistant Professor	A		p	Nash	Carla L.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Nasser	Yasmin	\$0	\$0
Primary	Assistant Professor	C	AHS	f	Nerenberg	Kara A.	\$0	\$0
Secondary	Clinical Associate Professor	CL	AHS	p	Neri	Ernesta P.	\$53,328	\$0
Primary	Clinical Lecturer	CL	AHS	p	Ngo	Jennifer	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Novak	Kerri L.	\$46,963	\$0
Secondary	Professor	C	AHS	f	O'Brien	Edward R.M.	\$474,696	\$166,952
Primary	Associate Professor	C	AHS	f	Owen	Carolyn J.	\$21,807	\$0
Primary	Professor	C	AHS	f	Panaccione	Remo	\$1,057,799	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Associate Professor	IT	AHS	f	Parkins	Michael D.	\$300,410	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Parkins	Vicky M.	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Parsons	Laurie M.	\$50,673	\$0
Primary	Professor	T	AHS	f	Paschke	Ralf	\$262,317	\$0
Primary	Clinical Professor	CL		p	Paterson	A. (Sandy) H.G.	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Pattullo	Andrew L.S.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	MJ	Pearce	Paula A.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Pederson	D. Troy	\$0	\$0
Primary	Associate Professor	C	AHS	f	Pendharkar	Sachin R.	\$78,357	\$68,357
Primary	Clinical Associate Professor	CL	AHS	MJ	Penney	Christopher J.	\$8,125	\$0
Primary	Clinical Lecturer	CL		p	Persaud	Michelle S.	\$0	\$0
Secondary	Associate Professor	C	CLS	f	Pillai	Dylan R.	\$26,062	\$0
Primary	Clinical Lecturer	CL	AHS	p	Poelman	Susan M.	\$0	\$0
Primary	Professor	C	AHS	f	Pollak	P. Timothy	\$0	\$0
Primary	Clinical Professor	CL	AHS	MJ	Poon	Man-Chiu	\$53,916	\$0
Primary	Honorary Clinical Professor	H	AHS	p	Powell	Colin	\$0	\$0
3rd	Adjunct Professor	A		p	Power	Christopher N.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Prajapati	Vimal H.	\$0	\$0
Primary	Clinical Professor	CL		p	Price	Lawrence M.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Purdy	Anna C.	\$0	\$0
Primary	Associate Professor	C	AHS	f	Quinn	Robert R.	\$158,865	\$144,378
Secondary	Clinical Assistant Professor	CL	AHS	MJ	Quinn	F. Russell	\$2,000	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Associate Professor	IT	AHFMR/AHS	f	Rabi	Doreen M.	\$254,194	\$134,194
Primary	Professor	T	AHS	f	Rabin	Harvey R.	\$389	\$0
Primary	Clinical Lecturer	CL	AHS	dp	Rai	Jasjeet S.	\$0	\$0
Secondary	Associate Professor	C	AHS	f	Raj	Satish R.	\$152,476	\$152,476
Primary	Clinical Assistant Professor	CL	AHS	MJ	Rajan	Tasleem A.	\$0	\$0
Primary	Professor	C	AHS	f	Ravani	Pietro	\$197,861	\$160,361
Primary	Associate Professor	T	AHS	f	Read	Ronald R.	\$186,903	\$0
Primary	Clinical Lecturer	CL		p	Redding	Keith G.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Reimche	Leanne D.	\$0	\$0
Primary	Clinical Lecturer	CL		p	Remington	B. Kent	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Remington	Todd K.	\$0	\$0
Primary	Clinical Professor	CL		MJ	Remmers	John E.	\$0	\$0
3rd	Professor	T		f	Reynolds	John D.	\$0	\$0
Primary	Adjunct Assistant Professor	A		p	Rezaie	Ali	\$0	\$0
Primary	Adjunct Assistant Professor	A		p	Rezaie	Ali	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Rimmer	Karen P.	\$0	\$0
Primary	Assistant Professor	C	AHS	f	Rioux	Kevin P.	-\$19,391	\$0
Primary	Clinical Assistant Professor	CL		MJ	Robertson	Lynne H.	\$5,000	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Roman	Michael A.	\$0	\$0
Primary	Clinical Professor	CL	AHS	MJ	Rorstad	Otto P.	\$0	\$0
Primary	Clinical Professor	CL		p	Ross	Stuart A.	\$0	\$0
Primary	Adjunct Associate Professor	A		p	Rostom	Alaa	\$0	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Secondary	Assistant Professor	C	TBCC/AHS	f	Ruether	J. Dean	\$0	\$0
Primary	Honorary Adjunct Professor	H		p	Russell	James A.	\$0	\$0
Primary	Clinical Associate Professor	CL		p	Ryan	J. Paul	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Rydz	Natalia	\$35,001	\$0
Primary	Clinical Lecturer	CL	AHS	MJ	Saad	Nathalie	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Sabur	Natasha F.	\$0	\$0
Primary	Clinical Lecturer	CL		p	Sahiholnasab	Vahid	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	MJ	Saini	Kirandeep	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Sam	David X-M.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Sander	Megan A.	\$0	\$0
Primary	Associate Professor	C	Access	f	Sargious	Peter M.	\$155,396	\$0
Primary	Clinical Lecturer	CL	AHS	p	Sarna	Magdalena A.	\$0	\$0
Secondary	Adjunct Assistant Professor	A		p	Saunders	Chad	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS/TBCC	MJ	Savoie	M. Lynn	\$0	\$0
Primary	Adjunct Assistant Professor	A		p	Sayani	Farzana	\$0	\$0
Primary	Clinical Professor	CL	AHS	MJ	Schaefer	Jeffrey P.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Schmaltz	Heidi N.	\$0	\$0
Secondary	Clinical Assistant Professor	CL	AHS	p	Schnell	Gregory B.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Schuld	Richard L.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Scott	Ian M.	\$0	\$0
Secondary	Professor	T	AHS	f	Scott	R. Brent	\$6,139,952	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Clinical Associate Professor	CL	AHS	MJ	Scott-Douglas	Nairne	\$675,328	\$0
Primary	Assistant Professor	C	AHS	f	Seow	Cynthia H-T.	\$0	\$0
Primary	Clinical Associate Professor	CL		p	Sepandj	Farshad	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Shafey	Mona	\$0	\$0
Primary	Professor	T	AHS	f	Shaffer	Eldon A.	\$0	\$0
Secondary	Professor	T		f	Sharkey	Keith A.	\$3,325,240	\$297,738
Secondary	Professor	T	AHS	f	Sheldon	Robert S.	\$647,378	\$525,980
Primary	Professor	T	AHS	f	Sigal	Ronald J.	\$809,569	\$0
Primary	Clinical Associate Professor	CL		MJ	Silvius	James L.	\$0	\$0
Secondary	Associate Professor	C	TBCC	f	Simon	Jessica E.	\$47,509	\$42,735
Primary	Clinical Lecturer	CL	AH	p	Sinclair	Caitlin E.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Slaby	Jiri	\$0	\$0
Secondary	Clinical Assistant Professor	CL	AHS	MJ	Slawnych	Michael P.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Somayaji	Ranjani	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Soo	Isaac	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Sood	Nidhi	\$0	\$0
Secondary	Clinical Assistant Professor	CL		p	Spence	Frank P.	\$28,365	\$0
Primary	Clinical Lecturer	CL	AHS	MJ	Sporina	Jan	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Stapleton	Melanie P.	\$0	\$0
3rd	Associate Professor	C	AHS/CIHR	f	Stelfox	H. Thomas	\$861,147	\$198,670
Primary	Clinical Assistant Professor	CL	AHS	MJ	Stewart	Michael J.	\$0	\$0
Secondary	Professor	C	TBCC/AHS	f	Stewart	Douglas A.	\$102,005	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Stinton	Laura M.	\$0	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Secondary	Clinical Professor	CL		p	Stone	James A.	\$0	\$0
Primary	Professor	T	AHS	f	Storek	Jan	\$344,604	\$0
Primary	Adjunct Associate Professor	A		p	Storr	Martin A.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Storwick	Gregory S.	\$0	\$0
Primary	Adjunct Professor	A		p	Straus	Sharon E.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Street	Lesley E.	\$0	\$0
Secondary	Clinical Assistant Professor	CL	AHS	MJ	Sumner	Glen L.	\$66,717	\$0
Primary	Research Assistant Professor	A		p	Sun	Jian	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	MJ	Suryanarayan	Deepa	\$0	\$0
Secondary	Professor	T	AHS	df	Sutherland	Lloyd R.	\$0	\$0
Primary	Professor	T	AHFMR	f	Swain	Mark G.	\$762,546	\$582,064
Primary	Clinical Associate Professor	CL	AHS	MJ	Symonds	Christopher J.	\$0	\$0
Primary	Adjunct Assistant Professor	A		p	Taenzer	Paul A.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Tang	Karen	\$0	\$0
Secondary	Clinical Assistant Professor	CL	TBCC	p	Tang	Patricia	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	dMJ	Taub	Kenneth J.	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Tay	Jason	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Taylor	William P.	\$0	\$0
Secondary	Professor	T	AHFMR	f	ter Keurs	Henk E.D.J.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Thaell	J.F. (Ted)	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Thakrar	Mitesh V.	\$0	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Clinical Assistant Professor	CL	AHS	MJ	Thomas	Chandra M.	\$0	\$0
Primary	Associate Professor	C	AHS	f	Tibbles	Lee Anne	\$106,672	\$24,967
Primary	Clinical Lecturer	CL	AHS	MJ	Tien	Julia I.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Ting	Patricia	\$0	\$0
Primary	Professor	T	AHS	f	Tonelli	Marcello A.	\$2,888,219	\$575,354
Primary	Clinical Lecturer	CL		p	Tourin	Olga	\$0	\$0
Secondary	Clinical Professor	CL	AHS	p	Traboulsi	Mouhieddin (Dean)	\$11,575	\$0
Primary	Professor	C	AHS/TBCC	f	Tremblay	Alain	\$610,396	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Tsai	Willis H.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Turbide	Christian	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	MJ	Valentine	Karen A.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	van Olm	T.M. Matthew J.	\$0	\$0
Primary	Clinical Lecturer	CL	AHS	p	Varughese	Rhea A.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Vaughan	Stephen D.	\$0	\$0
Secondary	Clinical Assistant Professor	CL	AHS	MJ	Veenhuizen	George D.	\$30,317	\$0
Primary	Clinical Lecturer	CL	AHS	MJ	Venos	Erik S.	\$0	\$0
Secondary	Clinical Associate Professor	CL		p	Vicas	Ingrid M-0.	\$0	\$0
Secondary	Clinical Associate Professor	CL	AHS	MJ	Viner	Sid M.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Vitale	George D.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Walker	Brandie L.	\$110,011	\$0
Primary	Adjunct Professor	A		p	Wallace	Jean E.	\$0	\$0
Secondary	Adjunct Associate Professor	A	TBCC/AHS	p	Walley	Barbara A.	\$0	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
Primary	Clinical Assistant Professor	CL		p	Walsh	John M.	\$0	\$0
Primary	Clinical Assistant Professor	CL		p	Walter	Michaela R. V.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Walzak	Alison A.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Wang	Wenjie	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Wang	Xiangyu (Wendy)	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Ward	David R.R.	\$0	\$0
Secondary	Clinical Professor	CL	AHS	MJ	Warnica	J. Wayne	\$32,392	\$0
Secondary	Clinical Assistant Professor	CL	AHS	p	Warshawski	Frank J.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Weatherald	Jason C.	\$0	\$0
Secondary	Clinical Associate Professor	CL	AHS	MJ	Weeks	Sarah	\$0	\$0
Secondary	Associate Professor	C	AHS/Access	f	Welikovitch	Lisa	\$202,201	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Westra	Yolande N.	\$0	\$0
3rd	Associate Professor	C	AHS	f	White	James	\$1,282,590	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Williams	Jennifer J.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Wilson	Ben J.	\$0	\$0
Secondary	Clinical Professor	CL	AHS	p	Wilson	Stephanie R.	\$0	\$0
Secondary	Clinical Assistant Professor	CL	AHS	MJ	Wilton	Stephen B.	\$59,620	\$0
Secondary	Associate Professor	T		f	Winston	Brent W.	\$49,931	\$0
Primary	Clinical Lecturer	C	AHS	p	Wong	Joyce W.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS/TBCC	MJ	Wong	Michael D.	\$0	\$0
Primary	Clinical Lecturer	CL		p	Wong	Morley P.	\$0	\$0
Primary	Professor	T	AHS	f	Wong	Norman C.W.	\$2,397	\$0
Primary	Clinical Assistant Professor	CL		p	Woolner	Derek B.	\$0	\$0
Primary	Clinical Assistant Professor	CL	AHS	MJ	Wu	Caren M.	\$0	\$0
Secondary	Clinical Professor	CL	AHS	MJ	Wyse	D. George	\$0	\$0

Appendix IV: Department of Medicine Research and Tri Council Revenue – 2015 Fiscal Year

<i>Appointment with Department of Medicine</i>	<i>Rank</i>	<i>Class</i>	<i>Affiliation</i>	<i>Full/Part Time?</i>	<i>Last name</i>	<i>First name + initial</i>	<i>CSM Research Revenue</i>	<i>CSM Tri Council Revenue</i>
4th	Clinical Associate Professor	CL		p	Yarema	Mark C.	\$0	\$0
Primary	Clinical Associate Professor	CL	AHS	p	Yau	Jonathan C.	\$0	\$0
Primary	Research Professor	A		p	Younes	Magdy K.	\$0	\$0
Primary	Associate Professor	C	AHS	f	Zarnke	Kelly B.	-\$15,000	\$0
3rd	Associate Professor	C	AHS	f	Zhang	Kunyan	\$73,000	\$0
Primary	Clinical Assistant Professor	CL	AHS	p	Ziouzina	Olga	\$0	\$0
Primary	Clinical Associate Professor	CL		p	Zip	Catherine M.	\$0	\$0
Secondary	Clinical Professor	CL	AHS	MJ	Zuege	Danny J.	\$23,560	\$5,100
TOTALS							\$56,709,254	\$10,671,510
OVERALL REVENUE							\$67,380,764	